Member IMC Group Tungaloy

GENERAL CATALOG - VOL. 1

TURNING GROOVING

we improve, we evolve, we **ADD**



2025/2026



Member IMC Group Tungaloy

Tungaloy's Insights – Smart Manufacturing

Tungaloy, as one of the leaders in the metal removal industry, offers the latest innovations in grades and geometries for superb performance and tool life.

Tungaloy's latest innovations in cutting tools contribute to carbon neutrality

TUNGALOY ADDFORCE ACCELERATED LINES

THINK GREEN

VOL. 1

TURNING GROOVING

A Grade A001 -

B Insert B001 -

C External Toolholder C001 -

D Internal Toolholder D001 -

E Threading Tool E001 -

F Parting, Grooving F001 -

G Miniature Machining G001 -

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L User's Guide L001 -

M Alphanumeric Index M001 -

About Tungaloy Cutting Tool Catalog

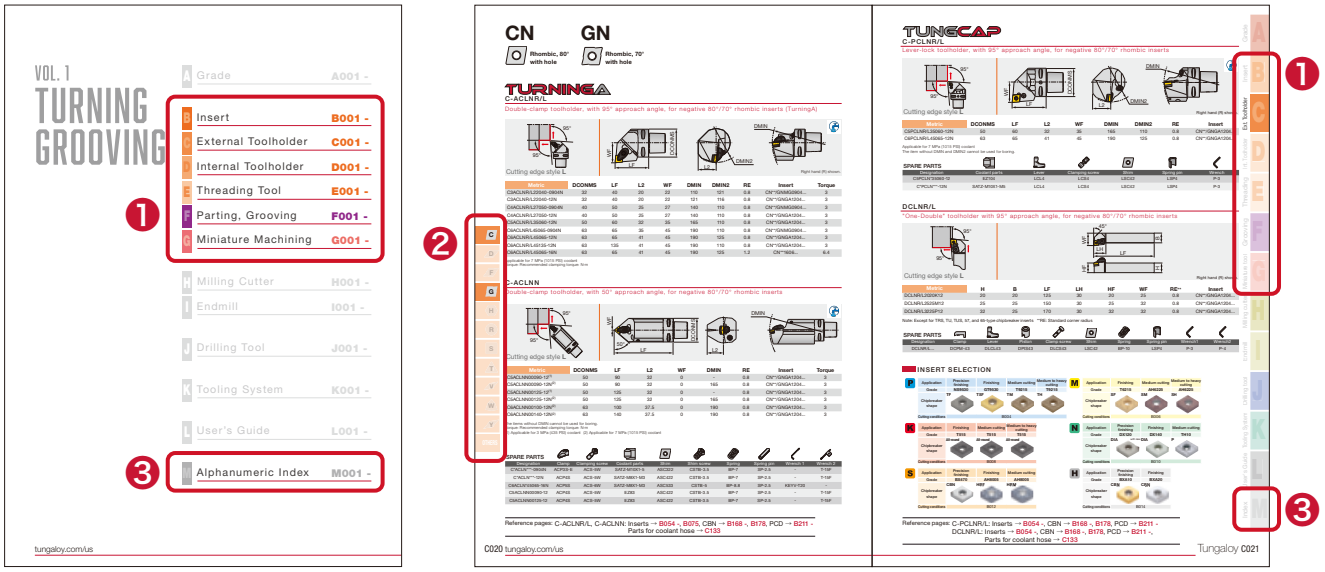
Note in using this catalog:

★ The specifications are subject to change without prior notice for product improvements. Also, the products may be discontinued in the future due to the development of new products.

★ The dimensions of all products are shown in inch (in) and millimeters (mm) where applicable.

★ For indexable tools, such as toolholders, cutters, drill bodies, applicable inserts or heads need to be ordered separately.

How to use this catalog:



❶ Select the tool category at the product group index.

❷ Select the tool type at the insert shape on the left pages.

❸ The index is in the alphanumerical order. Use it for your product search.

How to read the list for the standard items:

★ Designations for indexable tools – toolholders, adapters, etc.

· Orders are to be received for the tools with the designations in the catalog.

· For the tool with right- and left-hand options, the designation includes **R/L** as shown below.

Ex. 1: Designation: A16Q-STFP**R/L**13-D180

You can order both right- and left-hand tools. A16Q-STFP**R**13-D180 (a right-hand tool) and A16Q-STFP**L**13-D180 (a left-hand tool) will be available.

Ex. 2: Designation: A20R-STFP**R**13-D220

You can order only right-hand tools. Please contact us when you need left-hand tools.

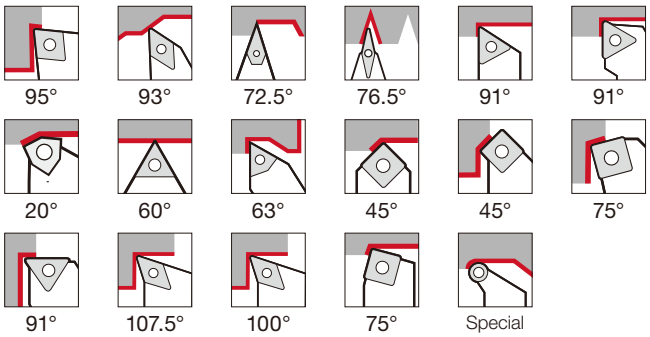
★ Lineup for inserts and solid tools

Blank : Please contact us regarding the product.

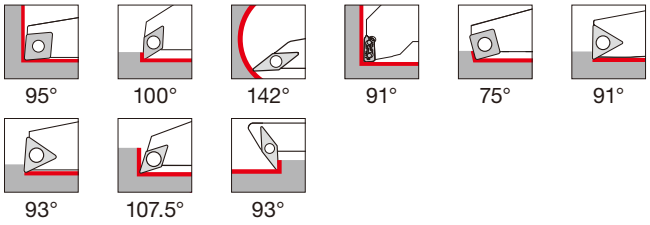
About Tungaloy Cutting Tool Catalog

Icons at the left side of each page

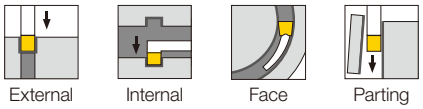
External toolholder (cutting edge shape / angle)



Internal toolholder (cutting edge shape / angle)



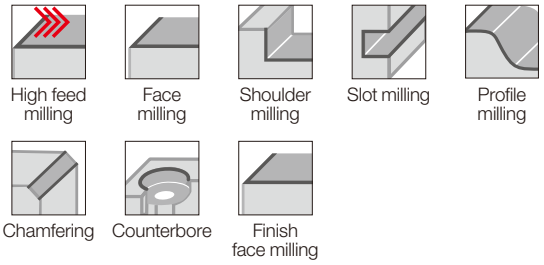
Parting, Grooving



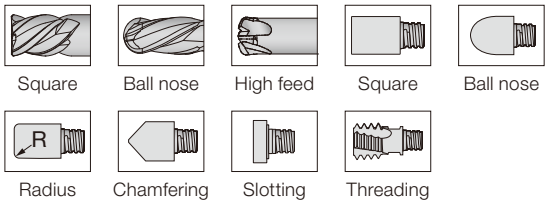
Miniature machining



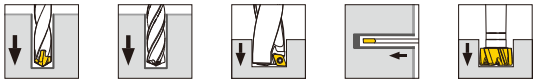
Mill



Endmill

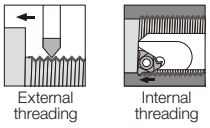


Drill

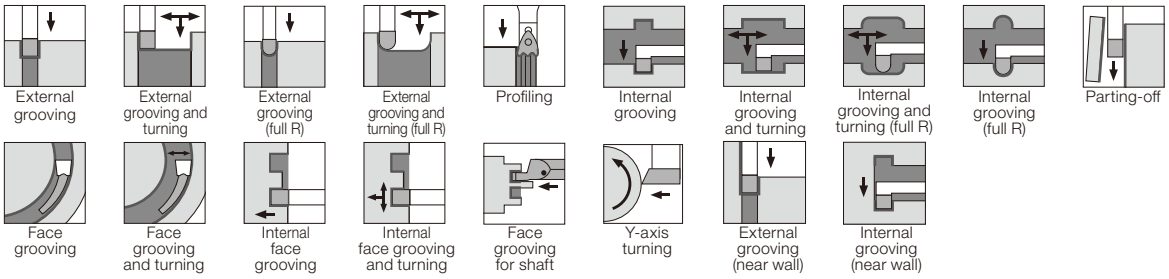


Icons for applications of each product

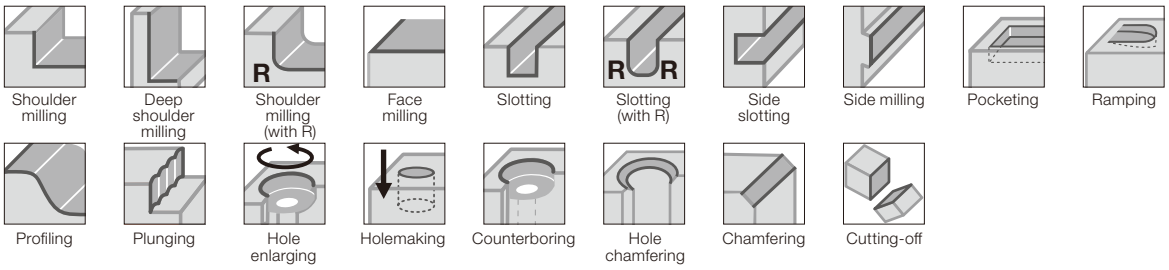
Threading



Grooving



Milling



Drilling



About the dimension symbols conforming to ISO13399

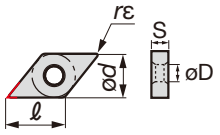
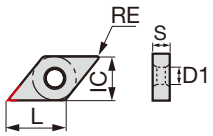
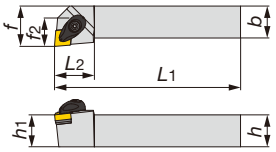
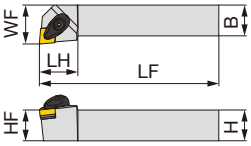
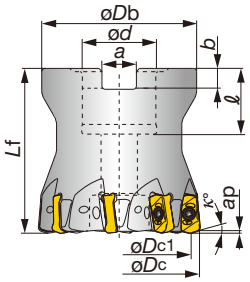
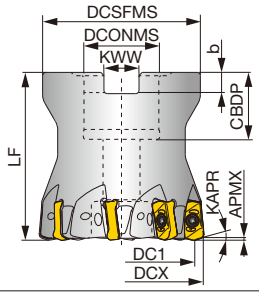
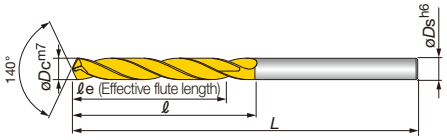
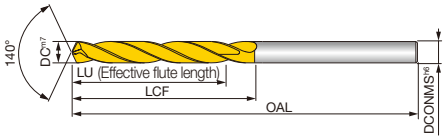
What is ISO13399?

ISO13399 is an international standard for the purpose of standardizing the electronic data of tools in the world.

Switching to the dimension symbols conforming to ISO13399

In this catalog, we use the dimension symbols (properties) conforming to ISO13399 international standard.
Below are the examples of the change.

Examples of the change:

	Before	After
Insert		
Turning		
Milling		
Drilling		

ISO13399 standardizes not only the format of 2D and 3D CAD data but also the tool dimension symbols (properties) and reference position information. This allows the tool information to be read and combined into NC programs and CAM software, regardless of any tool maker's data. In addition to General Catalog (paper catalog), we are also updating the symbols in e-catalog (electronic catalog on our website) to the properties conforming to ISO13399. The e-catalog also provides 2D and 3D CAD data in accordance with ISO13399 standard.

Insert

New symbol	Old symbol	Description
AN	-	Main cutting edge relief angle
APMX	Max. *ap*	Maximum depth of cut
AS	A	Side cutting edge relief angle
BW	B	Body width
BS	bs	Side cutting edge (wiper) length
CDX	T max	Maximum groove depth
CW	*W*	Grooving edge width
D1	*ød*1	Mounting hole diameter
DCONMS	*øDs*	Mounting part diameter on the machine
DMIN	*øDm*	Minimum machining diameter
EPSR	-	Nose angle
GAN	-	Rake angle (insert)
IC	*ød*	Inscribed circle diameter
INSD	A	Insert diameter (round type)
INSL	B	Insert length
KAPR	κ	Approach angle
LBB	-	Chipbreaker width
LE	A	Effective cutting edge length
LF	*L*1	Standard length
M	m	Distance from inscribed circle to cutting edge (m dimension)
PDX	t	Thread position (X direction)
PDY	*ℓ*3	Thread position (Y direction)
PNA	*θ*	Cutting edge angle
PSIRL	*θ*	Left-hand front cutting edge angle
PSIRR	*θ*	Right-hand front cutting edge angle
RE	*r*	Corner radius
S	T	Thickness
W1	-	Insert width

Turning, Grooving

New symbol	Old symbol	Description
B	*b*	Shank width
BD	*øD*1, *øD*2, *øD*3	Body external diameter
CDX	*ar*	Maximum groove depth
CND	-	Oil hole diameter
CNT	-	Oil hole plug size
CUTDIA	*øD*max	Maximum parting diameter
CW	W	Grooving edge width
CWN	-	Minimum grooving edge width
CWX	-	Maximum grooving edge width
DAXN	*øD*m	Minimum diameter in face grooving
DAXX	*øD*max	Maximum diameter in face grooving
DCONMS	*øDs*	Mounting part diameter on the machine
DCONWS	*øD*, *ød*2	Mounting part diameter on the workpiece
DMIN	*øDm*	Minimum machining diameter
GAMF	α	Radial rake angle
GAMP	*θ*	Axial rake angle
H	*h*	Shank length
HBH	*h*2	Height of offset on the bottom of head
HBKL	*f*2	Length of uneven level on the back of head
HBKW	*L*2	Width of uneven level on the back of head
HBL	*L*2	Length of offset on the bottom of head
HF	h1	Standard height
KAPR	κ	Approach angle
LB	*L*	Body length
LF	*L*1	Standard length
LH	*L*2	Head length
OAH	*h*4	Overall height
OAL	*L*1	Overall length
OAW	*L*3	Overall width
PSIR	*β*	Lead angle
WB	-	Body width
WF	*f*	Standard width
WFS	*f*2	Standard width (the second corner)

About the dimension symbols conforming to ISO13399

Tooling system

New symbol	Old symbol	Description
APMX	Max. *ap*	Maximum depth of cut
BD	*øD1*, *øD2*, *øD3*	Body external diameter
BHTA	α	Neck taper angle (half of nose angle)
BTED	*ød1*	Taper tip diameter
CRKS	S	Mounting screw size
DBC	*ød3*	Bolt hole pitch diameter
DCONMS	*øDs*	Mounting part diameter on the machine
DCONWS	*øD*, *ød2*	Mounting part diameter on the workpiece
DMIN	*øDm*	Minimum machining diameter
GAMF	α, R.R.	Radial rake angle
GAMP	*θ*, A.R.	Axial rake angle
KAPR	κ	Cutting edge angle
LB	*L2*, *L3*	Body length
LF	*L*	Standard length
LPR	*L1*	Parting length
LS	*ℓs*	Shank length
LSC	*Lmin*	Clamp length
LSCX	*Lmax*	Maximum clamp length
OAH	H4	Overall height
OAL	*L*	Overall length
OAW	*W*	Overall width
THID	-	Mounting screw size
WB	*W*	Body width
WF	*f*	Standard width

Drilling

New symbol	Old symbol	Description
BD	*øD1*, *øD2*, *øD3*	Body external diameter
CND	-	Oil hole diameter
CNT	-	Oil hole plug size
CRKS	*S*	Mounting screw size
DC	*øDc*	Machining diameter
DCONMS	*øDs*	Mounting part diameter on the machine
DCONWS	*øD*, *ød2*	Mounting part diameter on the workpiece
DCSFMS	*øD*	Connecting part diameter
KAPR	κ	Cutting edge angle
LCF	*ℓ*	Flute length
LF	*Lf*	Standard length (from the drill shoulder)
LPR	-	Parting length (from flange to tip)
LS	*ℓs*	Shank length
LU	*ℓ*	Machinable depth
NOF	z	Number of flutes
OAL	*L*	Overall length (from tip)
PL	PL	Distance from drill tip to shoulder
ZEFP	Z eff	Number of effective cutting edges on periphery

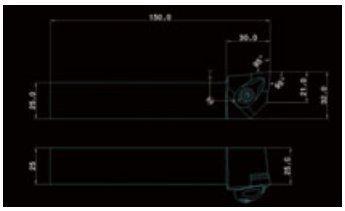
Milling

New symbol	Old symbol	Description
APMX	Max. *ap*	Maximum depth of cut
BD	*øD1*, *øD2*, *øD3*	Body external diameter
BHTA	α	Neck taper angle (half of nose angle)
CBDP	*ℓ*	Mounting hole depth
CDX	Max. *ae*	Maximum slot width
CHW	k	Chamfer width on the corner
CICT	z	Number of inserts
CRKS	S	Mounting screw size
CW	W	Slotting edge width
CWN	-	Minimum slotting edge width
CWX	-	Maximum slotting edge width
DBC	*ød3*	Bolt hole pitch diameter
DC	*øDc*	Machining diameter
DCONMS	*ød*	Mounting part diameter on the machine
DCONWS	*øD*, *ød2*	Mounting part diameter on the workpiece
DCSFMS	*øDb*	Mounting surface diameter on the machine
DCX	*øDc1*	Maximum machining diameter
GAMF	R.R.	Radial rake angle
GAMP	A.R.	Axial rake angle
H	T	Width across flat
KAPR	κ	Cutting edge angle
KWW	*a*	Drive key width
LF	*Lf*	Standard length
LH	*Lf*	Neck length
LS	*ℓs*	Shank length
NOF	z	Number of flutes
OAL	*L*, *L6*	Overall length
PDX	*t*	Thread position (X direction)
PNA	*θ*	Cutting edge angle
PSIR	*β*	Lead angle
RMPX	*θ*	Maximum ramping angle
THUB	T	Hub height (slot mill)
WT	Kg	Weight
ZEFP	Z eff	Number of effective cutting edges on the periphery

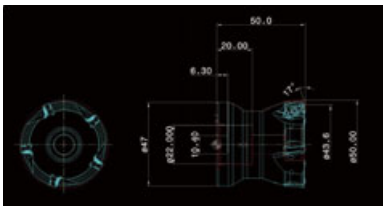
Note:
- Symbols unspecified in ISO13399 standard and Tungaloy's original symbols are not included.
- The symbols still under discussion are included. Please note any change or addition may occur.

CAD data provided in e-catalog

● 2D data (DXF format file)



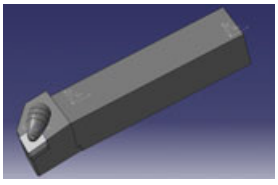
Turning:
Shows the insert with standard corner radius.



Milling:
Includes actual cutting edge curve (CUT layer) and body cross section (NOCUT layer).

● 3D data Light type (STP format file): Can be used to check tool path and interference.

Turning: Equipped with an insert with a standard corner radius.

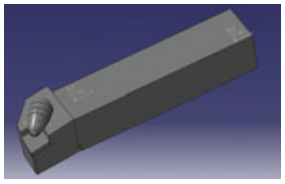


Milling: A rotating body model of an actual cutting edge curve and a body cross section.



● 3D data Detail type (STP format file): Can be used to create a new tool layout chart. (Can be combined with any insert model on a CAD software.)

Turning



Milling



Insert



Insert - Content structure

- Inserts are grouped in Positive type, Negative type, and CBN/PCD.
- The list is in alphabetical order.
- The order of the list: C (80°) → D (55°) → R (360°) → S (90°) → T (60°) → V (35°) → W (80°) → Y (25°) → Other shapes
- The order of inserts:
  - Negative type (each shape with hole → without hole)
  - Positive type (each shape with hole → without hole)
- The order of chipbreakers:
  From precision finishing to heavy cutting, in the order of the values of cutting depth and feed rate.
- Insert without chipbreaker is on the last page of each shape.
- Introduces the proposed inserts according to the workpiece materials and the shape of workpiece materials.
- The standard cutting conditions for typical chipbreakers are at the bottom of the pages.
- ● in the catalog describes our standard items, and ▲ means the item to be discontinued in the future.

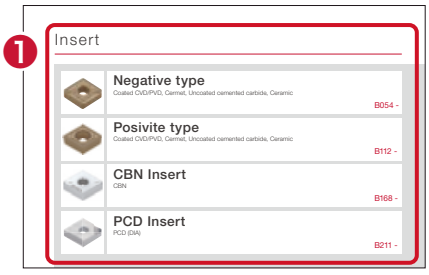
How to use the page

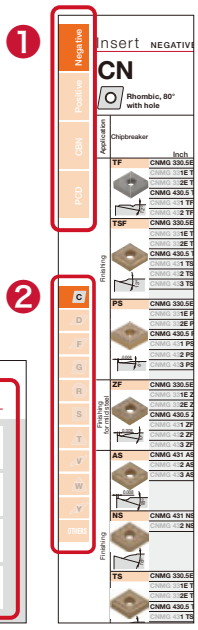
Method ①

Select an insert at the right end, and choose the information page by the insert type (❶) and the outer shape of the insert (❷) at the left end.

Method ②

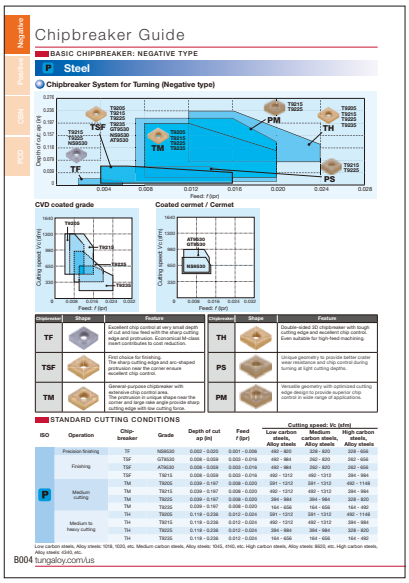
Check the page of each insert type from the index on B003 (❶), and choose the page of the setting information according to the outer shape of the insert (❷).

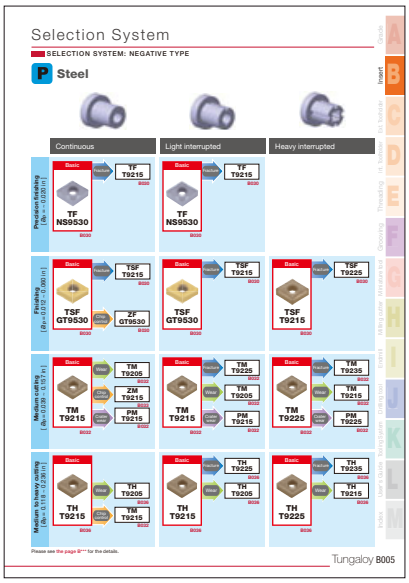




Method ③

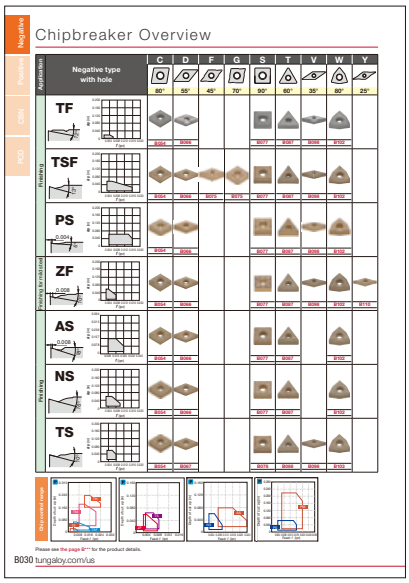
Select an insert at the chipbreaker introduction and the selection guide on B004 - B029 and check the details on the product page.





Method ④

Select an insert from the list of chipbreaker shapes on B030 - B053 and check the details on each page.



When ordering

- Please specify the designation, grade, and quantity.
  e.g. **CNMG 432 TM T9215 (CNMG120408-TM T9215) ... 10 pieces** (10 inserts per package)
  *You will find a note if the number per package is not 10.

Insert



Negative type

Coated CVD/PVD, Cermet, Uncoated cemented carbide, Ceramic

B054 -



Posivite type

Coated CVD/PVD, Cermet, Uncoated cemented carbide, Ceramic

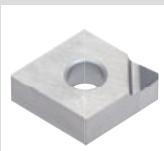
B112 -



CBN Insert

CBN

B168 -



PCD Insert

PCD (DIA)

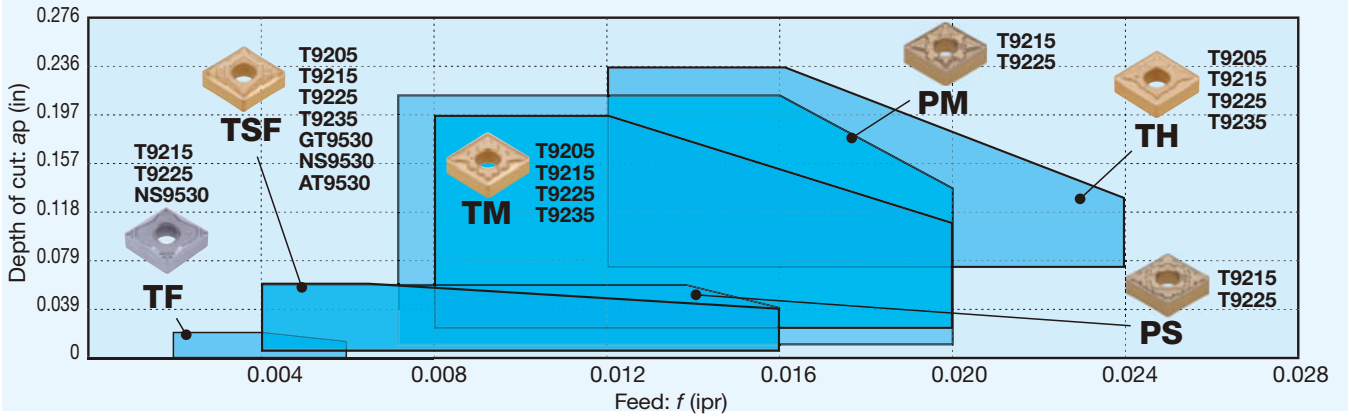
B211 -

Chipbreaker Guide

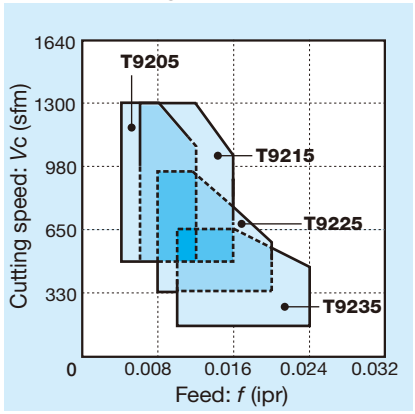
BASIC CHIPBREAKER: NEGATIVE TYPE

P Steel

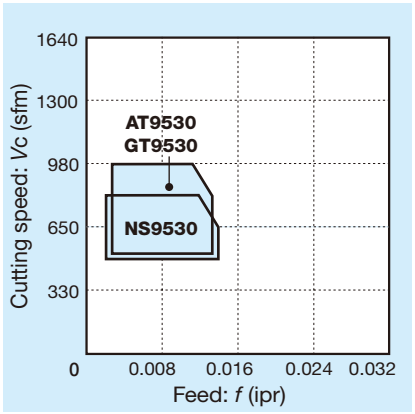
Chipbreaker System for Turning (Negative type)

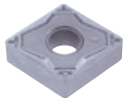


CVD coated grade



Coated cermet / Cermet



Chipbreaker	Shape	Feature
TF		Excellent chip control at very small depth of cut and low feed with the sharp cutting edge and protrusion. Economical M-class insert contributes to cost reduction.
TSF		First choice for finishing. The sharp cutting edge and arc-shaped protrusion near the corner ensure excellent chip control.
TM		General-purpose chipbreaker with extensive chip control area. The protrusion in unique shape near the corner and large rake angle provide sharp cutting edge with low cutting force.

Chipbreaker	Shape	Feature
TH		Double-sided 3D chipbreaker with tough cutting edge and excellent chip control. Even suitable for high-feed machining.
PS		Unique geometry to provide better crater wear resistance and chip control during turning at light cutting depths.
PM		Versatile geometry with optimized cutting edge design to provide superior chip control in wide range of applications.

STANDARD CUTTING CONDITIONS

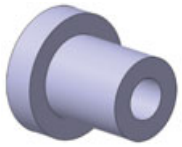
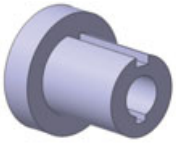
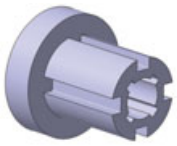
ISO	Operation	Chip-breaker	Grade	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm) Low carbon steels, Alloy steels	Medium carbon steels, Alloy steels	High carbon steels, Alloy steels
P	Precision finishing	TF	NS9530	0.002 - 0.020	0.001 - 0.006	492 - 820	328 - 820	328 - 656
	Finishing	TSF	GT9530	0.008 - 0.059	0.003 - 0.016	492 - 984	262 - 820	262 - 656
		TSF	AT9530	0.008 - 0.059	0.003 - 0.016	492 - 984	262 - 820	262 - 656
		TSF	T9215	0.008 - 0.059	0.003 - 0.016	492 - 1312	492 - 1312	394 - 984
	Medium cutting	TM	T9205	0.039 - 0.197	0.008 - 0.020	591 - 1312	591 - 1312	492 - 1148
		TM	T9215	0.039 - 0.197	0.008 - 0.020	492 - 1312	492 - 1312	394 - 984
		TM	T9225	0.039 - 0.197	0.008 - 0.020	394 - 984	394 - 984	328 - 820
		TM	T9235	0.039 - 0.197	0.008 - 0.020	164 - 656	164 - 656	164 - 492
	Medium to heavy cutting	TH	T9205	0.118 - 0.236	0.012 - 0.024	591 - 1312	591 - 1312	492 - 1148
		TH	T9215	0.118 - 0.236	0.012 - 0.024	492 - 1312	492 - 1312	394 - 984
		TH	T9225	0.118 - 0.236	0.012 - 0.024	394 - 984	394 - 984	328 - 820
		TH	T9235	0.118 - 0.236	0.012 - 0.024	164 - 656	164 - 656	164 - 492

Low carbon steels, Alloy steels: 1018, 1020, etc. Medium carbon steels, Alloy steels: 1045, 4140, etc. High carbon steels, Alloy steels: 8620, etc. High carbon steels, Alloy steels: 4340, etc.

Selection System

SELECTION SYSTEM: NEGATIVE TYPE

P Steel

	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.020 in]	Basic **TF NS9530** B030 → Fracture → **TF T9215** B030	Basic **TF NS9530** B030 → Fracture → **TF T9215** B030	
Finishing [a_p = 0.012 ~ 0.060 in]	Basic **TSF GT9530** B030 → Fracture → **TSF T9215** B030; Chip control → **ZF GT9530** B030	Basic **TSF GT9530** B030 → Fracture → **TSF T9215** B030	Basic **TSF T9215** B030 → Fracture → **TSF T9225** B030
Medium cutting [a_p = 0.039 ~ 0.157 in]	Basic **TM T9215** B032 → Wear → **TM T9205** B032; Chip control → **ZM T9215** B033; Crater wear → **PM T9215** B032	Basic **TM T9215** B032 → Fracture → **TM T9225** B032; Wear → **TM T9205** B032; Crater wear → **PM T9215** B032	Basic **TM T9225** B032 → Fracture → **TM T9235** B032; Wear → **TM T9215** B032; Crater wear → **PM T9225** B032
Medium to heavy cutting [a_p = 0.118 ~ 0.236 in]	Basic **TH T9215** B036 → Wear → **TH T9205** B036; Chip control → **TM T9215** B032	Basic **TH T9215** B036 → Fracture → **TH T9225** B036; Wear → **TH T9205** B036	Basic **TH T9225** B036 → Fracture → **TH T9235** B036; Wear → **TH T9215** B036

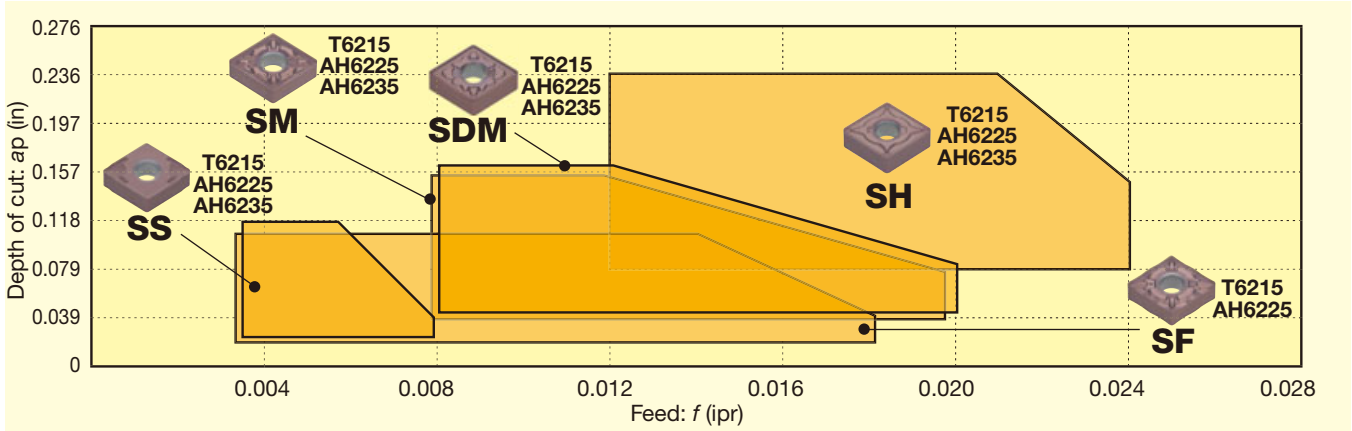
Please see the page B*** for the details.

Chipbreaker Guide

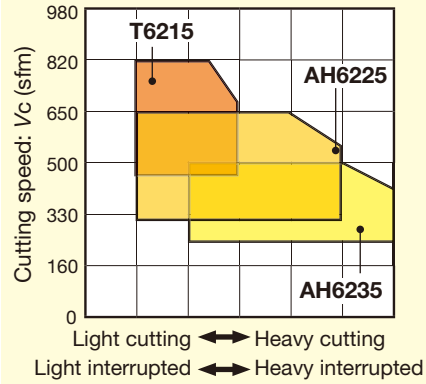
BASIC CHIPBREAKER: NEGATIVE TYPE

M Stainless Steel

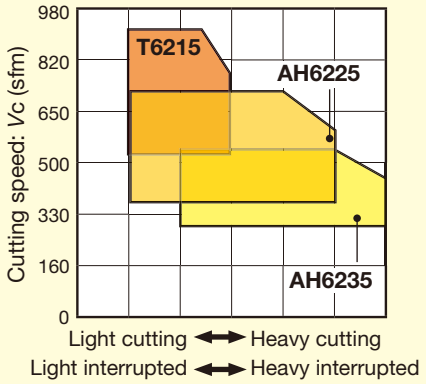
Chipbreaker System for Turning (Negative type)



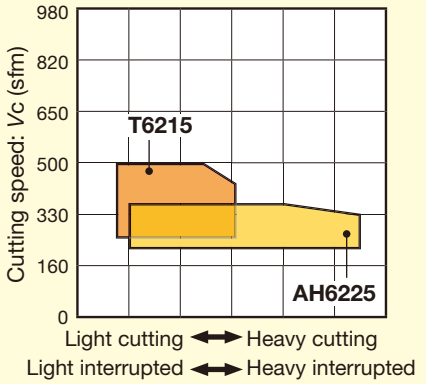
Austenitic stainless steel

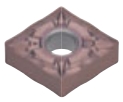
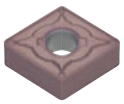


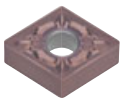
Ferritic / martensite stainless steel



Precipitation hardened stainless steel



Chipbreaker	Shape	Feature
SF		Excellent chip control with small depth of cut at high feed. Suitable for finishing stainless steel.
SH		Suitable for medium to heavy cutting. High fracture resistance with specially reinforced cutting edge. Ideal for machining that requires cutting edge strength. such as roughing and interrupted cutting.

Chipbreaker	Shape	Feature
SM		General-purpose chipbreaker with sharpness and good chip control. First choice for stainless steel.
SDM		Light cutting geometry for notch wear and crater wear resistance.

STANDARD CUTTING CONDITIONS

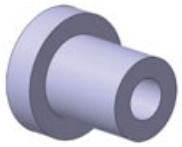
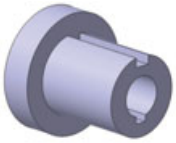
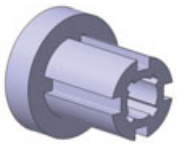
ISO	Operation	Chipbreaker	Grade	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm)		
						Austenitic stainless steel	Ferritic / martensite stainless steel	Precipitation hardened stainless steel
M	Finishing	SF	T6215	0.020 - 0.098	0.003 - 0.018	459 - 787	525 - 919	262 - 492
			AH6225	0.020 - 0.098	0.003 - 0.018	295 - 656	361 - 787	197 - 361
			AH6235	0.020 - 0.098	0.003 - 0.018	164 - 492	230 - 558	-
	Medium cutting	SM	T6215	0.040 - 0.160	0.008 - 0.020	459 - 787	525 - 919	262 - 492
			AH6225	0.040 - 0.160	0.008 - 0.020	295 - 656	361 - 787	197 - 361
			AH6235	0.040 - 0.160	0.008 - 0.020	164 - 492	230 - 558	-
		SDM	T6215	0.040 - 0.160	0.008 - 0.020	459 - 787	525 - 919	262 - 492
			AH6225	0.040 - 0.160	0.008 - 0.020	295 - 656	361 - 787	197 - 361
			AH6235	0.040 - 0.160	0.008 - 0.020	164 - 492	230 - 558	-
	Heavy cutting	SH	T6215	0.080 - 0.240	0.012 - 0.024	459 - 787	525 - 919	262 - 492
			AH6225	0.080 - 0.240	0.012 - 0.024	295 - 656	361 - 787	197 - 361
			AH6235	0.080 - 0.240	0.012 - 0.024	164 - 492	230 - 558	-

Stainless steels: 304SS, 316SS etc.

Selection System

SELECTION SYSTEM: NEGATIVE TYPE

M Stainless Steel

	Continuous	Light interrupted	Heavy interrupted
Finishing [a_p = 0.020 ~ 0.060 in]	Basic **SF T6215** B031 Fracture → **SF AH6225** B031 Chip control → **SS AH6215** B031 Crater wear → **SDM T6215** B033	Basic **SF AH6225** B031 Fracture → **SF AH6235** B031 Wear → **SF T6215** B031 Chip control → **SS AH6225** B031 Crater wear → **SDM AH6225** B033	Basic **SF AH6225** B031 Fracture → **SM AH6225** B031 Wear → **SF T6215** B031
Medium cutting [a_p = 0.039 ~ 0.157 in]	Basic **SM AH6225** B033 Wear → **SM T6215** B033 Chip control → **SS AH6225** B031 Crater wear → **SDM AH6225** B033	Basic **SM AH6225** B033 Fracture → **SM AH6235** B033 Wear → **SM T6215** B033 Chip control → **SS AH6225** B031 Crater wear → **SDM AH6225** B033	Basic **SM AH6235** B033 Fracture → **SH AH6235** B036 Wear → **SM AH6225** B033
Medium to heavy cutting [a_p = 0.079 ~ 0.236 in]	Basic **SH AH6225** B036 Fracture → **SH AH6235** B036 Wear → **SH T6215** B036 Chip control → **SM AH6225** B033	Basic **SH AH6225** B036 Fracture → **SH AH6235** B036 Wear → **SH T6215** B036	Basic **SH AH6235** B036 Wear → **SH AH6225** B036

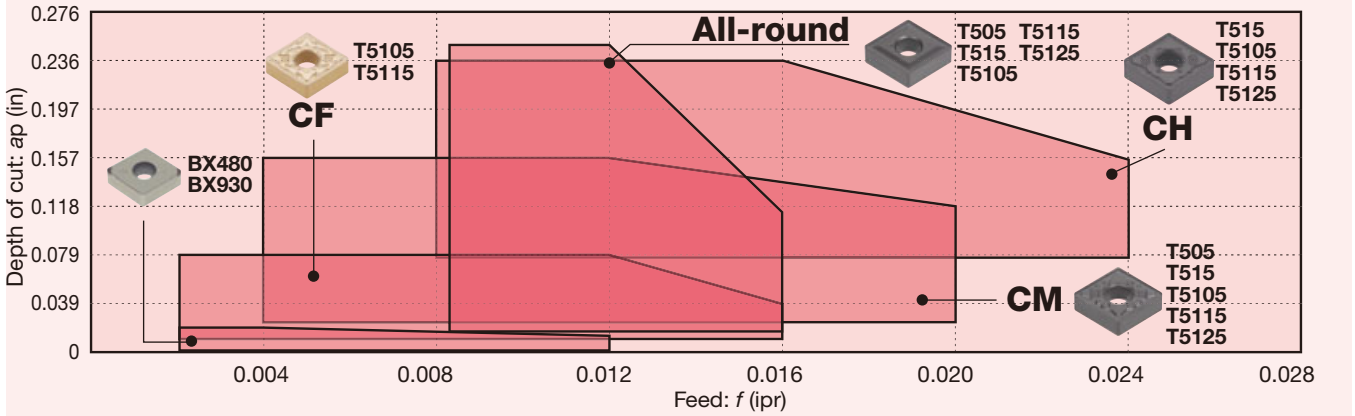
Please see the page B*** for the details.

Chipbreaker Guide

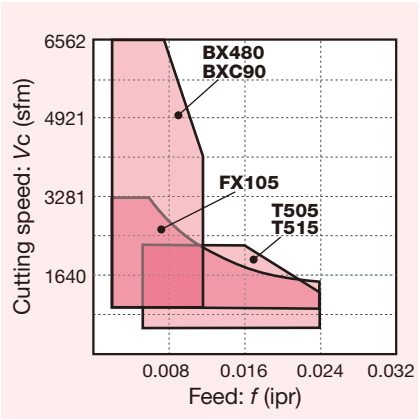
BASIC CHIPBREAKER: NEGATIVE TYPE

K Cast Iron

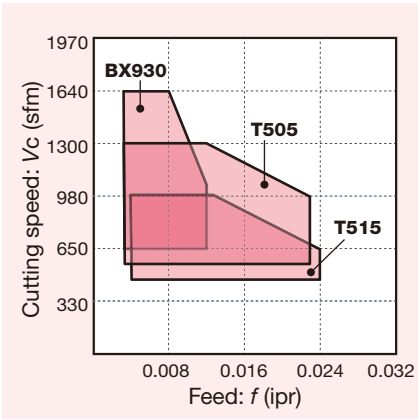
Chipbreaker System for Turning (Negative type)

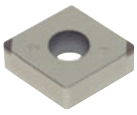
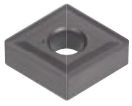


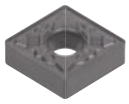
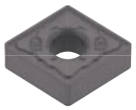
Gray cast iron



Ductile cast iron



Chipbreaker	Shape	Feature
-		Excellent performance in high-speed finishing of cast iron with CBN sintered body on the cutting edge.
CF		Low cutting force chipbreaker for cast iron. Combined with an arc-shaped high rake angle (substantially 20°) drastically reduces cutting force and prevents the deformation and burr of thin-walled components.
All-round		Excellent performance in interrupted cutting. Highly reliable chipbreaker with great stability.

Chip-breaker	Shape	Feature
CM		First choice for cast iron. Versatile chipbreaker for a wide range of applications from continuous to interrupted cutting thanks to the positive land and wide chip pocket.
CH		Chipbreaker with reinforced cutting edge. The negative land and the land support provide stable insert seating and increase cutting edge strength, resulting in no fracture even in heavy cutting.

STANDARD CUTTING CONDITIONS

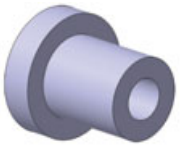
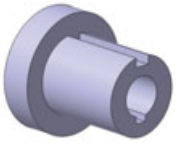
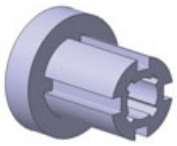
ISO	Operation	Chip-breaker	Grade	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm)	
						Gray cast iron	Ductile cast iron
K	High speed cutting	-	BX930	0.002 - 0.020	0.002 - 0.008	984 - 3937	656 - 1640
		-	BX480	0.002 - 0.020	0.002 - 0.012	984 - 6562	656 - 984
		-	BXC90	0.003 - 0.118	0.002 - 0.016	984 - 6562	656 - 984
	Finishing	All-round	T505	0.039 - 0.197	0.004 - 0.020	591 - 2297	591 - 1312
		All-round	T515	0.039 - 0.197	0.004 - 0.020	492 - 2297	492 - 984
	Medium cutting	All-round	T505	0.039 - 0.197	0.004 - 0.020	591 - 2297	591 - 1312
		All-round	T515	0.039 - 0.197	0.004 - 0.020	492 - 2297	492 - 984
		CH	T515	0.118 - 0.236	0.008 - 0.024	492 - 2297	492 - 984
	Medium to heavy cutting	All-round	T515	0.039 - 0.197	0.004 - 0.020	492 - 2297	492 - 984
		CH	T515	0.118 - 0.236	0.008 - 0.024	492 - 2297	492 - 984

Gray cast iron: Class 25, etc. Ductile cast iron: 65-45-12, etc.

Selection System

SELECTION SYSTEM: NEGATIVE TYPE

K Cast Iron

	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.020 in]	Basic: BX480 — B168 - B188	Basic: BX480 — B168 - B188; Fracture → All-round T515 B033	Basic: BXC90 — B168 - B188
Finishing [a_p = 0.020 ~ 0.079 in]	Basic: All-round T505 — B033; Fracture → All-round T515 B033; Burr occurrence → CF T5105 B031	Basic: All-round T515 — B033; Wear → All-round T505 B033; Fracture → CH T515 B036; Burr occurrence → CF T5115 B031	Basic: CH T515 — B036; Wear → All-round T505 B033; Burr occurrence → All-round T515 B033
Medium cutting [a_p = 0.039 ~ 0.197 in]	Basic: All-round T505 — B033; Fracture → All-round T515 B033; Burr occurrence → CF T5105 B031	Basic: All-round T515 — B033; Wear → All-round T505 B033; Fracture → CH T515 B036; Burr occurrence → CF T5115 B031	Basic: CH T515 — B036; Wear → All-round T505 B033; Fracture → CH T5125 B036; Burr occurrence → All-round T515 B033
Medium to heavy cutting [a_p = 0.118 ~ 0.236 in]	Basic: All-round T515 — B033; Wear → All-round T505 B033; Burr occurrence → CF T5105 B031	Basic: All-round T515 — B033; Wear → All-round T505 B033; Fracture → CH T515 B036; Burr occurrence → CF T5115 B031	Basic: CH T515 — B036; Wear → All-round T505 B033; Fracture → CH T5125 B036; Burr occurrence → All-round T515 B033

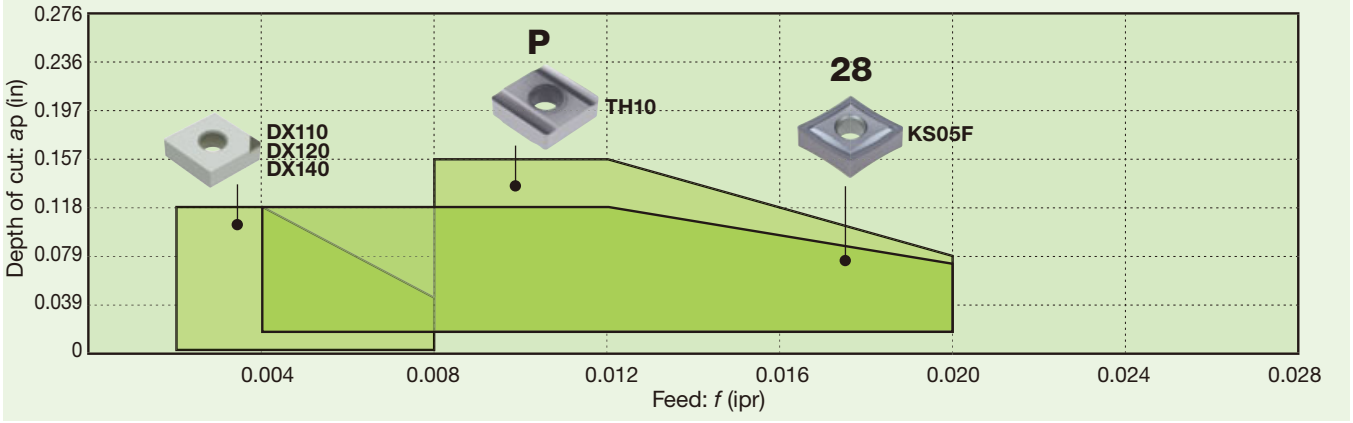
Please see the page B*** for the details.

Chipbreaker Guide

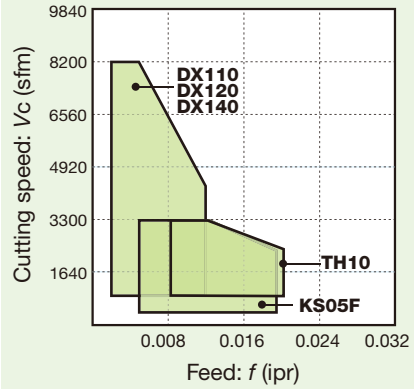
BASIC CHIPBREAKER: NEGATIVE TYPE

N Non-ferrous Metal

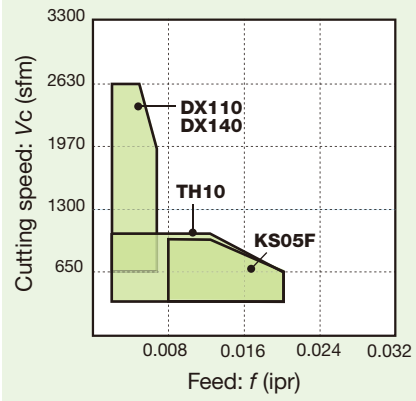
Chipbreaker System for Turning (Negative type)



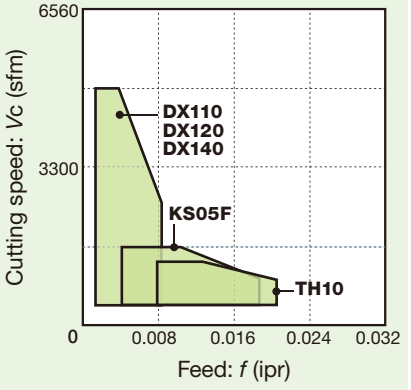
Aluminum alloy (Si < 12%)

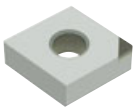
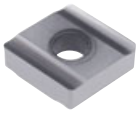


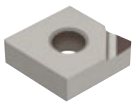
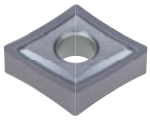
Aluminum alloy (Si ≥ 12%)



Copper alloy



Chipbreaker	Shape	Feature
-		Excellent performance in high-speed finishing of non-ferrous metal, such as Aluminum and copper alloy, with diamond sintered body on the cutting edge.
P		Excellent sharpness for non-ferrous metal, such as Aluminum and copper alloy.

Chipbreaker	Shape	Feature
With chip-breaker		Wide chipbreaker for excellent chip control.
28		Low cutting geometry with large inclination for finishing to medium cutting range.

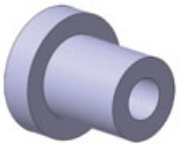
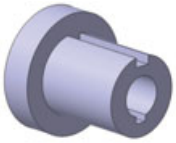
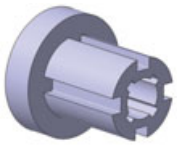
STANDARD CUTTING CONDITIONS

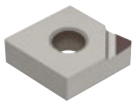
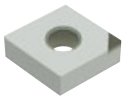
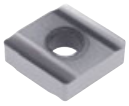
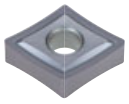
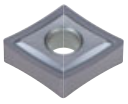
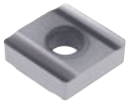
ISO	Operation	Chip-breaker	Grade	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm) Aluminum alloy (Si < 12%)	Aluminum alloy (Si ≥ 12%)	Copper alloy
N	Precision finishing	With	DX110	0.002 - 0.020	0.002 - 0.006	1640 - 8202	1312 - 2625	1640 - 4921
		-	DX140	0.002 - 0.020	0.002 - 0.008	984 - 8202	1312 - 2625	1640 - 4921
	Finishing	With	DX110	0.002 - 0.079	0.002 - 0.006	1640 - 8202	1312 - 2625	1640 - 4921
		-	DX140	0.002 - 0.079	0.002 - 0.006	984 - 5906	1312 - 1969	1312 - 3937
		P	TH10	0.02 - 0.157	0.008 - 0.020	328 - 3281	328 - 984	328 - 984
	Medium cutting	P	KS05F	0.02 - 0.118	0.004 - 0.020	328 - 3937	328 - 984	328 - 984
		P	KS05F	0.02 - 0.118	0.004 - 0.020	328 - 3937	328 - 984	328 - 984
		P	TH10	0.02 - 0.157	0.008 - 0.020	328 - 3281	328 - 984	328 - 984

Selection System

SELECTION SYSTEM: NEGATIVE TYPE

N Non-ferrous Metal

	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.020 in]	Basic  With chipbreaker **DX110** B211 - B212 → Wear → **DX140** B211 - B212	Basic  **DX140** B211 - B212 → Surface quality → With chipbreaker **DX110** B211 - B212 / Wear → **DX160** B211 - B212	
Finishing [a_p = 0.020 ~0.079 in]	Basic  **DX140** B211 - B212 → Surface quality → With chipbreaker **DX110** B211 - B212 / Wear → **DX160** B211 - B212	Basic  **DX140** B211 - B212 → Fracture → **P TH10** B035 / Wear → **DX160** B211 - B212	Basic  **P TH10** B035
Medium cutting [a_p = 0.039 ~ 0.157 in]	Basic  **28 KS05F** B035 → Wear → **DX140** B211 - B212	Basic  **28 KS05F** B035 → Wear → **DX140** B211 - B212	Basic  **P TH10** B035

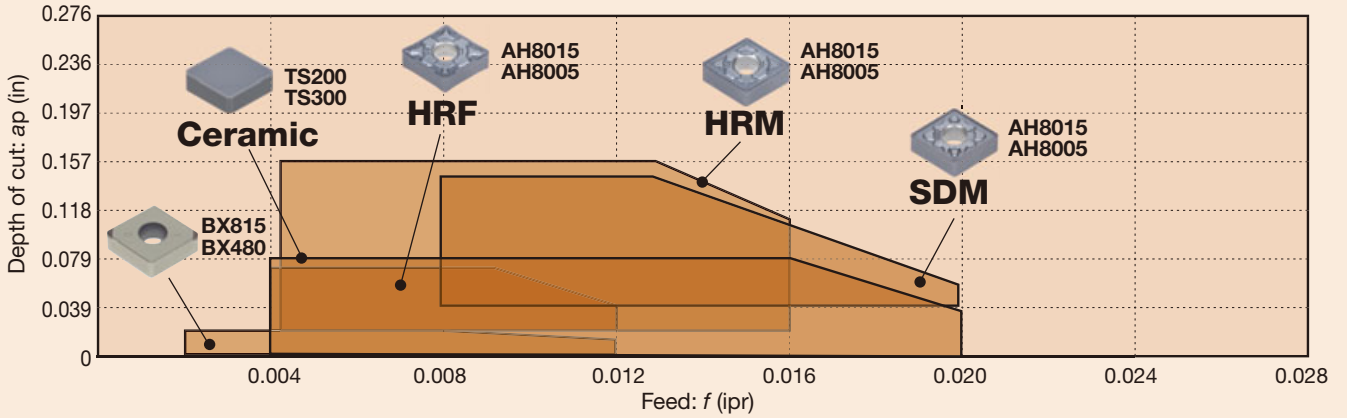
Please see the page B*** for the details.

Chipbreaker Guide

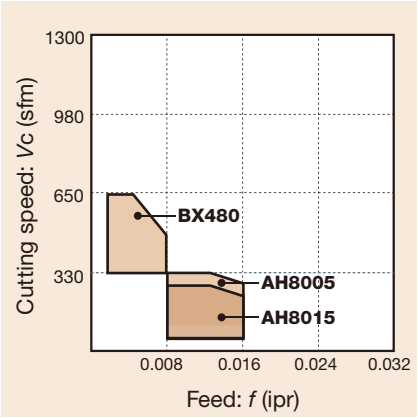
BASIC CHIPBREAKER: NEGATIVE TYPE

S Heat resistant superalloys

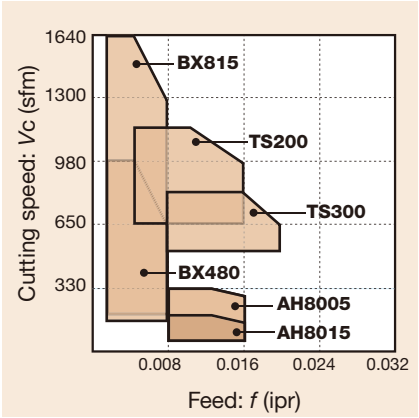
Chipbreaker System for Turning (Negative type)

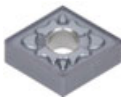


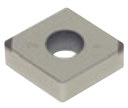
Titanium alloy



Ni-base alloy



Chipbreaker	Shape	Feature
HRF		Suitable for finishing superalloy. Unique protrusion improves chip control in cutting low depth.
HRM		First choice for heat-resistant alloy. The geometry optimized for a wide range of depths of cut.
SDM		Light cutting geometry for notch wear and crater wear resistance.

Chipbreaker	Shape	Feature
-		Excellent performance in finishing of heat-resistant alloy and titanium alloy with CBN sintered body on the cutting edge.
Ceramic		Suitable for roughing operation of heat-resistant alloy, due to the SiAlON ceramic with high-temperature strength.

STANDARD CUTTING CONDITIONS

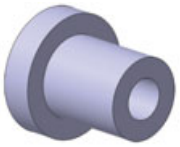
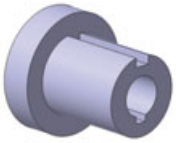
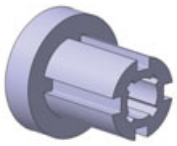
ISO	Operation	Chip-breaker	Grade	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm)	
						Titanium alloy	Ni-base alloy
S	Precision finishing	-	BX480	0.004 - 0.020	0.002 - 0.008	330 - 660	230 - 984
		-	BX815	0.004 - 0.020	0.002 - 0.008	-	230 - 1640
	Finishing to medium cutting	-	TS200	0.004 - 0.079	0.004 - 0.016	-	656 - 1148
		-	TS300	0.004 - 0.079	0.008 - 0.020	-	492 - 820
		HRF	AH8005	0.020 - 0.059	0.002 - 0.010	66 - 328	66 - 328
		HRF	AH8015	0.020 - 0.059	0.002 - 0.010	66 - 262	66 - 164
		HRF	AH8015	0.020 - 0.059	0.002 - 0.010	33 - 197	33 - 131
	Medium cutting	HRM	AH8005	0.020 - 0.157	0.004 - 0.016	66 - 328	66 - 328
		HRM	AH8015	0.020 - 0.157	0.004 - 0.016	66 - 262	66 - 164
		HRM	AH8015	0.020 - 0.157	0.004 - 0.016	33 - 197	33 - 131

Ni-base alloy: INCONEL718, etc. Titanium alloy: Ti-6Al-4V, etc.

Selection System

SELECTION SYSTEM: NEGATIVE TYPE

S Heat resistant superalloys

	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.020 in]	Basic **BX815** → Fracture → **HRF AH8005** B031 B168 - B188	Basic **BX480** → Fracture → **HRF AH8005** B031 B168 - B188	
Finishing [a_p = 0.020 ~ 0.060 in]	Basic **HRF AH8005** B031 → Fracture → **HRF AH8015** B031 → Chip control → **28 AH8005** B035 → High-speed wear → **TS300** B038, B039 → Crater wear → **SDM AH8005** B033	Basic **HRF AH8015** B031 → Fracture → **HRM AH8015** B034 → Wear → **HRF AH8005** B031 → Chip control → **28 AH8015** B035 → Crater wear → **SDM AH8015** B033	Basic **HRF AH8015** B031 → Fracture → **HRM AH8015** B034 → Wear → **HRF AH8005** B031 → Crater wear → **SDM AH8015** B033
Medium cutting [a_p = 0.020 ~ 0.157 in]	Basic **HRM AH8005** B034 → Fracture → **HRM AH8015** B034 → Burr occurrence → **HRF AH8015** B031 → Chip control → **28 AH8005** B035 → Crater wear → **SDM AH8005** B033	Basic **HRM AH8015** B034 → Fracture → **SM AH6225** B033 → Wear → **HRM AH8005** B034 → Chip control → **28 AH8015** B035 → Crater wear → **SDM AH8015** B033	Basic **HRM AH8015** B034 → Wear → **HRF AH8005** B031 → Crater wear → **SDM AH8015** B033

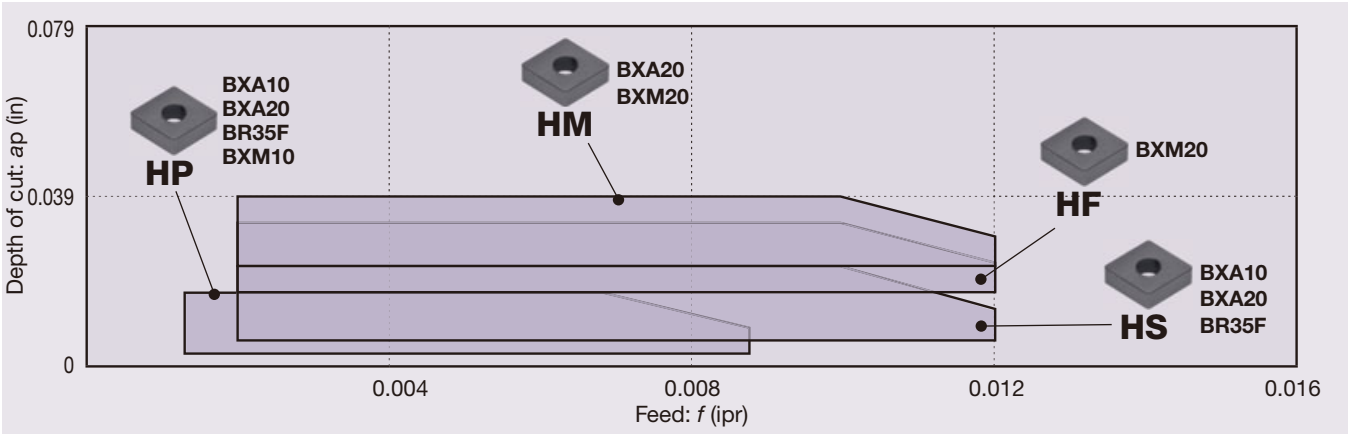
Please see the page B*** for the details.

Chipbreaker Guide

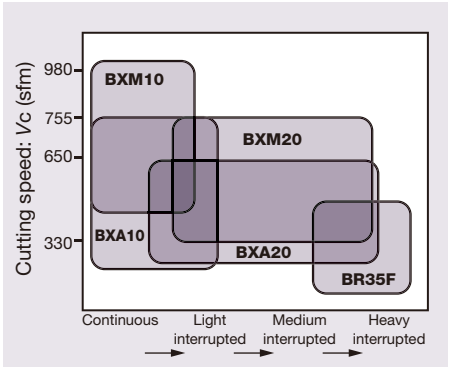
BASIC CHIPBREAKER: NEGATIVE TYPE

H Hard Materials

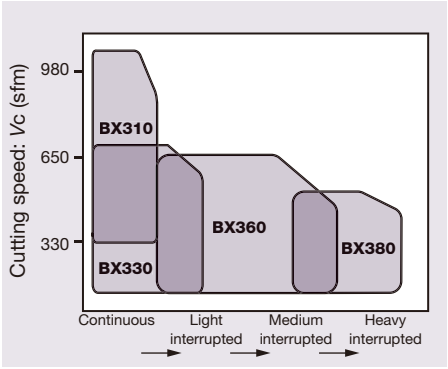
Chipbreaker System for Turning (Negative type)



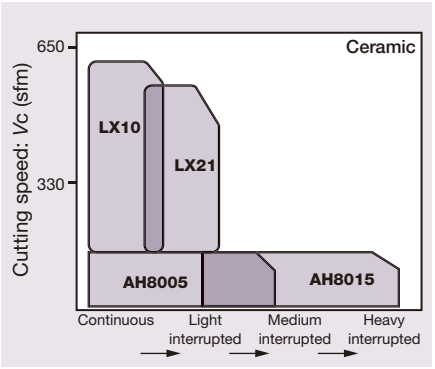
Coated CBN

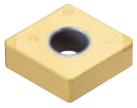


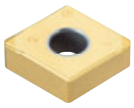
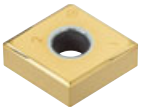
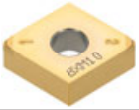
T-CBN



Ceramic, PVD coating



Chipbreaker	Shape	Feature
-		Excellent performance in finishing of hard material with CBN sintered body on the cutting edge.
- (Ceramic)		Realizes economical hardened steel medium speed finishing.
HRF		Excellent chip control in Hardent steel medium finishing.

Chipbreaker	Shape	Feature
HF		Excellent chip control in removing carburized layer at small depth of cut.
HM		Excellent chip control in removing carburized layer at large depth of cut.
HP		Excellent chip control in precision finishing.
HS		Provides the excellent chip-control at a high-feed condition in the precise finishing operation.

STANDARD CUTTING CONDITIONS

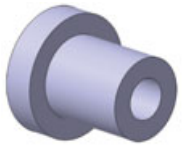
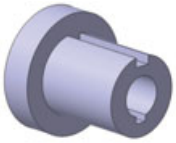
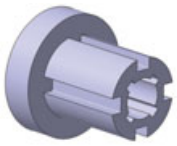
ISO	Operation	Chipbreaker	Grade	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed *Vc* (sfm)
H	Precision finishing	HP	BXA10 BXA20 BR35F	0.001 - 0.01	0.001 - 0.009	230 - 1148
		HS	BXA10 BXA20 BR35F	0.004 - 0.014	0.002 - 0.012	230 - 1148
	Finishing	-	BXM10 BXM20 BXA20	0.002 - 0.020	0.002 - 0.010	230 - 1148
		-	LX10 LX21	0.002 - 0.020	0.002 - 0.010	197 - 591
	Removing of carburized layer	HF	BXM20	0.012 - 0.030	0.002 - 0.012	230 - 656
		HM	BXA20 BXM20	0.020 - 0.039	0.002 - 0.012	230 - 656
	Medium cutting	HRF	AH8005 AH8015	0.002 - 0.079	0.002 - 0.010	33 - 164

Hardened steels, Pre-hardened steels: D2, H13, etc.

Selection System

SELECTION SYSTEM: NEGATIVE TYPE

H Hard Materials

	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.014 in]	Basic **HP BXA10** B168 - B188 → High feed: **HS BXA10** B168 - B188	Basic **BXA20** B168 - B188 → Fracture: **-H BXA20** B168 - B188; High-speed wear: **BXA10** B168 - B188	
Finishing [a_p = ~ 0.020 in]	Basic **BXA10** B168 - B188 → High-speed: **LX10** B038, B039	Basic **BXA20** B168 - B188 → Fracture: **-H BXA20** B168 - B188; High-speed: **LX21** B038, B039; High-speed wear: **BXA10** B168 - B188	Basic **BR35F** B168 - B188 → Fracture: **-HC BR35F** B168 - B188
Removing of carburized layer [a_p = ~ 0.039 in]	Basic **HF BXM20** B168 - B188	Basic **HM BXA20** B168 - B188	
Medium cutting [a_p = ~ 0.079 in]	Basic **HRF AH8005** B031 → Fracture: **HRF AH8015** B031	Basic **HRF AH8015** B031 → Fracture: **HRM AH8015** B034	Basic **HRF AH8015** B031 → Fracture: **HRM AH8015** B034

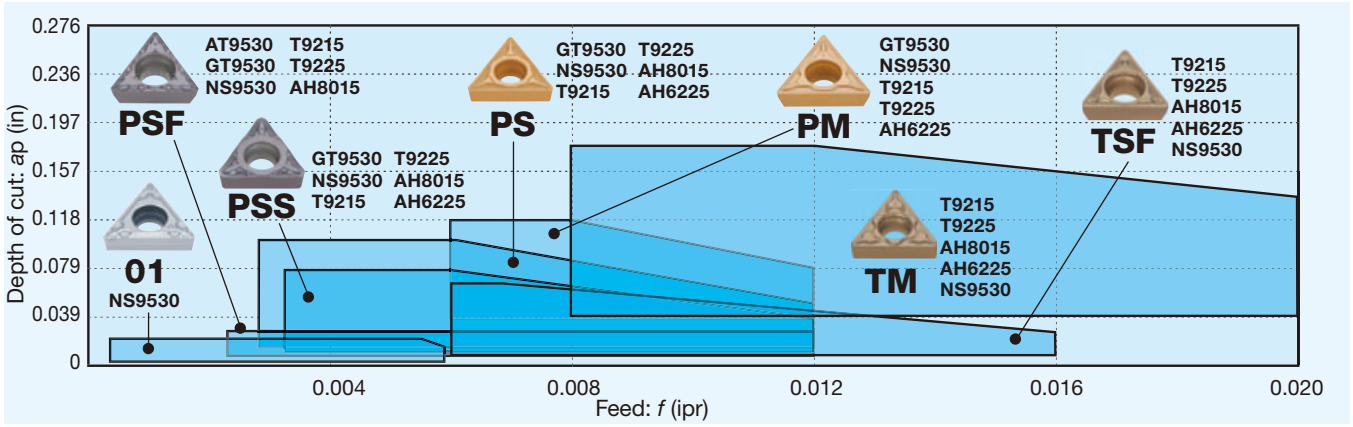
Please see the page B*** for the details.

Chipbreaker Guide

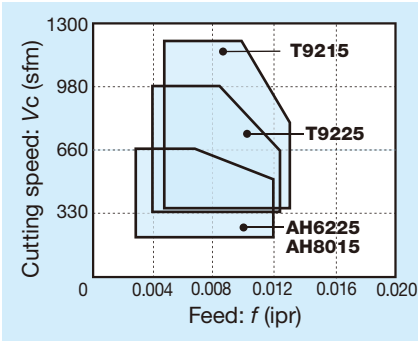
BASIC CHIPBREAKER: POSITIVE TYPE

P Steel

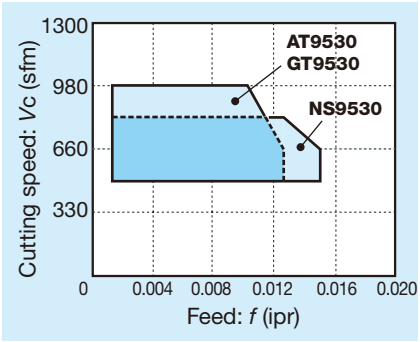
Chipbreaker System for Turning (Positive Type)

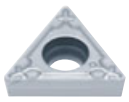
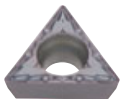
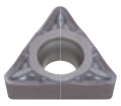


CVD / PVD coated grade



Coated cermet / Cermet



Chipbreaker	Shape	Feature
01		Excellent chip control in machining very small depth of cut thanks to the sharp cutting edge and protrusion.
PSF		Low cutting force and high wear resistance. First choice for finishing. Excellent chip control in finishing prevents chip entanglement in internal machining.
PSS		3D chipbreaker for finishing to medium cutting with excellent chip control and low cutting force.
PS		3D chipbreaker for finishing to medium cutting with excellent chip control and sharpness. M-class insert delivers cost reduction and highly efficient boring in a wide range of applications.

Chipbreaker	Shape	Feature
PM		First choice for medium cutting with excellent sharpness and good chip control. Delivers stable machining of stainless steel.
TSF		Optimal chipbreaker width and geometry enable smooth chip control in high-feed machining.
TM		Optimal cutting edge design and chipbreaker shape achieve excellent chip control in large depth of cut machining.

STANDARD CUTTING CONDITIONS

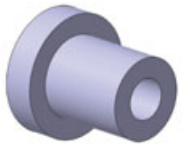
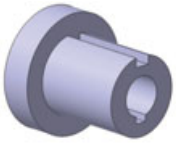
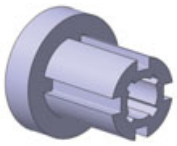
ISO	Operation	Chip-breaker	Grade	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm) Low carbon steels, Alloy steels	Medium carbon steels, Alloy steels	High carbon steels, Alloy steels
P	Precision finishing	01	NS9530	0.002 - 0.020	0.001 - 0.006	492 - 820	262 - 722	262 - 591
		01	NS9530	0.002 - 0.020	0.001 - 0.006	492 - 820	262 - 722	262 - 591
	Finishing	PSS	NS9530	0.004 - 0.020	0.002 - 0.012	492 - 820	262 - 722	262 - 591
		PSS	NS9530	0.004 - 0.020	0.002 - 0.012	492 - 820	262 - 722	262 - 591
		PSS	NS9530	0.004 - 0.020	0.002 - 0.012	492 - 820	262 - 722	262 - 591
	Finishing to light cutting	PS	T9215	0.012 - 0.079	0.003 - 0.012	394 - 1148	328 - 1148	262 - 820
		PS	T9215	0.012 - 0.079	0.003 - 0.012	394 - 1148	328 - 1148	262 - 820
		PS	T9215	0.012 - 0.079	0.003 - 0.012	394 - 1148	328 - 1148	262 - 820
	Finishing to Medium cutting	PS	T9215	0.020 - 0.098	0.003 - 0.012	394 - 1148	328 - 1148	262 - 820
		PS	T9225	0.020 - 0.098	0.003 - 0.012	328 - 984	262 - 984	262 - 820
	Medium cutting	PM	T9215	0.040 - 0.120	0.006 - 0.012	492	328 - 656	262 - 591
		PM	T9225	0.040 - 0.120	0.006 - 0.012	394	262 - 591	262 - 394

Low carbon steels, Alloy steels: 1018, 1020, etc. Medium carbon steels, Alloy steels: 1045, 4140, etc. Hi carbon steels, Alloy steels: 8620, etc.
Hi carbon steels, Alloy steels: 4340, etc.

Selection System

SELECTION SYSTEM: POSITIVE TYPE

P Steel

	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.020 in]	Basic: 01 NS9530 — B040, B045	Basic: 01 NS9530 — B040, B045 Fracture: PSF NS9530 — B040, B045, B049	
Finishing [a_p = 0.004 ~ 0.020 in]	Basic: PSS NS9530 — B042, B046, B049 Fracture: PSS T9215 — B042, B046, B049 Wear: PSS GT9530 — B042, B046, B049 Chip control: PSF NS9530 — B040, B045, B049	Basic: PSS NS9530 — B042, B046, B049 Fracture: PSS T9215 — B042, B046, B049 Wear: PSS GT9530 — B042, B046, B049 Chip control: PSF NS9530 — B040, B045, B049	Basic: PSS NS9530 — B042, B046, B049 Fracture: PSS T9215 — B042, B046, B049 Wear: PSS GT9530 — B042, B046, B049 Chip control: PSF NS9530 — B040, B045, B049
Finishing to medium cutting [a_p = 0.020 ~ 0.098 in]	Basic: PS T9215 — B042, B046, B049 Fracture: PS T9225 — B042, B046, B049 Wear: PS NS9530 — B042, B046, B049 Chip control: TSF, TM T9215 — B040, B042, B045, B046, B049	Basic: PS T9215 — B042, B046, B049 Fracture: PS T9225 — B042, B046, B049 Wear: PS NS9530 — B042, B046, B049 Chip control: TSF, TM T9215 — B040, B042, B045, B046, B049	Basic: PS T9215 — B042, B046, B049 Fracture: PS T9225 — B042, B046 Chip control: TSF, TM T9215 — B040, B042, B045, B046, B049
Medium cutting [a_p = 0.039 ~ 0.118 in]	Basic: PM T9215 — B044, B048 Fracture: PM T9225 — B044, B048 Wear: PM NS9530 — B044, B048 Chip control: TSF, TM T9215 — B040, B042, B045, B046, B049	Basic: PM T9215 — B044, B048 Fracture: PM T9225 — B044, B048 Chip control: TSF, TM T9215 — B040, B042, B045, B046, B049	Basic: PM T9215 — B044, B048 Fracture: PM T9225 — B044, B048 Chip control: TSF, TM T9215 — B040, B042, B045, B046, B049

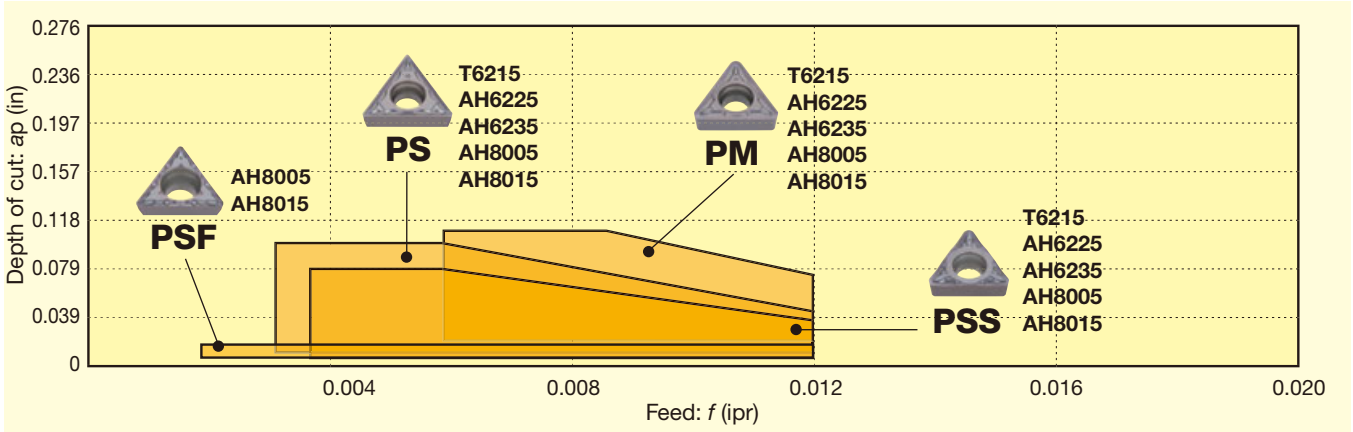
Please find the details on the pages: B***/7° relief angle, B***/11° relief angle, B***/5° relief angle.

Chipbreaker Guide

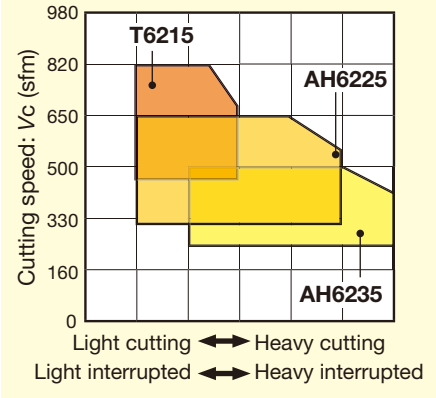
BASIC CHIPBREAKER: POSITIVE TYPE

M Stainless Steel

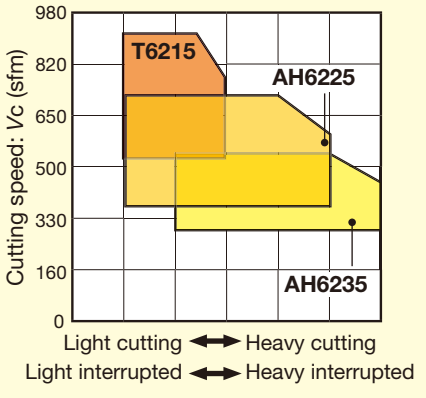
Chipbreaker System for Turning (Positive Type)



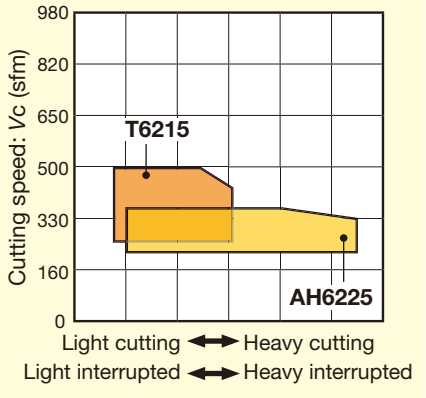
Austenitic stainless steel

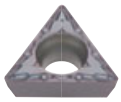
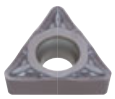


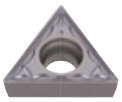
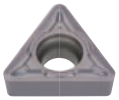
Ferritic / martensite stainless steel



Precipitation hardened stainless steel



Chipbreaker	Shape	Feature
PSF		Low cutting force and high wear resistance. First choice for finishing. Excellent chip control in finishing prevents chip entanglement in internal machining.
PSS		3D chipbreaker for finishing to medium cutting with excellent chip control and low cutting force.

Chipbreaker	Shape	Feature
PS		3D chipbreaker for finishing to medium cutting with excellent chip control and sharpness. M-class insert delivers cost reduction and highly efficient boring in a wide range of applications.
PM		First choice for medium cutting with excellent sharpness and good chip control. Delivers stable machining of stainless steel.

STANDARD CUTTING CONDITIONS

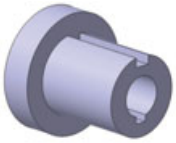
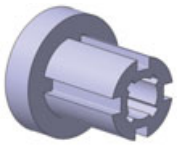
ISO	Operation	Chipbreaker	Grade	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm)		
						Austenitic stainless steel	Ferritic / martensite stainless steel	Precipitation hardened stainless steel
M	Finishing	PSS	T6215	0.012 - 0.079	0.003 - 0.012	459 - 787	525 - 919	262 - 492
			AH6225	0.012 - 0.079	0.003 - 0.012	295 - 656	361 - 787	197 - 361
			AH6235	0.012 - 0.079	0.003 - 0.012	164 - 492	230 - 558	-
	Finishing to medium cutting	PS	T6215	0.020 - 0.098*	0.003 - 0.012	459 - 787	525 - 919	262 - 492
			AH6225	0.020 - 0.098*	0.003 - 0.012	295 - 656	361 - 787	197 - 361
			AH6235	0.020 - 0.098*	0.003 - 0.012	164 - 492	230 - 558	-
	Medium cutting	PM	T6215	0.039 - 0.118	0.006 - 0.012	459 - 787	525 - 919	262 - 492
			AH6225	0.039 - 0.118	0.006 - 0.012	295 - 656	361 - 787	197 - 361
			AH6235	0.039 - 0.118	0.006 - 0.012	164 - 492	230 - 558	-

* For CCMT0602 and DCMT0702 type inserts, *ap* = 0.020 - 0.098, Stainless steels: 304SS, 316SS, etc.

Selection System

SELECTION SYSTEM: POSITIVE TYPE

M Stainless Steel

	Continuous	Light interrupted	Heavy interrupted
Finishing [a_p = 0.012 ~ 0.060 in]	Basic: PSS AH6225 (B042, B046, B049) → Wear: PSS T6215 (B042, B046, B049)	Basic: PSS AH6225 (B042, B046, B049) → Fracture: PSS AH6235 (B042, B046, B049); Wear: PSS T6215 (B042, B046, B049)	Basic: PSS AH6225 (B042, B046, B049) → Fracture: PSS AH6235 (B042, B046, B049); Wear: PSS T6215 (B042, B046, B049)
Finishing to medium cutting [a_p = 0.020 ~ 0.098 in]	Basic: PS AH6225 (B042, B046, B049) → Wear: PS T6215 (B042, B046, B049)	Basic: PS AH6225 (B042, B046, B049) → Fracture: PM AH6235 (B044, B048); Wear: PS T6215 (B042, B046, B049)	Basic: PS AH6225 (B042, B046, B049) → Fracture: PM AH6235 (B044, B048); Wear: PS T6215 (B042, B046, B049)
Medium cutting [a_p = 0.039 ~ 0.118 in]	Basic: PM AH6225 (B044, B048) → Wear: PM T6215 (B044, B048)	Basic: PM AH6225 (B044, B048) → Fracture: PM AH6235 (B044, B048); Wear: PM T6215 (B044, B048)	Basic: PM AH6225 (B044, B048) → Fracture: PM AH6235 (B044, B048)

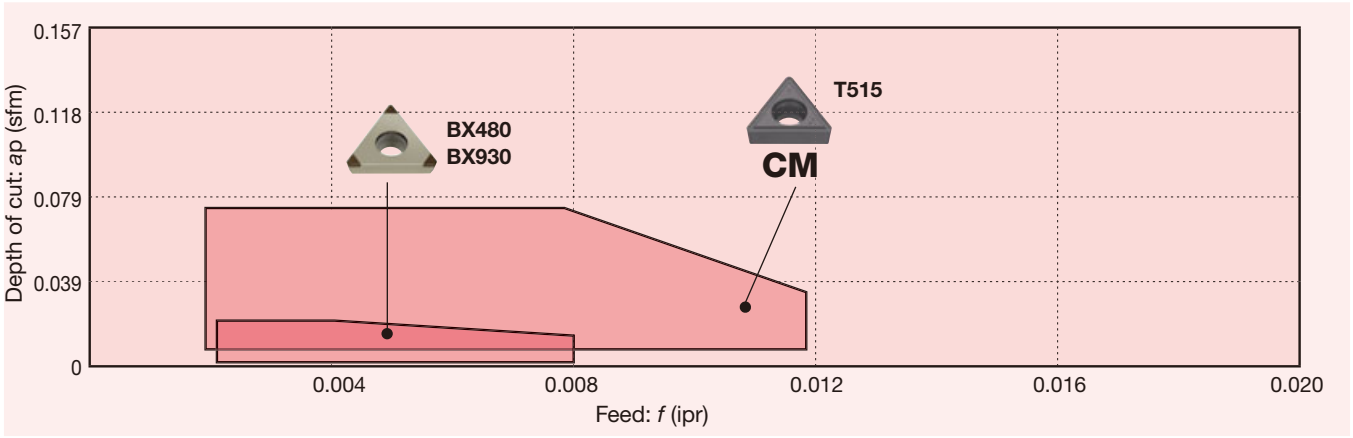
Please find the details on the pages: B***/7° relief angle, B***/11° relief angle, B***/5° relief angle.

Chipbreaker Guide

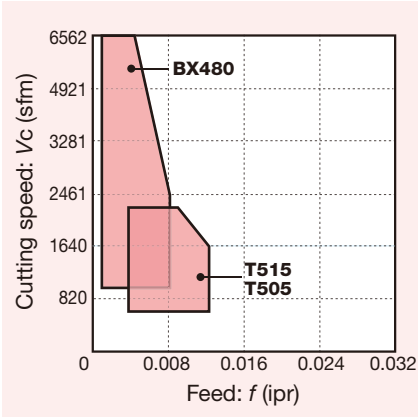
BASIC CHIPBREAKER: POSITIVE TYPE

K Cast Iron

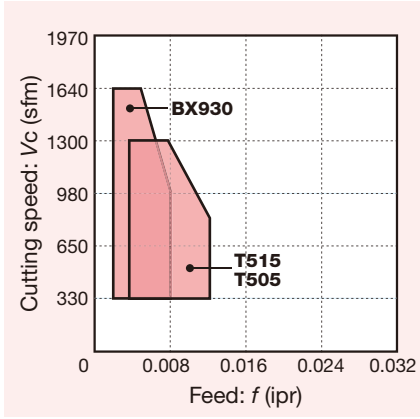
Chipbreaker System for Turning (Positive Type)



Gray cast iron



Ductile cast iron



Chipbreaker	Shape	Feature
-		Excellent performance in high-speed finishing of cast iron with CBN sintered body on the cutting edge.

Chipbreaker	Shape	Feature
CM		Highly versatile all-round chipbreaker with low cutting force. Suitable for finishing to medium cutting.

STANDARD CUTTING CONDITIONS

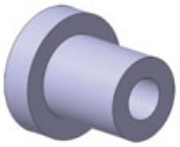
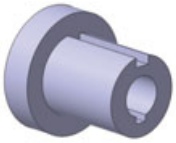
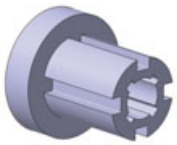
ISO	Operation	Chip-breaker	Grade	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm)	
						Gray cast iron	Ductile cast iron
K	Precision finishing	-	BX930	0.002 - 0.020	0.002 - 0.008	980 - 3940	330 - 1640
		-	BX480	0.002 - 0.020	0.002 - 0.008	980 - 6560	-
	Finishing	CM	T515	0.002 - 0.079	0.002 - 0.012	500 - 2300	500 - 980
		CM	T515	0.002 - 0.079	0.002 - 0.012	330 - 660	330 - 660
	Medium cutting	CM	T515	0.002 - 0.079	0.002 - 0.012	330 - 980	330 - 820

Gray cast iron: Class 25, etc.
Ductile cast iron: 65-45-12, etc.

Selection System

SELECTION SYSTEM: POSITIVE TYPE

K Cast Iron

	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.020 in]	Basic  - **BX480** B189 - B210	Basic  - **BX480** B189 - B210	
Finishing to Medium cutting [a_p = 0.020 ~ 0.118 in]	Basic  **CM T515** B042, B046, B049 Wear → **CM T505** B042, B046, B049	Basic  **CM T515** B042, B046, B049 Wear → **CM T505** B042, B046, B049	Basic  **CM T515** B042, B046, B049 Wear → **CM T505** B042, B046, B049

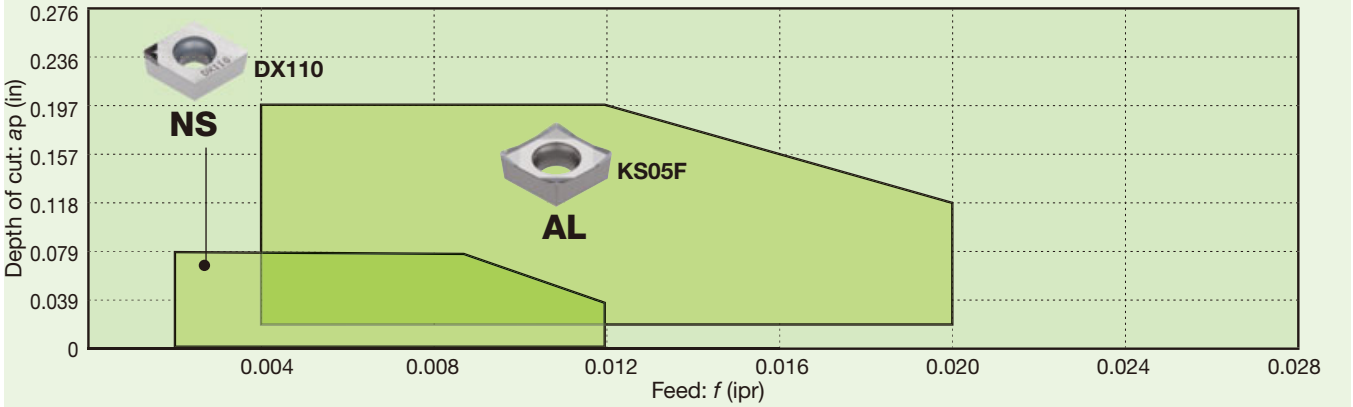
Please find the details on the pages: B***/7° relief angle, B***/11° relief angle, B***/5° relief angle.

Chipbreaker Guide

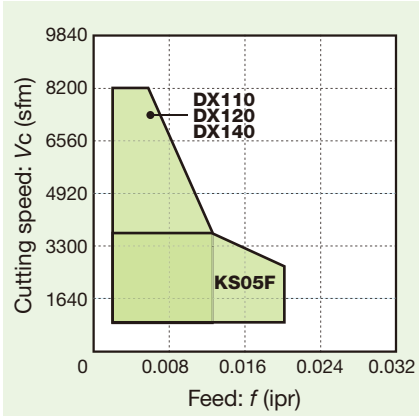
BASIC CHIPBREAKER: POSITIVE TYPE

N Non-ferrous Metal

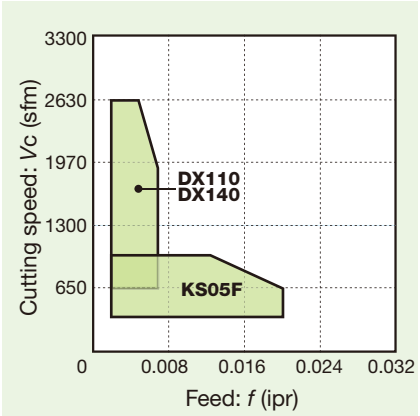
Chipbreaker System for Turning (Positive Type)



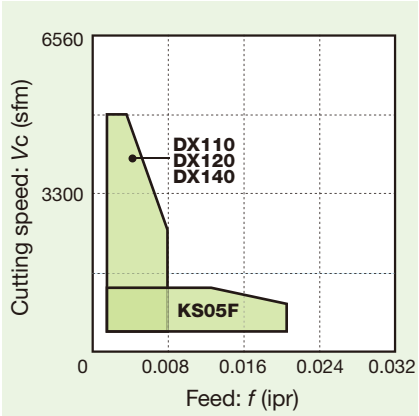
Aluminum alloy (Si < 12%)

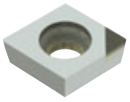
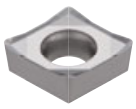


Aluminum alloy (Si ≥ 12%)



Copper alloy



Chipbreaker	Shape	Feature
-		Excellent performance in high-speed finishing of non-ferrous metal with diamond sintered body on the cutting edge.
AL		Large rake angle and sharp cutting edge reduce cutting force. Lapped rake face prevents adhesion. Large inclination on the cutting edge (wavy cutting edge) for more stable chip control.

Chipbreaker	Shape	Feature
NS		A unique three-dimensional chipbreaker. Covers a wide range of condition from roughing to finishing.

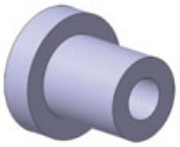
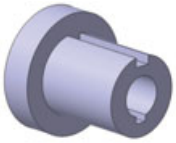
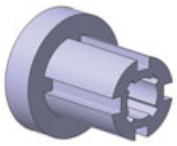
STANDARD CUTTING CONDITIONS

ISO	Operation	Work condition	Chip-breaker	Grade	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm) Aluminum alloy (Si < 12%)	Aluminum alloy (Si ≥ 12%)	Copper alloy
N	Precision finishing	Continuous	NS	DX110	0.002 - 0.079	0.002 - 0.006	1640 - 8200	1310 - 2630	1640 - 4920
		Light interrupted	-	DX140	0.002 - 0.039	0.002 - 0.008	980 - 8200	-	1640 - 4920
	Finishing	Continuous	NS	DX110	0.002 - 0.079	0.002 - 0.012	1640 - 8200	1310 - 2630	1640 - 4920
		Light interrupted	-	DX140	0.002 - 0.039	0.002 - 0.006	980 - 5900	1310 - 1970	1310 - 3940
		Heavy interrupted	AL	KS05F	0.020 - 0.197	0.004 - 0.020	330 - 1970	330 - 660	-
	Medium cutting	Continuous	AL	KS05F	0.020 - 0.197	0.004 - 0.020	330 - 3940	330 - 980	330 - 980
		Light interrupted	AL	KS05F	0.020 - 0.197	0.004 - 0.020	330 - 2950	330 - 660	330 - 660
		Heavy interrupted	AL	KS05F	0.020 - 0.197	0.004 - 0.020	330 - 1970	330 - 660	-

Selection System

SELECTION SYSTEM: POSITIVE TYPE

N Non-ferrous Metal

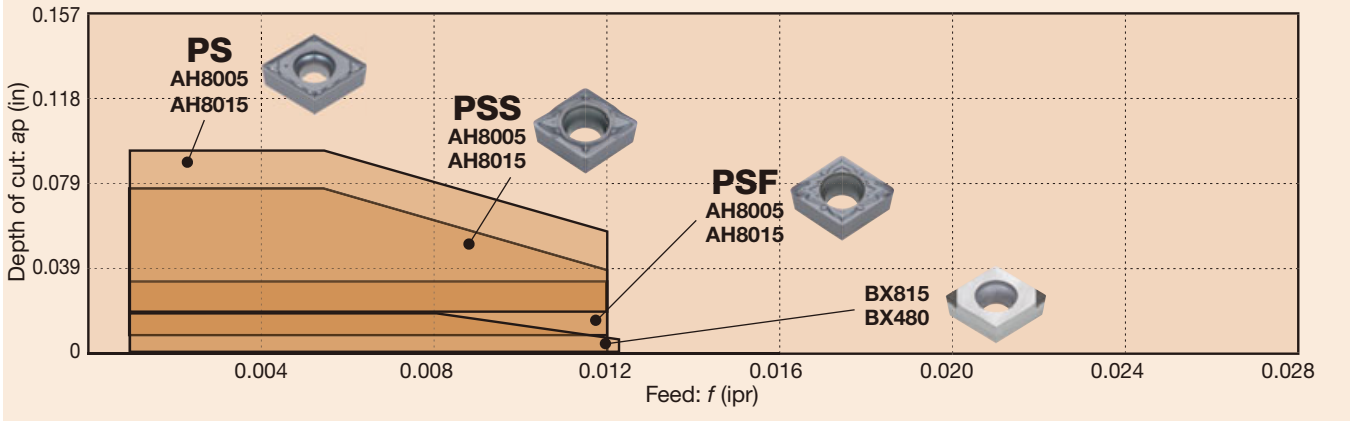
	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.020 in]	Basic **NS DX110** B213 - → Wear → **DX140** B213 -	Basic With chipbreaker **DX110** B213 - → Wear → **DX140** B213 -	
Finishing [a_p = 0.020 ~ 0.079 in]	Basic **NS DX110** B213 - → Wear → **DX160** B213 -	Basic **DX140** B213 - → Fracture → **AL KS05F** B043; → Wear → **DX160** B213 -	Basic **AL KS05F** B043
Medium cutting [a_p = 0.039 ~ 0.197 in]	Basic **AL KS05F** B043 → Wear → With chipbreaker **DX120** B213 -	Basic **AL KS05F** B043 → Wear → **DX140** B213 -	Basic **AL KS05F** B043

Chipbreaker Guide

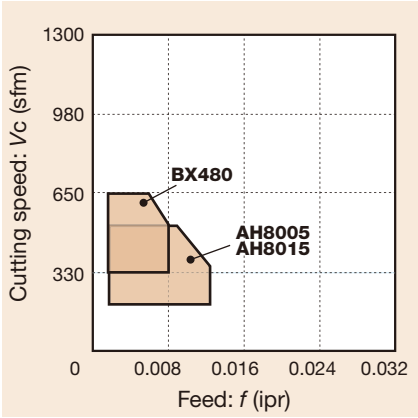
BASIC CHIPBREAKER: POSITIVE TYPE

S Heat resistant superalloys

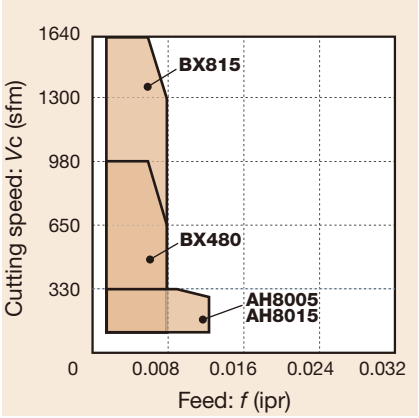
Chipbreaker System for Turning (Positive Type)



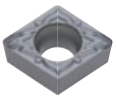
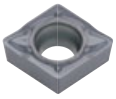
Titanium alloy



Ni-base alloy



Chipbreaker	Shape	Feature
PS		3D chipbreaker for finishing to medium cutting with excellent chip control and sharpness. M-class insert delivers cost reduction and highly efficient boring in a wide range of applications.
-		Excellent performance in finishing of heat-resistant alloy and titanium alloy with CBN sintered body on the cutting edge.

Chipbreaker	Shape	Feature
PSF		Low cutting force and high wear resistance. First choice for finishing. Excellent chip control in finishing prevents chip entanglement in internal machining.
PSS		3D chipbreaker for finishing to medium cutting with excellent chip control and low cutting force.

STANDARD CUTTING CONDITIONS

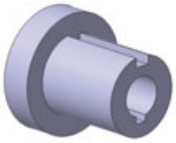
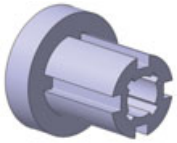
ISO	Operation	Chip-breaker	Grade	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm)	
						Titanium alloy	Ni-base alloy
S	Precision finishing	-	BX480	0.004 - 0.020	0.002 - 0.008	328 - 656	230 - 984
		-	BX815	0.004 - 0.020	0.002 - 0.008	-	230 - 1640
	Finishing	PSS	AH8015	0.012 - 0.079	0.001 - 0.012	66 - 492	66 - 328
		PSS	AH8015	0.012 - 0.079	0.001 - 0.012	66 - 492	66 - 328
	Finishing to medium cutting	PS	AH8015	0.020 - 0.098	0.001 - 0.012	66 - 492	66 - 328
		PS	AH8015	0.020 - 0.098	0.001 - 0.012	66 - 492	66 - 328

Ni-base alloy: INCONEL718, etc. Titanium alloy: Ti-6Al-4V, etc.

Selection System

SELECTION SYSTEM: POSITIVE TYPE

S Heat resistant superalloys

	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.020 in]	Basic: BX815 — B189 - B210	Basic: BX480 — B189 - B210	
Finishing [a_p = 0.012 ~ 0.079 in]	Basic: PSS AH8015 — B042, B046, B049 → Wear: PSS AH8005 — B042, B046, B049	Basic: PSS AH8015 — B042, B046, B049 → Wear: PSS AH8005 — B042, B046, B049; Fracture: PS AH8015 — B042, B046, B049	
Finishing to medium cutting [a_p = 0.020 ~ 0.098 in]	Basic: PS AH8015 — B042, B046, B049 → Wear: PSS AH8005 — B042, B046, B049	Basic: PS AH8015 — B042, B046, B049 → Fracture: All-round AH8015 — B043, B047	Basic: PS AH8015 — B042, B046, B049 → Fracture: All-round AH8015 — B043, B047

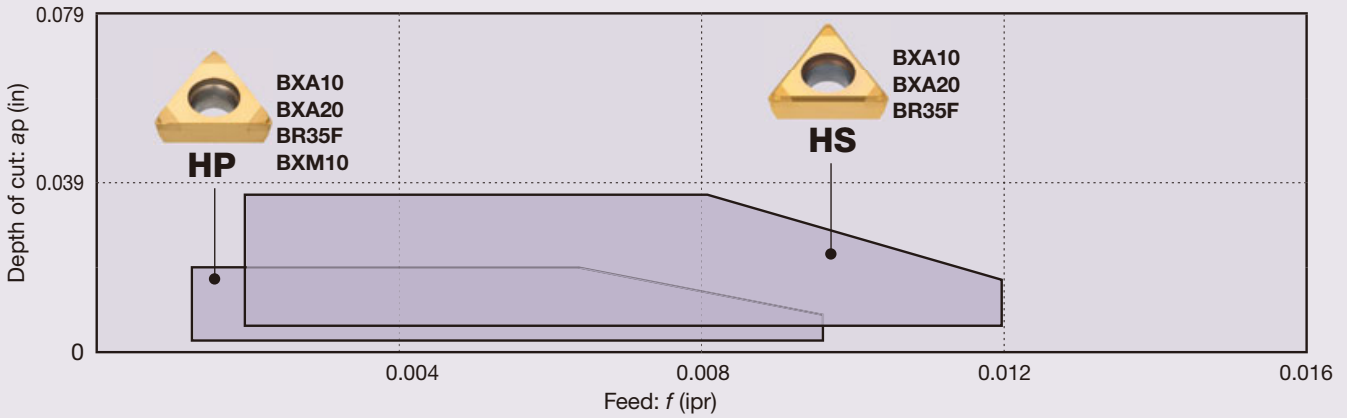
Please find the details on the pages: B***/7° relief angle, B***/11° relief angle, B***/5° relief angle.

Chipbreaker Guide

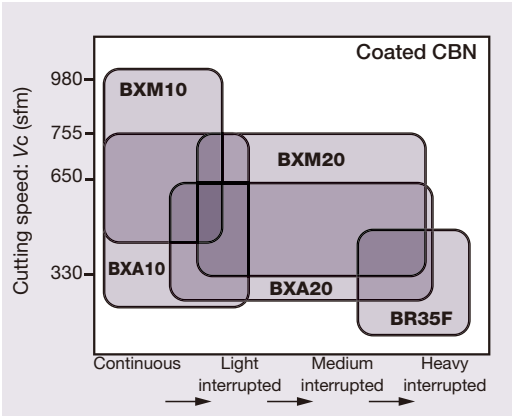
BASIC CHIPBREAKER: POSITIVE TYPE

H Hard Materials

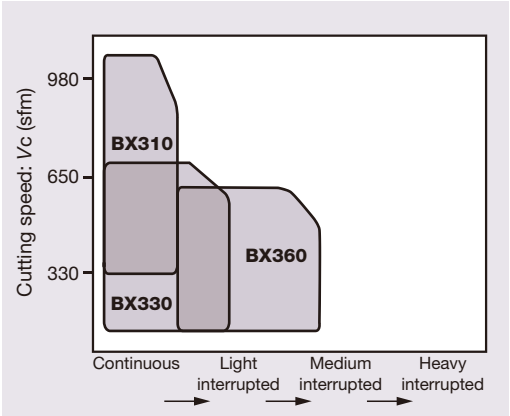
Chipbreaker System for Turning (Positive Type)



Coated CBN



CBN



Chipbreaker	Shape	Feature
-		Excellent performance in high-speed finishing of hard material with CBN sintered body on the cutting edge.

Chipbreaker	Shape	Feature
HP		Excellent chip control in precision finishing.
HS		Provides the excellent chip-control at a high-feed condition in the precise finishing operation.

STANDARD CUTTING CONDITIONS

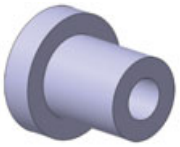
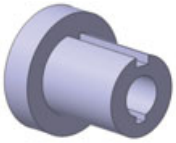
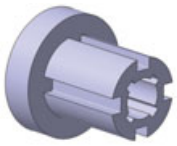
ISO	Operation	Chipbreaker	Grade	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed *Vc* (sfm)
H	Precision finishing	HP	BXM10 BXA20 BR35F	0.001 - 0.010	0.001 - 0.009	230 - 1148
		HS	BXM10 BXA20 BR35F	0.004 - 0.014	0.002 - 0.012	230 - 1148
	Finishing	-	BXM10 BXA20 BR35F	0.002 - 0.020	0.002 - 0.010	230 - 1148

Hardened steels, Pre-hardened steels: D2, H13, etc.

Selection System

SELECTION SYSTEM: POSITIVE TYPE

H Hard Materials

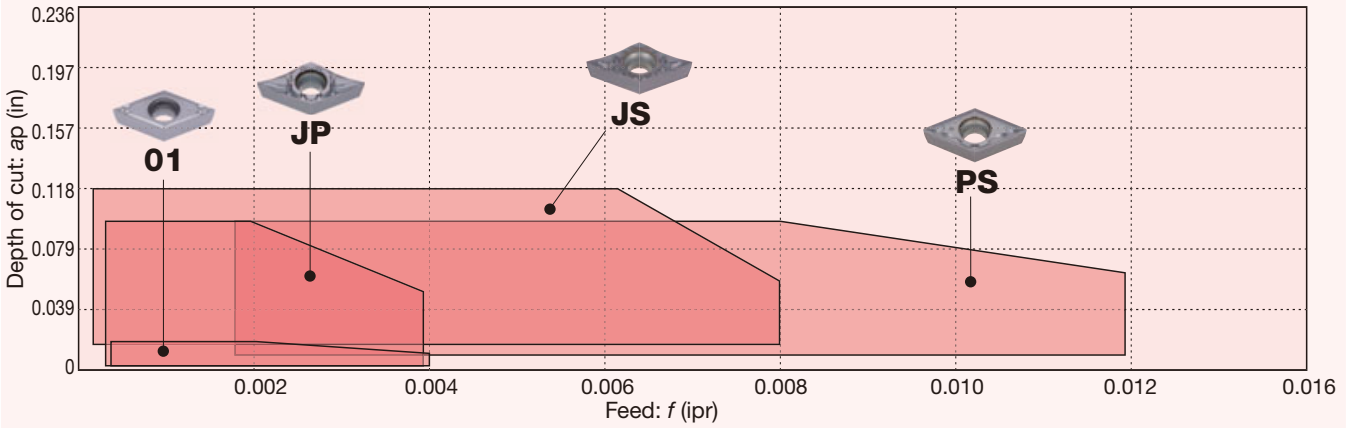




	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.014 in]	Basic **HP BXA10** B189 - → High-feed → **HS BXA10** B189 -	Basic **BXA20** B189 - → Fracture → **-H BXA20** B189 -	
Finishing [a_p = ~ 0.020 in]	Basic **BXA10** B189 -	Basic **BXA20** B189 - → Fracture → **-H BXA20** B189 - ; → High-speed wear → **BXA10** B189 -	Basic **SR BR35F** B189 - → Fracture → **HC BR35F** B189 -

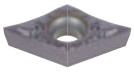
Chipbreaker Guide

For Miniature machining

BASIC CHIPBREAKER: POSITIVE TYPE

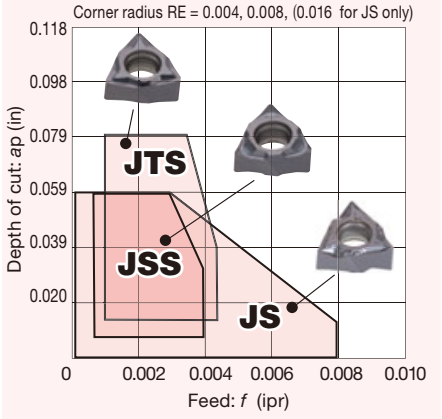


Chipbreaker	Shape	Feature
JP		Excellent performance in finishing of hard material with CBN sintered body on the cutting edge.

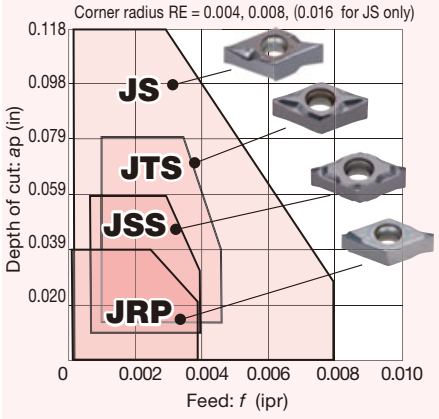
Chipbreaker	Shape	Feature
JS		Excellent chip control in removing carburized layer at small depth of cut.

BASIC CHIPBREAKER: DOUBLE-SIDED POSITIVE TYPE

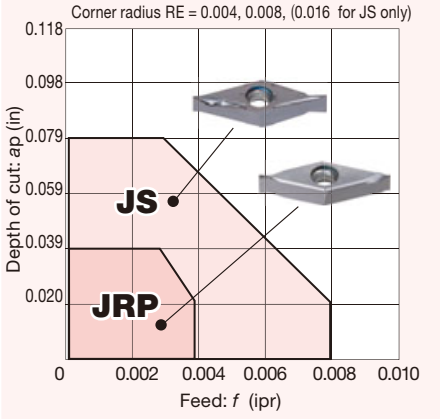
WXGU insert



DXGU insert



VXGU insert



STANDARD CUTTING CONDITIONS POSITIVE TYPE

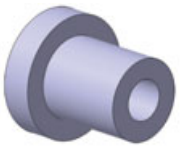
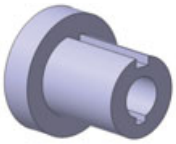
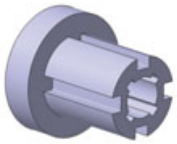
Operation	Chip-breaker	Grade	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed *Vc* (sfm)
Precision finishing	JP	SH725	0.002 - 0.098	0.001 - 0.004	33 - 656
Finishing	JP	SH725	0.002 - 0.098	0.001 - 0.004	164 - 820
	JS	SH725	0.008 - 0.118	0.001 - 0.008	33 - 656
Finishing to light cutting	JP	SH725	0.002 - 0.098	0.001 - 0.004	164 - 820
	JS	SH725	0.020 - 0.079	0.001 - 0.008	33 - 656
Medium cutting	JS	SH725	0.020 - 0.118	0.001 - 0.006	33 - 656
	PS	AH8015	0.020 - 0.098	0.001 - 0.008	66 - 656
	PS	AH6225	0.020 - 0.098	0.001 - 0.008	197 - 787

STANDARD CUTTING CONDITIONS DOUBLE-SIDED POSITIVE TYPE

Operation	Chip-breaker	Grade	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed *Vc* (sfm)
Precision finishing	JRP	SH725	0.002 - 0.020	0.001 - 0.003	164 - 820
Finishing	JSS	SH725	0.008 - 0.059	0.001 - 0.004	164 - 820
	JS	SH725	0.008 - 0.118	0.001 - 0.008	164 - 820
Finishing to light cutting	JS	SH725	0.020 - 0.118	0.001 - 0.008	164 - 820
	JTS	SH725	0.020 - 0.079	0.001 - 0.004	164 - 820
Medium cutting	JS	SH725	0.020 - 0.118	0.001 - 0.008	164 - 820

Selection System

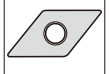
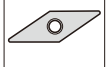
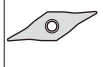
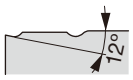
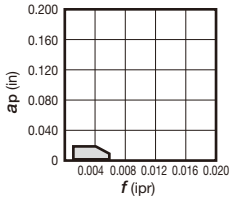
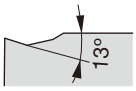
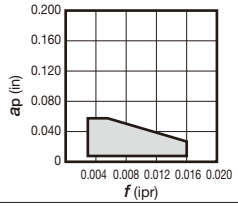
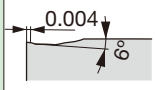
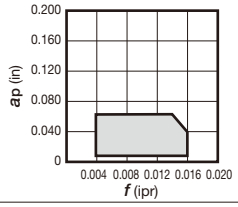
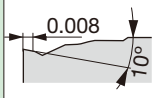
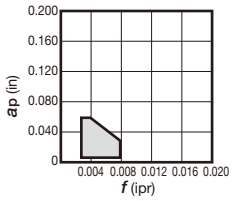
SELECTION SYSTEM: POSITIVE TYPE/DOUBLE-SIDED POSITIVE TYPE

	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.020 in]	Basic Positive **JP SH725** Double-sided positive **JRP SH725** B040, B048, B052	Basic Positive **JP SH725** Double-sided positive **JRP SH725** B040, B048, B052	
Finishing [a_p = 0.004 ~ 0.020 in]	Basic Positive **JS SH725** Double-sided positive **JSS SH725** Chip control → **JP SH725** B040, B048 Fracture → **JSS AH725** B052 B040, B045, B049, B052	Basic Positive **JS SH725** Double-sided positive **JSS AH725** Chip control → **JP SH725** B040, B048 Fracture → **JSS AH725** B052 B040, B045, B049, B052	Basic Positive **JS SH725** Double-sided positive **JSS AH725** B040, B045, B049, B052
Finishing to medium cutting [a_p = 0.020 ~ 0.118 in]	Basic Positive **JS SH725** Double-sided positive **JTS SH725** Chip control → **JP SH725** B040, B048 Fracture → **JSS AH725** B052 B040, B045, B049, B052	Basic Positive **JS SH725** Double-sided positive **JTS SH725** Chip control → **JP SH725** B040, B048 Fracture → **JSS AH725** B052 B040, B045, B049, B052	Basic Positive **JS AH725** Double-sided positive **JTS AH725** Fracture → **TS AH8015** B052 B040, B045, B049, B052
Medium cutting [a_p = 0.039 ~ 0.157 (0.118) in]	Basic Positive **JS SH725** Double-sided positive **JS SH725** Fracture → **PS AH8015 AH6225** B042, B046, B049 Fracture → **JSS AH725** B052 B040, B045, B049, B052	Basic Positive **PS AH8015 AH6225** Double-sided positive **JS SH725** Fracture → **JTS AH725** B052 B042, B046, B049, B052	Basic Positive **PS AH8015 AH6225** Double-sided positive **JS SH725** B042, B046, B049, B052

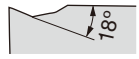
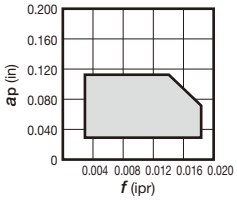
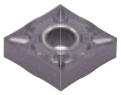
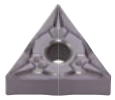
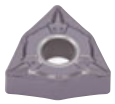
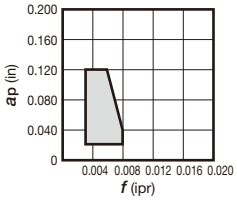
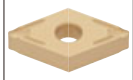
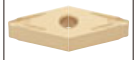
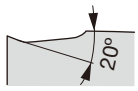
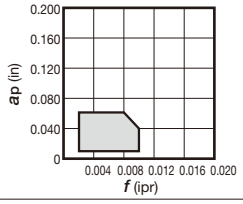
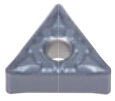
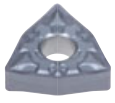
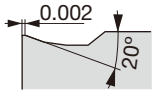
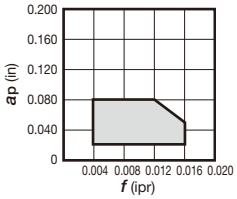
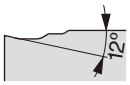
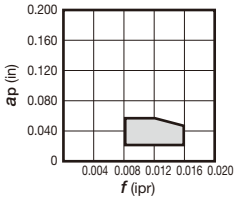
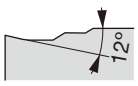
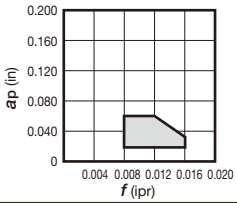
Please find the details on the pages: B***/7° relief angle, B***/11° relief angle, B***/5° relief angle, B***/Double-sided.

Chipbreaker Overview

Application	Negative type with hole	C	D	F	G	S	T	V	W	Y
										
		80°	55°	45°	70°	90°	60°	35°	80°	25°
Finishing	TF  	 B054	 B066			 B077	 B087	 B098	 B102	
	TSF  	 B054	 B066	 B075	 B075	 B077	 B087	 B098	 B102	
	PS  	 B054	 B066			 B077	 B087	 B098	 B102	
Finishing for mild steel	ZF  	 B054	 B066			 B077	B087	B098	B102	B110
Finishing	AS	B054	B066			B077	B087		B102	
	NS	B054	B066			B077	B087		B102	
	TS	B054	B067			B078	B088	B098	B103	

Chip control range

Please see the page B*** for the product details.

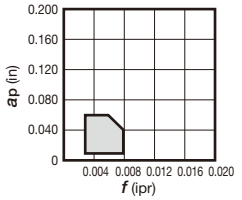
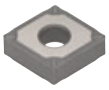
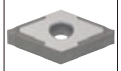
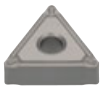
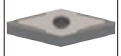
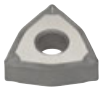
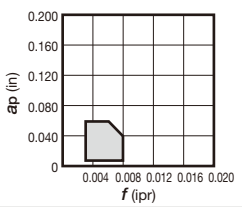
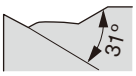
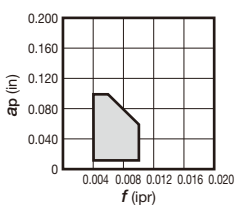
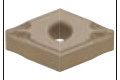
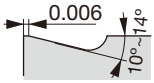
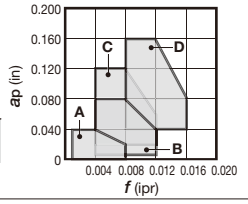
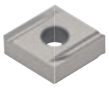
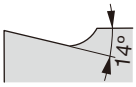
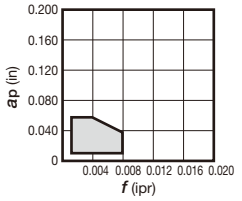
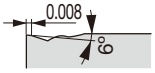
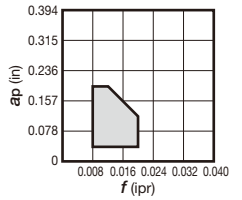
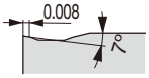
Application	Negative type with hole	C 80°	D 55°	S 90°	T 60°	V 35°	W 80°	Y 25°
Finishing	**SF**  	 B055	 B067	 B078	 B088	 B098	 B103	
	SS  	 B055	 B067	 B078	 B088	 B098	 B103	
	HRF  	 B055	 B067	 B078	 B088	 B098	 B103	
	CF 0.002  	 B055	 B068	 B078	 B088	 B099	 B104	
Finishing (wiper)	**FW**  	 B056	 B068		 B088		 B104	
	AFW  	B056					B104	
Finishing	**01**	B056	B068	B078	B089	B099	B104	

Chip control range

*-M,G: Without chipbreaker

Please see the page B*** for the product details.

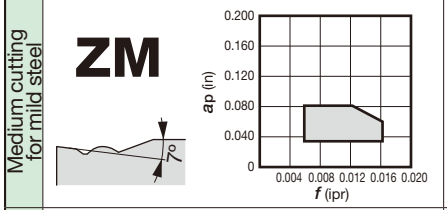
Chipbreaker Overview

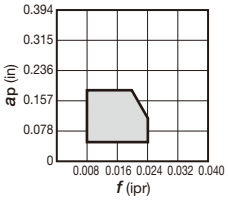
Application	Negative type with hole	C	D	F	G	S	T	V	W
		80°	55°	45°	70°	90°	60°	35°	80°
Finishing	11  	 B056	 B068			 B078	 B089	 B099	 B104
Finishing for mild steel	17  	 B056	 B068			 B079	 B089		 B104
Boring (double side)	CB  	 B056	 B068				 B089		 B104
Finishing	A~D  	 B056				 B079	 B090		
Finishing	W  						 B090		
Medium cutting	TM  	 B057	 B069	 B075	 B075	 B079	 B090	 B099	 B105
	PM 	B057	B069			B079	B091	B099	B105

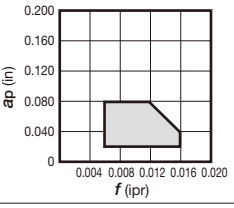
Chip control range

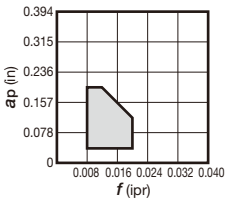
Please see the page B*** for the product details.

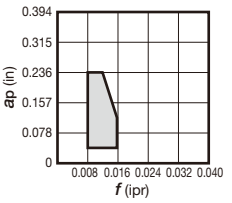
Application	Negative type with hole	C	D	S	T	V	W	Y
		80°	55°	90°	60°	35°	80°	25°
Medium cutting for mild steel	**ZM** 7°	B057	B069	B080	B091	B099	B105	B110
Medium cutting	**AM** 0.010 8°	B058	B069		B091		B106	
	NM 12°	B058	B070		B091		B106	
	DM 0.010 15°	B058	B070	B080	B092	B100	B106	
	All-round 0.008 15°	B058	B070	B080	B092	B100	B106	
	SM 0.010 10°	B059	B070	B080	B092	B100	B106	
	SDM 0.008 10°	B059	B070	B080	B092	B100	B106	

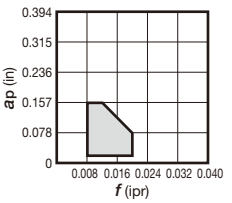


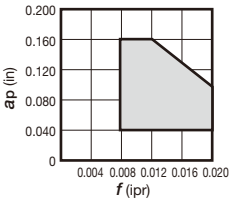




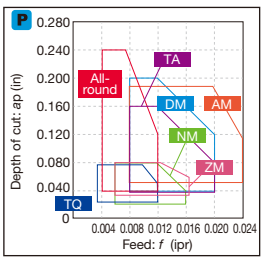


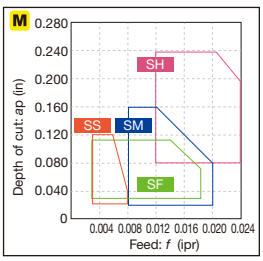


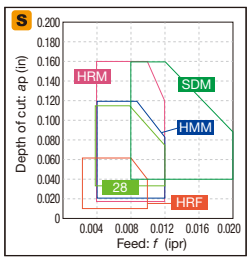




Chip control range

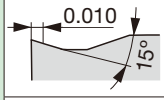
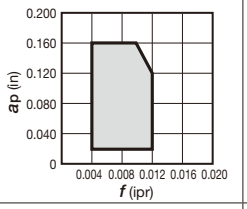
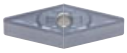
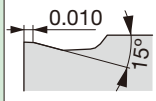
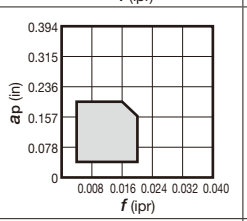
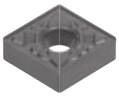
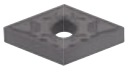
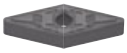
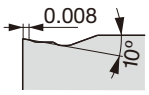
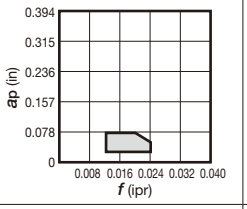
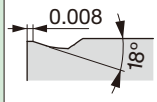
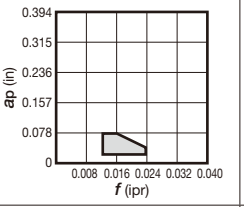
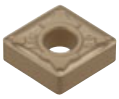
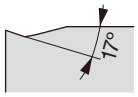
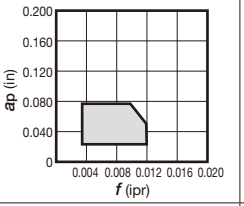
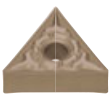
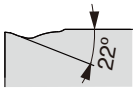
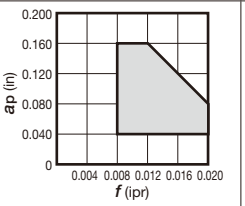
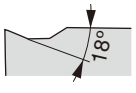






Please see the page B*** for the product details.

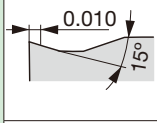
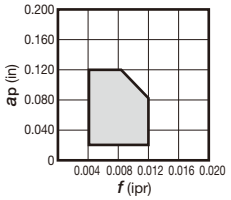
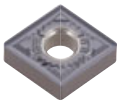
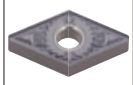
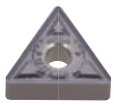
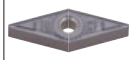
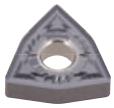
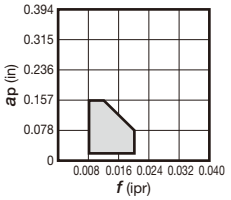
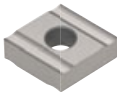
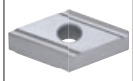
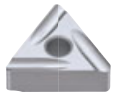
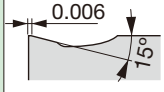
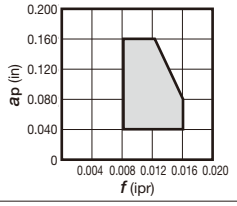
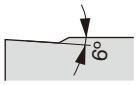
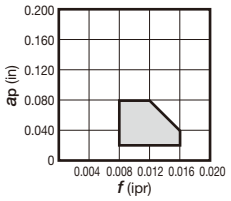
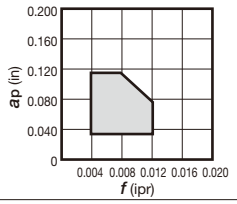
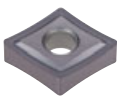
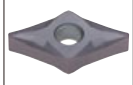
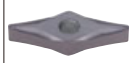
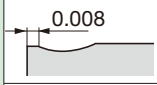
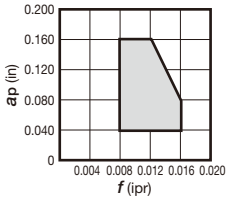
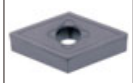
Chipbreaker Overview

Application	Negative type with hole	C 80°	D 55°	S 90°	T 60°	V 35°	W 80°	Y 25°
Medium cutting	**HRM**  	 B059	 B070	 B081	 B092	 B100	 B106	
Medium cutting	**CM**  	 B059	 B071	 B080	 B092	 B100	 B107	
Medium cutting (wiper)	**SW**  	 B059	 B071		 B093		 B107	
Medium cutting (wiper)	**ASW**  	 B060					 B107	
Medium cutting	**TQ**  	 B060	 B071		 B093	 B100	 B107	
Medium cutting	**TA**  	 B060		 B081	 B093		 B107	
Medium cutting	**SA** 	B060	B071	B081	B093		B108	

Chip control range

*-M,G: Without chipbreaker

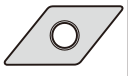
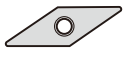
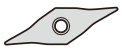
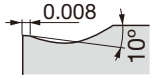
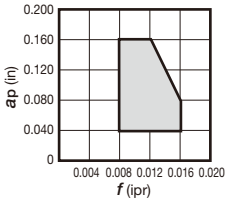
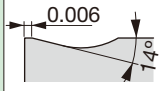
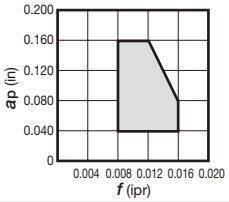
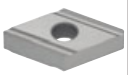
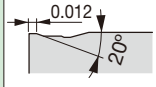
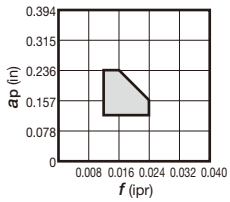
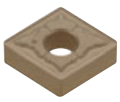
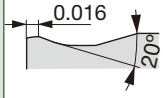
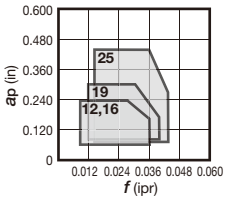
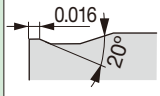
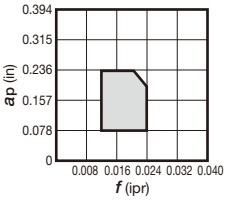
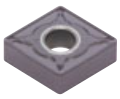
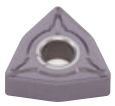
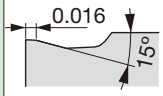
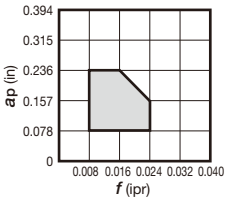
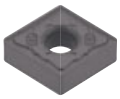
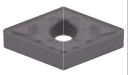
Please see the page B*** for the product details.

Application	Negative type with hole	C	D	S	T	V	W	Y
		80°	55°	90°	60°	35°	80°	25°
Medium cutting	**HMM**  	 B060	 B071	 B081	 B093	 B100	 B108	
	P  	 B060	 B072	 B081	 B094			
	S 0.006  	 B060	 B072	 B082	 B094			
	27  	 B061	 B072	 B082	 B094		 B108	
	28  	 B061	 B072		 B094	 B101		
	33 0.008  	 B061	 B072	 B082	 B094	 B101	B108	
	37 0.008	B061	B072	B082	B094		B108	

Chip control range

Please see the page B*** for the product details.

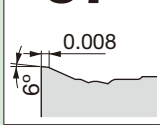
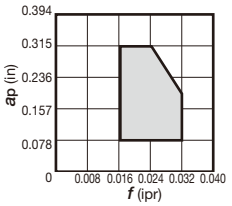
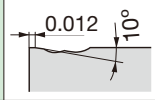
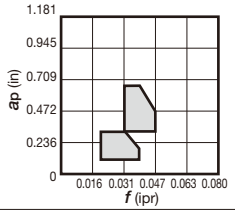
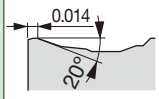
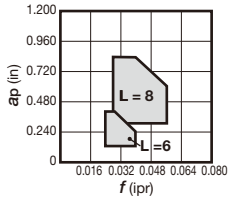
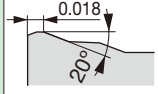
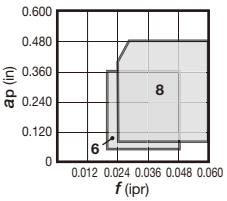
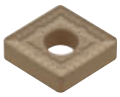
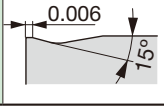
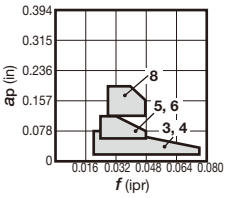
Chipbreaker Overview

Application	Negative type with hole	C	D	S	T	V	W	Y
								
		80°	55°	90°	60°	35°	80°	25°
Medium cutting	**38**  	 B061	 B072		 B095			
	Parallel  		 B072					
Medium to heavy cutting	**TH**  	 B061	 B073	 B082	 B095		 B108	
	THS  	 B062	 B073	 B082	 B095		 B108	
	SH  	 B062	 B073	 B083			 B109	
	CH  	 B062	 B073	 B083	B095		B109	
Medium to heavy cutting (single side)	**TRS**	B062		B083				

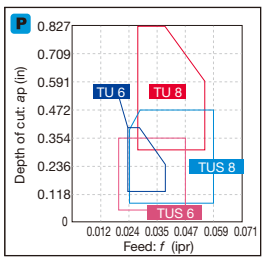
Chip control range

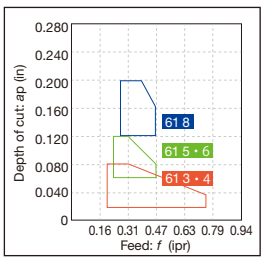
*-M,G: Without chipbreaker

Please see the page B*** for the product details.

Application	Negative type with hole	C	D	R	S	T	V	W
		80°	55°		90°	60°	35°	80°
Medium to heavy cutting (single side)	**57**  	 B062	 B073		 B083	 B095		
	65  	 B062			 B083			
Heavy cutting (single side)	**TU**  	 B063			 B084			
	TUS  	 B063			 B084			
Heavy cutting	**61**  			 B076				

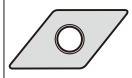
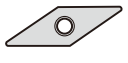
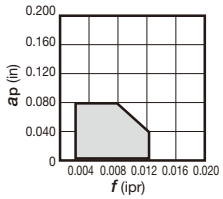
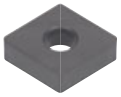
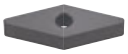
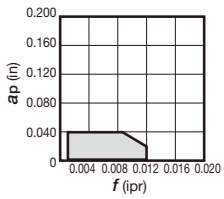
Chip control range

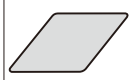
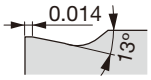
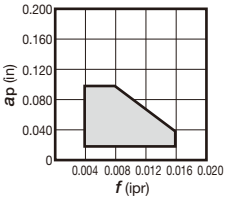




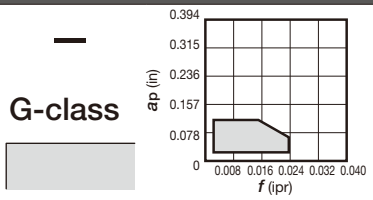
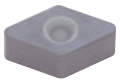
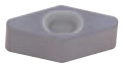
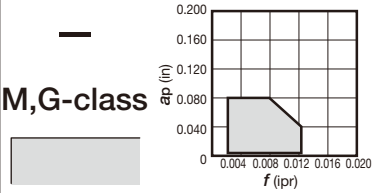
Please see the page B*** for the product details.

Chipbreaker Overview

Application	Negative type with hole	C	D	R	S	T	V	W
								
		80°	55°		90°	60°	35°	80°
Finishing to medium cutting	— M,G-class  	 B063	 B073, B074	 B076	 B084	 B096	 B101	 B109
	Wiper M-class  	 B064						

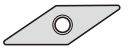
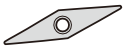
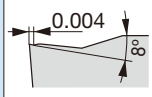
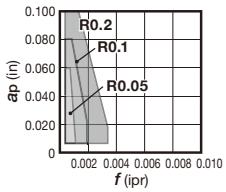
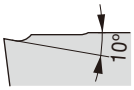
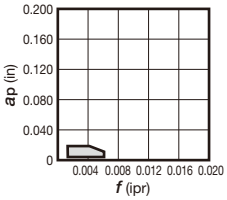
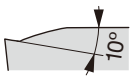
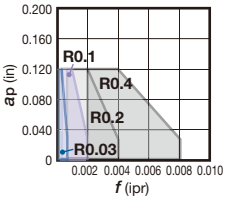
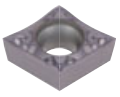
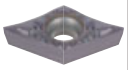
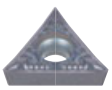
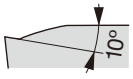
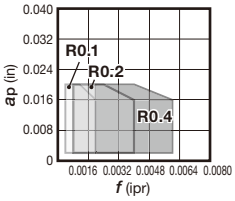
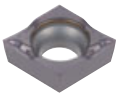
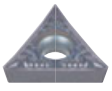
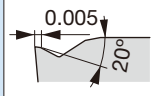
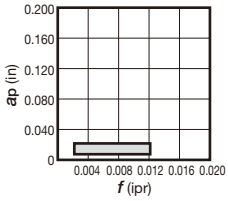
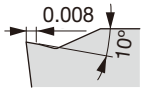
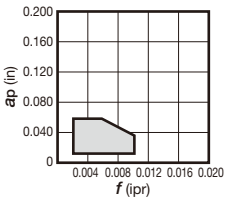
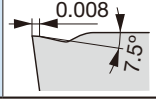
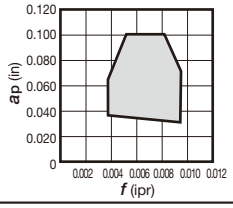
Application	Negative type without hole	C	D	KNMX	LNGN	R	S	T
								
		80°	55°	55°	90°		90°	60°
Finishing	S1  			 B110				

Please see the page B*** for the product details.

Application	Negative type without hole	C	D	H	R	S	T	V
		80°	55°	120°		90°	60°	35°
Finishing to medium cutting	G-class 	 B065	 B074	 B111		 B085		 B101
	M,G-class 	 B065	 B074		 B076	 B085	 B097	

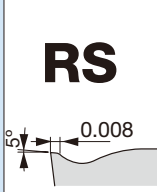
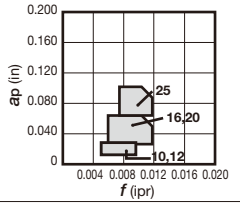
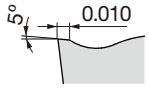
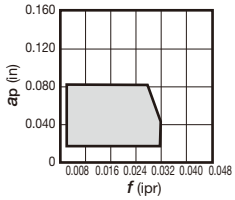
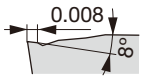
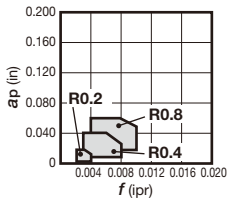
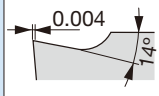
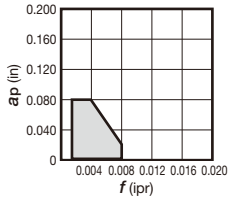
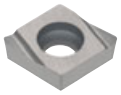
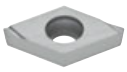
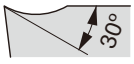
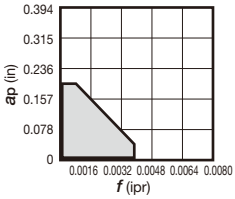
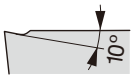
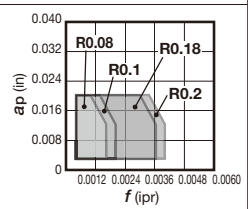
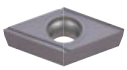
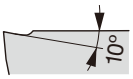
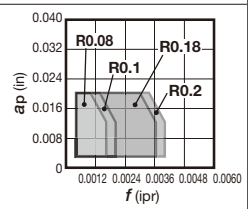
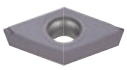
Please see the page B*** for the product details.

Chipbreaker Overview

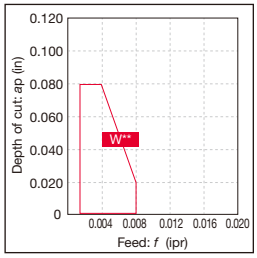
Application	Positive 7° with hole	C	D	R	S	T	V	Y
								
		80°	55°		90°	60°	35°	25°
Precision finishing (sharp edge)	JP  	 B112	 B121			 B138		
	01  	 B112	 B121			 B138		
Finishing (sharp edge)	JS  	 B112	 B121			 B138		
Finishing	JS  	 B112	 B121			 B138		
	PSF  	 B113	 B121			 B138	 B152	
	PF  	 B113	 B122				 B152	
	TSF  	B113	B122			B138	B152	

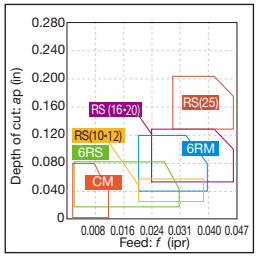
Chip control range

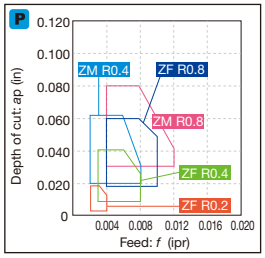
Please see the page B*** for the product details.

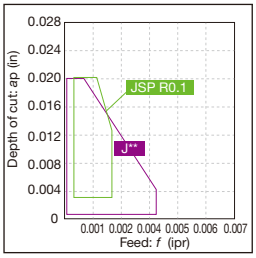
Application	Positive 7° with hole	C 80°	D 55°	R	S 90°	T 60°	V 35°	Y 25°
Finishing	**RS**  			 B130				
Finishing	**6RS**  			 B130				
Finishing	**ZF**  							 B159
Finishing	**W****  	 B114, B115	 B122			 B139		
Finishing	**J****  	 B113	 B122			 B139		
Finishing (sharp edge)	**JPP**  		 B123					
Finishing (sharp edge)	**JRP**  		 B123					

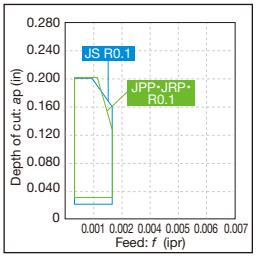
Chip control range





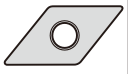
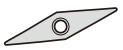
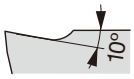
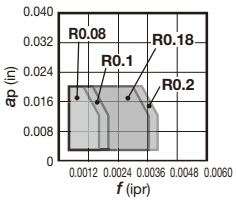
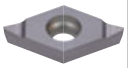
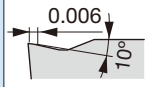
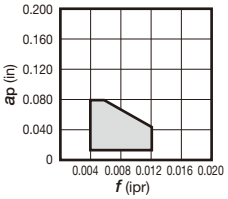
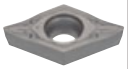
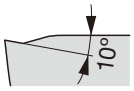
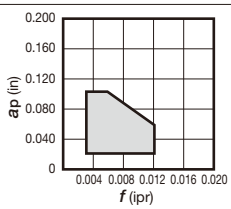
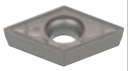
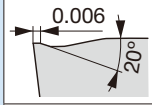
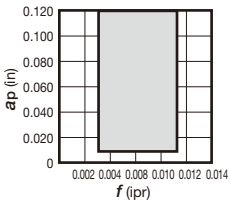
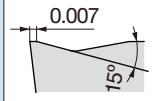
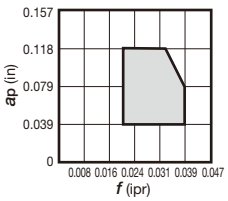
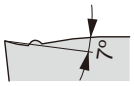
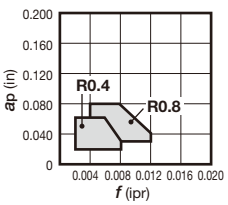
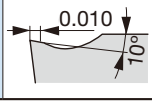
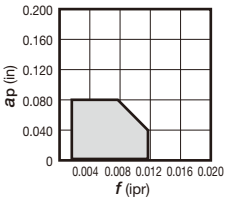






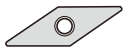
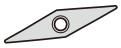
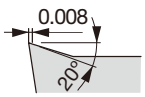
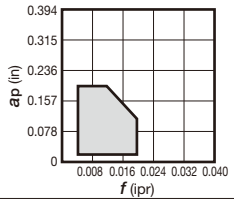
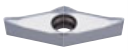
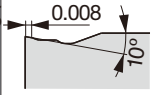
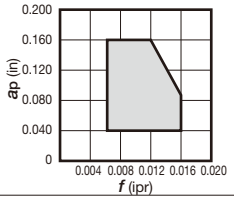
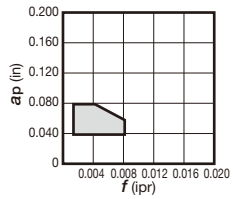
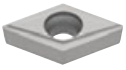
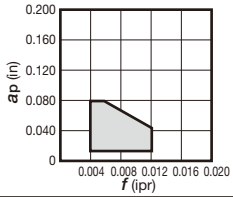
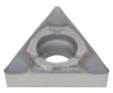
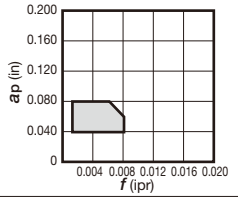
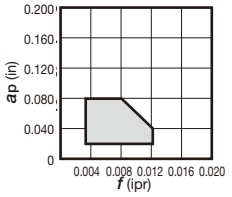
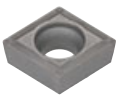
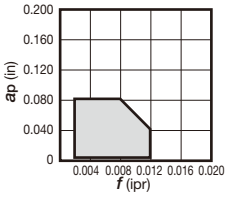
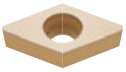
Please see the page B*** for the product details.

Chipbreaker Overview

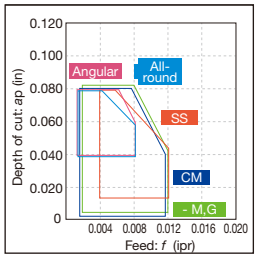
Application	Positive 7° with hole	C	D	R	S	T	V	Y
								
		80°	55°		90°	60°	35°	25°
Finishing (sharp edge)	**JSP**  		 B123					
Finishing to medium cutting	**PSS**  	 B115	 B124			 B140	 B152	
	PS  	 B115	 B124		 B134	 B140	 B152	
	TM  	 B115	 B124			 B140	 B152	
	6RM  			 B130				
	ZM  							 B159
	CM  	 B115	 B124	 B130	B134	B140	B152	

Chip control range

Please see the page B*** for the product details.

Application	Positive 7° with hole	C	D	R	S	T	V	Y
								
		80°	55°		90°	60°	35°	25°
Finishing to medium cutting (for non-ferrous alloys)	**AL**  	 B116	 B124	 B130		 B140	 B153	
Finishing to medium cutting (wiper)	**SW**  	 B116						
Finishing to medium cutting	**All-round**  	 B116	 B124				 B153	
	SS  					 B141		
	Angular  	 B116	 B124					
	23  	 B116	 B125		 B134	 B141		
	— **M,G-class**  	 B116, B117	 B125					

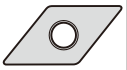
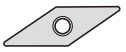
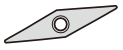
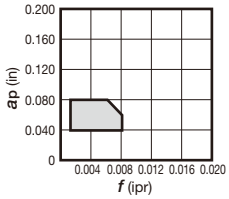
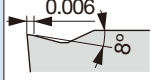
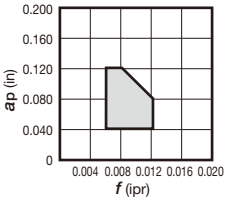
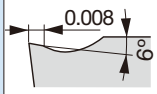
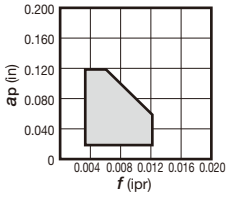
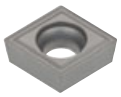
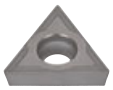
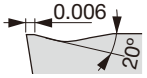
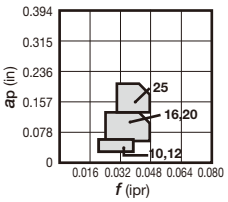
Chip control range



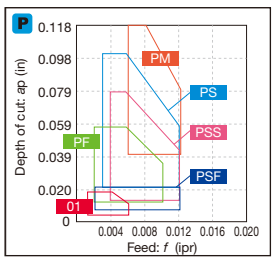
*-M,G: Without chipbreaker

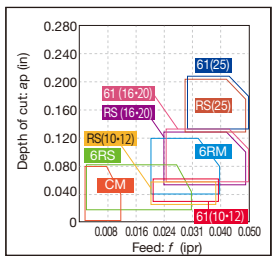
Please see the page B*** for the product details.

Chipbreaker Overview

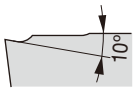
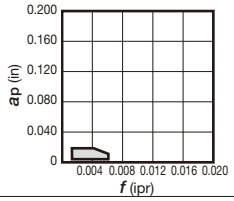
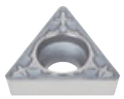
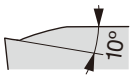
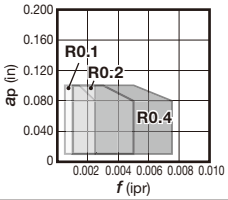
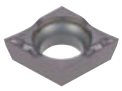
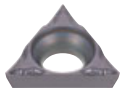
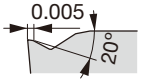
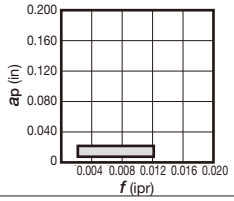
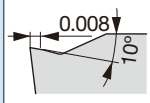
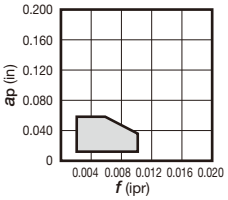
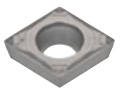
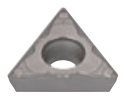
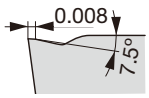
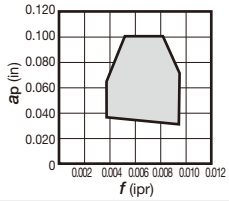
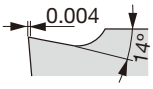
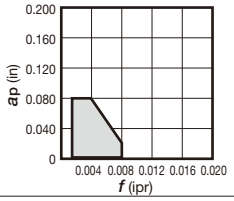
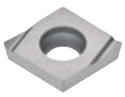
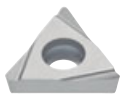
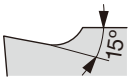
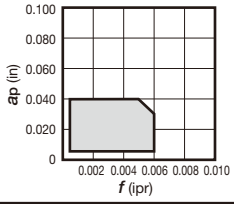
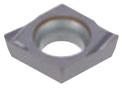
Application	Positive 7° with hole	C	D	R	S	T	V	Y
								
		80°	55°		90°	60°	35°	25°
Finishing to medium cutting	— (with hand)  					 B141		
	PM  	 B117	 B125		 B134	 B141		
	24  	 B117	 B125		 B134	 B141	 B153	
Heavy cutting	61  			 B131				

Chip control range

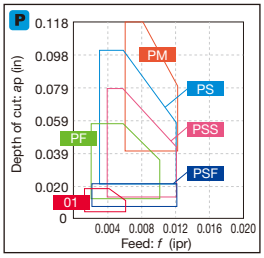


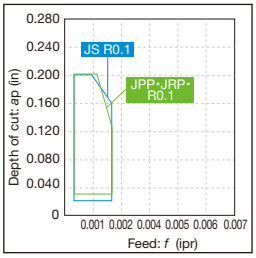


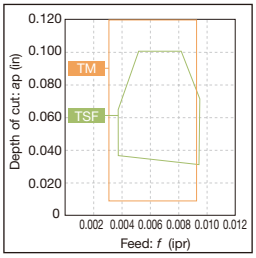
Please see the page B*** for the product details.

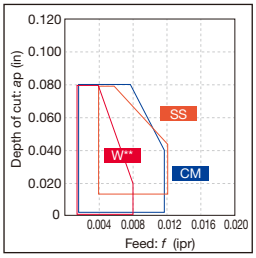
Application	Positive 11° with hole	C	D	E	S	T
		80°	55°	75°	90°	60°
Precision finishing	**01**  					 B142
Precision finishing	**JS**  			 B128		 B142
Finishing	**PSF**  	 B118				 B142
Finishing	**PF**  	 B118				 B142
Finishing	**TSF**  	 B118	 B126			 B143
Finishing	**W****  	 B118		 B129	 B135	 B143, B144
Finishing	**J08**  			 B128		

Chip control range



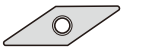
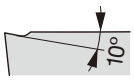
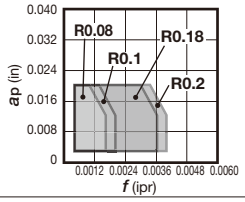
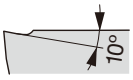
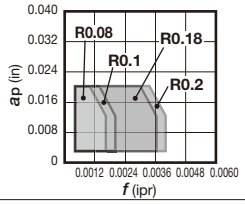
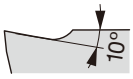
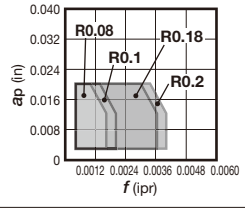
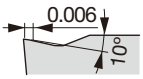
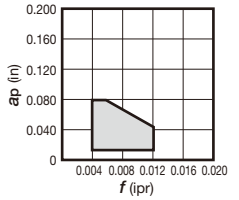
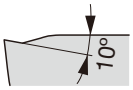
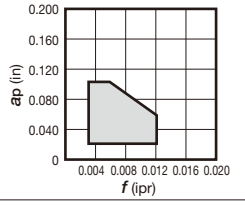
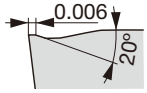
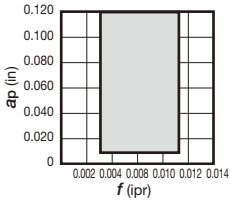
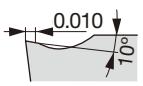
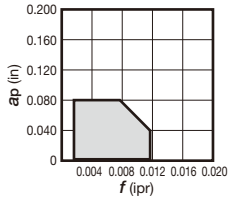




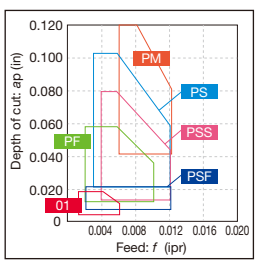


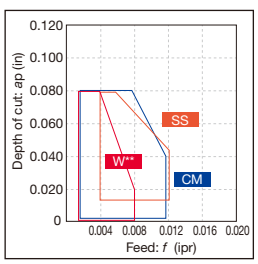
Please see the page B*** for the product details.

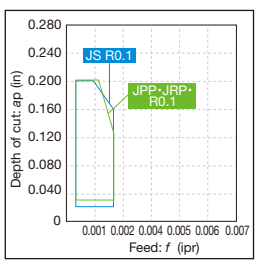
Chipbreaker Overview

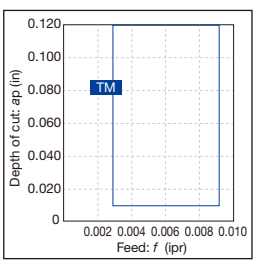
Application	Positive 11° with hole	C	D	S	T	V
						
		80°	55°	90°	60°	35°
Finishing (sharp edge)	**JPP**  					 B154
Finishing (sharp edge)	**JRP**  					 B154
Finishing (sharp edge)	**JSP**  					 B154
Finishing to medium cutting	**PSS**  	 B118			 B145	
Finishing to medium cutting	**PS**  	 B119	 B126	 B135	 B145	
Finishing to medium cutting	**TM**  	 B119	 B126		 B145	
Finishing to medium cutting	**CM**  	 B119		 B135	 B146	

Chip control range



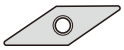
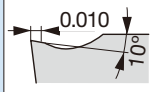
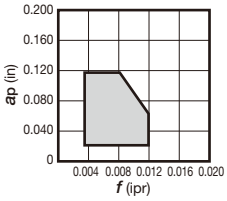
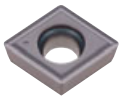
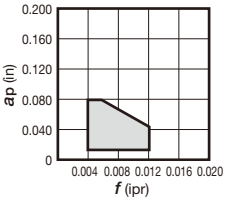
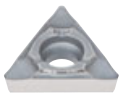
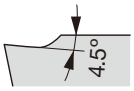
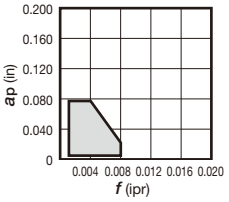
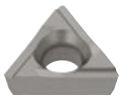
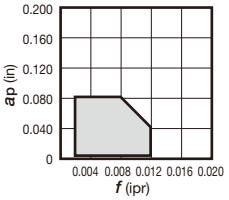
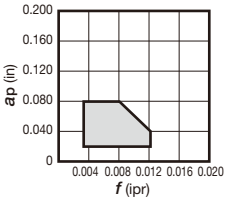
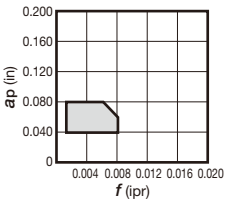
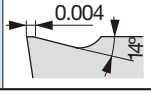
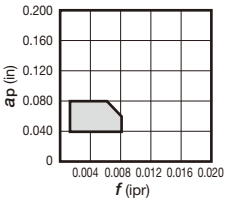
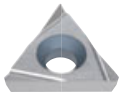




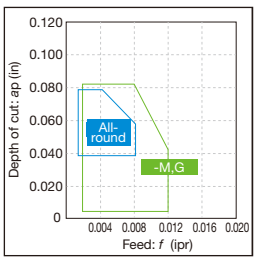


*Chip control range with typical R0.1

Please see the page B*** for the product details.

Application	Positive 11° with hole	C	S	T	V
					
		80°	90°	60°	35°
Finishing to medium cutting	**All-round**  	 B119			
	SS  			 B144	
	H**  			 B146	
	— **M,G-class**  	 B120	 B136	 B147	
	23  		 B135	 B146	
	— **(with hand)**  		 (Tungaloy standard hole specification) ISO non-compliant B136		
	— **(with hand)**  			 (Tungaloy standard hole specification) ISO non-compliant B146	

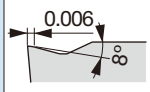
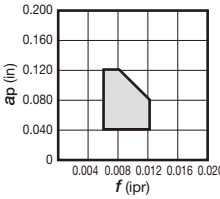
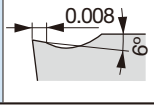
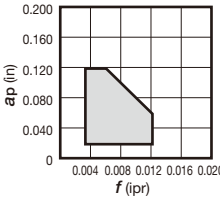
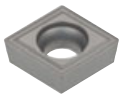
Chip control range

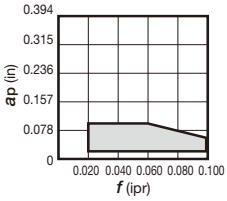


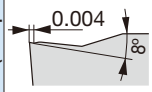
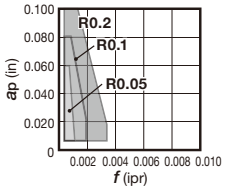
*-M,G: Without chipbreaker

Please see the page B*** for the product details.

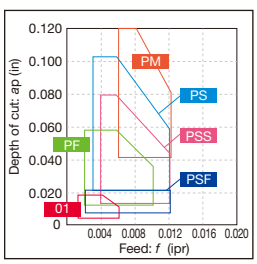
Chipbreaker Overview

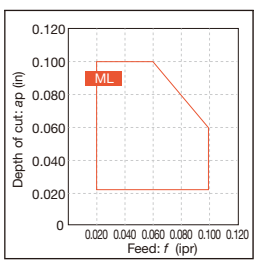
Application	Positive 11° with hole	C	S	T
		80°	90°	60°
Medium cutting	PM  	 B120		 B147
	24  	 B120	 B136	 B147

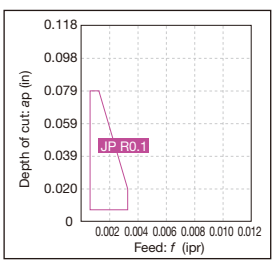
Application	Positive 11° with hole	W
		80°
Heavy cutting	ML  	 B155

Application	Positive 5° with hole	V
		35°
Precision finishing (sharp edge)	JP  	 B150

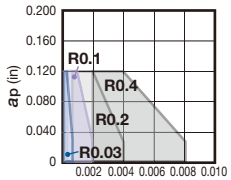
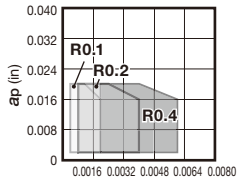
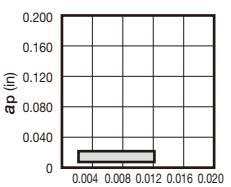
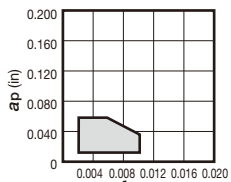
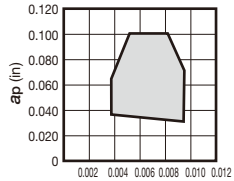
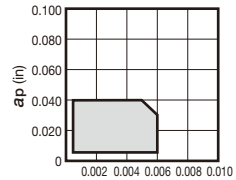
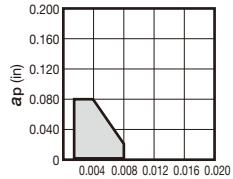
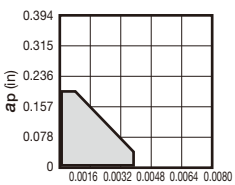
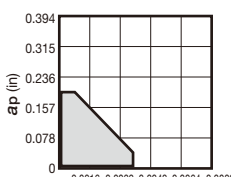
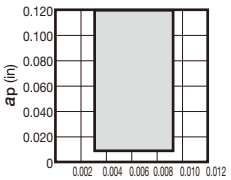
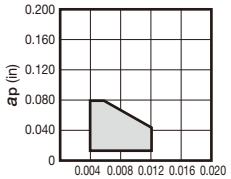
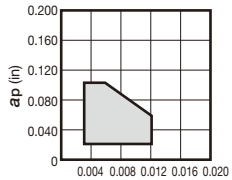
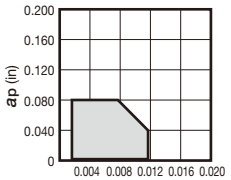
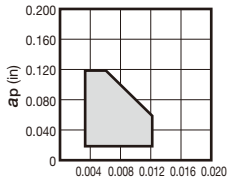
Chip control range



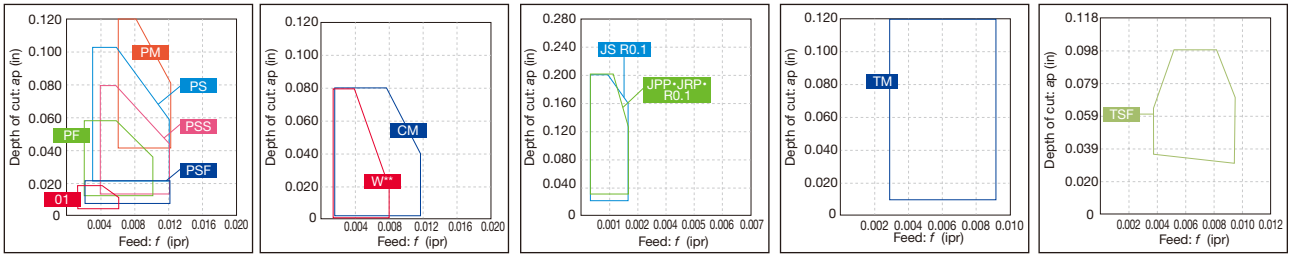




Please see the page B*** for the product details.

Application	Positive 5° with hole	V 35°	W 80°
Finishing (sharp edge)	**JS** 10° 	B150	
Finishing (sharp edge)	**JS** 10° 		B156
Finishing	**PSF** 0.005 20° 	B150	
Finishing	**PF** 0.008 10° 	B150	
Finishing	**TSF** 0.008 7.5° 	B150	
Finishing	**W08** 15° 		B156
Finishing	**W11** 15° 		B156
Finishing (sharp edge)	**J10** 30° 	B150	
Finishing	**J10** 30° 	B150	
Finishing to medium cutting	**TM** 0.006 20° 	B151	
Finishing to medium cutting	**PSS** 0.006 10° 	B151	
Finishing to medium cutting	**PS** 10° 	B151	
Finishing to medium cutting	**CM** 0.010 10° 	B151	
Medium cutting	**24** 0.008 6° 	B151	

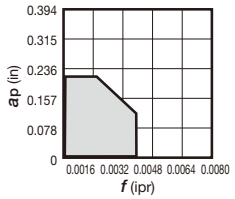
Chip control range

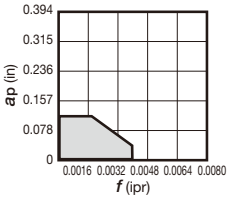


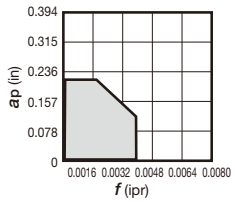
*Chip control range with typical R0.1

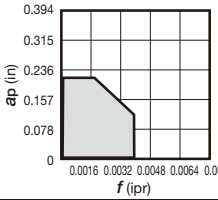
Please see the page B*** for the product details.

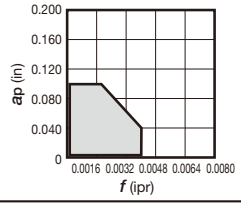
Chipbreaker Overview

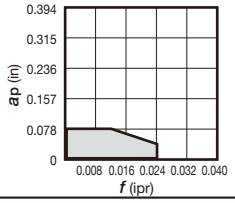
Application	Positive type with hole	JXF
Front turning	— 	 B159

Application	Positive type with hole	J10E
Back turning	— 	 B161

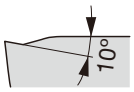
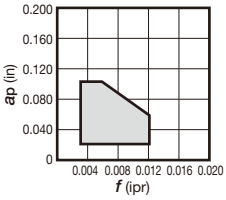
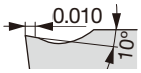
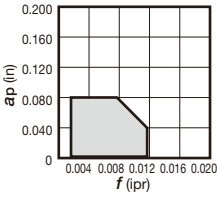
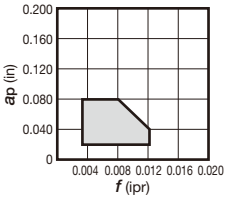
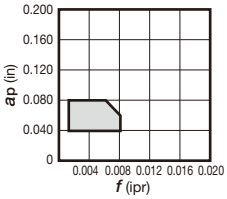
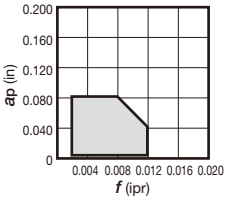
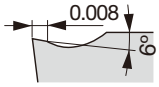
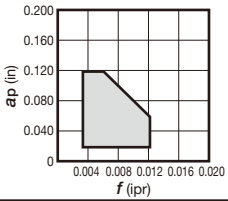
Application	Positive type with hole	JXB
Back turning	— 	 B160

Application	Positive type with hole	JXR
Reverse turning	— 	 B160

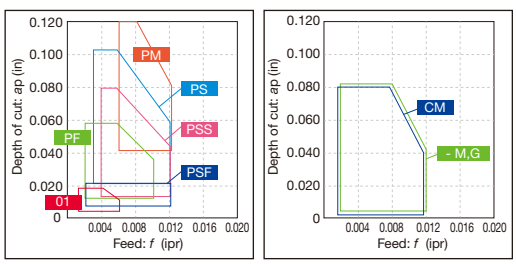
Application	Positive type with hole	JTB
Back turning	— 	 B161

Application	Round	RT
Medium cutting	— 	 Special round insert B131

Please see the page B*** for the product details.

Application	Positive 11° without hole	R	S	T
			90°	60°
Finishing to medium cutting	**PS**  			 B148
	CM  		 B137	 B148
	23  		 B137	 B148
	— (with hand)  		 B137	 B148
	— M,G-class  		 B137	 B148, B149
Medium cutting	**24**  			 B149

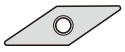
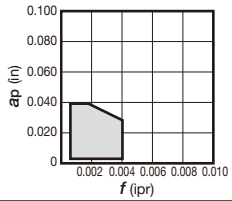
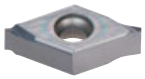
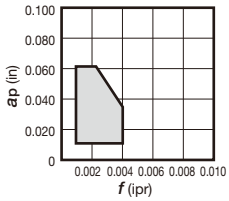
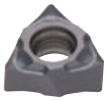
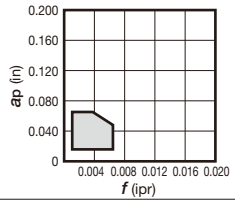
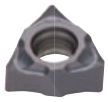
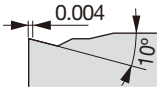
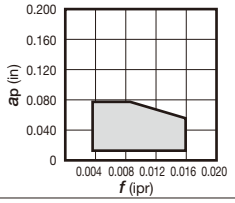
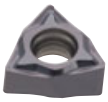
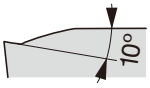
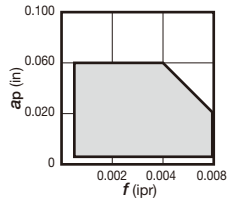
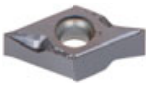
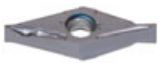
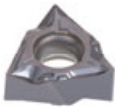
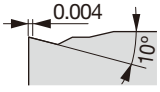
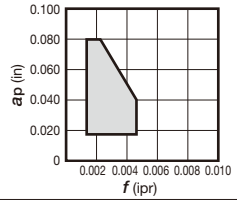
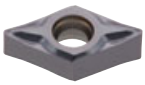
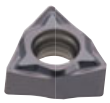
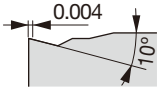
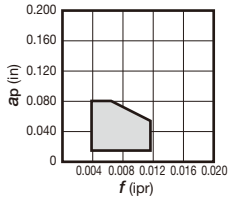
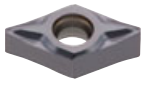
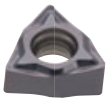
Chip control range



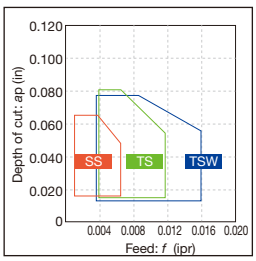
*-M,G: Without chipbreaker

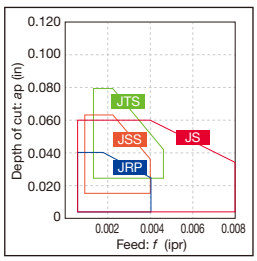
Please see the page B*** for the product details.

Chipbreaker Overview

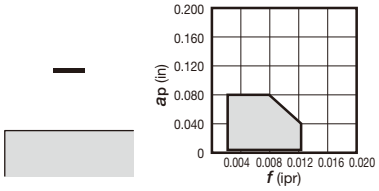
Application	Double-sided positive type with hole	C	D	V	W
					
		80°	55°	35°	80°
Finishing (sharp edge)	**JRP**  		 B126	 B155	
Finishing (sharp edge)	**JSS**  		 B126, B127		 B157
Finishing to medium cutting	**SS**  		 B127		 B157
Finishing	**TSW**  				 B157
Finishing to medium cutting (sharp edge)	**JS**  		 B127	 B155	 B157
Finishing to medium cutting (sharp edge)	**JTS**  		 B127		 B158
Finishing to medium cutting	**TS**  	 B120	 B127		 B158

Chip control range





Please see the page B*** for the product details.

Application	Positive 7° without hole	RCGX
		Special round insert
Medium cutting		 B132

Please see the page B*** for the product details.

Insert NEGATIVE TYPE

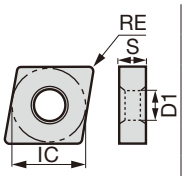
● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

CN



Rhombic, 80° with hole

		T9205	T9215	T9225	T9235	T6215	T505	T515	AH8015	AH6225	AH120	GT9530	AT9530	NS9530	NS520	TH10
P	Steel	●	●ɔ	●✠	✠	ɔ				ɔ✠	●ɔ	●ɔ	●ɔ		●ɔ	●ɔ	●
M	Stainless		●ɔ			●			ɔ	●ɔ	●ɔ					●
K	Cast iron	●ɔ	●ɔ				●	●ɔ			●ɔ	●ɔ	●ɔ		●ɔ	●ɔ	●
N	Non-ferrous																●
S	Superalloy								ɔ		●ɔ						
H	Hard material																



Application	Chipbreaker	Designation Inch	Designation Metric	RE	IC	S	D1
Finishing	TF	CNMG 330.5E TF	CNMG090402E-TF	0.008	0.375	0.187	0.150
		CNMG 331E TF	CNMG090404E-TF	0.016	0.375	0.187	0.150
		CNMG 332E TF	CNMG090408E-TF	0.031	0.375	0.187	0.150
		CNMG 430.5 TF	CNMG120402-TF	0.008	0.500	0.187	0.203
		CNMG 431 TF	CNMG120404-TF	0.016	0.500	0.187	0.203
		CNMG 432 TF	CNMG120408-TF	0.031	0.500	0.187	0.203
	TSF	CNMG 330.5E TSF	CNMG090402E-TSF	0.008	0.375	0.187	0.150
		CNMG 331E TSF	CNMG090404E-TSF	0.016	0.375	0.187	0.150
		CNMG 332E TSF	CNMG090408E-TSF	0.031	0.375	0.187	0.150
		CNMG 430.5 TSF	CNMG120402-TSF	0.008	0.500	0.187	0.203
		CNMG 431 TSF	CNMG120404-TSF	0.016	0.500	0.187	0.203
		CNMG 432 TSF	CNMG120408-TSF	0.031	0.500	0.187	0.203
		CNMG 433 TSF	CNMG120412-TSF	0.047	0.500	0.187	0.203
	PS	CNMG 330.5E PS	CNMG090402E-PS	0.008	0.375	0.187	0.150
		CNMG 331E PS	CNMG090404E-PS	0.016	0.375	0.187	0.150
		CNMG 332E PS	CNMG090408E-PS	0.031	0.375	0.187	0.150
		CNMG 430.5 PS	CNMG120402-PS	0.008	0.500	0.187	0.203
		CNMG 431 PS	CNMG120404-PS	0.016	0.500	0.187	0.203
		CNMG 432 PS	CNMG120408-PS	0.031	0.500	0.187	0.203
		CNMG 433 PS	CNMG120412-PS	0.047	0.500	0.187	0.203
Finishing for mild steel	ZF	CNMG 330.5E ZF	CNMG090402E-ZF	0.008	0.375	0.187	0.150
		CNMG 331E ZF	CNMG090404E-ZF	0.016	0.375	0.187	0.150
		CNMG 332E ZF	CNMG090408E-ZF	0.031	0.375	0.187	0.150
		CNMG 430.5 ZF	CNMG120402-ZF	0.008	0.500	0.187	0.203
		CNMG 431 ZF	CNMG120404-ZF	0.016	0.500	0.187	0.203
		CNMG 432 ZF	CNMG120408-ZF	0.031	0.500	0.187	0.203
		CNMG 433 ZF	CNMG120412-ZF	0.047	0.500	0.187	0.203
Finishing	AS	CNMG 431 AS	CNMG120404-AS	0.016	0.500	0.187	0.203
		CNMG 432 AS	CNMG120408-AS	0.031	0.500	0.187	0.203
		CNMG 433 AS	CNMG120412-AS	0.047	0.500	0.187	0.203
	NS	CNMG 431 NS	CNMG120404-NS	0.016	0.500	0.187	0.203
		CNMG 432 NS	CNMG120408-NS	0.031	0.500	0.187	0.203
	TS	CNMG 330.5E TS	CNMG090402E-TS	0.008	0.375	0.187	0.150
		CNMG 331E TS	CNMG090404E-TS	0.016	0.375	0.187	0.150
		CNMG 332E TS	CNMG090408E-TS	0.031	0.375	0.187	0.150
		CNMG 430.5 TS	CNMG120402-TS	0.008	0.500	0.187	0.203
		CNMG 431 TS	CNMG120404-TS	0.016	0.500	0.187	0.203
		CNMG 432 TS	CNMG120408-TS	0.031	0.500	0.187	0.203
		CNMG 433 TS	CNMG120412-TS	0.047	0.500	0.187	0.203

● : Line up

Reference pages: External toolholder → C019 - Internal toolholder → D027 -
J-Series toolholder → G036 TungCap → K008 -

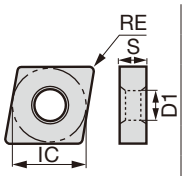
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

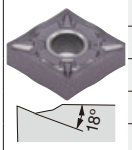
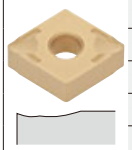
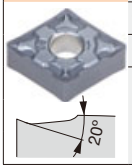
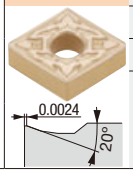
CN



Rhombic, 80° with hole

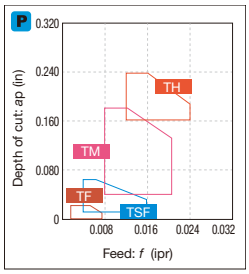
P	Steel	ɔ					ɔ✣	✣	●ɔ	●ɔ											
M	Stainless	●			●	ɔ	●ɔ	✣	●ɔ	●ɔ											
K	Cast iron		●	ɔ					●ɔ	●ɔ											
N	Non-ferrous																				
S	Superalloy				●	ɔ			●ɔ												
H	Hard material																				

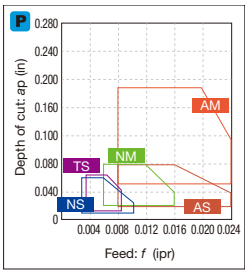


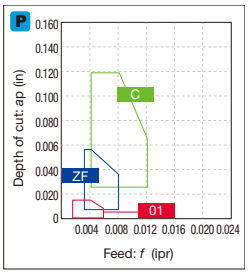
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T6215	T5105	T5115	AH8005	AH8015	AH6225	AH6235	AH120	GH330	Dimension (in) RE	IC	S	D1
Finishing	**SF**	**CNMG 321 SF**	**CNMG090304-SF**	●					●				0.016	0.375	0.125	0.150
		CNMG 322 SF	CNMG090308-SF	●					●				0.031	0.375	0.125	0.150
		CNMG 431 SF	**CNMG120404-SF**	●					●				0.016	0.500	0.187	0.203
		CNMG 432 SF	CNMG120408-SF	●					●				0.031	0.500	0.187	0.203
		CNMG 433 SF	CNMG120412-SF	●					●				0.047	0.500	0.187	0.203
	SS	**CNMG 331E SS**	**CNMG090404E-SS**						●	●			0.016	0.375	0.187	0.150
		CNMG 332E SS	CNMG090408E-SS						●	●			0.031	0.375	0.187	0.150
		CNMG 431 SS	**CNMG120404-SS**	●					●	●	●	●	0.016	0.500	0.187	0.203
		CNMG 432 SS	CNMG120408-SS	●					●	●	●	●	0.031	0.500	0.187	0.203
		CNMG 433 SS	CNMG120412-SS	●					●	●		●	0.047	0.500	0.187	0.203
	HRF	**CNMG 431 HRF**	**CNMG120404-HRF**				●	●					0.016	0.500	0.187	0.203
		CNMG 432 HRF	CNMG120408-HRF				●	●					0.031	0.500	0.187	0.203
		CNMG 433 HRF	CNMG120412-HRF				●	●					0.047	0.500	0.187	0.203
	CF	**CNMG 431 CF**	**CNMG120404-CF**		●	●							0.016	0.500	0.187	0.203
		CNMG 432 CF	CNMG120408-CF		●	●							0.031	0.500	0.187	0.203
		CNMG 433 CF	CNMG120412-CF		●	●							0.047	0.500	0.187	0.203

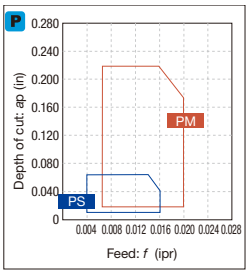
● : Line up

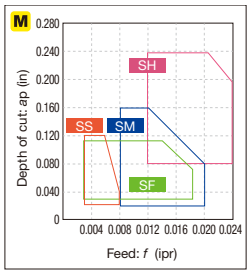
Chip control range

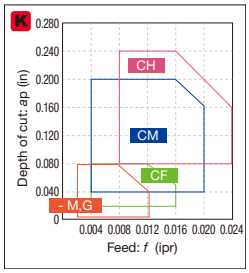


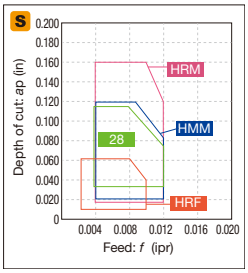












*-M,G: Without chipbreaker

Reference pages: External toolholder → C019 - Internal toolholder → D027 -
J-Series toolholder → G036 TungCap → K008 -

Insert NEGATIVE TYPE

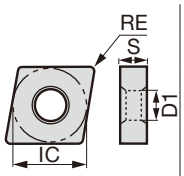
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

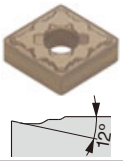
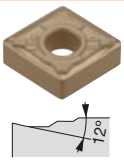
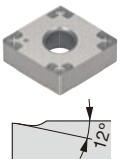
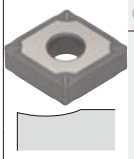
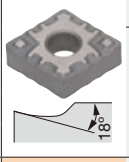
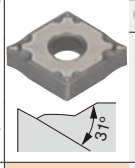
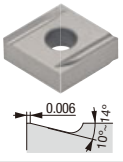
CN



Rhombic, 80° with hole

		T9205	T9215	T9225	T9235	T5105	AH110	GT9530	GT720	NS9530	NS520	TH10
P	Steel	●	◐	◐	✠		●	◐	◐	◐	◐	●
M	Stainless		◐				●					●
K	Cast iron	◐	◐			●	●	◐	◐	◐	◐	●
N	Non-ferrous											●
S	Superalloy						●					
H	Hard material											



Application	Chipbreaker	Designation Inch	Designation Metric	Coated						Coated cermet		Cermet		Uncoated	Dimension (in)			
				T9205	T9215	T9225	T9235	T5105	AH110	GT9530	GT720	NS9530	NS520	TH10	RE	IC	S	D1
Finishing (wiper)	**FW**	**CNMG 331E FW**	**CNMG090404E-FW**	●	●	●				●		●			0.016	0.375	0.187	0.150
		**CNMG 332E FW**	**CNMG090408E-FW**	●	●	●				●		●			0.031	0.375	0.187	0.150
		CNMG 431 FW	**CNMG120404-FW**		●					●		●			0.016	0.500	0.187	0.203
		CNMG 432 FW	**CNMG120408-FW**	●	●	●				●		●			0.031	0.500	0.187	0.203
		*Wiper																
	AFW	**CNMG 431 AFW**	**CNMG120404-AFW**		●	●				●		●			0.016	0.500	0.187	0.203
		**CNMG 432 AFW**	**CNMG120408-AFW**	●	●	●	●	●		●					0.031	0.500	0.187	0.203
Finishing	**01**	**CNGG 320.5-01**	**CNGG090302-01**									●			0.008	0.375	0.125	0.150
		**CNGG 321-01**	**CNGG090304-01**									●			0.016	0.375	0.125	0.150
		CNGG 322-01	**CNGG090308-01**									●			0.031	0.375	0.125	0.150
		CNGG 430-01	**CNGG120401-01**						●						0.004	0.500	0.187	0.203
		CNGG 430.5-01	**CNGG120402-01**						●			●	●	●	0.008	0.500	0.187	0.203
		CNGG 431-01	**CNGG120404-01**						●			●	●	●	0.016	0.500	0.187	0.203
		CNGG 432-01	**CNGG120408-01**						●			●	●	●	0.031	0.500	0.187	0.203
	11	**CNMG 431-11**	**CNMG120404-11**							●		●		●	0.016	0.500	0.187	0.203
		**CNMG 432-11**	**CNMG120408-11**							●	●	●		●	0.031	0.500	0.187	0.203
Finishing for mild steel	**17**	**CNMG 431-17**	**CNMG120404-17**									●			0.016	0.500	0.187	0.203
		**CNMG 432-17**	**CNMG120408-17**									●			0.031	0.500	0.187	0.203
Boring (double sided)	**CB**	**CNMG 321 CB**	**CNMG090304-CB**									●			0.016	0.375	0.125	0.150
		**CNMG 322 CB**	**CNMG090308-CB**									●			0.031	0.375	0.125	0.150
Finishing	**C**	**CNGG 431 R-C**	**CNGG120404R-C**									●			0.016	0.500	0.187	0.203
		**CNGG 431 L-C**	**CNGG120404L-C**									●			0.016	0.500	0.187	0.203
		CNGG 432 R-C	**CNGG120408R-C**									●			0.031	0.500	0.187	0.203
		CNGG 432 L-C	**CNGG120408L-C**									●			0.031	0.500	0.187	0.203

* Please see **L011 - L015** about the adjustment of the machining program for rounding or taper machining when using SW/FW.
Please contact our sales representatives if you have any questions.

● : Line up

Reference pages: External toolholder → C019 - Internal toolholder → D027 -
J-Series toolholder → G036 TungCap → K008 -

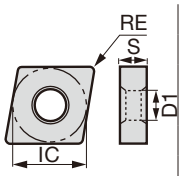
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

CN



Rhombic, 80° with hole

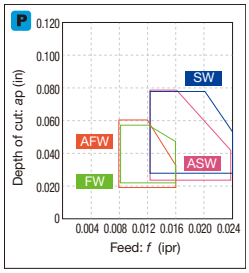
P	Steel	● ●ɔ ɔ✣ ✣ ɔ ɔ ✣ ✣ ɔ ● ●ɔ ●ɔ ●ɔ
M	Stainless	●ɔ ● ɔ ●ɔ ✣ ɔ ● ●ɔ ●ɔ ●ɔ
K	Cast iron	●ɔ ●ɔ ●ɔ ɔ ● ●ɔ ●ɔ
N	Non-ferrous	
S	Superalloy	ɔ ● ● ●ɔ
H	Hard material	

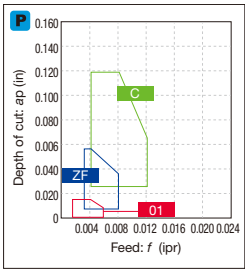


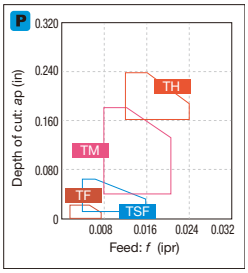
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T6215	T515	AH8015	AH6225	AH6235	AH725	AH110	AH120	Coated cermet GT9530	Cermet NS9530	Dimension (in) RE	IC	S	D1
Medium cutting	TM	CNMG 321 TM	CNMG090304-TM		●	●												0.016	0.375	0.125	0.150
		CNMG 322 TM	CNMG090308-TM		●	●	●											0.031	0.375	0.125	0.150
		CNMG 331E TM	CNMG090404E-TM		●	●		●	●	●	●				●			0.016	0.375	0.187	0.150
		CNMG 332E TM	CNMG090408E-TM		●	●		●	●	●	●				●			0.031	0.375	0.187	0.150
		CNMG 333E TM	CNMG090412E-TM		●	●		●	●	●	●				●			0.047	0.375	0.187	0.150
		CNMG 431 TM	CNMG120404-TM	●	●	●	●	●	●	●	●	●			●			0.016	0.500	0.187	0.203
		CNMG 432 TM	CNMG120408-TM	●	●	●	●	●	●	●	●	●	●	●	●			0.031	0.500	0.187	0.203
		CNMG 433 TM	CNMG120412-TM	●	●	●	●	●	●	●	●	●		●	●			0.047	0.500	0.187	0.203
		CNMG 434 TM	CNMG120416-TM		●	●	●	●	●	●	●	●			●			0.063	0.500	0.187	0.203
		CNMG 542 TM	CNMG160608-TM		●													0.031	0.625	0.250	0.250
		CNMG 543 TM	CNMG160612-TM	●	●	●	●								●			0.047	0.625	0.250	0.250
		CNMG 642 TM	CNMG190608-TM	●	●	●	●								●			0.031	0.750	0.250	0.312
		CNMG 643 TM	CNMG190612-TM	●	●	●	●								●			0.047	0.750	0.250	0.312
	PM	CNMG 331E PM	CNMG090404E-PM		●	●		●		●	●							0.016	0.375	0.187	0.150
		CNMG 332E PM	CNMG090408E-PM		●	●		●		●	●							0.031	0.375	0.187	0.150
		CNMG 333E PM	CNMG090412E-PM		●	●		●		●	●							0.047	0.375	0.187	0.150
		CNMG 431-PM	CNMG120404-PM		●	●		●		●	●							0.016	0.500	0.187	0.203
		CNMG 432-PM	CNMG120408-PM		●	●		●		●	●							0.031	0.500	0.187	0.203
		CNMG 433-PM	CNMG120412-PM		●	●		●		●	●							0.047	0.500	0.187	0.203
		CNMG 434-PM	CNMG120416-PM		●	●		●		●	●							0.063	0.500	0.187	0.203
Medium cutting for mild steel	ZM	CNMG 331E ZM	CNMG090404E-ZM		●	●		●		●	●							0.016	0.375	0.187	0.150
		CNMG 332E ZM	CNMG090408E-ZM		●	●		●		●	●							0.031	0.375	0.187	0.150
		CNMG 333E ZM	CNMG090412E-ZM		●	●		●		●	●							0.047	0.375	0.187	0.150
		CNMG 431 ZM	CNMG120404-ZM		●	●		●		●	●							0.016	0.500	0.187	0.203
		CNMG 432 ZM	CNMG120408-ZM		●	●	●	●		●	●					●	●	0.031	0.500	0.187	0.203
		CNMG 433 ZM	CNMG120412-ZM		●	●	●	●		●	●					●		0.047	0.500	0.187	0.203
		CNMG 434 ZM	CNMG120416-ZM		●	●		●		●	●							0.063	0.500	0.187	0.203

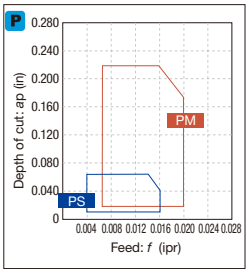
● : Line up

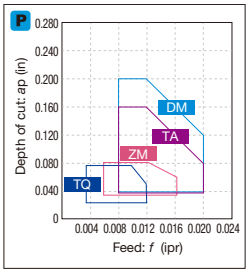
Chip control range











Reference pages: External toolholder → C019 - Internal toolholder → D027 -
J-Series toolholder → G036 TungCap → K008 -

Insert NEGATIVE TYPE

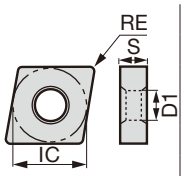
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

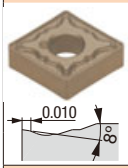
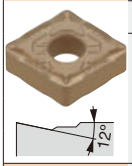
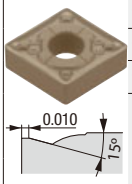
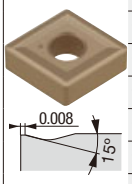
CN



Rhombic, 80° with hole

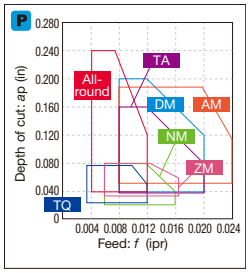
P	Steel	●	●ɔ	●ɔ✣	✣	ɔ							ɔ✣	●	●ɔ	●ɔ	●ɔ	●ɔ	●ɔ	●	
M	Stainless		●ɔ			●						ɔ	●ɔ	●	●ɔ					●	
K	Cast iron	●ɔ	●ɔ				●	●ɔ	●	ɔ	✣			●	●ɔ	●ɔ	●ɔ	●ɔ	●ɔ	●	
N	Non-ferrous																			●	
S	Superalloy											ɔ		●	●ɔ						
H	Hard material																				



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T6215	T505	T515	T5105	T5115	T5125	AH8015	AH6225	AH110	AH120	Coated cermet GT9530	GT720	Cermet NS9530	NS520	Un-coated TH10	Dimension (in) RE	IC	S	D1
Medium cutting	**AM**	**CNMG 432 AM**	**CNMG120408-AM**		●	●																	0.031	0.500	0.187	0.203
		**CNMG 433 AM**	**CNMG120412-AM**		●	●																	0.047	0.500	0.187	0.203
		CNMG 434 AM	**CNMG120416-AM**		●	●																	0.063	0.500	0.187	0.203
	NM	**CNMG 432 NM**	**CNMG120408-NM**	●	●	●	●													●			0.031	0.500	0.187	0.203
		**CNMG 433 NM**	**CNMG120412-NM**		●	●	●																0.047	0.500	0.187	0.203
	DM	**CNMG 431 DM**	**CNMG120404-DM**		●	●		●						●	●								0.016	0.500	0.187	0.203
		CNMG 432 DM	**CNMG120408-DM**	●	●	●	●	●						●	●								0.031	0.500	0.187	0.203
		**CNMG 433 DM**	**CNMG120412-DM**	●	●	●	●	●						●	●								0.047	0.500	0.187	0.203
		CNMG 434 DM	**CNMG120416-DM**		●	●		●						●	●								0.063	0.500	0.187	0.203
	All-round	**CNMG 321**	**CNMG090304**		●	●														●			0.016	0.375	0.125	0.150
		CNMG 322	**CNMG090308**	●	●	●	●												●	●			0.031	0.375	0.125	0.150
		CNMG 431	**CNMG120404**	●	●	●	●		●	●	●	●	●			●	●	●		●		●	0.016	0.500	0.187	0.203
		CNMG 432	**CNMG120408**	●	●	●	●		●	●	●	●	●			●	●	●		●	●	●	0.031	0.500	0.187	0.203
		**CNMG 433**	**CNMG120412**	●	●	●	●		●	●	●	●	●			●	●				●	●	0.047	0.500	0.187	0.203
		CNMG 434	**CNMG120416**	●	●	●	●		●	●	●	●	●										0.063	0.500	0.187	0.203
		CNMG 542	**CNMG160608**	●	●	●	●				●	●	●				●						0.031	0.625	0.250	0.250
		CNMG 543	**CNMG160612**	●	●	●	●			●	●	●	●				●						0.047	0.625	0.250	0.250
		CNMG 544	**CNMG160616**	●	●	●	●			●		●											0.063	0.625	0.250	0.250
		CNMG 642	**CNMG190608**		●	●	●																0.031	0.750	0.250	0.312
		CNMG 643	**CNMG190612**	●	●	●	●			●		●	●				●						0.047	0.750	0.250	0.312
		CNMG 644	**CNMG190616**		●	●	●			●		●	●				●						0.063	0.750	0.250	0.312

● : Line up

Chip control range



Reference pages: External toolholder → C019 - Internal toolholder → D027 -
J-Series toolholder → G036 TungCap → K008 -

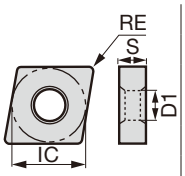
● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

CN



Rhombic, 80° with hole

P	Steel	●	●ⓒ	●ⓒ✠	●ⓒ									ⓒ✠	✠		ⓒ				
M	Stainless		●ⓒ		●						●	ⓒ	●ⓒ	✠			ⓒ				
K	Cast iron	●ⓒ	●ⓒ			●	●ⓒ	●	ⓒ	✠							ⓒ				
N	Non-ferrous																				
S	Superalloy										●	ⓒ			ⓒ	●					
H	Hard material																				

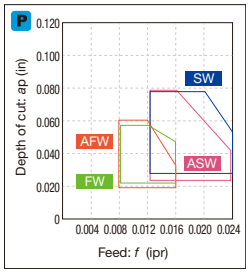


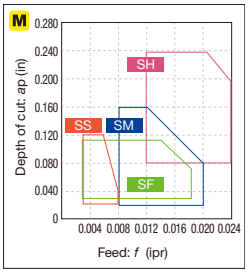
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T6215	T505	T515	T5105	T5115	T5125	AH8005	AH8015	AH6225	AH6235	AH905	AH725	Dimension (in) RE	IC	S	D1
Medium cutting	SM	CNMG 331E SM	CNMG090404E-SM				●								●				0.016	0.375	0.187	0.150
		CNMG 332E SM	CNMG090408E-SM				●								●				0.031	0.375	0.187	0.150
		CNMG 333E SM	CNMG090412E-SM				●								●				0.047	0.375	0.187	0.150
		CNMG 431 SM	CNMG120404-SM				●								●	●		●	0.016	0.500	0.187	0.203
		CNMG 432 SM	CNMG120408-SM				●								●	●	●	●	0.031	0.500	0.187	0.203
		CNMG 433 SM	CNMG120412-SM				●								●	●		●	0.047	0.500	0.187	0.203
		CNMG 543 SM	CNMG160612-SM				●								●				0.047	0.625	0.250	0.250
		CNMG 544 SM	CNMG160616-SM												●				0.063	0.625	0.250	0.250
		CNMG 643 SM	CNMG190612-SM												●				0.047	0.750	0.250	0.312
		CNMG 644 SM	CNMG190616-SM												●				0.063	0.750	0.250	0.312
	SDM	CNMG 431 SDM	CNMG120404-SDM				●						●	●	●	●			0.016	0.500	0.187	0.203
		CNMG 432 SDM	CNMG120408-SDM				●						●	●	●	●			0.031	0.500	0.187	0.203
		CNMG 433 SDM	CNMG120412-SDM				●						●	●	●	●			0.047	0.500	0.187	0.203
	HRM	CNMG 431 HRM	CNMG120404-HRM										●	●					0.016	0.500	0.187	0.203
		CNMG 432 HRM	CNMG120408-HRM										●	●					0.031	0.500	0.187	0.203
		CNMG 433 HRM	CNMG120412-HRM										●	●					0.047	0.500	0.187	0.203
		CNMG 542 HRM	CNMG160608-HRM										●	●					0.031	0.625	0.250	0.250
		CNMG 543 HRM	CNMG160612-HRM										●	●					0.047	0.625	0.250	0.250
		CNMG 643 HRM	CNMG190612-HRM										●	●					0.047	0.750	0.250	0.312
		CNMG 644 HRM	CNMG190616-HRM										●	●					0.063	0.750	0.250	0.312
	CM	CNMG 431 CM	CNMG120404-CM	●	●		●	●	●	●	●	●							0.016	0.500	0.187	0.203
		CNMG 432 CM	CNMG120408-CM	●	●		●	●	●	●	●	●							0.031	0.500	0.187	0.203
		CNMG 433 CM	CNMG120412-CM	●	●		●	●	●	●	●	●							0.047	0.500	0.187	0.203
		CNMG 542 CM	CNMG160608-CM	●	●		●	●	●	●	●	●							0.031	0.625	0.250	0.250
		CNMG 543 CM	CNMG160612-CM	●	●		●	●	●	●	●	●							0.047	0.625	0.250	0.250
Medium cutting (wiper)	SW	CNMG 332E SW	CNMG090408E-SW	●	●	●					●								0.031	0.375	0.187	0.150
		CNMG 333E SW	CNMG090412E-SW	●	●	●					●								0.047	0.375	0.187	0.150
		CNMG 432 SW	CNMG120408-SW	●	●	●			●		●								0.031	0.500	0.187	0.203
		CNMG 433 SW	CNMG120412-SW	●	●	●			●		●								0.047	0.500	0.187	0.203
		*Wiper																				

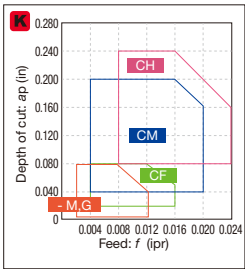
* Please see **L011 - L015** about the adjustment of the machining program for rounding or taper machining when using SW/FW.
Please contact our sales representatives if you have any questions.

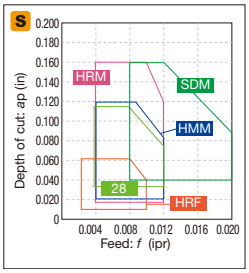
● : Line up

Chip control range









Reference pages: External toolholder → C019 - Internal toolholder → D027 -
J-Series toolholder → G036 TungCap → K008 -

Insert NEGATIVE TYPE

● : Continuous cutting
ⓒ : Light interrupted cutting
✣ : Heavy interrupted cutting

CN



Rhombic, 80° with hole

| | | |

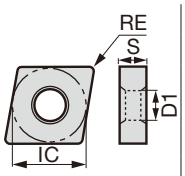
● : Continuous cutting
ᑕ : Light interrupted cutting
✠ : Heavy interrupted cutting

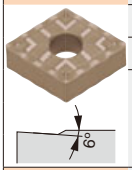
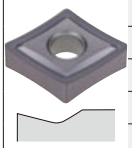
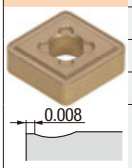
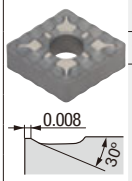
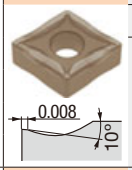
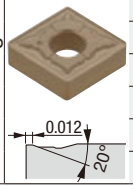
CN



Rhombic, 80° with hole

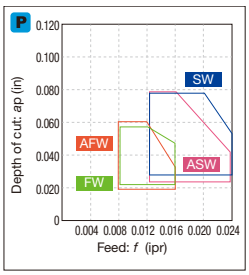
P	Steel	●	●ᑕ	●ᑕ✠	✠				ᑕ✠		ᑕ	●	●ᑕ	●ᑕ	●ᑕ		●ᑕ				●
M	Stainless		●ᑕ				●	ᑕ	●ᑕ		ᑕ	●	●ᑕ	●ᑕ							●
K	Cast iron	●ᑕ	●ᑕ			●ᑕ					ᑕ	●	●ᑕ	●ᑕ	●ᑕ		●ᑕ		●		●
N	Non-ferrous																		●		●
S	Superalloy						●	ᑕ		ᑕ	●	●	●ᑕ						●		
H	Hard material																				

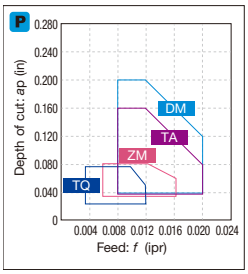


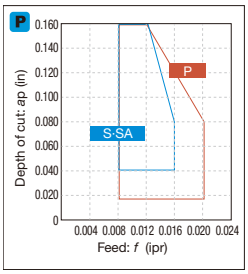
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T515	AH8005	AH8015	AH6225	AH905	AH725	AH110	AH120	GH330	Coated cermet GT720		Cermet NS9530		Uncoated KS05F	TH10	Dimension (in) RE	IC	S	D1
Medium cutting	27	CNMG 431-27	CNMG120404-27		●	●													●				0.016	0.500	0.187	0.203
		CNMG 432-27	CNMG120408-27		●	●	●							●					●				0.031	0.500	0.187	0.203
		CNMG 433-27	CNMG120412-27			●																	0.047	0.500	0.187	0.203
	28	CNGP 430-28	CNGP120401-28											●	●								0.004	0.500	0.187	0.203
		CNGP 430.5-28	CNGP120402-28									●		●	●								0.008	0.500	0.187	0.203
		CNGP 431-28	CNGP120404-28									●		●	●						●		0.016	0.500	0.187	0.203
		CNGP 432-28	CNGP120408-28									●		●	●						●		0.031	0.500	0.187	0.203
		CNGG 430.5-28	CNGG120402-28																		●		0.008	0.500	0.187	0.203
		CNGG 431-28	CNGG120404-28																		●		0.016	0.500	0.187	0.203
		CNGG 432-28	CNGG120408-28																		●		0.031	0.500	0.187	0.203
		CNMG 431-28	CNMG120404-28			●			●	●				●	●						●		0.016	0.500	0.187	0.203
		CNMG 432-28	CNMG120408-28						●	●				●	●						●		0.031	0.500	0.187	0.203
		CNMG 433-28	CNMG120412-28						●	●					●								0.047	0.500	0.187	0.203
	33	CNMG 432-33	CNMG120408-33											●			●						0.031	0.500	0.187	0.203
		CNMG 434-33	CNMG120416-33		●																		0.063	0.500	0.187	0.203
		CNMG 543-33	CNMG160612-33		●																		0.047	0.625	0.250	0.250
		CNMG 643-33	CNMG190612-33		●																		0.047	0.750	0.250	0.312
	37	CNMG 431-37	CNMG120404-37		●														●				0.016	0.500	0.187	0.203
		CNMG 432-37	CNMG120408-37		●	●										●			●			●	0.031	0.500	0.187	0.203
		CNMG 433-37	CNMG120412-37		●																		0.047	0.500	0.187	0.203
	38	CNMG 431-38	CNMG120404-38													●			●				0.016	0.500	0.187	0.203
		CNMG 432-38	CNMG120408-38		●								●			●			●				0.031	0.500	0.187	0.203
Medium to heavy cutting	TH	CNMG 432 TH	CNMG120408-TH	●	●	●	●	●		●	●				●								0.031	0.500	0.187	0.203
		CNMG 433 TH	CNMG120412-TH	●	●	●	●	●		●	●				●								0.047	0.500	0.187	0.203
		CNMG 434 TH	CNMG120416-TH	●	●	●	●	●		●					●								0.063	0.500	0.187	0.203
		CNMG 543 TH	CNMG160612-TH	●	●	●	●								●								0.047	0.625	0.250	0.250
		CNMG 544 TH	CNMG160616-TH	●	●	●	●								●								0.063	0.625	0.250	0.250
		CNMG 643 TH	CNMG190612-TH	●	●	●	●								●								0.047	0.750	0.250	0.312
		CNMG 644 TH	CNMG190616-TH	●	●	●	●								●								0.063	0.750	0.250	0.312

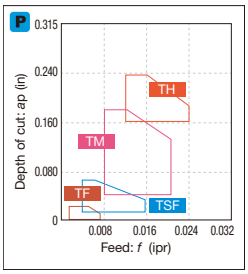
● : Line up

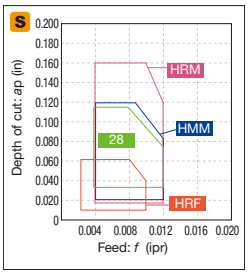
Chip control range











Insert NEGATIVE TYPE

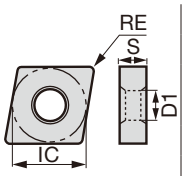
● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

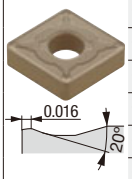
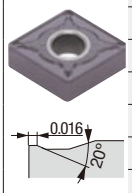
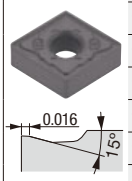
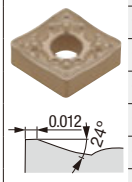
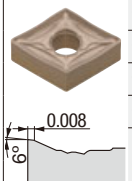
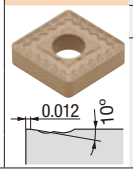
CN



Rhombic, 80° with hole

P	Steel	●	●ⓒ	ⓒ✠	✠					ⓒ✠	✠														
M	Stainless		●ⓒ							●ⓒ	✠														
K	Cast iron	●ⓒ	●ⓒ			●ⓒ	●	ⓒ	✠																
N	Non-ferrous																								
S	Superalloy																								
H	Hard material																								



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T515	T5105	T5115	T5125	AH6225	AH6235	Dimension (in) RE	IC	S	D1
Medium to heavy cutting	**THS**	**CNMG 432 THS**	**CNMG120408-THS**	●	●	●	●							0.031	0.500	0.187	0.203
		**CNMG 433 THS**	**CNMG120412-THS**	●	●	●	●							0.047	0.500	0.187	0.203
		CNMG 434 THS	**CNMG120416-THS**	●	●	●	●							0.063	0.500	0.187	0.203
		CNMG 543 THS	**CNMG160612-THS**	●	●	●	●							0.047	0.625	0.250	0.250
		CNMG 544 THS	**CNMG160616-THS**	●	●	●	●							0.063	0.625	0.250	0.250
		CNMG 643 THS	**CNMG190612-THS**		●	●	●							0.047	0.750	0.250	0.312
		CNMG 644 THS	**CNMG190616-THS**		●	●	●							0.063	0.750	0.250	0.312
		CNMG 646 THS	**CNMG190624-THS**		●	●	●							0.094	0.750	0.250	0.312
		CNMG 866 THS	**CNMG250924-THS**		●	●	●							0.094	1.000	0.375	0.359
Medium to heavy cutting	**SH**	**CNMG 432 SH**	**CNMG120408-SH**									●	●	0.031	0.500	0.187	0.203
		**CNMG 433 SH**	**CNMG120412-SH**									●	●	0.047	0.500	0.187	0.203
		CNMG 434 SH	**CNMG120416-SH**									●	●	0.063	0.500	0.187	0.203
		CNMG 543 SH	**CNMG160612-SH**									●	●	0.047	0.625	0.250	0.250
		CNMG 544 SH	**CNMG160616-SH**									●	●	0.063	0.625	0.250	0.250
		CNMG 643 SH	**CNMG190612-SH**									●	●	0.047	0.750	0.250	0.312
		CNMG 644 SH	**CNMG190616-SH**									●	●	0.063	0.750	0.250	0.312
Medium to heavy cutting	**CH**	**CNMG 431 CH**	**CNMG120404-CH**						●	●	●			0.016	0.500	0.187	0.203
		**CNMG 432 CH**	**CNMG120408-CH**					●	●	●	●			0.031	0.500	0.187	0.203
		CNMG 433 CH	**CNMG120412-CH**					●	●	●	●			0.047	0.500	0.187	0.203
		CNMG 543 CH	**CNMG160612-CH**							●	●			0.047	0.625	0.250	0.250
		CNMG 544 CH	**CNMG160616-CH**							●	●			0.063	0.625	0.250	0.250
		CNMG 643 CH	**CNMG190612-CH**						●	●	●			0.047	0.750	0.250	0.312
		CNMG 644 CH	**CNMG190616-CH**						●	●	●			0.063	0.750	0.250	0.312
Medium to heavy cutting (single sided)	**TRS**	**CNMM 432 TRS**	**CNMM120408-TRS**	●	●	●	●							0.031	0.500	0.187	0.203
		**CNMM 433 TRS**	**CNMM120412-TRS**		●	●	●							0.047	0.500	0.187	0.203
		CNMM 543 TRS	**CNMM160612-TRS**		●	●	●							0.047	0.625	0.250	0.250
		CNMM 544 TRS	**CNMM160616-TRS**		●	●	●							0.063	0.625	0.250	0.250
		CNMM 644 TRS	**CNMM190616-TRS**		●	●	●							0.063	0.750	0.250	0.312
		CNMM 646 TRS	**CNMM190624-TRS**		●	●	●							0.094	0.750	0.250	0.312
		CNMM 866 TRS	**CNMM250924-TRS**		●	●	●							0.094	1.000	0.375	0.359
	57	**CNMM 431-57**	**CNMM120404-57**			●								0.016	0.500	0.187	0.203
		**CNMM 432-57**	**CNMM120408-57**		●	●								0.031	0.500	0.187	0.203
		CNMM 433-57	**CNMM120412-57**			●								0.047	0.500	0.187	0.203
		CNMM 643-57	**CNMM190612-57**			●								0.047	0.750	0.250	0.312
		CNMM 644-57	**CNMM190616-57**			●								0.063	0.750	0.250	0.312
	65	**CNMM 433-65**	**CNMM120412-65**		●	●								0.047	0.500	0.187	0.203
		**CNMM 544-65**	**CNMM160616-65**		●									0.063	0.625	0.250	0.250

● : Line up

Reference pages: External toolholder → C019 - Internal toolholder → D027 -
J-Series toolholder → G036 TungCap → K008 -

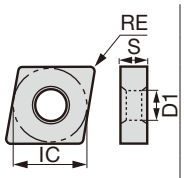
● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

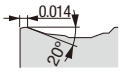
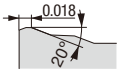
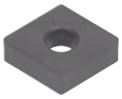
CN



Rhombic, 80° with hole

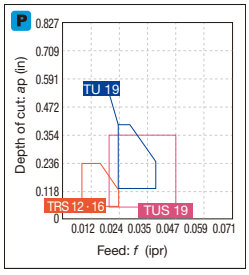
P	Steel	●	●ⓒ	●ⓒ✠	✠								●ⓒ			●							
M	Stainless		●ⓒ													●							
K	Cast iron	●ⓒ	●ⓒ			●	●ⓒ	●	ⓒ	✠			●ⓒ			●				●ⓒ			
N	Non-ferrous															●							
S	Superalloy																						
H	Hard material																						

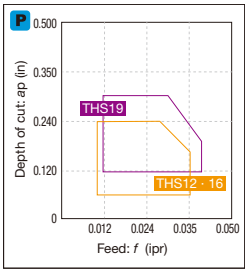


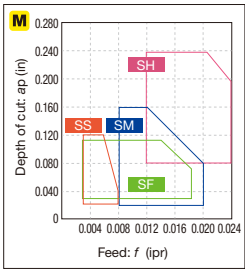
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T505	T515	T5105	T5115	T5125	Cermet NS520	Uncoated TH10	Ceramic FX105	Dimension (in) RE	IC	S	D1
Medium to heavy cutting (single sided)	TU	CNMM 643 TU	CNMM190612-TU			●	●									0.047	0.750	0.250	0.312
		CNMM 644 TU	CNMM190616-TU			●	●									0.063	0.750	0.250	0.312
		CNMM 646 TU	CNMM190624-TU		●	●	●									0.094	0.750	0.250	0.312
		CNMM 866 TU	CNMM250924-TU			●	●									0.094	1.000	0.375	0.359
																			
	TUS	CNMM 642 TUS	CNMM190608-TUS		●	●										0.031	0.750	0.250	0.312
		CNMM 643 TUS	CNMM190612-TUS		●	●	●									0.047	0.750	0.250	0.312
		CNMM 644 TUS	CNMM190616-TUS		●	●	●									0.063	0.750	0.250	0.312
		CNMM 646 TUS	CNMM190624-TUS		●	●	●									0.094	0.750	0.250	0.312
		CNMM 648 TUS	CNMM190632-TUS		●	●										0.125	0.750	0.250	0.312
		CNMM 864 TUS	CNMM250916-TUS		●	●	●									0.063	1.000	0.375	0.359
		CNMM 866 TUS	CNMM250924-TUS		●	●	●									0.094	1.000	0.375	0.359
		CNMM 868 TUS	CNMM250932-TUS		●	●										0.125	1.000	0.375	0.359
Finishing to medium cutting	-	CNMA 331E	CNMA090404E						●							0.016	0.375	0.187	0.150
		CNMA 332E	CNMA090408E						●							0.031	0.375	0.187	0.150
		CNMA 333E	CNMA090412E						●							0.047	0.375	0.187	0.150
		CNMA 334E	CNMA090416E						●							0.063	0.375	0.187	0.150
		CNMA 431	CNMA120404							●	●	●		●		0.016	0.500	0.187	0.203
		CNMA 432	CNMA120408	●				●	●	●	●	●	●	●	●	0.031	0.500	0.187	0.203
		CNMA 433	CNMA120412	●				●	●	●	●	●		●	●	0.047	0.500	0.187	0.203
		CNMA 434	CNMA120416	●						●	●	●		●	●	0.063	0.500	0.187	0.203
		CNMA 542	CNMA160608							●		●				0.031	0.625	0.250	0.250
		CNMA 543	CNMA160612						●	●	●	●				0.047	0.625	0.250	0.250
		CNMA 544	CNMA160616						●							0.063	0.625	0.250	0.250
		CNMA 643	CNMA190612						●		●	●				0.047	0.750	0.250	0.312
		CNMA 644	CNMA190616						●			●				0.063	0.750	0.250	0.312

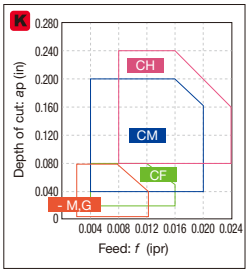
● : Line up

Chip control range









*-M,G: Without chipbreaker

Reference pages: External toolholder → C019 - Internal toolholder → D027 -
J-Series toolholder → G036 TungCap → K008 -

Insert NEGATIVE TYPE

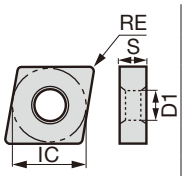
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

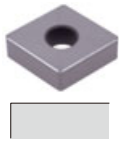
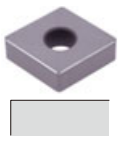
CN



Rhombic, 80° with hole

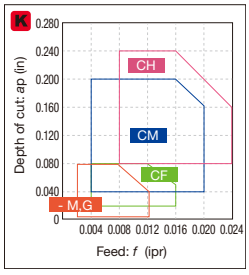
P	Steel	●◐																													
M	Stainless																														
K	Cast iron	●◐				●	●◐	●◐																							
N	Non-ferrous																														
S	Superalloy																														
H	Hard material								●◐	●◐	●◐																				



Application	Chipbreaker	Designation Inch	Designation Metric	Cermet NS520	Ceramic TZ120	FX105	CX710	LX10	LX11	LX21	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	Wiper	CNMA 432 W	CNMA120408W			●					0.031	0.500	0.187	0.203
		CNMA 433 W	CNMA120412W			●					0.047	0.500	0.187	0.203
		CNMA 434 W	CNMA120416W			●					0.063	0.500	0.187	0.203
	-	CNGA 431	CNGA120404			●		●	▲	●	0.016	0.500	0.187	0.203
		CNGA 432	CNGA120408	●	●	●	●	●	▲	●	0.031	0.500	0.187	0.203
		CNGA 433	CNGA120412			●		●	▲	●	0.047	0.500	0.187	0.203
		CNGA 434	CNGA120416			●		●	▲		0.063	0.500	0.187	0.203
		CNGA 435	CNGA120420					●	▲		0.078	0.500	0.187	0.203

● : Line up
▲ : To be discontinued

Chip control range



*-M,G: Without chipbreaker

Reference pages: External toolholder → C019 - Internal toolholder → D027 -
J-Series toolholder → G036 TungCap → K008 -

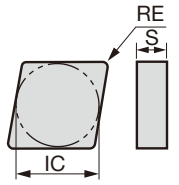
● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

CN



Rhombic, 80° without hole

P	Steel	
M	Stainless	
K	Cast iron	●ⓒ ●ⓒ
N	Non-ferrous	
S	Superalloy	● ●
H	Hard material	●ⓒ ●ⓒ ●ⓒ

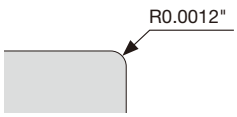


Application	Chipbreaker	Designation Inch	Designation Metric	Ceramic FX105	LX10	LX11	LX21	CX710	TS200	TS300	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	-	**CNGD 453**	**CNGD120712**	●							0.047	0.500	0.313	-
		CNGD 45**4**	CNGD12071**6**	●							0.063	0.500	0.313	-
	-	**CNMN 432**	**CNMN120408**	●							0.031	0.500	0.187	-
		CNMN 43**3**	CNMN12041**2**	●							0.047	0.500	0.187	-
		CNMN 43**4**	CNMN12041**6**	●							0.063	0.500	0.187	-
	-	**CNGN 432-E**	**CNGN120408-E**							●	0.031	0.500	0.187	-
		CNGN 43**3-E**	CNGN12041**2-E**							●	0.047	0.500	0.187	-
		CNGN 43**3-T1**	CNGN12041**2-T1**						●		0.047	0.500	0.187	-
		CNGN 43**1**	CNGN12040**4**		●	▲					0.016	0.500	0.187	-
		CNGN 43**2**	CNGN12040**8**	●	●	▲					0.031	0.500	0.187	-
		CNGN 43**3**	CNGN12041**2**	●	●	▲					0.047	0.500	0.187	-
		CNGN 43**4**	CNGN12041**6**	●	●	▲	●				0.063	0.500	0.187	-
		CNGN 43**5**	CNGN12042**0**	●							0.078	0.500	0.187	-
		CNGN 452-E	**CNGN120708-E**							●	0.031	0.500	0.313	-
		CNGN 45**3-E**	CNGN12071**2-E**						●	●	0.047	0.500	0.313	-
		CNGN 45**4-T1**	CNGN12071**6-T1**						●		0.063	0.500	0.313	
		CNGN 45**2**	CNGN12070**8**	●	●	▲					0.031	0.500	0.313	-
		CNGN 45**3**	CNGN12071**2**	●	●	▲					0.047	0.500	0.313	-
		CNGN 45**4**	CNGN12071**6**	●	●	▲					0.063	0.500	0.313	-
		CNGN 45**5**	CNGN12072**0**			▲					0.078	0.500	0.313	-

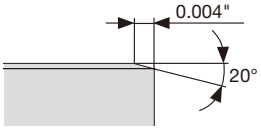
● : Line up
▲ : To be discontinued

Edge prep

E: Low cutting force



T1: Strong cutting edge



Reference pages: CNGD...: External toolholder → C027

Insert NEGATIVE TYPE

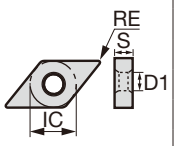
● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

DN



Rhombic, 55° with hole

P	Steel	●	●◐	◐✣	✣	◐			◐✣	●◐		●◐	●◐		●◐			●			
M	Stainless		●◐			●		◐	●◐	●◐								●			
K	Cast iron	●◐	●◐				●◐			●◐		●◐	●◐		●◐			●			
N	Non-ferrous																	●			
S	Superalloy							◐		●◐											
H	Hard material																				



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T6215	T515	AH8015	AH6225	AH120	Coated cermet GT9530	AT9530	Cermet NS9530	Uncoated TH10	Dimension (in) RE	IC	S	D1
Finishing	TF	DNMG 330.5E TF	DNMG110402E-TF		●	●		●		●	●				●		0.008	0.375	0.187	0.150
		DNMG 331E TF	DNMG110404E-TF		●	●		●		●	●				●		0.016	0.375	0.187	0.150
		DNMG 332E TF	DNMG110408E-TF		●	●		●		●	●				●		0.031	0.375	0.187	0.150
		DNMG 430.5 TF	DNMG150402-TF		●	●		●		●	●				●		0.008	0.500	0.187	0.203
		DNMG 431 TF	DNMG150404-TF		●	●		●		●	●				●	●	0.016	0.500	0.187	0.203
		DNMG 432 TF	DNMG150408-TF		●	●		●		●	●				●		0.031	0.500	0.187	0.203
	TSF	DNMG 330.5E TSF	DNMG110402E-TSF		●	●		●		●	●	●	●		●		0.008	0.375	0.187	0.150
		DNMG 331E TSF	DNMG110404E-TSF		●	●	●	●		●	●	●	●	●	●		0.016	0.375	0.187	0.150
		DNMG 332E TSF	DNMG110408E-TSF		●	●	●	●		●	●	●	●	●	●		0.031	0.375	0.187	0.150
		DNMG 333E TSF	DNMG110412E-TSF		●	●				●		●	●	●	●		0.047	0.375	0.187	0.150
		DNMG 430.5 TSF	DNMG150402-TSF		●	●		●		●	●				●		0.008	0.500	0.187	0.203
		DNMG 431 TSF	DNMG150404-TSF	●	●	●	●	●	●	●	●	●	●	●	●		0.016	0.500	0.187	0.203
		DNMG 432 TSF	DNMG150408-TSF	●	●	●	●	●	●	●	●	●	●	●	●		0.031	0.500	0.187	0.203
		DNMG 433 TSF	DNMG150412-TSF	●	●	●	●	●	●	●	●	●			●		0.047	0.500	0.187	0.203
		DNMG 440.5 TSF	DNMG150602-TSF		●	●		●		●	●				●		0.008	0.500	0.250	0.203
		DNMG 441 TSF	DNMG150604-TSF		●	●		●		●	●		●	●	●		0.016	0.500	0.250	0.203
		DNMG 442 TSF	DNMG150608-TSF	●	●	●	●	●		●	●		●	●	●		0.031	0.500	0.250	0.203
		DNMG 443 TSF	DNMG150612-TSF	●	●	●	●	●		●	●				●		0.047	0.500	0.250	0.203
	PS	DNMG 330.5E PS	DNMG110402E-PS		●	●		●		●	●				●		0.008	0.375	0.187	0.150
		DNMG 331E PS	DNMG110404E-PS		●	●		●		●	●				●		0.016	0.375	0.187	0.150
		DNMG 332E PS	DNMG110408E-PS		●	●		●		●	●				●		0.031	0.375	0.187	0.150
		DNMG 430.5 PS	DNMG150402-PS		●	●		●		●	●				●		0.008	0.500	0.187	0.203
		DNMG 431 PS	DNMG150404-PS		●	●		●		●	●				●		0.016	0.500	0.187	0.203
		DNMG 432 PS	DNMG150408-PS		●	●		●		●	●				●		0.031	0.500	0.187	0.203
		DNMG 433 PS	DNMG150412-PS		●	●		●		●	●				●		0.047	0.500	0.187	0.203
		DNMG 440.5 PS	DNMG150602-PS		●	●		●		●	●				●		0.008	0.500	0.250	0.203
		DNMG 441 PS	DNMG150604-PS		●	●		●		●	●				●		0.016	0.500	0.250	0.203
		DNMG 442 PS	DNMG150608-PS		●	●		●		●	●				●		0.031	0.500	0.250	0.203
		DNMG 443 PS	DNMG150612-PS		●	●		●		●	●				●		0.047	0.500	0.250	0.203
Finishing for mild steel	ZF	DNMG 330.5E ZF	DNMG110402E-ZF		●	●		●		●	●				●		0.008	0.375	0.187	0.150
		DNMG 331E ZF	DNMG110404E-ZF		●	●		●		●	●				●		0.016	0.375	0.187	0.150
		DNMG 332E ZF	DNMG110408E-ZF		●	●		●		●	●				●		0.031	0.375	0.187	0.150
		DNMG 430.5 ZF	DNMG150402-ZF		●	●		●		●	●				●		0.008	0.500	0.187	0.203
		DNMG 431 ZF	DNMG150404-ZF		●	●	●	●		●	●		●	●	●		0.016	0.500	0.187	0.203
		DNMG 432 ZF	DNMG150408-ZF		●	●	●	●		●	●		●	●	●		0.031	0.500	0.187	0.203
		DNMG 433 ZF	DNMG150412-ZF		●	●	●	●		●	●				●		0.047	0.500	0.187	0.203
		DNMG 440.5 ZF	DNMG150602-ZF		●	●		●		●	●				●		0.008	0.500	0.187	0.203
		DNMG 441 ZF	DNMG150604-ZF		●	●		●		●	●				●		0.016	0.500	0.250	0.203
		DNMG 442 ZF	DNMG150608-ZF		●	●	●	●		●	●				●		0.031	0.500	0.250	0.203
		DNMG 443 ZF	DNMG150612-ZF		●	●		●		●	●				●		0.047	0.500	0.250	0.203
Finishing	AS	DNMG 431 AS	DNMG150404-AS		●		●								●		0.016	0.500	0.187	0.203
		DNMG 432 AS	DNMG150408-AS		●	●	●								●		0.031	0.500	0.187	0.203
		DNMG 433 AS	DNMG150412-AS		●	●	●										0.047	0.500	0.187	0.203
		DNMG 441 AS	DNMG150604-AS		●												0.016	0.500	0.250	0.203
		DNMG 442 AS	DNMG150608-AS		●	●											0.031	0.500	0.250	0.203
		DNMG 443 AS	DNMG150612-AS		●												0.047	0.500	0.250	0.203
	NS	DNMG 431 NS	DNMG150404-NS			●									●		0.016	0.500	0.187	0.203
		DNMG 432 NS	DNMG150408-NS	●	●	●									●		0.031	0.500	0.187	0.203

● : Line up

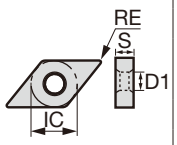
Reference pages: External toolholder → C036 - Internal toolholder → D042 -
J-Series toolholder → G052 TungCap → K011 -

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

DN

Rhombic, 55° with hole

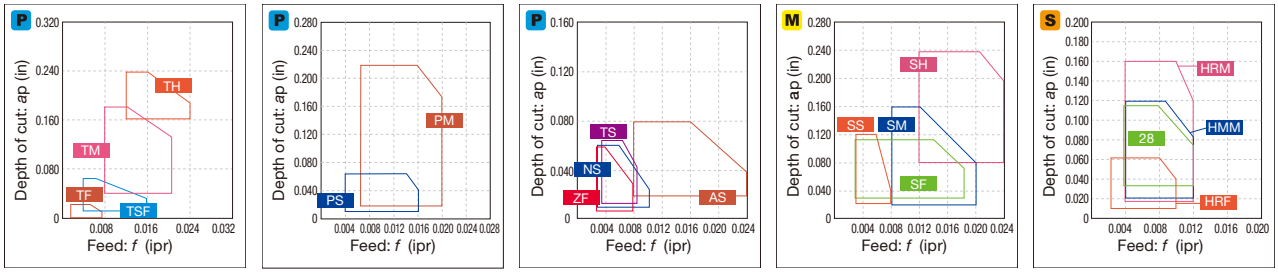
P	Steel	● ●◐ ◐✣ ✣ ◐ ✣✣ ✣ ●◐ ●◐ ●◐ ●◐ ●◐ ●◐ ●◐
M	Stainless	●◐ ● ◐ ●◐ ✣ ●◐ ●◐
K	Cast iron	●◐ ●◐ ●◐ ●◐ ✣
N	Non-ferrous	✣
S	Superalloy	● ◐ ●◐ ✣
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T6215	AH8005	AH8015	AH6225	AH6235	AH120	GH330	Coated cermet GT9530	AT9530	Cermet NS9530	NS520	Uncoated KS20	Dimension (in) RE	IC	S	D1
Finishing	TS	DNMG 330.5E TS	DNMG110402E-TS		●	●		●		●	●				●		●			0.008	0.375	0.187	0.150
		DNMG 331E TS	DNMG110404E-TS		●	●		●		●	●				●		●			0.016	0.375	0.187	0.150
		DNMG 332E TS	DNMG110408E-TS		●	●		●		●	●				●		●			0.031	0.375	0.187	0.150
		DNMG 430.5 TS	DNMG150402-TS		●	●		●		●	●						●			0.008	0.500	0.187	0.203
		DNMG 431 TS	DNMG150404-TS		●	●	●	●		●	●				●	●	●	●		0.016	0.500	0.187	0.203
		DNMG 432 TS	DNMG150408-TS	●	●	●	●	●		●	●				●	●	●	●		0.031	0.500	0.187	0.203
		DNMG 433 TS	DNMG150412-TS	●	●	●	●	●		●	●						●			0.047	0.500	0.187	0.203
		DNMG 440.5 TS	DNMG150602-TS		●	●		●		●	●						●			0.008	0.500	0.250	0.203
		DNMG 441 TS	DNMG150604-TS		●	●		●		●	●				●	●	●	●		0.016	0.500	0.250	0.203
		DNMG 442 TS	DNMG150608-TS		●	●		●		●	●				●	●	●	●		0.031	0.500	0.250	0.203
		DNMG 443 TS	DNMG150612-TS		●	●		●		●	●						●			0.047	0.500	0.250	0.203
	SF	DNMG 431 SF	DNMG150404-SF					●			●									0.016	0.500	0.187	0.203
		DNMG 432 SF	DNMG150408-SF					●			●									0.031	0.500	0.187	0.203
		DNMG 441 SF	DNMG150604-SF					●			●									0.016	0.500	0.250	0.203
		DNMG 442 SF	DNMG150608-SF					●			●									0.031	0.500	0.250	0.203
	SS	DNMG 331E SS	DNMG110404E-SS								●	●								0.016	0.375	0.187	0.150
		DNMG 332E SS	DNMG110408E-SS								●	●								0.031	0.375	0.187	0.150
		DNMG 431 SS	DNMG150404-SS					●			●	●		●						0.016	0.500	0.187	0.203
		DNMG 432 SS	DNMG150408-SS					●			●	●		●					●	0.031	0.500	0.187	0.203
		DNMG 433 SS	DNMG150412-SS					●			●	●		●						0.047	0.500	0.187	0.203
		DNMG 441 SS	DNMG150604-SS					●			●	●	●	●						0.016	0.500	0.250	0.203
		DNMG 442 SS	DNMG150608-SS					●			●	●	●	●						0.031	0.500	0.250	0.203
		DNMG 443 SS	DNMG150612-SS					●			●	●								0.047	0.500	0.250	0.203
	HRF	DNMG 431 HRF	DNMG150404-HRF						●	●										0.016	0.500	0.187	0.203
		DNMG 432 HRF	DNMG150408-HRF						●	●										0.031	0.500	0.187	0.203
		DNMG 441 HRF	DNMG150604-HRF						●	●										0.016	0.500	0.250	0.203
		DNMG 442 HRF	DNMG150608-HRF						●	●										0.031	0.500	0.250	0.203

● : Line up

Chip control range



Reference pages: External toolholder → C036 - Internal toolholder → D042 -
J-Series toolholder → G052 TungCap → K011 -

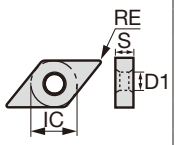
Insert NEGATIVE TYPE

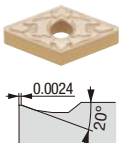
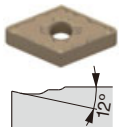
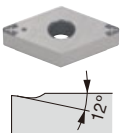
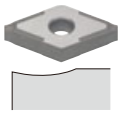
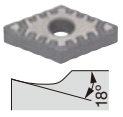
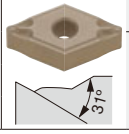
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

DN

Rhombic, 55° with hole

		T9215	T5105	T5115	GH330	GH110	GT9530	GT720	NS9530	NS520	TH10
P	Steel	◐			◐	●	◐	◐	◐	◐	●
M	Stainless	◐			◐	●					●
K	Cast iron	◐	●	◐	◐	●	◐	◐	◐	◐	●
N	Non-ferrous										●
S	Superalloy					●					
H	Hard material										

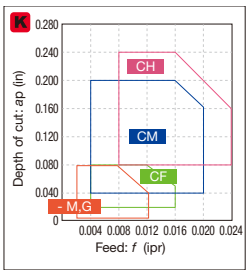


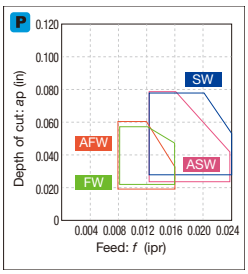
Application	Chipbreaker	Designation Inch	Designation Metric	Coated					Coated cermet		Cermet		Uncoated		Dimension (in)			
				T9215	T5105	T5115	GH330	GH110	GT9530	GT720	NS9530	NS520	TH10		RE	IC	S	D1
Finishing	**CF**	**DNMG 431 CF**	**DNMG150404-CF**		●	●									0.016	0.500	0.187	0.203
		DNMG 432 CF	DNMG150408-CF		●	●									0.031	0.500	0.187	0.203
		DNMG 433 CF	DNMG150412-CF		●	●									0.047	0.500	0.187	0.203
		DNMG 441 CF	**DNMG150604-CF**		●	●									0.016	0.500	0.250	0.203
		DNMG 442 CF	DNMG150608-CF			●									0.031	0.500	0.250	0.203
Finishing (wiper)	**FW**	**DNMG 331E FW**	**DNMG110404E-FW**	●											0.016	0.375	0.187	0.150
		DNMG 332E FW	DNMG110408E-FW	●											0.031	0.375	0.187	0.150
		DNMG 431 FW	**DNMG150404-FW**	●											0.016	0.500	0.187	0.203
		DNMG 432 FW	DNMG150408-FW	●											0.031	0.500	0.187	0.203
		DNMG 441 FW	**DNMG150604-FW**	●											0.016	0.500	0.250	0.203
		DNMG 442 FW	DNMG150608-FW	●											0.031	0.500	0.250	0.203
	*Wiper																	
Finishing	**01**	**DNGG 330.5-01**	**DNGG110402-01**								●				0.008	0.375	0.187	0.150
		DNGG 331-01	DNGG110404-01								●	●			0.016	0.375	0.187	0.150
		DNGG 332-01	DNGG110408-01							●	●				0.031	0.375	0.187	0.150
		DNGG 430.5-01	**DNGG150402-01**								●	●		●	0.008	0.500	0.187	0.203
		DNGG 431-01	DNGG150404-01					●			●	●		●	0.016	0.500	0.187	0.203
		DNGG 432-01	DNGG150408-01					●			●	●		●	0.031	0.500	0.187	0.203
	11	**DNMG 331-11**	**DNMG110404-11**								●				0.016	0.375	0.187	0.150
		DNMG 332-11	DNMG110408-11								●				0.031	0.375	0.187	0.150
		DNMG 431-11	**DNMG150404-11**				●				●			●	0.016	0.500	0.187	0.203
		DNMG 432-11	DNMG150408-11	●							●				0.031	0.500	0.187	0.203
Finishing for mild steel	**17**	**DNMG 431-17**	**DNMG150404-17**								●				0.016	0.500	0.187	0.203
		DNMG 432-17	DNMG150408-17								●				0.031	0.500	0.187	0.203
Boring (double sided)	**CB**	**DNMG 331 CB**	**DNMG110404-CB**						●		●				0.016	0.375	0.187	0.150
		DNMG 332 CB	DNMG110408-CB	●					●		●				0.031	0.375	0.187	0.150

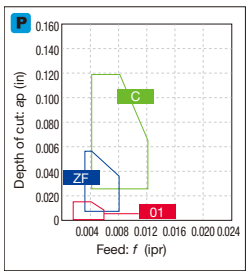
* Please see **L011 - L015** about the adjustment of the machining program for rounding or taper machining when using SW/FW.
Please contact our sales representatives if you have any questions.

● : Line up

Chip control range







*-M,G: Without chipbreaker

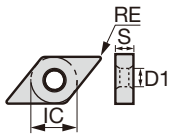
Reference pages: External toolholder → C036 - Internal toolholder → D042 -
J-Series toolholder → G052 TungCap → K011 -

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

DN

Rhombic, 55° with hole

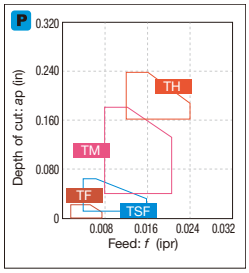
P	Steel	● ◐ ◐✣ ✣ ◐
M	Stainless	◐ ● ◐ ◐✣ ✣ ◐
K	Cast iron	◐ ◐ ✣ ◐
N	Non-ferrous	
S	Superalloy	● ◐
H	Hard material	

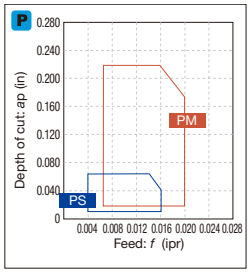


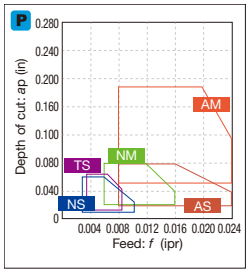
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T6215	T5125	T515	AH8005	AH8015	AH6225	AH6235	AH725	AH110	AH120	Coated cermet GT9530	Cermet NS9530	Dimension (in) RE	IC	S	D1
Medium cutting	TM	DNMG 331E TM	DNMG110404E-TM		●	●		●				●	●				●			0.016	0.375	0.187	0.150
		DNMG 332E TM	DNMG110408E-TM		●	●		●				●	●				●			0.031	0.375	0.187	0.150
		DNMG 333E TM	DNMG110412E-TM		●	●		●				●	●				●			0.047	0.375	0.187	0.150
		DNMG 331 TM	DNMG110404-TM		●	●	●													0.016	0.375	0.187	0.150
		DNMG 332 TM	DNMG110408-TM		●	●	●													0.031	0.375	0.187	0.150
		DNMG 431 TM	DNMG150404-TM	●	●	●	●	●		●		●	●	●		●	●			0.016	0.500	0.187	0.203
		DNMG 432 TM	DNMG150408-TM	●	●	●	●	●		●		●	●	●	●	●	●			0.031	0.500	0.187	0.203
		DNMG 433 TM	DNMG150412-TM	●	●	●	●	●	●	●		●	●	●		●	●			0.047	0.500	0.187	0.203
		DNMG 434 TM	DNMG150416-TM		●	●		●		●		●	●	●			●			0.063	0.500	0.187	0.203
		DNMG 441 TM	DNMG150604-TM	●	●	●	●	●				●	●				●			0.016	0.500	0.250	0.203
		DNMG 442 TM	DNMG150608-TM	●	●	●	●	●				●	●				●			0.031	0.500	0.250	0.203
		DNMG 443 TM	DNMG150612-TM	●	●	●	●	●				●	●				●			0.047	0.500	0.250	0.203
		DNMG 444 TM	DNMG150616-TM	●	●	●	●	●			●		●							0.063	0.500	0.250	0.203
	PM	DNMG 331E PM	DNMG110404E-PM		●	●		●				●	●							0.016	0.375	0.187	0.150
		DNMG 332E PM	DNMG110408E-PM		●	●		●				●	●							0.031	0.375	0.187	0.150
		DNMG 333E PM	DNMG110412E-PM		●	●		●				●	●							0.047	0.375	0.187	0.150
		DNMG 431 PM	DNMG150404-PM		●	●		●				●	●							0.016	0.500	0.187	0.203
		DNMG 432 PM	DNMG150408-PM		●	●		●				●	●							0.031	0.500	0.187	0.203
		DNMG 433 PM	DNMG150412-PM		●	●		●				●	●							0.047	0.500	0.187	0.203
		DNMG 434 PM	DNMG150416-PM		●	●		●				●	●							0.063	0.500	0.187	0.203
		DNMG 441 PM	DNMG150604-PM		●	●		●				●	●							0.016	0.500	0.250	0.203
		DNMG 442 PM	DNMG150608-PM		●	●		●				●	●							0.031	0.500	0.250	0.203
		DNMG 443 PM	DNMG150612-PM		●	●		●				●	●							0.047	0.500	0.250	0.203
		DNMG 444 PM	DNMG150616-PM		●	●		●				●	●							0.063	0.500	0.250	0.203
Medium cutting for mild steel	ZM	DNMG 331E ZM	DNMG110404E-ZM		●	●		●				●	●							0.016	0.375	0.187	0.150
		DNMG 332E ZM	DNMG110408E-ZM		●	●		●				●	●							0.031	0.375	0.187	0.150
		DNMG 333E ZM	DNMG110412E-ZM		●	●		●				●	●							0.047	0.375	0.187	0.150
		DNMG 431 ZM	DNMG150404-ZM		●	●		●				●	●							0.016	0.500	0.187	0.203
		DNMG 432 ZM	DNMG150408-ZM		●	●	●	●				●	●					●	●	0.031	0.500	0.187	0.203
		DNMG 433 ZM	DNMG150412-ZM		●	●	●	●				●	●							0.047	0.500	0.187	0.203
		DNMG 434 ZM	DNMG150416-ZM		●	●		●				●	●							0.063	0.500	0.187	0.203
		DNMG 441 ZM	DNMG150604-ZM		●	●		●				●	●							0.016	0.500	0.250	0.203
		DNMG 442 ZM	DNMG150608-ZM		●	●	●	●				●	●							0.031	0.500	0.250	0.203
		DNMG 443 ZM	DNMG150612-ZM		●	●		●				●	●							0.047	0.500	0.250	0.203
		DNMG 444 ZM	DNMG150616-ZM		●	●		●				●	●							0.063	0.500	0.250	0.203
Medium cutting	AM	DNMG 432 AM	DNMG150408-AM		●	●														0.031	0.500	0.187	0.203
		DNMG 433 AM	DNMG150412-AM		●	●														0.047	0.500	0.187	0.203
		DNMG 434 AM	DNMG150416-AM		●	●														0.063	0.500	0.187	0.203
		DNMG 442 AM	DNMG150608-AM		●	●														0.031	0.500	0.250	0.203
		DNMG 443 AM	DNMG150612-AM		●	●														0.047	0.500	0.250	0.203
		DNMG 444 AM	DNMG150616-AM		●	●														0.063	0.500	0.250	0.203

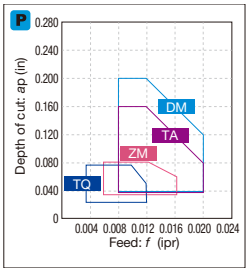
● : Line up

Chip control range









Reference pages: External toolholder → C036 - Internal toolholder → D042 -
J-Series toolholder → G052 TungCap → K011 -

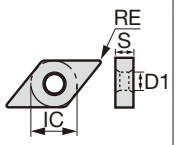
Insert NEGATIVE TYPE

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

DN

Rhombic, 55° with hole

P	Steel	● ●ⓒ ⓒ ✠ ✠ ⓒ ✠✠ ✠ ● ●ⓒ ⓒ ●ⓒ ⓒ ●
M	Stainless	●ⓒ ● ●ⓒ ✠ ● ●ⓒ ●
K	Cast iron	●ⓒ ⓒ ● ●ⓒ ● ⓒ ✠ ● ●ⓒ ⓒ ●ⓒ ⓒ ●
N	Non-ferrous	●
S	Superalloy	● ⓒ ● ●ⓒ
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T6215	T505	T515	T5105	T5115	T5125	AH8005	AH8015	AH6225	AH6235	AH110	AH120	Coated cermet GT9530	Cermet NS9530	NS520	Uncoated TH10	Dimension (in) RE	IC	S	D1
Medium cutting	NM	DNMG 432 NM	DNMG150408-NM		●	●	●													●		●		0.031	0.500	0.187	0.203
		DNMG 433 NM	DNMG150412-NM	●	●	●	●																	0.047	0.500	0.187	0.203
		DNMG 442 NM	DNMG150608-NM																	●		●		0.031	0.500	0.250	0.203
	DM	DNMG 431 DM	DNMG150404-DM		●	●		●							●	●								0.016	0.500	0.187	0.203
		DNMG 432 DM	DNMG150408-DM		●	●	●	●							●	●								0.031	0.500	0.187	0.203
		DNMG 433 DM	DNMG150412-DM	●	●	●	●	●							●	●								0.047	0.500	0.187	0.203
		DNMG 434 DM	DNMG150416-DM		●	●		●							●	●								0.063	0.500	0.187	0.203
		DNMG 441 DM	DNMG150604-DM		●	●		●							●	●								0.016	0.500	0.250	0.203
		DNMG 442 DM	DNMG150608-DM		●	●	●	●							●	●								0.031	0.500	0.250	0.203
		DNMG 443 DM	DNMG150612-DM	●	●	●	●	●							●	●								0.047	0.500	0.250	0.203
		DNMG 444 DM	DNMG150616-DM	●	●	●		●							●	●								0.063	0.500	0.250	0.203
Finishing to medium cutting	All-round	DNMG 331	DNMG110404		●	●					●	●	●							●		●		0.016	0.375	0.187	0.150
		DNMG 332	DNMG110408	●	●	●	●				●	●	●							●		●		0.031	0.375	0.187	0.150
		DNMG 431	DNMG150404		●	●	●				●	●	●					●	●	●		●	●	0.016	0.500	0.187	0.203
		DNMG 432	DNMG150408	●	●	●	●		●	●	●	●	●					●	●	●		●	●	0.031	0.500	0.187	0.203
		DNMG 433	DNMG150412	●	●	●	●		●	●	●	●	●					●	●			●	●	0.047	0.500	0.187	0.203
		DNMG 434	DNMG150416		●	●					●	●	●											0.063	0.500	0.187	0.203
		DNMG 441	DNMG150604		●	●					●	●											●	0.016	0.500	0.250	0.203
		DNMG 442	DNMG150608	●	●	●	●		●	●	●	●	●										●	0.031	0.500	0.250	0.203
		DNMG 443	DNMG150612	●	●	●	●		●	●		●	●										●	0.047	0.500	0.250	0.203
		DNMG 444	DNMG150616		●	●																		0.063	0.500	0.250	0.203
Medium cutting	SM	DNMG 331E SM	DNMG110404E-SM					●								●								0.016	0.375	0.187	0.150
		DNMG 332E SM	DNMG110408E-SM					●								●								0.031	0.375	0.187	0.150
		DNMG 431 SM	DNMG150404-SM					●								●	●							0.016	0.500	0.187	0.203
		DNMG 432 SM	DNMG150408-SM					●								●	●							0.031	0.500	0.187	0.203
		DNMG 433 SM	DNMG150412-SM					●								●	●							0.047	0.500	0.187	0.203
		DNMG 441 SM	DNMG150604-SM					●								●	●							0.016	0.500	0.250	0.203
		DNMG 442 SM	DNMG150608-SM					●								●	●							0.031	0.500	0.250	0.203
		DNMG 443 SM	DNMG150612-SM					●								●	●							0.047	0.500	0.250	0.203
	SDM	DNMG 431 SDM	DNMG150404-SDM					●						●	●	●	●							0.016	0.500	0.187	0.203
		DNMG 432 SDM	DNMG150408-SDM					●						●	●	●	●							0.031	0.500	0.187	0.203
		DNMG 433 SDM	DNMG150412-SDM					●								●	●							0.047	0.500	0.187	0.203
		DNMG 441 SDM	DNMG150604-SDM					●								●	●							0.016	0.500	0.250	0.203
		DNMG 442 SDM	DNMG150608-SDM					●						●	●	●	●							0.031	0.500	0.250	0.203
		DNMG 443 SDM	DNMG150612-SDM					●						●	●	●	●							0.047	0.500	0.250	0.203
	HRM	DNMG 431 HRM	DNMG150404-HRM											●	●									0.016	0.500	0.250	0.203
		DNMG 432 HRM	DNMG150408-HRM											●	●									0.031	0.500	0.187	0.203
		DNMG 433 HRM	DNMG150412-HRM											●	●									0.047	0.500	0.187	0.203
		DNMG 441 HRM	DNMG150604-HRM											●	●									0.016	0.500	0.187	0.203
		DNMG 442 HRM	DNMG150608-HRM											●	●									0.031	0.500	0.250	0.203
		DNMG 443 HRM	DNMG150612-HRM											●	●									0.047	0.500	0.250	0.203

● : Line up

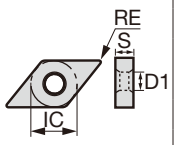
Reference pages: External toolholder → C036 - Internal toolholder → D042 -
J-Series toolholder → G052 TungCap → K011 -

● : Continuous cutting
ᑕ : Light interrupted cutting
✠ : Heavy interrupted cutting

DN

Rhombic, 55° with hole

P	Steel	●	●ᑕ	●ᑕ✠	ᑕ							●ᑕ			●ᑕ	●ᑕ		●ᑕ		
M	Stainless		●ᑕ		●							●ᑕ			●ᑕ	●ᑕ		●ᑕ		
K	Cast iron	●ᑕ	●ᑕ			●	●ᑕ	●	ᑕ	✠		●ᑕ			●ᑕ	●ᑕ		●ᑕ		
N	Non-ferrous																			
S	Superalloy										ᑕ	●ᑕ								
H	Hard material																			

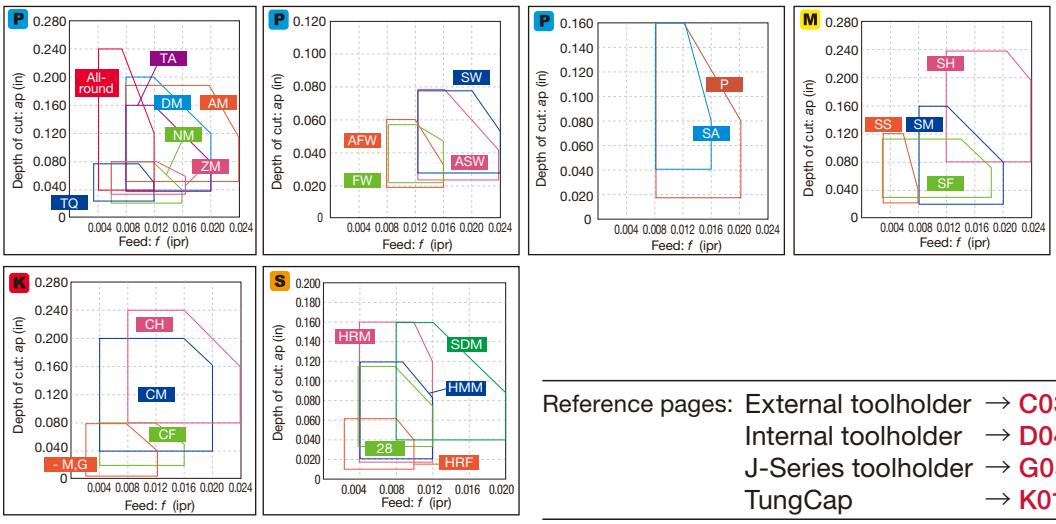


Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T6215	T505	T515	T5105	T5115	T5125	AH905	AH120	Coated cermet GT9530	AT9530	Cermet NS9530	Dimension (in) RE	IC	S	D1
Medium cutting	**CM**	DNMG 431 CM	DNMG150404-CM	●	●		●	●	●	●	●	●						0.016	0.500	0.187	0.203
		DNMG 432 CM	DNMG150408-CM	●	●		●	●	●	●	●	●						0.031	0.500	0.187	0.203
		DNMG 433 CM	DNMG150412-CM	●	●		●	●	●	●	●	●						0.047	0.500	0.187	0.203
		DNMG 441 CM	DNMG150604-CM	●	●		●	●	●		●	●						0.016	0.500	0.250	0.203
		DNMG 442 CM	DNMG150608-CM	●	●		●	●	●	●	●	●						0.031	0.500	0.250	0.203
		DNMG 443 CM	DNMG150612-CM	●	●		●	●	●	●	●	●						0.047	0.500	0.250	0.203
Finishing (wiper)	**SW**	DNMG 332E SW	DNMG110408E-SW		●													0.031	0.375	0.187	0.150
		DNMG 333E SW	DNMG110412E-SW		●													0.047	0.375	0.187	0.150
		DNMG 432 SW	DNMG150408-SW		●													0.031	0.500	0.187	0.203
		DNMG 433 SW	DNMG150412-SW		●													0.047	0.500	0.187	0.203
		DNMG 442 SW	DNMG150608-SW		●													0.031	0.500	0.250	0.203
		DNMG 443 SW	DNMG150612-SW		●													0.047	0.500	0.250	0.203
		*Wiper																			
Medium cutting	**TQ**	DNMG 431 TQ	DNMG150404-TQ		●	●									●	●	●	0.016	0.500	0.187	0.203
		DNMG 432 TQ	DNMG150408-TQ		●	●									●	●	●	0.031	0.500	0.187	0.203
	SA	DNMG 431 SA	DNMG150404-SA											●				0.016	0.500	0.187	0.203
		DNMG 432 SA	DNMG150408-SA											●				0.031	0.500	0.187	0.203
		DNMG 441 SA	DNMG150604-SA											●				0.016	0.500	0.250	0.203
		DNMG 442 SA	DNMG150608-SA											●				0.031	0.500	0.250	0.203
	HMM	DNMG 431 HMM	DNMG150404-HMM										●					0.016	0.500	0.187	0.203
		DNMG 432 HMM	DNMG150408-HMM										●					0.031	0.500	0.187	0.203
		DNMG 433 HMM	DNMG150412-HMM										●					0.047	0.500	0.187	0.203

* Please see **L011 - L015** about the adjustment of the machining program for rounding or taper machining when using SW/FW.
Please contact our sales representatives if you have any questions.

● : Line up

Chip control range



Reference pages: External toolholder → C036 -
Internal toolholder → D042 -
J-Series toolholder → G052
TungCap → K011 -

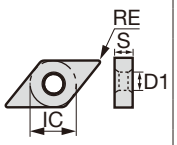
Insert NEGATIVE TYPE

● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

DN

Rhombic, 55° with hole

		T9215	T9225	T9235	AH8005	AH8015	AH6225	AH6235	AH110	AH120	GH110	GH330	GT9530	NS9530	TH10	KS05F
P	Steel	●ɔ	●ɔ✣	✣			ɔ✣	✣	●	●ɔ	●	●ɔ	●ɔ		●	
M	Stainless	●ɔ			●	ɔ	●ɔ	✣	●	●ɔ	●	●ɔ			●	
K	Cast iron	●ɔ							●	●ɔ	●	●ɔ	●ɔ	●ɔ	●	●
N	Non-ferrous														●	●
S	Superalloy				●	ɔ			●	●ɔ	●					●
H	Hard material															



Application	Chipbreaker	Designation Inch	Designation Metric	Coated										Coated cermet		Cermet		Uncoated		Dimension (in)			
				T9215	T9225	T9235	AH8005	AH8015	AH6225	AH6235	AH110	AH120	GH110	GH330	GT9530		NS9530		TH10	KS05F	RE	IC	S	D1
Medium cutting	P	DNGG 430.5 R-P	DNGG150402R-P										●						●		0.008	0.500	0.187	0.203
		DNGG 430.5 L-P	DNGG150402L-P										●						●		0.008	0.500	0.187	0.203
		DNGG 431 R-P	DNGG150404R-P										●						●		0.016	0.500	0.187	0.203
		DNGG 431 L-P	DNGG150404L-P										●						●		0.016	0.500	0.187	0.203
		DNGG 432 R-P	DNGG150408R-P																●		0.031	0.500	0.187	0.203
		DNGG 432 L-P	DNGG150408L-P																●		0.031	0.500	0.187	0.203
	S	DNMG 431 R-S	DNMG150404R-S		●	●			●	●				●			●				0.016	0.500	0.187	0.203
		DNMG 431 L-S	DNMG150404L-S		●	●			●	●				●			●				0.016	0.500	0.187	0.203
		DNMG 432 R-S	DNMG150408R-S		●	●			●	●				●			●				0.031	0.500	0.187	0.203
		DNMG 432 L-S	DNMG150408L-S		●	●			●	●				●			●				0.031	0.500	0.187	0.203
		DNMG 441 R-S	DNMG150604R-S		●	●			●	●											0.016	0.500	0.250	0.203
		DNMG 441 L-S	DNMG150604L-S		●	●			●	●											0.016	0.500	0.250	0.203
		DNMG 442 R-S	DNMG150608R-S		●	●			●	●				●							0.031	0.500	0.250	0.203
		DNMG 442 L-S	DNMG150608L-S		●	●			●	●											0.031	0.500	0.250	0.203
	27	DNMG 431-27	DNMG150404-27		●												●				0.016	0.500	0.187	0.203
		DNMG 432-27	DNMG150408-27	●	●												●				0.031	0.500	0.187	0.203
		DNMG 433-27	DNMG150412-27		●																0.047	0.500	0.187	0.203
	28	DNMG 431-28	DNMG150404-28				●	●			●	●								●	0.016	0.500	0.187	0.203
		DNMG 432-28	DNMG150408-28				●	●			●	●								●	0.031	0.500	0.187	0.203
		DNMG 441-28	DNMG150604-28				●	●												●	0.016	0.500	0.250	0.203
		DNMG 442-28	DNMG150608-28				●	●												●	0.031	0.500	0.250	0.203
	33	DNMG 431-33	DNMG150404-33								●										0.016	0.500	0.187	0.203
		DNMG 432-33	DNMG150408-33								●								●		0.031	0.500	0.187	0.203
	37	DNMG 431-37	DNMG150404-37														●				0.016	0.500	0.187	0.203
		DNMG 432-37	DNMG150408-37											●			●				0.031	0.500	0.187	0.203
		DNMG 442-37	DNMG150608-37	●																	0.031	0.500	0.250	0.203
	38	DNMG 433-38	DNMG150412-38	●																	0.047	0.500	0.187	0.203
	Parallel	DNGG 431 R	DNGG150404R												●		●				0.016	0.500	0.187	0.203
		DNGG 431 L	DNGG150404L												●		●				0.016	0.500	0.187	0.203
		DNGG 432 R	DNGG150408R														●				0.031	0.500	0.187	0.203
		DNGG 432 L	DNGG150408L														●				0.031	0.500	0.187	0.203

● : Line up

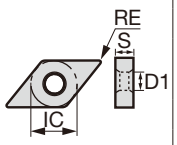
Reference pages: External toolholder → C036 - Internal toolholder → D042 -
J-Series toolholder → G052 TungCap → K011 -

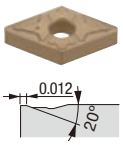
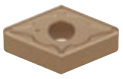
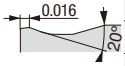
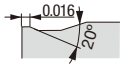
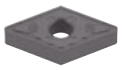
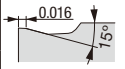
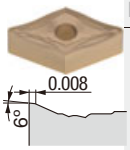
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

DN

Rhombic, 55° with hole

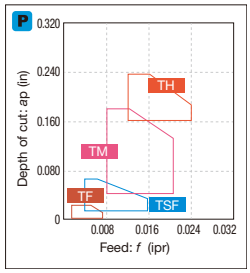
		T9215	T9225	T9235	T505	T515	T5105	T5115	T5125	AH8015	AH6225	AH6235	AH120	GT720	NS520	TH10
P	Steel	●◐	◐✠	✠						◐✠	✠	●◐	●◐		●◐	●
M	Stainless	●◐								◐	●◐	✠	●◐			●
K	Cast iron	●◐			●	●◐	●	◐	✠				●◐	●◐	●◐	●
N	Non-ferrous															●
S	Superalloy									◐			●◐			
H	Hard material															

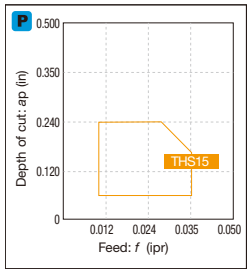


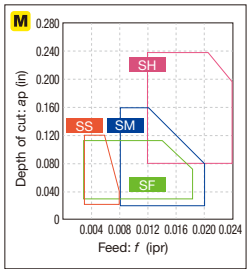
Application	Chipbreaker	Designation Inch	Designation Metric	RE	IC	S	D1
Medium to heavy cutting	TH	DNMG 432 TH	DNMG150408-TH	0.031	0.500	0.187	0.203
		DNMG 433 TH	DNMG150412-TH	0.047	0.500	0.187	0.203
		DNMG 434 TH	DNMG150416-TH	0.063	0.500	0.187	0.203
		DNMG 442 TH	DNMG150608-TH	0.031	0.500	0.250	0.203
		DNMG 443 TH	DNMG150612-TH	0.047	0.500	0.250	0.203
		DNMG 444 TH	DNMG150616-TH	0.063	0.500	0.250	0.203
	THS	DNMG 432 THS	DNMG150408-THS	0.031	0.500	0.187	0.203
		DNMG 433 THS	DNMG150412-THS	0.047	0.500	0.187	0.203
		DNMG 434 THS	DNMG150416-THS	0.063	0.500	0.187	0.203
		DNMG 442 THS	DNMG150608-THS	0.031	0.500	0.250	0.203
		DNMG 443 THS	DNMG150612-THS	0.047	0.500	0.250	0.203
		DNMG 444 THS	DNMG150616-THS	0.063	0.500	0.250	0.203
	SH	DNMG 432 SH	DNMG150408-SH	0.031	0.500	0.187	0.203
		DNMG 433 SH	DNMG150412-SH	0.047	0.500	0.187	0.203
		DNMG 434 SH	DNMG150416-SH	0.063	0.500	0.187	0.203
		DNMG 442 SH	DNMG150608-SH	0.031	0.500	0.250	0.203
		DNMG 443 SH	DNMG150612-SH	0.047	0.500	0.250	0.203
	CH	DNMG 431 CH	DNMG150404-CH	0.016	0.500	0.187	0.203
		DNMG 432 CH	DNMG150408-CH	0.031	0.500	0.187	0.203
		DNMG 433 CH	DNMG150412-CH	0.047	0.500	0.187	0.203
		DNMG 442 CH	DNMG150608-CH	0.031	0.500	0.250	0.203
		DNMG 443 CH	DNMG150612-CH	0.047	0.500	0.250	0.203
Medium to heavy cutting (single side)	57	DNMM 442-57	DNMM150608-57	0.031	0.500	0.250	0.203
		DNMM 443-57	DNMM150612-57	0.047	0.500	0.250	0.203
Finishing to medium cutting	-	DNMA 331E	DNMA110404E	0.016	0.375	0.187	0.150
		DNMA 332E	DNMA110408E	0.031	0.375	0.187	0.150
		DNMA 333E	DNMA110412E	0.047	0.375	0.187	0.150
		DNMA 431	DNMA150404	0.016	0.500	0.187	0.203
		DNMA 432	DNMA150408	0.031	0.500	0.187	0.203
		DNMA 433	DNMA150412	0.047	0.500	0.187	0.203
		DNMA 441	DNMA150604	0.016	0.500	0.250	0.203
		DNMA 442	DNMA150608	0.031	0.500	0.250	0.203
		DNMA 443	DNMA150612	0.047	0.500	0.250	0.203

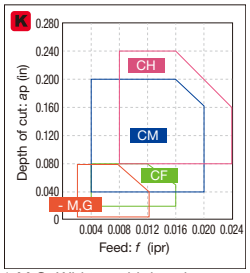
● : Line up

Chip control range









*-M,G: Without chipbreaker

Reference pages: External toolholder → C036 - Internal toolholder → D042 -
J-Series toolholder → G052 TungCap → K011 -

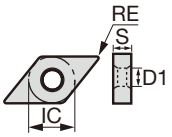
Insert NEGATIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

DN

Rhombic, 55° with hole

P	Steel	◐			●																										
M	Stainless				●																										
K	Cast iron	◐			●				◐																						
N	Non-ferrous				●																										
S	Superalloy																														
H	Hard material										◐	◐	◐																		

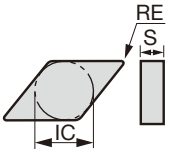


Application	Chipbreaker	Designation Inch	Designation Metric	Cermet NS520	Uncoated TH10	Ceramic FX105	Ceramic LX10	Ceramic LX11	Ceramic LX21	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	-	DNGA 431	DNGA150404	●	●		●	▲	●	0.016	0.500	0.187	0.203
		DNGA 432	DNGA150408	●	●	●	●	▲	●	0.031	0.500	0.187	0.203
		DNGA 433	DNGA150412			●	●	▲	●	0.047	0.500	0.187	0.203
		DNGA 434	DNGA150416			●		▲		0.063	0.500	0.187	0.203
		DNGA 441	DNGA150604				●	▲		0.016	0.500	0.250	0.203
		DNGA 442	DNGA150608				●	▲	●	0.031	0.500	0.250	0.203
		DNGA 443	DNGA150612				●	▲		0.047	0.500	0.250	0.203
		DNGA 444	DNGA150616				●	▲		0.063	0.500	0.250	0.203
		DNGA 445	DNGA150620				●	▲		0.078	0.500	0.250	0.203

DN

Rhombic, 55° without hole

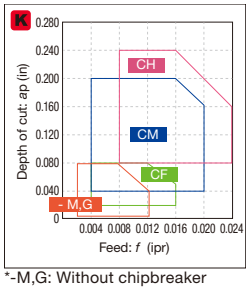
P	Steel																														
M	Stainless																														
K	Cast iron	◐																													
N	Non-ferrous																														
S	Superalloy																														
H	Hard material		◐	◐																											



Application	Chipbreaker	Designation Inch	Designation Metric	Ceramic FX105	Ceramic LX10	Ceramic LX11	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	-	DNGD 452	DNGD150708	●			0.031	0.500	0.313	-
		DNGD 453	DNGD150712	●			0.047	0.500	0.313	-
		DNGD 454	DNGD150716	●			0.063	0.500	0.313	-
	-	DNGN 431	DNGN150404			●	0.016	0.500	0.187	-
		DNGN 432	DNGN150408		●	▲	0.031	0.500	0.187	-
		DNGN 433	DNGN150412	●		▲	0.047	0.500	0.187	-
		DNGN 434	DNGN150416	●			0.063	0.500	0.187	-
		DNGN 452	DNGN150708		●	▲	0.031	0.500	0.313	-
		DNGN 453	DNGN150712		●	▲	0.047	0.500	0.313	-
		DNGN 454	DNGN150716		●	▲	0.063	0.500	0.313	-

● : Line up
▲ : To be discontinued

Chip control range



*-M,G: Without chipbreaker

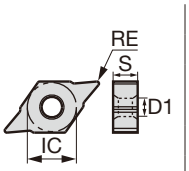
Reference pages: DNGA...: External toolholder → C036 -, Internal toolholder → D042 -
J-Series toolholder → G052, TungCap → K011 -
DNGD...: External toolholder → C042, C044

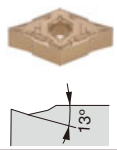
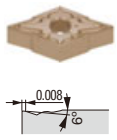
● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

FN

Rhombic, 45° with hole

P	Steel	●ɔ ɔ✠ ɔ ɔ✠
M	Stainless	●ɔ ● ɔ ●ɔ
K	Cast iron	●ɔ
N	Non-ferrous	
S	Superalloy	ɔ
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T6215	AH8015	AH6225	Dimension (in) RE	IC	S	D1
Finishing	TSF	FNMG 330.5E TSF	FNMG110402E-TSF	●	●	●	●	●	0.008	0.375	0.187	0.150
		FNMG 331E TSF	FNMG110404E-TSF	●	●	●	●	●	0.016	0.375	0.187	0.150
		FNMG 332E TSF	FNMG110408E-TSF	●	●	●	●	●	0.031	0.375	0.187	0.150
		FNMG 333E TSF	FNMG110412E-TSF	●	●	●	●	●	0.047	0.375	0.187	0.150
Medium cutting	TM	FNMG 331E TM	FNMG110404E-TM	●	●	●	●	●	0.016	0.375	0.187	0.150
		FNMG 332E TM	FNMG110408E-TM	●	●	●	●	●	0.031	0.375	0.187	0.150
		FNMG 333E TM	FNMG110412E-TM	●	●	●	●	●	0.047	0.375	0.187	0.150
		FNMG 334E TM	FNMG110416E-TM					●	0.063	0.375	0.187	0.150

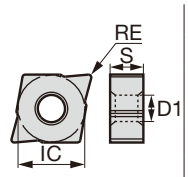
Make sure to offset the cutting edge position after insert change.
Please note that the insert shim may interfere with the workpiece when FNMG insert is used with Q-style toolholder to undercut a work diameter of 1.968" or smaller.

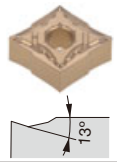
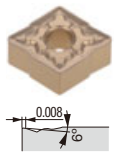
● : Line up

GN

Rhombic, 70° with hole

P	Steel	●ɔ ɔ✠ ɔ ɔ✠
M	Stainless	●ɔ ● ɔ ●ɔ
K	Cast iron	●ɔ
N	Non-ferrous	
S	Superalloy	ɔ
H	Hard material	

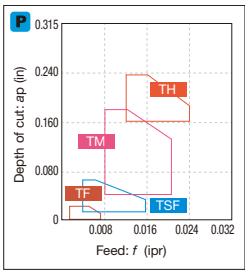


Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T6215	AH8015	AH6225	Dimension (in) RE	IC	S	D1
Finishing	TSF	GNMG 330.5E TSF	GNMG090402E-TSF	●	●	●	●	●	0.008	0.375	0.187	0.150
		GNMG 331E TSF	GNMG090404E-TSF	●	●	●	●	●	0.016	0.375	0.187	0.150
		GNMG 332E TSF	GNMG090408E-TSF	●	●	●	●	●	0.031	0.375	0.187	0.150
Medium cutting	TM	GNMG 330.5E TM	-			●		●	0.008	0.375	0.187	0.150
		GNMG 331E TM	GNMG090404E-TM	●	●	●	●	●	0.016	0.375	0.187	0.150
		GNMG 332E TM	GNMG090408E-TM	●	●	●	●	●	0.031	0.375	0.187	0.150
		GNMG 333E TM	GNMG090412E-TM	●	●	●	●	●	0.047	0.375	0.187	0.150

Make sure to offset the cutting edge position after insert change.
Do not use ISO-EcoTurn cartridge set for CNMG33 (AD-CL-4/3-SET or -SET-S) with GNMG33 insert.
The insert may move during machining.

● : Line up

Chip control range



Reference pages: FNMG...: External toolholder → C036 -, Internal toolholder → D042 -
J-Series toolholder → G052, TungCap → K011 -
GNMG...: External toolholder → C019 -, Internal toolholder → D027 -
J-Series toolholder → G036, TungCap → K008 -

Insert NEGATIVE TYPE

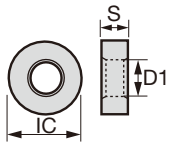
● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

RN

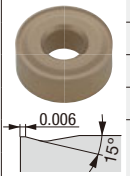


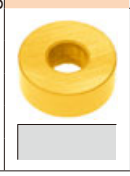
Round, with hole

		T9205	T9215	T9225	T9235	T5105	T5115	T5125	AH120	TH10	LX10	LX11
P	Steel	●	●ⓒ	ⓒ✠	✠				●ⓒ	●		
M	Stainless		●ⓒ						●ⓒ	●		
K	Cast iron	●ⓒ	●ⓒ			●	ⓒ	✠	●ⓒ	●		
N	Non-ferrous									●		
S	Superalloy								●ⓒ			
H	Hard material										●ⓒ	●ⓒ



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	Coated T9215	Coated T9225	Coated T9235	Coated T5105	Coated T5115	Coated T5125	Coated AH120	Uncoated TH10	Ceramic LX10	Ceramic LX11	Dimension (in) RE	IC	S	D1
Heavy cutting	61	RNMG 32-61	RNMG090300-61		●	●									-	0.375	0.125	0.150
		RNMG 43-61	RNMG120400-61	●	●	●	●	●	●	●	●	●			-	0.500	0.187	0.203
		RNMG 54-61	RNMG150600-61		●	●									-	0.625	0.250	6.43
		RNMG 64-61	RNMG190600-61		●	●	●								-	0.750	0.250	0.312
		RNMG 86-61	RNMG250900-61		●	●									-	1.000	0.375	9.22
Finishing to medium cutting	-	RNGA 43	RNGA120400										●	▲	-	0.500	0.187	0.203



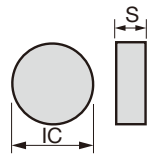


RN

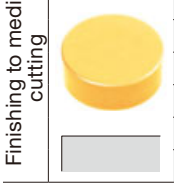


Round, without hole

		FX105	LX10	LX11	TW43	TS200	TS300
P	Steel						
M	Stainless						
K	Cast iron	●ⓒ					
N	Non-ferrous						
S	Superalloy				●	●	●
H	Hard material		●ⓒ	●ⓒ			



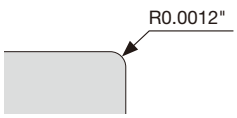
Application	Chipbreaker	Designation Inch	Designation Metric	Ceramic FX105	Ceramic LX10	Ceramic LX11	Ceramic TW43	Ceramic TS200	Ceramic TS300	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	-	RNGN 430	RNGN120400	●	●	▲				-	0.500	0.187	-
		RNGN 450	RNGN120700		●	▲				-	0.500	0.313	-
		RNGN 45	RNGN120700	●						-	0.500	0.313	-
		RNGN 45-E	RNGN120700-E					●	●	-	0.500	0.313	-
		RNGN 45-T1	RNGN120700-T1					●	●	-	0.500	0.313	-
		RNGN 43 T6	RNGN120400 T6				●			-	0.500	0.187	-
		RNGN 45 T6	RNGN120700 T6				●			-	0.500	0.313	-



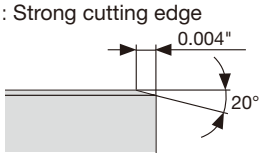
● : Line up
▲ : To be discontinued

Edge prep

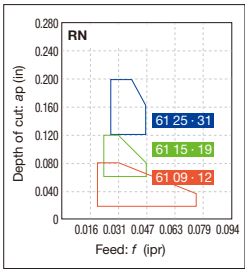
E: Low cutting force



T1/T6 : Strong cutting edge



Chip control range



Reference pages: RNMG..., RNGA...: External toolholder → C065 -

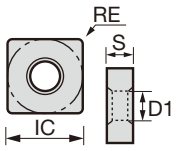
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

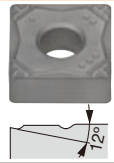
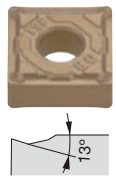
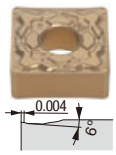
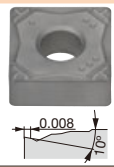
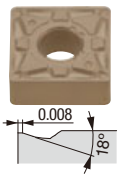
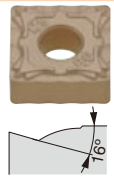
SN



Square with hole

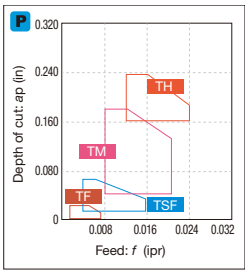
P	Steel	●	●ɔ	●✣	ɔ		ɔ✣			●ɔ	●ɔ			●ɔ											
M	Stainless		●ɔ		●	ɔ	●ɔ																		
K	Cast iron	●ɔ	●ɔ							●ɔ	●ɔ			●ɔ											
N	Non-ferrous																								
S	Superalloy					ɔ																			
H	Hard material																								

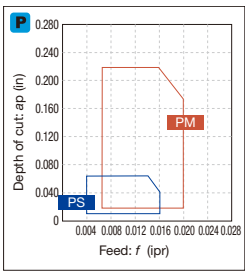


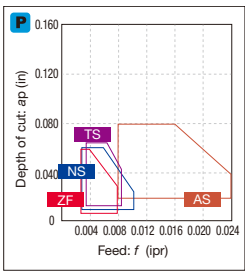
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	Coated T9215	Coated T9225	Coated T6215	Coated AH8015	Coated AH6225	Coated cermet GT9530	Coated cermet AT9530	Cermet NS9530	Dimension (in) RE	IC	S	D1
Finishing	TF	SNMG 431 TF	SNMG120402-TF		●	●	●	●	●			●	0.008	0.500	0.187	0.203
		SNMG 431 TF	SNMG120404-TF		●	●	●	●	●			●	0.016	0.500	0.187	0.203
		SNMG 432 TF	SNMG120408-TF		●	●	●	●	●			●	0.031	0.500	0.187	0.203
	TSF	SNMG 430.5 TSF	SNMG120402-TSF		●	●	●	●	●			●	0.008	0.500	0.187	0.203
		SNMG 431 TSF	SNMG120404-TSF		●	●	●	●	●	●	●	●	0.016	0.500	0.187	0.203
		SNMG 432 TSF	SNMG120408-TSF		●	●	●	●	●	●	●	●	0.031	0.500	0.187	0.203
		SNMG 433 TSF	SNMG120412-TSF		●	●	●	●	●			●	0.047	0.500	0.187	0.203
	PS	SNMG 430.5 PS	SNMG120402-PS		●	●	●	●	●				0.008	0.500	0.187	0.203
		SNMG 431 PS	SNMG120404-PS		●	●	●	●	●			●	0.016	0.500	0.187	0.203
		SNMG 432 PS	SNMG120408-PS		●	●	●	●	●			●	0.031	0.500	0.187	0.203
		SNMG 433 PS	SNMG120412-PS		●	●	●	●	●				0.047	0.500	0.187	0.203
Finishing for mild steel	ZF	SNMG 430.5 ZF	SNMG120402-ZF		●	●	●	●	●			●	0.008	0.500	0.187	0.203
		SNMG 431 ZF	SNMG120404-ZF		●	●	●	●	●			●	0.016	0.500	0.187	0.203
		SNMG 432 ZF	SNMG120408-ZF		●	●	●	●	●			●	0.031	0.500	0.187	0.203
		SNMG 433 ZF	SNMG120412-ZF		●	●	●	●	●			●	0.047	0.500	0.187	0.203
Finishing	AS	SNMG 431 AS	SNMG120404-AS									●	0.016	0.500	0.187	0.203
		SNMG 432 AS	SNMG120408-AS	●	●							●	0.031	0.500	0.187	0.203
	NS	SNMG 432 NS	SNMG120408-NS		●	●							0.031	0.500	0.187	0.203
																

● : Line up

Chip control range







Reference pages: External toolholder → C076 - Internal toolholder → D054 -

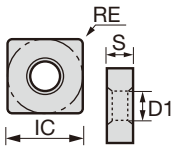
Insert NEGATIVE TYPE

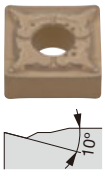
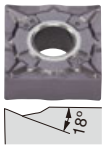
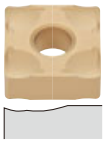
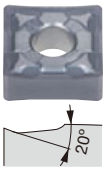
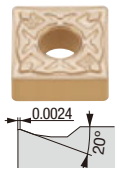
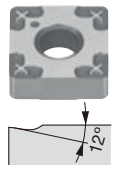
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

SN

Square with hole

P	Steel	● ●ɔ ɔ✣ ✣ ɔ ✣ ●ɔ ●ɔ
M	Stainless	●ɔ ● ɔ ●ɔ ✣ ●ɔ
K	Cast iron	●ɔ ●ɔ ● ɔ ●ɔ ●ɔ ●ɔ
N	Non-ferrous	●
S	Superalloy	● ɔ ●
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T6215	T5105	T5115	AH8005	AH8015	AH6225	AH6235	GH330	Coated cermet GT9530	AT9530	Cermet NS9530	NS520	Uncoated TH10	Dimension (in) RE	IC	S	D1
Finishing	TS	SNMG 430.5 TS	SNMG120402-TS		●	●		●				●	●					●			0.008	0.500	0.187	0.203
		SNMG 431 TS	SNMG120404-TS		●	●		●				●	●			●	●	●			0.016	0.500	0.187	0.203
		SNMG 432 TS	SNMG120408-TS	●	●	●	●	●				●	●			●	●	●			0.031	0.500	0.187	0.203
		SNMG 433 TS	SNMG120412-TS		●	●	●	●				●	●					●			0.047	0.500	0.187	0.203
	SF	SNMG 431 SF	SNMG120404-SF					●					●								0.016	0.500	0.187	0.203
		SNMG 432 SF	SNMG120408-SF					●					●								0.031	0.500	0.187	0.203
	SS	SNMG 431 SS	SNMG120404-SS					●					●	●	●						0.016	0.500	0.187	0.203
		SNMG 432 SS	SNMG120408-SS					●					●	●	●						0.031	0.500	0.187	0.203
		SNMG 433 SS	SNMG120412-SS					●					●	●							0.047	0.500	0.187	0.203
	HRF	SNMG 432 HRF	SNMG120408-HRF								●	●									0.031	0.500	0.187	0.203
		SNMG 433 HRF	SNMG120412-HRF								●	●									0.047	0.500	0.187	0.203
	CF	SNMG 432 CF	SNMG120408-CF						●	●											0.031	0.500	0.187	0.203
		SNMG 433 CF	SNMG120412-CF						●	●											0.047	0.500	0.187	0.203
	01	SNGG 320.5-01	SNGG090302-01															●			0.008	0.375	0.125	0.150
		SNGG 321-01	SNGG090304-01															●			0.016	0.375	0.125	0.150
		SNGG 322-01	SNGG090308-01															●	●		0.031	0.375	0.125	0.150
		SNGG 430.5-01	SNGG120402-01															●			0.008	0.500	0.187	0.203
		SNGG 431-01	SNGG120404-01															●			0.016	0.500	0.187	0.203
		SNGG 432-01	SNGG120408-01															●	●		0.031	0.500	0.187	0.203
	11	SNMG 431-11	SNMG120404-11															●			0.016	0.500	0.187	0.203
		SNMG 432-11	SNMG120408-11															●		●	0.031	0.500	0.187	0.203

● : Line up

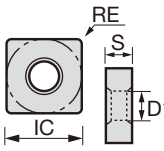
Reference pages: External toolholder → C076 - Internal toolholder → D054 -

● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

SN

Square with hole

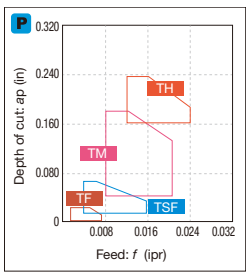
P	Steel	●	●ɔ	●✠	✠	ɔ		ɔ✠	ɔ	●ɔ			●ɔ				●ɔ				
M	Stainless		●ɔ			●	ɔ	●ɔ	ɔ	●ɔ											
K	Cast iron	●ɔ	●ɔ						ɔ	●ɔ			●ɔ				●ɔ				
N	Non-ferrous																				
S	Superalloy						ɔ		●	●ɔ											
H	Hard material																				

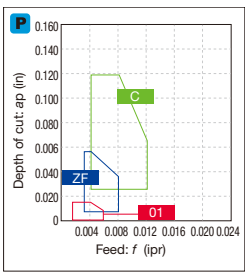


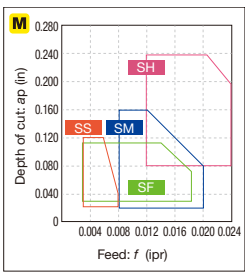
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T6215	AH8015	AH6225	AH725	AH120	Coated cermet GT9530	Cermet NS9530	Dimension (in) RE	IC	S	D1
Finishing for mild steel	17	SNMG 432-17	SNMG120408-17											●	0.031	0.500	0.187	0.203
Finishing	B ~ D	SNGG 321 R-B	SNGG090304R-B										●	●	0.016	0.375	0.125	0.150
		SNGG 321 L-B	SNGG090304L-B										●	●	0.016	0.375	0.125	0.150
		SNGG 322 R-B	SNGG090308R-B											●	0.031	0.375	0.125	0.150
		SNGG 322 L-B	SNGG090308L-B											●	0.031	0.375	0.125	0.150
		SNGG 431 R-C	SNGG120404R-C										●	●	0.016	0.500	0.187	0.203
		SNGG 431 L-C	SNGG120404L-C										●	●	0.016	0.500	0.187	0.203
		SNGG 432 R-C	SNGG120408R-C											●	0.031	0.500	0.187	0.203
		SNGG 432 L-C	SNGG120408L-C											●	0.031	0.500	0.187	0.203
		SNGG 432 R-D	SNGG120408R-D											●	0.031	0.500	0.187	0.203
		SNGG 432 L-D	SNGG120408L-D											●	0.031	0.500	0.187	0.203
Medium cutting	TM	SNMG 321 TM	SNMG090304-TM		●	●	●								0.016	0.375	0.125	0.150
		SNMG 322 TM	SNMG090308-TM		●	●	●								0.031	0.375	0.125	0.150
		SNMG 431 TM	SNMG120404-TM		●	●		●	●	●		●			0.016	0.500	0.187	0.203
		SNMG 432 TM	SNMG120408-TM	●	●	●	●	●	●	●		●			0.031	0.500	0.187	0.203
		SNMG 433 TM	SNMG120412-TM	●	●	●	●	●	●	●	●	●			0.047	0.500	0.187	0.203
		SNMG 434 TM	SNMG120416-TM		●	●	●	●	●	●					0.063	0.500	0.187	0.203
		SNMG 542 TM	SNMG150608-TM		●										0.031	0.625	0.250	0.250
		SNMG 543 TM	SNMG150612-TM		●							●			0.047	0.625	0.250	0.250
		SNMG 642 TM	SNMG190608-TM		●							●			0.031	0.750	0.250	0.312
		SNMG 643 TM	SNMG190612-TM		●							●			0.047	0.750	0.250	0.312
	PM	SNMG 431 PM	SNMG120404-PM		●	●		●	●	●					0.016	0.500	0.187	0.203
		SNMG 432 PM	SNMG120408-PM		●	●		●	●	●					0.031	0.500	0.187	0.203
		SNMG 433 PM	SNMG120412-PM		●	●		●	●	●					0.047	0.500	0.187	0.203
		SNMG 434 PM	SNMG120416-PM		●	●		●	●	●					0.063	0.500	0.187	0.203

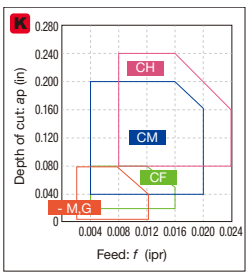
● : Line up

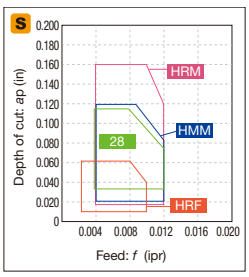
Chip control range



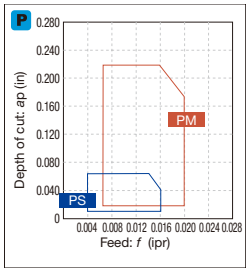


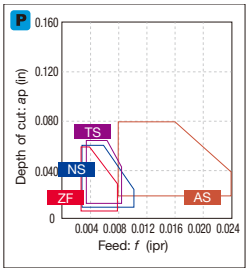






*-M,G: Without chipbreaker





Reference pages: External toolholder → C076 -
Internal toolholder → D054 -

Insert NEGATIVE TYPE

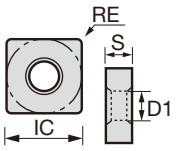
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

SN



Square with hole

P	Steel	● ɔ ɔ ✣ ✣ ɔ ɔ ✣ ✣ ✣ ɔ ● ɔ ɔ ɔ ɔ ●
M	Stainless	ɔ ɔ ● ɔ ɔ ✣ ✣ ɔ ● ɔ ɔ ɔ ●
K	Cast iron	ɔ ɔ ● ɔ ɔ ✣ ● ɔ ɔ ɔ ● ɔ ɔ ɔ ●
N	Non-ferrous	●
S	Superalloy	ɔ ɔ ● ● ɔ ɔ ●
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T6215	T505	T515	T5105	T5115	T5125	AH8015	AH6225	AH6235	AH905	AH725	AH110	AH120	Coated cermet GT720	Cermet NS9530	NS520	Uncoated TH10	Dimension (in) RE	IC	S	D1
Medium cutting for mild steel	ZM	SNMG 431 ZM	SNMG120404-ZM		●	●		●						●	●										0.016	0.500	0.187	0.203
		SNMG 432 ZM	SNMG120408-ZM		●	●	●	●						●	●										0.031	0.500	0.187	0.203
		SNMG 433 ZM	SNMG120412-ZM		●	●	●	●						●	●										0.047	0.500	0.187	0.203
		SNMG 434 ZM	SNMG120416-ZM		●	●		●						●	●										0.063	0.500	0.187	0.203
Medium cutting	DM	SNMG 431 DM	SNMG120404-DM		●	●		●						●	●										0.016	0.500	0.187	0.203
		SNMG 432 DM	SNMG120408-DM		●	●		●						●	●										0.031	0.500	0.187	0.203
		SNMG 433 DM	SNMG120412-DM		●	●	●	●						●	●										0.047	0.500	0.187	0.203
		SNMG 434 DM	SNMG120416-DM		●	●		●						●	●										0.063	0.500	0.187	0.203
Medium cutting	All-round	SNMG 321	SNMG090304		●	●																●		●	0.016	0.375	0.125	0.150
		SNMG 322	SNMG090308		●	●	●															●		●	0.031	0.375	0.125	0.150
		SNMG 431	SNMG120404		●	●	●				●	●								●	●	●	●	●	0.016	0.500	0.187	0.203
		SNMG 432	SNMG120408	●	●	●	●		●	●	●	●	●				●			●	●	●	●	●	0.031	0.500	0.187	0.203
		SNMG 433	SNMG120412	●	●	●	●		●	●	●	●	●							●	●			●	0.047	0.500	0.187	0.203
		SNMG 434	SNMG120416	●	●	●	●				●	●													0.063	0.500	0.187	0.203
		SNMG 435	SNMG120420		●	●	●					●	●												0.078	0.500	0.187	0.203
		SNMG 543	SNMG150612		●	●	●			●					●					●					0.047	0.625	0.250	0.250
		SNMG 544	SNMG150616		●	●				●										●					0.063	0.625	0.250	0.250
		SNMG 643	SNMG190612		●	●	●			●		●	●		●					●					0.047	0.750	0.250	0.312
		SNMG 644	SNMG190616		●	●	●			●	●	●	●							●					0.063	0.750	0.250	0.312
		SNMG 856	SNMG250724		●	●	●																		0.094	1.000	0.313	0.359
		SNMG 866	SNMG250924											●						●					0.094	1.000	0.375	0.359
	SM	SNMG 432 SM	SNMG120408-SM					●							●	●		●							0.031	0.500	0.187	0.203
		SNMG 433 SM	SNMG120412-SM					●							●	●									0.047	0.500	0.187	0.203
	SDM	SNMG 432 SDM	SNMG120408-SDM					●							●	●									0.031	0.500	0.187	0.203
		SNMG 433 SDM	SNMG120412-SDM					●							●	●									0.047	0.500	0.187	0.203
	CM	SNMG 432 CM	SNMG120408-CM	●	●			●	●	●	●	●	●												0.031	0.500	0.187	0.203
		SNMG 433 CM	SNMG120412-CM	●	●			●	●	●	●	●	●												0.047	0.500	0.187	0.203

● : Line up

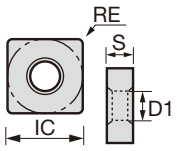
Reference pages: External toolholder → C076 - Internal toolholder → D054 -

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

SN

Square with hole

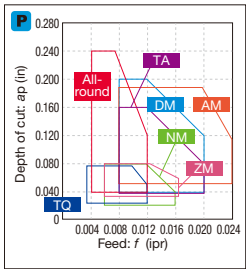
P	Steel	●◐◐✠ ◐ ◐✠ ✠ ●◐ ● ●◐◐◐ ●
M	Stainless	●◐ ● ● ◐ ◐✠ ✠ ●◐ ● ●◐ ●
K	Cast iron	●◐ ● ●◐ ● ◐ ✠ ●◐ ● ●◐◐◐ ● ◐✠
N	Non-ferrous	● ◐✠
S	Superalloy	● ◐ ◐ ●◐ ● ◐✠
H	Hard material	

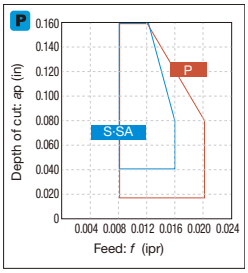


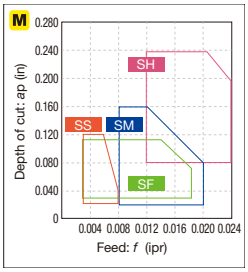
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T6215	T505	T515	T5105	T5115	T5125	AH8005	AH8015	AH6225	AH6235	AH905	AH120	GH110	GH330	Cermet NS9530	Uncoated TH10	KS20	Dimension (in) RE	IC	S	D1
Medium cutting	HRM	SNMG 432 HRM	SNMG120408-HRM									●	●										0.031	0.500	0.187	0.203
		SNMG 433 HRM	SNMG120412-HRM									●	●										0.047	0.500	0.187	0.203
		SNMG 542 HRM	SNMG150608-HRM									●	●										0.031	0.625	0.250	0.250
		SNMG 543 HRM	SNMG150612-HRM									●	●										0.047	0.625	0.250	0.250
		SNMG 643 HRM	SNMG190612-HRM									●	●										0.047	0.750	0.250	0.312
		SNMG 644 HRM	SNMG190616-HRM									●	●										0.063	0.750	0.250	0.312
	TA	SNMG 432 TA	SNMG120408-TA	●	●																		0.031	0.500	0.187	0.203
		SNMG 433 TA	SNMG120412-TA	●	●																		0.047	0.500	0.187	0.203
	SA	SNMG 431 SA	SNMG120404-SA			●								●	●		●						0.016	0.500	0.187	0.203
		SNMG 432 SA	SNMG120408-SA			●								●	●		●					●	0.031	0.500	0.187	0.203
		SNMG 433 SA	SNMG120412-SA			●								●	●		●						0.047	0.500	0.187	0.203
		SNMG 643 SA	SNMG190612-SA														●					●	0.047	0.750	0.250	0.312
		SNMG 644 SA	SNMG190616-SA														●						0.063	0.750	0.250	0.312
	HMM	SNMG 432 HMM	SNMG120408-HMM													●							0.031	0.500	0.187	0.203
		SNMG 433 HMM	SNMG120412-HMM													●							0.047	0.500	0.187	0.203
	P	SNGG 321 R-P	SNGG090304R-P															●			●		0.016	0.375	0.125	0.150
		SNGG 321 L-P	SNGG090304L-P															●			●		0.016	0.375	0.125	0.150
		SNGG 322 R-P	SNGG090308R-P															●	●	●	●		0.031	0.375	0.125	0.150
		SNGG 322 L-P	SNGG090308L-P															●			●		0.031	0.375	0.125	0.150
		SNGG 431 R-P	SNGG120404R-P															●			●		0.016	0.500	0.187	0.203
		SNGG 431 L-P	SNGG120404L-P															●			●		0.016	0.500	0.187	0.203
		SNGG 432 R-P	SNGG120408R-P															●			●		0.031	0.500	0.187	0.203
		SNGG 432 L-P	SNGG120408L-P															●			●		0.031	0.500	0.187	0.203

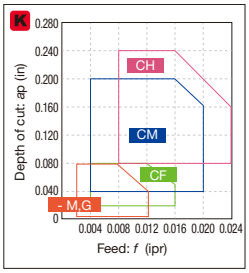
● : Line up

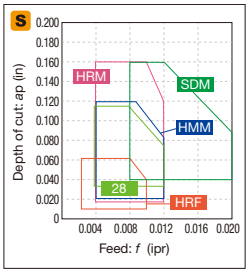
Chip control range











*-M,G: Without chipbreaker

Reference pages: External toolholder → C076 - Internal toolholder → D054 -

Insert NEGATIVE TYPE

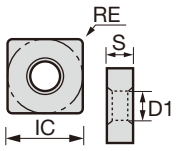
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

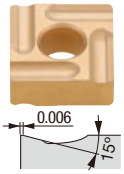
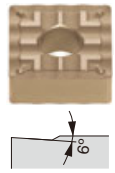
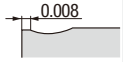
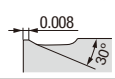
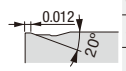
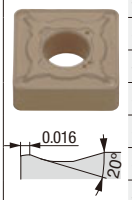
SN



Square with hole

P	Steel	●	●ɔ	ɔ✣	✣	ɔ✣	✣	●ɔ	●ɔ			●ɔ											
M	Stainless		●ɔ			●ɔ	✣	●ɔ	●ɔ														
K	Cast iron	●ɔ	●ɔ					●ɔ	●ɔ			●ɔ											
N	Non-ferrous																						
S	Superalloy							●ɔ															
H	Hard material																						



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	Coated T9215	Coated T9225	Coated T9235	Coated AH6225	Coated AH6235	Coated AH120	Coated GH330	Cermet NS9530	Dimension (in) RE	IC	S	D1
Medium cutting	**S**	**SNMG 431 R-S**	**SNMG120404R-S**			●	●	●	●			●	0.016	0.500	0.187	0.203
		SNMG 431 L-S	SNMG120404L-S			●	●	●	●			●	0.016	0.500	0.187	0.203
		SNMG 432 R-S	SNMG120408R-S			●	●	●	●		●	●	0.031	0.500	0.187	0.203
		SNMG 432 L-S	SNMG120408L-S			●	●	●	●		●	●	0.031	0.500	0.187	0.203
	27	**SNMG 432-27**	**SNMG120408-27**			●						●	0.031	0.500	0.187	0.203
		SNMG 433-27	SNMG120412-27			●							0.047	0.500	0.187	0.203
	33	**SNMG 432-33**	**SNMG120408-33**		●	●							0.031	0.500	0.187	0.203
		SNMG 433-33	SNMG120412-33			●							0.047	0.500	0.187	0.203
		SNMG 543-33	**SNMG150612-33**		●	●							0.047	0.625	0.250	0.250
		SNMG 644-33	**SNMG190616-33**			●	●						0.063	0.750	0.250	0.312
																
	37	**SNMG 432-37**	**SNMG120408-37**		●						●	●	0.031	0.500	0.187	0.203
		SNMG 433-37	SNMG120412-37		●								0.047	0.500	0.187	0.203
																
Medium to heavy cutting	**TH**	**SNMG 432 TH**	**SNMG120408-TH**		●	●	●			●			0.031	0.500	0.187	0.203
		SNMG 433 TH	SNMG120412-TH		●	●	●			●			0.047	0.500	0.187	0.203
		SNMG 543 TH	**SNMG150612-TH**	●	●	●				●			0.047	0.625	0.250	0.250
		SNMG 544 TH	SNMG150616-TH	●	●	●				●			0.063	0.625	0.250	0.250
		SNMG 643 TH	**SNMG190612-TH**	●	●	●	●			●			0.047	0.750	0.250	0.312
		SNMG 644 TH	SNMG190616-TH	●	●	●	●			●			0.063	0.750	0.250	0.312
	THS	**SNMG 432 THS**	**SNMG120408-THS**		●	●	●						0.031	0.500	0.187	0.203
		SNMG 433 THS	SNMG120412-THS		●	●	●						0.047	0.500	0.187	0.203
		SNMG 543 THS	**SNMG150612-THS**		●	●							0.047	0.625	0.250	0.250
		SNMG 544 THS	SNMG150616-THS		●	●							0.063	0.625	0.250	0.250
		SNMG 642 THS	**SNMG190608-THS**		●	●	●						0.031	0.750	0.250	0.312
		SNMG 643 THS	SNMG190612-THS		●	●	●						0.047	0.750	0.250	0.312
		SNMG 644 THS	SNMG190616-THS		●	●	●						0.063	0.750	0.250	0.312
		SNMG 646 THS	SNMG190624-THS		●	●	●						0.094	0.750	0.250	0.312
		SNMG 854 THS	**SNMG250716-THS**		●	●	●						0.063	1.000	0.313	0.359
		SNMG 856 THS	SNMG250724-THS		●	●	●						0.094	1.000	0.313	0.359

● : Line up

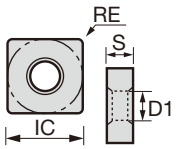
Reference pages: External toolholder → C076 - Internal toolholder → D054 -

● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

SN

Square with hole

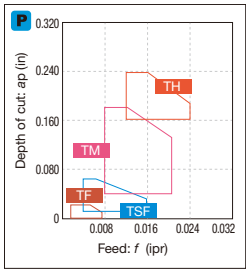
P	Steel	●ɔ ɔ✣ ✣ ɔ✣ ✣
M	Stainless	●ɔ ●ɔ ✣
K	Cast iron	●ɔ ● ɔ ✣
N	Non-ferrous	
S	Superalloy	
H	Hard material	

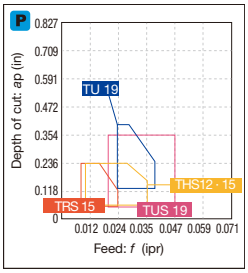


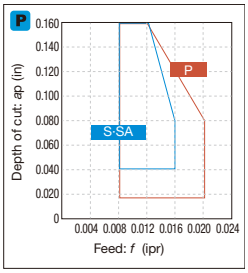
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T9235	T5105	T5115	T5125	AH6225	AH6235	Dimension (in) RE	IC	S	D1
Medium to heavy cutting	SH	SNMG 432 SH	SNMG120408-SH							●	●	0.031	0.500	0.187	0.203
		SNMG 433 SH	SNMG12041**2**-SH							●	●	0.047	0.500	0.187	0.203
		SNMG 543 SH	SNMG150612-SH							●	●	0.047	0.625	0.250	0.250
		SNMG 544 SH	SNMG15061**6**-SH							●	●	0.063	0.625	0.250	0.250
		SNMG 643 SH	SNMG190612-SH							●	●	0.047	0.750	0.250	0.312
		SNMG 644 SH	SNMG19061**6**-SH							●	●	0.063	0.750	0.250	0.312
	CH	SNMG 432 CH	SNMG120408-CH				●	●	●			0.031	0.500	0.187	0.203
		SNMG 433 CH	SNMG12041**2**-CH				●	●	●			0.047	0.500	0.187	0.203
		SNMG 434 CH	SNMG12041**6**-CH					●	●			0.063	0.500	0.187	0.203
Medium to heavy cutting (single sided)	TRS	SNMM 543 TRS	SNMM150612-TRS	●	●	●						0.047	0.625	0.250	0.250
		SNMM 544 TRS	SNMM15061**6**-TRS	●	●	●						0.063	0.625	0.250	0.250
		SNMM 644 TRS	SNMM190616-TRS	●	●	●						0.063	0.750	0.250	0.312
		SNMM 646 TRS	SNMM19062**4**-TRS	●	●	●						0.094	0.750	0.250	0.312
		SNMM 866 TRS	SNMM250924-TRS	●	●	●						0.094	1.000	0.375	0.359
	57	SNMM 432-57	SNMM120408-57	●	●							0.031	0.500	0.187	0.203
		SNMM 544-57	SNMM150616-57		●							0.063	0.625	0.250	0.250
		SNMM 643-57	SNMM190612-57		●							0.047	0.750	0.250	0.312
	65	SNMM 643-65	SNMM190612-65		●							0.047	0.750	0.250	0.312
		SNMM 646-65	SNMM190624-65		●							0.094	0.750	0.250	0.312
		SNMM 1066-65	SNMM310924-65		●							0.094	1.250	0.375	0.346

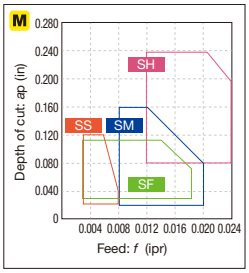
● : Line up

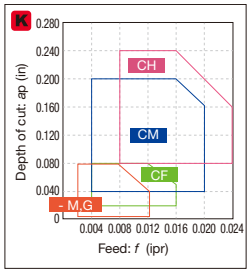
Chip control range











*-M,G: Without chipbreaker

Reference pages: External toolholder → C076 - Internal toolholder → D054 -

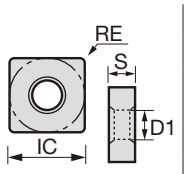
Insert NEGATIVE TYPE

● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

SN

Square with hole

		T9215	T9225	T9235	T505	T515	T5105	T5115	T5125	GT720	NS520	TH10	FX105	LX10	LX11	LX21
P	Steel	●ɔ	ɔ✠	✠						●ɔ		●ɔ		●		
M	Stainless	●ɔ												●		
K	Cast iron	●ɔ			●	●ɔ	●	ɔ	✠	●ɔ		●ɔ		●		●ɔ
N	Non-ferrous													●		
S	Superalloy															
H	Hard material												●ɔ	●ɔ	●ɔ	●ɔ

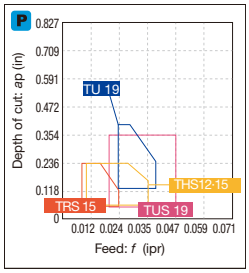


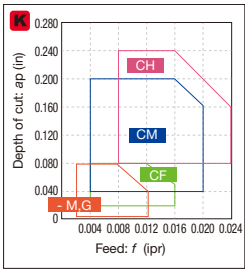
Application	Chipbreaker	Designation Inch	Designation Metric	RE	IC	S	D1
Heavy cutting (single sided)	TU	SNMM 644 TU	SNMM190616-TU	0.063	0.750	0.250	0.312
		SNMM 646 TU	SNMM190624-TU	0.094	0.750	0.250	0.312
		SNMM 856 TU	SNMM250724-TU	0.094	1.000	0.313	0.359
		SNMM 866 TU	SNMM250924-TU	0.094	1.000	0.375	0.359
	TUS	SNMM 643 TUS	SNMM190612-TUS	0.047	0.750	0.250	0.312
		SNMM 644 TUS	SNMM190616-TUS	0.063	0.750	0.250	0.312
		SNMM 646 TUS	SNMM190624-TUS	0.094	0.750	0.250	0.312
		SNMM 856 TUS	SNMM250724-TUS	0.094	1.000	0.313	0.359
		SNMM 858 TUS	SNMM250732-TUS	0.125	1.000	0.313	0.359
		SNMM 866 TUS	SNMM250924-TUS	0.094	1.000	0.375	0.359
		SNMM 868 TUS	SNMM250932-TUS	0.125	1.000	0.375	0.359
Finishing to medium cutting	-	SNMA 322	SNMA090308	0.031	0.375	0.125	0.150
		SNMA 323	SNMA090312	0.047	0.375	0.125	0.150
		SNMA 431	SNMA120404	0.016	0.500	0.187	0.203
		SNMA 432	SNMA120408	0.031	0.500	0.187	0.203
		SNMA 433	SNMA120412	0.047	0.500	0.187	0.203
		SNMA 434	SNMA120416	0.063	0.500	0.187	0.203
	-	SNGA 321	SNGA090304	0.016	0.375	0.125	0.150
		SNGA 431	SNGA120404	0.016	0.500	0.187	0.203
		SNGA 432	SNGA120408	0.031	0.500	0.187	0.203
		SNGA 433	SNGA120412	0.047	0.500	0.187	0.203
		SNGA 434	SNGA120416	0.063	0.500	0.187	0.203

Coated								Coated cermet		Cermet		Un-coated	Ceramic			
T9215	T9225	T9235	T505	T515	T5105	T5115	T5125	GT720		NS520		TH10	FX105	LX10	LX11	LX21
●	●	●														
	●	●														
	●	●														
●	●															
●	●	●														
●	●	●														
●	●	●														
●	●	●														
●	●															
●	●	●														
●	●															
					●	●	●					●				
						●										
					●	●		●								
			●	●	●	●	●			●		●	●			
			●	●	●	●	●			●		●	●			
					●	●	●									
												●				
								●				●		●	▲	
										●		●	●	●	▲	
												●	●	●	▲	●
													●	●	▲	

● : Line up
▲ : To be discontinued

Chip control range





Reference pages: External toolholder → C076 - Internal toolholder → D054 -

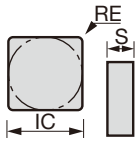
● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

SN



Square without hole

P	Steel	●ⓒ
M	Stainless	●ⓒ
K	Cast iron	●ⓒ
N	Non-ferrous	●
S	Superalloy	●ⓒ
H	Hard material	●ⓒ●ⓒ●ⓒ

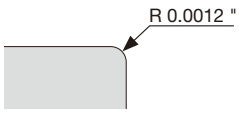


Application	Chipbreaker	Designation Inch	Designation Metric	Coated AH120	Uncoated TH10	Ceramic TZ120	Ceramic FX105	Ceramic LX10	Ceramic LX11	Ceramic LX21	Ceramic TS300	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	-	**SNGD 453**	**SNGD120712**				●					0.047	0.500	0.313	-
		SNGD 454	SNGD120716				●					0.063	0.500	0.313	-
	-	**SNMN 432**	**SNMN120408**		●							0.031	0.500	0.187	-
		SNMN 433	SNMN120412	●								0.047	0.500	0.187	-
		SNMN 434	SNMN120416				●					0.063	0.500	0.187	-
	-	**SNGN 322**	**SNGN090308**					●	▲	●		0.031	0.375	0.125	-
		SNGN 421	**SNGN120304**					●	▲			0.016	0.500	0.125	-
		SNGN 423	SNGN120312						▲			0.047	0.500	0.125	-
		SNGN 431	**SNGN120404**					●	▲			0.016	0.500	0.187	-
		SNGN 432	SNGN120408		●		●	●	▲	●		0.031	0.500	0.187	-
		SNGN 433	SNGN120412			●	●	●	▲	●		0.047	0.500	0.187	-
		SNGN 434	SNGN120416				●	●	▲	●		0.063	0.500	0.187	-
		SNGN 435	SNGN120420				●			●		0.078	0.500	0.187	-
		SNGN 436	SNGN120424				●					0.094	0.500	0.187	-
		SNGN 452	**SNGN120708**			●		●	▲			0.031	0.500	0.313	-
		SNGN 453	SNGN120712			●	●	●	▲			0.047	0.500	0.313	-
		SNGN 453-T1	SNGN120712-T1								●	0.047	0.500	0.313	-
		SNGN 454	SNGN120716			●	●	●	▲			0.063	0.500	0.313	-
		SNGN 455	SNGN120720						▲			0.078	0.500	0.313	-

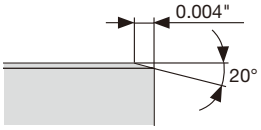
● : Line up
▲ : To be discontinued

Edge prep

E: Low cutting force



T1: Strong cutting edge



Reference pages: SNGD...: External toolholder → C081

MEMO

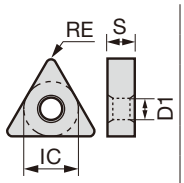
● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

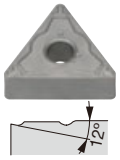
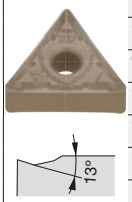
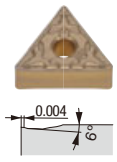
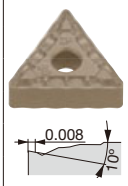
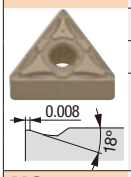
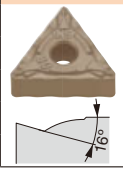
TN



Triangular with hole

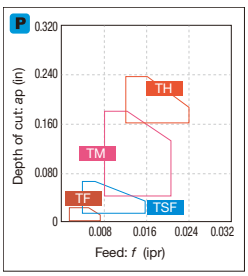
P	Steel	●	●ⓒ	●✠	✠	ⓒ		✠	●ⓒ		●ⓒ	●ⓒ			●ⓒ	●ⓒ			●		
M	Stainless		●ⓒ			●	ⓒ	●ⓒ	●ⓒ										●		
K	Cast iron	●ⓒ	●ⓒ						●ⓒ		●ⓒ	●ⓒ			●ⓒ	●ⓒ			●		
N	Non-ferrous																		●		
S	Superalloy					ⓒ			●ⓒ												
H	Hard material																				

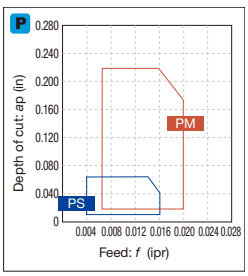


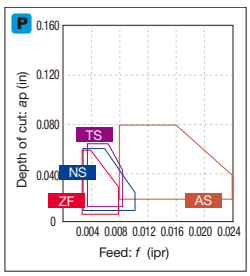
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	Coated T9215	Coated T9225	Coated T9235	Coated T6215	Coated AH8015	Coated AH6225	Coated AH120	Coated cermet GT9530	Coated cermet AT9530	Cermet NS9530	Cermet NS520	Uncoated TH10	Dimension (in) RE	IC	S	D1
Finishing	**TF**	**TNMG 230.5E TF**	**TNMG110402E-TF**		●	●		●	●	●				●			0.008	0.250	0.187	0.089
		TNMG 231E TF	TNMG110404E-TF		●	●		●	●	●				●			0.016	0.250	0.187	0.089
		TNMG 232E TF	TNMG110408E-TF		●	●		●	●	●				●			0.031	0.250	0.187	0.089
		TNMG 331 TF	**TNMG160402-TF**		●	●		●	●	●				●			0.008	0.375	0.187	0.150
		TNMG 331 TF	TNMG160404-TF		●	●		●	●	●				●	●	●	0.016	0.375	0.187	0.150
		TNMG 332 TF	TNMG160408-TF		●	●		●	●	●				●	●		0.031	0.375	0.187	0.150
	TSF	**TNMG 230.5E TSF**	**TNMG110402E-TSF**		●	●		●	●	●		●		●			0.008	0.250	0.187	0.089
		TNMG 231E TSF	TNMG110404E-TSF		●	●		●	●	●		●	●	●			0.016	0.250	0.187	0.089
		TNMG 232E TSF	TNMG110408E-TSF		●	●		●	●	●		●	●	●			0.031	0.250	0.187	0.089
		TNMG 330.5 TSF	**TNMG160402-TSF**		●	●		●	●	●	●	●	●	●			0.008	0.375	0.187	0.150
		TNMG 331 TSF	TNMG160404-TSF		●	●	●	●	●	●	●	●	●	●			0.016	0.375	0.187	0.150
		TNMG 332 TSF	TNMG160408-TSF	●	●	●	●	●	●	●	●	●	●	●			0.031	0.375	0.187	0.150
		TNMG 333 TSF	TNMG160412-TSF	●	●	●	●	●	●	●	●	●		●			0.047	0.375	0.187	0.150
	PS	**TNMG 230.5E PS**	**TNMG110402E-PS**		●	●		●	●	●				●			0.008	0.250	0.187	0.089
		TNMG 231E PS	TNMG110404E-PS		●	●		●	●	●				●			0.016	0.250	0.187	0.089
		TNMG 232E PS	TNMG110408E-PS		●	●		●	●	●				●			0.031	0.250	0.187	0.089
		TNMG 330.5 PS	**TNMG160402-PS**		●	●		●	●	●				●			0.008	0.375	0.187	0.150
		TNMG 331 PS	TNMG160404-PS		●	●		●	●	●				●			0.016	0.375	0.187	0.150
		TNMG 332 PS	TNMG160408-PS		●	●		●	●	●				●			0.031	0.375	0.187	0.150
		TNMG 333 PS	TNMG160412-PS		●	●		●	●	●				●			0.047	0.375	0.187	0.150
Finishing for mild steel	**ZF**	**TNMG 230.5E ZF**	**TNMG110402E-ZF**		●	●		●	●	●				●			0.008	0.250	0.187	0.089
		TNMG 231E ZF	TNMG110404E-ZF		●	●		●	●	●				●			0.016	0.250	0.187	0.089
		TNMG 232E ZF	TNMG110408E-ZF		●	●		●	●	●				●			0.031	0.250	0.187	0.089
		TNMG 330.5 ZF	**TNMG160402-ZF**		●	●		●	●	●				●			0.008	0.375	0.187	0.150
		TNMG 331 ZF	TNMG160404-ZF		●	●	●	●	●	●		●	●	●			0.016	0.375	0.187	0.150
		TNMG 332 ZF	TNMG160408-ZF		●	●	●	●	●	●		●	●	●			0.031	0.375	0.187	0.150
		TNMG 333 ZF	TNMG160412-ZF		●	●		●	●	●				●			0.047	0.375	0.187	0.150
Finishing	**AS**	**TNMG 331 AS**	**TNMG160404-AS**			●	●							●			0.016	0.375	0.187	0.150
		TNMG 332 AS	TNMG160408-AS	●	●	●	●							●			0.031	0.375	0.187	0.150
		TNMG 333 AS	TNMG160412-AS	●	●	●											0.047	0.375	0.187	0.150
	NS	**TNMG 331 NS**	**TNMG160404-NS**		●	●								●			0.016	0.375	0.187	0.150
		TNMG 332 NS	TNMG160408-NS	●	●	●								●			0.031	0.375	0.187	0.150

● : Line up

Chip control range







Reference pages: External toolholder → C088 - Internal toolholder → D063 -
J-Series toolholder → G056 - TungCap → K013 -

Insert NEGATIVE TYPE

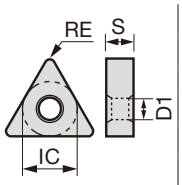
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

TN



Triangular with hole

P	Steel	●	●ɔ	ɔ✣	✣	ɔ						ɔ✣	✣	●ɔ	●ɔ	●ɔ	●ɔ	●ɔ		●ɔ	●ɔ										
M	Stainless		●ɔ			●			●	ɔ	●ɔ	✣	●ɔ	●ɔ																	
K	Cast iron	●ɔ	●ɔ				●	ɔ						●ɔ	●ɔ	●ɔ	●ɔ	●ɔ		●ɔ	●ɔ		ɔ✣								
N	Non-ferrous																						ɔ✣								
S	Superalloy								●	ɔ				●ɔ									ɔ✣								
H	Hard material																														



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T6215	T5105	T5115	AH8005	AH8015	AH6225	AH6235	AH120	GH330	Coated cermet GT9530	AT9530	Cermet NS9530	NS520	Uncoated KS20	Dimension (in) RE	IC	S	D1
Finishing	**TS**	**TNMG 330.5E TS**	**TNMG110402E-TS**		●	●		●				●	●						●			0.008	0.250	0.187	0.089
		TNMG 231E TS	TNMG110404E-TS		●	●		●				●	●						●			0.016	0.250	0.187	0.089
		TNMG 232E TS	TNMG110408E-TS		●	●		●				●	●						●			0.031	0.250	0.187	0.089
		TNMG 330.5 TS	**TNMG160402-TS**		●	●		●				●	●						●			0.008	0.375	0.187	0.150
		TNMG 331 TS	TNMG160404-TS		●	●	●	●				●	●				●	●	●	●		0.016	0.375	0.187	0.150
		TNMG 332 TS	TNMG160408-TS	●	●	●	●	●				●	●				●	●	●	●		0.031	0.375	0.187	0.150
		TNMG 333 TS	TNMG160412-TS	●	●	●	●	●				●	●						●			0.047	0.375	0.187	0.150
	SF	**TNMG 331 SF**	**TNMG160404-SF**					●					●									0.016	0.375	0.187	0.150
		TNMG 332 SF	TNMG160408-SF					●					●									0.031	0.375	0.187	0.150
		TNMG 333 SF	TNMG160412-SF					●					●									0.047	0.375	0.187	0.150
	SS	**TNMG 231E SS**	**TNMG110404E-SS**										●	●								0.016	0.250	0.187	0.089
		TNMG 232E SS	TNMG110408E-SS										●	●								0.031	0.250	0.187	0.089
		TNMG 331 SS	**TNMG160404-SS**					●					●	●	●	●					●	0.016	0.375	0.187	0.150
		TNMG 332 SS	TNMG160408-SS					●					●	●	●	●					●	0.031	0.375	0.187	0.150
		TNMG 333 SS	TNMG160412-SS					●					●	●		●						0.047	0.375	0.187	0.150
		TNMG 431 SS	**TNMG220404-SS**					●					●	●		●						0.016	0.500	0.187	0.203
		TNMG 432 SS	TNMG220408-SS					●					●	●		●						0.031	0.500	0.187	0.203
		TNMG 433 SS	TNMG220412-SS					●					●	●		●						0.047	0.500	0.187	0.203
	HRF	**TNMG 331 HRF**	**TNMG160404-HRF**								●	●										0.016	0.375	0.187	0.150
		TNMG 332 HRF	TNMG160408-HRF								●	●										0.031	0.375	0.187	0.150
	CF	**TNMG 331 CF**	**TNMG160404-CF**						●	●												0.016	0.375	0.187	0.150
		TNMG 332 CF	TNMG160408-CF						●	●												0.031	0.375	0.187	0.150
Finishing (wiper)	**FW**	**TNMG 231E FW**	**TNMG110404E-FW**		●																	0.016	0.250	0.187	0.089
		TNMG 232E FW	TNMG110408E-FW		●																	0.031	0.250	0.187	0.089
		TNMG 332 FW	**TNMG110408E-FW**		●																	0.031	0.375	0.187	0.150
		TNMG 331 FW	TNMG160404-FW		●																	0.016	0.375	0.187	0.150
		TNMG 332 FW	TNMG160408-FW		●																	0.031	0.375	0.187	0.150
		*Wiper																							

* Please see **L011 - L015** about the adjustment of the machining program for rounding or taper machining when using SW/FW.
Please contact our sales representatives if you have any questions.

● : Line up

Reference pages: External toolholder → C088 - Internal toolholder → D063 -
J-Series toolholder → G056 - TungCap → K013 -

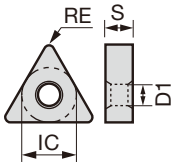
● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

TN



Triangular with hole

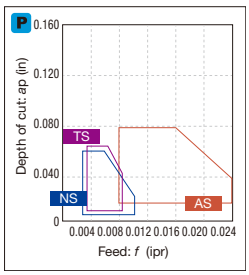
P	Steel	●ɔ	●✠	●	●ɔ	●ɔ			●ɔ					●ɔ	●ɔ				●					
M	Stainless	●ɔ		●	●ɔ	●ɔ													●					
K	Cast iron	●ɔ		●	●ɔ				●ɔ					●ɔ	●ɔ				●					
N	Non-ferrous																		●					
S	Superalloy			●																				
H	Hard material																							

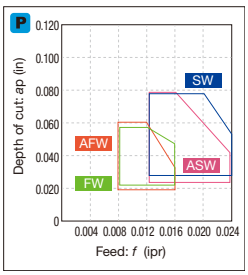


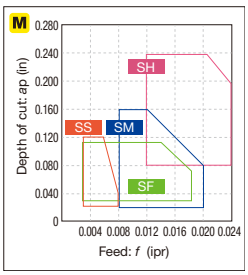
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated GH110	Coated GH330	Coated SH725	Coated cermet GT720	Cermet NS9530	Cermet NS520	Uncoated TH10	Dimension (in) RE	IC	S	D1
Finishing (sharp edge)	01	TNGG 330.5 F-01	TNGG160402F-01					●					0.008	0.375	0.187	0.150
		TNGG 331 F-01	TNGG160404F-01					●					0.016	0.375	0.187	0.150
		TNGG 332 F-01	TNGG160408F-01					●					0.031	0.375	0.187	0.150
Finishing	01	TNGG 220.5-01	TNGG110302-01							●			0.008	0.250	0.125	0.089
		TNGG 221-01	TNGG110304-01							●			0.016	0.250	0.125	0.089
		TNGG 222-01	TNGG110308-01							●	●		0.031	0.250	0.125	0.089
		TNGG 330.5-01	TNGG160402-01			●				●	●	●	0.008	0.375	0.187	0.150
		TNGG 331-01	TNGG160404-01			●				●	●	●	0.016	0.375	0.187	0.150
		TNGG 332-01	TNGG160408-01			●				●	●		0.031	0.375	0.187	0.150
		TNGG 333-01	TNGG160412-01						●	●			0.047	0.375	0.187	0.150
	11	TNMG 221-11	TNMG110304-11							●			0.016	0.250	0.125	0.089
		TNMG 222-11	TNMG110308-11							●			0.031	0.250	0.125	0.089
		TNMG 330.5-11	TNMG160402-11							●			0.008	0.375	0.187	0.150
		TNMG 331-11	TNMG160404-11				●			●		●	0.016	0.375	0.187	0.150
		TNMG 332-11	TNMG160408-11							●			0.031	0.375	0.187	0.150
		TNMG 431-11	TNMG220404-11							●			0.016	0.500	0.187	0.203
		TNMG 432-11	TNMG220408-11							●			0.031	0.500	0.187	0.203
Finishing for mild steel	17	TNMG 331-17	TNMG160404-17		●		●			●			0.016	0.375	0.187	0.150
		TNMG 332-17	TNMG160408-17		●					●			0.031	0.375	0.187	0.150
Boring (double sided)	CB	TNMG 221 CB	TNMG110304-CB	●						●			0.016	0.250	0.125	0.089
		TNMG 222 CB	TNMG110308-CB	●						●			0.031	0.250	0.125	0.089

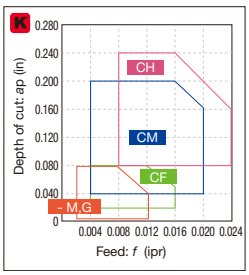
● : Line up

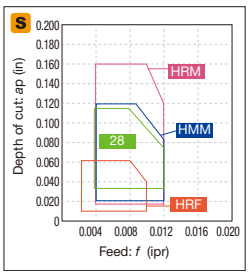
Chip control range



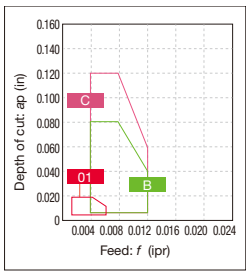








*-M,G: Without chipbreaker



Reference pages: External toolholder → C088 - Internal toolholder → D063 -
J-Series toolholder → G056 - TungCap → K013 -

Insert NEGATIVE TYPE

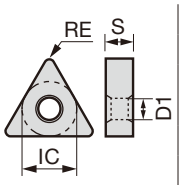
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

TN



Triangular with hole

P	Steel	●	●◐	◐✠	✠	◐			◐✠	◐	●◐	●	●◐	●◐	●◐	●◐	●◐	●	●					
M	Stainless		●◐			●	●	◐	●◐	◐	●◐	●	●◐	●◐					●					
K	Cast iron	●◐	●◐							◐	●◐	●	●◐		●◐	●◐	●◐	●	●					
N	Non-ferrous																		●					
S	Superalloy						●	◐		●	●◐	●												
H	Hard material																							



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T6215	AH8005	AH8015	AH6225	AH725	AH120	GH110	GH330	SH725	Coated cermet GT9530	Cermet NS9530	NS520	X407	Un-coated TH10	Dimension (in) RE	IC	S	D1
Finishing	A, C	TNGG 221 R-A	TNGG110304R-A														●	●				0.016	0.250	0.125	0.089
		TNGG 221 L-A	TNGG110304L-A														●	●				0.016	0.250	0.125	0.089
		TNGG 222 R-A	TNGG110308R-A														●	●				0.031	0.250	0.125	0.089
		TNGG 222 L-A	TNGG110308L-A														●	●				0.031	0.250	0.125	0.089
		TNGG 321 R-C	TNGG160304R-C															●		●		0.016	0.375	0.125	0.150
		TNGG 321 L-C	TNGG160304L-C															●				0.016	0.375	0.125	0.150
		TNGG 322 R-C	TNGG160308R-C															●				0.031	0.375	0.125	0.150
		TNGG 322 L-C	TNGG160308L-C															●				0.031	0.375	0.125	0.150
		TNGG 33V R-C	TNGG160400R-C															●				0.001	0.375	0.187	0.150
		TNGG 33V L-C	TNGG160400L-C															●				0.001	0.375	0.187	0.150
		TNGG 330.5 R-C	TNGG160402R-C														●	●		●	●	0.008	0.375	0.187	0.150
		TNGG 330.5 L-C	TNGG160402L-C														●	●				0.008	0.375	0.187	0.150
		TNGG 331 R-C	TNGG160404R-C											●	●		●	●	●	●	●	0.016	0.375	0.187	0.150
		TNGG 331 L-C	TNGG160404L-C											●	●		●	●		●	●	0.016	0.375	0.187	0.150
		TNGG 332 R-C	TNGG160408R-C											●	●		●	●	●	●	●	0.031	0.375	0.187	0.150
		TNGG 332 L-C	TNGG160408L-C											●	●		●	●		●	●	0.031	0.375	0.187	0.150
	D	TNGG 431 R-D	TNGG220404R-D															●		●		0.016	0.500	0.187	0.203
		TNGG 431 L-D	TNGG220404L-D															●				0.016	0.500	0.187	0.203
		TNGG 432 R-D	TNGG220408R-D															●		●		0.031	0.500	0.187	0.203
		TNGG 432 L-D	TNGG220408L-D															●				0.031	0.500	0.187	0.203
Finishing (sharp edge)	W	TNGG 330.5 FR-W	TNGG160402FR-W													●						0.008	0.375	0.187	0.150
		TNGG 330.5 FL-W	TNGG160402FL-W													●						0.008	0.375	0.187	0.150
		TNGG 331 FR-W	TNGG160404FR-W													●						0.016	0.375	0.187	0.150
		TNGG 331 FL-W	TNGG160404FL-W													●						0.016	0.375	0.187	0.150
		TNGG 332 FR-W	TNGG160408FR-W													●						0.031	0.375	0.187	0.150
		TNGG 332 FL-W	TNGG160408FL-W													●						0.031	0.375	0.187	0.150
Finishing	W	TNGG 331 R-W	TNGG160404R-W															●			●	0.016	0.375	0.187	0.150
		TNGG 331 L-W	TNGG160404L-W															●			●	0.016	0.375	0.187	0.150
		TNGG 332 R-W	TNGG160408R-W															●				0.031	0.375	0.187	0.150
		TNGG 332 L-W	TNGG160408L-W															●				0.031	0.375	0.187	0.150
Medium cutting	TM	TNMG 221 TM	TNMG110304-TM		●	●	●															0.016	0.250	0.125	0.089
		TNMG 222 TM	TNMG110308-TM		●	●	●															0.031	0.250	0.125	0.089
		TNMG 231E TM	TNMG110404E-TM		●	●		●		●	●											0.016	0.250	0.187	0.089
		TNMG 232E TM	TNMG110408E-TM		●	●		●		●	●											0.031	0.250	0.187	0.089
		TNMG 233E TM	TNMG110412E-TM		●	●		●		●	●											0.047	0.250	0.187	0.089
		TNMG 331 TM	TNMG160404-TM		●	●	●	●		●	●	●	●									0.016	0.375	0.187	0.150
		TNMG 332 TM	TNMG160408-TM	●	●	●	●	●		●	●	●	●									0.031	0.375	0.187	0.150
		TNMG 333 TM	TNMG160412-TM	●	●	●	●	●		●	●											0.047	0.375	0.187	0.150
		TNMG 334 TM	TNMG160416-TM		●	●		●	●	●	●											0.063	0.375	0.187	0.150
		TNMG 431 TM	TNMG220404-TM		●	●							●									0.016	0.500	0.187	0.203
		TNMG 432 TM	TNMG220408-TM	●	●	●	●						●									0.031	0.500	0.187	0.203
		TNMG 433 TM	TNMG220412-TM		●	●	●						●									0.047	0.500	0.187	0.203
		TNMG 434 TM	TNMG220416-TM		●	●																0.063	0.500	0.187	0.203

● : Line up

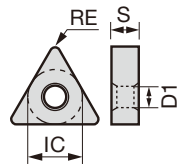
Reference pages: External toolholder → C088 - Internal toolholder → D063 -
J-Series toolholder → G056 - TungCap → K013 -

● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

TN

Triangular with hole

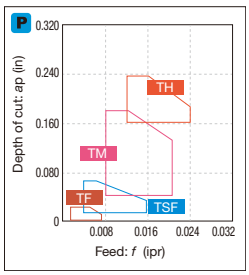
P	Steel	●ɔ	ɔ✣	✣	ɔ		ɔ✣					●ɔ					●ɔ			
M	Stainless	●ɔ			●	ɔ	●ɔ													
K	Cast iron	●ɔ										●ɔ					●ɔ			
N	Non-ferrous																			
S	Superalloy					ɔ														
H	Hard material																			

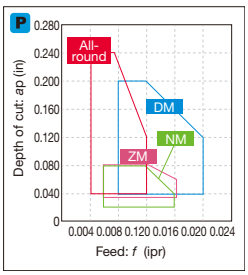


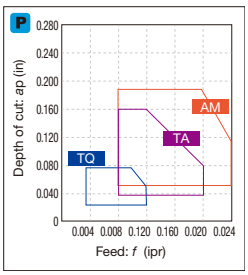
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated T9235	Coated T6215	Coated AH8015	Coated AH6225	Coated cermet GT9530	Cermet NS9530	Dimension (in) RE	IC	S	D1
Medium cutting	PM	TNMG 231E PM	TNMG110404E-PM	●	●		●	●	●			0.016	0.250	0.187	0.089
		TNMG 232E PM	TNMG110408E-PM	●	●		●	●	●			0.031	0.250	0.187	0.089
		TNMG 233E PM	TNMG110412E-PM	●	●		●	●	●			0.047	0.250	0.187	0.089
		TNMG 331 PM	TNMG160404-PM	●	●		●	●	●			0.016	0.375	0.187	0.150
		TNMG 332 PM	TNMG160408-PM	●	●		●	●	●			0.031	0.375	0.187	0.150
		TNMG 333 PM	TNMG160412-PM	●	●		●	●	●			0.047	0.375	0.187	0.150
		TNMG 334 PM	TNMG160416-PM									0.063	0.375	0.187	0.150
Medium cutting for mild steel	ZM	TNMG 231E ZM	TNMG110404E-ZM	●	●		●	●	●			0.016	0.250	0.187	0.089
		TNMG 232E ZM	TNMG110408E-ZM	●	●		●	●	●			0.031	0.250	0.187	0.089
		TNMG 233E ZM	TNMG110412E-ZM	●	●		●	●	●			0.047	0.250	0.187	0.089
		TNMG 331 ZM	TNMG160404-ZM	●	●	●	●	●	●	●	●	0.016	0.375	0.187	0.150
		TNMG 332 ZM	TNMG160408-ZM	●	●	●	●	●	●	●	●	0.031	0.375	0.187	0.150
		TNMG 333 ZM	TNMG160412-ZM	●	●	●	●	●	●			0.047	0.375	0.187	0.150
		TNMG 334 ZM	TNMG160416-ZM	●	●		●	●	●			0.063	0.375	0.187	0.150
		TNMG 433 ZM	TNMG220412-ZM		●							0.047	0.500	0.187	0.203
Medium cutting	AM	TNMG 332 AM	TNMG160408-AM	●	●							0.031	0.375	0.187	0.150
		TNMG 333 AM	TNMG160412-AM	●	●							0.047	0.375	0.187	0.150
	NM	TNMG 332 NM	TNMG160408-NM		●							0.031	0.375	0.187	0.150
		TNMG 333 NM	TNMG160412-NM	●	●							0.047	0.375	0.187	0.150

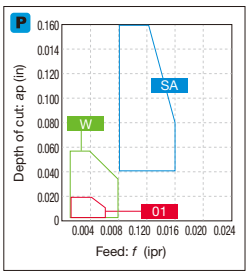
● : Line up

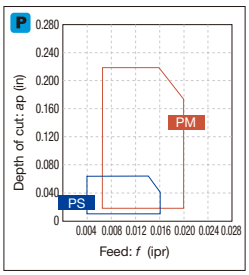
Chip control range

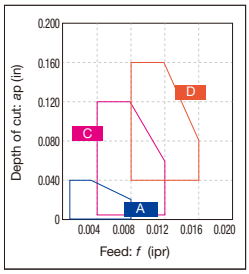












Reference pages: External toolholder → C088 - Internal toolholder → D063 -
J-Series toolholder → G056 - TungCap → K013 -

Insert NEGATIVE TYPE

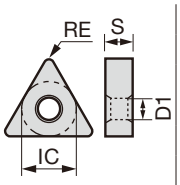
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

TN



Triangular with hole

P	Steel	●	●ɔ	●ɔ	✣	✣	ɔ									ɔ✣	✣	ɔ	●	●ɔ	●ɔ			●ɔ	●ɔ		●				
M	Stainless		●ɔ			●						●	ɔ	●ɔ	✣	ɔ	●	●ɔ									●				
K	Cast iron	●ɔ	●ɔ				●	●ɔ	●	ɔ	✣					ɔ	●	●ɔ	●ɔ	●ɔ				●ɔ	●ɔ		●				
N	Non-ferrous																										●				
S	Superalloy											●	ɔ			●	●	●ɔ													
H	Hard material																														



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T6215	T505	T515	T5105	T5115	T5125	AH8005	AH8015	AH6225	AH6235	AH725	AH110	AH120	Coated cermet GT720	Cermet NS9530	NS520	Uncoated TH10	Dimension (in) RE	IC	S	D1
Medium cutting	**DM**	**TNMG 331 DM**	**TNMG160404-DM**		●	●		●							●	●									0.016	0.375	0.187	0.150
		TNMG 332 DM	TNMG160408-DM	●	●	●	●	●							●	●									0.031	0.375	0.187	0.150
		TNMG 333 DM	TNMG160412-DM		●	●		●							●	●									0.047	0.375	0.187	0.150
		TNMG 334 DM	TNMG160416-DM		●	●		●							●	●									0.063	0.375	0.187	0.150
	All-round	**TNMG 221**	**TNMG110304**		●	●					●	●	●									●		●	0.016	0.250	0.125	0.089
		TNMG 222	TNMG110308		●	●					●	●	●									●		●	0.031	0.250	0.125	0.089
		TNMG 321	**TNMG160304**																					●	0.016	0.375	0.125	0.150
		TNMG 322	TNMG160308																					●	0.031	0.375	0.125	0.150
		TNMG 331	**TNMG160404**	●	●	●	●		●	●	●	●	●						●	●			●	●	0.016	0.375	0.187	0.150
		TNMG 332	TNMG160408	●	●	●	●		●	●	●	●	●						●	●	●		●	●	0.031	0.375	0.187	0.150
		TNMG 333	TNMG160412	●	●	●	●		●	●	●	●	●						●	●					0.047	0.375	0.187	0.150
		TNMG 334	TNMG160416		●	●	●						●												0.063	0.375	0.187	0.150
		TNMG 335	TNMG160420		●	●	●																		0.078	0.375	0.187	0.150
		TNMG 432	**TNMG220408**	●	●	●	●					●	●											●	0.031	0.500	0.187	0.203
		TNMG 433	TNMG220412	●	●	●	●						●			●								●	0.047	0.500	0.187	0.203
		TNMG 434	TNMG220416		●	●						●				●								●	0.063	0.500	0.187	0.203
		TNMG 542	**TNMG270608**			●														●					0.031	0.625	0.250	0.250
		TNMG 543	TNMG270612			●														●					0.047	0.625	0.250	0.250
		TNMG 544	TNMG270616																	●					0.063	0.625	0.250	0.250
	SM	**TNMG 231E SM**	**TNMG110404E-SM**					●								●									0.016	0.250	0.187	0.089
		TNMG 232E SM	TNMG110408E-SM					●								●									0.031	0.250	0.187	0.089
		TNMG 331 SM	**TNMG160404-SM**					●								●	●	●							0.016	0.375	0.187	0.150
		TNMG 332 SM	TNMG160408-SM					●								●	●	●							0.031	0.375	0.187	0.150
		TNMG 333 SM	TNMG160412-SM					●								●	●								0.047	0.375	0.187	0.150
		TNMG 432 SM	**TNMG220408-SM**					●								●	●								0.031	0.500	0.187	0.203
		TNMG 433 SM	TNMG220412-SM					●								●	●								0.047	0.500	0.187	0.203
	SDM	**TNMG 331 SDM**	**TNMG160404-SDM**					●								●	●								0.016	0.375	0.187	0.150
		TNMG 332 SDM	TNMG160408-SDM					●								●	●								0.031	0.375	0.187	0.150
		TNMG 333 SDM	TNMG160412-SDM					●								●	●								0.047	0.375	0.187	0.150
	HRM	**TNMG 331 HRM**	**TNMG160404-HRM**											●	●										0.016	0.375	0.187	0.150
		TNMG 332 HRM	TNMG160408-HRM											●	●										0.031	0.375	0.187	0.150
		TNMG 333 HRM	TNMG160412-HRM											●	●										0.047	0.375	0.187	0.150
	CM	**TNMG 331 CM**	**TNMG160404-CM**	●	●			●	●	●	●	●	●												0.016	0.375	0.187	0.150
		TNMG 332 CM	TNMG160408-CM	●	●			●	●	●	●	●	●												0.031	0.375	0.187	0.150
		TNMG 333 CM	TNMG160412-CM	●	●			●	●	●	●	●	●												0.047	0.375	0.187	0.150
		TNMG 432 CM	**TNMG220408-CM**	●	●			●	●	●		●	●												0.031	0.500	0.187	0.203
		TNMG 433 CM	TNMG220412-CM	●	●			●	●	●	●	●	●												0.047	0.500	0.187	0.203

● : Line up

Reference pages: External toolholder → C088 - Internal toolholder → D063 -
J-Series toolholder → G056 - TungCap → K013 -

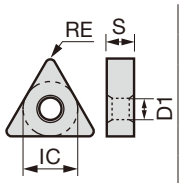
● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

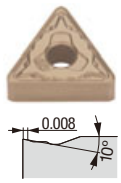
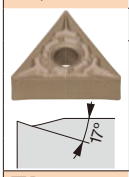
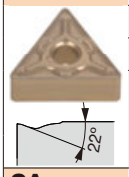
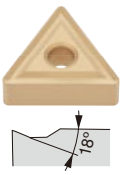
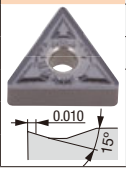
TN



Triangular with hole

P	Steel	●ⓒ	●✠	●	ⓒ✠	✠		●ⓒ				●ⓒ	●ⓒ		●ⓒ						
M	Stainless	●ⓒ		●	●ⓒ	✠		●ⓒ													
K	Cast iron	●ⓒ						●ⓒ				●ⓒ	●ⓒ		●ⓒ			ⓒ✠			
N	Non-ferrous																	ⓒ✠			
S	Superalloy						ⓒ	●ⓒ										ⓒ✠			
H	Hard material																				

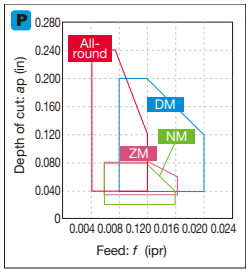


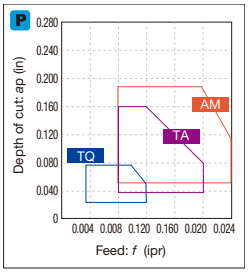
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated T6215	Coated AH6225	Coated AH6235	Coated AH905	Coated AH120	Coated cermet GT9530	Coated cermet AT9530	Cermet NS9530	Uncoated KS20	Dimension (in) RE	IC	S	D1
Medium cutting (wiper)	**SW**	**TNMG 232E SW**	**TNMG110408E-SW**	●											0.031	0.250	0.187	0.089
		**TNMG 23**3E SW	**TNMG1104**12E-SW	●											0.047	0.250	0.187	0.089
		TNMG 332 SW	**TNMG160408-SW**	●											0.031	0.375	0.187	0.150
		TNMG 333 SW	**TNMG1604**12-SW	●											0.047	0.375	0.187	0.150
		*Wiper																
Medium cutting	**TQ**	**TNMG 331 TQ**	**TNMG160404-TQ**	●	●						●	●	●		0.016	0.375	0.187	0.150
		**TNMG 33**2 TQ	**TNMG1604**08-TQ	●	●						●	●	●		0.031	0.375	0.187	0.150
	TA	**TNMG 331 TA**	**TNMG160404-TA**	●	●										0.016	0.375	0.187	0.150
		**TNMG 33**2 TA	**TNMG1604**08-TA	●	●										0.031	0.375	0.187	0.150
		TNMG 333 TA	**TNMG1604**12-TA	●	●										0.047	0.375	0.187	0.150
	SA	**TNMG 331 SA**	**TNMG160404-SA**			●	●	●		●					0.016	0.375	0.187	0.150
		**TNMG 33**2 SA	**TNMG1604**08-SA			●	●	●		●				●	0.031	0.375	0.187	0.150
		TNMG 333 SA	**TNMG1604**12-SA			●	●	●		●				●	0.047	0.375	0.187	0.150
		TNMG 432 SA	**TNMG220408-SA**			●	●	●		●				●	0.031	0.500	0.187	0.203
		TNMG 433 SA	**TNMG2204**12-SA			●	●	●		●					0.047	0.500	0.187	0.203
	HMM	**TNMG 331 HMM**	**TNMG160404-HMM**						●						0.016	0.375	0.187	0.150
		**TNMG 33**2 HMM	**TNMG1604**08-HMM						●						0.031	0.375	0.187	0.150
		TNMG 333 HMM	**TNMG1604**12-HMM						●						0.047	0.375	0.187	0.150

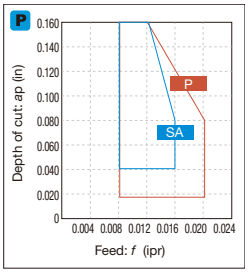
* Please see **L011 - L015** about the adjustment of the machining program for rounding or taper machining when using SW/FW.
Please contact our sales representatives if you have any questions.

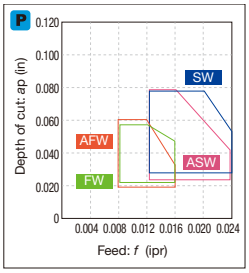
● : Line up

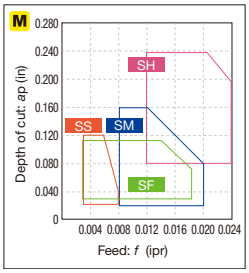
Chip control range

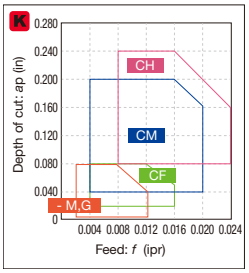


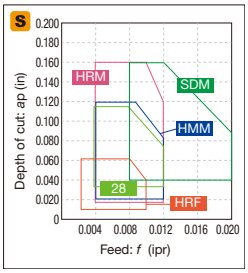












*-M,G: Without chipbreaker

Reference pages: External toolholder → C088 -
Internal toolholder → D063 -
J-Series toolholder → G056 -
TungCap → K013 -

Insert NEGATIVE TYPE

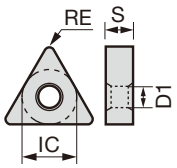
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

TN



Triangular with hole

P	Steel	●ɔ	●ɔ✣	✣			ɔ✣	✣	ɔ	●	●ɔ	●	●ɔ	●ɔ	●ɔ		●ɔ			●
M	Stainless	●ɔ			●	ɔ	●ɔ	✣	ɔ	●	●ɔ	●	●ɔ	●ɔ						●
K	Cast iron	●ɔ							ɔ	●	●ɔ	●	●ɔ		●ɔ		●ɔ		●	●
N	Non-ferrous																		●	●
S	Superalloy				●	ɔ			●	●	●ɔ	●							●	
H	Hard material																			



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T9235	AH8005	AH8015	AH6225	AH6235	AH725	AH110	AH120	GH110	GH330	SH725	Coated cermet GT720		Cermet NS9530		Uncoated KS05F	TH10	Dimension (in) RE	IC	S	D1
Medium cutting (sharp edge)	P	TNGG 330.5 FR-P	TNGG160402FR-P													●							0.008	0.375	0.187	0.150
		TNGG 330.5 FL-P	TNGG160402FL-P													●							0.008	0.375	0.187	0.150
		TNGG 331 FR-P	TNGG160404FR-P													●							0.016	0.375	0.187	0.150
		TNGG 331 FL-P	TNGG160404FL-P													●							0.016	0.375	0.187	0.150
		TNGG 332 FR-P	TNGG160408FR-P													●							0.031	0.375	0.187	0.150
		TNGG 332 FL-P	TNGG160408FL-P													●							0.031	0.375	0.187	0.150
	P	TNGG 330.5 R-P	TNGG160402R-P											●	●				●			●	0.008	0.375	0.187	0.150
		TNGG 330.5 L-P	TNGG160402L-P											●	●				●			●	0.008	0.375	0.187	0.150
		TNGG 331 R-P	TNGG160404R-P											●	●				●			●	0.016	0.375	0.187	0.150
		TNGG 331 L-P	TNGG160404L-P											●	●				●			●	0.016	0.375	0.187	0.150
		TNGG 332 R-P	TNGG160408R-P											●	●				●			●	0.031	0.375	0.187	0.150
		TNGG 332 L-P	TNGG160408L-P											●	●				●			●	0.031	0.375	0.187	0.150
Medium cutting	S	TNMG 331 R-S	TNMG160404R-S	●	●	●			●	●	●				●				●				0.016	0.375	0.187	0.150
		TNMG 331 L-S	TNMG160404L-S	●	●	●			●	●					●				●				0.016	0.375	0.187	0.150
		TNMG 332 R-S	TNMG160408R-S	●	●	●			●	●	●				●				●				0.031	0.375	0.187	0.150
		TNMG 332 L-S	TNMG160408L-S	●	●	●			●	●					●				●				0.031	0.375	0.187	0.150
		TNMG 431 R-S	TNMG220404R-S		●	●			●	●					●				●				0.016	0.500	0.187	0.203
		TNMG 431 L-S	TNMG220404L-S		●	●			●	●					●				●				0.016	0.500	0.187	0.203
		TNMG 432 R-S	TNMG220408R-S		●	●			●	●					●				●				0.031	0.500	0.187	0.203
		TNMG 432 L-S	TNMG220408L-S		●	●			●	●					●				●				0.031	0.500	0.187	0.203
	27	TNMG 331-27	TNMG160404-27	●	●																		0.016	0.375	0.187	0.150
		TNMG 332-27	TNMG160408-27	●	●														●				0.031	0.375	0.187	0.150
		TNMG 333-27	TNMG160412-27	●	●																		0.047	0.375	0.187	0.150
		TNMG 431-27	TNMG220404-27		●																		0.016	0.500	0.187	0.203
		TNMG 432-27	TNMG220408-27		●																		0.031	0.500	0.187	0.203
		TNMG 433-27	TNMG220412-27		●																		0.047	0.500	0.187	0.203
	28	TNMG 331-28	TNMG160404-28				●	●					●								●		0.016	0.375	0.187	0.150
		TNMG 332-28	TNMG160408-28				●	●					●								●		0.031	0.375	0.187	0.150
		TNMG 431-28	TNMG220404-28									●	●										0.016	0.500	0.187	0.203
		TNMG 432-28	TNMG220408-28									●	●										0.031	0.500	0.187	0.203
	33	TNMG 331-33	TNMG160404-33																			●	0.016	0.375	0.187	0.150
		TNMG 332-33	TNMG160408-33																			●	0.031	0.375	0.187	0.150
		TNMG 334-33	TNMG160416-33		●																		0.063	0.375	0.187	0.150
		TNMG 431-33	TNMG220404-33		●												●						0.016	0.500	0.187	0.203
		TNMG 433-33	TNMG220412-33			●																	0.047	0.500	0.187	0.203
		TNMG 434-33	TNMG220416-33		●																		0.063	0.500	0.187	0.203
	37	TNMG 331-37	TNMG160404-37	●											●				●				0.016	0.375	0.187	0.150
		TNMG 332-37	TNMG160408-37	●											●				●				0.031	0.375	0.187	0.150

● : Line up

Reference pages: External toolholder → C088 - Internal toolholder → D063 -
J-Series toolholder → G056 - TungCap → K013 -

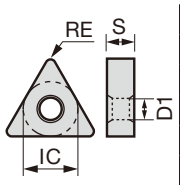
● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

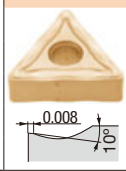
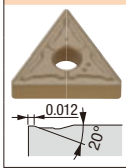
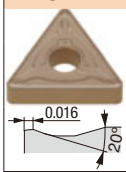
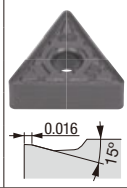
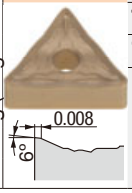
TN



Triangular with hole

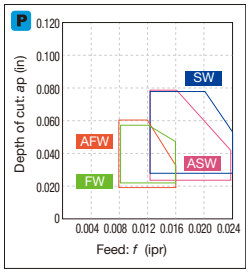
P	Steel	●ⓒ	ⓒ✠	✠					●ⓒ	●ⓒ											
M	Stainless	●ⓒ							●ⓒ	●ⓒ											
K	Cast iron	●ⓒ			●ⓒ	●	ⓒ	✠	●ⓒ	●ⓒ											
N	Non-ferrous																				
S	Superalloy								●ⓒ												
H	Hard material																				

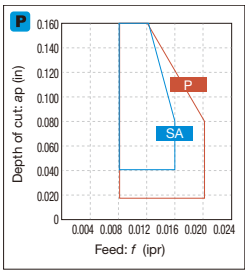


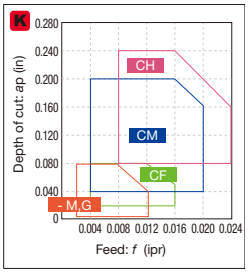
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T9235	T515	T5105	T5115	T5125	AH120	GH330					Dimension (in) RE	IC	S	D1
Medium cutting	**38**	**TNMG 331-38**	**TNMG160404-38**									●					0.016	0.375	0.187	0.150
		TNMG 332-38	TNMG160408-38									●					0.031	0.375	0.187	0.150
Medium to heavy cutting	**TH**	**TNMG 432 TH**	**TNMG220408-TH**	●	●	●					●						0.031	0.500	0.187	0.203
		TNMG 433 TH	TNMG220412-TH	●	●	●											0.047	0.500	0.187	0.203
	THS	**TNMG 432 THS**	**TNMG220408-THS**	●	●	●											0.031	0.500	0.187	0.203
		TNMG 433 THS	TNMG220412-THS	●	●	●											0.047	0.500	0.187	0.203
	CH	**TNMG 331 CH**	**TNMG160404-CH**				●	●	●	●							0.016	0.375	0.187	0.150
		TNMG 332 CH	TNMG160408-CH				●	●	●	●							0.031	0.375	0.187	0.150
		TNMG 333 CH	TNMG160412-CH				●	●	●	●							0.047	0.375	0.187	0.150
		TNMG 432 CH	**TNMG220408-CH**							●							0.031	0.500	0.187	0.203
		TNMG 433 CH	TNMG220412-CH					●	●								0.047	0.500	0.187	0.203
		TNMG 434 CH	TNMG220416-CH					●	●	●							0.063	0.500	0.187	0.203
Medium to heavy cutting (single sided)	**57**	**TNMM 332-57**	**TNMM160408-57**		●												0.031	0.375	0.187	0.150
		**TNMM 432-57**	**TNMM220408-57**		●												0.031	0.500	0.187	0.203
		TNMM 433-57	TNMM220412-57		●												0.047	0.500	0.187	0.203

● : Line up

Chip control range







*-M,G: Without chipbreaker

Reference pages: External toolholder → C088 - Internal toolholder → D063 -
J-Series toolholder → G056 - TungCap → K013 -

Insert NEGATIVE TYPE

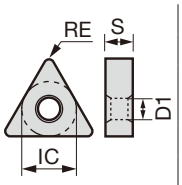
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

TN



Triangular with hole

P	Steel						●		●ɔ			●ɔ			●	●							
M	Stainless						●								●	●							
K	Cast iron	●	●ɔ	●	ɔ	✣	●		●ɔ			●ɔ			●	●	●ɔ						
N	Non-ferrous														●	●							
S	Superalloy						●																
H	Hard material																	●ɔ	●ɔ	●ɔ			



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T505	Coated T515	Coated T5105	Coated T5115	Coated T5125	Coated GH110	Coated cermet GT720	Cermet NS520	Uncoated TH03	Uncoated TH10	Ceramic FX105	Ceramic LX10	Ceramic LX11	Ceramic LX21	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	-	TNMA 231E	TNMA110404E		●													0.016	0.250	0.187	0.089
		TNMA 232E	TNMA110408E		●													0.031	0.250	0.187	0.089
		TNMA 233E	TNMA110412E		●													0.047	0.250	0.187	0.089
		TNMA 331	TNMA160404	●	●	●	●	●				●	●					0.016	0.375	0.187	0.150
		TNMA 332	TNMA160408	●	●	●	●	●		●	●		●	●				0.031	0.375	0.187	0.150
		TNMA 333	TNMA160412	●	●	●	●							●				0.047	0.375	0.187	0.150
		TNMA 334	TNMA160416			●	●	●										0.063	0.375	0.187	0.150
		TNMA 335	TNMA160420			●	●	●										0.078	0.375	0.187	0.150
		TNMA 431	TNMA220404				●	●										0.016	0.500	0.187	0.203
		TNMA 432	TNMA220408			●	●	●										0.031	0.500	0.187	0.203
		TNMA 433	TNMA220412			●	●	●										0.047	0.500	0.187	0.203
		TNMA 434	TNMA220416			●	●											0.063	0.500	0.187	0.203
		TNMA 438	TNMA220432											●				0.125	0.500	0.187	0.203
	-	TNGA 221	TNGA110304									●	●					0.016	0.250	0.125	0.089
		TNGA 222	TNGA110308										●					0.031	0.250	0.125	0.089
		TNGA 321	TNGA160304										●					0.016	0.375	0.125	0.150
		TNGA 322	TNGA160308										●					0.031	0.375	0.125	0.150
		TNGA 330.5	TNGA160402												●	▲		0.008	0.375	0.187	0.150
		TNGA 331	TNGA160404						●		●	●	●		●	▲	●	0.016	0.375	0.187	0.150
		TNGA 332	TNGA160408						●		●	●	●	●	●	▲	●	0.031	0.375	0.187	0.150
		TNGA 333	TNGA160412								●		●	●	●	▲	●	0.047	0.375	0.187	0.150
		TNGA 334	TNGA160416										●	●	●	▲		0.063	0.375	0.187	0.150
		TNGA 432	TNGA220408										●					0.031	0.500	0.187	0.203

● : Line up
▲ : To be discontinued

Reference pages: External toolholder → C088 - Internal toolholder → D063 -
J-Series toolholder → G056 - TungCap → K013 -

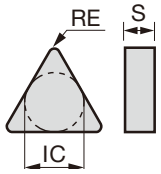
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

TN



Triangular without hole

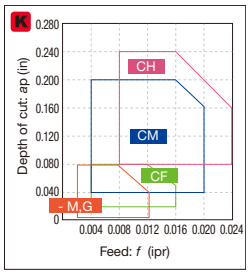
P	Steel	●																					
M	Stainless	●																					
K	Cast iron	●					●	●◐															
N	Non-ferrous	●																					
S	Superalloy																						
H	Hard material								●◐	●◐	●◐												



Application	Chipbreaker	Designation Inch	Designation Metric	Uncoated TH10	Ceramic TZ120	FX105	LX10	LX11	LX21	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	-	TNGN 222	TNGN110308	●						0.031	0.250	0.125	-
		TNGN 331	TNGN160404				●	▲	●	0.016	0.375	0.187	-
		TNGN 332	TNGN160408	●			●	▲	●	0.031	0.375	0.187	-
		TNGN 333	TNGN160412	●	●	●	●	▲	●	0.047	0.375	0.187	-
		TNGN 334	TNGN160416			●	●	▲		0.063	0.375	0.187	-
		TNGN 335	TNGN160420			●				0.078	0.375	0.187	-
		TNGN 352	TNGN160708				●	▲		0.031	0.375	0.313	-
		TNGN 353	TNGN160712					▲		0.047	0.375	0.313	-

● : Line up
▲ : To be discontinued

Chip control range



*-M,G: Without chipbreaker

Insert NEGATIVE TYPE

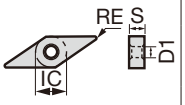
● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

VN



Rhombic, 35° with hole

		T9205	T9215	T9225	T9235	T6215	AH8005	AH8015	AH6225	AH6235	AH120	GH330	GT9530	GT720	AT9530	NS9530	NS520
P	Steel	●	●◐	◐✣	✣	◐			◐✣	✣	●◐	●◐	●◐	●◐	●◐	●◐	●◐
M	Stainless		●◐			●	●	◐	●◐	✣	●◐	●◐					
K	Cast iron	●◐	●◐								●◐	●◐	●◐	●◐	●◐	●◐	●◐
N	Non-ferrous																
S	Superalloy						●	◐			●◐						
H	Hard material																



Application	Chipbreaker	Designation Inch	Designation Metric	RE	IC	S	D1
Finishing	TF	VNMG 2.330.5E TF	VNMG120402E-TF	0.008	0.281	0.187	0.150
		VNMG 2.331E TF	VNMG120404E-TF	0.016	0.281	0.187	0.150
		VNMG 2.332E TF	VNMG120408E-TF	0.031	0.281	0.187	0.150
		VNMG 330.5 TF	VNMG160402-TF	0.008	0.375	0.187	0.150
		VNMG 331 TF	VNMG160404-TF	0.016	0.375	0.187	0.150
		VNMG 332 TF	VNMG160408-TF	0.031	0.375	0.187	0.150
	TSF	VNMG 2.330.5E TSF	VNMG120402E-TSF	0.008	0.281	0.187	0.150
		VNMG 2.331E TSF	VNMG120404E-TSF	0.016	0.281	0.187	0.150
		VNMG 2.332E TSF	VNMG120408E-TSF	0.031	0.281	0.187	0.150
		VNMG 330.5 TSF	VNMG160402-TSF	0.008	0.375	0.187	0.150
		VNMG 331 TSF	VNMG160404-TSF	0.016	0.375	0.187	0.150
		VNMG 332 TSF	VNMG160408-TSF	0.031	0.375	0.187	0.150
		VNMG 333 TSF	VNMG160412-TSF	0.047	0.375	0.187	0.150
	PS	VNMG 2.330.5E PS	VNMG120402E-PS	0.008	0.281	0.187	0.150
		VNMG 2.331E PS	VNMG120404E-PS	0.016	0.281	0.187	0.150
		VNMG 2.332E PS	VNMG120408E-PS	0.031	0.281	0.187	0.150
		VNMG 330.5 PS	VNMG160402-PS	0.008	0.375	0.187	0.150
		VNMG 331 PS	VNMG160404-PS	0.016	0.375	0.187	0.150
		VNMG 332 PS	VNMG160408-PS	0.031	0.375	0.187	0.150
		VNMG 333 PS	VNMG160412-PS	0.047	0.375	0.187	0.150
Finishing for mild steel	ZF	VNMG 2.330.5E ZF	VNMG120402E-ZF	0.008	0.281	0.187	0.150
		VNMG 2.331E ZF	VNMG120404E-ZF	0.016	0.281	0.187	0.150
		VNMG 2.332E ZF	VNMG120408E-ZF	0.031	0.281	0.187	0.150
		VNMG 330.5 ZF	VNMG160402-ZF	0.008	0.375	0.187	0.150
		VNMG 331 ZF	VNMG160404-ZF	0.016	0.375	0.187	0.150
		VNMG 332 ZF	VNMG160408-ZF	0.031	0.375	0.187	0.150
		VNMG 333 ZF	VNMG160412-ZF	0.047	0.375	0.187	0.150
Finishing	TS	VNMG 2.330.5E TS	VNMG120402E-TS	0.008	0.281	0.187	0.150
		VNMG 2.331E TS	VNMG120404E-TS	0.016	0.281	0.187	0.150
		VNMG 2.332E TS	VNMG120408E-TS	0.031	0.281	0.187	0.150
		VNMG 330.5 TS	VNMG160402-TS	0.008	0.375	0.187	0.150
		VNMG 331 TS	VNMG160404-TS	0.016	0.375	0.187	0.150
		VNMG 332 TS	VNMG160408-TS	0.031	0.375	0.187	0.150
		VNMG 333 TS	VNMG160412-TS	0.047	0.375	0.187	0.150
	SF	VNMG 331 SF	VNMG160404-SF	0.016	0.375	0.187	0.150
		VNMG 332 SF	VNMG160408-SF	0.031	0.375	0.187	0.150
	SS	VNMG 2.331E SS	VNMG120404E-SS	0.016	0.281	0.187	0.150
		VNMG 2.332E SS	VNMG120408E-SS	0.031	0.281	0.187	0.150
		VNMG 331 SS	VNMG160404-SS	0.016	0.375	0.187	0.150
		VNMG 332 SS	VNMG160408-SS	0.031	0.375	0.187	0.150
		VNMG 333 SS	VNMG160412-SS	0.047	0.375	0.187	0.150
	HRF	VNMG 331 HRF	VNMG160404-HRF	0.016	0.375	0.187	0.150
		VNMG 332 HRF	VNMG160408-HRF	0.031	0.375	0.187	0.150

● : Line up

Reference pages: External toolholder → C103 - Internal toolholder → D077 -
J-Series toolholder → G068 TungCap → K014 -

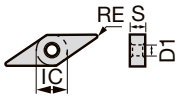
● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

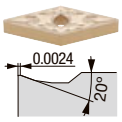
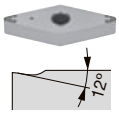
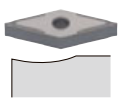
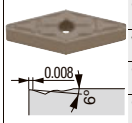
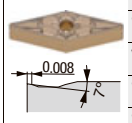
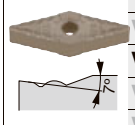
VN



Rhombic, 35° with hole

P	Steel	●	●◐	◐✣	✣	◐				◐✣	●	●◐	●	●◐	◐◐		◐◐	◐◐	●		
M	Stainless		●◐			●			◐	●◐	●	●◐	●	●◐					●		
K	Cast iron	●◐	●◐				●	◐			●	●◐	●	●◐	◐◐		◐◐	◐◐	●		
N	Non-ferrous																		●		
S	Superalloy								◐		●	●◐	●								
H	Hard material																				



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T6215	T5105	T5115	AH8015	AH6225	AH110	AH120	GH110	GH330	Coated cermet GT9530	Cermet NS9530	NS520	Uncoated TH10	Dimension (in) RE	IC	S	D1
Finishing	CF	VNMG 331 CF	VNMG160404-CF						●	●											0.016	0.375	0.187	0.150
		VNMG 332 CF	VNMG160408-CF						●	●											0.031	0.375	0.187	0.150
	01	VNGG 330.5-01	VNGG160402-01												●			●	●	●	0.008	0.375	0.187	0.150
		VNGG 331-01	VNGG160404-01															●	●	●	0.016	0.375	0.187	0.150
		VNGG 332-01	VNGG160408-01															●	●		0.031	0.375	0.187	0.150
	11	VNMG 331-11	VNMG160404-11													●		●		●	0.016	0.375	0.187	0.150
		VNMG 332-11	VNMG160408-11		●													●			0.031	0.375	0.187	0.150
		VNMG 333-11	VNMG160412-11														●	●			0.047	0.375	0.187	0.150
Finishing to medium cutting	P	VNGG 331 R-P	VNGG160404R-P																	●	0.016	0.375	0.187	0.150
		VNGG 332 R-P	VNGG160408R-P																	●	0.031	0.375	0.187	0.150
Medium cutting	TM	VNMG 2.331E TM	VNMG120404E-TM		●	●		●			●	●									0.016	0.281	0.187	0.150
		VNMG 2.332E TM	VNMG120408E-TM		●	●		●			●	●									0.031	0.281	0.187	0.150
		VNMG 2.333E TM	VNMG120412E-TM		●	●		●			●	●									0.047	0.281	0.187	0.150
		VNMG 331 TM	VNMG160404-TM	●	●	●	●	●			●	●	●	●							0.016	0.375	0.187	0.150
		VNMG 332 TM	VNMG160408-TM	●	●	●	●	●			●	●	●	●							0.031	0.375	0.187	0.150
		VNMG 333 TM	VNMG160412-TM	●	●	●	●	●			●	●	●								0.047	0.375	0.187	0.150
	PM	VNMG 2.331E PM	VNMG120404E-PM		●	●		●			●	●									0.016	0.281	0.187	0.150
		VNMG 2.332E PM	VNMG120408E-PM		●	●		●			●	●									0.031	0.281	0.187	0.150
		VNMG 2.333E PM	VNMG120412E-PM		●	●		●			●	●									0.047	0.281	0.187	0.150
		VNMG 331 PM	VNMG160404-PM		●	●		●			●	●									0.016	0.375	0.187	0.150
		VNMG 332 PM	VNMG160408-PM		●	●		●			●	●									0.031	0.375	0.187	0.150
		VNMG 333 PM	VNMG160412-PM		●	●		●			●	●									0.047	0.375	0.187	0.150
Medium cutting for mild steel	ZM	VNMG 2.331E ZM	VNMG120404E-ZM		●	●		●			●	●									0.016	0.281	0.187	0.150
		VNMG 2.332E ZM	VNMG120408E-ZM		●	●		●			●	●									0.031	0.281	0.187	0.150
		VNMG 2.333E ZM	VNMG120412E-ZM		●	●		●			●	●									0.047	0.281	0.187	0.150
		VNMG 331 ZM	VNMG160404-ZM		●	●		●			●	●									0.016	0.375	0.187	0.150
		VNMG 332 ZM	VNMG160408-ZM		●	●	●	●			●	●									0.031	0.375	0.187	0.150
		VNMG 333 ZM	VNMG160412-ZM		●	●	●	●			●	●									0.047	0.375	0.187	0.150

● : Line up

Reference pages: External toolholder → C103 - Internal toolholder → D077 -
J-Series toolholder → G068 TungCap → K014 -

Insert NEGATIVE TYPE

● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

VN

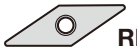


Rhombic, 35° with hole

P	Steel	● ●ɔ ɔ✣ ✣ ɔ ✣ ✣ ●ɔ ●ɔ ●ɔ

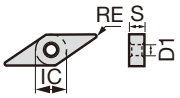
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

VN



Rhombic, 35° with hole

P	Steel	●ɔ ɔ✣ ● ●ɔ ●ɔ
M	Stainless	●ɔ ● ɔ ● ●ɔ ●
K	Cast iron	●ɔ ●ɔ ● ɔ ✣ ● ●ɔ ●ɔ ● ●
N	Non-ferrous	● ●
S	Superalloy	● ɔ ● ●ɔ ●
H	Hard material	●ɔ ●ɔ



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T515	T5105	T5115	T5125	AH8005	AH8015	AH110	AH120	Cermet NS520	Uncoated KS05F	TH10	Ceramic LX10	LX11	Dimension (in) RE	IC	S	D1
Medium cutting	28	VNMG 331-28	VNMG160404-28							●	●		●		●				0.016	0.375	0.187	0.150
		VNMG 332-28	VNMG160408-28							●	●		●		●				0.031	0.375	0.187	0.150
	33	VNMG 331-33	VNMG160404-33		●							●				●			0.016	0.375	0.187	0.150
		VNMG 332-33	VNMG160408-33	●	●											●			0.031	0.375	0.187	0.150
Finishing to medium cutting	-	VNMA 2.331E	VNMA120404E			●													0.016	0.281	0.187	0.150
		VNMA 2.332E	VNMA120408E			●													0.031	0.281	0.187	0.150
		VNMA 330.5	VNMA160402													●			0.008	0.375	0.187	0.150
		VNMA 331	VNMA160404				●	●	●					●		●			0.016	0.375	0.187	0.150
		VNMA 332	VNMA160408				●	●	●					●		●			0.031	0.375	0.187	0.150
		VNGA 331	VNGA160404														●	▲	0.016	0.375	0.187	0.150
		VNGA 332	VNGA160408														●	▲	0.031	0.375	0.187	0.150



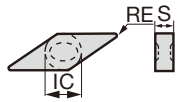
● : Line up
▲ : To be discontinued

VN



Rhombic, 35° without hole

P	Steel	
M	Stainless	
K	Cast iron	●ɔ
N	Non-ferrous	
S	Superalloy	
H	Hard material	

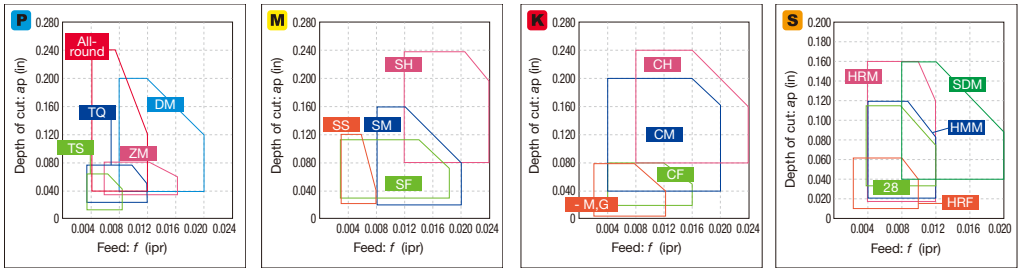


Application	Chipbreaker	Designation Inch	Designation Metric	Ceramic FX105	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	-	VNGD 353	VNGD160712	●	0.047	0.375	0.313	-



● : Line up

Chip control range



*-M,G: Without chipbreaker

Reference pages: VNMG..., VNMA..., VNGA...:
External toolholder → C103 -, Internal toolholder → D077 -
J-Series toolholder → G068, TungCap → K014 -
VNGD...: External toolholder → C109

Insert NEGATIVE TYPE

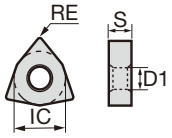
● : Continuous cutting
ⓒ : Light interrupted cutting
✣ : Heavy interrupted cutting

WN



Trigon, 80°
with hole

		T9205	T9215	T9225	T9235	T6215	T515	AH8015	AH6225	AH905	AH120	GT9530	AT9530	NS9530
P	Steel	●	●ⓒ	●ⓒ✣	✣	ⓒ			ⓒ✣		●ⓒ		●ⓒ	●ⓒ	●ⓒ
M	Stainless		●ⓒ			●		ⓒ	●ⓒ		●ⓒ				
K	Cast iron	●ⓒ	●ⓒ				●ⓒ				●ⓒ		●ⓒ	●ⓒ	●ⓒ
N	Non-ferrous														
S	Superalloy							ⓒ		ⓒ	●ⓒ				
H	Hard material														



Application	Chipbreaker	Designation Inch	Designation Metric	RE	IC	S	D1
Finishing	TF	WNMG 330.5E TF	WNMG060402E-TF	0.008	0.375	0.187	0.150
		WNMG 331E TF	WNMG060404E-TF	0.016	0.375	0.187	0.150
		WNMG 332E TF	WNMG060408E-TF	0.031	0.375	0.187	0.150
		WNMG 430.5 TF	WNMG080402-TF	0.008	0.500	0.187	0.203
		WNMG 431 TF	WNMG080404-TF	0.016	0.500	0.187	0.203
		WNMG 432 TF	WNMG080408-TF	0.031	0.500	0.187	0.203
	TSF	WNMG 330.5E TSF	WNMG060402E-TSF	0.008	0.375	0.187	0.150
		WNMG 331E TSF	WNMG060404E-TSF	0.016	0.375	0.187	0.150
		WNMG 332E TSF	WNMG060408E-TSF	0.031	0.375	0.187	0.150
		WNMG 333E TSF	WNMG060412E-TSF	0.047	0.375	0.187	0.150
		WNMG 331 TSF	WNMG060404-TSF	0.016	0.375	0.187	0.150
		WNMG 332 TSF	WNMG060408-TSF	0.031	0.375	0.187	0.150
		WNMG 430.5 TSF	WNMG080402-TSF	0.008	0.500	0.187	0.203
		WNMG 431 TSF	WNMG080404-TSF	0.016	0.500	0.187	0.203
		WNMG 432 TSF	WNMG080408-TSF	0.031	0.500	0.187	0.203
		WNMG 433 TSF	WNMG080412-TSF	0.047	0.500	0.187	0.203
Finishing	PS	WNMG 330.5E PS	WNMG060402E-PS	0.008	0.375	0.187	0.150
		WNMG 331E PS	WNMG060404E-PS	0.016	0.375	0.187	0.150
		WNMG 332E PS	WNMG060408E-PS	0.031	0.375	0.187	0.150
		WNMG 430.5 PS	WNMG080402-PS	0.008	0.500	0.187	0.203
		WNMG 431 PS	WNMG080404-PS	0.016	0.500	0.187	0.203
		WNMG 432 PS	WNMG080408-PS	0.031	0.500	0.187	0.203
		WNMG 433 PS	WNMG080412-PS	0.047	0.500	0.187	0.203
Finishing for mild steel	ZF	WNMG 330.5E ZF	WNMG060402E-ZF	0.008	0.375	0.187	0.150
		WNMG 331E ZF	WNMG060404E-ZF	0.016	0.375	0.187	0.150
		WNMG 332E ZF	WNMG060408E-ZF	0.031	0.375	0.187	0.150
		WNMG 333E ZF	WNMG060412E-ZF	0.047	0.375	0.187	0.150
		WNMG 331 ZF	WNMG060404-ZF	0.016	0.375	0.187	0.150
		WNMG 332 ZF	WNMG060408-ZF	0.031	0.375	0.187	0.150
		WNMG 430.5 ZF	WNMG080402-ZF	0.008	0.500	0.187	0.203
		WNMG 431 ZF	WNMG080404-ZF	0.016	0.500	0.187	0.203
		WNMG 432 ZF	WNMG080408-ZF	0.031	0.500	0.187	0.203
		WNMG 433 ZF	WNMG080412-ZF	0.047	0.500	0.187	0.203
Finishing	AS	WNMG 431 AS	WNMG080404-AS	0.016	0.500	0.187	0.203
		WNMG 432 AS	WNMG080408-AS	0.031	0.500	0.187	0.203
		WNMG 433 AS	WNMG080412-AS	0.047	0.500	0.187	0.203
	NS	WNMG 431 NS	WNMG080404-NS	0.016	0.500	0.187	0.203
		WNMG 432 NS	WNMG080408-NS	0.031	0.500	0.187	0.203

● : Line up

Reference pages: External toolholder → C121 - Internal toolholder → D083 -
TungCap → K010

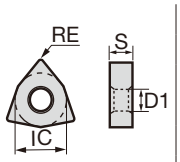
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

WN

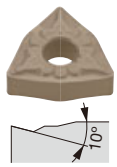


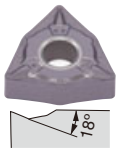
Trigon, 80° with hole

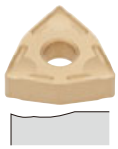
		T9215	T9225	T9235	T6215	AH8005	AH8015	AH6225	AH6235	AH120	GH330	GT9530	AT9530	NS9530	NS520
P	Steel	●◐	◐✠	✠	◐			◐✠	✠	●◐	●◐	●◐	●◐	●◐	●◐
M	Stainless	●◐			●	●	◐	●◐	✠	●◐	●◐				
K	Cast iron	●◐								●◐	●◐	●◐	●◐	●◐	●◐
N	Non-ferrous														
S	Superalloy					●	◐			●◐					
H	Hard material														

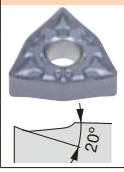


Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated T9235	Coated T6215	Coated AH8005	Coated AH8015	Coated AH6225	Coated AH6235	Coated AH120	Coated GH330	Coated cermet GT9530	Coated cermet AT9530	Cermet NS9530	Cermet NS520	Dimension (in) RE	IC	S	D1
Finishing	TS	WNMG 330.5E TS	WNMG060402E-TS	●	●		●		●	●				●		●		0.008	0.375	0.187	0.150
		WNMG 331E TS	WNMG060404E-TS	●	●		●		●	●				●		●		0.016	0.375	0.187	0.150
		WNMG 332E TS	WNMG060408E-TS	●	●		●		●	●				●		●		0.031	0.375	0.187	0.150
		WNMG 330.5 TS	WNMG080402-TS	●	●		●		●	●						●		0.008	0.500	0.187	0.203
		WNMG 431 TS	WNMG080404-TS	●	●	●	●		●	●				●	●	●	●	0.016	0.500	0.187	0.203
		WNMG 432 TS	WNMG080408-TS	●	●	●	●		●	●				●	●	●	●	0.031	0.500	0.187	0.203
		WNMG 433 TS	WNMG080412-TS	●	●	●	●		●	●						●		0.047	0.500	0.187	0.203
	SF	WNMG 331 SF	WNMG060404-SF				●			●								0.016	0.375	0.187	0.150
		WNMG 332 SF	WNMG060408-SF				●			●								0.031	0.375	0.187	0.150
		WNMG 431 SF	WNMG080404-SF				●			●								0.016	0.500	0.187	0.203
		WNMG 432 SF	WNMG080408-SF				●			●								0.031	0.500	0.187	0.203
	SS	WNMG 331E SS	WNMG060404E-SS							●	●							0.016	0.375	0.187	0.150
		WNMG 332E SS	WNMG060408E-SS							●	●							0.031	0.375	0.187	0.150
		WNMG 333E SS	WNMG060412E-SS							●	●							0.047	0.375	0.187	0.150
		WNMG 431 SS	WNMG080404-SS				●			●	●	●	●					0.016	0.500	0.187	0.203
		WNMG 432 SS	WNMG080408-SS				●			●	●	●	●					0.031	0.500	0.187	0.203
		WNMG 433 SS	WNMG080412-SS				●			●	●	●						0.047	0.500	0.187	0.203
	HRF	WNMG 431 HRF	WNMG080404-HRF					●	●									0.016	0.500	0.187	0.203
		WNMG432 HRF	WNMG080408-HRF					●	●									0.031	0.500	0.187	0.203



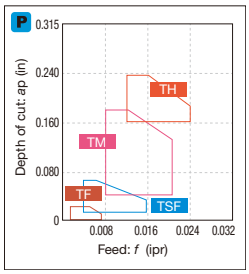


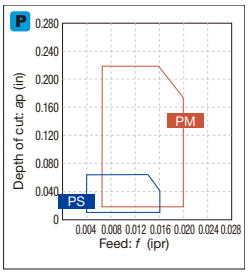


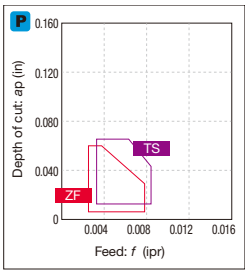


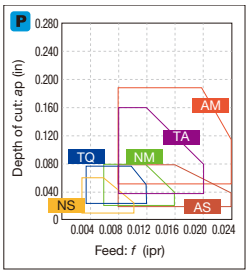
● : Line up

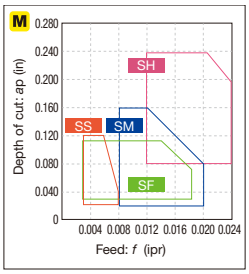
Chip control range

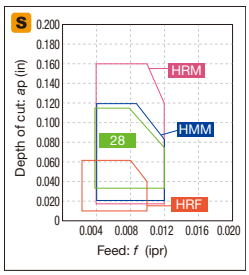












Reference pages: External toolholder → C121 - Internal toolholder → D083 -
TungCap → K010

Insert NEGATIVE TYPE

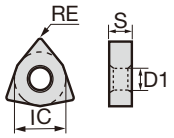
● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

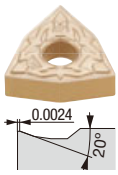
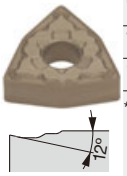
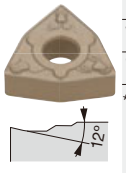
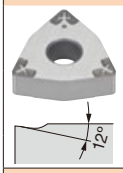
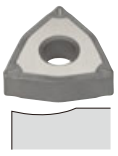
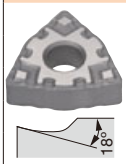
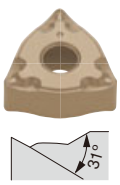
WN



Trigon, 80° with hole

		T9205	T9215	T9225	T9235	T5105	T5115	GT9530	GT720	NS9530	NS520
P	Steel	●	●ɔ	●ɔ✠	✠			●ɔ	●ɔ	●ɔ	●ɔ
M	Stainless		●ɔ								
K	Cast iron	●ɔ	●ɔ			●	ɔ	●ɔ	●ɔ	●ɔ	●ɔ
N	Non-ferrous										
S	Superalloy										
H	Hard material										



Application	Chipbreaker	Designation Inch	Designation Metric	Coated						Coated cermet		Cermet		Dimension (in)			
				T9205	T9215	T9225	T9235	T5105	T5115	GT9530	GT720	NS9530	NS520	RE	IC	S	D1
Finishing	**CF**	**WNMG 431 CF**	**WNMG080404-CF**					●	●					0.016	0.500	0.187	0.203
		WNMG 432 CF	WNMG080408-CF					●	●					0.031	0.500	0.187	0.203
		WNMG 433 CF	WNMG080412-CF					●	●					0.047	0.500	0.187	0.203
Finishing (wiper)	**FW**	**WNMG 331E FW**	**WNMG060404E-FW**	●	●	●				●		●		0.016	0.375	0.187	0.150
		WNMG 332E FW	WNMG060408E-FW	●	●	●				●		●		0.031	0.375	0.187	0.150
		WNMG 431 FW	**WNMG080404-FW**		●	●				●		●		0.016	0.500	0.187	0.203
		WNMG 432 FW	WNMG080408-FW	●	●	●				●		●		0.031	0.500	0.187	0.203
		*Wiper															
	AFW	**WNMG 331 AFW**	**WNMG060404-AFW**		●	●						●		0.016	0.375	0.187	0.150
		WNMG 332 AFW	WNMG060408-AFW	●	●	●	●					●		0.031	0.375	0.187	0.150
		WNMG 431 AFW	**WNMG080404-AFW**		●	●						●		0.016	0.500	0.187	0.203
		WNMG 432 AFW	WNMG080408-AFW	●	●	●	●					●		0.031	0.500	0.187	0.203
		*Wiper															
Finishing	**01**	**WNGG 430.5-01**	**WNGG080402-01**									●	●	0.008	0.500	0.187	0.203
		WNGG 431-01	WNGG080404-01								●	●	●	0.016	0.500	0.187	0.203
		WNGG 432-01	WNGG080408-01								●	●		0.031	0.500	0.187	0.203
	11	**WNMG 431-11**	**WNMG080404-11**									●		0.016	0.500	0.187	0.203
		WNMG 432-11	WNMG080408-11									●		0.031	0.500	0.187	0.203
Finishing for mild steel	**17**	**WNMG 431-17**	**WNMG080404-17**									●		0.016	0.500	0.187	0.203
		WNMG 432-17	WNMG080408-17									●		0.031	0.500	0.187	0.203
Boring (double sided)	**CB**	**WNMG 331 CB**	**WNMG060404-CB**			●						●		0.016	0.375	0.187	0.150
		WNMG 332 CB	WNMG060408-CB			●						●		0.031	0.375	0.187	0.150

* Please see **L011 - L015** about the adjustment of the machining program for rounding or taper machining when using SW/FW.
Please contact our sales representatives if you have any questions.

● : Line up

Reference pages: External toolholder → C121 - TungCap → K010
Internal toolholder → D083 -

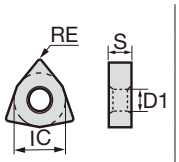
● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

WN



Trigon, 80°
with hole

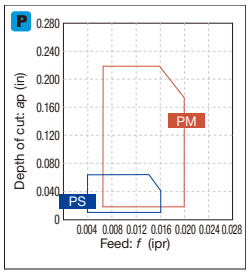
P	Steel	● ●ⓒ ●✠ ✠ ⓒ ⓒ✠ ✠ ⓒ ● ●ⓒ ●ⓒ ●ⓒ
M	Stainless	●ⓒ ● ⓒ ●ⓒ ✠ ⓒ ● ●ⓒ ●ⓒ
K	Cast iron	●ⓒ ●ⓒ ●ⓒ ⓒ ● ●ⓒ ●ⓒ
N	Non-ferrous	
S	Superalloy	ⓒ ● ● ●ⓒ
H	Hard material	

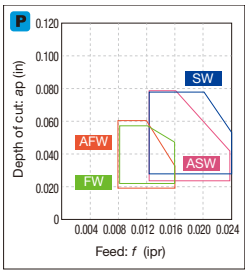


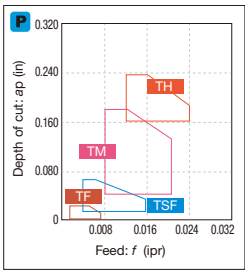
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T6215	T515	AH8015	AH6225	AH6235	AH725	AH110	AH120	Coated cermet GT9530	Cermet NS9530	Dimension (in) RE	IC	S	D1
Medium cutting	TM	WNMG 331E TM	WNMG060404E-TM		●	●		●		●	●				●			0.016	0.375	0.187	0.150
		WNMG 332E TM	WNMG060408E-TM		●	●		●		●	●				●			0.031	0.375	0.187	0.150
		WNMG 333E TM	WNMG060412E-TM		●	●		●		●	●				●			0.047	0.375	0.187	0.150
		WNMG 331 TM	WNMG060404-TM		●	●	●											0.016	0.375	0.187	0.150
		WNMG 332 TM	WNMG060408-TM	●	●	●	●								●			0.031	0.375	0.187	0.150
		WNMG 431 TM	WNMG080404-TM	●	●	●	●	●	●	●	●	●	●		●			0.016	0.500	0.187	0.203
		WNMG 432 TM	WNMG080408-TM	●	●	●	●	●	●	●	●	●	●	●	●			0.031	0.500	0.187	0.203
		WNMG 433 TM	WNMG080412-TM	●	●	●	●	●	●	●	●	●		●	●			0.047	0.500	0.187	0.203
		WNMG 434 TM	WNMG080416-TM	●	●	●		●	●	●	●	●			●			0.063	0.500	0.187	0.203
	PM	WNMG 331E PM	WNMG060404E-PM		●	●		●		●	●							0.016	0.375	0.187	0.150
		WNMG 332E PM	WNMG060408E-PM		●	●		●		●	●							0.031	0.375	0.187	0.150
		WNMG 333E PM	WNMG060412E-PM		●	●		●		●	●							0.047	0.375	0.187	0.150
		WNMG 431 PM	WNMG080404-PM		●	●		●		●	●							0.016	0.500	0.187	0.203
		WNMG 432 PM	WNMG080408-PM		●	●		●		●	●							0.031	0.500	0.187	0.203
		WNMG 433 PM	WNMG080412-PM		●	●		●		●	●							0.047	0.500	0.187	0.203
		WNMG 434 PM	WNMG080416-PM		●	●		●		●	●							0.063	0.500	0.187	0.203
Medium cutting for mild steel	ZM	WNMG 331E ZM	WNMG060404E-ZM		●	●		●		●	●							0.016	0.375	0.187	0.150
		WNMG 332E ZM	WNMG060408E-ZM		●	●		●		●	●							0.031	0.375	0.187	0.150
		WNMG 333E ZM	WNMG060412E-ZM		●	●		●		●	●							0.047	0.375	0.187	0.150
		WNMG 332 ZM	WNMG060408-ZM		●	●	●											0.031	0.375	0.187	0.150
		WNMG 333 ZM	WNMG060412-ZM		●	●	●											0.047	0.375	0.187	0.150
		WNMG 431 ZM	WNMG080404-ZM		●	●		●		●	●							0.016	0.500	0.187	0.203
		WNMG 432 ZM	WNMG080408-ZM		●	●	●	●		●	●					●	●	0.031	0.500	0.187	0.203
		WNMG 433 ZM	WNMG080412-ZM	●	●	●	●	●		●	●							0.047	0.500	0.187	0.203
		WNMG 434 ZM	WNMG080416-ZM		●	●		●		●	●							0.063	0.500	0.187	0.203

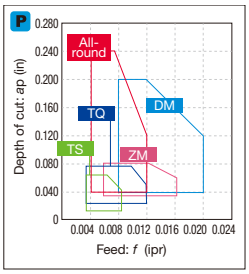
● : Line up

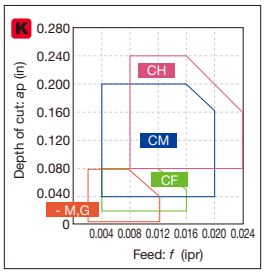
Chip control range



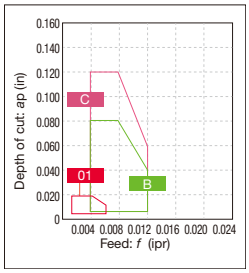








*-M,G: Without chipbreaker



Reference pages: External toolholder → C121 - TungCap → K010
Internal toolholder → D083 -

Insert NEGATIVE TYPE

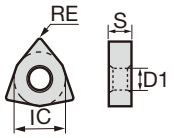
● : Continuous cutting
ɕ : Light interrupted cutting
✣ : Heavy interrupted cutting

WN



Trigon, 80°
with hole

P	Steel	●	●ɕ	●ɕ	✣	✣	ɕ								ɕ✣	✣	ɕ	●	●ɕ		●ɕ	●ɕ		●						
M	Stainless		●ɕ			●							●	ɕ	●ɕ	✣	ɕ	●	●ɕ					●						
K	Cast iron	●ɕ	●ɕ				●	●ɕ	●	ɕ	✣						ɕ	●	●ɕ		●ɕ	●ɕ		●						
N	Non-ferrous																							●						
S	Superalloy												●	ɕ			●	●	●ɕ											
H	Hard material																													



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T6215	T505	T515	T5105	T5115	T5125	AH8005	AH8015	AH6225	AH6235	AH725	AH110	AH120	Cermet NS9530	NS520	Uncoated TH10	Dimension (in) RE	IC	S	D1
Medium cutting	**AM**	**WNMG 432 AM**	**WNMG080408-AM**		●	●																		0.031	0.500	0.187	0.203
		WNMG 433 AM	WNMG080412-AM		●	●																		0.047	0.500	0.187	0.203
		WNMG 434 AM	WNMG080416-AM		●	●																		0.063	0.500	0.187	0.203
	NM	**WNMG 333E NM**	**WNMG060412E-NM**			●																		0.047	0.375	0.187	0.150
		WNMG 432 NM	**WNMG080408-NM**	●	●	●																		0.031	0.500	0.187	0.203
		WNMG 433 NM	WNMG080412-NM	●	●	●	●																	0.047	0.500	0.187	0.203
	DM	**WNMG 431 DM**	**WNMG080404-DM**		●	●		●							●	●								0.016	0.500	0.187	0.203
		WNMG 432 DM	WNMG080408-DM	●	●	●	●	●							●	●								0.031	0.500	0.187	0.203
		WNMG 433 DM	WNMG080412-DM	●	●	●	●	●							●	●								0.047	0.500	0.187	0.203
		WNMG 434 DM	WNMG080416-DM		●	●		●							●	●								0.063	0.500	0.187	0.203
	All-round	**WNMG 331**	**WNMG060404**		●	●					●	●	●											0.016	0.375	0.187	0.150
		WNMG 332	WNMG060408		●	●				●	●	●	●											0.031	0.375	0.187	0.150
		WNMG 431	**WNMG080404**	●	●	●	●		●	●	●	●	●						●	●		●	●	0.016	0.500	0.187	0.203
		WNMG 432	WNMG080408	●	●	●	●		●	●	●	●	●						●	●		●	●	0.031	0.500	0.187	0.203
		WNMG 433	WNMG080412	●	●	●	●		●	●	●	●	●						●	●			●	0.047	0.500	0.187	0.203
		WNMG 434	WNMG080416	●	●	●	●		●	●	●	●												0.063	0.500	0.187	0.203
	SM	**WNMG 331E SM**	**WNMG060404E-SM**					●								●								0.016	0.375	0.187	0.150
		WNMG 332E SM	WNMG060408E-SM					●								●								0.031	0.375	0.187	0.150
		WNMG 333E SM	WNMG060412E-SM					●								●								0.047	0.375	0.187	0.150
		WNMG 332 SM	WNMG060408-SM															●						0.031	0.375	0.187	0.150
		WNMG 431 SM	**WNMG080404-SM**					●								●	●							0.016	0.500	0.187	0.203
		WNMG 432 SM	WNMG080408-SM					●								●	●	●						0.031	0.500	0.187	0.203
		WNMG 433 SM	WNMG080412-SM					●								●	●	●						0.047	0.500	0.187	0.203
	SDM	**WNMG 431 SDM**	**WNMG080404-SDM**					●								●	●							0.016	0.500	0.187	0.203
		WNMG 432 SDM	WNMG080408-SDM					●								●	●							0.031	0.500	0.187	0.203
		WNMG 433 SDM	WNMG080412-SDM					●								●	●							0.047	0.500	0.187	0.203
	HRM	**WNMG 431 HRM**	**WNMG080404-HRM**											●	●									0.016	0.500	0.187	0.203
		WNMG 432 HRM	WNMG080408-HRM											●	●									0.031	0.500	0.187	0.203
		WNMG 433 HRM	WNMG080412-HRM											●	●									0.047	0.500	0.187	0.203

● : Line up

Reference pages: External toolholder → C121 - Internal toolholder → D083 -
TungCap → K010

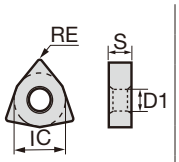
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

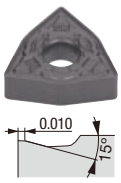
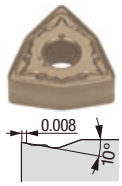
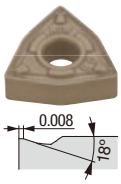
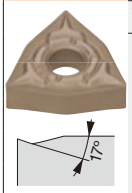
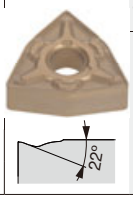
WN



Trigon, 80°
with hole

P	Steel	●	◐	◐	✠	✠	◐							◐	◐		◐				
M	Stainless		◐				●														
K	Cast iron	◐	◐					●	◐	●	◐	✠		◐	◐		◐				
N	Non-ferrous																				
S	Superalloy																				
H	Hard material																				

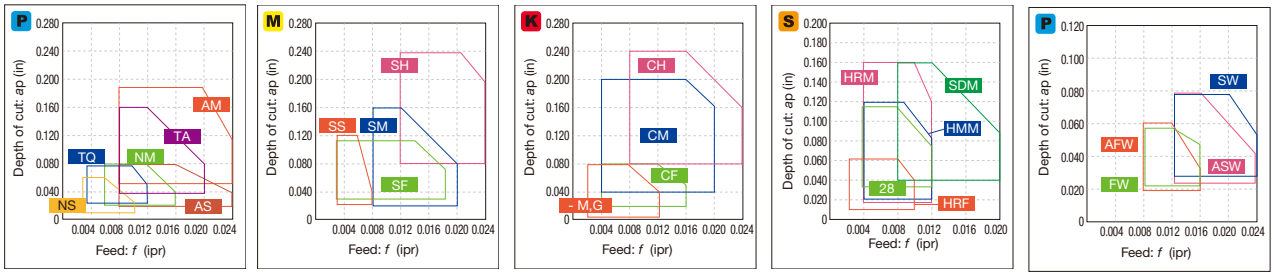


Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9205	T9215	T9225	T9235	T6215	T505	T515	T5105	T5115	T5125	Coated cermet GT9530	AT9530	Cermet NS9530	RE	IC	S	D1
Medium cutting	CM	WNMG 431 CM	WNMG080404-CM	●	●			●	●	●		●					0.016	0.500	0.187	0.203
		WNMG 432 CM	WNMG080408-CM	●	●			●	●	●	●	●	●				0.031	0.500	0.187	0.203
		WNMG 433 CM	WNMG080412-CM	●	●			●	●	●	●	●	●				0.047	0.500	0.187	0.203
Finishing cutting (wiper)	SW	WNMG 332E SW	WNMG060408E-SW	●	●	●						●					0.031	0.375	0.187	0.150
		WNMG 333E SW	WNMG060412E-SW	●	●	●						●					0.047	0.375	0.187	0.150
		WNMG 432 SW	WNMG080408-SW	●	●	●				●		●					0.031	0.500	0.187	0.203
		WNMG 433 SW	WNMG080412-SW		●	●				●		●					0.047	0.500	0.187	0.203
		*Wiper																		
	ASW	WNMG 332 ASW	WNMG060408-ASW	●	●	●											0.031	0.375	0.187	0.150
		WNMG 333 ASW	WNMG060412-ASW	●	●	●	●										0.047	0.375	0.187	0.150
		WNMG 432 ASW	WNMG080408-ASW	●	●	●	●										0.031	0.500	0.187	0.203
		WNMG 433 ASW	WNMG080412-ASW	●	●	●	●										0.047	0.500	0.187	0.203
		*Wiper																		
Medium cutting	TQ	WNMG 431 TQ	WNMG080404-TQ		●	●								●	●	●	0.016	0.500	0.187	0.203
		WNMG 432 TQ	WNMG080408-TQ		●	●								●	●	●	0.031	0.500	0.187	0.203
	TA	WNMG 432 TA	WNMG080408-TA		●	●											0.031	0.500	0.187	0.203
		WNMG 433 TA	WNMG080412-TA		●	●											0.047	0.500	0.187	0.203

* Please see **L011 - L015** about the adjustment of the machining program for rounding or taper machining when using SW/FW.
Please contact our sales representatives if you have any questions.

● : Line up

Chip control range



*-M,G: Without chipbreaker

Reference pages: External toolholder → C121 - TungCap → K010
Internal toolholder → D083 -

Insert NEGATIVE TYPE

● : Continuous cutting
c : Light interrupted cutting
✣ : Heavy interrupted cutting

WN



Trigon, 80°
with hole

| | | |

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

WN

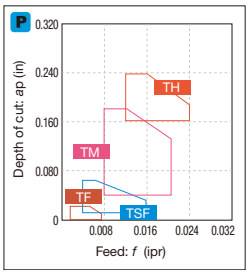


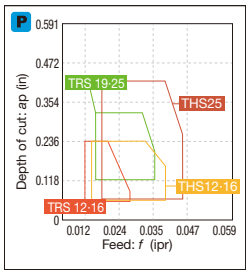
Trigon, 80°
with hole

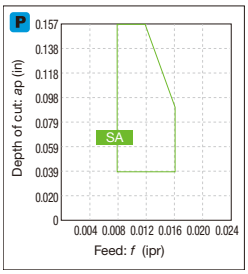
		Coated								Cermet	Uncoated	Ceramic		Dimension (in)			
Application	Chipbreaker	Designation Inch	Designation Metric	T505	T515	T5105	T5115	T5125	AH6225	AH6235		NS520	TH10	LX10	LX11	RE	IC	S	D1
P Steel									●ⓒ	✠		●ⓒ		●					
M Stainless									●ⓒ	✠				●					
K Cast iron				●	●ⓒ	●	ⓒ	✠				●ⓒ		●					
N Non-ferrous														●					
S Superalloy																			
H Hard material															●ⓒ	●ⓒ				
Medium to heavy cutting	SH	WNMG 432 SH	WNMG080408-SH						●	●						0.031	0.500	0.187	0.203
		WNMG 433 SH	WNMG080412-SH						●	●						0.047	0.500	0.187	0.203
	CH	WNMG 432 CH	WNMG080408-CH			●	●	●								0.031	0.500	0.187	0.203
		WNMG 433 CH	WNMG080412-CH			●	●	●								0.047	0.500	0.187	0.203
Finishing to medium cutting	-	WNMA 331E	WNMA060404E		●											0.016	0.375	0.187	0.150
		WNMA 332E	WNMA060408E		●											0.031	0.375	0.187	0.150
		WNMA 333E	WNMA060412E		●											0.047	0.375	0.187	0.150
		WNMA 334E	WNMA060416E		●											0.063	0.375	0.187	0.150
		WNMA 431	WNMA080404			●	●	●					●			0.016	0.500	0.187	0.203
		WNMA 432	WNMA080408	●	●	●	●	●				●	●			0.031	0.500	0.187	0.203
		WNMA 433	WNMA080412	●	●	●	●	●								0.047	0.500	0.187	0.203
		WNMA 434	WNMA080416	●	●	●	●	●								0.063	0.500	0.187	0.203
		WNGA 431	WNGA080404											●	▲	0.016	0.500	0.187	0.203
		WNGA 432	WNGA080408											●	▲	0.031	0.500	0.187	0.203
		WNGA 433	WNGA080412											●	▲	0.047	0.500	0.187	0.203

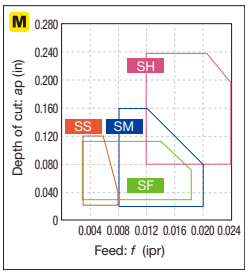
● : Line up
▲ : To be discontinued

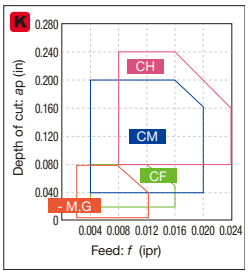
Chip control range



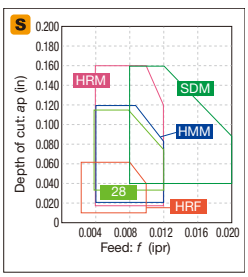








*-M,G: Without chipbreaker



Reference pages: External toolholder → C121 - TungCap → K010
Internal toolholder → D083 -

Insert NEGATIVE TYPE

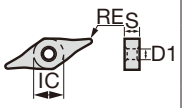
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

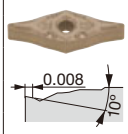
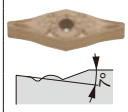
YN



Rhombic, 25° with hole

P	Steel	●ɔ	ɔ✣	✣	ɔ		ɔ✣	●ɔ				●ɔ									
M	Stainless	●ɔ			●	ɔ	●ɔ														
K	Cast iron	●ɔ						●ɔ				●ɔ									
N	Non-ferrous																				
S	Superalloy					ɔ															
H	Hard material																				



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T9235	T6215	AH8015	AH6225	Coated cermet GT9530	Cermet NS9530	Dimension (in) RE	IC	S	D1
Finishing for mild steel	**ZF**	YNMG 330.5 ZF	YNMG160402-ZF	●	●	●	●	●	●	●	●	0.008	0.375	0.187	0.150
		YNMG 331 ZF	YNMG160404-ZF	●	●	●	●	●	●	●	●	0.016	0.375	0.187	0.150
		YNMG 332 ZF	YNMG160408-ZF	●	●	●	●	●	●	●	●	0.031	0.375	0.187	0.150
Medium cutting for mild steel	**ZM**	YNMG 331 ZM	YNMG160404-ZM	●	●	●	●	●	●	●	●	0.016	0.375	0.187	0.150
		YNMG 332 ZM	YNMG160408-ZM	●	●	●	●	●	●	●	●	0.031	0.375	0.187	0.150

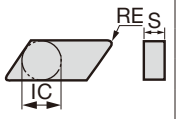
● : Line up

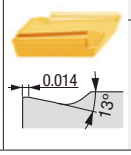
KN



Parallelogram, 55° without hole

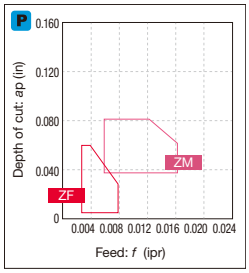
P	Steel	●ɔ																			
M	Stainless	●ɔ																			
K	Cast iron	●ɔ																			
N	Non-ferrous																				
S	Superalloy																				
H	Hard material																				



Application	Chipbreaker	Designation Inch	Designation Metric	Coated GH330	Dimension (in) RE	IC	S	D1
Finishing	**S1**	-	KNMX160405R-S1	●	0.020	0.375	0.187	-
		-	KNMX160405L-S1	●	0.020	0.375	0.187	-

● : Line up

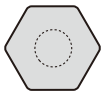
Chip control range



Reference pages: YNMG...: External toolholder → C103 -, Internal toolholder → D077 -
TungCap → K014 -

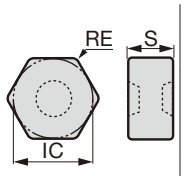
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

HN



Hexagonal, 120° without hole

P	Steel	
M	Stainless	
K	Cast iron	●◐
N	Non-ferrous	
S	Superalloy	
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Ceramic FX105	RE	IC	S	D1
Finishing to medium cutting	-	HNGD 453	HNGD050712	●	0.047	0.500	0.313	-
		HNGD 454	HNGD050716	●	0.063	0.500	0.313	-

● : Line up

Reference pages: HNGD...: External toolholder → C059

Insert POSITIVE TYPE

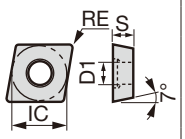
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

CC



Rhombic, 80°
with hole
Positive 7°

P	Steel	◐	●◐	●◐	●◐	●◐	
M	Stainless	◐	●◐	●◐	●◐	●◐	
K	Cast iron	◐					
N	Non-ferrous						
S	Superalloy	●		●◐			
H	Hard material						



Application	Chipbreaker	Designation Inch	Designation Metric	Coated AH725	SH7025	SH725	SH730	J740	Dimension (in) RE	IC	S	D1
Precision finishing (sharp edge)	JP	CCGT 21.5V FN-JP	CCGT060200FN-JP		●	●			<0.001	0.250	0.094	0.109
		CCGT 21.50 FN-JP	CCGT060201FN-JP		●	●			<0.004	0.250	0.094	0.109
		CCGT 21.50.5 FN-JP	CCGT060202FN-JP		●	●			<0.008	0.250	0.094	0.109
		CCGT 32.5V FN-JP	CCGT09T300FN-JP		●	●			<0.002	0.375	0.156	0.173
		CCGT 32.50 FN-JP	CCGT09T301FN-JP		●	●			<0.004	0.375	0.156	0.173
		CCGT 32.50.5 FN-JP	CCGT09T302FN-JP		●	●			<0.008	0.375	0.156	0.173
	01	CCGT 21.50.5 F-01	CCGT060202F-01		●	●			<0.008	0.250	0.094	0.109
		CCGT 21.51 F-01	CCGT060204F-01		●	●			<0.016	0.250	0.094	0.109
		CCGT 32.50.5 F-01	CCGT09T302F-01		●	●			<0.008	0.375	0.156	0.173
		CCGT 32.51 F-01	CCGT09T304F-01		●	●			<0.016	0.375	0.156	0.173
Precision finishing	01	CCGT 21.50.5-01	CCGT060202-01					●	0.008	0.250	0.094	0.109
		CCGT 32.50.5-01	CCGT09T302-01					●	0.008	0.375	0.156	0.173
Finishing (sharp edge)	JS	CCGT 4.51.80 F-JS	CCGT03X101F-JS		●	●			<0.004	0.141	0.055	0.075
		CCGT 4.51.80.5 F-JS	CCGT03X102F-JS		●	●			<0.008	0.141	0.055	0.075
		CCGT 4.51.81 F-JS	CCGT03X104F-JS		●	●			<0.016	0.141	0.055	0.075
		CCGT 5.52.20 F-JS	CCGT04T101F-JS		●	●			<0.004	0.172	0.070	0.087
		CCGT 5.52.20.5 F-JS	CCGT04T102F-JS		●	●			<0.008	0.172	0.070	0.087
		CCGT 5.52.21 F-JS	CCGT04T104F-JS		●	●			<0.016	0.172	0.070	0.087
	JS	CCGT 21.5V FN-JS	CCGT060200FN-JS		●	●	●		<0.001	0.250	0.094	0.109
		CCGT 21.50 FN-JS	CCGT060201FN-JS		●	●	●		<0.004	0.250	0.094	0.109
		CCGT 21.50.5 FN-JS	CCGT060202FN-JS		●	●	●		<0.008	0.250	0.094	0.109
		CCGT 21.51 FN-JS	CCGT060204FN-JS		●	●	●		<0.016	0.250	0.094	0.109
		CCGT 32.5V FN-JS	CCGT09T300FN-JS		●	●	●		<0.001	0.375	0.156	0.173
		CCGT 32.50 FN-JS	CCGT09T301FN-JS		●	●	●		<0.004	0.375	0.156	0.173
		CCGT 32.50.5 FN-JS	CCGT09T302FN-JS		●	●	●		<0.008	0.375	0.156	0.173
		CCGT 32.51 FN-JS	CCGT09T304FN-JS		●	●	●		<0.016	0.375	0.156	0.173
Finishing	JS	CCGT 4.51.80 JS	CCGT03X101-JS				●		<0.004	0.141	0.055	0.075
		CCGT 4.51.80.5 JS	CCGT03X102-JS				●		<0.008	0.141	0.055	0.075
		CCGT 4.51.81 JS	CCGT03X104-JS				●		<0.016	0.141	0.055	0.075
		CCGT 5.52.20 JS	CCGT04T101-JS				●		<0.004	0.172	0.070	0.087
		CCGT 5.52.20.5 JS	CCGT04T102-JS				●		<0.008	0.172	0.070	0.087
		CCGT 5.52.21 JS	CCGT04T104-JS				●		<0.016	0.172	0.070	0.087
	JS	CCGT 21.50 N-JS	CCGT060201N-JS	●					0.004	0.250	0.094	0.109
		CCGT 21.50.5 N-JS	CCGT060202N-JS	●					0.008	0.250	0.094	0.109
		CCGT 21.51 N-JS	CCGT060204N-JS	●					0.016	0.250	0.094	0.109
		CCGT 32.50 N-JS	CCGT09T301N-JS	●					0.004	0.375	0.156	0.173
		CCGT 32.50.5 N-JS	CCGT09T302N-JS	●					0.008	0.375	0.156	0.173
		CCGT 32.51 N-JS	CCGT09T304N-JS	●					0.016	0.375	0.156	0.173

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

●: Line up

Reference pages: External toolholder → C034 - Internal toolholder → D018 -
J-Series toolholder → G030 - TungCap → K011 -

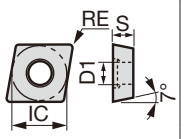
● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

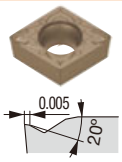
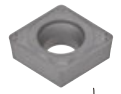
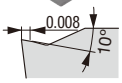
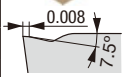
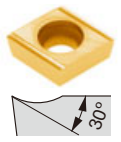
CC



Rhombic, 80° with hole Positive 7°

P	Steel	●ɔ ɔ✠ ɔ ✠ ɔ✠ ɔ ɔ● ●ɔ ●ɔ ɔ ●ɔ ●ɔ ɔ ●ɔ ●
M	Stainless	●ɔ ● ● ɔ ●ɔ ɔ ●ɔ ●ɔ ɔ ●ɔ ●
K	Cast iron	●ɔ ɔ ●ɔ ●ɔ ●ɔ ●
N	Non-ferrous	●
S	Superalloy	● ɔ ●
H	Hard material	

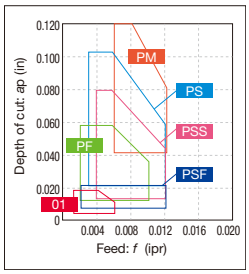


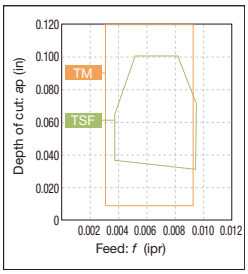
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T6215	AH8005	AH8015	AH6225	AH725	SH7025	SH725	GH730	J740	Coated cermet GT9530	Cermet NS9530	Uncoated TH10	Dimension (in) RE	IC	S	D1
Finishing	PSF	CCMT 21.50.5 PSF	CCMT060202-PSF							●					●	●		0.008	0.250	0.094	0.109
		CCMT 21.51 PSF	CCMT060204-PSF	●	●		●	●		●					●	●		0.016	0.250	0.094	0.109
		CCMT 32.50.5 PSF	CCMT09T302-PSF							●						●		0.008	0.375	0.156	0.173
		CCMT 32.51 PSF	CCMT09T304-PSF	●	●		●	●		●					●	●		0.016	0.375	0.156	0.173
		CCMT 32.52 PSF	CCMT09T308-PSF	●	●					●					●	●		0.031	0.375	0.156	0.173
	PF	CCMT 21.50.5 PF	CCMT060202-PF										●		●	●		0.008	0.250	0.094	0.109
		CCMT 21.51 PF	CCMT060204-PF						●				●		●	●		0.016	0.250	0.094	0.109
		CCMT 21.52 PF	CCMT060208-PF												●	●		0.031	0.250	0.094	0.109
		CCMT 32.50.5 PF	CCMT09T302-PF										●			●		0.008	0.375	0.156	0.173
		CCMT 32.51 PF	CCMT09T304-PF										●		●	●		0.016	0.375	0.156	0.173
		CCMT 32.52 PF	CCMT09T308-PF		●										●	●		0.031	0.375	0.156	0.173
	TSF	CCMT 21.50.5 TSF	CCMT060202-TSF	●	●	●		●	●							●		0.008	0.250	0.094	0.109
		CCMT 21.51 TSF	CCMT060204-TSF	●	●	●		●	●							●		0.016	0.250	0.094	0.109
		CCMT 21.52 TSF	CCMT060208-TSF	●	●	●		●	●							●		0.031	0.250	0.094	0.109
		CCMT 32.50.5 TSF	CCMT09T302-TSF	●	●	●		●	●							●		0.008	0.375	0.156	0.173
		CCMT 32.51 TSF	CCMT09T304-TSF	●	●	●		●	●							●		0.016	0.375	0.156	0.173
		CCMT 32.52 TSF	CCMT09T308-TSF	●	●	●		●	●							●		0.031	0.375	0.156	0.173
Finishing (sharp edge)	J10	CCGT 21.5V FR-J10	CCGT060200FR-J10								●	●		●			●	0.001	0.250	0.094	0.109
		CCGT 21.5V FL-J10	CCGT060200FL-J10									●		●			●	0.001	0.250	0.094	0.109
		CCGT 21.50 FR-J10	CCGT060201FR-J10								●	●		●		●	●	0.004	0.250	0.094	0.109
		CCGT 21.50 FL-J10	CCGT060201FL-J10									●		●			●	0.004	0.250	0.094	0.109
		CCGT 21.50.5 FR-J10	CCGT060202FR-J10								●	●		●		●	●	0.008	0.250	0.094	0.109
		CCGT 21.50.5 FL-J10	CCGT060202FL-J10								●	●		●		●	●	0.008	0.250	0.094	0.109
		CCGT 32.5V FR-J10	CCGT09T300FR-J10								●	●		●			●	0.001	0.375	0.156	0.173
		CCGT 32.5V FL-J10	CCGT09T300FL-J10									●		●			●	0.001	0.375	0.156	0.173
		CCGT 32.50 FR-J10	CCGT09T301FR-J10								●	●		●			●	0.004	0.375	0.156	0.173
		CCGT 32.50 FL-J10	CCGT09T301FL-J10									●		●			●	0.004	0.375	0.156	0.173
		CCGT 32.50.5 FR-J10	CCGT09T302FR-J10								●	●		●			●	0.008	0.375	0.156	0.173
		CCGT 32.50.5 FL-J10	CCGT09T302FL-J10								●	●		●			●	0.008	0.375	0.156	0.173
		CCGT 32.51 FR-J10	CCGT09T304FR-J10									●						0.016	0.375	0.156	0.173

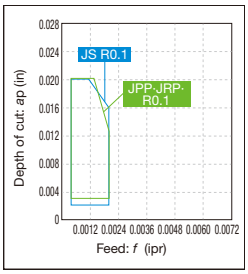
*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

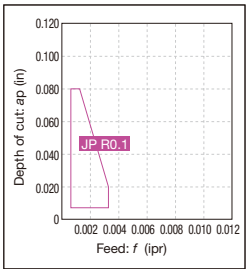
● : Line up

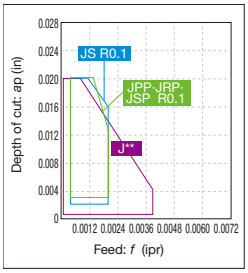
Chip control range











*Chip control range with typical R0.1

Reference pages: External toolholder → C034 - Internal toolholder → D018 -
J-Series toolholder → G030 - TungCap → K011 -

Insert POSITIVE TYPE

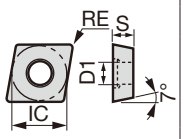
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

CC



Rhombic, 80°
with hole
Positive 7°

		Coated						Coated cermet		Cermet		Uncoated		Dimension (in)			
P	Steel	●ɔ	●ɔ	●ɔ	●ɔ	●		●ɔ		●ɔ		●	ɔ				
M	Stainless	●ɔ	●ɔ	●ɔ	●ɔ	●						●	ɔ				
K	Cast iron				●ɔ	●		●ɔ		●ɔ		●					
N	Non-ferrous											●					
S	Superalloy			●ɔ		●											
H	Hard material																



Application	Chipbreaker	Designation Inch	Designation Metric	SH7205	SH725	SH730	GH330	GH110	GT9530	NS9530	TH10	UX30	RE	IC	S	D1
Finishing (sharp edge)	W08	CCGT 4.51.8V FR-W08	CCGT03X100FL-W08	●	●								0.001	0.141	0.055	0.075
		CCGT 4.51.8V FL-W08	CCGT03X100FR-W08		●								0.001	0.141	0.055	0.075
		CCGT 4.51.80 FR-W08	CCGT03X101FL-W08	●	●								0.004	0.141	0.055	0.075
		CCGT 4.51.80 FL-W08	CCGT03X101FR-W08		●								0.004	0.141	0.055	0.075
		CCGT4.51.80.5FR-W08	CCGT03X102FL-W08	●	●								0.008	0.141	0.055	0.075
		CCGT4.51.80.5FL-W08	CCGT03X102FR-W08	●	●								0.008	0.141	0.055	0.075
		CCGT 4.51.81 FR-W08	CCGT03X104FL-W08	●	●								0.016	0.141	0.055	0.075
		CCGT 4.51.81 FL-W08	CCGT03X104FR-W08	●	●								0.016	0.141	0.055	0.075
		CCGT 5.52.2V FR-W08	CCGT04T100FL-W08	●	●								0.001	0.172	0.070	0.087
		CCGT 5.52.2V FL-W08	CCGT04T100FR-W08		●								0.001	0.172	0.070	0.087
		CCGT 5.52.20 FR-W08	CCGT04T101FL-W08	●	●								0.004	0.172	0.070	0.087
		CCGT 5.52.20 FL-W08	CCGT04T101FR-W08		●								0.004	0.172	0.070	0.087
		CCGT5.52.20.5FR-W08	CCGT04T102FL-W08	●	●								0.008	0.172	0.070	0.087
		CCGT5.52.20.5FL-W08	CCGT04T102FR-W08	●	●								0.008	0.172	0.070	0.087
		CCGT 5.52.21 FR-W08	CCGT04T104FL-W08	●	●								0.016	0.172	0.070	0.087
		CCGT 5.52.21 FL-W08	CCGT04T104FR-W08	●	●								0.016	0.172	0.070	0.087
Finishing	W08	CCGT 4.51.8V R-W08	CCGT03X100R-W08			●					●		0.001	0.141	0.055	0.075
		CCGT 4.51.8V L-W08	CCGT03X100L-W08			●					●		0.001	0.141	0.055	0.075
		CCGT 4.51.80 R-W08	CCGT03X101R-W08			●					●		0.004	0.141	0.055	0.075
		CCGT 4.51.80 L-W08	CCGT03X101L-W08			●					●		0.004	0.141	0.055	0.075
		CCGT 4.51.80.5 R-W08	CCGT03X102R-W08			●					●		0.008	0.141	0.055	0.075
		CCGT 4.51.80.5 L-W08	CCGT03X102L-W08			●					●		0.008	0.141	0.055	0.075
		CCGT 4.51.81 R-W08	CCGT03X104R-W08			●					●		0.016	0.141	0.055	0.075
		CCGT 4.51.81 L-W08	CCGT03X104L-W08			●					●		0.016	0.141	0.055	0.075
		CCGT 5.52.2V R-W08	CCGT04T100R-W08			●					●		0.001	0.172	0.070	0.087
		CCGT 5.52.2V L-W08	CCGT04T100L-W08			●					●		0.001	0.172	0.070	0.087
		CCGT 5.52.20 R-W08	CCGT04T101R-W08			●					●		0.004	0.172	0.070	0.087
		CCGT 5.52.20 L-W08	CCGT04T101L-W08			●					●		0.004	0.172	0.070	0.087
		CCGT 5.52.20.5 R-W08	CCGT04T102R-W08			●					●		0.008	0.172	0.070	0.087
		CCGT 5.52.20.5 L-W08	CCGT04T102L-W08			●					●		0.008	0.172	0.070	0.087
		CCGT 5.52.21 R-W08	CCGT04T104R-W08			●					●		0.016	0.172	0.070	0.087
		CCGT 5.52.21 L-W08	CCGT04T104L-W08			●					●		0.016	0.172	0.070	0.087
	W15	CCGT 21.5V R-W15	CCGT060200R-W15								●		0.001	0.250	0.094	0.109
		CCGT 21.5V L-W15	CCGT060200L-W15							●	●		0.001	0.250	0.094	0.109
		CCGT 21.50.5 R-W15	CCGT060202R-W15							●	●		0.008	0.250	0.094	0.109
		CCGT 21.50.5 L-W15	CCGT060202L-W15						●	●	●		0.008	0.250	0.094	0.109
		CCGT 21.51 R-W15	CCGT060204R-W15				●			●	●		0.016	0.250	0.094	0.109
		CCGT 21.51 L-W15	CCGT060204L-W15				●	●	●	●	●	●	0.016	0.250	0.094	0.109

●: Line up

Reference pages: External toolholder → C034 - Internal toolholder → D018 -
J-Series toolholder → G030 - TungCap → K011 -

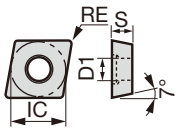
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

CC



Rhombic, 80° with hole Positive 7°

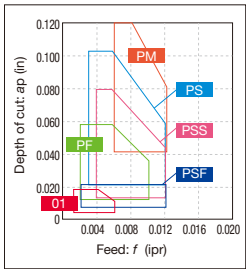
		T9215	T9225	T6215	T505	T515	T5115	AH8005	AH8015	AH6225	AH6235	AH725	AH120	GH730	GH330	GH110	GT9530	AT9530	NS9530	TH10
P	Steel	●ɔ	ɔ✣	ɔ						ɔ✣	✣	ɔ	●ɔ	ɔ	●ɔ	●	●ɔ	ɔɔ	ɔ	●
M	Stainless	●ɔ		●				●	ɔ	●ɔ	✣	ɔ	●ɔ	ɔ	●ɔ	●				●
K	Cast iron	●ɔ			●	●ɔ	ɔ					ɔ	●ɔ	ɔ	●ɔ	●	●ɔ	ɔɔ	ɔ	●
N	Non-ferrous																			●
S	Superalloy							●	ɔ			●	●ɔ			●				
H	Hard material																			

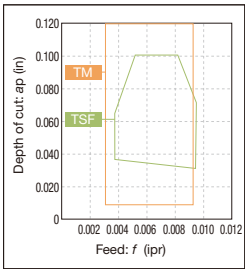


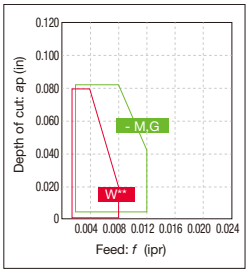
Application	Chipbreaker	Designation Inch	Designation Metric	RE	IC	S	D1
Finishing	**W20**	CCGT 32.50.5 R-W20	CCGT09T302R-W20	0.008	0.375	0.156	0.173
		CCGT 32.50.5 L-W20	CCGT09T302L-W20	0.008	0.375	0.156	0.173
		CCGT 32.51 L-W20	CCGT09T304R-W20	0.016	0.375	0.156	0.173
		CCGT 32.51 R-W20	CCGT09T304L-W20	0.016	0.375	0.156	0.173
		CCGT 32.52 R-W20	CCGT09T308R-W20	0.031	0.375	0.156	0.173
		CCGT 32.52 L-W20	CCGT09T308L-W20	0.031	0.375	0.156	0.173
Finishing to medium cutting	**PSS**	CCMT 21.51 PSS	CCMT060204-PSS	0.016	0.250	0.094	0.109
		CCMT 21.52 PSS	CCMT060208-PSS	0.031	0.250	0.094	0.109
		CCMT 32.51 PSS	CCMT09T304-PSS	0.016	0.375	0.156	0.173
		CCMT 32.52 PSS	CCMT09T308-PSS	0.031	0.375	0.156	0.173
		CCMT 431 PSS	CCMT120404-PSS	0.016	0.500	0.187	0.217
		CCMT 432 PSS	CCMT120408-PSS	0.031	0.500	0.187	0.217
		CCMT 433 PSS	CCMT120412-PSS	0.047	0.500	0.187	0.217
	PS	CCMT 21.50.5 PS	CCMT060202-PS	0.008	0.250	0.094	0.109
		CCMT 21.51 PS	CCMT060204-PS	0.016	0.250	0.094	0.109
		CCMT 21.52 PS	CCMT060208-PS	0.031	0.250	0.094	0.109
		CCMT 32.50.5 PS	CCMT09T302-PS	0.008	0.375	0.156	0.173
		CCMT 32.51 PS	CCMT09T304-PS	0.016	0.375	0.156	0.173
		CCMT 32.52 PS	CCMT09T308-PS	0.031	0.375	0.156	0.173
		CCMT 431 PS	CCMT120404-PS	0.016	0.500	0.187	0.217
		CCMT 432 PS	CCMT120408-PS	0.031	0.500	0.187	0.217
		CCMT 433 PS	CCMT120412-PS	0.047	0.500	0.187	0.217
	TM	CCMT 21.50.5 TM	CCMT060202-TM	0.008	0.250	0.094	0.109
		CCMT 21.51 TM	CCMT060204-TM	0.016	0.250	0.094	0.109
		CCMT 21.52 TM	CCMT060208-TM	0.031	0.250	0.094	0.109
		CCMT 32.50.5 TM	CCMT09T302-TM	0.008	0.375	0.156	0.173
		CCMT 32.51 TM	CCMT09T304-TM	0.016	0.375	0.156	0.173
		CCMT 32.52 TM	CCMT09T308-TM	0.031	0.375	0.156	0.173
	CM	CCMT 21.51 CM	CCMT060204-CM	0.016	0.250	0.094	0.109
		CCMT 21.52 CM	CCMT060208-CM	0.031	0.250	0.094	0.109
		CCMT 32.51 CM	CCMT09T304-CM	0.016	0.375	0.156	0.173
		CCMT 32.52 CM	CCMT09T308-CM	0.031	0.375	0.156	0.173
		CCMT 32.53 CM	CCMT09T312-CM	0.047	0.375	0.156	0.173
		CCMT 431 CM	CCMT120404-CM	0.016	0.500	0.187	0.217
		CCMT 432 CM	CCMT120408-CM	0.031	0.500	0.187	0.217

● : Line up

Chip control range







*-M,G: Without chipbreaker

Reference pages: External toolholder → C034 - Internal toolholder → D018 -
J-Series toolholder → G030 - TungCap → K011 -

Insert POSITIVE TYPE

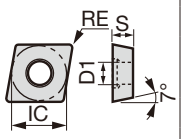
● : Continuous cutting
ᑕ : Light interrupted cutting
✠ : Heavy interrupted cutting

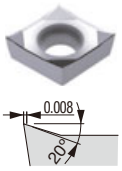
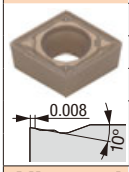
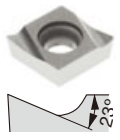
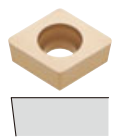
CC



Rhombic, 80° with hole Positive 7°

		T9215	T9225	T5115	SH725	NS9530	TH10	KS05F
P	Steel	●ᑕ	●ᑕ✠		●ᑕ	●ᑕ	●	
M	Stainless	●ᑕ			●ᑕ		●	
K	Cast iron	●ᑕ		ᑕ		●ᑕ	●	●
N	Non-ferrous						●	●
S	Superalloy							●
H	Hard material							



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated T5115	Coated SH725	Cermet NS9530	Uncoated TH10	Uncoated KS05F	Dimension (in) RE	IC	S	D1
Finishing to light cutting for non-ferrous metal	**AL**	**CCGT060201-AL**	**CCGT060201-AL**				●			●	0.004	0.250	0.094	0.109
		**CCGT 21.50.5 AL**	CCGT060202-AL				●			●	0.008	0.250	0.094	0.109
		CCGT 21.51 AL	CCGT060204-AL							●	0.016	0.250	0.094	0.109
		CCGT 32.50.5 AL	**CCGT09T302-AL**				●			●	0.008	0.375	0.156	0.173
		CCGT 32.51 AL	CCGT09T304-AL				●			●	0.016	0.375	0.156	0.173
		CCGT 32.52 AL	CCGT09T308-AL							●	0.031	0.375	0.156	0.173
		CCGT 430.5 AL	**CCGT120402-AL**							●	0.008	0.500	0.187	0.217
		CCGT 431 AL	CCGT120404-AL							●	0.016	0.500	0.187	0.217
		CCGT 432 AL	CCGT120408-AL							●	0.031	0.500	0.187	0.217
	SW	**CCMT 21.51 SW**	**CCMT060204-SW**	●	●			●			0.016	0.250	0.094	0.109
		CCMT 21.52 SW	CCMT060208-SW	●	●			●			0.031	0.250	0.094	0.109
		CCMT 32.51 SW	**CCMT09T304-SW**	●	●			●			0.016	0.375	0.156	0.173
		CCMT 32.52 SW	CCMT09T308-SW	●	●			●			0.031	0.375	0.156	0.173
		*Wiper												
	All-round	**CCGT 21.50.5**	**CCGT060202**					●			0.008	0.250	0.094	0.109
		CCGT 21.51	CCGT060204					●			0.016	0.250	0.094	0.109
		CCGT 32.50.5	**CCGT09T302**					●			0.008	0.375	0.156	0.173
		CCGT 32.51	CCGT09T304					●			0.016	0.375	0.156	0.173
		CCGT 32.52	CCGT09T308					●			0.031	0.375	0.156	0.173
	Angular	**CCGT 21.5V R**	**CCGT060200R**						●		0.001	0.250	0.094	0.109
		CCGT 21.50.5 R	CCGT060202R						●		0.008	0.250	0.094	0.109
		CCGT 21.50.5 L	CCGT060202L						●		0.008	0.250	0.094	0.109
		CCGT 21.51 L	CCGT060204L						●		0.016	0.250	0.094	0.109
		CCGT 32.50.5 R	**CCGT09T302R**						●		0.008	0.375	0.156	0.173
		CCGT 32.50.5 L	CCGT09T302L						●		0.008	0.375	0.156	0.173
		CCGT 32.51 R	CCGT09T304R						●		0.016	0.375	0.156	0.173
		CCGT 32.51 L	CCGT09T304L						●		0.016	0.375	0.156	0.173
	23	**CCMT 21.50.5-23**	**CCMT060202-23**					●			0.008	0.250	0.094	0.109
		CCMT 21.51-23	CCMT060204-23		●			●			0.016	0.250	0.094	0.109
		CCMT 21.52-23	CCMT060208-23		●						0.031	0.250	0.094	0.109
		CCMT 32.51-23	**CCMT09T304-23**		●			●			0.016	0.375	0.156	0.173
		CCMT 32.52-23	CCMT09T308-23		●			●			0.031	0.375	0.156	0.173
	-	**CCMW 21.51**	**CCMW060204**			●					0.016	0.250	0.094	0.109
		CCMW 21.52	CCMW060208			●					0.031	0.250	0.094	0.109
		CCMW 32.51	**CCMW09T304**			●					0.016	0.375	0.156	0.173
		CCMW 32.52	CCMW09T308			●					0.031	0.375	0.156	0.173

* Please see **L011 - L015** about the adjustment of the machining program for rounding or taper machining when using SW/FW.
Please contact our sales representatives if you have any questions.

●: Line up

Reference pages: External toolholder → C034 - Internal toolholder → D018 -
J-Series toolholder → G030 - TungCap → K011 -

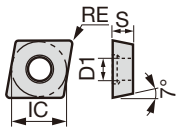
● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

CC



Rhombic, 80° with hole Positive 7°

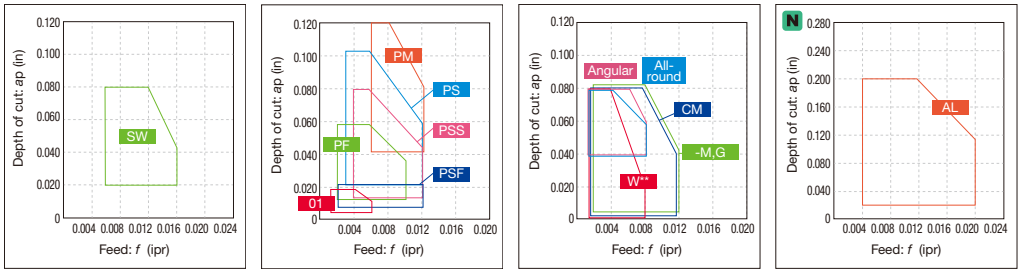
P	Steel	●ɔ ●✠ ɔ ɔ✠ ✠ ɔ ● ●ɔ ɔ ● ●ɔ ●ɔ ●
M	Stainless	●ɔ ● ●ɔ ✠ ɔ ● ●ɔ ɔ ● ●
K	Cast iron	●ɔ ɔ ● ●ɔ ɔ ● ●ɔ ɔ ● ●ɔ ●ɔ ●
N	Non-ferrous	●
S	Superalloy	● ● ●ɔ ●
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T6215	AH6225	AH6235	AH725	AH110	AH120	GH730	GH110	Coated cermet GT9530	Cermet NS9530	Uncoated TH10	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	-	CCGW 21.50.5	CCGW060202													●	0.008	0.250	0.094	0.109
		CCGW 21.51	CCGW060204													●	0.016	0.250	0.094	0.109
		CCGW 32.50.5	CCGW09T302													●	0.008	0.375	0.156	0.173
		CCGW 32.51	CCGW09T304										●			●	0.016	0.375	0.156	0.173
		CCGW 32.52	CCGW09T308													●	0.031	0.375	0.156	0.173
Medium cutting	PM	CCMT 21.51 PM	CCMT060204-PM	●	●	●	●	●	●	●	●	●		●	●		0.016	0.250	0.094	0.109
		CCMT 21.52 PM	CCMT060208-PM	●	●	●	●	●	●	●	●	●		●	●		0.031	0.250	0.094	0.109
		CCMT 32.51 PM	CCMT09T304-PM	●	●	●	●	●	●	●	●	●		●	●		0.016	0.375	0.156	0.173
		CCMT 32.52 PM	CCMT09T308-PM	●	●	●	●	●	●	●	●	●		●	●		0.031	0.375	0.156	0.173
		CCMT 32.53 PM	CCMT09T312-PM	●	●	●	●	●	●								0.047	0.375	0.156	0.173
		CCMT 432 PM	CCMT120408-PM			●	●	●	●								0.031	0.500	0.187	0.217
		CCMT 433 PM	CCMT120412-PM			●	●	●	●								0.047	0.500	0.187	0.217
	24	CCMT 21.50.5-24	CCMT060202-24		●										●		0.008	0.250	0.094	0.109
		CCMT 21.51-24	CCMT060204-24	●	●						●				●		0.016	0.250	0.094	0.109
		CCMT 21.52-24	CCMT060208-24	●	●		●				●				●		0.031	0.250	0.094	0.109
		CCMT 32.50.5-24	CCMT09T302-24		●										●		0.008	0.375	0.156	0.173
		CCMT 32.51-24	CCMT09T304-24	●	●						●				●		0.016	0.375	0.156	0.173
		CCMT 32.52-24	CCMT09T308-24	●	●		●				●				●		0.031	0.375	0.156	0.173
		CCMT 432-24	CCMT120408-24	●	●						●				●		0.031	0.500	0.187	0.217

● : Line up

Chip control range



*-M,G: Without chipbreaker

Reference pages: External toolholder → C034 - Internal toolholder → D018 -
J-Series toolholder → G030 - TungCap → K011 -

Insert POSITIVE TYPE

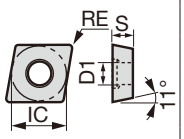
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

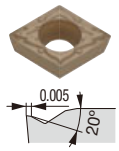
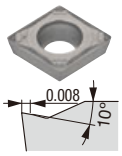
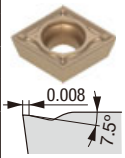
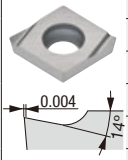
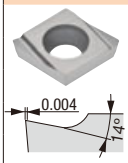
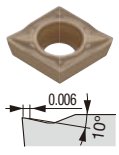
CP



Rhombic, 80° with hole Positive 11°

P	Steel	●ɔ	ɔ✣	ɔ		ɔ✣	✣	ɔ				●ɔ			●ɔ			●			
M	Stainless	●ɔ		●	ɔ	●ɔ	✣	ɔ										●			
K	Cast iron	●ɔ						ɔ				●ɔ			●ɔ			●			
N	Non-ferrous																	●			
S	Superalloy				ɔ			●													
H	Hard material																				



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated T6215	Coated AH8015	Coated AH6225	Coated AH6235	Coated AH725	Coated cermet GT9530	Cermet NS9530	Uncoated TH10	Dimension (in) RE	IC	S	D1
Finishing	**PSF**	**CPMT 21.50.5 PSF**	**CPMT060202-PSF**							●				0.008	0.250	0.094	0.109
		CPMT 21.5**1 PSF**	CPMT060204-PSF	●	●					●				0.016	0.250	0.094	0.109
		CPMT 2.51.50.5 PSF	**CPMT080202-PSF**							●				0.008	0.313	0.094	0.134
		CPMT 2.51.5**1 PSF**	CPMT080204-PSF	●	●					●				0.016	0.313	0.094	0.134
		CPMT 320.5 PSF	**CPMT090302-PSF**							●	●	●		0.008	0.375	0.125	0.173
		CPMT 32**1 PSF**	CPMT090304-PSF	●	●					●	●	●		0.016	0.375	0.125	0.173
		CPMT 32.50.5 PSF	**CPMT09T302-PSF**							●				0.008	0.375	0.156	0.173
		CPMT 32.5**1 PSF**	CPMT09T304-PSF	●	●					●				0.016	0.375	0.156	0.173
	PF	**CPMT 320.5 PF**	**CPMT090302-PF**								●	●		0.008	0.375	0.125	0.173
		CPMT 32**1 PF**	CPMT090304-PF								●	●		0.016	0.375	0.125	0.173
	TSF	**CPMT 21.50.5 TSF**	**CPMT060202-TSF**	●	●	●	●	●				●		0.008	0.250	0.094	0.109
		CPMT 21.5**1 TSF**	CPMT060204-TSF	●	●	●	●	●				●		0.016	0.250	0.094	0.109
		CPMT 21.5**2 TSF**	CPMT060208-TSF	●	●	●	●	●				●		0.031	0.250	0.094	0.109
		CPMT 32.50.5 TSF	**CPMT09T302-TSF**	●	●	●	●	●				●		0.008	0.375	0.156	0.173
		CPMT 32.5**1 TSF**	CPMT09T304-TSF	●	●	●	●	●				●		0.016	0.375	0.156	0.173
		CPMT 32.5**2 TSF**	CPMT09T308-TSF	●	●	●	●	●				●		0.031	0.375	0.156	0.173
	W15	**CPGT 730.5 L-W15**	**CPGT050202L-W15**									●		0.008	0.219	0.094	0.098
		CPGT 731 **L-W15**	CPGT050204L-W15									●		0.016	0.219	0.094	0.098
		CPGT 2.51.50.5 R-W15	**CPGT080202R-W15**										●	0.008	0.313	0.094	0.134
		CPGT 2.51.50.5 **L-W15**	CPGT080202L-W15									●	●	0.008	0.313	0.094	0.134
		CPGT 2.51.51 **R-W15**	CPGT080204R-W15										●	0.016	0.313	0.094	0.134
		CPGT 2.51.51 **L-W15**	CPGT080204L-W15									●	●	0.016	0.313	0.094	0.134
	W20	**CPGT 320.5 R-W20**	**CPGT090302R-W20**									●	●	0.008	0.375	0.125	0.173
		CPGT 320.5 **L-W20**	CPGT090302L-W20									●	●	0.008	0.375	0.125	0.173
		CPGT 321 **R-W20**	CPGT090304R-W20									●	●	0.016	0.375	0.125	0.173
		CPGT 321 **L-W20**	CPGT090304L-W20									●	●	0.016	0.375	0.125	0.173
Finishing to medium cutting	**PSS**	**CPMT 21.51 PSS**	**CPMT060204-PSS**	●	●					●	●	●		0.016	0.250	0.094	0.109
		**CPMT 2.51.51 PSS**	**CPMT080204-PSS**	●	●	●		●	●	●	●	●		0.016	0.313	0.094	0.134
		CPMT 2.51.5**2 PSS**	CPMT080208-PSS	●	●	●		●	●	●	●	●		0.031	0.313	0.094	0.134
		CPMT 321 PSS	**CPMT090304-PSS**	●	●	●		●	●	●	●	●		0.016	0.375	0.125	0.173
		CPMT 32**2 PSS**	CPMT090308-PSS	●	●	●		●	●	●	●	●		0.031	0.375	0.125	0.173
		CPMT 32.51 PSS	**CPMT09T304-PSS**	●	●					●				0.016	0.375	0.156	0.173
		CPMT 32.5**2 PSS**	CPMT09T308-PSS	●	●					●				0.031	0.375	0.156	0.173

● : Line up

Reference pages: Internal toolholder → D022 -

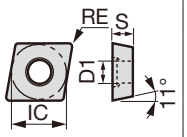
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

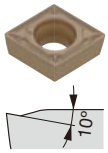
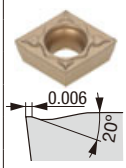
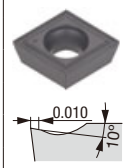
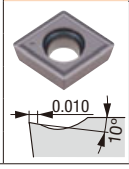
CP



Rhombic, 80°
with hole
Positive 11°

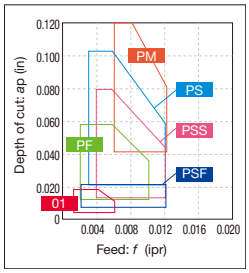
P	Steel	●◐◐✠ ◐ ✠ ✠ ◐✠ ✠ ◐ ●◐ ◐ ●◐●◐ ●◐ ●
M	Stainless	●◐ ● ● ◐ ●◐ ◐ ✠ ◐ ●◐ ◐ ●◐●◐ ●◐ ●
K	Cast iron	●◐ ● ●◐ ◐ ◐ ●◐ ◐ ●◐ ◐ ●◐●◐ ●◐ ●
N	Non-ferrous	●
S	Superalloy	● ◐ ◐ ●◐ ◐ ● ●◐ ●
H	Hard material	

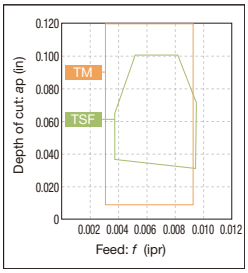


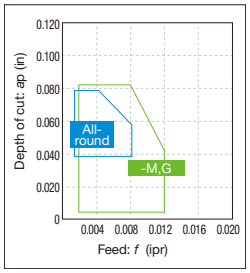
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T6215	T505	T515	T5115	AH8005	AH8015	AH6225	AH6235	AH905	AH725	AH120	GH730	Coated cermet GT9530	AT9530	Cermet NS9530	Uncoated TH10	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	**PS**	CPMT 21.50.5 PS	CPMT060202-PS	●	●	●				●	●	●			●	●	●			●		0.008	0.250	0.094	0.109
		CPMT 21.51 PS	CPMT060204-PS	●	●	●				●	●	●			●	●	●	●	●	●		0.016	0.250	0.094	0.109
		CPMT 21.52 PS	CPMT060208-PS	●	●	●					●	●								●		0.031	0.250	0.094	0.109
		CPMT 2.51.50.5 PS	CPMT080202-PS	●	●	●						●	●		●			●	●	●		0.008	0.313	0.094	0.134
		CPMT 2.51.51 PS	CPMT080204-PS	●	●	●						●	●		●			●	●	●		0.016	0.313	0.094	0.134
		CPMT 2.51.52 PS	CPMT080208-PS	●	●	●						●	●		●			●	●	●		0.031	0.313	0.094	0.134
		CPMT 321 PS	CPMT090304-PS	●	●	●						●	●		●			●	●	●		0.016	0.375	0.125	0.173
		CPMT 322 PS	CPMT090308-PS	●	●	●						●	●		●			●	●	●	●	0.031	0.375	0.125	0.173
		CPMT 32.50.5 PS	CPMT09T302-PS	●	●	●				●	●	●			●					●		0.008	0.375	0.156	0.173
		CPMT 32.51 PS	CPMT09T304-PS	●	●	●				●	●	●			●					●		0.016	0.375	0.156	0.173
		CPMT 32.52 PS	CPMT09T308-PS	●	●	●				●	●	●			●	●				●		0.031	0.375	0.156	0.173
	TM	CPMT 21.50.5 TM	CPMT060202-TM	●	●	●					●	●								●		0.008	0.250	0.094	0.109
		CPMT 21.51 TM	CPMT060204-TM	●	●	●					●	●								●		0.016	0.250	0.094	0.109
		CPMT 21.52 TM	CPMT060208-TM	●	●	●					●	●								●		0.031	0.250	0.094	0.109
		CPMT 32.50.5 TM	CPMT09T302-TM	●	●	●					●	●								●		0.008	0.375	0.156	0.173
		CPMT 32.51 TM	CPMT09T304-TM	●	●	●					●	●								●		0.016	0.375	0.156	0.173
		CPMT 32.52 TM	CPMT09T308-TM	●	●	●					●	●								●		0.031	0.375	0.156	0.173
	CM	CPMT 21.51 CM	CPMT060204-CM						●													0.016	0.250	0.094	0.109
		CPMT 21.52 CM	CPMT060208-CM						●													0.031	0.250	0.094	0.109
		CPMT 2.51.51 CM	CPMT080204-CM						●													0.016	0.313	0.094	0.134
		CPMT 2.51.52 CM	CPMT080208-CM						●													0.031	0.313	0.094	0.134
		CPMT 321 CM	CPMT090304-CM				●	●	●													0.016	0.375	0.125	0.173
		CPMT 322 CM	CPMT090308-CM				●	●	●													0.031	0.375	0.125	0.173
		CPMT 32.51 CM	CPMT09T304-CM				●	●	●													0.016	0.375	0.156	0.173
		CPMT 32.52 CM	CPMT09T308-CM				●	●	●													0.031	0.375	0.156	0.173
		CPMT 32.53 CM	CPMT09T312-CM						●													0.047	0.375	0.156	0.173
		CPMT 432 CM	CPMT120408-CM						●													0.031	0.500	0.187	0.217
		CPMT 433 CM	CPMT120412-CM						●													0.047	0.500	0.187	0.217
	All-round	CPMT 432	CPMT120408							●	●			●								0.031	0.500	0.187	0.217
																									

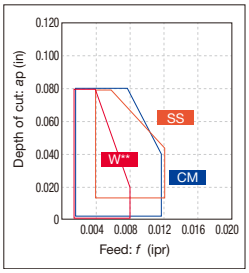
● : Line up

Chip control range









*-M,G: Without chipbreaker

Reference pages: Internal toolholder → D022 -

Insert POSITIVE TYPE / DOUBLE SIDED

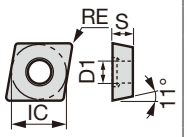
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

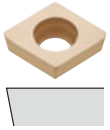
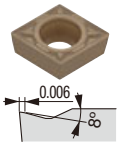
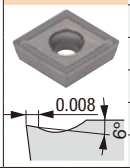
CP



Rhombic, 80° with hole Positive 11°

P	Steel	●ɔ	ɔ✣	ɔ		ɔ✣	✣	ɔ							●ɔ					
M	Stainless	●ɔ		●		●ɔ	✣	ɔ												
K	Cast iron	●ɔ			ɔ			ɔ							●ɔ					
N	Non-ferrous																			
S	Superalloy							●												
H	Hard material																			



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T6215	T5115	AH6225	AH6235	AH725	Cermet NS9530	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	-	CPMW 2.51.51	CPMW080204				●					0.016	0.313	0.094	0.134
		CPMW 2.51.52	CPMW080208				●					0.031	0.313	0.094	0.134
		CPMW 321	CPMW090304				●					0.016	0.375	0.125	0.173
		CPMW 322	CPMW090308				●					0.031	0.375	0.125	0.173
Medium cutting	PM	CPMT 21.51 PM	CPMT060204-PM			●		●	●	●		0.016	0.250	0.094	0.109
		CPMT 21.52 PM	CPMT060208-PM		●	●		●	●	●		0.031	0.250	0.094	0.109
		CPMT 321 PM	CPMT090304-PM		●	●		●	●	●	●	0.016	0.375	0.125	0.173
		CPMT 322 PM	CPMT090308-PM		●	●		●	●	●	●	0.031	0.375	0.125	0.173
	24	CPMT 2.51.51-24	CPMT080204-24	●								0.016	0.313	0.094	0.134
		CPMT 2.51.52-24	CPMT080208-24		●							0.031	0.313	0.094	0.134
		CPMT 322-24	CPMT090308-24		●							0.031	0.375	0.125	0.173
		CPMT 432-24	CPMT120408-24								●	0.031	0.500	0.187	0.217
		CPMT 53.52-24	CPMT160508-24		●						●	0.031	0.625	0.219	0.217
		CPMT 53.53-24	CPMT160512-24								●	0.047	0.625	0.219	0.217

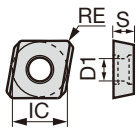
● : Line up

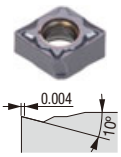
CX



Rhombic, 80° with hole

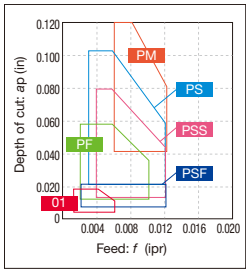
P	Steel	●ɔ	ɔ✣		ɔ															
M	Stainless	●ɔ		ɔ	ɔ															
K	Cast iron	●ɔ			ɔ															
N	Non-ferrous																			
S	Superalloy			ɔ	●															
H	Hard material																			

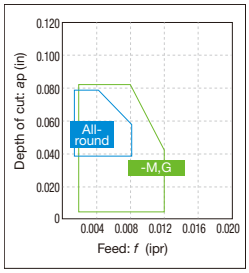


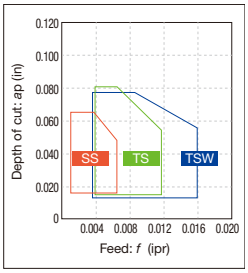
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	AH8015	AH725	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	TS	CXMU 220.5R TS	CXMU060302R-TS	●	●	●	●	0.008	0.250	0.125	0.106
		CXMU 220.5L TS	CXMU060302L-TS	●	●	●	●	0.008	0.250	0.125	0.106
		CXMU 221R TS	CXMU060304R-TS	●	●	●	●	0.016	0.250	0.125	0.106
		CXMU 221L TS	CXMU060304L-TS	●	●	●	●	0.016	0.250	0.125	0.106
		CXMU 222R TS	CXMU060308R-TS	●	●	●	●	0.031	0.250	0.125	0.106
		CXMU 222L TS	CXMU060308L-TS	●	●	●	●	0.031	0.250	0.125	0.106

● : Line up

Chip control range







*-M,G: Without chipbreaker

Reference pages: CPM*... : Internal toolholder → D022 -
CXMU...: Internal toolholder → D025 -

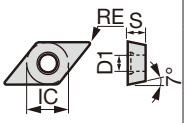
● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

DC

Rhombic, 55° with hole Positive 7°



P	Steel	●ɔ ɔ✠ ɔ ●ɔ ●ɔ ●ɔ ●ɔ
M	Stainless	●ɔ ● ɔ ɔ ●ɔ ●ɔ ●ɔ ●ɔ
K	Cast iron	●ɔ ɔ ●ɔ ●ɔ
N	Non-ferrous	
S	Superalloy	● ɔ ɔ ● ●ɔ
H	Hard material	

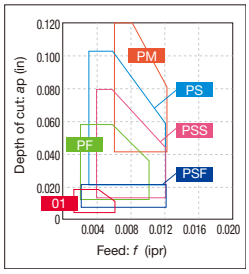


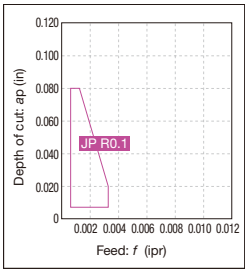
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated AH8005	Coated AH8015	Coated AH905	Coated AH725	Coated SH7025	Coated SH725	Coated SH730	Coated J740	Coated cermet GT9530	Coated cermet J9530	Cermet NS9530	Dimension (in) RE	IC	S	D1
Precision finishing (sharp edge)	JP	DCGT 21.5V FN-JP	DCGT070200FN-JP							●	●						<0.0012	0.250	0.094	0.109
		DCGT 21.50 FN-JP	DCGT070201FN-JP							●	●						<0.004	0.250	0.094	0.109
		DCGT 21.50.5 FN-JP	DCGT070202FN-JP							●	●						<0.008	0.250	0.094	0.109
		DCGT 32.5V FN-JP	DCGT11T300FN-JP							●	●						<0.0012	0.375	0.156	0.173
		DCGT 32.50 FN-JP	DCGT11T301FN-JP							●	●						<0.004	0.375	0.156	0.173
		DCGT 32.50.5 FN-JP	DCGT11T302FN-JP							●	●						<0.008	0.375	0.156	0.173
	01	DCGT 21.50.5 F-01	DCGT070202F-01							●	●						<0.008	0.250	0.094	0.109
		DCGT 21.51 F-01	DCGT070204F-01							●	●						<0.016	0.250	0.094	0.109
		DCGT 32.50.5 F-01	DCGT11T302F-01							●	●						<0.008	0.375	0.156	0.173
		DCGT 32.51 F-01	DCGT11T304F-01							●	●						<0.016	0.375	0.156	0.173
Precision finishing	01	DCGT 21.50.5-01	DCGT070202-01										●		●		0.008	0.250	0.094	0.109
		DCGT 32.50.5 01	DCGT11T302-01										●				0.008	0.375	0.156	0.173
Finishing (sharp edge)	JS	DCGT 21.5V FN-JS	DCGT070200FN-JS							●	●	●					<0.0012	0.250	0.094	0.109
		DCGT 21.50 FN-JS	DCGT070201FN-JS							●	●	●					<0.004*	0.250	0.094	0.109
		DCGT 21.50.5 FN-JS	DCGT070202FN-JS							●	●	●					<0.008*	0.250	0.094	0.109
		DCGT 32.5V FN-JS	DCGT11T300FN-JS							●	●	●					<0.0012	0.375	0.156	0.173
		DCGT 32.50 FN-JS	DCGT11T301FN-JS							●	●	●					<0.004*	0.375	0.156	0.173
		DCGT 32.50.5 FN-JS	DCGT11T302FN-JS							●	●	●					<0.008*	0.375	0.156	0.173
		DCGT 32.51 FN-JS	DCGT11T304FN-JS							●	●	●					<0.016*	0.375	0.156	0.173
Finishing	JS	DCGT 21.50 N-JS	DCGT070201N-JS						●								0.004	0.250	0.094	0.109
		DCGT 21.50.5 N-JS	DCGT070202N-JS						●								0.008	0.250	0.094	0.109
		DCGT 32.50 N-JS	DCGT11T301N-JS						●								0.004	0.375	0.156	0.173
		DCGT 32.50.5 N-JS	DCGT11T302N-JS						●								0.008	0.375	0.156	0.173
		DCGT 32.51 N-JS	DCGT11T304N-JS						●								0.016	0.375	0.156	0.173
	PSF	DCMT 21.50.5 PSF	DCMT070202-PSF						●					●		●	0.008	0.250	0.094	0.109
		DCMT 21.51 PSF	DCMT070204-PSF	●	●				●					●		●	0.016	0.250	0.094	0.109
		DCMT 32.50.5 PSF	DCMT11T302-PSF						●					●		●	0.008	0.375	0.156	0.173
		DCMT 32.51 PSF	DCMT11T304-PSF	●	●	●	●	●	●					●		●	0.016	0.375	0.156	0.173
		DCMT 32.52 PSF	DCMT11T308-PSF	●	●	●	●	●	●								0.031	0.375	0.156	0.173

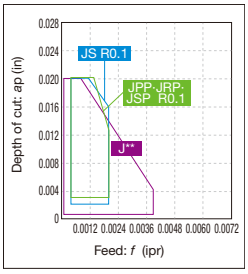
*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

● : Line up

Chip control range







*Chip control range with typical R0.1

Reference pages: External toolholder → C052 - Internal toolholder → D032 -
J-Series toolholder → G037 - TungCap → K015 -

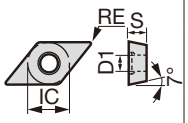
Insert POSITIVE TYPE

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

DC

Rhombic, 55° with hole Positive 7°

P	Steel	●ⓒ ⓒ✠ ⓒ ⓒ✠ ●ⓒ ●ⓒ ●ⓒ ⓒ ●ⓒ ●ⓒ ●ⓒ ●ⓒ ●ⓒ ●
M	Stainless	●ⓒ ● ⓒ ●ⓒ ●ⓒ ●ⓒ ●ⓒ ⓒ ●ⓒ ●ⓒ ●
K	Cast iron	●ⓒ ⓒ ●ⓒ ●ⓒ ●ⓒ ●ⓒ ⓒ ●ⓒ ●ⓒ ●ⓒ ●ⓒ ●
N	Non-ferrous	●
S	Superalloy	ⓒ
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T6215	AH8015	AH6225	SH7025	SH725	J740	GH730	GH330	Coated cermet GT9530	J9530	Cermet NS9530	Uncoated TH10	Dimension (in) RE	IC	S	D1
Finishing	PF	DCMT 21.50.5 PF	DCMT070202-PF									●		●		●		0.008	0.250	0.094	0.109
		DCMT 21.51 PF	DCMT070204-PF					●				●		●		●		0.016	0.250	0.094	0.109
		DCMT 21.52 PF	DCMT070208-PF					●						●		●		0.031	0.250	0.094	0.109
		DCMT 32.50.5 PF	DCMT11T302-PF									●		●		●		0.008	0.375	0.156	0.173
		DCMT 32.51 PF	DCMT11T304-PF									●		●		●		0.016	0.375	0.156	0.173
		DCMT 32.52 PF	DCMT11T308-PF											●				0.031	0.375	0.156	0.173
	TSF	DCMT 21.50.5 TSF	DCMT070202-TSF	●	●	●	●	●								●		0.008	0.250	0.094	0.109
		DCMT 21.51 TSF	DCMT070204-TSF	●	●	●	●	●								●		0.016	0.250	0.094	0.109
		DCMT 21.52 TSF	DCMT070208-TSF	●	●	●	●	●								●		0.031	0.250	0.094	0.109
		DCMT 32.50.5 TSF	DCMT11T302-TSF	●	●	●	●	●								●		0.008	0.375	0.156	0.173
		DCMT 32.51 TSF	DCMT11T304-TSF	●	●	●	●	●								●		0.016	0.375	0.156	0.173
		DCMT 32.52 TSF	DCMT11T308-TSF	●	●	●	●	●								●		0.031	0.375	0.156	0.173
Finishing (sharp edge)	J10	DCGT 21.5V FR-J10	DCGT070200FR-J10						●	●	●						●	0.0012	0.250	0.094	0.109
		DCGT 21.5V FL-J10	DCGT070200FL-J10							●	●						●	0.0012	0.250	0.094	0.109
		DCGT 21.50 FR-J10	DCGT070201FR-J10						●	●	●					●	●	0.004	0.250	0.094	0.109
		DCGT 21.50 FL-J10	DCGT070201FL-J10							●	●					●	●	0.004	0.250	0.094	0.109
		DCGT 21.50.5 FR-J10	DCGT070202FR-J10						●	●	●					●	●	0.008	0.250	0.094	0.109
		DCGT 21.50.5 FL-J10	DCGT070202FL-J10						●	●	●					●	●	0.008	0.250	0.094	0.109
		DCGT 21.51 FR-J10	DCGT070204FR-J10						●	●								0.016	0.250	0.094	0.109
		DCGT 21.51 FL-J10	DCGT070204FL-J10						●	●								0.016	0.250	0.094	0.109
		DCGT 32.5V FR-J10	DCGT11T300FR-J10						●	●	●						●	0.0012	0.375	0.156	0.173
		DCGT 32.5V FL-J10	DCGT11T300FL-J10							●	●						●	0.0012	0.375	0.156	0.173
		DCGT 32.50 FR-J10	DCGT11T301FR-J10						●	●	●					●	●	0.004	0.375	0.156	0.173
		DCGT 32.50 FL-J10	DCGT11T301FL-J10							●	●					●	●	0.004	0.375	0.156	0.173
		DCGT 32.50.5 FR-J10	DCGT11T302FR-J10						●	●	●					●	●	0.008	0.375	0.156	0.173
		DCGT 32.50.5 FL-J10	DCGT11T302FL-J10						●	●	●					●	●	0.008	0.375	0.156	0.173
	J10	DCGT 21.50.5 R-J10	DCGT070202R-J10												●			0.008	0.250	0.094	0.109
		DCGT 32.50.5 R-J10	DCGT11T302R-J10												●			0.008	0.375	0.156	0.173
Finishing	W10	DCGT 21.5V R-W10	DCGT070200R-W10														●	0.0012	0.250	0.094	0.109
		DCGT 21.5V L-W10	DCGT070200L-W10														●	0.0012	0.250	0.094	0.109
		DCGT 21.50.5 R-W10	DCGT070202R-W10													●	●	0.008	0.250	0.094	0.109
		DCGT 21.50.5 L-W10	DCGT070202L-W10											●		●		0.008	0.250	0.094	0.109
		DCGT 21.51 R-W10	DCGT070204R-W10										●			●	●	0.016	0.250	0.094	0.109
		DCGT 21.51 L-W10	DCGT070204L-W10										●	●		●	●	0.016	0.250	0.094	0.109
	W15	DCGT 32.50.5 R-W15	DCGT11T302R-W15													●	●	0.008	0.375	0.156	0.173
		DCGT 32.50.5 L-W15	DCGT11T302L-W15											●		●		0.008	0.375	0.156	0.173
		DCGT 32.51 R-W15	DCGT11T304R-W15													●		0.016	0.375	0.156	0.173
		DCGT 32.51 L-W15	DCGT11T304L-W15										●	●		●	●	0.016	0.375	0.156	0.173
		DCGT 32.52 R-W15	DCGT11T308R-W15													●	●	0.031	0.375	0.156	0.173
		DCGT 32.52 L-W15	DCGT11T308L-W15													●	●	0.031	0.375	0.156	0.173

● : Line up

Reference pages: External toolholder → C052 - Internal toolholder → D032 -
J-Series toolholder → G037 - TungCap → K015 -

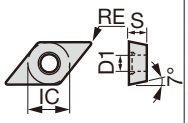
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

DC

Rhombic, 55° with hole Positive 7°



P	Steel	●◐ ●◐
M	Stainless	●◐ ●◐
K	Cast iron	
N	Non-ferrous	
S	Superalloy	●◐
H	Hard material	

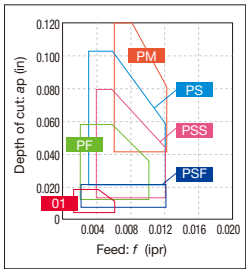


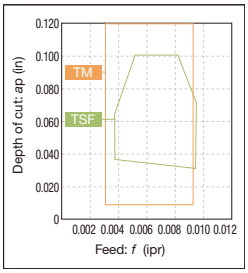
Application	Chipbreaker	Designation Inch	Designation Metric	Coated SH725	Coated SH730	Dimension (in) RE	IC	S	D1
Finishing (sharp edge)	**JPP**	DCET 21.5X MFR-JPP	DCET0702008MFR-JPP	●	●	<0.0031*	0.250	0.094	0.109
		DCET 21.50 MFR-JPP	DCET070201MFR-JPP	●	●	<0.004*	0.250	0.094	0.109
		DCET21.50.2 MFL-JPP	DCET070201MFL-JPP	●	●	<0.004*	0.250	0.094	0.109
		DCET21.50.5 MFR-JPP	DCET070202MFR-JPP	●	●	<0.008*	0.250	0.094	0.109
		DCET21.50.5 MFL-JPP	DCET070202MFL-JPP	●	●	<0.008*	0.250	0.094	0.109
		DCET 32.5X MFR-JPP	DCET11T3008MFR-JPP	●	●	<0.0031*	0.375	0.156	0.173
		DCET 32.50 MFR-JPP	DCET11T301MFR-JPP	●	●	<0.004*	0.375	0.156	0.173
		DCET 32.50 MFL-JPP	DCET11T301MFL-JPP	●	●	<0.004*	0.375	0.156	0.173
		DCET32.50.4 MFR-JPP	DCET11T3018MFR-JPP	●	●	<0.007*	0.375	0.156	0.173
		DCET32.50.4 MFL-JPP	DCET11T3018MFL-JPP	●		<0.007*	0.375	0.156	0.173
		DCET32.50.5 MFR-JPP	DCET11T302MFR-JPP	●	●	<0.008*	0.375	0.156	0.173
		DCET32.50.5 MFL-JPP	DCET11T302MFL-JPP	●	●	<0.008*	0.375	0.156	0.173
	JRP	DCET 21.5X MFR-JRP	DCET0702008MFR-JRP	●	●	<0.0031*	0.250	0.094	0.109
		DCET 21.50 MFR-JRP	DCET070201MFR-JRP	●	●	<0.004*	0.250	0.094	0.109
		DCET 21.50 MFL-JRP	DCET070201MFL-JRP	●		<0.004*	0.250	0.094	0.109
		DCET21.50.4 MFR-JRP	DCET070218MFR-JRP		●	<0.007*	0.250	0.094	0.109
		DCET21.50.4 MFL-JRP	DCET070218MFL-JRP	●	●	<0.007*	0.250	0.094	0.109
		DCET21.50.5 MFR-JRP	DCET070202MFR-JRP	●	●	<0.008*	0.250	0.094	0.109
		DCET21.50.5 MFL-JRP	DCET070202MFL-JRP	●	●	<0.008*	0.250	0.094	0.109
		DCET 32.5X MFR-JRP	DCET11T3008MFR-JRP	●	●	<0.0031*	0.375	0.156	0.173
		DCET 32.50 MFR-JRP	DCET11T301MFR-JRP	●	●	<0.004*	0.375	0.156	0.173
		DCET32.50.4 MFR-JRP	DCET11T3018MFR-JRP		●	<0.007*	0.375	0.156	0.173
		DCET32.50.4 MFL-JRP	DCET11T3018MFL-JRP	●		<0.007*	0.375	0.156	0.173
		DCET32.50.5 MFR-JRP	DCET11T302MFR-JRP	●	●	<0.008*	0.375	0.156	0.173
		DCET32.50.5 MFL-JRP	DCET11T302MFL-JRP	●	●	<0.008*	0.375	0.156	0.173
	JSP	DCET 21.5X MFN-JSP	DCET0702008MFN-JSP	●	●	<0.0031*	0.250	0.094	0.109
		DCET 21.50 MFN-JSP	DCET070201MFN-JSP	●	●	<0.004*	0.250	0.094	0.109
		DCET21.50.5 MFN-JSP	DCET070202MFN-JSP	●	●	<0.008*	0.250	0.094	0.109
		DCET 32.5X MFN-JSP	DCET11T3008MFN-JSP	●	●	<0.0031*	0.375	0.156	0.173
		DCET 32.50 MFN-JSP	DCET11T301MFN-JSP	●	●	<0.004*	0.375	0.156	0.173
		DCET32.50.4 MFN-JSP	DCET11T3018MFN-JSP	●	●	<0.007*	0.375	0.156	0.173
		DCET32.50.5 MFN-JSP	DCET11T302MFN-JSP	●	●	<0.008*	0.375	0.156	0.173

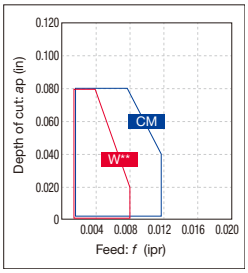
*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

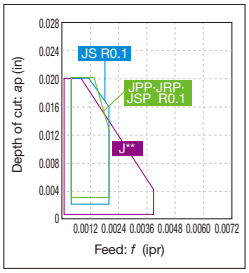
● : Line up

Chip control range









*Chip control range with typical R0.1

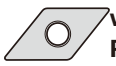
Reference pages: External toolholder → C052 - Internal toolholder → D032 - J-Series toolholder → G037 - TungCap → K015 -

Insert POSITIVE TYPE

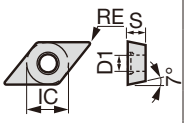
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

DC

Rhombic, 55°
with hole
Positive 7°



P	Steel	●ɔ ɔ✣ ɔ ✣ ✣ ✣ ✣ ✣ ɔ✣ ✣ ɔ ●ɔ ɔ ●ɔ ●ɔ ●ɔ ●
M	Stainless	●ɔ ● ● ✣ ɔ ●ɔ ✣ ɔ ●ɔ ɔ ●
K	Cast iron	●ɔ ● ● ●ɔ ɔ ɔ ●ɔ ɔ ●ɔ ●ɔ ●ɔ ● ●
N	Non-ferrous	● ●
S	Superalloy	● ɔ ɔ ● ●ɔ ●
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T6215	T505	T515	T5115	AH8005	AH8015	AH6225	AH6235	AH905	AH725	AH120	GH730	Coated cermet GT9530	AT9530	Cer-met NS9530	Uncoated KS05F	TH10	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	PSS	DCMT 21.51 PSS	DCMT070204-PSS	●	●	●						●	●		●			●		●			0.016	0.250	0.094	0.109
		DCMT 21.52 PSS	DCMT070208-PSS	●	●	●						●	●		●			●		●			0.031	0.250	0.094	0.109
		DCMT 32.51 PSS	DCMT11T304-PSS	●	●	●				●	●	●	●	●	●			●		●			0.016	0.375	0.156	0.173
		DCMT 32.52 PSS	DCMT11T308-PSS	●	●	●				●	●	●	●	●	●			●		●			0.031	0.375	0.156	0.173
		DCMT 32.53 PSS	DCMT11T312-PSS	●	●	●				●	●	●	●	●	●					●			0.047	0.375	0.156	0.173
	PS	DCMT 21.50.5 PS	DCMT070202-PS	●	●	●				●	●	●	●		●	●	●	●	●	●			0.008	0.250	0.094	0.109
		DCMT 21.51 PS	DCMT070204-PS	●	●	●				●	●	●	●		●	●	●	●	●	●			0.016	0.250	0.094	0.109
		DCMT 21.52 PS	DCMT070208-PS	●	●	●				●	●	●			●		●	●	●	●			0.031	0.250	0.094	0.109
		DCMT 32.50.5 PS	DCMT11T302-PS	●	●	●				●	●	●	●		●	●	●	●	●	●			0.008	0.375	0.156	0.173
		DCMT 32.51 PS	DCMT11T304-PS	●	●	●				●	●	●	●	●	●	●	●	●	●	●			0.016	0.375	0.156	0.173
		DCMT 32.52 PS	DCMT11T308-PS	●	●	●				●	●	●	●	●	●	●	●	●	●	●			0.031	0.375	0.156	0.173
		DCMT 32.53 PS	DCMT11T312-PS	●	●	●				●	●	●	●	●	●					●			0.047	0.375	0.156	0.173
	TM	DCMT 21.50.5 TM	DCMT070202-TM	●	●	●					●	●								●			0.008	0.250	0.094	0.109
		DCMT 21.51 TM	DCMT070204-TM	●	●	●					●	●								●			0.016	0.250	0.094	0.109
		DCMT 21.52 TM	DCMT070208-TM	●	●	●					●	●								●			0.031	0.250	0.094	0.109
		DCMT 32.50.5 TM	DCMT11T302-TM	●	●	●					●	●								●			0.008	0.375	0.156	0.173
		DCMT 32.51 TM	DCMT11T304-TM	●	●	●					●	●								●			0.016	0.375	0.156	0.173
		DCMT 32.52 TM	DCMT11T308-TM	●	●	●					●	●								●			0.031	0.375	0.156	0.173
	CM	DCMT 21.51 CM	DCMT070204-CM						●														0.016	0.250	0.094	0.109
		DCMT 21.52 CM	DCMT070208-CM						●														0.031	0.250	0.094	0.109
		DCMT 32.51 CM	DCMT11T304-CM				●	●	●														0.016	0.375	0.156	0.173
		DCMT 32.52 CM	DCMT11T308-CM				●	●	●														0.031	0.375	0.156	0.173
		DCMT 32.53 CM	DCMT11T312-CM						●														0.047	0.375	0.156	0.173
Finishing to medium cutting for non-ferrous alloys	AL	DCGT 21.50.5 AL	DCGT070202-AL																		●		0.008	0.250	0.094	0.109
		DCGT 21.51 AL	DCGT070204-AL																		●		0.016	0.250	0.094	0.109
		DCGT 32.50.5 AL	DCGT11T302-AL																		●		0.008	0.375	0.156	0.173
		DCGT 32.51 AL	DCGT11T304-AL																		●		0.016	0.375	0.156	0.173
		DCGT 32.52 AL	DCGT11T308-AL																		●		0.031	0.375	0.156	0.173
Finishing to medium cutting	All-round	DCGT 21.50.5	DCGT070202																	●			0.008	0.250	0.094	0.109
		DCGT 21.51	DCGT070204																	●			0.016	0.250	0.094	0.109
		DCGT 32.50.5	DCGT11T302																	●			0.008	0.375	0.156	0.173
		DCGT 32.51	DCGT11T304																	●			0.016	0.375	0.156	0.173
		DCGT 32.52	DCGT11T308																	●			0.031	0.375	0.156	0.173
	Angular	DCGT 21.50.5 R	DCGT070202R																			●	0.008	0.250	0.094	0.109
		DCGT 21.50.5 L	DCGT070202L																			●	0.008	0.250	0.094	0.109
		DCGT 21.51 R	DCGT070204R																			●	0.016	0.250	0.094	0.109
		DCGT 21.51 L	DCGT070204L																			●	0.016	0.250	0.094	0.109
		DCGT 32.50.5 R	DCGT11T302R																			●	0.008	0.375	0.156	0.173
		DCGT 32.50.5 L	DCGT11T302L																			●	0.008	0.375	0.156	0.173
		DCGT 32.51 R	DCGT11T304R																			●	0.016	0.375	0.156	0.173
		DCGT 32.51 L	DCGT11T304L																			●	0.016	0.375	0.156	0.173

● : Line up

Reference pages: External toolholder → C052 - Internal toolholder → D032 -
J-Series toolholder → G037 - TungCap → K015 -

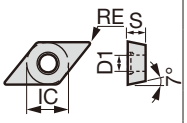
● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

DC

Rhombic, 55° with hole Positive 7°



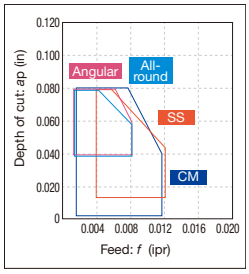
P	Steel	●ⓒ	●ⓒ✠	●ⓒ		●ⓒ✠	✠	●ⓒ	●	●ⓒ	●ⓒ	●	●ⓒ			●ⓒ			●		
M	Stainless	●ⓒ		●		●ⓒ	✠	●ⓒ	●	●ⓒ	●ⓒ	●							●		
K	Cast iron	●ⓒ			●			●ⓒ	●	●ⓒ	●ⓒ	●	●ⓒ			●ⓒ			●		
N	Non-ferrous																		●		
S	Superalloy							●	●	●ⓒ		●									
H	Hard material																				

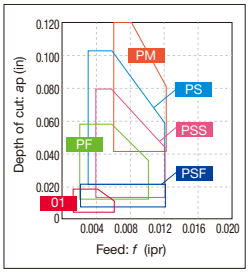


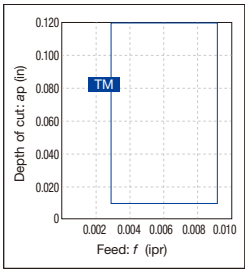
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T6215	T5115	AH6225	AH6235	AH725	AH110	AH120	GH730	GH110	Coated cermet GT9530	Cermet NS9530	Un-coated TH10	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	23	DCMT 21.51-23	DCMT070204-23													●		0.016	0.250	0.094	0.109
		DCMT 32.51-23	DCMT11T304-23													●		0.016	0.375	0.156	0.173
		DCMT 32.52-23	DCMT11T308-23													●		0.031	0.375	0.156	0.173
	-	DCMW 21.51	DCMW070204				●											0.016	0.250	0.094	0.109
		DCMW 21.52	DCMW070208				●											0.031	0.250	0.094	0.109
		DCMW 32.51	DCMW11T304				●											0.016	0.375	0.156	0.173
		DCMW 32.52	DCMW11T308				●											0.031	0.375	0.156	0.173
	-	DCGW 21.50.5	DCGW070202														●	0.008	0.250	0.094	0.109
		DCGW 21.51	DCGW070204											●			●	0.016	0.250	0.094	0.109
		DCGW 32.50.5	DCGW11T302														●	0.008	0.375	0.156	0.173
		DCGW 32.51	DCGW11T304														●	0.016	0.375	0.156	0.173
		DCGW 32.52	DCGW11T308														●	0.031	0.375	0.156	0.173
Medium cutting	PM	DCMT 21.51 PM	DCMT070204-PM	●	●	●		●	●	●	●	●	●		●	●		0.016	0.250	0.094	0.109
		DCMT 21.52 PM	DCMT070208-PM	●	●	●		●	●	●	●	●	●		●	●		0.031	0.250	0.094	0.109
		DCMT 32.51 PM	DCMT11T304-PM	●	●	●		●	●	●	●	●	●		●	●		0.016	0.375	0.156	0.173
		DCMT 32.52 PM	DCMT11T308-PM	●	●	●		●	●	●	●	●	●		●	●		0.031	0.375	0.156	0.173
		DCMT 32.53 PM	DCMT11T312-PM		●	●		●	●	●								0.047	0.375	0.156	0.173
	24	DCMT 21.50.5-24	DCMT070202-24													●		0.008	0.250	0.094	0.109
		DCMT 21.51-24	DCMT070204-24	●	●							●				●		0.016	0.250	0.094	0.109
		DCMT 21.52-24	DCMT070208-24		●							●				●		0.031	0.250	0.094	0.109
		DCMT 32.50.5-24	DCMT11T302-24		●							●				●		0.008	0.375	0.156	0.173
		DCMT 32.51-24	DCMT11T304-24	●	●							●				●		0.016	0.375	0.156	0.173
		DCMT 32.52-24	DCMT11T308-24	●	●			●				●				●		0.031	0.375	0.156	0.173

● : Line up

Chip control range







Reference pages: External toolholder → C052 - Internal toolholder → D032 -
J-Series toolholder → G037 - TungCap → K015 -

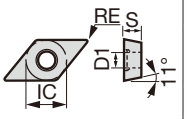
Insert POSITIVE TYPE

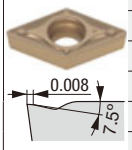
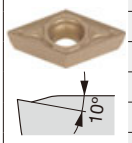
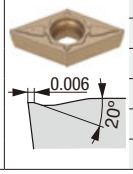
● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

DP

Rhombic, 55°
with hole
Positive 11°

P	Steel	●ɔ ɔ✠ ɔ ɔ✠ ●ɔ
M	Stainless	●ɔ ● ɔ ●ɔ
K	Cast iron	●ɔ ●ɔ
N	Non-ferrous	
S	Superalloy	ɔ
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated T6215	Coated AH8015	Coated AH6225	Cermet NS9530	Dimension (in) RE	IC	S	D1
Finishing	TSF	DPMT 21.50.5 TSF	DPMT070202-TSF	●	●	●	●	●	●	0.008	0.250	0.094	0.109
		DPMT 21.51 TSF	DPMT070204-TSF	●	●	●	●	●	●	0.016	0.250	0.094	0.109
		DPMT 21.52 TSF	DPMT070208-TSF	●	●	●	●	●	●	0.031	0.250	0.094	0.109
		DPMT 32.50.5 TSF	DPMT11T302-TSF	●	●	●	●	●	●	0.008	0.375	0.156	0.173
		DPMT 32.51 TSF	DPMT11T304-TSF	●	●	●	●	●	●	0.016	0.375	0.156	0.173
		DPMT 32.52 TSF	DPMT11T308-TSF	●	●	●	●	●	●	0.031	0.375	0.156	0.173
Finishing to medium cutting	PS	DPMT 21.50.5 PS	DPMT070202-PS	●	●	●	●	●	●	0.008	0.250	0.094	0.109
		DPMT 21.51 PS	DPMT070204-PS	●	●	●	●	●	●	0.016	0.250	0.094	0.109
		DPMT 21.52 PS	DPMT070208-PS	●	●	●	●	●	●	0.031	0.250	0.094	0.109
		DPMT 32.50.5 PS	DPMT11T302-PS	●	●	●	●	●	●	0.008	0.375	0.156	0.173
		DPMT 32.51 PS	DPMT11T304-PS	●	●	●	●	●	●	0.016	0.375	0.156	0.173
		DPMT 32.52 PS	DPMT11T308-PS	●	●	●	●	●	●	0.031	0.375	0.156	0.173
	TM	DPMT 21.50.5 TM	DPMT070202-TM	●	●	●	●	●	●	0.008	0.250	0.094	0.109
		DPMT 21.51 TM	DPMT070204-TM	●	●	●	●	●	●	0.016	0.250	0.094	0.109
		DPMT 21.52 TM	DPMT070208-TM	●	●	●	●	●	●	0.031	0.250	0.094	0.109
		DPMT 32.50.5 TM	DPMT11T302-TM	●	●	●	●	●	●	0.008	0.375	0.156	0.173
		DPMT 32.51 TM	DPMT11T304-TM	●	●	●	●	●	●	0.016	0.375	0.156	0.173
		DPMT 32.52 TM	DPMT11T308-TM	●	●	●	●	●	●	0.031	0.375	0.156	0.173

● : Line up

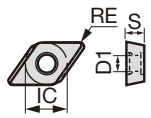
Insert POSITIVE TYPE / DOUBLE SIDED

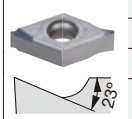
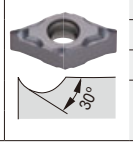
● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

DX

Rhombic, 55°
with hole

P	Steel	●ɔ
M	Stainless	●ɔ
K	Cast iron	
N	Non-ferrous	
S	Superalloy	
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated SH725	Dimension (in) RE	IC	S	D1
Finishing (sharp edge)	JRP	DXGU 220MFRE JRP	DXGU070301MFRE-JRP**	●	<0.004*	0.250	0.125	0.106
		DXGU 220MFLE JRP	DXGU070301MFLE-JRP**	●	<0.004*	0.250	0.125	0.106
		DXGU 220.5MFRE JRP	DXGU070302MFRE-JRP**	●	<0.008*	0.250	0.125	0.106
		DXGU 220.5MFLE JRP	DXGU070302MFLE-JRP**	●	<0.008*	0.250	0.125	0.106
	JSS	DXGU 220MFR JSS	DXGU070301MFR-JSS	●	<0.004*	0.250	0.125	0.106
		DXGU 220MFL JSS	DXGU070301MFL-JSS	●	<0.004*	0.250	0.125	0.106
		DXGU 220.5MFR JSS	DXGU070302MFR-JSS	●	<0.008*	0.250	0.125	0.106
		DXGU 220.5MFL JSS	DXGU070302MFL-JSS	●	<0.008*	0.250	0.125	0.106

● : Line up

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.
** For external turning applications

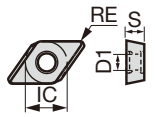
Reference pages: DPMT...: Internal toolholder → D038 -
DXGU...: External toolholder → C057 -, Internal toolholder → D040 -
J-Series toolholder → G046 -, TungCap → K026

● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

DX

Rhombic, 55° with hole

P	Steel	●ɔ	ɔ✣		ɔ	●ɔ			●ɔ					●ɔ									
M	Stainless	●ɔ		ɔ	ɔ	●ɔ																	
K	Cast iron	●ɔ			ɔ				●ɔ					●ɔ				●					
N	Non-ferrous																	●					
S	Superalloy			ɔ	●													●					
H	Hard material																						

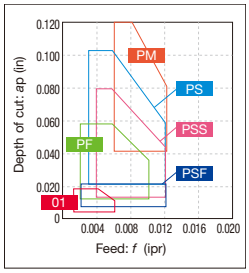


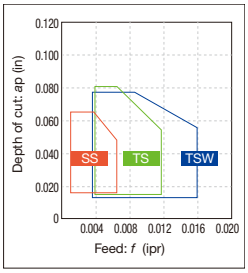
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated AH8015	Coated AH725	Coated SH725	Coated cermet GT9530	Cermet NS9530	Uncoated KS05F	Dimension (in) RE	IC	S	D1
Finishing	JSS	DXGU 220MR JSS	DXGU070301MR-JSS				●					<0.004*	0.250	0.125	0.106
		DXGU 220ML JSS	DXGU070301ML-JSS				●					<0.004*	0.250	0.125	0.106
		DXGU 220.5MR JSS	DXGU070302MR-JSS				●					<0.008*	0.250	0.125	0.106
		DXGU 220.5ML JSS	DXGU070302ML-JSS				●					<0.008*	0.250	0.125	0.106
	SS	DXGU 220.5R SS	DXGU070302R-SS			●	●		●	●	●	0.008	0.250	0.125	0.106
		DXGU 220.5L SS	DXGU070302L-SS			●	●		●	●	●	0.008	0.250	0.125	0.106
		DXGU 221R SS	DXGU070304R-SS			●	●		●	●	●	0.016	0.250	0.125	0.106
		DXGU 221L SS	DXGU070304L-SS			●	●		●	●	●	0.016	0.250	0.125	0.106
Finishing to medium cutting (sharp edge)	JS	DXGU 220MFR JS	DXGU070301MFR-JS(1)					●				<0.004*	0.250	0.125	0.106
		DXGU 220MFL JS	DXGU070301MFL-JS(1)					●				<0.004*	0.250	0.125	0.106
		DXGU 220.5MFR JS	DXGU070302MFR-JS(1)					●				<0.008*	0.250	0.125	0.106
		DXGU 220.5MFL JS	DXGU070302MFL-JS(1)					●				<0.008*	0.250	0.125	0.106
		DXGU 221MFR JS	DXGU070304MFR-JS(1)					●				<0.016*	0.250	0.125	0.106
		DXGU 221MFL JS	DXGU070304MFL-JS(1)					●				<0.016*	0.250	0.125	0.106
	JTS	DXGU 220MFR JTS	DXGU070301MFR-JTS					●				<0.004*	0.250	0.125	0.106
		DXGU 220MFL JTS	DXGU070301MFL-JTS					●				<0.004*	0.250	0.125	0.106
		DXGU 220.5MFR JTS	DXGU070302MFR-JTS					●				<0.008*	0.250	0.125	0.106
		DXGU 220.5MFL JTS	DXGU070302MFL-JTS					●				<0.008*	0.250	0.125	0.106
Finishing to medium cutting	JTS	DXGU 220MR JTS	DXGU070301MR-JTS				●					<0.004*	0.250	0.125	0.106
		DXGU 220ML JTS	DXGU070301ML-JTS				●					<0.004*	0.250	0.125	0.106
		DXGU 220.5MR JTS	DXGU070302MR-JTS				●					<0.008*	0.250	0.125	0.106
		DXGU 220.5ML JTS	DXGU070302ML-JTS				●					<0.008*	0.250	0.125	0.106
	TS	DXGU 220.5R TS	DXGU070302R-TS			●	●		●	●	●	0.008	0.250	0.125	0.106
		DXGU 220.5L TS	DXGU070302L-TS			●	●		●	●	●	0.008	0.250	0.125	0.106
		DXGU 221R TS	DXGU070304R-TS			●	●		●	●	●	0.016	0.250	0.125	0.106
		DXGU 221L TS	DXGU070304L-TS			●	●		●	●	●	0.016	0.250	0.125	0.106
		DXGU 222R TS	DXGU070308R-TS			●	●		●	●	●	0.031	0.250	0.125	0.106
		DXGU 222L TS	DXGU070308L-TS			●	●		●	●	●	0.031	0.250	0.125	0.106
	TS	DXMU 220.5R TS	DXMU070302R-TS	●	●	●	●					0.008	0.250	0.125	0.106
		DXMU 220.5L TS	DXMU070302L-TS	●	●	●	●					0.008	0.250	0.125	0.106
		DXMU 221R TS	DXMU070304R-TS	●	●	●	●					0.016	0.250	0.125	0.106
		DXMU 221L TS	DXMU070304L-TS	●	●	●	●					0.016	0.250	0.125	0.106
		DXMU 222R TS	DXMU070308R-TS	●	●	●	●					0.031	0.250	0.125	0.106
		DXMU 222L TS	DXMU070308L-TS	●	●	●	●					0.031	0.250	0.125	0.106

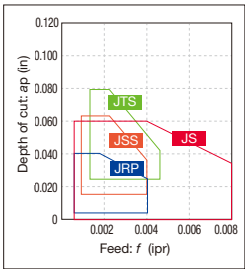
* Corner radius (RE) with a sign of inequality (<) means minus tolerance.
(1) Due to chipbreaker profile, max ap for face or ID turning is 0.040".

● : Line up

Chip control range







Reference pages:
External toolholder → C057 -
Internal toolholder → D040 -
J-Series toolholder → G046 -
TungCap → K026

Insert POSITIVE TYPE

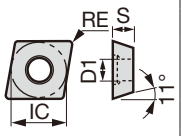
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

EP



Rhombic, 75°
with hole
Positive 11°

P	Steel	◐ ◐ ◐ ◐
M	Stainless	◐ ◐ ◐ ◐
K	Cast iron	
N	Non-ferrous	
S	Superalloy	◐
H	Hard material	

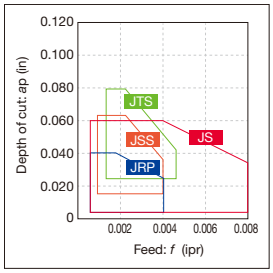


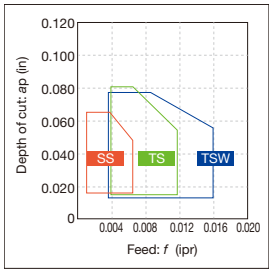
Application	Chipbreaker	Designation Inch	Designation Metric	Coated SH7025	Coated SH725	Coated SH730	Coated J740	Dimension (in) RE	IC	S	D1
Finishing (sharp edge)	JS	EPGT 4.51.80 F-JS	EPGT03X101F-JS	●	●			<0.004	0.141	0.055	0.075
		EPGT 4.51.80.5 F-JS	EPGT03X102F-JS	●	●			<0.008	0.141	0.055	0.075
		EPGT 4.51.81 F-JS	EPGT03X104F-JS	●	●			<0.016	0.141	0.055	0.075
		EPGT 520 F-JS	EPGT040101F-JS	●	●			<0.004	0.156	0.063	0.091
		EPGT 520.5 F-JS	EPGT040102F-JS	●	●			<0.008	0.156	0.063	0.091
		EPGT 521 F-JS	EPGT040104F-JS	●	●			<0.016	0.156	0.063	0.091
Finishing	JS	EPGT 4.51.80 JS	EPGT03X101-JS			●		<0.004	0.141	0.055	0.075
		EPGT 4.51.80.5 JS	EPGT03X102-JS			●		<0.008	0.141	0.055	0.075
		EPGT 4.51.81 JS	EPGT03X104-JS			●		<0.016	0.141	0.055	0.075
		EPGT 520 JS	EPGT040101-JS			●		<0.004	0.156	0.063	0.091
		EPGT 520.5 JS	EPGT040102-JS			●		<0.008	0.156	0.063	0.091
		EPGT 521 JS	EPGT040104-JS			●		<0.016	0.156	0.063	0.091
Finishing (sharp edge)	J08	EPGT 52V FL-J08	EPGT040100FL-J08		●			0.0012	0.156	0.063	0.091
		EPGT 520.5 FL-J08	EPGT040102FL-J08	●	●			0.008	0.156	0.063	0.091
		EPGT 521 FL-J08	EPGT040104FL-J08	●	●			0.016	0.156	0.063	0.091
Finishing	J08	EPGT 52V L-J08	EPGT040100L-J08			●	●	0.0012	0.156	0.063	0.091
		EPGT 520.5 L-J08	EPGT040102L-J08			●	●	0.008	0.156	0.063	0.091
		EPGT 521 L-J08	EPGT040104L-J08			●	●	0.016	0.156	0.063	0.091

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

● : Line up

Chip control range





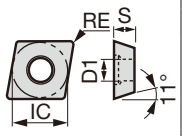
Reference pages: Internal toolholder → D048 -

● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

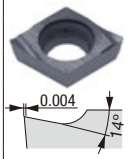
EP

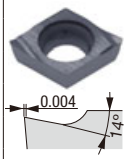
Rhombic, 75°
with hole
Positive 11°

P	Steel	● ɔ ɔ ɔ ɔ ɔ ɔ ● ɔ
M	Stainless	● ɔ ɔ ɔ ɔ ɔ ɔ ● ɔ
K	Cast iron	● ɔ ɔ ɔ ●
N	Non-ferrous	●
S	Superalloy	● ɔ ɔ
H	Hard material	



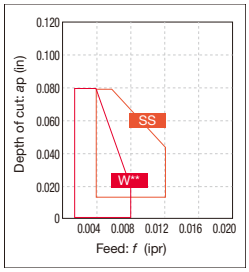
Application	Chipbreaker	Designation Inch	Designation Metric	Coated GH110	Coated SH7025	Coated SH725	Coated SH730	Coated cermet GT9530	Cermet NS9530	Uncoated TH10	Uncoated UX30	Dimension (in) RE	IC	S	D1
Finishing (sharp edge)	W08	EPGT 4.51.8V FR-W08	EPGT03X100FL-W08		●	●						0.0012	0.141	0.055	0.075
		EPGT 4.51.8V FL-W08	EPGT03X100FR-W08			●						0.0012	0.141	0.055	0.075
		EPGT 4.51.80 FR-W08	EPGT03X101FL-W08		●	●						0.004	0.141	0.055	0.075
		EPGT 4.51.80 FL-W08	EPGT03X101FR-W08			●						0.004	0.141	0.055	0.075
		EPGT4.51.80.5FR-W08	EPGT03X102FL-W08		●	●						0.008	0.141	0.055	0.075
		EPGT4.51.80.5FL-W08	EPGT03X102FR-W08		●	●						0.008	0.141	0.055	0.075
		EPGT 4.51.81 FR-W08	EPGT03X104FL-W08		●	●						0.016	0.141	0.055	0.075
		EPGT 4.51.81 FL-W08	EPGT03X104FR-W08		●	●						0.016	0.141	0.055	0.075
		EPGT 52V FR-W08	EPGT040100FL-W08		●	●						0.0012	0.156	0.063	0.091
		EPGT 52V FL-W08	EPGT040100FR-W08			●						0.0012	0.156	0.063	0.091
		EPGT 520 FR-W08	EPGT040101FL-W08		●	●						0.004	0.156	0.063	0.091
		EPGT 520 FL-W08	EPGT040101FR-W08			●						0.004	0.156	0.063	0.091
		EPGT 520.5 FR-W08	EPGT040102FL-W08		●	●						0.008	0.156	0.063	0.091
		EPGT 520.5 FL-W08	EPGT040102FR-W08		●	●						0.008	0.156	0.063	0.091
		EPGT 521 FR-W08	EPGT040104FL-W08		●	●						0.016	0.156	0.063	0.091
		EPGT 521 FL-W08	EPGT040104FR-W08		●	●						0.016	0.156	0.063	0.091
Finishing	W08	EPGT 4.51.8V R-W08	EPGT03X100R-W08				●			●		0.0012	0.141	0.055	0.075
		EPGT 4.51.8V L-W08	EPGT03X100L-W08				●			●		0.0012	0.141	0.055	0.075
		EPGT 4.51.80 R-W08	EPGT03X101R-W08				●			●		0.004	0.141	0.055	0.075
		EPGT 4.51.80 L-W08	EPGT03X101L-W08				●			●		0.004	0.141	0.055	0.075
		EPGT 4.51.80.5 R-W08	EPGT03X102R-W08				●			●		0.008	0.141	0.055	0.075
		EPGT 4.51.80.5 L-W08	EPGT03X102L-W08				●			●		0.008	0.141	0.055	0.075
		EPGT 4.51.81 R-W08	EPGT03X104R-W08				●			●		0.016	0.141	0.055	0.075
		EPGT 4.51.81 L-W08	EPGT03X104L-W08				●			●		0.016	0.141	0.055	0.075
		EPGT 52V R-W08	EPGT040100R-W08				●			●		0.0012	0.156	0.063	0.091
		EPGT 52V L-W08	EPGT040100L-W08	●			●		●	●		0.0012	0.156	0.063	0.091
		EPGT 520 R-W08	EPGT040101R-W08				●			●		0.004	0.156	0.063	0.091
		EPGT 520 L-W08	EPGT040101L-W08				●			●		0.004	0.156	0.063	0.091
		EPGT 520.5 R-W08	EPGT040102R-W08	●			●		●	●		0.008	0.156	0.063	0.091
		EPGT 520.5 L-W08	EPGT040102L-W08	●			●	●	●	●	●	0.008	0.156	0.063	0.091
		EPGT 521 R-W08	EPGT040104R-W08	●			●		●	●		0.016	0.156	0.063	0.091
		EPGT 521 L-W08	EPGT040104L-W08	●			●	●	●	●	●	0.016	0.156	0.063	0.091





● : Line up

Chip control range



Reference pages: Internal toolholder → D048 -

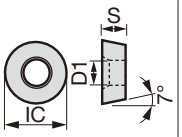
Insert POSITIVE TYPE

● : Continuous cutting
ᑕ : Light interrupted cutting
✠ : Heavy interrupted cutting

RC

Round, with hole
Positive 7°

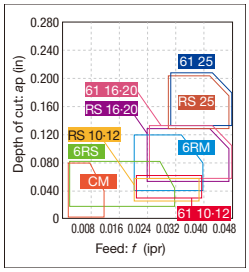
P	Steel	●ᑕ	ᑕ✠								●ᑕ									
M	Stainless	●ᑕ			●	ᑕ														
K	Cast iron	●ᑕ		ᑕ							●ᑕ				●					
N	Non-ferrous														●					
S	Superalloy				●	ᑕ	ᑕ								●					
H	Hard material																			

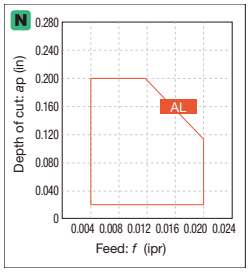


Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated T5115	Coated AH8005	Coated AH8015	Coated AH905	Cermet NS9530	Uncoated KS05F	Dimension (in) RE	IC	S	D1
Finishing	RS	-	RCMT0602M0-RS				●					-	0.236	0.094	0.109
		-	RCMT0803M0-RS				●					-	0.315	0.125	0.134
		-	RCMT10T3M0-RS	●	●		●	●	●			-	0.394	0.156	0.173
		-	RCMT1204M0-RS	●	●		●	●	●			-	0.472	0.187	0.173
		-	RCMT1606M0-RS	●	●		●					-	0.630	0.250	0.217
		-	RCMT2006M0-RS		●		●					-	0.787	0.250	0.256
		-	RCMT2507M0-RS		●		●					-	0.984	0.313	0.299
	6RS	-	RCMT1204M0-6RS	●	●					●		-	0.472	0.187	0.173
Finishing to medium cutting	6RM	-	RCMT1204M0-6RM	●	●					●		-	0.472	0.187	0.173
	CM	-	RCMT0502M0-CM			●						-	0.197	0.094	0.098
		-	RCMT0602M0-CM			●						-	0.236	0.094	0.109
		-	RCMT0803M0-CM			●						-	0.315	0.125	0.134
Finishing to medium cutting for non-ferrous alloys	AL	-	RCGT0602M0-AL								●	-	0.236	0.094	0.109
		-	RCGT0803M0-AL								●	-	0.315	0.125	0.134
		-	RCGT1003M0-AL								●	-	0.394	0.125	0.173

● : Line up

Chip control range





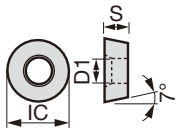
Reference pages: External toolholder → C068 -

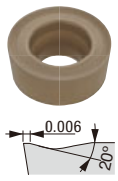
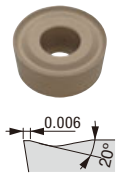
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

RC

Round, with hole Positive 7°

P	Steel	●ɔ ɔ✣ ●ɔ ●
M	Stainless	●ɔ ● ɔ ●
K	Cast iron	●ɔ ●ɔ ●
N	Non-ferrous	●
S	Superalloy	● ɔ ɔ
H	Hard material	



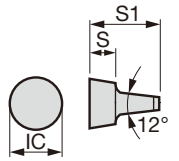
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated AH8005	Coated AH8015	Coated AH905	Cermet NS9530	Uncoated TH10	Dimension (in) RE	IC	S	D1
Heavy cutting	61	-	RCMT0502M0-61	●	●				●	●	-	0.197	0.094	0.098
		-	RCMT0602M0-61	●	●				●	●	-	0.236	0.094	0.109
		-	RCMT0803M0-61	●	●				●	●	-	0.315	0.125	0.134
	61	-	RCMM1003M0-61	●	●	●	●	●	●	●	-	0.394	0.125	0.142
		-	RCMM1204M0-61	●	●	●	●	●	●	●	-	0.472	0.187	0.165
		-	RCMM1606M0-61	●	●					●	-	0.630	0.250	0.205
		-	RCMM2006M0-61		●					●	-	0.787	0.250	0.256
		-	RCMM2507M0-61		●						-	0.984	0.313	0.283

● : Line up

RT

Special round insert

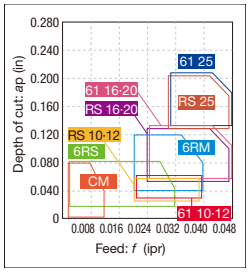
P	Steel	●
M	Stainless	●
K	Cast iron	● ɔ✣
N	Non-ferrous	● ɔ✣
S	Superalloy	ɔ✣
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Uncoated TH10	Uncoated KS20	Dimension (in) RE	IC	S	S1
Medium cutting	-	-	RT05	●		-	0.197	0.098	0.256
		-	RT06	●	●	-	0.236	0.118	0.303
		-	RT08	●		-	0.315	0.165	0.406

● : Line up

Chip control range



Reference pages: RC...: External toolholder → C068 -

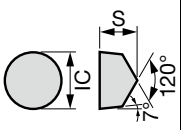
Insert POSITIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

RC

Round, without hole
Positive 7°

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloy
H	Hard material



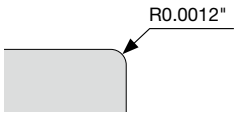
Application	Chipbreaker	Designation Inch	Designation Metric	Ceramic TS200	Ceramic TS300	Ceramic TW43	Dimension (in) RE	IC	S	D1
Medium cutting	-	-	RCGX070700-T1	●	●		-	0.375	0.315	-
		-	RCGX090700-E	●	●		-	0.375	0.315	-
		-	RCGX090700-T1		●		-	0.375	0.315	-
		-	RCGX090700-T6			●	-	0.375	0.315	-
		-	RCGX120700-E	●	●		-	0.500	0.315	-
		-	RCGX120700-T1	●	●		-	0.500	0.315	-



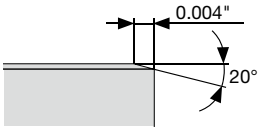
● : Line up

Edge prep

E: Low cutting force



T1/T6: Strong cutting edge



MEMO

Insert POSITIVE TYPE

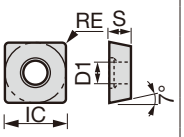
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

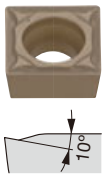
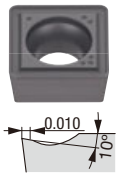
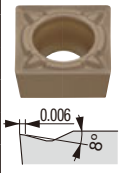
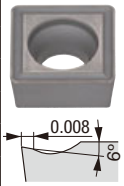
SC



Square with hole Positive 7°

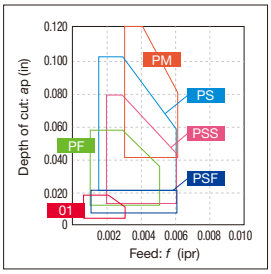
P	Steel	●ɔ	●✣	ɔ				ɔ✣	✣	ɔ	●ɔ				●ɔ	●ɔ			●ɔ				
M	Stainless	●ɔ		●				●ɔ	✣	ɔ	●ɔ												
K	Cast iron	●ɔ			●	●ɔ	ɔ			ɔ	●ɔ				●ɔ	●ɔ			●ɔ				
N	Non-ferrous																						
S	Superalloy									●	●ɔ												
H	Hard material																						

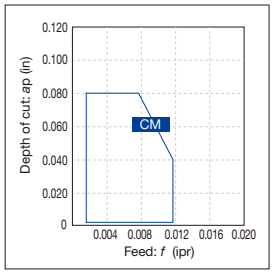


Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T6215	T505	T515	T5115	AH6225	AH6235	AH725	AH120	Coated cermet GT9530	AT9530	Cermet NS9530	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	**PS**	**SCMT 32.51 PS**	**SCMT09T304-PS**	●	●	●				●	●	●		●	●	●	0.016	0.375	0.156	0.173
		**SCMT 32.52 PS**	**SCMT09T308-PS**	●	●	●				●	●	●		●	●	●	0.031	0.375	0.156	0.173
		SCMT 431 PS	**SCMT120404-PS**	●	●	●				●	●	●				●	0.016	0.500	0.187	0.217
		SCMT 432 PS	**SCMT120408-PS**	●	●	●				●	●	●				●	0.031	0.500	0.187	0.217
	CM	**SCMT 32.51 CM**	**SCMT09T304-CM**				●	●	●								0.016	0.375	0.156	0.173
		**SCMT 32.52 CM**	**SCMT09T308-CM**				●	●	●								0.031	0.375	0.156	0.173
		SCMT 32.53 CM	**SCMT09T312-CM**						●								0.047	0.375	0.156	0.173
		SCMT 431 CM	**SCMT120404-CM**				●	●	●								0.016	0.500	0.187	0.217
		SCMT 432 CM	**SCMT120408-CM**				●	●	●								0.031	0.500	0.187	0.217
	23	**SCMT 32.50.5-23**	**SCMT09T302-23**													●	0.008	0.375	0.156	0.173
		**SCMT 32.52-23**	**SCMT09T308-23**		●								●				0.031	0.375	0.156	0.173
		SCMT 432-23	**SCMT120408-23**		●							●	●				0.031	0.500	0.187	0.217
Medium cutting	**PM**	**SCMT 32.51 PM**	**SCMT09T304-PM**	●	●	●				●	●	●				●	0.016	0.375	0.156	0.173
		**SCMT 32.52 PM**	**SCMT09T308-PM**	●	●	●				●	●	●				●	0.031	0.375	0.156	0.173
		SCMT 432 PM	**SCMT120408-PM**	●	●	●				●	●	●				●	0.031	0.500	0.187	0.217
		SCMT 433 PM	**SCMT120412-PM**		●	●				●	●	●				●	0.047	0.500	0.187	0.217
	24	**SCMT 2.51.51-24**	**SCMT070204-24**		●											●	0.016	0.313	0.094	0.134
		**SCMT 32.50.5-24**	**SCMT09T302-24**													●	0.008	0.375	0.156	0.173
		SCMT 32.51-24	**SCMT09T304-24**		●											●	0.016	0.375	0.156	0.173
		SCMT 32.52-24	**SCMT09T308-24**	●	●								●			●	0.031	0.375	0.156	0.173
		SCMT 431-24	**SCMT120404-24**		●											●	0.016	0.500	0.187	0.217
		SCMT 432-24	**SCMT120408-24**		●								●			●	0.031	0.500	0.187	0.217

● : Line up

Chip control range





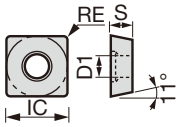
Reference pages: External toolholder → G053

● : Continuous cutting
ᑕ : Light interrupted cutting
✠ : Heavy interrupted cutting

SP

Square
with hole
Positive 11°

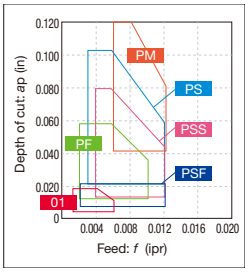
P	Steel	●	ᑕ	✠	ᑕ				✠	✠	ᑕ		●	ᑕ			●			●	
M	Stainless	●	ᑕ		●				●	✠	ᑕ						●				
K	Cast iron	●	ᑕ		●	●	ᑕ	ᑕ			ᑕ		●	ᑕ			●			●	
N	Non-ferrous																●				
S	Superalloy										●										
H	Hard material																				

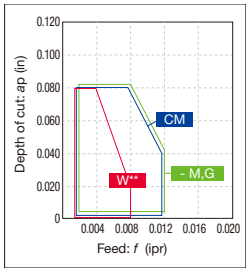


Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T6215	T505	T515	T5115	AH6225	AH6235	AH725	Coated cermet GT9530	AT9530	Cermet NS9530	Uncoated TH10	Dimension (in) RE	IC	S	D1
Finishing	**W15**	**SPGT 320.5 L-W15**	**SPGT090302L-W15**												●		0.008	0.375	0.125	0.173
		SPGT 321 L-W15	SPGT090304L-W15												●	●	0.016	0.375	0.125	0.173
		SPGT 322 R-W15	SPGT090308R-W15													●	0.031	0.375	0.125	0.173
		SPGT 322 L-W15	SPGT090308L-W15												●	●	0.031	0.375	0.125	0.173
	W20	**SPGT 431 L-W20**	**SPGT120404L-W20**												●		0.016	0.500	0.187	0.217
Finishing to medium cutting	**PS**	**SPMT 321 PS**	**SPMT090304-PS**	●	●	●				●	●	●	●	●	●		0.016	0.375	0.125	0.173
		SPMT 322 PS	SPMT090308-PS	●	●	●				●	●	●	●	●	●		0.031	0.375	0.125	0.173
		SPMT 431 PS	**SPMT120404-PS**	●	●	●				●	●	●					0.016	0.500	0.187	0.217
		SPMT 432 PS	SPMT120408-PS	●	●	●				●	●	●					0.031	0.500	0.187	0.217
	CM	**SPMT 321 CM**	**SPMT090304-CM**						●								0.016	0.375	0.125	0.173
		SPMT 322 CM	SPMT090308-CM						●								0.031	0.375	0.125	0.173
		SPMT 431 CM	**SPMT120404-CM**				●	●	●								0.016	0.500	0.187	0.217
		SPMT 432 CM	SPMT120408-CM				●	●	●								0.031	0.500	0.187	0.217
	23	**SPMT 321-23**	**SPMT090304-23**		●										●		0.016	0.375	0.125	0.173
		SPMT 322-23	SPMT090308-23		●										●		0.031	0.375	0.125	0.173

● : Line up

Chip control range





*-M,G: Without chipbreaker

Reference pages: Internal toolholder → D052

Insert POSITIVE TYPE

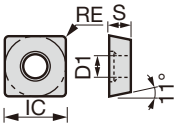
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

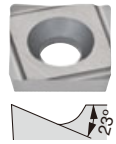
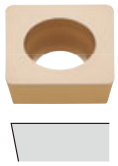
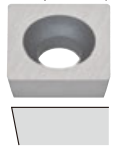
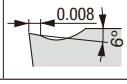
SP



Square with hole Positive 11°

		T9225	T5115	T5125	AH120	NS9530	TH10
P	Steel	ɔ✣			●ɔ	●ɔ	●
M	Stainless				●ɔ		●
K	Cast iron		ɔ	✣	●ɔ	●ɔ	●
N	Non-ferrous						●
S	Superalloy				●ɔ		
H	Hard material						



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9225	Coated T5115	Coated T5125	Coated AH120	Cermet NS9530	Uncoated TH10	RE	IC	S	D1
Finishing to medium cutting	-	SPGM 321 L	SPGM090304L					●		0.016	0.375	0.125	0.173
	(Tungaloy standard hole specification)	SPGM 421 L	SPGM120304L					●		0.016	0.500	0.125	0.197
		SPGM 422 L	SPGM120308L					●		0.031	0.500	0.125	0.197
	-	SPMW 321	SPMW090304		●	●				0.016	0.375	0.125	0.173
		SPMW 322	SPMW090308		●					0.031	0.375	0.125	0.173
		SPMW 431	SPMW120404		●					0.016	0.500	0.187	0.217
		SPMW 432	SPMW120408		●					0.031	0.500	0.187	0.217
	-	SPGW 320.5	SPGW090302						●	0.008	0.375	0.125	0.173
		SPGW 321	SPGW090304						●	0.016	0.375	0.125	0.173
		SPGW 322	SPGW090308				●			0.031	0.375	0.125	0.173
		SPGW 333	SPGW090312				●			0.047	0.375	0.125	0.173
		SPGW 431	SPGW120404				●		●	0.016	0.500	0.187	0.217
		SPGW 432	SPGW120408				●			0.031	0.500	0.187	0.217
	-	SPGA 321	SPGA090304					●		0.016	0.375	0.125	0.173
	(Tungaloy standard hole specification)												
													
Medium cutting	24	SPMT 321-24	SPMT090304-24	●				●		0.016	0.375	0.125	0.173
		SPMT 322-24	SPMT090308-24	●			●	●		0.031	0.375	0.125	0.173
		SPMT 431-24	SPMT120404-24					●		0.016	0.500	0.187	0.217
		SPMT 432-24	SPMT120408-24				●	●		0.031	0.500	0.187	0.217
													

● : Line up

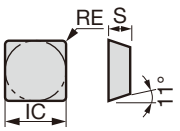
Reference pages: Internal toolholder → D052

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

SP

Square
without hole
Positive 11°

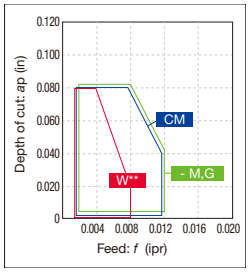
P	Steel	ⓒ✠		●ⓒ	●	●ⓒ	●ⓒ	●ⓒ	ⓒ			●	ⓒ								
M	Stainless			●ⓒ	●	●ⓒ	●ⓒ					●	ⓒ								
K	Cast iron		ⓒ	●ⓒ	●	●ⓒ	●ⓒ	●ⓒ	ⓒ			●						●ⓒ			
N	Non-ferrous											●									
S	Superalloy			●ⓒ	●	●ⓒ															
H	Hard material															●ⓒ	●ⓒ				



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9225	Coated T5115	Coated T3130	Coated AH110	Coated AH120	Coated AH330	Cermet NS9530	Cermet NS740	Uncoated TH10	Uncoated UX30	Ceramic LX10	Ceramic LX11	Ceramic FX105	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	CM	SPMR 321 CM	SPMR090304-CM		●												0.016	0.375	0.125	-
		SPMR 322 CM	SPMR090308-CM		●												0.031	0.375	0.125	-
		SPMR 421 CM	SPMR120304-CM		●												0.016	0.500	0.125	-
		SPMR 422 CM	SPMR120308-CM		●												0.031	0.500	0.125	-
		SPMR 423 CM	SPMR120312-CM		●												0.047	0.500	0.125	-
	23	SPMR 321-23	SPMR090304-23							●							0.016	0.375	0.125	-
		SPMR 322-23	SPMR090308-23	●						●							0.031	0.375	0.125	-
		SPMR 421-23	SPMR120304-23	●						●							0.016	0.500	0.125	-
		SPMR 422-23	SPMR120308-23	●						●							0.031	0.500	0.125	-
	-	SPGR 321 L	SPGR090304L							●							0.016	0.375	0.125	-
	-	SPGN 321	SPGN090304									●			▲		0.016	0.375	0.125	-
		SPGN 322	SPGN090308									●		●	▲		0.031	0.375	0.125	-
		SPGN 324	SPGN090316											●	▲		0.063	0.375	0.125	-
		SPGN 421	SPGN120304									●		●	▲		0.016	0.500	0.125	-
		SPGN 422	SPGN120308				●					●		●	▲		0.031	0.500	0.125	-
		SPGN 423	SPGN120312							●		●		●	▲		0.047	0.500	0.125	-
		SPGN 432	SPGN120408									●					0.031	0.500	0.187	-
		SPGN 433	SPGN120412									●					0.047	0.500	0.187	-
		SPGN 433TN	SPGN120412													●	0.047	0.500	0.187	-
	-	SPMN 321	SPMN090304		●												0.016	0.375	0.125	-
		SPMN 322	SPMN090308		●				●								0.031	0.375	0.125	-
		SPMN 421	SPMN120304		●								●				0.016	0.500	0.125	-
		SPMN 422	SPMN120308		●	●				●		●	●				0.031	0.500	0.125	-
		SPMN 423	SPMN120312		●						●	●	●				0.047	0.500	0.125	-
		SPMN 432	SPMN120408		●			●			●	●	●				0.031	0.500	0.187	-
		SPMN 433	SPMN120412		●		●						●				0.047	0.500	0.187	-
		SPMN 633	SPMN190412			●		●		●		●		●	●		0.047	0.750	0.187	-

● : Line up
▲ : To be discontinued

Chip control range



*-M,G: Without chipbreaker

Reference pages: Internal toolholder → D053

Insert POSITIVE TYPE

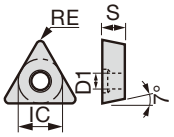
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

TC



Triangular with hole Positive 7°

P	Steel	●◐ ◐✠ ◐ ● ●◐ ●◐ ●◐ ●◐ ●◐ ●◐ ●◐ ●◐ ●◐ ●
M	Stainless	●◐ ◐ ● ● ●◐ ●◐ ●◐ ●◐ ●◐ ●◐ ●◐ ●
K	Cast iron	●◐ ◐ ● ◐ ●◐ ●◐ ●◐ ●◐ ●◐ ●◐ ●◐ ●◐ ●
N	Non-ferrous	●
S	Superalloy	◐ ● ●◐ ●◐ ●◐
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated T6215	Coated AH8015	Coated AH6225	Coated AH725	Coated SH7025	Coated SH725	Coated SH730	Coated J740	Coated cermet GT9530	Cermet NS9530	Cermet NS520	Uncoated TH10	Dimension (in) RE	IC	S	D1
Precision finishing (sharp edge)	JP	TCGT 21.5V FN-JP	TCGT110200FN-JP							●	●							<0.002	0.250	0.094	0.109
		TCGT 21.50 FN-JP	TCGT110201FN-JP							●	●							<0.004	0.250	0.094	0.109
		TCGT 21.50.5 FN-JP	TCGT110202FN-JP							●	●							<0.008	0.250	0.094	0.109
	01	TCGT 21.50.5 F-01	TCGT110202F-01							●	●							<0.008	0.250	0.094	0.109
		TCGT 21.51 F-01	TCGT110204F-01							●	●							<0.016	0.250	0.094	0.109
Precision finishing	01	TCGT 731-01	TCGT090204-01													●	●	0.016	0.219	0.094	0.098
		TCGT 21.50.5-01	TCGT110202-01										●					0.008	0.250	0.094	0.109
		TCGT 21.51-01	TCGT110204-01											●	●	●	●	0.016	0.250	0.094	0.109
		TCGT 21.52-01	TCGT110208-01												●			0.031	0.250	0.094	0.109
		TCGT 32.51-01	TCGT16T304-01														●	0.016	0.375	0.156	0.173
		TCGT 32.52-01	TCGT16T308-01													●	●	0.031	0.375	0.156	0.173
Finishing (sharp edge)	JS	TCGT 21.5V FN-JS	TCGT110200FN-JS							●	●	●						<0.002	0.250	0.094	0.109
		TCGT 21.50 FN-JS	TCGT110201FN-JS							●	●	●						<0.004	0.250	0.094	0.109
		TCGT 21.50.5 FN-JS	TCGT110202FN-JS							●	●	●						<0.008	0.250	0.094	0.109
		TCGT 21.51 FN-JS	TCGT110204FN-JS							●	●	●						<0.016	0.250	0.094	0.109
Finishing	JS	TCGT 21.50 N-JS	TCGT110201N-JS						●									0.004	0.250	0.094	0.109
		TCGT 21.50.5 N-JS	TCGT110202N-JS						●									0.008	0.250	0.094	0.109
		TCGT 21.51 N-JS	TCGT110204N-JS						●									0.016	0.250	0.094	0.109
	PSF	TCMT 730.5 PSF	TCMT090202-PSF				●		●									0.008	0.219	0.094	0.098
		TCMT 731 PSF	TCMT090204-PSF	●	●		●		●									0.016	0.219	0.094	0.098
		TCMT 21.50.5 PSF	TCMT110202-PSF				●		●									0.008	0.250	0.094	0.109
		TCMT 21.51 PSF	TCMT110204-PSF	●	●		●		●									0.016	0.250	0.094	0.109
		TCMT 220.5 PSF	TCMT110302-PSF				●		●									0.008	0.250	0.125	0.109
		TCMT 221 PSF	TCMT110304-PSF	●	●		●		●									0.016	0.250	0.125	0.109
		TCMT 32.51 PSF	TCMT16T304-PSF	●	●		●		●									0.016	0.375	0.156	0.173
	TSF	TCMT 21.51 TSF	TCMT110204-TSF	●	●		●											0.016	0.250	0.094	0.109
		TCMT 21.52 TSF	TCMT110208-TSF	●	●		●											0.031	0.250	0.094	0.109
		TCMT 220.5 TSF	TCMT110302-TSF	●	●	●	●	●							●			0.008	0.250	0.125	0.109
		TCMT 221 TSF	TCMT110304-TSF	●	●	●	●	●							●			0.016	0.250	0.125	0.109
		TCMT 222 TSF	TCMT110308-TSF	●	●	●	●	●							●			0.031	0.250	0.125	0.109
		TCMT 32.51 TSF	TCMT16T304-TSF	●	●		●											0.016	0.375	0.156	0.173
		TCMT 32.52 TSF	TCMT16T308-TSF	●	●		●											0.031	0.375	0.156	0.173

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

● : Line up

Reference pages: External toolholder → C098 - Internal toolholder → D056
J-Series toolholder → G054 -

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

TC

Triangular with hole Positive 7°

| | | |

Insert POSITIVE TYPE

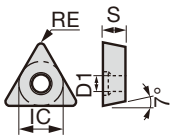
● : Continuous cutting
c : Light interrupted cutting
✣ : Heavy interrupted cutting

TC



Triangular with hole Positive 7°

		T9215	T9225	T6215	T505	T515	T5115	AH8015	AH6225	AH6235	AH725	GH730	GT9530	AT9530	NS9530	KS05F
P	Steel	●c	c✣	c					c✣	✣	c	c	●c	●c		●c
M	Stainless	●c		●				c	●c	✣	c	c				
K	Cast iron	●c			●	●c	c				c	c	●c	●c		●c
N	Non-ferrous															●
S	Superalloy							c			●					●
H	Hard material															



Application	Chipbreaker	Designation Inch	Designation Metric	Coated										Coated cermet		Cermet	Uncoated	Dimension (in)			
				T9215	T9225	T6215	T505	T515	T5115	AH8015	AH6225	AH6235	AH725	GH730	GT9530	AT9530	NS9530	KS05F	RE	IC	S	D1
Finishing	PSS	TCMT 731 PSS	TCMT090204-PSS	●	●								●						0.016	0.219	0.094	0.098
		TCMT 732 PSS	TCMT090208-PSS	●	●								●						0.031	0.219	0.094	0.098
		TCMT 21.51 PSS	TCMT110204-PSS	●	●								●						0.016	0.250	0.094	0.109
		TCMT 21.52 PSS	TCMT110208-PSS	●	●								●						0.031	0.250	0.094	0.109
		TCMT 221 PSS	TCMT110304-PSS	●	●								●						0.016	0.250	0.125	0.109
		TCMT 222 PSS	TCMT110308-PSS	●	●								●						0.031	0.250	0.125	0.109
		TCMT 32.51 PSS	TCMT16T304-PSS	●	●								●						0.016	0.375	0.156	0.173
		TCMT 32.52 PSS	TCMT16T308-PSS	●	●								●						0.031	0.375	0.156	0.173
		TCMT 32.53 PSS	TCMT16T312-PSS	●	●								●						0.047	0.375	0.156	0.173
	PS	TCMT 731 PS	TCMT090204-PS										●						0.016	0.219	0.094	0.098
		TCMT 732 PS	TCMT090208-PS										●						0.031	0.219	0.094	0.098
		TCMT 21.50.5 PS	TCMT110202-PS	●	●	●					●	●	●	●	●	●	●		0.008	0.250	0.094	0.109
		TCMT 21.51 PS	TCMT110204-PS	●	●	●					●	●	●	●	●	●	●		0.016	0.250	0.094	0.109
		TCMT 21.52 PS	TCMT110208-PS	●	●	●					●	●	●	●	●	●	●		0.031	0.250	0.094	0.109
		TCMT 220.5 PS	TCMT110302-PS	●	●	●				●	●	●					●		0.008	0.250	0.125	0.109
		TCMT 221 PS	TCMT110304-PS	●	●	●				●	●	●					●		0.016	0.250	0.125	0.109
		TCMT 222 PS	TCMT110308-PS	●	●	●				●	●	●					●		0.031	0.250	0.125	0.109
		TCMT 32.50.5 PS	TCMT16T302-PS	●	●	●					●	●	●				●		0.008	0.375	0.156	0.173
		TCMT 32.51 PS	TCMT16T304-PS	●	●	●					●	●	●				●		0.016	0.375	0.156	0.173
		TCMT 32.52 PS	TCMT16T308-PS	●	●	●					●	●	●						0.031	0.375	0.156	0.173
	TM	TCMT 21.51 TM	TCMT110204-TM	●	●					●									0.016	0.250	0.094	0.109
		TCMT 21.52 TM	TCMT110208-TM	●	●					●									0.031	0.250	0.094	0.109
		TCMT 220.5 TM	TCMT110302-TM	●	●	●				●	●						●		0.008	0.250	0.125	0.109
		TCMT 221 TM	TCMT110304-TM	●	●	●				●	●						●		0.016	0.250	0.125	0.109
		TCMT 222 TM	TCMT110308-TM	●	●	●				●	●						●		0.031	0.250	0.125	0.109
		TCMT 32.51 TM	TCMT16T304-TM	●	●					●									0.016	0.375	0.156	0.173
		TCMT 32.52 TM	TCMT16T308-TM	●	●					●									0.031	0.375	0.156	0.173
Finishing to medium cutting	CM	TCMT 731 CM	TCMT090204-CM						●										0.016	0.219	0.094	0.098
		TCMT 732 CM	TCMT090208-CM						●										0.031	0.219	0.094	0.098
		TCMT 21.51 CM	TCMT110204-CM						●										0.016	0.250	0.094	0.109
		TCMT 21.52 CM	TCMT110208-CM						●										0.031	0.250	0.094	0.109
		TCMT 221 CM	TCMT110304-CM						●										0.016	0.250	0.125	0.109
		TCMT 222 CM	TCMT110308-CM						●										0.031	0.250	0.125	0.109
		TCMT 32.51 CM	TCMT16T304-CM				●	●	●										0.016	0.375	0.156	0.173
		TCMT 32.52 CM	TCMT16T308-CM				●	●	●										0.031	0.375	0.156	0.173
		TCMT 32.53 CM	TCMT16T312-CM				●	●	●										0.047	0.375	0.156	0.173
Finishing to medium cutting for aluminum cutting	AL	TCGT 21.50.5 AL	TCGT110202-AL															●	0.008	0.250	0.094	0.109
		TCGT 21.51 AL	TCGT110204-AL															●	0.016	0.250	0.094	0.109
		TCGT 32.50.5 AL	TCGT16T302-AL															●	0.008	0.375	0.156	0.173
		TCGT 32.51 AL	TCGT16T304-AL															●	0.016	0.375	0.156	0.173
		TCGT 32.52 AL	TCGT16T308-AL															●	0.031	0.375	0.156	0.173

● : Line up

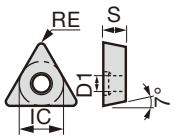
Reference pages: External toolholder → C098 - Internal toolholder → D056
J-Series toolholder → G054 -

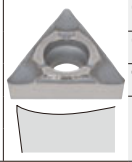
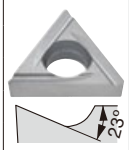
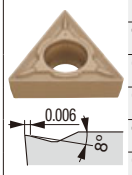
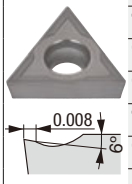
● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

TC

Triangular with hole Positive 7°

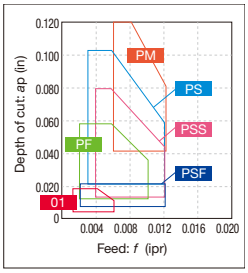
P	Steel	●ɔ	●✠	ɔ	ɔ✠	✠	ɔ								●				
M	Stainless	●ɔ		●	●ɔ	✠	ɔ								●				
K	Cast iron	●ɔ					ɔ								●	●			
N	Non-ferrous														●	●			
S	Superalloy						●									●			
H	Hard material																		

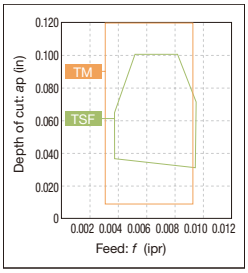


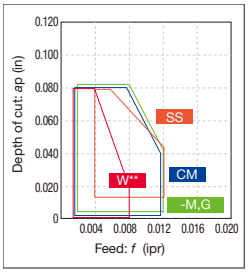
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T6215	AH6225	AH6235	AH725	Cermet NS9530	Uncoated TH10	KS05F	Dimension (in) RE	IC	S	D1
Finishing	**SS**	**TCGT 21.50.5 SS**	**TCGT110202-SS**							●			0.008	0.250	0.094	0.109
		TCGT 21.51 SS	TCGT110204-SS							●			0.016	0.250	0.094	0.109
		TCGT 21.52 SS	TCGT110208-SS							●			0.031	0.250	0.094	0.109
		TCGT 32.51 SS	**TCGT16T304-SS**							●			0.016	0.375	0.156	0.173
Finishing to medium cutting	**23**	**TCMT 731-23**	**TCMT090204-23**		●					●			0.016	0.219	0.094	0.098
		**TCMT 21.51-23**	**TCMT110204-23**							●			0.016	0.250	0.094	0.109
		TCMT 32.51-23	**TCMT16T304-23**							●			0.016	0.375	0.156	0.173
		TCMT 32.52-23	TCMT16T308-23		●								0.031	0.375	0.156	0.173
	-	**TCGT 620.5 R**	**TCGT080102R**							●		●	0.008	0.187	0.063	0.106
																
Medium cutting	**PM**	**TCMT 21.50.5 PM**	**TCMT110202-PM**			●	●	●	●				0.008	0.250	0.094	0.109
		TCMT 21.51 PM	TCMT110204-PM	●	●	●	●	●	●	●			0.016	0.250	0.094	0.109
		TCMT 21.52 PM	TCMT110208-PM	●	●	●	●	●	●	●			0.031	0.250	0.094	0.109
		TCMT 220.5 PM	**TCMT110302-PM**			●	●	●					0.008	0.250	0.125	0.109
		TCMT 221 PM	TCMT110304-PM			●	●	●					0.016	0.250	0.125	0.109
		TCMT 222 PM	TCMT110308-PM			●	●	●					0.031	0.250	0.125	0.109
		TCMT 32.51 PM	**TCMT16T304-PM**	●	●	●	●	●	●	●			0.016	0.375	0.156	0.173
		TCMT 32.52 PM	TCMT16T308-PM	●	●	●	●	●	●	●			0.031	0.375	0.156	0.173
		TCMT 32.53 PM	TCMT16T312-PM	●	●	●	●	●	●				0.047	0.375	0.156	0.173
	24	**TCMT 730.5-24**	**TCMT090202-24**							●			0.008	0.219	0.094	0.098
		TCMT 731-24	TCMT090204-24	●	●					●			0.016	0.219	0.094	0.098
		TCMT 21.50.5-24	**TCMT110202-24**							●			0.008	0.250	0.094	0.109
		TCMT 21.51-24	TCMT110204-24	●	●					●			0.016	0.250	0.094	0.109
		TCMT 21.52-24	TCMT110208-24		●								0.031	0.250	0.094	0.109
		TCMT 32.51-24	**TCMT16T304-24**	●	●					●			0.016	0.375	0.156	0.173
		TCMT 32.52-24	TCMT16T308-24	●	●				●				0.031	0.375	0.156	0.173

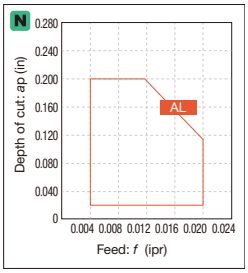
● : Line up

Chip control range









*-M,G: Without chipbreaker

Reference pages: External toolholder → C098 - Internal toolholder → D056
J-Series toolholder → G054 -

Insert POSITIVE TYPE

● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

TP



Triangular with hole Positive 11°

		Coated							Coated cermet			Cermet			Uncoated		Dimension (in)			
		T9215	T9225	AH725	GH730	SH7025	SH725	SH730	GT9530	GT720		NS9530	NS520		TH10		RE	IC	S	D1
P	Steel	●ɔ	ɔ✣	ɔ	ɔ	●ɔ	●ɔ	●ɔ	●ɔ	●ɔ		●ɔ	●ɔ		●					
M	Stainless	●ɔ		ɔ	ɔ	●ɔ	●ɔ	●ɔ							●					
K	Cast iron	●ɔ		ɔ	ɔ				●ɔ	●ɔ		●ɔ	●ɔ		●					
N	Non-ferrous														●					
S	Superalloy			●				●ɔ												
H	Hard material																			

Application	Chipbreaker	Designation Inch	Designation Metric														RE	IC	S	D1
Precision finishing	01	TPGT 730.5-01	TPGT090202-01							●			●				0.008	0.219	0.094	0.098
		TPGT 731-01	TPGT090204-01							●			●	●		●	0.016	0.219	0.094	0.098
		TPGT 21.50.5-01	TPGT110202-01							●			●				0.008	0.250	0.094	0.109
		TPGT 21.51-01	TPGT110204-01							●			●	●		●	0.016	0.250	0.094	0.109
		TPGT 21.52-01	TPGT110208-01										●				0.031	0.250	0.094	0.109
		TPGT 2.520.5-01	TPGT130302-01								●		●				0.008	0.313	0.125	0.134
		TPGT 2.521-01	TPGT130304-01							●			●	●		●	0.016	0.313	0.125	0.134
		TPGT 2.522-01	TPGT130308-01										●	●			0.031	0.313	0.125	0.134
		TPGT 32.51-01	TPGT16T304-01							●			●	●		●	0.016	0.375	0.156	0.173
		TPGT 32.52-01	TPGT16T308-01								●		●	●			0.031	0.375	0.156	0.173
Finishing (sharp edge)	JS	TPGT 5.520 F-JS	TPGT070101F-JS					●	●								<0.004	0.172	0.063	0.102
		TPGT 5.520.5 F-JS	TPGT070102F-JS					●	●								<0.008	0.172	0.063	0.102
		TPGT 5.521 F-JS	TPGT070104F-JS					●	●								<0.016	0.172	0.063	0.102
Finishing	JS	TPGT 5.520 JS	TPGT070101-JS						●								<0.004	0.172	0.063	0.102
		TPGT 5.520.5 JS	TPGT070102-JS						●								<0.008	0.172	0.063	0.102
		TPGT 5.521 JS	TPGT070104-JS						●								<0.016	0.172	0.063	0.102
	PSF	TPMT 730.5 PSF	TPMT090202-PSF			●							●				0.008	0.219	0.094	0.098
		TPMT 731 PSF	TPMT090204-PSF	●	●	●				●			●				0.016	0.219	0.094	0.098
		TPMT 21.50.5 PSF	TPMT110202-PSF			●				●			●				0.008	0.250	0.094	0.109
		TPMT 21.51 PSF	TPMT110204-PSF	●	●	●				●			●				0.016	0.250	0.094	0.109
		TPMT 220.5 PSF	TPMT110302-PSF			●							●				0.008	0.250	0.125	0.134
		TPMT 221 PSF	TPMT110304-PSF	●	●	●				●			●				0.016	0.250	0.125	0.134
		TPMT 2.521 PSF	TPMT130304-PSF	●	●	●											0.016	0.313	0.125	0.134
		TPMT 32.51 PSF	TPMT16T304-PSF	●	●	●											0.016	0.375	0.156	0.173
	PF	TPMT 21.51 PF	TPMT110204-PF				●			●			●				0.016	0.250	0.094	0.109
		TPMT 21.52 PF	TPMT110208-PF							●			●				0.031	0.250	0.094	0.109
		TPMT 220.5 PF	TPMT110302-PF				●						●				0.008	0.250	0.125	0.134
		TPMT 221 PF	TPMT110304-PF				●			●			●				0.016	0.250	0.125	0.134
		TPMT 2.521 PF	TPMT130304-PF							●			●				0.016	0.313	0.125	0.134
		TPMT 2.522 PF	TPMT130308-PF										●				0.031	0.313	0.125	0.134
		TPMT 32.51 PF	TPMT16T304-PF							●			●				0.016	0.375	0.156	0.173

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

● : Line up

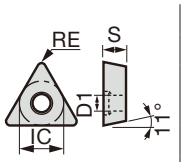
Reference pages: Mounting hole specification → B146
Internal toolholder → D057 -

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

TP

Triangular
with hole
Positive 11°

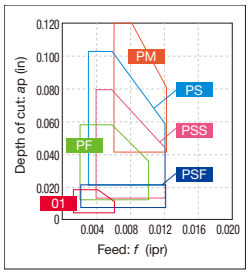
P	Steel	●ⓒ	●✠	●	ⓒ		ⓒ✠	●	●ⓒ	●ⓒ			●ⓒ			●ⓒ		●	●	ⓒ
M	Stainless	●ⓒ		●	ⓒ	●ⓒ	●	●ⓒ	●ⓒ									●	ⓒ	
K	Cast iron	●ⓒ					●						●ⓒ			●ⓒ		●		
N	Non-ferrous																	●		
S	Superalloy				ⓒ		●		●ⓒ											
H	Hard material																			

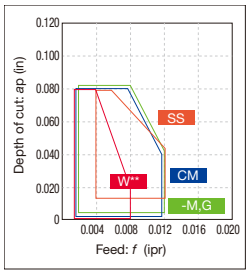


Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated T6215	Coated AH8015	Coated AH6225	Coated GH110	Coated SH725	Coated SH730	Coated cermet GT9530	Cermet NS9530	Uncoated TH10	Uncoated UX30	Dimension (in) RE	IC	S	D1
Finishing	TSF	TPMT 21.51 TSF	TPMT110204-TSF	●	●											0.016	0.250	0.094	0.109
		TPMT 21.52 TSF	TPMT110208-TSF	●	●											0.031	0.250	0.094	0.109
		TPMT 220.5 TSF	TPMT110302-TSF	●	●	●	●	●					●			0.008	0.250	0.125	0.134
		TPMT 221 TSF	TPMT110304-TSF	●	●	●	●	●					●			0.016	0.250	0.125	0.134
		TPMT 222 TSF	TPMT110308-TSF	●	●	●	●	●					●			0.031	0.250	0.125	0.134
		TPMT 32.51 TSF	TPMT16T304-TSF	●	●											0.016	0.375	0.156	0.173
		TPMT 32.52 TSF	TPMT16T308-TSF	●	●											0.031	0.375	0.156	0.173
Finishing (sharp edge)	W08	TPGT 5.52V FR-W08	TPGT070100FR-W08							●						0.0012	0.172	0.063	0.102
		TPGT 5.52V FL-W08	TPGT070100FL-W08							●						0.0012	0.172	0.063	0.102
		TPGT 5.520 FR-W08	TPGT070101FR-W08							●						0.004	0.172	0.063	0.102
		TPGT 5.520 FL-W08	TPGT070101FL-W08							●						0.004	0.172	0.063	0.102
		TPGT 5.520.5 FR-W08	TPGT070102FR-W08							●						0.008	0.172	0.063	0.102
		TPGT 5.520.5 FL-W08	TPGT070102FL-W08							●						0.008	0.172	0.063	0.102
		TPGT 5.521 FR-W08	TPGT070104FR-W08							●						0.016	0.172	0.063	0.102
		TPGT 5.521 FL-W08	TPGT070104FL-W08							●						0.016	0.172	0.063	0.102
Finishing	W08	TPGT 5.52V R-W08	TPGT070100R-W08								●			●		0.0012	0.172	0.063	0.102
		TPGT 5.52V L-W08	TPGT070100L-W08								●			●		0.0012	0.172	0.063	0.102
		TPGT 5.520 R-W08	TPGT070101R-W08								●			●		0.004	0.172	0.063	0.102
		TPGT 5.520 L-W08	TPGT070101L-W08								●			●		0.004	0.172	0.063	0.102
		TPGT 5.520.5 R-W08	TPGT070102R-W08								●			●		0.008	0.172	0.063	0.102
		TPGT 5.520.5 L-W08	TPGT070102L-W08								●			●		0.008	0.172	0.063	0.102
		TPGT 5.521 R-W08	TPGT070104R-W08								●			●		0.016	0.172	0.063	0.102
		TPGT 5.521 L-W08	TPGT070104L-W08								●			●		0.016	0.172	0.063	0.102
		TPGT 63V L-W08	TPGT080200L-W08									●	●			0.0012	0.187	0.094	0.091
		TPGT 630.5 L-W08	TPGT080202L-W08						●			●	●	●	●	0.008	0.187	0.094	0.091
		TPGT 631 L-W08	TPGT080204L-W08						●			●	●	●	●	0.016	0.187	0.094	0.091
	W10	TPGH 630.5 L-W10	TPGH080202L-W10									●	●			0.008	0.187	0.094	0.091
		TPGH 631 L-W10	TPGH080204L-W10									●	●			0.016	0.187	0.094	0.091
		TPGH 731 L-W10	TPGH090204L-W10									●	●			0.016	0.219	0.094	0.118

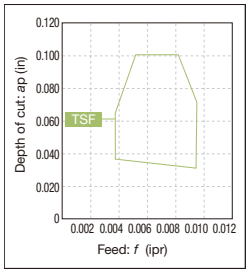
● : Line up

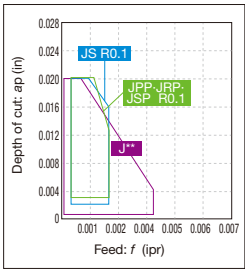
Chip control range





*-M,G: Without chipbreaker





*Chip control range with typical R0.1

Reference pages: Mounting hole specification → B146
Internal toolholder → D057 -

Insert POSITIVE TYPE

● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

TP



Triangular with hole Positive 11°

| | | |

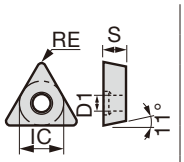
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

TP



Triangular with hole Positive 11°

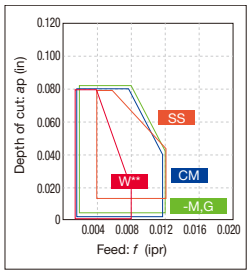
P	Steel	●ɔ	ɔ✣	ɔ			ɔ✣	✣	ɔ	●ɔ	ɔ				●ɔ	●ɔ		●ɔ	
M	Stainless	●ɔ		●	●	ɔ	●ɔ	✣	ɔ	●ɔ	ɔ								
K	Cast iron	●ɔ							ɔ	●ɔ	ɔ				●ɔ	●ɔ		●ɔ	
N	Non-ferrous																		
S	Superalloy				●	ɔ			●	●ɔ									
H	Hard material																		

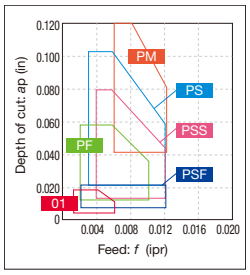


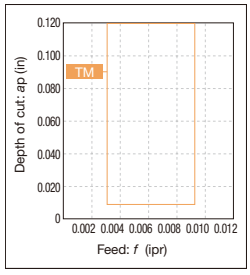
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T6215	AH8005	AH8015	AH6225	AH6235	AH725	AH120	GH730	Coated cermet GT9530	AT9530	Cermet NS9530	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	**PSS**	**TPMT 731 PSS**	**TPMT090204-PSS**	●	●	●			●	●	●		●	●		●	0.016	0.219	0.094	0.098
		TPMT 732 PSS	TPMT090208-PSS	●	●	●			●	●	●			●		●	0.031	0.219	0.094	0.098
		TPMT 21.51 PSS	**TPMT110204-PSS**	●	●	●			●	●	●			●		●	0.016	0.250	0.094	0.109
		TPMT 21.52 PSS	TPMT110208-PSS	●	●	●			●	●	●			●		●	0.031	0.250	0.094	0.109
		TPMT 221 PSS	**TPMT110304-PSS**	●	●	●			●	●	●						0.016	0.250	0.125	0.134
		TPMT 222 PSS	TPMT110308-PSS	●	●	●			●	●	●						0.031	0.250	0.125	0.134
		TPMT 2.521 PSS	**TPMT130304-PSS**	●	●	●			●	●	●						0.016	0.313	0.125	0.134
		TPMT 2.522 PSS	TPMT130308-PSS	●	●	●			●	●	●			●		●	0.031	0.313	0.125	0.134
		TPMT 32.51 PSS	**TPMT16T304-PSS**	●	●	●			●	●	●			●		●	0.016	0.375	0.156	0.173
		TPMT 32.52 PSS	TPMT16T308-PSS	●	●	●			●	●	●			●		●	0.031	0.375	0.156	0.173
	PS	**TPMT 730.5 PS**	**TPMT090202-PS**	●	●	●			●	●	●		●	●	●	●	0.008	0.219	0.094	0.098
		TPMT 731 PS	TPMT090204-PS	●	●	●			●	●	●		●	●	●	●	0.016	0.219	0.094	0.098
		TPMT 732 PS	TPMT090208-PS	●	●	●			●	●	●		●	●	●	●	0.031	0.219	0.094	0.098
		TPMT 21.50.5 PS	**TPMT110202-PS**	●	●	●			●	●	●		●	●	●	●	0.008	0.250	0.094	0.109
		TPMT 21.51 PS	TPMT110204-PS	●	●	●			●	●	●	●	●	●	●	●	0.016	0.250	0.094	0.109
		TPMT 21.52 PS	TPMT110208-PS	●	●	●			●	●	●	●	●	●	●	●	0.031	0.250	0.094	0.109
		TPMT 220.5 PS	**TPMT110302-PS**	●	●	●		●	●							●	0.008	0.250	0.125	0.134
		TPMT 221 PS	TPMT110304-PS	●	●	●		●	●	●	●		●	●	●	●	0.016	0.250	0.125	0.134
		TPMT 222 PS	TPMT110308-PS	●	●	●	●	●	●	●	●		●	●	●	●	0.031	0.250	0.125	0.134
		TPMT 2.520.5 PS	**TPMT130302-PS**	●	●						●			●	●	●	0.008	0.313	0.125	0.134
		TPMT 2.521 PS	TPMT130304-PS	●	●	●			●	●	●			●	●	●	0.016	0.313	0.125	0.134
		TPMT 2.522 PS	TPMT130308-PS	●	●	●			●	●	●			●	●	●	0.031	0.313	0.125	0.134
		TPMT 32.51 PS	**TPMT16T304-PS**	●	●	●			●	●	●			●	●	●	0.016	0.375	0.156	0.173
		TPMT 32.52 PS	TPMT16T308-PS	●	●	●			●	●	●			●	●	●	0.031	0.375	0.156	0.173
	TM	**TPMT 21.51 TM**	**TPMT110204-TM**	●	●												0.016	0.250	0.094	0.109
		TPMT 21.52 TM	TPMT110208-TM	●	●												0.031	0.250	0.094	0.109
		TPMT 220.5 TM	**TPMT110302-TM**	●	●	●		●	●							●	0.008	0.250	0.125	0.134
		TPMT 221 TM	TPMT110304-TM	●	●	●		●	●							●	0.016	0.250	0.125	0.134
		TPMT 222 TM	TPMT110308-TM	●	●	●		●	●							●	0.031	0.250	0.125	0.134
		TPMT 32.51 TM	**TPMT16T304-TM**	●	●												0.016	0.375	0.156	0.173
		TPMT 32.52 TM	TPMT16T308-TM	●	●												0.031	0.375	0.156	0.173

● : Line up

Chip control range







*-M,G: Without chipbreaker

Reference pages: Mounting hole specification → B146
Internal toolholder → D057 -

Insert POSITIVE TYPE

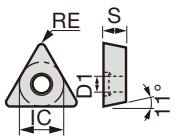
● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

TP



Triangular with hole Positive 11°

P	Steel	ɔ✠							●ɔ				●ɔ				●	ɔ			
M	Stainless																●	ɔ			
K	Cast iron			●	●ɔ	ɔ			●ɔ				●ɔ				●				
N	Non-ferrous																●				
S	Superalloy																				
H	Hard material																				

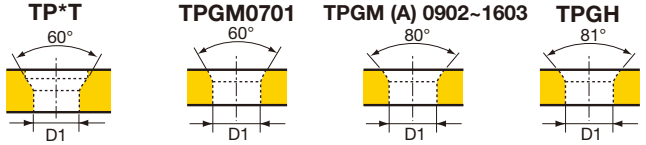


Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9225	Coated T505	Coated T515	Coated T5115	Coated cermet GT9530	Cermet NS9530	Uncoated TH10	Uncoated UX30	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	**CM**	TPMT 731 CM	TPMT090204-CM				●					0.016	0.219	0.094	0.098
		TPMT 732 CM	TPMT090208-CM				●					0.031	0.219	0.094	0.098
		TPMT 21.51 CM	TPMT110204-CM				●					0.016	0.250	0.094	0.109
		TPMT 21.52 CM	TPMT110208-CM				●					0.031	0.250	0.094	0.109
		TPMT 221 CM	TPMT110304-CM				●					0.016	0.250	0.125	0.134
		TPMT 222 CM	TPMT110308-CM				●					0.031	0.250	0.125	0.134
		TPMT 2.521 CM	TPMT130304-CM				●					0.016	0.313	0.125	0.134
		TPMT 2.522 CM	TPMT130308-CM				●					0.031	0.313	0.125	0.134
		TPMT 32.51 CM	TPMT16T304-CM		●	●	●					0.016	0.375	0.156	0.173
		TPMT 32.52 CM	TPMT16T308-CM		●	●	●					0.031	0.375	0.156	0.173
		TPMT 32.53 CM	TPMT16T312-CM		●	●	●					0.047	0.375	0.156	0.173
	H11	TPGH 220.5 L-H11	TPGH110302L-H11					●	●			0.008	0.250	0.125	0.134
		TPGH 221 L-H11	TPGH110304L-H11					●	●			0.016	0.250	0.125	0.134
	23	TPMT 730.5-23	TPMT090202-23						●			0.008	0.219	0.094	0.098
		TPMT 731-23	TPMT090204-23	●					●			0.016	0.219	0.094	0.098
		TPMT 21.51-23	TPMT110204-23	●					●			0.016	0.250	0.094	0.109
		TPMT 2.521-23	TPMT130304-23	●					●			0.016	0.313	0.125	0.134
		TPMT 2.522-23	TPMT130308-23	●					●			0.031	0.313	0.125	0.134
		TPMT 32.51-23	TPMT16T304-23						●			0.016	0.375	0.156	0.173
		TPMT 32.52-23	TPMT16T308-23	●					●			0.031	0.375	0.156	0.173
Finishing to medium cutting	**-**	TPGM 5.520.5 R	TPGM070102R						●			0.008	0.172	0.063	0.106
		TPGM 5.520.5 L	TPGM070102L						●	●		0.008	0.172	0.063	0.106
		TPGM 5.521 R	TPGM070104R						●			0.016	0.172	0.063	0.106
		TPGM 5.521 L	TPGM070104L						●	●		0.016	0.172	0.063	0.106
		TPGM 730.5 R	TPGM090202R						●			0.008	0.219	0.094	0.125
		TPGM 730.5 L	TPGM090202L						●			0.008	0.219	0.094	0.125
		TPGM 731 L	TPGM090204L						●			0.016	0.219	0.094	0.125
	(Tungaloy standard hole specification) ISO non-compliant	TPGM 21.50.5 R	TPGM110202R						●			0.008	0.250	0.094	0.118
		TPGM 21.50.5 L	TPGM110202L						●		●	0.008	0.250	0.094	0.118
		TPGM 21.51 R	TPGM110204R						●			0.016	0.250	0.094	0.118
		TPGM 21.51 L	TPGM110204L						●		●	0.016	0.250	0.094	0.118
		TPGM 220.5 R	TPGM110302R						●			0.008	0.250	0.125	0.118
		TPGM 220.5 L	TPGM110302L						●			0.008	0.250	0.125	0.118
		TPGM 220.5 L-2	TPGM110302L-2							●		0.008	0.250	0.125	0.118
		TPGM 221 R	TPGM110304R						●			0.016	0.250	0.125	0.118
		TPGM 221 L	TPGM110304L						●		●	0.016	0.250	0.125	0.118
		TPGM 221 L-2	TPGM110304L-2							●		0.016	0.250	0.125	0.118
		TPGM 320.5 L	TPGM160302L						●			0.008	0.375	0.125	0.157
		TPGM 321 R	TPGM160304R						●			0.016	0.375	0.125	0.157
		TPGM 321 L	TPGM160304L						●		●	0.016	0.375	0.125	0.157
		TPGM 321 L-2	TPGM160304L-2							●		0.016	0.375	0.125	0.157



● : Line up

Mounting hole specification



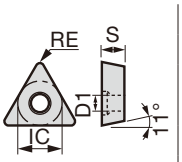
D1 (in)	0701**	0802**	0902**	1102**	1103**	1303**	1603**	16T3**
TP*T(W)	-	0.091	0.098	0.110	0.134	0.134	-	0.173
TPGM(A)	0.106	-	0.126	0.118	0.118	-	0.157	-
TPGH	-	0.091	0.118	0.134	0.134	-	0.177	-

● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

TP

Triangular with hole Positive 11°

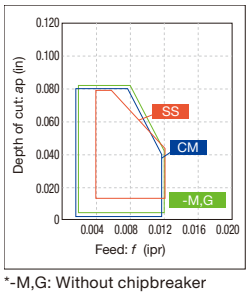
		T9215	T9225	T6215	T5115	AH6225	AH6235	AH725	AH120	GH730	GH110	GT9530	NS9530	TH10
P	Steel	●ɔ	ɔ✣	ɔ		ɔ✣	✣	ɔ	●ɔ	ɔ	●	●ɔ		●
M	Stainless	●ɔ		●		●ɔ	✣	ɔ	●ɔ	ɔ	●			●
K	Cast iron	●ɔ			ɔ			ɔ	●ɔ	ɔ	●	●ɔ	●ɔ	●
N	Non-ferrous													●
S	Superalloy							●	●ɔ		●			
H	Hard material													



Application	Chipbreaker	Designation Inch	Designation Metric	RE	IC	S	D1
Finishing to medium cutting	-	TPMW 21.51	TPMW110204	0.016	0.250	0.094	0.109
		TPMW 21.52	TPMW110208	0.031	0.250	0.094	0.109
		TPMW 2.521	TPMW130304	0.016	0.313	0.125	0.134
		TPMW 2.522	TPMW130308	0.031	0.313	0.125	0.134
		TPMW 32.51	TPMW16T304	0.016	0.375	0.156	0.173
		TPMW 32.52	TPMW16T308	0.031	0.375	0.156	0.173
	-	TPGA 731	TPGA090204	0.016	0.219	0.094	0.125
	(Tungaloy standard hole specification) ISO non-compliant	TPGA 21.50.5	TPGA110202	0.008	0.250	0.094	0.118
		TPGA 21.51	TPGA110204	0.016	0.250	0.094	0.118
		TPGA 220.5	TPGA110302	0.008	0.250	0.125	0.118
		TPGA 221	TPGA110304	0.016	0.250	0.125	0.118
		TPGA 321	TPGA160304	0.016	0.375	0.125	0.157
		TPGA 322	TPGA160308	0.031	0.375	0.125	0.157
	-	TPGW 730.5	TPGW090202	0.008	0.219	0.094	0.098
		TPGW 731	TPGW090204	0.016	0.219	0.094	0.098
		TPGW 21.50.5	TPGW110202	0.008	0.250	0.094	0.109
		TPGW 21.51	TPGW110204	0.016	0.250	0.094	0.109
		TPGW 221	TPGW110304	0.016	0.250	0.125	0.134
		TPGW 2.521	TPGW130304	0.016	0.313	0.125	0.134
		TPGW 32.51	TPGW16T304	0.016	0.375	0.156	0.173
		TPGW 32.52	TPGW16T308	0.031	0.375	0.156	0.173
Medium cutting	PM	TPMT 731 PM	TPMT090204-PM	0.016	0.219	0.094	0.098
		TPMT 732 PM	TPMT090208-PM	0.031	0.219	0.094	0.098
		TPMT 21.51 PM	TPMT110204-PM	0.016	0.250	0.094	0.109
		TPMT 21.52 PM	TPMT110208-PM	0.031	0.250	0.094	0.109
		TPMT 221 PM	TPMT110304-PM	0.016	0.250	0.125	0.134
		TPMT 222 PM	TPMT110308-PM	0.031	0.250	0.125	0.134
		TPMT 2.521 PM	TPMT130304-PM	0.016	0.313	0.125	0.134
		TPMT 2.522 PM	TPMT130308-PM	0.031	0.313	0.125	0.134
		TPMT 32.51 PM	TPMT16T304-PM	0.016	0.375	0.156	0.173
		TPMT 32.52 PM	TPMT16T308-PM	0.031	0.375	0.156	0.173
		TPMT 32.53 PM	TPMT16T312-PM	0.047	0.375	0.156	0.173
	24	TPMT 731-24	TPMT090204-24	0.016	0.219	0.094	0.098
		TPMT 21.51-24	TPMT110204-24	0.016	0.250	0.094	0.109
		TPMT 21.52-24	TPMT110208-24	0.031	0.250	0.094	0.109
		TPMT 2.521-24	TPMT130304-24	0.016	0.313	0.125	0.134
		TPMT 2.522-24	TPMT130308-24	0.031	0.313	0.125	0.134
		TPMT 32.51-24	TPMT16T304-24	0.016	0.375	0.156	0.173
		TPMT 32.52-24	TPMT16T308-24	0.031	0.375	0.156	0.173

● : Line up

Chip control range



*-M,G: Without chipbreaker

Reference pages: Internal toolholder → D057 -

Insert POSITIVE TYPE

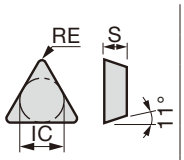
● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

TP



Triangular without hole Positive 11°

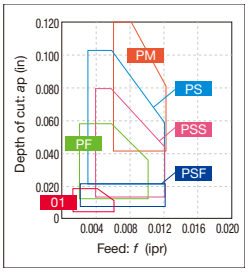
P	Steel	●ɔ	ɔ✠		●ɔ	●	●		●ɔ	ɔ			●	ɔ							
M	Stainless	●ɔ			●ɔ	●	●						●	ɔ							
K	Cast iron	●ɔ		ɔ	●ɔ	●	●		●ɔ	ɔ			●								
N	Non-ferrous												●								
S	Superalloy				●ɔ	●	●														
H	Hard material																				

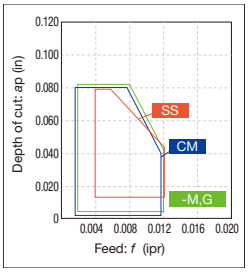


Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated T5115	Coated T3130	Coated AH120	Coated GH110	Cermet NS9530	Cermet NS740	Uncoated TH10	Uncoated UX30	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	PS	TPMR 221 PS	TPMR110304-PS		●									0.016	0.250	0.125	-
		TPMR 222 PS	TPMR110308-PS		●									0.031	0.250	0.125	-
		TPMR 321 PS	TPMR160304-PS		●									0.016	0.375	0.125	-
		TPMR 322 PS	TPMR160308-PS		●									0.031	0.375	0.125	-
	CM	TPMR 221 CM	TPMR110304-CM			●								0.016	0.250	0.125	-
		TPMR 222 CM	TPMR110308-CM			●								0.031	0.250	0.125	-
		TPMR 321 CM	TPMR160304-CM			●								0.016	0.375	0.125	-
		TPMR 322 CM	TPMR160308-CM			●								0.031	0.375	0.125	-
		TPMR 323 CM	TPMR160312-CM			●								0.047	0.375	0.125	-
	23	TPMR 221-23	TPMR110304-23	●	●					●				0.016	0.250	0.125	-
		TPMR 222-23	TPMR110308-23		●					●		●		0.031	0.250	0.125	-
		TPMR 321-23	TPMR160304-23	●	●					●		●		0.016	0.375	0.125	-
		TPMR 322-23	TPMR160308-23		●					●				0.031	0.375	0.125	-
	-	TPGR 220.5 L	TPGR110302L							●				0.008	0.250	0.125	-
		TPGR 221 L	TPGR110304L							●				0.016	0.250	0.125	-
		TPGR 321 R	TPGR160304R							●				0.016	0.375	0.125	-
		TPGR 321 L	TPGR160304L							●				0.016	0.375	0.125	-
		TPGR 322 L	TPGR160308L							●				0.031	0.375	0.125	-
	-	TPMN 221	TPMN110304			●					●	●		0.016	0.250	0.125	-
		TPMN 222	TPMN110308			●						●	●	0.031	0.250	0.125	-
		TPMN 321	TPMN160304			●	●	●			●	●	●	0.016	0.375	0.125	-
		TPMN 322	TPMN160308			●	●	●			●	●	●	0.031	0.375	0.125	-
		TPMN 323	TPMN160312			●	●						●	0.047	0.375	0.125	-
		TPMN 431	TPMN220404				●				●	●	●	0.016	0.500	0.187	
		TPMN 432	TPMN220408				●	●			●	●	●	0.031	0.500	0.187	-
		TPMN 433	TPMN220412				●				●	●	●	0.047	0.500	0.187	-

● : Line up

Chip control range





*-M,G: Without chipbreaker

Reference pages: Internal toolholder → D058

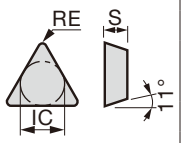
● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

TP

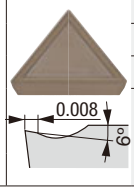


Triangular without hole Positive 11°

P	Steel	●ⓒ ⓒ✠ ⓒ ● ● ●ⓒ ⓒ ● ⓒ
M	Stainless	●ⓒ ⓒ ● ● ● ⓒ
K	Cast iron	●ⓒ ⓒ ● ● ●ⓒ ⓒ ●
N	Non-ferrous	●
S	Superalloy	ⓒ ● ● ●
H	Hard material	●ⓒ ●ⓒ ●ⓒ



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated T3130	Coated AH725	Coated GH110	Cermet NS9530	Cermet NS740	Uncoated TH10	Uncoated UX30	Ceramic LX10	Ceramic LX11	Ceramic LX21	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	-	TPGN 220.5	TPGN110302								●					0.008	0.250	0.125	-
		TPGN 221	TPGN110304					●		●	●		●	▲	●	0.016	0.250	0.125	-
		TPGN 222	TPGN110308							●	●	●	●	▲		0.031	0.250	0.125	-
		TPGN 320.5	TPGN160302								●					0.008	0.375	0.125	-
		TPGN 321	TPGN160304			●		●	●	●	●		●	▲		0.016	0.375	0.125	-
		TPGN 322	TPGN160308			●		●	●	●	●	●	●	▲		0.031	0.375	0.125	-
		TPGN 323	TPGN160312							●	●	●	●	▲		0.047	0.375	0.125	-
		TPGN 431	TPGN220404							●	●					0.016	0.500	0.187	-
		TPGN 432	TPGN220408			●				●	●	●				0.031	0.500	0.187	-
		TPGN 433	TPGN220412			●				●						0.047	0.500	0.187	-
Medium cutting	24	TPMR 221-24	TPMR110304-24		●				●							0.016	0.250	0.125	-
		TPMR 222-24	TPMR110308-24		●				●							0.031	0.250	0.125	-
		TPMR 321-24	TPMR160304-24	●	●		●		●							0.016	0.375	0.125	-
		TPMR 322-24	TPMR160308-24	●	●		●		●							0.031	0.375	0.125	-



● : Line up
▲ : To be discontinued

Reference pages: Internal toolholder → D058

Insert POSITIVE TYPE

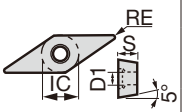
● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

VB

Rhombic, 35°
with hole
Positive 5°



		Coated										Coated cermet		Cermet	Uncoated
		T9215	T9225	T6215	AH8015	AH6225	AH725	SH7025	SH725	SH730	J740	GT9530	J9530	NS9530	TH10
P	Steel	●ɔ	ɔ✠	ɔ		ɔ✠	ɔ	●ɔ	●ɔ	●ɔ	●ɔ	●ɔ	●ɔ	●ɔ	●
M	Stainless	●ɔ		●	ɔ	●ɔ	ɔ	●ɔ	●ɔ	●ɔ	●ɔ				●
K	Cast iron	●ɔ					ɔ					●ɔ	●ɔ	●ɔ	●
N	Non-ferrous														●
S	Superalloy				ɔ		●			●ɔ					
H	Hard material														



Application	Chipbreaker	Designation Inch	Designation Metric	RE	IC	S	D1
Precision finishing (sharp edge)	JP	VBGT 22V FN-JP	VBGT110300FN-JP	<0.002	0.250	0.125	0.109
		VBGT 220 FN-JP	VBGT110301FN-JP	<0.004	0.250	0.125	0.109
		VBGT 220.5 FN-JP	VBGT110302FN-JP	<0.008	0.250	0.125	0.109
Finishing (sharp edge)	JS	VBGT 22V FN-JS	VBGT110300FN-JS	<0.002	0.250	0.125	0.109
		VBGT 220 FN-JS	VBGT110301FN-JS	<0.004	0.250	0.125	0.109
		VBGT 220.5 FN-JS	VBGT110302FN-JS	<0.008	0.250	0.125	0.109
		VBGT 221 FN-JS	VBGT110304FN-JS	<0.016	0.250	0.125	0.109
Finishing	JS	VBGT 220 N-JS	VBGT110301N-JS	0.004	0.250	0.125	0.109
		VBGT 220.5 N-JS	VBGT110302N-JS	0.008	0.250	0.125	0.109
		VBGT 221 N-JS	VBGT110304N-JS	0.016	0.250	0.125	0.109
	PSF	VBMT 220.5 PSF	VBMT110302-PSF	0.008	0.250	0.125	0.109
		VBMT 221 PSF	VBMT110304-PSF	0.016	0.250	0.125	0.109
		VBMT 330.5 PSF	VBMT160402-PSF	0.008	0.375	0.187	0.173
		VBMT 331 PSF	VBMT160404-PSF	0.016	0.375	0.187	0.173
	PF	VBMT 220.5 PF	VBMT110302-PF	0.008	0.250	0.125	0.109
		VBMT 221 PF	VBMT110304-PF	0.016	0.250	0.125	0.109
		VBMT 222 PF	VBMT110308-PF	0.031	0.250	0.125	0.109
		VBMT 331 PF	VBMT160404-PF	0.016	0.375	0.187	0.173
		VBMT 332 PF	VBMT160408-PF	0.031	0.375	0.187	0.173
	TSF	VBMT 220.5 TSF	VBMT110302-TSF	0.008	0.250	0.125	0.109
		VBMT 221 TSF	VBMT110304-TSF	0.016	0.250	0.125	0.109
		VBMT 222 TSF	VBMT110308-TSF	0.031	0.250	0.125	0.109
		VBMT 330.5 TSF	VBMT160402-TSF	0.008	0.375	0.187	0.173
		VBMT 331 TSF	VBMT160404-TSF	0.016	0.375	0.187	0.173
		VBMT 332 TSF	VBMT160408-TSF	0.031	0.375	0.187	0.173
For external turning on Swiss lathes (sharp edge)	J10	VBGT 22V FR-J10	VBGT110300FR-J10	0.0012	0.250	0.125	0.109
		VBGT 22V FL-J10	VBGT110300FL-J10	0.0012	0.250	0.125	0.109
		VBGT 220 FR-J10	VBGT110301FR-J10	0.004	0.250	0.125	0.109
		VBGT 220 FL-J10	VBGT110301FL-J10	0.004	0.250	0.125	0.109
		VBGT 220.5 FR-J10	VBGT110302FR-J10	0.008	0.250	0.125	0.109
		VBGT 220.5 FL-J10	VBGT110302FL-J10	0.008	0.250	0.125	0.109
		VBGT 221 FR-J10	VBGT110304FR-J10	0.016	0.250	0.125	0.109
		VBGT 221 FL-J10	VBGT110304FL-J10	0.016	0.250	0.125	0.109
Finishing	J10	VBGT 220.5 R-J10	VBGT110302R-J10	0.008	0.250	0.125	0.109
		VBGT 220.5 L-J10	VBGT110302L-J10	0.008	0.250	0.125	0.109
		VBGT 221 R-J10	VBGT110304R-J10	0.016	0.250	0.125	0.109
		VBGT 221 L-J10	VBGT110304L-J10	0.016	0.250	0.125	0.109

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

● : Line up

Reference pages: Internal toolholder → D068 - J-Series toolholder → G058 -
TungCap → K027

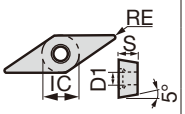
● : Continuous cutting
ᑕ : Light interrupted cutting
✠ : Heavy interrupted cutting

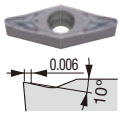
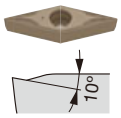
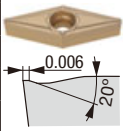
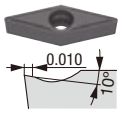
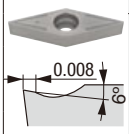
VB

Rhombic, 35° with hole Positive 5°



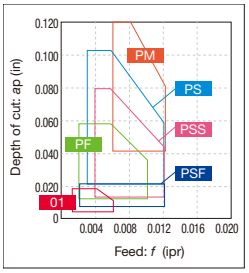
P	Steel	●ᑕ ᑕ✠ ᑕ ✠ ✠ ✠ ✠ ✠ ᑕ ●ᑕ ●ᑕ ●ᑕ ●ᑕ ●ᑕ
M	Stainless	●ᑕ ● ᑕ ● ᑕ ●ᑕ ✠ ᑕ ●ᑕ ●ᑕ ●ᑕ
K	Cast iron	●ᑕ ● ●ᑕ ᑕ ●ᑕ ●ᑕ ●ᑕ ●ᑕ
N	Non-ferrous	
S	Superalloy	● ᑕ ● ●ᑕ
H	Hard material	

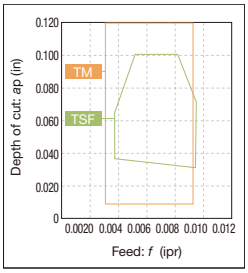


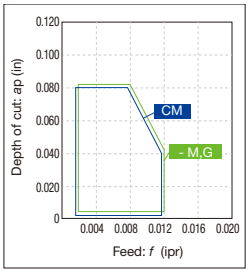
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T6215	T505	T515	T5115	AH8005	AH8015	AH6225	AH6235	AH725	AH120	Coated cermet GT9530	AT9530	Cermet NS9530	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	**PSS**	**VBMT 221 PSS**	**VBMT110304-PSS**	●	●	●						●	●	●		●		●	0.016	0.250	0.125	0.109
		VBMT 222 PSS	VBMT110308-PSS	●	●	●						●	●	●		●		●	0.031	0.250	0.125	0.109
		VBMT 331 PSS	**VBMT160404-PSS**	●	●	●						●	●	●		●		●	0.016	0.375	0.187	0.173
		VBMT 332 PSS	VBMT160408-PSS	●	●	●						●	●	●		●		●	0.031	0.375	0.187	0.173
		VBMT 333 PSS	VBMT160412-PSS	●	●									●					0.047	0.375	0.187	0.173
	PS	**VBMT 220.5 PS**	**VBMT110302-PS**	●	●	●				●	●	●	●	●		●	●	●	0.008	0.250	0.125	0.109
		VBMT 221 PS	VBMT110304-PS	●	●	●				●	●	●	●	●	●	●	●	●	0.016	0.250	0.125	0.109
		VBMT 222 PS	VBMT110308-PS	●	●	●				●	●	●	●	●	●	●	●	●	0.031	0.250	0.125	0.109
		VBMT 330.5 PS	**VBMT160402-PS**	●	●	●				●	●	●	●	●		●	●	●	0.008	0.375	0.187	0.173
		VBMT 331 PS	VBMT160404-PS	●	●	●				●	●	●	●	●	●	●	●	●	0.016	0.375	0.187	0.173
		VBMT 332 PS	VBMT160408-PS	●	●	●				●	●	●	●	●	●	●	●	●	0.031	0.375	0.187	0.173
	TM	**VBMT 220.5 TM**	**VBMT110302-TM**	●	●	●					●	●						●	0.008	0.250	0.125	0.109
		VBMT 221 TM	VBMT110304-TM	●	●	●					●	●						●	0.016	0.250	0.125	0.109
		VBMT 222 TM	VBMT110308-TM	●	●	●					●	●						●	0.031	0.250	0.125	0.109
		VBMT 330.5 TM	**VBMT160402-TM**	●	●	●					●	●						●	0.008	0.375	0.187	0.173
		VBMT 331 TM	VBMT160404-TM	●	●	●					●	●						●	0.016	0.375	0.187	0.173
		VBMT 332 TM	VBMT160408-TM	●	●	●					●	●						●	0.031	0.375	0.187	0.173
	CM	**VBMT 221 CM**	**VBMT110304-CM**						●										0.016	0.250	0.125	0.109
		VBMT 222 CM	VBMT110308-CM						●										0.031	0.250	0.125	0.109
		VBMT 331 CM	**VBMT160404-CM**				●	●	●										0.016	0.375	0.187	0.173
		VBMT 332 CM	VBMT160408-CM				●	●	●										0.031	0.375	0.187	0.173
		VBMT 333 CM	VBMT160412-CM				●	●	●										0.047	0.375	0.187	0.173
Medium cutting	**24**	**VBMT 331-24**	**VBMT160404-24**	●	●													●	0.016	0.375	0.187	0.173
		VBMT 332-24	VBMT160408-24	●	●													●	0.031	0.375	0.187	0.173

●: Line up

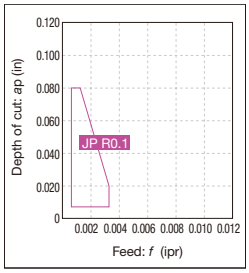
Chip control range

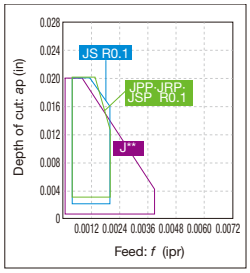






*-M,G: Without chipbreaker





*Chip control range with typical R0.1

Reference pages: Internal toolholder → D068 - J-Series toolholder → G058 -
TungCap → K027

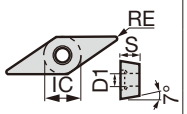
Insert POSITIVE TYPE

● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

VC

Rhombic, 35° with hole Positive 7°

P	Steel	●ɔ✣ɔ
M	Stainless	●ɔ ●
K	Cast iron	●ɔ ● ●ɔ ɔ
N	Non-ferrous	
S	Superalloy	● ɔ ɔ ● ●ɔ
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	T6215	T505	T515	T5115	AH8005	AH8015	AH6225	AH6235	AH905	AH725	AH120	Coated cermet GT9530	AT9530	Cermet NS9530	Dimension (in) RE	IC	S	D1
Finishing	PSF	VCMT 630.5 PSF	VCMT080202-PSF												●		●		●	0.008	0.187	0.094	0.091
		VCMT 631 PSF	VCMT080204-PSF	●	●										●		●		●	0.016	0.187	0.094	0.091
		VCMT 220.5 PSF	VCMT110302-PSF												●					0.008	0.250	0.125	0.109
		VCMT 221 PSF	VCMT110304-PSF	●	●										●					0.016	0.250	0.125	0.109
		VCMT 331 PSF	VCMT160404-PSF	●	●					●	●			●	●		●		●	0.016	0.375	0.187	0.173
		VCMT 332 PSF	VCMT160408-PSF	●	●					●	●			●	●		●		●	0.031	0.375	0.187	0.173
	PF	VCMT 630.5 PF	VCMT080202-PF														●		●	0.008	0.187	0.094	0.091
		VCMT 631 PF	VCMT080204-PF														●		●	0.016	0.187	0.094	0.091
		VCMT 331 PF	VCMT160404-PF														●		●	0.016	0.375	0.187	0.173
		VCMT 332 PF	VCMT160408-PF														●		●	0.031	0.375	0.187	0.173
	TSF	VCMT 220.5 TSF	VCMT110302-TSF	●	●	●					●	●							●	0.008	0.250	0.125	0.109
		VCMT 221 TSF	VCMT110304-TSF	●	●	●					●	●							●	0.016	0.250	0.125	0.109
		VCMT 222 TSF	VCMT110308-TSF	●	●	●					●	●							●	0.031	0.250	0.125	0.109
		VCMT 330.5 TSF	VCMT160402-TSF	●	●	●					●	●							●	0.008	0.375	0.187	0.173
		VCMT 331 TSF	VCMT160404-TSF	●	●	●					●	●							●	0.016	0.375	0.187	0.173
		VCMT 332 TSF	VCMT160408-TSF	●	●	●					●	●							●	0.031	0.375	0.187	0.173
Finishing to medium cutting	PSS	VCMT 221 PSS	VCMT110304-PSS	●	●	●						●	●		●		●		●	0.016	0.250	0.125	0.109
		VCMT 222 PSS	VCMT110308-PSS	●	●	●						●	●		●		●		●	0.031	0.250	0.125	0.109
		VCMT 331 PSS	VCMT160404-PSS	●	●	●				●	●	●	●	●	●		●		●	0.016	0.375	0.187	0.173
		VCMT 332 PSS	VCMT160408-PSS	●	●	●				●	●	●	●	●	●		●		●	0.031	0.375	0.187	0.173
	PS	VCMT 220.5 PS	VCMT110302-PS	●	●	●				●	●	●	●		●		●	●	●	0.008	0.250	0.125	0.109
		VCMT 221 PS	VCMT110304-PS	●	●	●				●	●	●	●		●		●	●	●	0.016	0.250	0.125	0.109
		VCMT 222 PS	VCMT110308-PS	●	●	●				●	●	●	●		●		●	●	●	0.031	0.250	0.125	0.109
		VCMT 330.5 PS	VCMT160402-PS	●	●	●					●	●							●	0.008	0.375	0.187	0.173
		VCMT 331 PS	VCMT160404-PS	●	●	●				●	●	●	●	●	●	●	●	●	●	0.016	0.375	0.187	0.173
		VCMT 332 PS	VCMT160408-PS	●	●	●				●	●	●	●	●	●	●	●	●	●	0.031	0.375	0.187	0.173
	TM	VCMT 220.5 TM	VCMT110302-TM	●	●	●					●	●							●	0.008	0.250	0.125	0.109
		VCMT 221 TM	VCMT110304-TM	●	●	●					●	●							●	0.016	0.250	0.125	0.109
		VCMT 222 TM	VCMT110308-TM	●	●	●					●	●							●	0.031	0.250	0.125	0.109
		VCMT 330.5 TM	VCMT160402-TM	●	●	●					●	●							●	0.008	0.375	0.187	0.173
		VCMT 331 TM	VCMT160404-TM	●	●	●					●	●							●	0.016	0.375	0.187	0.173
		VCMT 332 TM	VCMT160408-TM	●	●	●					●	●							●	0.031	0.375	0.187	0.173
	CM	VCMT 631 CM	VCMT080204-CM						●											0.016	0.187	0.094	0.091
		VCMT 331 CM	VCMT160404-CM				●	●	●											0.016	0.375	0.187	0.173
		VCMT 332 CM	VCMT160408-CM				●	●	●											0.031	0.375	0.187	0.173
		VCMT 333 CM	VCMT160412-CM						●											0.047	0.375	0.187	0.173

● : Line up

Reference pages: External toolholder → C113 - Internal toolholder → D072 -
TungCap → K015 -

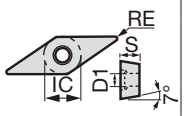
● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

VC

Rhombic, 35°
with hole
Positive 7°



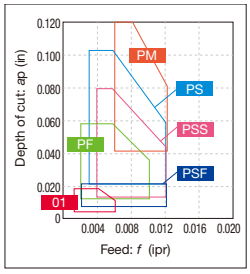
P	Steel	●ɔ✠
M	Stainless	●ɔ ● ɔ
K	Cast iron	●ɔ ●ɔ ●
N	Non-ferrous	●
S	Superalloy	● ɔ ɔ ●
H	Hard material	

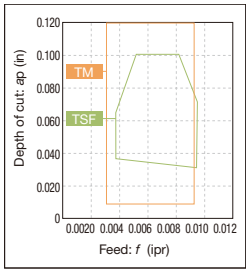


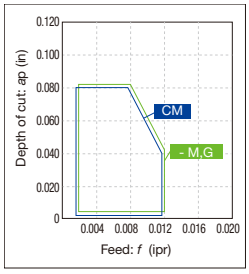
Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated AH8005	Coated AH8015	Coated AH905	Cermet NS9530	Uncoated KS05F	Dimension (in) RE	IC	S	D1
Finishing to medium cutting for non-ferrous alloys	**AL**	**VCGT 331 AL**	**VCGT160404-AL**							●	0.016	0.375	0.187	0.173
		VCGT 332 AL	VCGT160408-AL							●	0.031	0.375	0.187	0.173
		VCGT 333 AL	VCGT160412-AL							●	0.047	0.375	0.187	0.173
		VCGT 43.55 AL	**VCGT220520-AL**							●	0.078	0.500	0.219	0.217
		VCGT 43.57.5 AL	VCGT220530-AL							●	0.118	0.500	0.219	0.217
Finishing to medium cutting	**All-round**	**VCMT 331**	**VCMT160404**			●	●	●			0.016	0.375	0.187	0.173
		VCMT 332	VCMT160408			●	●	●			0.031	0.375	0.187	0.173
		VCMT 333	VCMT160412			●	●	●			0.047	0.375	0.187	0.173
Medium cutting	**24**	**VCMT 331-24**	**VCMT160404-24**	●	●				●		0.016	0.375	0.187	0.173
		VCMT 332-24	VCMT160408-24	●	●				●		0.031	0.375	0.187	0.173

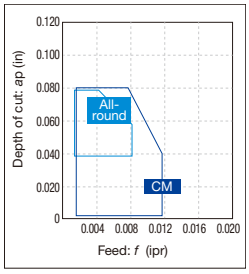
●: Line up

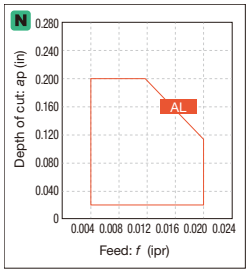
Chip control range











*-M,G: Without chipbreaker

Reference pages: External toolholder → C113 - Internal toolholder → D072 -
TungCap → K015 -

Insert POSITIVE TYPE

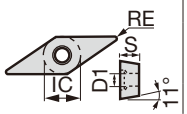
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

VP

Rhombic, 35° with hole Positive 11°



P	Steel	●◐ ●◐
M	Stainless	●◐ ●◐
K	Cast iron	
N	Non-ferrous	
S	Superalloy	●◐
H	Hard material	

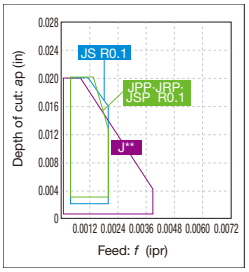


Application	Chipbreaker	Designation Inch	Designation Metric	Coated SH725	Coated SH730	Dimension (in) RE	IC	S	D1
Finishing (sharp edge)	JPP	VPET 63X MFR-JPP	VPET0802008MFR-JPP	●	●	<0.0031*	0.187	0.094	0.091
		VPET 63X MFL-JPP	VPET0802008MFL-JPP	●		<0.0031*	0.187	0.094	0.091
		VPET 630 MFR-JPP	VPET080201MFR-JPP	●	●	<0.004*	0.187	0.094	0.091
		VPET 630 MFL-JPP	VPET080201MFL-JPP	●	●	<0.004*	0.187	0.094	0.091
		VPET 630.4 MFR-JPP	VPET0802018MFR-JPP	●		<0.007*	0.187	0.094	0.091
		VPET 630.4 MFL-JPP	VPET0802018MFL-JPP	●		<0.007*	0.187	0.094	0.091
		VPET 630.5 MFR-JPP	VPET080202MFR-JPP	●	●	<0.008*	0.187	0.094	0.091
		VPET 630.5 MFL-JPP	VPET080202MFL-JPP	●	●	<0.008*	0.187	0.094	0.091
		VPET 22X MFR-JPP	VPET1103008MFR-JPP	●	●	<0.0031*	0.250	0.125	0.109
		VPET 220 MFR-JPP	VPET110301MFR-JPP	●	●	<0.004*	0.250	0.125	0.109
		VPET 220 MFL-JPP	VPET110301MFL-JPP	●		<0.004*	0.250	0.125	0.109
		VPET 220.4 MFR-JPP	VPET1103018MFR-JPP	●	●	<0.007*	0.250	0.125	0.109
		VPET 220.5 MFR-JPP	VPET110302MFR-JPP	●	●	<0.008*	0.250	0.125	0.109
		VPET 220.5 MFL-JPP	VPET110302MFL-JPP	●	●	<0.008*	0.250	0.125	0.109
	JRP	VPET 63X MFR-JRP	VPET0802008MFR-JRP	●	●	<0.0031*	0.187	0.094	0.091
		VPET 630 MFR-JRP	VPET080201MFR-JRP	●	●	<0.004*	0.187	0.094	0.091
		VPET 630 MFL-JRP	VPET080201MFL-JRP	●	●	<0.004*	0.187	0.094	0.091
		VPET 630.4 MFR-JRP	VPET0802018MFR-JRP	●		<0.007*	0.187	0.094	0.091
		VPET 630.4 MFL-JRP	VPET0802018MFL-JRP	●		<0.007*	0.187	0.094	0.091
		VPET 630.5 MFR-JRP	VPET080202MFR-JRP	●	●	<0.008*	0.187	0.094	0.091
		VPET 630.5 MFL-JRP	VPET080202MFL-JRP	●	●	<0.008*	0.187	0.094	0.091
		VPET 22X MFR-JRP	VPET1103008MFR-JRP	●	●	<0.0031*	0.250	0.125	0.109
		VPET 22X MFL-JRP	VPET1103008MFL-JRP		●	<0.0031*	0.250	0.125	0.109
		VPET 220 MFR-JRP	VPET110301MFR-JRP	●	●	<0.004*	0.250	0.125	0.109
		VPET 220 MFL-JRP	VPET110301MFL-JRP	●	●	<0.004*	0.250	0.125	0.109
		VPET 220.4 MFR-JRP	VPET1103018MFR-JRP	●	●	<0.007*	0.250	0.125	0.109
		VPET 220.4 MFL-JRP	VPET1103018MFL-JRP	●		<0.007*	0.250	0.125	0.109
		VPET 220.5 MFR-JRP	VPET110302MFR-JRP	●	●	<0.008*	0.250	0.125	0.109
		VPET 220.5 MFL-JRP	VPET110302MFL-JRP	●	●	<0.008*	0.250	0.125	0.109
	JSP	VPET 63X MFN-JSP	VPET0802008MFN-JSP	●	●	<0.0031*	0.187	0.094	0.091
		VPET 630 MFN-JSP	VPET080201MFN-JSP	●	●	<0.004*	0.187	0.094	0.091
		VPET 630.4 MFN-JSP	VPET0802018MFN-JSP	●	●	<0.007*	0.187	0.094	0.091
		VPET 630.5 MFN-JSP	VPET080202MFN-JSP	●	●	<0.008*	0.187	0.094	0.091
		VPET 22X MFN-JSP	VPET1103008MFN-JSP	●	●	<0.0031*	0.250	0.125	0.109
		VPET 220 MFN-JSP	VPET110301MFN-JSP	●	●	<0.004*	0.250	0.125	0.109
		VPET 220.4 MFN-JSP	VPET1103018MFN-JSP	●	●	<0.007*	0.250	0.125	0.109
		VPET 220.5 MFN-JSP	VPET110302MFN-JSP	●	●	<0.008*	0.250	0.125	0.109

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

●: Line up

Chip control range



*Chip control range with typical R0.1

Reference pages: J-Series toolholder → G062 -

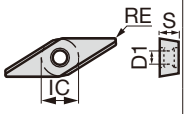
Insert POSITIVE TYPE / DOUBLE SIDED

VX



Rhombic, 35° with hole

P	Steel	●◐
M	Stainless	●◐
K	Cast iron	
N	Non-ferrous	
S	Superalloy	
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated SH725	RE	IC	S	D1
Finishing (sharp edge)	JRP	VXGU 73.50MFRE-JRP	VXGU09T201MFRE-JRP**	●	<0.004*	0.219	0.109	0.098
		VXGU 73.50MFLE-JRP	VXGU09T201MFLE-JRP**	●	<0.004*	0.219	0.109	0.098
		VXGU73.50.5MFRE-JRP	VXGU09T202MFRE-JRP**	●	<0.008*	0.219	0.109	0.098
		VXGU73.50.5MFLE-JRP	VXGU09T202MFLE-JRP**	●	<0.008*	0.219	0.109	0.098
Finishing to medium cutting (sharp edge)	JS	VXGU 73.50MFR-JS	VXGU09T201MFR-JS(1)	●	<0.004*	0.219	0.109	0.098
		VXGU 73.50MFL-JS	VXGU09T201MFL-JS(1)	●	<0.004*	0.219	0.109	0.098
		VXGU 73.50.5MFR-JS	VXGU09T202MFR-JS(1)	●	<0.008*	0.219	0.109	0.098
		VXGU 73.50.5MFL-JS	VXGU09T202MFL-JS(1)	●	<0.008*	0.219	0.109	0.098
		VXGU 73.51MFR-JS	VXGU09T204MFR-JS(1)	●	<0.016*	0.219	0.109	0.098
		VXGU 73.51MFL-JS	VXGU09T204MFL-JS(1)	●	<0.016*	0.219	0.109	0.098

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.
** For external turning applications
(1)Due to chipbreaker profile, max ap for face or ID turning is 0.039".

●: Line up

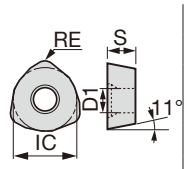
Insert POSITIVE TYPE

WP



Trigon, 80° with hole Positive 11°

P	Steel	●◐ ◐✠ ●◐ ◐✠ ◐✠ ●◐
M	Stainless	●◐ ●◐ ◐✠ ◐✠ ◐✠ ●◐
K	Cast iron	●◐ ●◐
N	Non-ferrous	
S	Superalloy	●◐
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	T9225	AH120	AH130	AH140	AH3135	T3130	RE	IC	S	D1
Heavy cutting	ML	-	WPMT090725ZPR-ML	●	●	●	●	●	●	●	0.098	0.591	0.276	0.217
		-	WPMT090725ZPL-ML	●	●	●					0.098	0.591	0.276	0.217

●: Line up

Reference pages: VXGU... : External toolholder → C119 -, J-Series toolholder → G064 -
WPMT...: External toolholder → C127

Insert POSITIVE TYPE

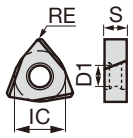
● : Continuous cutting
ɔ : Light interrupted cutting
✠ : Heavy interrupted cutting

WB



Trigon, 80°
with hole
Positive 5°

P	Steel	●	ɔ	ɔ	ɔ				ɔ						●	ɔ													
M	Stainless	●	ɔ	ɔ	ɔ										●	ɔ													
K	Cast iron	●							ɔ						●														
N	Non-ferrous														●														
S	Superalloy	●			ɔ																								
H	Hard material																												

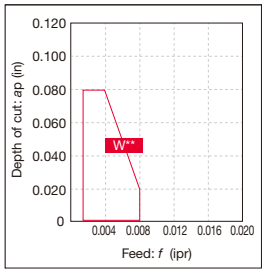


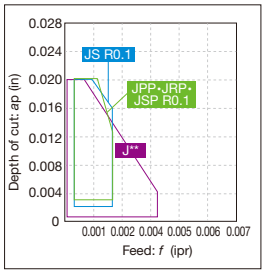
Application	Chipbreaker	Designation Inch	Designation Metric	Coated GH110	Coated SH7025	Coated SH725	Coated SH730	Cermet NS9530	Uncoated TH10	Uncoated UX30	Dimension (in) RE	IC	S	D1
Finishing (sharp edge)	JS	WBGT 520 FR-JS	WBGT030101FR-JS		●	●					<0.004*	0.156	0.063	0.091
		WBGT 520 FL-JS	WBGT030101FL-JS		●	●					<0.004*	0.156	0.063	0.091
		WBGT 520.5 FR-JS	WBGT030102FR-JS		●	●					<0.008*	0.156	0.063	0.091
		WBGT 520.5 FL-JS	WBGT030102FL-JS		●	●					<0.008*	0.156	0.063	0.091
		WBGT 521 FR-JS	WBGT030104FR-JS		●	●					<0.016*	0.156	0.063	0.091
		WBGT 521 FL-JS	WBGT030104FL-JS		●	●					<0.016*	0.156	0.063	0.091
Finishing	JS	WBGT 520 R-JS	WBGT030101R-JS				●				<0.004	0.156	0.063	0.091
		WBGT 520 L-JS	WBGT030101L-JS				●				<0.004	0.156	0.063	0.091
		WBGT 520.5 R-JS	WBGT030102R-JS				●				<0.008	0.156	0.063	0.091
		WBGT 520.5 L-JS	WBGT030102L-JS				●				<0.008	0.156	0.063	0.091
		WBGT 521 R-JS	WBGT030104R-JS				●				<0.016	0.156	0.063	0.091
		WBGT 521 L-JS	WBGT030104L-JS				●				<0.016	0.156	0.063	0.091
Finishing (sharp edge)	W08	WBGT 52V FR-W08	WBGT030100FL-W08		●	●					0.0012	0.156	0.063	0.091
		WBGT 52V FL-W08	WBGT030100FR-W08			●					0.0012	0.156	0.063	0.091
		WBGT 520 FR-W08	WBGT030101FL-W08		●	●					0.004	0.156	0.063	0.091
		WBGT 520 FL-W08	WBGT030101FR-W08			●					0.004	0.156	0.063	0.091
		WBGT 520.5 FR-W08	WBGT030102FL-W08		●	●					0.008	0.156	0.063	0.091
		WBGT 520.5 FL-W08	WBGT030102FR-W08		●	●					0.008	0.156	0.063	0.091
		WBGT 521 FR-W08	WBGT030104FL-W08		●	●					0.016	0.156	0.063	0.091
		WBGT 521 FL-W08	WBGT030104FR-W08		●	●					0.016	0.156	0.063	0.091
Finishing	W08	WBGT 52V R-W08	WBGT030100R-W08				●				0.0012	0.156	0.063	0.091
		WBGT 52V L-W08	WBGT030100L-W08				●	●	●	●	0.0012	0.156	0.063	0.091
		WBGT 520 R-W08	WBGT030101R-W08				●				0.004	0.156	0.063	0.091
		WBGT 520 L-W08	WBGT030101L-W08				●		●		0.004	0.156	0.063	0.091
		WBGT 520.5 R-W08	WBGT030102R-W08				●				0.008	0.156	0.063	0.091
		WBGT 520.5 L-W08	WBGT030102L-W08	●			●	●	●	●	0.008	0.156	0.063	0.091
		WBGT 521 R-W08	WBGT030104R-W08				●				0.016	0.156	0.063	0.091
		WBGT 521 L-W08	WBGT030104L-W08	●			●	●	●	●	0.016	0.156	0.063	0.091
	W11	WBGT 520.5 L-W11	WBGT060102L-W11	●				●			0.008	0.156	0.063	0.091
		WBGT 521 L-W11	WBGT060104L-W11					●			0.016	0.156	0.063	0.091
		WBGT 630.5 L-W11	WBGT080202L-W11					●			0.008	0.187	0.094	0.091
		WBGT 631 L-W11	WBGT080204L-W11					●			0.016	0.187	0.094	0.091

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

●: Line up

Chip control range





*Chip control range with typical R0.1

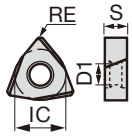
Reference pages: Internal toolholder → D080

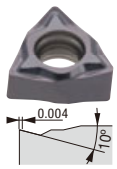
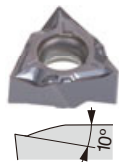
WX



Trigon, 80° with hole

P	Steel	ɔ			●ɔ			●ɔ			●ɔ												
M	Stainless	ɔ	ɔ		●ɔ																		
K	Cast iron	ɔ						●ɔ			●ɔ			●									
N	Non-ferrous													●									
S	Superalloy	●	ɔ											●									
H	Hard material																						

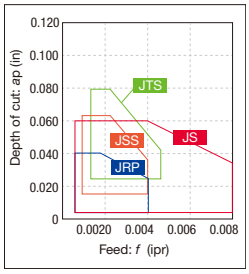


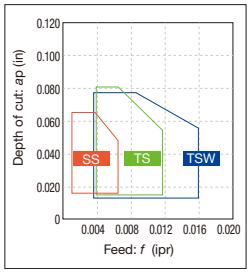
Application	Chipbreaker	Designation Inch	Designation Metric	Coated AH725	Coated AH8015	Coated SH725	Coated cermet GT9530	Cermet NS9530	Uncoated KS05F	Dimension (in) RE	IC	S	D1
Finishing	JSS	WXGU 220MFR JSS	WXGU040301MFR-JSS			●				<0.004*	0.250	0.125	0.106
		WXGU 220MFL JSS	WXGU040301MFL-JSS			●				<0.004*	0.250	0.125	0.106
		WXGU 220.5MFR JSS	WXGU040302MFR-JSS			●				<0.008*	0.250	0.125	0.106
		WXGU 220.5MFL JSS	WXGU040302MFL-JSS			●				<0.008*	0.250	0.125	0.106
	JSS	WXGU 220MR JSS	WXGU040301MR-JSS	●						<0.004*	0.250	0.125	0.106
		WXGU 220ML JSS	WXGU040301ML-JSS	●						<0.004*	0.250	0.125	0.106
		WXGU 220.5MR JSS	WXGU040302MR-JSS	●						<0.008*	0.250	0.125	0.106
		WXGU 220.5ML JSS	WXGU040302ML-JSS	●						<0.008*	0.250	0.125	0.106
Finishing to medium cutting	SS	WXGU 220.5R SS	WXGU040302R-SS	●	●		●	●	●	0.008	0.250	0.125	0.106
		WXGU 220.5L SS	WXGU040302L-SS	●	●		●	●	●	0.008	0.250	0.125	0.106
		WXGU 221R SS	WXGU040304R-SS	●	●		●	●	●	0.016	0.250	0.125	0.106
		WXGU 221L SS	WXGU040304L-SS	●	●		●	●	●	0.016	0.250	0.125	0.106
Finishing	TSW	WXGU 221R TSW	WXGU040304R-TSW	●	●		●	●		0.016	0.250	0.125	0.106
		WXGU 221L TSW	WXGU040304L-TSW	●	●		●	●		0.016	0.250	0.125	0.106
		WXGU 222R TSW	WXGU040308R-TSW	●	●		●	●		0.031	0.250	0.125	0.106
		WXGU 222L TSW	WXGU040308L-TSW	●	●		●	●		0.031	0.250	0.125	0.106
Finishing to medium cutting (sharp edge)	JS	WXGU 220MFR JS	WXGU040301MFR-JS(1)			●				<0.004*	0.250	0.125	0.106
		WXGU 220MFL JS	WXGU040301MFL-JS(1)			●				<0.004*	0.250	0.125	0.106
		WXGU 220.5MFR JS	WXGU040302MFR-JS(1)			●				<0.008*	0.250	0.125	0.106
		WXGU 220.5MFL JS	WXGU040302MFL-JS(1)			●				<0.008*	0.250	0.125	0.106
		WXGU 221MFR JS	WXGU040304MFR-JS(1)			●				<0.016*	0.250	0.125	0.106
		WXGU 221MFL JS	WXGU040304MFL-JS(1)			●				<0.016*	0.250	0.125	0.106

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.
(1) Due to chipbreaker profile, max ap for face or ID turning is 0.039".

●: Line up

Chip control range





Reference pages: External toolholder → C128 - Internal toolholder → D081 -
J-Series toolholder → G069 - TungCap → K025

Insert POSITIVE TYPE / DOUBLE SIDED

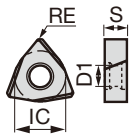
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

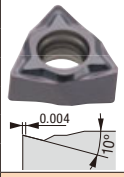
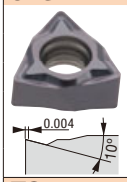
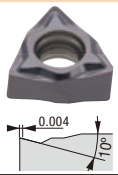
WX



Trigon, 80° with hole

		AH725	AH8015	SH725	GT9530	NS9530	KS05F
P	Steel	◐		●◐	●◐	●◐	
M	Stainless	◐	◐	●◐			
K	Cast iron	◐			●◐	●◐	●
N	Non-ferrous						●
S	Superalloy	●	◐				●
H	Hard material						

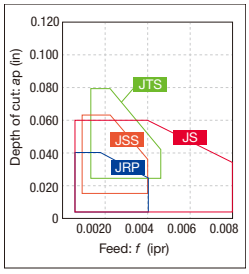


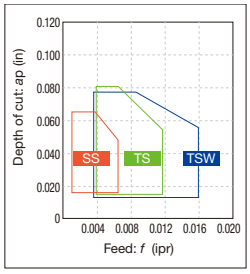
Application	Chipbreaker	Designation Inch	Designation Metric	Coated AH725	Coated AH8015	Coated SH725	Coated cermet GT9530	Cermet NS9530	Uncoated KS05F	Dimension (in) RE	IC	S	D1
Finishing to medium cutting (sharp edge)	JTS 	WXGU 220MFR JTS	WXGU040301MFR-JTS			●				<0.004*	0.250	0.125	0.106
		WXGU 220MFL JTS	WXGU040301MFL-JTS			●				<0.004*	0.250	0.125	0.106
		WXGU 220.5MFR JTS	WXGU040302MFR-JTS			●				<0.008*	0.250	0.125	0.106
		WXGU 220.5MFL JTS	WXGU040302MFL-JTS			●				<0.008*	0.250	0.125	0.106
Finishing to medium cutting	JTS 	WXGU 220MR JTS	WXGU040301MR-JTS	●						<0.004*	0.250	0.125	0.106
		WXGU 220ML JTS	WXGU040301ML-JTS	●						<0.004*	0.250	0.125	0.106
		WXGU 220.5MR JTS	WXGU040302MR-JTS	●						<0.008*	0.250	0.125	0.106
		WXGU 220.5ML JTS	WXGU040302ML-JTS	●						<0.008*	0.250	0.125	0.106
	TS 	WXGU 220.5R TS	WXGU040302R-TS	●	●		●	●	●	0.008	0.250	0.125	0.106
		WXGU 220.5L TS	WXGU040302L-TS	●	●		●	●	●	0.008	0.250	0.125	0.106
		WXGU 221R TS	WXGU040304R-TS	●	●		●	●	●	0.016	0.250	0.125	0.106
		WXGU 221L TS	WXGU040304L-TS	●	●		●	●	●	0.016	0.250	0.125	0.106
		WXGU 222R TS	WXGU040308R-TS	●	●		●	●	●	0.031	0.250	0.125	0.106
		WXGU 222L TS	WXGU040308L-TS	●	●		●	●	●	0.031	0.250	0.125	0.106

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

●: Line up

Chip control range





Reference pages: External toolholder → C128 - Internal toolholder → D081 -
J-Series toolholder → G069 - TungCap → K025

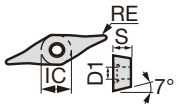
● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

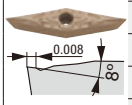
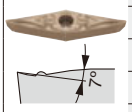
YW



Rhombic, 25° with hole Positive 7°

P	Steel	●ɔ ✣ ɔ ɔ✣ ●ɔ ●ɔ
M	Stainless	●ɔ ● ɔ ●ɔ
K	Cast iron	●ɔ ●ɔ ●ɔ
N	Non-ferrous	
S	Superalloy	ɔ
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated T9215	Coated T9225	Coated T6215	Coated AH8015	Coated AH6225	Coated cermet GT9530	Cermet NS9530	Dimension (in) RE	IC	S	D1
Finishing to medium cutting	ZF	-	YWMT11T202-ZF	●	●	●	●	●	●	●	0.008	0.184	0.109	0.091
		-	YWMT11T204-ZF	●	●	●	●	●	●	●	0.016	0.184	0.109	0.091
		-	YWMT16T302-ZF	●	●	●	●	●	●	●	0.008	0.276	0.156	0.113
		-	YWMT16T304-ZF	●	●	●	●	●	●	●	0.016	0.276	0.156	0.113
		-	YWMT16T308-ZF	●	●	●	●	●	●	●	0.031	0.276	0.156	0.113
	ZM	-	YWMT11T202-ZM	●	●	●	●	●	●	●	0.008	0.184	0.109	0.091
		-	YWMT11T204-ZM	●	●	●	●	●	●	●	0.016	0.184	0.109	0.091
		-	YWMT16T302-ZM	●	●	●	●	●	●	●	0.008	0.276	0.156	0.113
		-	YWMT16T304-ZM	●	●	●	●	●	●	●	0.016	0.276	0.156	0.113
		-	YWMT16T308-ZM	●	●	●	●	●	●	●	0.031	0.276	0.156	0.113

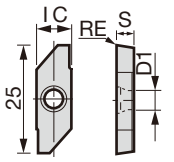
●: Line up

JXF



Front turning

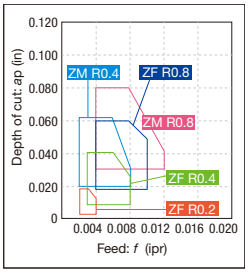
P	Steel	●ɔ ●ɔ ●
M	Stainless	●ɔ ●ɔ ●
K	Cast iron	●
N	Non-ferrous	●
S	Superalloy	
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated SH7025	Coated J740	Uncoated TH10	Dimension (in) RE	IC	S	D1
Front turning	-	-	JXFR8000F	●	●	●	0.0012	0.315	0.156	0.173
		-	JXFR8010F	●	●	●	0.004	0.315	0.156	0.173

●: Line up

Chip control range



Reference pages: YWMT...: External toolholder → C130 -, Internal toolholder → D088 -
JXF...: J-Series toolholder → G075

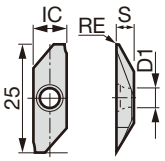
Insert POSITIVE TYPE

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

JXR

Reverse turning

P	Steel	●ⓒ	●
M	Stainless	●ⓒ	●
K	Cast iron		●
N	Non-ferrous		●
S	Superalloy		
H	Hard material		



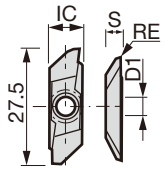
Application	Chipbreaker	Designation Inch	Designation Metric	Coated J740	Uncoated TH10	Dimension (in) RE	IC	S	D1
Reverse turning	-	-	JXRR8000F	●	●	0.0012	0.315	0.156	0.173
		-	JXRR8010F	●	●	0.004	0.315	0.156	0.173



JXB

Back turning

P	Steel	●ⓒ	●ⓒ
M	Stainless	●ⓒ	●ⓒ
K	Cast iron		●
N	Non-ferrous		●
S	Superalloy		
H	Hard material		



Application	Chipbreaker	Designation Inch	Designation Metric	Coated SH7025	Coated J740	Uncoated TH10	Dimension (in) RE	IC	S	D1
Back turning	-	-	JXBR8000F	●	●	●	0.0012	0.315	0.156	0.173
		-	JXBL8000F		●	●	0.0012	0.315	0.156	0.173
		-	JXBR8005F	●	●	●	0.002	0.315	0.156	0.173
		-	JXBL8005F		●	●	0.002	0.315	0.156	0.173
		-	JXBR8005		●		0.002	0.315	0.156	0.173
		-	JXBL8005		●		0.002	0.315	0.156	0.173
		-	JXBR8010F	●	●	●	0.004	0.315	0.156	0.173
		-	JXBL8010F		●	●	0.004	0.315	0.156	0.173
		-	JXBR8010		●		0.004	0.315	0.156	0.173
		-	JXBL8010		●		0.004	0.315	0.156	0.173
		-	JXBR8015F	●	●	●	0.006	0.315	0.156	0.173
		-	JXBL8015F		●	●	0.006	0.315	0.156	0.173
		-	JXBR8015		●		0.006	0.315	0.156	0.173
		-	JXBL8015		●		0.006	0.315	0.156	0.173



●: Line up

Reference pages: JXR...: J-Series toolholder → G075
JXB...: J-Series toolholder → G076

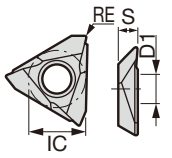
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

JTB*



Back turning

P	Steel	◐ ◐ ◐ ◐ ● ●
M	Stainless	◐ ◐ ◐ ●
K	Cast iron	◐ ◐ ●
N	Non-ferrous	●
S	Superalloy	
H	Hard material	



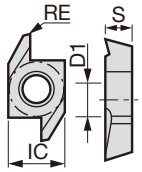
Application	Chipbreaker	Designation Inch	Designation Metric	Coated SH7025	Coated SH725	Coated J740	Coated cermet J9530	Cermet NS9530	Uncoated TH10	Dimension (in) RE	IC	S	D1
Back turning	-	-	JTBR3000F	●	●	●			●	0.001	0.374	0.125	0.173
		-	JTBL3000F		●	●			●	0.001	0.374	0.125	0.173
		-	JTBR3005F	●	●	●			●	0.002	0.374	0.125	0.173
		-	JTBL3005F		●	●			●	0.002	0.374	0.125	0.173
		-	JTBR3005			●	●			0.002	0.374	0.125	0.173
		-	JTBL3005			●				0.002	0.374	0.125	0.173
		-	JTBR3010F	●	●	●		●	●	0.004	0.374	0.125	0.173
		-	JTBL3010F		●	●		●	●	0.004	0.374	0.125	0.173
		-	JTBR3010			●	●			0.004	0.374	0.125	0.173
		-	JTBL3010			●				0.004	0.374	0.125	0.173
		-	JTBR3015F	●	●	●		●		0.006	0.374	0.125	0.173
		-	JTBL3015F		●					0.006	0.374	0.125	0.173

J10E*



Back turning

P	Steel	◐ ◐ ◐ ◐ ● ●
M	Stainless	◐ ◐ ◐ ●
K	Cast iron	◐ ◐ ●
N	Non-ferrous	●
S	Superalloy	
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Coated SH7025	Coated SH725	Coated J740	Coated cermet J9530	Cermet NS9530	Uncoated TH10	Dimension (in) RE	IC	S	D1
Back turning	-	-	J10ER005BF	●	●	●		●	●	0.002	0.250	0.125	0.118
		-	J10EL005BF	●	●	●			●	0.002	0.250	0.125	0.118
		-	J10ER005B			●	●			0.002	0.250	0.125	0.118
		-	J10EL005B			●				0.002	0.250	0.125	0.118
		-	J10ER010BF	●	●	●		●	●	0.004	0.250	0.125	0.118
		-	J10EL010BF	●	●	●			●	0.004	0.250	0.125	0.118
		-	J10ER010B			●	●			0.004	0.250	0.125	0.118
		-	J10EL010B			●				0.004	0.250	0.125	0.118
		-	J10EL015BF	●	●					0.006	0.250	0.125	0.118
		-	J10ER015BF	●	●					0.006	0.250	0.125	0.118

●: Line up

Reference pages: JTB...: J-Series toolholder → G081
J10E...: J-Series toolholder → G078

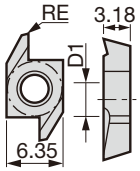
Insert POSITIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

10E*

Back turning

P	Steel	●
M	Stainless	●
K	Cast iron	●
N	Non-ferrous	●
S	Superalloy	
H	Hard material	



Application	Chipbreaker	Designation Inch	Designation Metric	Uncoated TH10	Dimension (in) RE	IC	S	D1
Back turning	-	-	**10ER100B**	●	0.0012	0.250	0.125	0.118
		-	**10EL100B**	●	0.0012	0.250	0.125	0.118
		-	**10ER150B**	●	0.0012	0.250	0.125	0.118
		-	**10EL150B**	●	0.0012	0.250	0.125	0.118
		-	**10ER300**	●	-	0.250	0.125	0.118
		-	**10EL300**	●	-	0.250	0.125	0.118

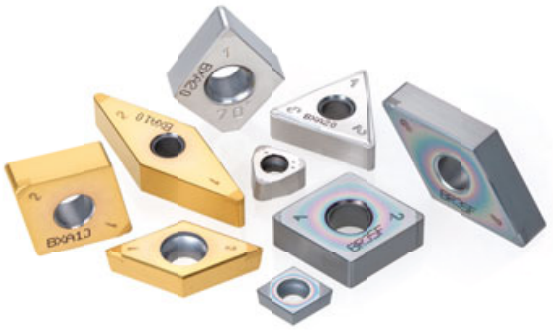


●: Line up

MEMO

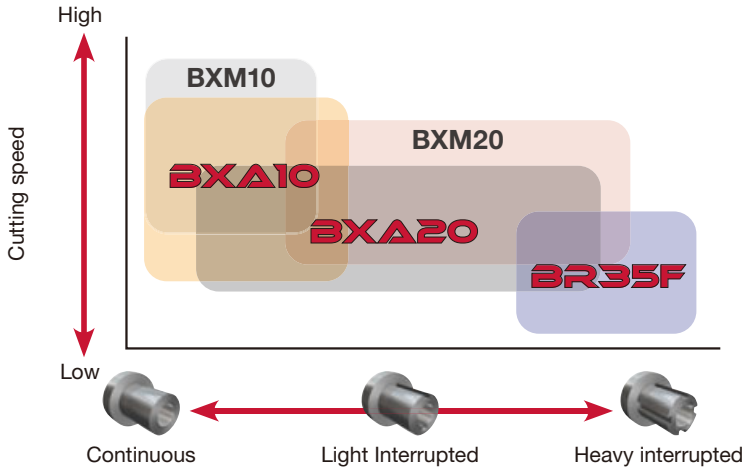
BXA10/BXA20/BR35F

Coated CBN series for a wide range of hard part turning



■ Application areas

The most suitable grade can be selected for your application requirements



BXA10



- First choice for continuous to light interrupted cuts
- For *Vc* = 755 sfm or less

BXA20



- Versatile grade from continuous to heavy interrupted cuts
- For *Vc* = 492 sfm or less

BR35F



- First choice for heavy interrupted cuts
- For *Vc* = 492 sfm or less

BXM10

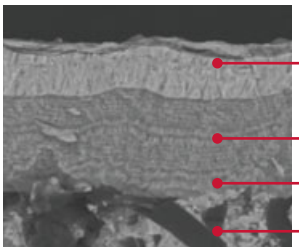
- Complementary grade for continuous to light interrupted cuts
- For extremely high cutting speeds of *Vc* = 984 sfm

BXM20

- Complementary versatile grade for continuous to heavy interrupted cuts
- For high cutting speeds of *Vc* = 656 sfm

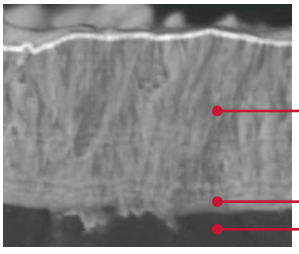
■ Grade properties

BXA10



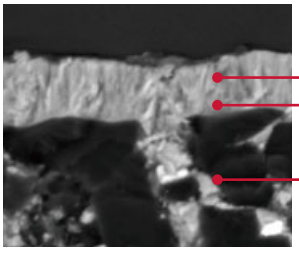
- TiCN coating with high thermal stability and wear resistance
- Multilayer TiAlN coating with good adhesion and resistance to delamination and chipping
- Strong coating-substrate adhesion prevents delamination
- Dedicated CBN substrate with excellent flank wear and crater wear resistance

BXA20



- Thick multilayer TiAlN coating with superior wear and chipping resistance
- Strong coating-substrate adhesion prevents delamination
- Dedicated CBN substrate with excellent crater wear and fracture resistance

BR35F



- Multilayer AlCrN coating with excellent fracture resistance
- Strong coating-substrate adhesion prevents delamination
- Dedicated CBN substrate with excellent chipping and fracture resistance

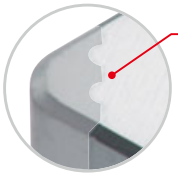
WavyJoint



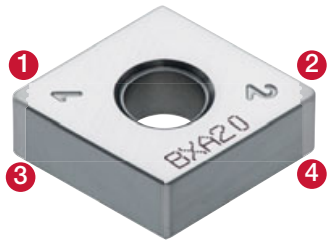
New brazing technology for increased machining efficiency

A maximum depth of cut up to 0.031".
Reduces the number of passes to increase productivity.

Innovative WavyJoint brazing technology
Prevents the CBN tips from debrazing, eliminating abrupt insert fractures during demanding dry machining, while securing stable and predictable hard turning operations.

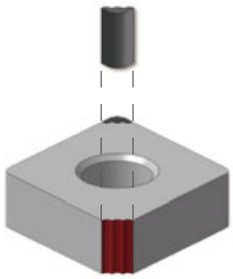


The "wavy" contact surface enhances the brazing strength



Double sided inserts

WavyJoint

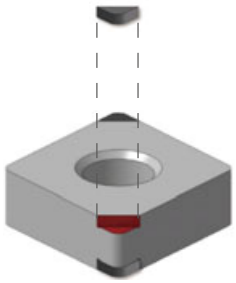


Vs.

CBN Tip Size: 200% larger for improved wear resistance of the cutting edge

Brazing Area: 160% larger for enhanced brazing strength

Standard



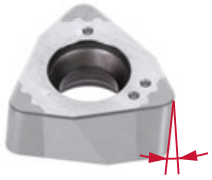
MINIFORCE TURN

Double-sided positive insert with CBN tips

MiniForce-Turn now offers WavyJoint CBN inserts that provide additional strength and security in aggressive cutting conditions.

■ **WXGQ 220... (WXGQ0403...) insert**

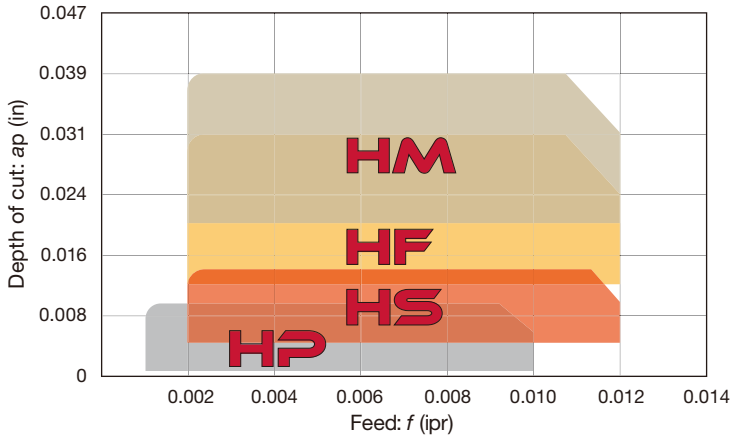
Double-sided positive inserts



6-edged insert with dovetail design



CBN inserts with chipbreaker ideal for carburized layer removal and finishing hardened steel

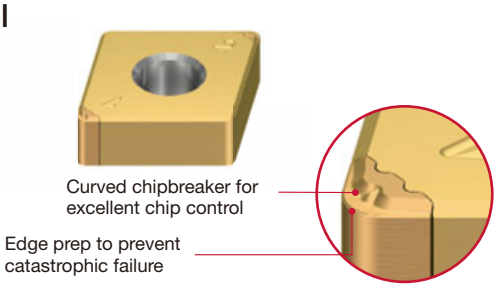




HS chipbreaker

Optimized chipbreaker design for excellent chip control during hard turning at aggressive conditions

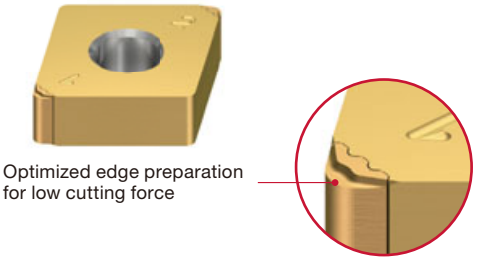
- Designed for high feed machining.
- Provides excellent chip control for a wide range of D.O.C. and feed rates.
- Edge preparation is designed to prevent catastrophic failure.



HP chipbreaker

Designed for finish machining of hardened parts with close tolerances

- Optimized chipbreaker geometry significantly reduces cutting force imposed on the cutting edge, ensuring long tool life.
- The edge preparation is designed to generate low cutting force, providing chatter-free machining and close tolerances.
- The built-in wiper yields excellent surface quality and good chip control.



HF and HM chipbreaker

- Suited for hard turning applications requiring great D.O.C. such as carburized layer removal.
- Effective chip breaking is possible for a wide range of hard materials.
- **BXA20** and **BXM20** CBN grade inserts are available for aggressive cutting depths.

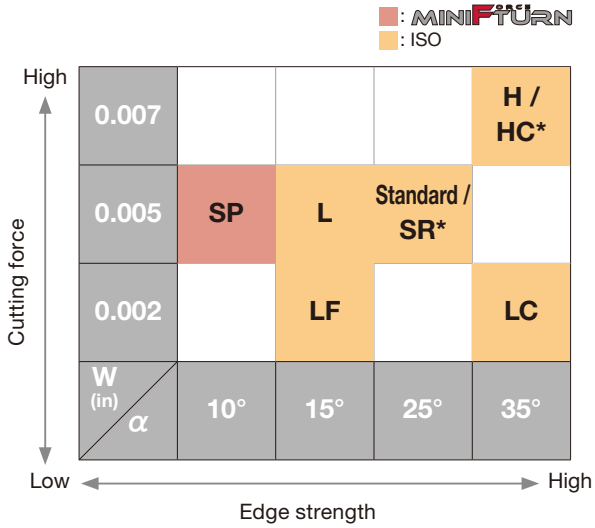
■ Edge preparations

Various styles of edge preparations are available according to the application needs

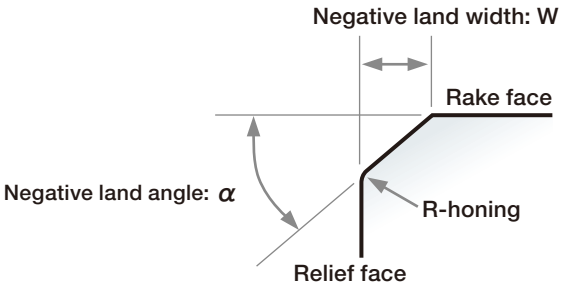
BXA10 and BXA20 grade ISO inserts are available in five different styles of edge preps: L, LF, LC, standard and -H; BR35F grade ISO inserts are offered in two styles of edge preps: SR and HC.

*For the new BR35F grade ISO inserts, "SR" is assigned for the edge prep symbol for S01325, instead of "Standard" as previously assigned. Likewise, "HC" for S01835, instead of conventional "H".

MiniForce-Turn inserts are available in the SP style edge prep (S01310).



*Edge prep symbol for BR35F grade inserts only



S	0	1	3	2	5
Edge prep. ID	Negative land width W			Negative land angle α	

S ··· Chamfered + R-honing

Non-Ferrous Application Series

Complete turning solutions for non-ferrous materials



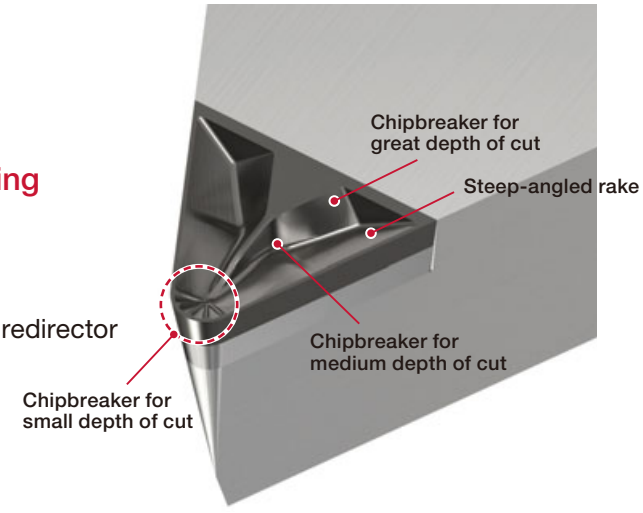
■ PCD inserts with 3D chipbreaker

NS chipbreaker

No more chip nesting in aluminum alloy machining

Unique 3D chipbreaker

- Versatile geometry allows excellent chip control
- One insert handles from rough to finish operations
- Optimal rake angle design effectively directs chips to the redirector



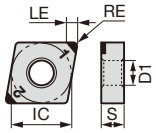
CBN Insert NEGATIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

CN



80°Rhombic with hole



IC : 0.500"
D1 : 0.203"
S : 0.187"

		BXA10	BXA20	BR35F	BXM10	BXM20	BXC50	BXA30	BXA40	BX310	BX330	BX360	BX380	BX470	BX480	BX815	BX930
K	Cast iron													●◐		●	
S	Superalloy													●◐	●		
H	Hard material	●	●◐	✣	●	●◐	✣	●	●◐	●	●	●◐	✣				
	Sintered metal													●◐	◐✣		

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20	BXC50	BXA30	BXA40	BX310	BX330	BX360	BX380	BX470	BX480	BX815	BX930
Precision finishing	2QP-CNGA 430.5-LF	2QP-CNGA120402-LF	0.008	0.091	2			○				●	●														
	2QP-CNGA 430.5-L	2QP-CNGA120402-L		0.091	2				○			●	●														
	2QP-CNGA 431-F	2QP-CNGA120404F	0.016	0.091	2			○																●			
	2QP-CNGA 431-E	2QP-CNGA120404-E		0.091	2		○																			●	
	2QP-CNGA 431-LT	2QP-CNGA120404-LT		0.091	2						○															●	
	2QP-CNGA 431-LF	2QP-CNGA120404-LF		0.091	2			○				●	●														
	4QS-CNGA 431-LF	4QS-CNGA120404-LF		0.063	4			○				●	●														
	2QP-CNGA 431-L	2QP-CNGA120404-L		0.091	2				○			●	●		●	●					●						
	2QP-CNGA 431-FW	2QP-CNGA120404FW		0.091	2	○	○					●	●		●	●											
	2QP-CNGA 431-W	-		0.091	2	○	○														●						
	4QS-CNGA 431-FW	4QS-CNGA120404FW		0.063	4	○	○					●	●														
	2QP-CNMA 431-W	2QP-CNMA120404W		0.091	2	○	○														●						
	4QP-CNMA 431	4QP-CNMA120404W		0.091	4	○	○										●										
	2QP-CNGA 432-F	2QP-CNGA120408F	0.031	0.087	2			○																●			
	2QP-CNGA 432-E	2QP-CNGA120408-E		0.087	2																					●	
	2QP-CNGA 432-LT	2QP-CNGA120408-LT		0.087	2																					●	
	2QP-CNGA 432-LF	2QP-CNGA120408-LF		0.087	2			○				●	●														
	4QS-CNGA 432-LF	4QS-CNGA120408-LF		0.059	4			○				●	●														
	2QP-CNGA 432-L	2QP-CNGA120408-L		0.087	2				○			●	●		●	●					●						
	2QP-CNGA 432 FW	2QP-CNGA120408FW		0.087	2	○	○					●	●		●	●											
	2QP-CNGA 432-W	-		0.087	2	○	○														●						
	4QS-CNGA 432 FW	4QS-CNGA120408FW		0.071	4	○	○					●	●														
	2QP-CNMA 432-W	2QP-CNMA120408W		0.087	2	○	○														●						
	4QP-CNMA 432	4QP-CNMA120408W		0.087	4	○	○										●										
	2QP-CNGA 433-E	2QP-CNGA120412-E	0.047	0.094	2																					●	
	2QP-CNGA 433-LT	2QP-CNGA120412-LT		0.094	2																					●	
	2QP-CNGA 433-LF	2QP-CNGA120412-LF		0.094	2			○				●	●														
	4QS-CNGA 433-LF	4QS-CNGA120412-LF		0.067	4			○				●	●														
	2QP-CNGA 433-L	2QP-CNGA120412-L		0.094	2				○			●	●		●	●					●						
	2QP-CNGA 433 FW	2QP-CNGA120412FW		0.094	2	○	○					●	●		●	●											
	4QS-CNGA 433 FW	4QS-CNGA120412FW		0.083	4	○	○					●	●														
	2QP-CNMA 433-W	2QP-CNMA120412W		0.094	2	○	○														●						
	4QP-CNMA 433	4QP-CNMA120412W		0.094	4	○	○										●										
	2QP-CNGA 434-E	2QP-CNGA120416-E	0.063	0.130	2																					●	
	2QP-CNGA 434-LT	2QP-CNGA120416-LT		0.130	2																					●	
	2QP-CNGA 435-E	2QP-CNGA120420-E	0.079	0.125	2																					●	
	2QP-CNGA 435-LT	2QP-CNGA120420-LT		0.125	2																					●	
Finishing	2QP-CNGA 430.5	2QP-CNGA120402	0.008	0.091	2		○					●	●														
	2QP-CNGA 430.5-LC	2QP-CNGA120402-LC		0.091	2					○		●	●														
	2QP-CNGA 431	2QP-CNGA120404	0.016	0.091	2		○					●	●		●	●				●	●	●	●	●	●		●
	T2QP-CNGA 431	T2QP-CNGA120404		0.091	2		○															●					
	2QP-CNGA 431-SR	2QP-CNGA120404SR		0.091	2		○							●													
	4QS-CNGA 431	4QS-CNGA120404		0.063	4		○					●	●														
	4QS-CNGA 431-SR	4QS-CNGA120404SR		0.063	4		○							●													
	4QP-CNGA 431	4QP-CNGA120404		0.091	4		○										●	●	●								
	2QP-CNGA 431-LC	2QP-CNGA120404-LC		0.091	2					○		●	●														
	4QS-CNGA 431-LC	4QS-CNGA120404-LC		0.063	4					○		●	●														

T at the beginning of the designation means 10 pieces per package.
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

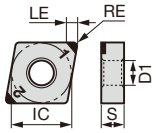
Reference pages: External toolholder → C019 - Internal toolholder → D027 -
J-Series toolholder → G036 TungCap → K008 -

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

CN



80°Rhombic with hole



		BXA10	BXA20	BR35F	BXM10	BXM20	BXC50	BXA30	BXA40	BX310	BX330	BX360	BX380	BX470	BX480	BX930
K	Cast iron														●◐	●
S	Superalloy														●◐	
H	Hard material	●	●◐	✣	●	●◐	✣	●	●◐	●	●	●◐	✣			
	Sintered metal													●◐	◐✣	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20	BXC50	BXA30	BXA40	BX310	BX330	BX360	BX380	BX470	BX480	BX930
Finishing	2QP-CNGA 432	2QP-CNGA120408	0.031	0.087	2		○					●	●		●	●				●	●	●	●	●	●	●
	T2QP-CNGA 432	T2QP-CNGA120408		0.087	2		○															●				
	2QP-CNGA 432-SR	2QP-CNGA120408SR		0.087	2		○							●												
	4QS-CNGA 432	4QS-CNGA120408		0.059	4		○					●	●													
	4QS-CNGA 432-SR	4QS-CNGA120408SR		0.059	4		○							●												
	4QP-CNGA 432	4QP-CNGA120408		0.087	4		○										●	●	●							
	2QP-CNGA 432-LC	2QP-CNGA120408-LC	0.031	0.087	2					○		●	●													
	4QS-CNGA 432-LC	4QS-CNGA120408-LC		0.059	4					○		●	●													
	2QP-CNGA 433	2QP-CNGA120412	0.047	0.094	2		○					●	●		●	●				●	●	●	●	●	●	●
	2QP-CNGA 433-SR	2QP-CNGA120412SR		0.094	2		○							●												
	4QS-CNGA 433	4QS-CNGA120412		0.067	4		○					●	●													
	4QS-CNGA 433-SR	4QS-CNGA120412SR		0.067	4		○							●												
	4QP-CNGA 433	4QP-CNGA120412		0.094	4		○										●	●	●							
	2QP-CNGA 433-LC	2QP-CNGA120412-LC		0.094	2					○		●	●													
	4QS-CNGA 433-LC	4QS-CNGA120412-LC		0.067	4					○		●	●													
	2QP-CNGA 434	2QP-CNGA120416	0.063	0.130	2		○					●	●													
	2QP-CNGA 434-SR	2QP-CNGA120416SR		0.130	2		○							●												
	2QP-CNGA 435	2QP-CNGA120420	0.079	0.125	2		○					●	●													
	2QP-CNGA 435-SR	2QP-CNGA120420SR		0.125	2		○							●												
	2QP-CNGA 436	2QP-CNGA120424	0.094	0.122	2		○					●	●													
	2QP-CNGA 436-SR	2QP-CNGA120424SR		0.122	2		○							●												
Medium cutting	2QP-CNGA 431-H	2QP-CNGA120404-H	0.016	0.091	2						○	●	●			●						●	●			
	2QP-CNGA 431-HC	2QP-CNGA120404HC		0.091	2						○			●												
	4QS-CNGA 431-H	4QS-CNGA120404-H		0.063	4						○	●	●													
	4QS-CNGA 431-HC	4QS-CNGA120404HC		0.063	4						○			●												
	4QP-CNGA 431-H	4QP-CNGA120404-H		0.091	4						○								●							
	2QP-CNGA 432-H	2QP-CNGA120408-H	0.031	0.087	2						○	●	●			●						●	●			
	2QP-CNGA 432-HC	2QP-CNGA120408HC		0.087	2						○			●												
	4QS-CNGA 432-H	4QS-CNGA120408-H		0.059	4						○	●	●													
	4QS-CNGA 432-HC	4QS-CNGA120408HC		0.059	4						○			●												
	4QP-CNGA 432-H	4QP-CNGA120408-H		0.087	4						○								●							
	2QP-CNGA 433-H	2QP-CNGA120412-H	0.047	0.094	2						○	●	●			●						●	●			
	2QP-CNGA 433-HC	2QP-CNGA120412HC		0.094	2						○			●												
	4QS-CNGA 433-H	4QS-CNGA120412-H		0.067	4						○	●	●													
	4QS-CNGA 433-HC	4QS-CNGA120412HC		0.067	4						○			●												
	4QP-CNGA 433-H	4QP-CNGA120412-H		0.094	4						○								●							
	2QP-CNGA 434-HC	2QP-CNGA120416HC	0.063	0.130	2						○			●												
	2QP-CNGA 435-HC	2QP-CNGA120420HC	0.079	0.125	2						○			●												
	2QP-CNGA 436-HC	2QP-CNGA120424HC	0.094	0.122	2						○			●												

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

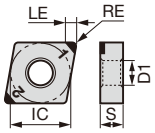
● : Line up

Reference pages: External toolholder → C019 - Internal toolholder → D027 -
J-Series toolholder → G036 TungCap → K008 -

CBN Insert NEGATIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

CN with chipbreaker



IC : 0.500"
D1 : 0.203"
S : 0.187"

80°Rhombic with hole

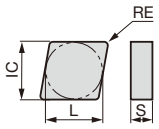
		BXA10	BXA20	BR35F	BXM10	BXM20	BXA40
K	Cast iron	●	●◐	✣	●	●◐	●◐
S	Superalloy						
H	Hard material						
	Sintered metal						

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20	BXA40
Precision finishing	2QP-CNGM 431 HP	2QP-CNGM120404-HP	0.016	0.091	2		○					●	●	●	●		
	4QS-CNGG 431 HP	4QS-CNGG120404-HP		0.063	4		○					●	●	●			
	2QP-CNGM 431 HS	2QP-CNGM120404-HS		0.091	2		○					●	●	●			
	4QS-CNGG 431 HS	4QS-CNGG120404-HS		0.063	4		○					●	●	●			
	2QP-CNGM 432 HP	2QP-CNGM120408-HP	0.031	0.087	2		○					●	●	●	●		
	4QS-CNGG 432 HP	4QS-CNGG120408-HP		0.059	4		○					●	●	●			
	2QP-CNGM 432 FW-HP	2QP-CNGM120408FW-HP		0.087	2	○	○					●	●		●		
	4QS-CNGG 432 FW-HP	4QS-CNGG120408FW-HP		0.071	4	○	○					●	●				
	2QP-CNGM 432 HS	2QP-CNGM120408-HS		0.087	2		○					●	●	●			
	4QS-CNGG 432 HS	4QS-CNGG120408-HS		0.071	4		○					●	●	●			
	2QP-CNGM 432 FW-HS	2QP-CNGM120408FW-HS		0.087	2	○	○					●	●				
	2QP-CNGM 433-HP	2QP-CNGM120412-HP	0.047	0.094	2		○					●	●	●	●		
	2QP-CNGM 433 HS	2QP-CNGM120412-HS		0.094	2		○					●	●	●			
	4QS-CNGG 433 HS	4QS-CNGG120412-HS		0.087	4		○					●	●	●			
	2QP-CNGM 433 FW-HS	2QP-CNGM120412FW-HS		0.094	2	○	○					●	●				
Medium cutting	2QP-CNGM 432 HF	2QP-CNGM120408-HF	0.031	0.087	2		○						●			●	
	4QS-CNGG 432 HF	4QS-CNGG120408-HF		0.071	4		○						●				
	4QP-CNGG 432 HF	4QP-CNGG120408-HF		0.087	4		○										●
	2QP-CNGM 432 HM	2QP-CNGM120408-HM		0.087	2		○						●			●	
	4QS-CNGG 432 HM	4QS-CNGG120408-HM		0.059	4		○						●				
	4QP-CNGG 432 HM	4QP-CNGG120408-HM		0.087	4		○										●
	2QP-CNGM 433 HF	2QP-CNGM120412-HF	0.047	0.094	2		○						●			●	
	4QS-CNGG 433 HF	4QS-CNGG120412-HF		0.087	4		○						●				
	4QP-CNGG 433 HF	4QP-CNGG120412-HF		0.094	4		○										●
	2QP-CNGM 433 HM	2QP-CNGM120412-HM		0.094	2		○						●			●	
	4QS-CNGG 433 HM	4QS-CNGG120412-HM		0.067	4		○						●				
	4QP-CNGG 433 HM	4QP-CNGG120412-HM		0.094	4		○										●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

CN Solid insert



IC : 0.375"
S : 0.125"

80° Rhombic without hole

		BXC90
K	Cast iron	✣
S	Superalloy	
H	Hard material	
	Sintered metal	

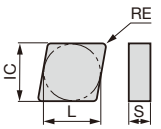
Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXC90
Medium cutting	S-CNGN 322	S-CNGN090308	0.031		4		○					●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

CN Solid insert



IC : 0.500"
S : 0.187"

80° Rhombic without hole

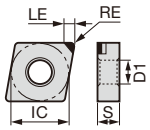
K	Cast iron	✠
S	Superalloy	
H	Hard material	
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXC90
Medium cutting	S-CNGN 432	S-CNGN120408	0.031		4		○					●
	S-CNGN 433	S-CNGN120412	0.047		4		○					●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

CN



IC : 0.500"
D1 : 0.203"
S : 0.187"

80°Rhombic with hole

K	Cast iron	
S	Superalloy	
H	Hard material	●ⓒ
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Medium cutting	CNGA 430.5 QBN	CNGA120402-QBN	0.008	0.161	1		○					●
	CNGA 431 QBN	CNGA120404-QBN	0.016	0.157	1		○					●
	CNGA 432 QBN	CNGA120408-QBN	0.031	0.154	1		○					●
	CNGA 433 QBN	CNGA120412-QBN	0.047	0.154	1		○					●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

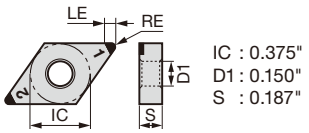
● : Line up

Reference pages: CNGA, CNGG, CNGM:
External toolholder → C019 -, Internal toolholder → D027 -
J-Series toolholder → G036, TungCap → K008 -

CBN Insert NEGATIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

DN



IC : 0.375"
D1 : 0.150"
S : 0.187"

55° Rhombic with hole

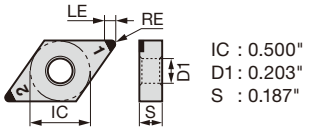
K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20
Finishing	2QP-DNGA 331	2QP-DNGA110404	0.016	0.098	2		○					●	●
	2QP-DNGA 332	2QP-DNGA110408	0.031	0.083	2		○					●	●
	2QP-DNGA 333	2QP-DNGA110412	0.047	0.079	2		○					●	●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

DN



IC : 0.500"
D1 : 0.203"
S : 0.187"

55° Rhombic with hole

K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

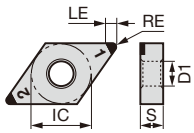
Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20	BXC50	BXA30	BXA40	BX310	BX330	BX360	BX380	BX470	BX480	BX815	BX930
Precision finishing	2QP-DNGA 430.5-LF	2QP-DNGA150402-LF	0.008	0.106	2			○				●	●														
	4QS-DNGA 430.5-LF	4QS-DNGA150402-LF		0.087	4			○				●	●														
	2QP-DNGA 430.5-L	2QP-DNGA150402-L		0.106	2				○			●	●														
	2QP-DNGA 431-E	2QP-DNGA150404-E	0.016	0.098	2		○																		●		
	2QP-DNGA 431-LT	2QP-DNGA150404-LT		0.098	2						○														●		
	2QP-DNGA 431-LF	2QP-DNGA150404-LF		0.098	2			○				●	●														
	4QS-DNGA 431-LF	4QS-DNGA150404-LF		0.079	4			○				●	●														
	2QP-DNGA 431-L	2QP-DNGA150404-L		0.098	2				○			●	●		●	●					●						
	2QP-DNGA 431-WJ	2QP-DNGA150404WJ		0.098	2	○	○						●		●	●											
	2QP-DNGA 432-E	2QP-DNGA150408-E	0.031	0.083	2																				●		
	2QP-DNGA 432-LT	2QP-DNGA150408-LT		0.083	2																				●		
	2QP-DNGA 432-LF	2QP-DNGA150408-LF		0.083	2			○				●	●														
	4QS-DNGA 432-LF	4QS-DNGA150408-LF		0.063	4			○				●	●														
	2QP-DNGA 432-L	2QP-DNGA150408-L		0.083	2				○			●	●		●	●					●						
	2QP-DNGA 432-WJ	2QP-DNGA150408WJ		0.083	2	○	○						●		●	●											
	2QP-DNGA 433-E	2QP-DNGA150412-E	0.047	0.079	2																				●		
	2QP-DNGA 433-LT	2QP-DNGA150412-LT		0.079	2																				●		
	2QP-DNGA 433-LF	2QP-DNGA150412-LF		0.079	2			○				●	●														
	4QS-DNGA 433-LF	4QS-DNGA150412-LF		0.063	4			○				●	●														
	2QP-DNGA 433-L	2QP-DNGA150412-L		0.079	2				○			●	●			●					●						
Finishing	2QP-DNGA 430.5	2QP-DNGA150402	0.008	0.106	2		○					●	●														
	4QS-DNGA 430.5	4QS-DNGA150402		0.087	4		○					●	●														
	2QP-DNGA 430.5-LC	2QP-DNGA150402-LC		0.106	2					○		●	●														
	4QS-DNGA 430.5-LC	4QS-DNGA150402-LC		0.087	4					○		●	●														
	2QP-DNGA 431	2QP-DNGA150404	0.016	0.098	2		○					●	●		●	●				●	●	●	●	●	●		●
	4QP-DNGA 431	4QP-DNGA150404		0.098	4		○										●	●	●								
	2QP-DNGA 431-SR	2QP-DNGA150404SR		0.098	2		○							●													
	4QS-DNGA 431	4QS-DNGA150404		0.079	4		○					●	●														
	4QS-DNGA 431-SR	4QS-DNGA150404SR		0.079	4		○							●													
	2QP-DNGA 431-LC	2QP-DNGA150404-LC		0.098	2					○		●	●														
	4QS-DNGA 431-LC	4QS-DNGA150404-LC		0.079	4					○		●	●														

Please see page L031 about the toolholders recommended for wiper inserts with the designation of WJ at the end.
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

DN



IC : 0.500"
D1 : 0.203"
S : 0.187"

55° Rhombic with hole

		BXA10	BXA20	BR35F	BXM10	BXM20	BXC50	BXA30	BXA40	BX310	BX330	BX360	BX380	BX470	BX480	BX930
K	Cast iron														●◐	●
S	Superalloy														●◐	
H	Hard material	●	●◐	✣	●	●◐	✣	●	●◐	●	●	●◐	✣			
	Sintered metal													●◐	◐✣	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20	BXC50	BXA30	BXA40	BX310	BX330	BX360	BX380	BX470	BX480	BX930
Finishing	2QP-DNGA 432	2QP-DNGA150408	0.031	0.083	2		○					●	●		●	●				●	●	●	●	●	●	●
	2QP-DNGA 432-SR	2QP-DNGA150408SR		0.083	2		○							●												
	4QS-DNGA 432	4QS-DNGA150408		0.063	4		○					●	●													
	4QS-DNGA 432-SR	4QS-DNGA150408SR		0.063	4		○							●												
	4QP-DNGA 432	4QP-DNGA150408		0.083	4		○										●	●	●							
	2QP-DNGA 432-LC	2QP-DNGA150408-LC		0.083	2					○		●	●													
	4QS-DNGA 432-LC	4QS-DNGA150408-LC		0.063	4					○		●	●													
	2QP-DNGA 433	2QP-DNGA150412	0.047	0.079	2		○					●	●		●	●				●	●	●	●		●	●
	2QP-DNGA 433-SR	2QP-DNGA150412SR		0.079	2		○							●												
	4QS-DNGA 433	4QS-DNGA150412		0.063	4		○					●	●													
	4QS-DNGA 433-SR	4QS-DNGA150412SR		0.063	4		○							●												
	4QP-DNGA 433	4QP-DNGA150412		0.079	4		○										●	●	●							
	2QP-DNGA 433-LC	2QP-DNGA150412-LC		0.079	2					○		●	●													
	4QS-DNGA 433-LC	4QS-DNGA150412-LC		0.063	4					○		●	●													
	2QP-DNGA 434	2QP-DNGA150416	0.063	0.134	2		○					●	●													
	2QP-DNGA 434-SR	2QP-DNGA150416SR		0.134	2		○							●												
	2QP-DNGA 435	2QP-DNGA150420	0.079	0.118	2		○					●	●													
	2QP-DNGA 435-SR	2QP-DNGA150420SR		0.118	2		○							●												
	2QP-DNGA 436	2QP-DNGA150424	0.094	0.102	2		○					●	●													
	2QP-DNGA 436-SR	2QP-DNGA150424SR		0.102	2		○							●												
Medium cutting	2QP-DNGA 431-H	2QP-DNGA150404-H	0.016	0.098	2						○	●	●			●						●	●			
	2QP-DNGA 431-HC	2QP-DNGA150404HC		0.098	2						○			●												
	4QS-DNGA 431-H	4QS-DNGA150404-H		0.079	4						○	●	●													
	4QS-DNGA 431-HC	4QS-DNGA150404HC		0.079	4						○			●												
	4QP-DNGA 431-H	4QP-DNGA150404-H		0.098	4						○								●							
	2QP-DNGA 432-H	2QP-DNGA150408-H	0.031	0.083	2						○	●	●			●					●	●				
	2QP-DNGA 432-HC	2QP-DNGA150408HC		0.083	2						○			●												
	4QS-DNGA 432-H	4QS-DNGA150408-H		0.063	4						○	●	●													
	4QS-DNGA 432-HC	4QS-DNGA150408HC		0.063	4						○			●												
	4QP-DNGA 432-H	4QP-DNGA150408-H		0.083	4						○								●							
	2QP-DNGA 433-H	2QP-DNGA150412-H	0.047	0.079	2						○	●	●			●						●	●			
	2QP-DNGA 433-HC	2QP-DNGA150412HC		0.079	2						○			●												
	4QS-DNGA 433-H	4QS-DNGA150412-H		0.063	4						○	●	●													
	4QS-DNGA 433-HC	4QS-DNGA150412HC		0.063	4						○			●												
	4QP-DNGA 433-H	4QP-DNGA150412-H		0.079	4						○								●							
	2QP-DNGA 434-HC	2QP-DNGA150416HC	0.063	0.134	2						○			●												
	2QP-DNGA 435-HC	2QP-DNGA150420HC	0.079	0.118	2						○			●												
	2QP-DNGA 436-HC	2QP-DNGA150424HC	0.094	0.102	2						○			●												

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

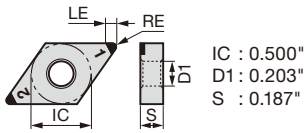
● : Line up

Reference pages: External toolholder → C036 - Internal toolholder → D042 -
J-Series toolholder → G052 TungCap → K011 -

CBN Insert NEGATIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

DN with chipbreaker



IC : 0.500"
D1 : 0.203"
S : 0.187"

55° Rhombic with hole

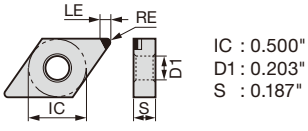
		BXA10	BXA20	BR35F	BXM10	BXM20	BXA40
K	Cast iron	●	●◐	✣	●	●◐	●◐
S	Superalloy						
H	Hard material						
	Sintered metal						

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20	BXA40
Precision finishing	2QP-DNGM 431 HP	2QP-DNGM150404-HP	0.016	0.098	2		○					●	●	●	●		
	4QS-DNGG 431 HP	4QS-DNGG150404-HP		0.079	4		○					●	●	●			
	2QP-DNGM 431 HS	2QP-DNGM150404-HS		0.098	2		○					●	●	●			
	4QS-DNGG 431 HS	4QS-DNGG150404-HS		0.079	4		○					●	●	●			
	2QP-DNGM 432 HP	2QP-DNGM150408-HP	0.031	0.083	2		○					●	●	●	●		
	4QS-DNGG 432 HP	4QS-DNGG150408-HP		0.063	4		○					●	●	●			
	2QP-DNGM 432 HS	2QP-DNGM150408-HS		0.083	2		○					●	●	●			
	4QS-DNGG 432 HS	4QS-DNGG150408-HS		0.063	4		○					●	●	●			
	2QP-DNGM 433 HP	2QP-DNGM150412-HP	0.047	0.079	2		○					●	●	●			
	2QP-DNGM 433 HS	2QP-DNGM150412-HS		0.079	2		○					●	●	●			
	4QS-DNGG 433 HS	4QS-DNGG150412-HS		0.063	4		○					●	●	●			
Medium cutting	2QP-DNGM 432 HF	2QP-DNGM150408-HF	0.031	0.083	2		○						●			●	
	4QS-DNGG 432 HF	4QS-DNGG150408-HF		0.079	4		○						●				
	4QP-DNGG 432 HF	4QP-DNGG150408-HF		0.083	4		○										●
	2QP-DNGM 432 HM	2QP-DNGM150408-HM		0.083	2		○									●	
	4QS-DNGG 432 HM	4QS-DNGG150408-HM		0.063	4		○						●				
	4QP-DNGG 432 HM	4QP-DNGG150408-HM		0.083	4		○										●
	2QP-DNGM 433 HF	2QP-DNGM150412-HF	0.047	0.079	2		○						●			●	
	4QS-DNGG 433 HF	4QS-DNGG150412-HF		0.102	4		○						●				
	4QP-DNGG 433 HF	4QP-DNGG150412-HF		0.079	4		○										●
	2QP-DNGM 433 HM	2QP-DNGM150412-HM		0.079	2		○									●	
	4QP-DNGG433 HM	4QP-DNGG150412-HM		0.079	4		○										●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

DN



IC : 0.500"
D1 : 0.203"
S : 0.187"

55° Rhombic with hole

		BX360
K	Cast iron	
S	Superalloy	
H	Hard material	●◐
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	DNGA 430.5-QBN	DNGA150402-QBN	0.008	0.169	1		○					●
	DNGA 431-QBN	DNGA150404-QBN	0.016	0.173	1		○					●
	DNGA 432-QBN	DNGA150408-QBN	0.031	0.150	1		○					●
	DNGA 433-QBN	DNGA150412-QBN	0.047	0.134	1		○					●

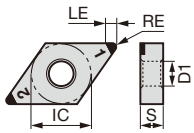
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: External toolholder → C036 - Internal toolholder → D042 -
J-Series toolholder → G052 TungCap → K011 -

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

DN



IC : 0.500"
D1 : 0.203"
S : 0.250"

55° Rhombic with hole

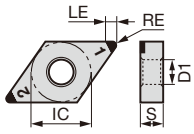
K	Cast iron	
S	Superalloy	
H	Hard material	● ●◐ ✣ ● ●◐
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20
Precision finishing	2QP-DNGA 441-LF	2QP-DNGA150604-LF	0.016	0.098	2			○				●	●			
	2QP-DNGA 441-L	2QP-DNGA150604-L		0.098	2				○			●	●			
	2QP-DNGA 442-LF	2QP-DNGA150608-LF	0.031	0.083	2			○				●	●			
	2QP-DNGA 442-L	2QP-DNGA150608-L		0.083	2				○			●	●			
	2QP-DNGA 443-LF	2QP-DNGA150612-LF	0.047	0.079	2			○				●	●			
	2QP-DNGA 443-L	2QP-DNGA150612-L		0.079	2				○			●	●			
Finishing	2QP-DNGA 441	2QP-DNGA150604	0.016	0.098	2		○					●	●		●	●
	2QP-DNGA 441-SR	2QP-DNGA150604SR		0.098	2		○							●		
	2QP-DNGA 441-LC	2QP-DNGA150604-LC		0.098	2					○		●	●			
	2QP-DNGA 442	2QP-DNGA150608	0.031	0.083	2		○					●	●		●	●
	2QP-DNGA 442-SR	2QP-DNGA150608SR		0.083	2		○							●		
	2QP-DNGA 442-LC	2QP-DNGA150608-LC		0.083	2					○		●	●			
	2QP-DNGA 443	2QP-DNGA150612	0.047	0.079	2		○					●	●		●	●
	2QP-DNGA 443-SR	2QP-DNGA150612SR		0.079	2		○							●		
	2QP-DNGA 443-LC	2QP-DNGA150612-LC		0.079	2					○		●	●			
Medium cutting	2QP-DNGA 441-H	2QP-DNGA150604-H	0.016	0.098	2						○	●	●			
	2QP-DNGA 441-HC	2QP-DNGA150604HC		0.098	2						○			●		
	2QP-DNGA 442-H	2QP-DNGA150608-H	0.031	0.083	2						○	●	●			
	2QP-DNGA 442-HC	2QP-DNGA150608HC		0.083	2						○			●		
	2QP-DNGA 443-H	2QP-DNGA150612-H	0.047	0.079	2						○	●	●			
	2QP-DNGA 443-HC	2QP-DNGA150612HC		0.079	2						○			●		

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

DN with chipbreaker



IC : 0.500"
D1 : 0.203"
S : 0.250"

55° Rhombic with hole

K	Cast iron	
S	Superalloy	
H	Hard material	● ●◐ ✣ ●
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10
Precision finishing	2QP-DNGM 442 HP	2QP-DNGM150608-HP	0.031	0.083	2		○					●	●	●	●
	2QP-DNGM 442 HS	2QP-DNGM150608-HS		0.083	2		○					●	●	●	

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

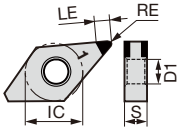
● : Line up

Reference pages: External toolholder → C036 - Internal toolholder → D042 -
J-Series toolholder → G052 TungCap → K011 -

CBN Insert NEGATIVE TYPE

● : Continuous cutting
ⓒ : Light interrupted cutting
✣ : Heavy interrupted cutting

FN



IC : 0.500"
D1 : 0.203"
S : 0.187"

45° Rhombic with hole

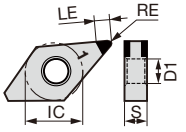
K	Cast iron	
S	Superalloy	
H	Hard material	●ⓒ
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Improve issue* Standard	Burr	Flank wear	Crater wear	Chipping	BXA20
Precision finishing	2QP-FNGA 431-LF	2QP-FNGA150404-LF	0.016	0.102	2			○				●
	2QP-FNGA 431-L	2QP-FNGA150404-L		0.102	2				○			●
	2QP-FNGA 432-LF	2QP-FNGA150408-LF	0.031	0.118	2			○				●
	2QP-FNGA 432-L	2QP-FNGA150408-L		0.118	2				○			●
	2QP-FNGA 433-LF	2QP-FNGA150412-LF	0.047	0.130	2			○				●
	2QP-FNGA 433-L	2QP-FNGA150412-L		0.130	2				○			●
Finishing	2QP-FNGA 430.5	2QP-FNGA150402	0.008	0.109	2		○					●
	2QP-FNGA 431	2QP-FNGA150404	0.016	0.102	2		○					●
	2QP-FNGA 431-LC	2QP-FNGA150404-LC		0.102	2					○		●
	2QP-FNGA 432	2QP-FNGA150408	0.031	0.118	2		○					●
	2QP-FNGA 432-LC	2QP-FNGA150408-LC		0.118	2					○		●
	2QP-FNGA 433	2QP-FNGA150412	0.047	0.130	2		○					●
	2QP-FNGA 433-LC	2QP-FNGA150412-LC		0.130	2					○		●
Medium cutting	2QP-FNGA 431-H	2QP-FNGA150404-H	0.016	0.102	2						○	●
	2QP-FNGA 432-H	2QP-FNGA150408-H	0.031	0.118	2						○	●
	2QP-FNGA 433-H	2QP-FNGA150412-H	0.047	0.130	2						○	●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

FN with chipbreaker



IC : 0.500"
D1 : 0.203"
S : 0.187"

45° Rhombic with hole

K	Cast iron	
S	Superalloy	
H	Hard material	●ⓒ
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Improve issue* Standard	Burr	Flank wear	Crater wear	Chipping	BXA20
Precision finishing	2QP-FNGG 431 HP	2QP-FNGG150404-HP	0.016	0.102	2		○					●
	2QP-FNGG 432 HP	2QP-FNGG150408-HP	0.031	0.118	2		○					●
	2QP-FNGG 433 HP	2QP-FNGG150412-HP	0.047	0.130	2		○					●

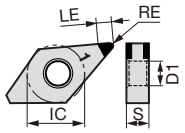
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: External toolholder → C036 - Internal toolholder → D042 -
J-Series toolholder → G052 TungCap → K011 -

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

FN



IC : 0.500"
D1 : 0.203"
S : 0.250"

45° Rhombic with hole

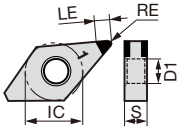
K	Cast iron	
S	Superalloy	
H	Hard material	●◐
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA20
Precision finishing	2QP-FNGA 441-LF	2QP-FNGA150604-LF	0.016	0.102	2			○				●
	2QP-FNGA 441-L	2QP-FNGA150604-L		0.102	2				○			●
	2QP-FNGA 442-LF	2QP-FNGA150608-LF	0.031	0.118	2			○				●
	2QP-FNGA 442-L	2QP-FNGA150608-L		0.118	2				○			●
	2QP-FNGA 443-LF	2QP-FNGA150612-LF	0.047	0.130	2			○				●
	2QP-FNGA 443-L	2QP-FNGA150612-L		0.130	2				○			●
Finishing	2QP-FNGA 441	2QP-FNGA150604	0.016	0.102	2		○					●
	2QP-FNGA 441-LC	2QP-FNGA150604-LC		0.102	2					○		●
	2QP-FNGA 442	2QP-FNGA150608	0.031	0.118	2		○					●
	2QP-FNGA 442-LC	2QP-FNGA150608-LC		0.118	2					○		●
	2QP-FNGA 443	2QP-FNGA150612	0.047	0.130	2		○					●
	2QP-FNGA 443-LC	2QP-FNGA150612-LC		0.130	2					○		●
Medium cutting	2QP-FNGA 441-H	2QP-FNGA150604-H	0.016	0.102	2						○	●
	2QP-FNGA 442-H	2QP-FNGA150608-H	0.031	0.118	2						○	●
	2QP-FNGA 443-H	2QP-FNGA150612-H	0.047	0.130	2						○	●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

FN with chipbreaker



IC : 0.500"
D1 : 0.203"
S : 0.250"

45° Rhombic with hole

K	Cast iron	
S	Superalloy	
H	Hard material	●◐
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA20
Precision finishing	2QP-FNGG 441 HP	2QP-FNGG150604-HP	0.016	0.102	2		○					●
	2QP-FNGG 442 HP	2QP-FNGG150608-HP	0.031	0.118	2		○					●
	2QP-FNGG 443 HP	2QP-FNGG150612-HP	0.047	0.130	2		○					●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

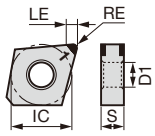
● : Line up

Reference pages: External toolholder → C036 - Internal toolholder → D042 -
J-Series toolholder → G052 TungCap → K011 -

CBN Insert NEGATIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

GN



IC : 0.500"
D1 : 0.203"
S : 0.187"

70° Rhombic with hole

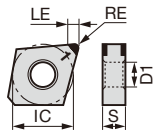
K	Cast iron	●
S	Superalloy	
H	Hard material	● ◐ ✣ ◐ ◐
	Sintered metal	◐

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM20	BX360	BX470	BX930
Precision finishing	2QP-GNGA 430.5-LF	2QP-GNGA120402-LF	0.008	0.087	2			○				●	●					
	2QP-GNGA 430.5-L	2QP-GNGA120402-L		0.087	2				○			●	●					
	2QP-GNGA 431-LF	2QP-GNGA120404-LF	0.016	0.083	2			○				●	●					
	2QP-GNGA 431-L	2QP-GNGA120404-L		0.083	2				○			●	●					
	2QP-GNGA 432-LF	2QP-GNGA120408-LF	0.031	0.083	2			○				●	●					
	2QP-GNGA 432-L	2QP-GNGA120408-L		0.083	2				○			●	●					
	2QP-GNGA 433-LF	2QP-GNGA120412-LF	0.047	0.087	2			○				●	●					
	2QP-GNGA 433-L	2QP-GNGA120412-L		0.087	2				○			●	●					
Finishing	2QP-GNGA 430.5	2QP-GNGA120402	0.008	0.087	2		○					●	●					
	2QP-GNGA 430.5-LC	2QP-GNGA120402-LC		0.087	2					○		●	●					
	2QP-GNGA 431	2QP-GNGA120404	0.016	0.083	2		○					●	●		●	●		
	2QP-GNGA 431-SR	2QP-GNGA120404SR		0.083	2		○							●				
	2QP-GNGA 431-LC	2QP-GNGA120404-LC		0.083	2					○		●	●					
	2QP-GNGA 432	2QP-GNGA120408	0.031	0.083	2		○					●	●		●	●	●	●
	2QP-GNGA 432-SR	2QP-GNGA120408SR		0.083	2		○							●				
	2QP-GNGA 432-LC	2QP-GNGA120408-LC		0.083	2					○		●	●					
	2QP-GNGA 433	2QP-GNGA120412	0.047	0.087	2		○					●	●		●	●	●	●
	2QP-GNGA 433-SR	2QP-GNGA120412SR		0.087	2		○							●				
	2QP-GNGA 433-LC	2QP-GNGA120412-LC		0.087	2					○		●	●					
Medium cutting	2QP-GNGA 431-H	2QP-GNGA120404-H	0.016	0.083	2						○	●	●					
	2QP-GNGA 431-HC	2QP-GNGA120404HC		0.083	2						○			●				
	2QP-GNGA 432-H	2QP-GNGA120408-H	0.031	0.083	2						○	●	●					
	2QP-GNGA 432-HC	2QP-GNGA120408HC		0.083	2						○			●				
	2QP-GNGA 433-H	2QP-GNGA120412-H	0.047	0.087	2						○	●	●					
	2QP-GNGA 433-HC	2QP-GNGA120412HC		0.087	2						○			●				

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

GN with chipbreaker



IC : 0.500"
D1 : 0.203"
S : 0.187"

70° Rhombic with hole

K	Cast iron	
S	Superalloy	
H	Hard material	● ◐ ●
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BXM10
Precision finishing	2QP-GNGG 431 HP	2QP-GNGG120404-HP	0.016	0.083	2		○					●	●	●
	2QP-GNGG 431 HS	2QP-GNGG120404-HS		0.083	2		○					●	●	
	2QP-GNGG 432 HP	2QP-GNGG120408-HP	0.031	0.083	2		○					●	●	●
	2QP-GNGG 432 HS	2QP-GNGG120408-HS		0.083	2		○					●	●	
	2QP-GNGG 433 HP	2QP-GNGG120412-HP	0.047	0.087	2		○					●	●	●
	2QP-GNGG 433 HS	2QP-GNGG120412-HS		0.087	2		○					●	●	

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

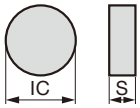
Reference pages: External toolholder → C019 - Internal toolholder → D027 -
J-Series toolholder → G036 TungCap → K008 -

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

RN Solid insert



Round, without hole



IC : 0.375"
S : 0.125"

K	Cast iron	✠
S	Superalloy	
H	Hard material	
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXC90
Medium cutting	S-RNGN 320	S-RNGN090300			-		○					●

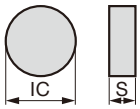
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

RN Solid insert



Round, without hole



IC : 0.500"
S : 0.187"

K	Cast iron	✠
S	Superalloy	
H	Hard material	
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXC90
Medium cutting	S-RNGN 430	S-RNGN120400			-		○					●

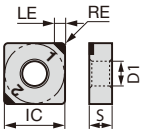
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

CBN Insert NEGATIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

SN



IC : 0.500"
D1 : 0.203"
S : 0.187"

Square with hole

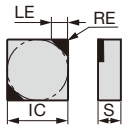
		BXA10	BXA20	BR35F	BXM20	BXC50	BXA40	BX310	BX330	BX360	BX380	BX480	BX930
K	Cast iron											●◐	●
S	Superalloy											●◐	
H	Hard material	●	●◐	✣	●◐	✣	●◐	●	●	●◐	✣		
	Sintered metal											◐✣	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM20	BXC50	BXA40	BX310	BX330	BX360	BX380	BX480	BX930
Precision finishing	2QP-SNGA 431-L	2QP-SNGA120404-L	0.016	0.094	2				○										●				
	2QP-SNGA 432-LF	2QP-SNGA120408-LF	0.031	0.094	2			○				●	●										
	2QP-SNGA 432-L	2QP-SNGA120408-L		0.094	2				○			●	●		●				●				
	2QP-SNGA 433-LF	2QP-SNGA120412-LF	0.047	0.094	2			○				●	●										
	2QP-SNGA 433-L	2QP-SNGA120412-L		0.094	2				○			●	●		●				●				
Finishing	2QP-SNGA 431	2QP-SNGA120404	0.016	0.094	2		○					●	●		●			●	●	●	●	●	●
	4QS-SNGA 431	4QS-SNGA120404		0.071	4		○					●	●										
	4QP-SNGA 431	4QP-SNGA120404		0.094	4		○									●	●						
	2QP-SNGA 432	2QP-SNGA120408	0.031	0.094	2		○					●	●		●			●	●	●	●	●	●
	2QP-SNGA 432-SR	2QP-SNGA120408SR		0.094	2		○							●									
	4QS-SNGA 432	4QS-SNGA120408		0.071	4		○					●	●										
	4QS-SNGA 432-SR	4QS-SNGA120408SR		0.071	4		○							●									
	4QP-SNGA 432	4QP-SNGA120408		0.094	4		○									●	●						
	2QP-SNGA 433	2QP-SNGA120412	0.047	0.094	2		○					●	●		●			●	●	●	●	●	●
	2QP-SNGA 433-SR	2QP-SNGA120412SR		0.094	2		○							●									
	4QS-SNGA 433	4QS-SNGA120412		0.071	4		○					●	●										
	4QS-SNGA 433-SR	4QS-SNGA120412SR		0.071	4		○							●									
	4QP-SNGA 433	4QP-SNGA120412		0.094	4		○									●	●						
Medium cutting	2QP-SNGA 431-H	2QP-SNGA120404-H	0.016	0.094	2						○									●	●		
	2QP-SNGA 432-H	2QP-SNGA120408-H	0.031	0.094	2						○		●		●					●	●		
	4QP-SNGA 432-H	4QP-SNGA120408-H		0.094	4						○						●						
	2QP-SNGA 433-H	2QP-SNGA120412-H	0.047	0.094	2						○		●		●					●	●		
	4QP-SNGA 433-H	4QP-SNGA120412-H		0.094	4						○						●						

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

SN



IC : 0.375"
S : 0.125"

Square without hole

		BX910
K	Cast iron	●
S	Superalloy	
H	Hard material	
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX910
Finishing	2QP-SNGN 322	2QP-SNGN090308	0.031	0.094	2		○					●
	2QP-SNGN 323	2QP-SNGN090312	0.047	0.094	2		○					●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

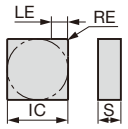
● : Line up

Reference pages: SNGA: External toolholder → C076 -, Internal toolholder → D054 -

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

SN Solid insert

Square without hole



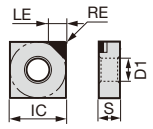
IC : 0.375"
S : 0.125"

| | | |

CBN Insert NEGATIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

SN



IC : 0.500"
D1 : 0.203"
S : 0.187"

Square with hole

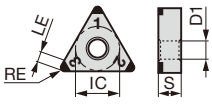
K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	SNGA 430.5 QBN	SNGA120402-QBN	0.008	0.161	1		○					●
	SNGA 431 QBN	SNGA120404-QBN	0.016	0.161	1		○					●
	SNGA 432 QBN	SNGA120408-QBN	0.031	0.161	1		○					●
	SNGA 433 QBN	SNGA120412-QBN	0.047	0.161	1		○					●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

TN



IC : 0.375"
D1 : 0.150"
S : 0.187"

Triangular with hole

K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

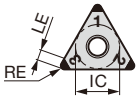
Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20	BXC50	BXA30	BXA40	BX310	BX330	BX360	BX380	BX470	BX480	BX815	BX930
Precision finishing	3QP-TNGA 330.5-LF	3QP-TNGA160402-LF	0.008	0.091	3			○				●	●														
	3QP-TNGA 330.5-L	3QP-TNGA160402-L		0.091	3				○			●	●														
	3QP-TNGA 331-F	3QP-TNGA160404F	0.016	0.087	3			○																●			
	3QP-TNGA 331-LF	3QP-TNGA160404-LF		0.087	3			○				●	●														
	6QS-TNGA 331-LF	6QS-TNGA160404-LF		0.075	6			○				●	●														
	3QP-TNGA 331-L	3QP-TNGA160404-L		0.087	3				○			●	●		●	●					●						
	3QP-TNGA 331-WG	3QP-TNGA160404WG		0.094	3	○	○					●	●			●											
	3QP-TNGA 332-F	3QP-TNGA160408F	0.031	0.075	3			○																●			
	3QP-TNGA 332-E	3QP-TNGA160408-E		0.075	3		○																			●	
	3QP-TNGA 332-LT	3QP-TNGA160408-LT		0.075	3						○															●	
	3QP-TNGA 332-LF	3QP-TNGA160408-LF		0.075	3			○				●	●														
	6QS-TNGA 332-LF	6QS-TNGA160408-LF		0.063	6			○				●	●														
	3QP-TNGA 332-L	3QP-TNGA160408-L		0.075	3				○			●	●		●	●					●						
	3QP-TNGA 332-WG	3QP-TNGA160408WG		0.087	3	○	○					●	●		●	●											
	3QP-TNGA 333-LF	3QP-TNGA160412-LF	0.047	0.094	3			○				●	●														
	6QS-TNGA 333-LF	6QS-TNGA160412-LF		0.071	6			○				●	●														
	3QP-TNGA 333-L	3QP-TNGA160412-L		0.094	3				○			●	●		●	●					●						
Finishing	3QP-TNGA 330.5	3QP-TNGA160402	0.008	0.091	3		○					●	●														
	3QP-TNGA 330.5-LC	3QP-TNGA160402-LC		0.091	3					○		●	●														
	3QP-TNGA 331	3QP-TNGA160404	0.016	0.087	3		○					●	●		●	●				●	●	●	●	●	●		●
	T3QP-TNGA 331	T3QP-TNGA160404		0.087	3		○															●					
	3QP-TNGA 331-SR	3QP-TNGA160404SR		0.087	3		○							●													
	6QS-TNGA 331	6QS-TNGA160404		0.075	6		○					●	●														
	6QS-TNGA 331-SR	6QS-TNGA160404SR		0.075	6		○							●													
	6QP-TNGA 331	6QP-TNGA160404		0.087	6		○										●	●	●								
	3QP-TNGA 331-LC	3QP-TNGA160404-LC		0.087	3					○		●	●														
	6QS-TNGA 331-LC	6QS-TNGA160404-LC		0.075	6					○		●	●														

T at the beginning of the designation means 10 pieces per package.
*Indicates the insert to use if the wear indicated is what happens with the standard hone.
Please see page L031 about the toolholders recommended for wiper inserts of the designation with WG at the end.

● : Line up

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

TN



IC : 0.375"
D1 : 0.150"
S : 0.187"

Triangular with hole

		BXA10	BXA20	BR35F	BXM10	BXM20	BXC50	BXA30	BXA40	BX310	BX330	BX360	BX380	BX470	BX480	BX930
K	Cast iron														◐	●
S	Superalloy														◐	
H	Hard material	●	◐	✣	●	◐	✣	●	◐	●	●	◐	✣			
	Sintered metal													◐	◐	✣

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20	BXC50	BXA30	BXA40	BX310	BX330	BX360	BX380	BX470	BX480	BX930
Finishing	3QP-TNGA 332	3QP-TNGA160408	0.031	0.075	3		○					●	●		●	●				●	●	●	●	●	●	●
	T3QP-TNGA 332	T3QP-TNGA160408		0.075	3		○															●				
	3QP-TNGA 332-SR	3QP-TNGA160408SR		0.075	3		○							●												
	6QS-TNGA 332	6QS-TNGA160408		0.063	6		○					●	●													
	6QS-TNGA 332-SR	6QS-TNGA160408SR		0.063	6		○							●												
	6QP-TNGA 332	6QP-TNGA160408		0.075	6		○										●	●	●							
	3QP-TNGA 332-LC	3QP-TNGA160408-LC		0.075	3					○		●	●													
	6QS-TNGA 332-LC	6QS-TNGA160408-LC		0.075	6					○		●	●													
	3QP-TNGA 333	3QP-TNGA160412	0.047	0.094	3		○					●	●		●	●				●	●	●	●	●	●	●
	3QP-TNGA 333-SR	3QP-TNGA160412SR		0.094	3		○							●												
	6QS-TNGA 333	6QS-TNGA160412		0.071	6		○					●	●													
	6QS-TNGA 333-SR	6QS-TNGA160412SR		0.071	6		○							●												
	6QP-TNGA 333	6QP-TNGA160412		0.094	6		○										●	●	●							
	3QP-TNGA 333-LC	3QP-TNGA160412-LC		0.094	3					○		●	●													
	6QS-TNGA 333-LC	6QS-TNGA160412-LC		0.071	6					○		●	●													
	3QP-TNGA 334	3QP-TNGA160416	0.063	0.130	3		○					●	●													
	3QP-TNGA 334-SR	3QP-TNGA160416SR		0.130	3		○							●												
	3QP-TNGA 335	3QP-TNGA160420	0.079	0.118	3		○					●	●													
	3QP-TNGA 335-SR	3QP-TNGA160420SR		0.118	3		○							●												
	3QP-TNGA 336	3QP-TNGA160424	0.094	0.106	3		○					●	●													
	3QP-TNGA 336-SR	3QP-TNGA160424SR		0.106	3		○							●												
Medium cutting	3QP-TNGA 331-H	3QP-TNGA160404-H	0.016	0.087	3						○	●	●			●						●	●			
	3QP-TNGA 331-HC	3QP-TNGA160404HC		0.087	3						○			●												
	6QS-TNGA 331-H	6QS-TNGA160404-H		0.075	6						○	●	●													
	6QS-TNGA 331-HC	6QS-TNGA160404HC		0.075	6						○			●												
	6QP-TNGA 331-H	6QP-TNGA160404-H		0.087	6						○								●							
	3QP-TNGA 332-H	3QP-TNGA160408-H	0.031	0.075	3						○	●	●			●						●	●			
	3QP-TNGA 332-HC	3QP-TNGA160408HC		0.075	3						○			●												
	6QS-TNGA 332-H	6QS-TNGA160408-H		0.063	6						○	●	●													
	6QS-TNGA 332-HC	6QS-TNGA160408HC		0.063	6						○			●												
	6QP-TNGA 332-H	6QP-TNGA160408-H		0.075	6						○								●							
	3QP-TNGA 333-H	3QP-TNGA160412-H	0.047	0.094	3						○	●	●			●						●	●			
	3QP-TNGA 333-HC	3QP-TNGA160412HC		0.094	3						○			●												
	6QS-TNGA 333-H	6QS-TNGA160412-H		0.071	6						○	●	●													
	6QS-TNGA 333-HC	6QS-TNGA160412HC		0.071	6						○			●												
	6QP-TNGA 333-H	6QP-TNGA160412-H		0.094	6						○								●							
	3QP-TNGA 334-HC	3QP-TNGA160416HC	0.063	0.130	3						○			●												
	3QP-TNGA 335-HC	3QP-TNGA160420HC	0.079	0.118	3						○			●												
	3QP-TNGA 336-HC	3QP-TNGA160424HC	0.094	0.106	3						○			●												

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

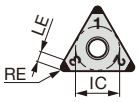
● : Line up

Reference pages: SN: External toolholder → C076 -, Internal toolholder → D054 -
TN: External toolholder → C088 -, Internal toolholder → D063 -
J-Series toolholder → G056 -, TungCap → K013 -

CBN Insert NEGATIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

TN with chipbreaker



IC : 0.375"
D1 : 0.150"
S : 0.187"

Triangular with hole

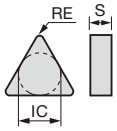
K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20	BXA40
Precision finishing	3QP-TNGM 331 HP	3QP-TNGM160404-HP	0.016	0.087	3		○					●	●	●	●		
	6QS-TNGG 331 HP	6QS-TNGG160404-HP		0.075	6		○					●	●	●			
	3QP-TNGM 331 HS	3QP-TNGM160404-HS		0.087	3		○					●	●	●			
	6QS-TNGG 331 HS	6QS-TNGG160404-HS		0.075	6		○					●	●	●			
	3QP-TNGM 332 HP	3QP-TNGM160408-HP	0.031	0.075	3		○					●	●	●	●		
	6QS-TNGG 332 HP	6QS-TNGG160408-HP		0.063	6		○					●	●	●			
	3QP-TNGM 332 HS	3QP-TNGM160408-HS		0.075	3		○					●	●	●			
	6QS-TNGG 332 HS	6QS-TNGG160408-HS		0.063	6		○					●	●	●			
	3QP-TNGM 333 HP	3QP-TNGM160412-HP	0.047	0.094	3		○					●	●	●			
	6QS-TNGG 333 HP	6QS-TNGG160412-HP		0.071	6		○					●	●	●			
	3QP-TNGM 333 HS	3QP-TNGM160412-HS		0.094	3		○					●	●	●			
	6QS-TNGG 333 HS	6QS-TNGG160412-HS		0.071	6		○					●	●	●			
Medium cutting	3QP-TNGM 332 HF	3QP-TNGM160408-HF	0.031	0.075	3		○						●			●	
	6QS-TNGG 332 HF	6QS-TNGG160408-HF		0.083	4		○						●				
	6QP-TNGG 332 HF	6QP-TNGG160408-HF		0.075	6		○										●
	3QP-TNGM 332 HM	3QP-TNGM160408-HM		0.075	3		○									●	
	6QS-TNGG 332 HM	6QS-TNGG160408-HM		0.063	6		○						●				
	6QP-TNGG 332 HM	6QP-TNGG160408-HM		0.075	6		○										●
	3QP-TNGM 333 HF	3QP-TNGM160412-HF	0.047	0.094	3		○						●			●	
	6QS-TNGG 333 HF	6QS-TNGG160412-HF		0.098	4		○						●				
	6QP-TNGG 333 HF	6QP-TNGG160412-HF		0.094	6		○										●
	3QP-TNGM 333 HM	3QP-TNGM160412-HM		0.094	3		○									●	
	6QP-TNGG 333 HM	6QP-TNGG160412-HM		0.094	6		○										●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

TN Solid insert



IC : 0.250"
S : 0.125"

Triangular without hole

K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXC90
Medium cutting	S-TNGN 222	S-TNGN110308	0.031		6		○					●
	S-TNGN 223	S-TNGN110312	0.047		6		○					●

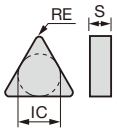
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: TNGG, TNGM: External toolholder → C088 -, Internal toolholder → D063 -
J-Series toolholder → G056 -, TungCap → K013 -

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

TN Solid insert



IC : 0.375"
S : 0.187"

Triangular without hole

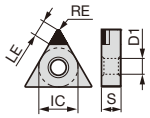
K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXC90
Medium cutting	S-TNGN 332	S-TNGN160408	0.031		6		○					●
	S-TNGN 333	S-TNGN160412	0.047		6		○					●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

TN



IC : 0.375"
D1 : 0.150"
S : 0.187"

Triangular with hole

K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	TNGA 330.5 QBN	TNGA160402-QBN	0.008	0.173	1		○					●
	TNGA 331 QBN	TNGA160404-QBN	0.016	0.165	1		○					●
	TNGA 332 QBN	TNGA160408-QBN	0.031	0.157	1		○					●
	TNGA 333 QBN	TNGA160412-QBN	0.047	0.146	1		○					●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: TNGA: External toolholder → C088 -, Internal toolholder → D063 -
J-Series toolholder → G056 -, TungCap → K013 -

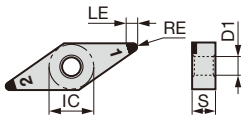
CBN Insert NEGATIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

VN



35° Rhombic with hole



IC : 0.375"
D1 : 0.150"
S : 0.187"

		BXA10	BXA20	BR35F	BXM10	BXM20	BXC50	BXA30	BXA40	BX310	BX330	BX360	BX380	BX470	BX480	BX930
K	Cast iron														●◐	●
S	Superalloy														●◐	
H	Hard material	●	●◐	✣	●	●◐	✣	●	●◐	●	●	●◐	✣			
	Sintered metal													●◐	◐✣	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20	BXC50	BXA30	BXA40	BX310	BX330	BX360	BX380	BX470	BX480	BX930
Precision finishing	2QP-VNGA 330.5-LF	2QP-VNGA160402-LF	0.008	0.138	2			○				●	●													
	4QS-VNGA 330.5-LF	4QS-VNGA160402-LF		0.118	4			○				●	●													
	2QP-VNGA 330.5-L	2QP-VNGA160402-L		0.138	2				○			●	●													
	2QP-VNGA 331-LF	2QP-VNGA160404-LF	0.016	0.122	2			○				●	●													
	4QS-VNGA 331-LF	4QS-VNGA160404-LF		0.102	4			○				●	●													
	2QP-VNGA 331-L	2QP-VNGA160404-L		0.122	2				○			●	●		●	●					●					
	2QP-VNGA 332-LF	2QP-VNGA160408-LF	0.031	0.087	2			○				●	●													
	4QS-VNGA 332-LF	4QS-VNGA160408-LF		0.067	4			○				●	●													
	2QP-VNGA 332-L	2QP-VNGA160408-L		0.087	2				○			●	●		●	●					●					
	2QP-VNGA 333-LF	2QP-VNGA160412-LF	0.047	0.118	2			○				●	●													
	4QS-VNGA 333-LF	4QS-VNGA160412-LF		0.067	4			○				●	●													
	2QP-VNGA 333-L	2QP-VNGA160412-L		0.118	2				○			●	●													
Finishing	2QP-VNGA 330.5	2QP-VNGA160402	0.008	0.138	2		○					●	●													
	4QS-VNGA 330.5	4QS-VNGA160402		0.118	4		○					●	●													
	2QP-VNGA 330.5-LC	2QP-VNGA160402-LC		0.138	2					○		●	●													
	4QS-VNGA 330.5-LC	4QS-VNGA160402-LC		0.118	4					○		●	●													
	2QP-VNGA 331	2QP-VNGA160404	0.016	0.122	2		○					●	●		●	●				●	●	●	●	●	●	●
	2QP-VNGA 331-SR	2QP-VNGA160404SR		0.122	2		○							●												
	4QS-VNGA 331	4QS-VNGA160404		0.102	4		○					●	●													
	4QS-VNGA 331-SR	4QS-VNGA160404SR		0.102	4		○							●												
	4QP-VNGA 331	4QP-VNGA160404		0.122	4		○										●	●	●							
	2QP-VNGA 331-LC	2QP-VNGA160404-LC		0.122	2					○		●	●													
	4QS-VNGA 331-LC	4QS-VNGA160404-LC		0.102	4					○		●	●													
	2QP-VNGA 332	2QP-VNGA160408	0.031	0.087	2		○					●	●		●	●				●	●	●	●	●	●	●
	2QP-VNGA 332-SR	2QP-VNGA160408SR		0.087	2		○							●												
	4QS-VNGA 332	4QS-VNGA160408		0.067	4		○					●	●													
	4QS-VNGA 332-SR	4QS-VNGA160408SR		0.067	4		○							●												
	4QP-VNGA 332	4QP-VNGA160408		0.087	4		○										●	●	●							
	2QP-VNGA 332-LC	2QP-VNGA160408-LC		0.087	2					○		●	●													
	4QS-VNGA 332-LC	4QS-VNGA160408-LC		0.067	4					○		●	●													
	2QP-VNGA 333	2QP-VNGA160412	0.047	0.118	2		○					●	●			●										
	4QS-VNGA 333	4QS-VNGA160412		0.067	4		○					●	●													
	4QP-VNGA 333	4QP-VNGA160412		0.118	4		○											●	●							
	2QP-VNGA 333-LC	2QP-VNGA160412-LC		0.118	2					○		●	●													
	4QS-VNGA 333-LC	4QS-VNGA160412-LC		0.067	4					○		●	●													
Medium cutting	2QP-VNGA 331-H	2QP-VNGA160404-H	0.016	0.122	2						○	●	●			●						●	●			
	2QP-VNGA 331-HC	2QP-VNGA160404HC		0.122	2						○			●												
	4QS-VNGA 331-H	4QS-VNGA160404-H		0.102	4						○	●	●													
	4QS-VNGA 331-HC	4QS-VNGA160404HC		0.102	4						○			●												
	4QP-VNGA 331-H	4QP-VNGA160404-H		0.122	4						○								●							
	2QP-VNGA 332-H	2QP-VNGA160408-H	0.031	0.087	2						○	●	●			●						●	●			
	2QP-VNGA 332-HC	2QP-VNGA160408HC		0.087	2						○			●												
	4QS-VNGA 332-H	4QS-VNGA160408-H		0.067	4						○	●	●													
	4QS-VNGA 332-HC	4QS-VNGA160408HC		0.067	4						○			●												
	4QP-VNGA 332-H	4QP-VNGA160408-H		0.087	4						○								●							
	2QP-VNGA 333-H	2QP-VNGA160412-H	0.047	0.118	2						○	●	●													
	4QS-VNGA 333-H	4QS-VNGA160412-H		0.067	4						○	●	●													

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

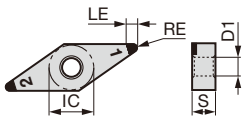
Reference pages: External toolholder → C103 - Internal toolholder → D077 -
TungCap → K014 -

● : Continuous cutting
ⓒ : Light interrupted cutting
✣ : Heavy interrupted cutting

VN with chipbreaker



35° Rhombic with hole



IC : 0.375"
D1 : 0.150"
S : 0.187"

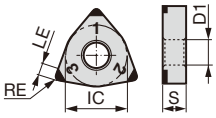
K	Cast iron	
S	Superalloy	
H	Hard material	● ●ⓒ ● ●ⓒ ●ⓒ
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BXM10	BXM20	BXA40
Precision finishing	2QP-VNGM 331 HP	2QP-VNGM160404-HP	0.016	0.122	2		○					●	●			
	4QS-VNGG 331 HP	4QS-VNGG160404-HP		0.102	4		○					●	●			
	2QP-VNGM 331 HS	2QP-VNGM160404-HS		0.122	2		○					●	●			
	4QS-VNGG 331 HS	4QS-VNGG160404-HS		0.102	4		○					●	●			
	2QP-VNGM 332 HP	2QP-VNGM160408-HP	0.031	0.087	2		○					●	●	●		
	4QS-VNGG 332 HP	4QS-VNGG160408-HP		0.067	4		○					●	●			
	2QP-VNGM 332 HS	2QP-VNGM160408-HS		0.087	2		○					●	●			
	4QS-VNGG 332 HS	4QS-VNGG160408-HS		0.067	4		○					●	●			
Medium cutting	2QP-VNGM 332 HF	2QP-VNGM160408-HF	0.031	0.087	2		○								●	
	4QP-VNGG 332 HF	4QP-VNGG160408-HF		0.087	4		○									●
	2QP-VNGM 332 HM	2QP-VNGM160408-HM		0.087	2		○								●	
	4QS-VNGG 332 HM	4QS-VNGG160408-HM		0.067	4		○						●			
	4QP-VNGG 332 HM	4QP-VNGG160408-HM		0.087	4		○									●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

WN



IC : 0.500"
D1 : 0.203"
S : 0.187"

80° Trigon with hole



K	Cast iron	●ⓒ ●
S	Superalloy	●ⓒ
H	Hard material	● ●ⓒ ● ●ⓒ ✣ ● ●ⓒ ● ● ●ⓒ ✣
	Sintered metal	ⓒ✣

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BXM10	BXM20	BXC50	BXA30	BXA40	BX310	BX330	BX360	BX380	BX480	BX930
Precision finishing	3QP-WNGA 432-LF	3QP-WNGA080408-LF	0.031	0.087	3			○				●	●											
	6QS-WNGA 432-LF	6QS-WNGA080408-LF		0.059	6			○				●	●											
	3QP-WNGA 432-L	3QP-WNGA080408-L		0.087	3				○			●	●											
	3QP-WNGA 432-FW	3QP-WNGA080408FW		0.087	3	○	○					●	●	●	●									
	6QS-WNGA 432-FW	6QS-WNGA080408FW		0.071	6	○	○					●	●											
Finishing	3QP-WNGA 431	3QP-WNGA080404	0.016	0.091	3		○					●	●											
	6QS-WNGA 431	6QS-WNGA080404		0.063	6		○					●	●											
	6QP-WNGA 431	6QP-WNGA080404		0.091	6		○									●								
	3QP-WNGA 432	3QP-WNGA080408	0.031	0.087	3		○					●	●	●	●				●	●	●	●	●	●
	6QS-WNGA 432	6QS-WNGA080408		0.059	6		○					●	●											
	6QP-WNGA 432	6QP-WNGA080408		0.087	6		○									●	●	●						
	3QP-WNGA 433	3QP-WNGA080412	0.047	0.094	3		○					●	●									●		
	6QS-WNGA 433	6QS-WNGA080412		0.067	6		○					●	●											
Medium cutting	3QP-WNGA 432-H	3QP-WNGA080408-H	0.031	0.087	3						○	●	●											
	6QS-WNGA 432-H	6QS-WNGA080408-H		0.059	6						○	●	●											

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

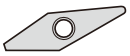
● : Line up

Reference pages: VN : External toolholder → C103 -, Internal toolholder → D077 -, TungCap → K014 -
WN: External toolholder → C121 -, Internal toolholder → D083 -, TungCap → K010

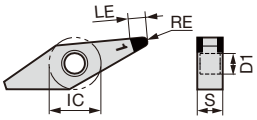
CBN Insert NEGATIVE TYPE

● : Continuous cutting
ⓒ : Light interrupted cutting
✣ : Heavy interrupted cutting

YN



25° Rhombic with hole



IC : 0.375"
D1 : 0.150"
S : 0.187"

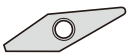
K	Cast iron	
S	Superalloy	
H	Hard material	●ⓒ
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA20
Precision finishing	2QP-YNGA 331-LF	2QP-YNGA160404-LF	0.016	0.122	2			○				●
	2QP-YNGA 331-L	2QP-YNGA160404-L		0.122	2				○			●
	2QP-YNGA 332-LF	2QP-YNGA160408-LF	0.031	0.118	2			○				●
	2QP-YNGA 332-L	2QP-YNGA160408-L		0.118	2				○			●
Finishing	2QP-YNGA 330.5	2QP-YNGA160402	0.008	0.138	2		○					●
	2QP-YNGA 331	2QP-YNGA160404	0.016	0.122	2		○					●
	2QP-YNGA 331-LC	2QP-YNGA160404-LC		0.122	2					○		●
	2QP-YNGA 332	2QP-YNGA160408	0.031	0.118	2		○					●
	2QP-YNGA 332-LC	2QP-YNGA160408-LC		0.118	2					○		●

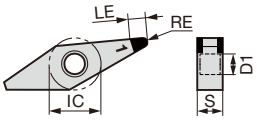
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

YN with chipbreaker



25° Rhombic with hole



IC : 0.375"
D1 : 0.150"
S : 0.187"

K	Cast iron	
S	Superalloy	
H	Hard material	●ⓒ
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA20
Precision finishing	2QP-YNGG 331 HP	2QP-YNGG160404-HP	0.016	0.122	2		○					●
	2QP-YNGG 332 HP	2QP-YNGG160408-HP	0.031	0.118	2		○					●

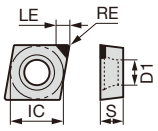
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: External toolholder → C103 - Internal toolholder → D077 -
TungCap → K014 -

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

CC



IC : 0.141"
D1 : 0.075"
S : 0.055"



80°Rhombic with hole, Positive 7°

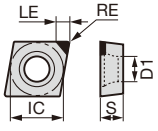
K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX310	BX470
Precision finishing	**1QP-CCGW 4.51.80.5**	**1QP-CCGW03X102**	0.008	0.055	1		○					●	●
	1QP-CCGW 4.51.8**1**	1QP-CCGW03X1**04**	0.016	0.051	1		○					●	●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

CC



IC : 0.172"
D1 : 0.091"
S : 0.070"



80°Rhombic with hole, Positive 7°

K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX310	BX470
Precision finishing	**1QP-CCGW 5.52.20.5**	**1QP-CCGW04T102**	0.008	0.075	1		○					●	●
	1QP-CCGW 5.52.2**1**	1QP-CCGW04T1**04**	0.016	0.071	1		○					●	●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

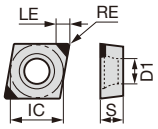
● : Line up

Reference pages: Internal toolholder → D018 -

CBN Insert POSITIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

CC



IC : 0.250"
D1 : 0.109"
S : 0.094"



80°Rhombic with hole, Positive 7°

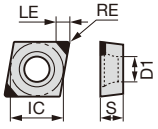
		BXA10	BXA20	BR35F	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360	BX470	BX480	BX930
K	Cast iron											◐	●	
S	Superalloy											◐		
H	Hard material	●	◐	✣	●	◐	●	◐	●	●	◐			
	Sintered metal											◐	✣	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360	BX470	BX480	BX930
Precision finishing	2QP-CCGW 21.50.5-LF	2QP-CCGW060202-LF	0.008	0.091	2			○				●	●											
	2QP-CCGW 21.50.5-L	2QP-CCGW060202-L		0.091	2				○			●	●											
	2QP-CCGW 21.51-LF	2QP-CCGW060204-LF	0.016	0.091	2			○				●	●											
	2QP-CCGW 21.51-L	2QP-CCGW060204-L		0.091	2				○			●	●											
	2QP-CCGW 21.52-LF	2QP-CCGW060208-LF	0.031	0.087	2			○				●	●											
	2QP-CCGW 21.52-L	2QP-CCGW060208-L		0.087	2				○			●	●											
Finishing	2QP-CCGW 21.50.5	2QP-CCGW060202	0.008	0.091	2		○					●	●		●	●	●	●						
	2QP-CCMW 21.50.5	2QP-CCMW060202		0.091	2		○												●	●	●			
	2QP-CCGW 21.50.5-LC	2QP-CCGW060202-LC		0.091	2					○		●	●											
	2QP-CCGW 21.51	2QP-CCGW060204	0.016	0.091	2		○					●	●		●	●	●	●				●	●	
	2QP-CCGW 21.51-SR	2QP-CCGW060204SR		0.091	2		○							●										
	2QP-CCMW 21.51	2QP-CCMW060204		0.091	2		○												●	●	●			●
	Q-CCMW 21.51	Q-CCMW060204		0.098	1		○													●				
	2QP-CCGW 21.51-LC	2QP-CCGW060204-LC		0.091	2					○		●	●											
	2QP-CCGW 21.52	2QP-CCGW060208	0.031	0.087	2		○					●	●											
	2QP-CCGW 21.52-SR	2QP-CCGW060208SR		0.087	2		○							●										
	2QP-CCMW 21.52	2QP-CCMW060208		0.087	2		○													●				
	2QP-CCGW 21.52-LC	2QP-CCGW060208-LC		0.087	2					○		●	●											

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

CC with chipbreaker



IC : 0.250"
D1 : 0.109"
S : 0.094"



80°Rhombic with hole, Positive 7°

		BXA10	BXA20	BR35F	BXM10
K	Cast iron				
S	Superalloy				
H	Hard material	●	◐	✣	●
	Sintered metal				

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10
Precision finishing	2QP-CCGT 21.51 HP	2QP-CCGT060204-HP	0.016	0.091	2		○					●	●	●	●
	2QP-CCGT 21.51 HS	2QP-CCGT060204-HS		0.087	2		○					●	●	●	

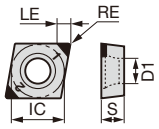
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: External toolholder → C034 - Internal toolholder → D018 -
J-Series toolholder → G030 - TungCap → K011 -

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

CC



IC : 0.375"
D1 : 0.173"
S : 0.156"



80°Rhombic with hole, Positive 7°

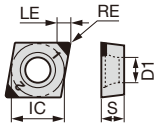
		BXA10	BXA20	BR35F	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360	BX470	BX480	BX930
K	Cast iron											◐	●	
S	Superalloy											◐		
H	Hard material	●	◐	✠	●	◐	●	◐	●	●	◐			
	Sintered metal											◐	✠	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping
Precision finishing	2QP-CCGW 32.50.5-LF	2QP-CCGW09T302-LF	0.008	0.091	2			○			
	2QP-CCGW 32.50.5-L	2QP-CCGW09T302-L		0.091	2				○		
	2QP-CCGW 32.51-LF	2QP-CCGW09T304-LF	0.016	0.091	2			○			
	2QP-CCGW 32.51-L	2QP-CCGW09T304-L		0.091	2				○		
	2QP-CCGW 32.51 FW	2QP-CCGW09T304FW		0.091	2	○	○				
	2QP-CCGW 32.52-LF	2QP-CCGW09T308-LF	0.031	0.087	2			○			
	2QP-CCGW 32.52-L	2QP-CCGW09T308-L		0.087	2				○		
	2QP-CCGW 32.52 FW	2QP-CCGW09T308FW		0.087	2	○	○				
Finishing	2QP-CCGW 32.50.5	2QP-CCGW09T302	0.008	0.091	2		○				
	2QP-CCGW 32.50.5-LC	2QP-CCGW09T302-LC		0.091	2					○	
	2QP-CCGW 32.51	2QP-CCGW09T304	0.016	0.091	2		○				
	2QP-CCGW 32.51-SR	2QP-CCGW09T304SR		0.091	2		○				
	2QP-CCMW 32.51	2QP-CCMW09T304		0.091	2		○				
	Q-CCMW 32.51	Q-CCMW09T304		0.098	1		○				
	2QP-CCGW 32.51-LC	2QP-CCGW09T304-LC		0.091	2					○	
	2QP-CCGW 32.52	2QP-CCGW09T308	0.031	0.087	2		○				
	2QP-CCGW 32.52-SR	2QP-CCGW09T308SR		0.087	2		○				
	2QP-CCMW 32.52	2QP-CCMW09T308		0.087	2		○				
	2QP-CCGW 32.52-LC	2QP-CCGW09T308-LC		0.087	2					○	
Medium cutting	2QP-CCGW 32.50.5-H	2QP-CCGW09T302-H	0.008	0.091	2						○
	2QP-CCGW 32.51-H	2QP-CCGW09T304-H	0.016	0.091	2						○
	2QP-CCGW 32.51-HC	2QP-CCGW09T304HC		0.091	2						○
	2QP-CCGW 32.52-H	2QP-CCGW09T308-H	0.031	0.087	2						○
	2QP-CCGW 32.52-HC	2QP-CCGW09T308HC		0.087	2						○

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

CC with chipbreaker



IC : 0.375"
D1 : 0.173"
S : 0.156"



80°Rhombic with hole, Positive 7°

		BXA10	BXA20	BR35F	BXM10
K	Cast iron				
S	Superalloy				
H	Hard material	●	◐	✠	●
	Sintered metal				

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping
Precision finishing	2QP-CCGT 32.51 HP	2QP-CCGT09T304-HP	0.016	0.091	2		○				
	2QP-CCGT 32.51 HS	2QP-CCGT09T304-HS		0.087	2		○				
	2QP-CCGT 32.51 FW-HP	2QP-CCGT09T304FW-HP		0.087	2	○	○				
	2QP-CCGT 32.51 FW-HS	2QP-CCGT09T304FW-HS		0.087	2	○	○				
	2QP-CCGT 32.52 HP	2QP-CCGT09T308-HP	0.031	0.087	2		○				
	2QP-CCGT 32.52 HS	2QP-CCGT09T308-HS		0.087	2		○				
	2QP-CCGT 32.52 FW-HP	2QP-CCGT09T308FW-HP		0.087	2	○	○				
	2QP-CCGT 32.52 FW-HS	2QP-CCGT09T308FW-HS		0.087	2	○	○				

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

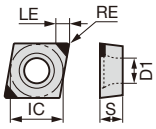
● : Line up

Reference pages: External toolholder → C034 - Internal toolholder → D018 -
J-Series toolholder → G030 - TungCap → K011 -

CBN Insert POSITIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

CP



IC : 0.313"
D1 : 0.134"
S : 0.094"



80° Rhombic with hole, Positive 11°

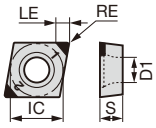
K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20
Finishing	2QP-CPGW 2.51.50.5	2QP-CPGW080202	0.008	0.091	2		○					●	●			
Finishing	2QP-CPGW 2.51.51	2QP-CPGW080204	0.016	0.091	2		○					●	●			
Finishing	2QP-CPGW 2.51.52	2QP-CPGW080208	0.031	0.087	2		○					●	●			

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

CP



IC : 0.375"
D1 : 0.173"
S : 0.125"



80° Rhombic with hole, Positive 11°

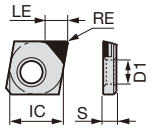
K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20
Finishing	2QP-CPGW 320.5	2QP-CPGW090302	0.008	0.091	2		○					●	●
Finishing	2QP-CPGW 321	2QP-CPGW090304	0.016	0.091	2		○					●	●
Finishing	2QP-CPGW 322	2QP-CPGW090308	0.031	0.087	2		○					●	●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

CP



IC : 0.375"
D1 : 0.157"
S : 0.094"



80° Rhombic with hole, Positive 11°

K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	CPGA 31.51 QBN	CPGA090204-QBN	0.016	0.157	1		○					●
Finishing	CPGA 31.52 QBN	CPGA090208-QBN	0.031	0.150	1		○					●

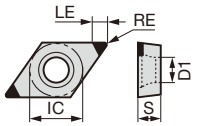
Tungaloy's standard hole specifi cation (ISO non-compliant)
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: Internal toolholder → D022 -

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

DC



IC : 0.250"
D1 : 0.109"
S : 0.094"



55° Rhombic with hole, Positive 7°

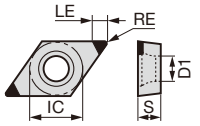
		BXA10	BXA20	BR35F	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360	BX470	BX480	BX930
K	Cast iron											◐	●	
S	Superalloy											◐		
H	Hard material	●	◐	✣	●	◐	●	◐	●	●	◐			
	Sintered metal											◐	✣	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360	BX470	BX480	BX930
Finishing	2QP-DCGW 21.50.5-LF	2QP-DCGW070202-LF	0.008	0.106	2			○				●	●											
	2QP-DCGW 21.50.5-L	2QP-DCGW070202-L		0.106	2				○			●	●											
	2QP-DCGW 21.51-LF	2QP-DCGW070204-LF	0.016	0.098	2			○				●	●											
	2QP-DCGW 21.51-L	2QP-DCGW070204-L		0.098	2				○			●	●											
	2QP-DCGW 21.52-LF	2QP-DCGW070208-LF	0.031	0.083	2			○				●	●											
	2QP-DCGW 21.52-L	2QP-DCGW070208-L		0.083	2				○			●	●											
Medium cutting	2QP-DCGW 21.50.5	2QP-DCGW070202	0.008	0.106	2		○					●	●		●	●	●	●						
	2QP-DCGW 21.50.5-SR	2QP-DCGW070202SR		0.106	2		○							●										
	2QP-DCMW 21.50.5	2QP-DCMW070202		0.106	2		○												●	●	●			
	2QP-DCGW 21.50.5-LC	2QP-DCGW070202-LC		0.106	2					○		●	●											
	2QP-DCGW 21.51	2QP-DCGW070204	0.016	0.098	2		○					●	●		●	●	●	●				●	●	
	2QP-DCGW 21.51-SR	2QP-DCGW070204SR		0.098	2		○							●										
	2QP-DCMW 21.51	2QP-DCMW070204		0.098	2		○												●	●	●			●
	Q-DCMW 21.51	Q-DCMW070204		0.083	1		○													●				
	2QP-DCGW 21.51-LC	2QP-DCGW070204-LC		0.098	2					○		●	●											
	2QP-DCGW 21.52	2QP-DCGW070208	0.031	0.083	2		○					●	●									●		
	2QP-DCGW 21.52-SR	2QP-DCGW070208SR		0.083	2		○							●										
	2QP-DCGW 21.52-LC	2QP-DCGW070208-LC		0.083	2					○		●	●											

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

DC with chipbreaker



IC : 0.250"
D1 : 0.109"
S : 0.094"



55° Rhombic with hole, Positive 7°

		BXA10	BXA20	BR35F	BXM10
K	Cast iron				
S	Superalloy				
H	Hard material	●	◐	✣	●
	Sintered metal				

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10
Precision finishing	2QP-DCGT 21.51 HP	2QP-DCGT070204-HP	0.016	0.098	2		○					●	●	●	●
	2QP-DCGT 21.51 HS	2QP-DCGT070204-HS		0.098	2		○					●	●	●	

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

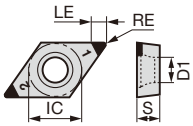
● : Line up

Reference pages: External toolholder → C052 - Internal toolholder → D032 -
J-Series toolholder → G037 - TungCap → K015 -

CBN Insert POSITIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

DC



IC : 0.375"
D1 : 0.173"
S : 0.156"



55° Rhombic with hole, Positive 7°

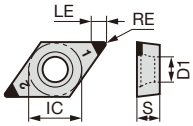
K	Cast iron	
S	Superalloy	
H	Hard material	
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360	BX470	BX480	BX815	BX930
Precision finishing	2QP-DCGW 32.50.5 F	2QP-DCGW11T302F	0.008	0.106	2			○														●			
	2QP-DCGW 32.50.5-LF	2QP-DCGW11T302-LF		0.106	2			○				●	●												
	2QP-DCGW 32.50.5-L	2QP-DCGW11T302-L		0.106	2				○			●	●												
	2QP-DCGW 32.51 F	2QP-DCGW11T304F	0.016	0.098	2			○														●			
	2QP-DCGW 32.51-E	2QP-DCGW11T304-E		0.098	2		○																	●	
	2QP-DCGW 32.51-LT	2QP-DCGW11T304-LT		0.098	2						○													●	
	2QP-DCGW 32.51-LF	2QP-DCGW11T304-LF		0.098	2			○				●	●												
	2QP-DCGW 32.51-L	2QP-DCGW11T304-L		0.098	2				○			●	●												
	2QP-DCGW 32.52-LF	2QP-DCGW11T308-LF	0.031	0.083	2			○				●	●												
	2QP-DCGW 32.52-L	2QP-DCGW11T308-L		0.083	2				○			●	●												
Finishing	2QP-DCGW 32.50.2	2QP-DCGW11T301	0.004	0.109	2		○					●	●												
	2QP-DCGW 32.50.5	2QP-DCGW11T302	0.008	0.106	2		○					●	●		●	●	●	●							
	2QP-DCGW 32.50.5-SR	2QP-DCGW11T302SR		0.106	2		○							●											
	2QP-DCMW 32.50.5	2QP-DCMW11T302		0.106	2		○												●	●	●				
	2QP-DCGW 32.50.5-LC	2QP-DCGW11T302-LC		0.106	2					○		●	●												
	2QP-DCGW 32.51	2QP-DCGW11T304	0.016	0.098	2		○					●	●		●	●	●	●				●	●		
	2QP-DCGW 32.51-SR	2QP-DCGW11T304SR		0.098	2		○							●											
	2QP-DCMW 32.51	2QP-DCMW11T304		0.098	2		○												●	●	●			●	
	Q-DCMW 32.51	Q-DCMW11T304		0.083	1		○													●					
	2QP-DCGW 32.51-LC	2QP-DCGW11T304-LC		0.098	2					○		●	●												
	2QP-DCGW 32.52	2QP-DCGW11T308	0.031	0.083	2		○					●	●		●	●	●	●				●			
	2QP-DCGW 32.52-SR	2QP-DCGW11T308SR		0.083	2		○							●											
	2QP-DCMW 32.52	2QP-DCMW11T308		0.083	2		○												●	●	●				
	2QP-DCGW 32.52-LC	2QP-DCGW11T308-LC		0.083	2					○		●	●												
Medium cutting	2QP-DCGW 32.50.5-H	2QP-DCGW11T302-H	0.008	0.106	2						○		●												
	2QP-DCGW 32.51-H	2QP-DCGW11T304-H	0.016	0.098	2						○		●												
	2QP-DCGW 32.51-HC	2QP-DCGW11T304HC		0.098	2						○			●											
	2QP-DCGW 32.52-H	2QP-DCGW11T308-H	0.031	0.083	2						○		●												
	2QP-DCGW 32.52-HC	2QP-DCGW11T308HC		0.083	2						○			●											

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

DC with chipbreaker



IC : 0.375"
D1 : 0.173"
S : 0.156"



55° Rhombic with hole, Positive 7°

K	Cast iron	
S	Superalloy	
H	Hard material	
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10
Precision finishing	2QP-DCGT 32.51 HP	2QP-DCGT11T304-HP	0.016	0.098	2		○					●	●	●	●
	2QP-DCGT 32.51 HS	2QP-DCGT11T304-HS		0.098	2		○					●	●	●	
	2QP-DCGT 32.52 HP	2QP-DCGT11T308-HP	0.031	0.083	2		○					●	●	●	●
	2QP-DCGT 32.52 HS	2QP-DCGT11T308-HS		0.083	2		○					●	●	●	

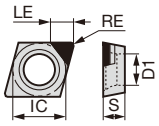
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: External toolholder → C052 - Internal toolholder → D032 -
J-Series toolholder → G037 - TungCap → K015 -

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

EP



IC : 0.141"
D1 : 0.075"
S : 0.055"

75° Rhombic, Positive 11° with hole

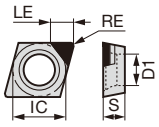
K	Cast iron	
S	Superalloy	
H	Hard material	●
	Sintered metal	◐

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX310	BX470
Finishing	1QP-EPGW 4.51.80.5	1QP-EPGW03X102	0.008	0.055	1		○					●	●
Finishing	1QP-EPGW 4.51.81	1QP-EPGW03X104	0.016	0.051	1		○					●	●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

EP



IC : 0.156"
D1 : 0.091"
S : 0.063"

75° Rhombic, Positive 11° with hole

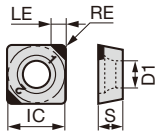
K	Cast iron	
S	Superalloy	
H	Hard material	●
	Sintered metal	◐

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX310	BX470
Finishing	1QP-EPGW 520.5	1QP-EPGW040102	0.008	0.067	1		○					●	●
Finishing	1QP-EPGW 521	1QP-EPGW040104	0.016	0.063	1		○					●	●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

SP



IC : 0.375"
D1 : 0.173"
S : 0.156"

Square Positive 11° with hole

K	Cast iron	●
S	Superalloy	
H	Hard material	
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX910
Finishing	2QP-SPGW 32.52	2QP-SPGW09T308	0.031	0.094	2		○					●
Finishing	2QP-SPGW 32.53	2QP-SPGW09T312	0.047	0.094	2		○					●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

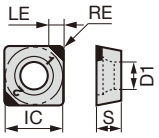
● : Line up

Reference pages: EP: Internal toolholder → D048 -
SP: Internal toolholder → D052

CBN Insert POSITIVE TYPE

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

SP



IC : 0.500"
D1 : 0.217"
S : 0.187"

Square Positive 11° with hole

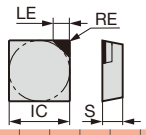
K	Cast iron	●
S	Superalloy	
H	Hard material	
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX910
Finishing	2QP-SPGW 432	2QP-SPGW120408	0.031	0.094	2		○					●
Finishing	2QP-SPGW 433	2QP-SPGW120412	0.047	0.094	2		○					●
Finishing	2QP-SPGW 434	2QP-SPGW120416	0.063	0.094	2		○					●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

SP



IC : 0.500"
S : 0.125"

Square Positive 11° without hole

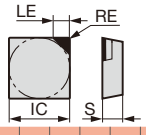
K	Cast iron	● ●
S	Superalloy	
H	Hard material	● ●ⓒ
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX330	BX360	BX910	BX930
Finishing	2QP-SPMN 321	2QP-SPMN090304	0.016	0.094	2		○					●	●		●
Finishing	Q-SPGN 321	Q-SPGN090304		0.109	1		○					●			
Finishing	2QP-SPGN 322	2QP-SPGN090308	0.031	0.094	2		○							●	
Finishing	2QP-SPMN 322	2QP-SPMN090308		0.094	2		○					●	●		●
Finishing	Q-SPGN 322	Q-SPGN090308		0.109	1		○					●			
Finishing	2QP-SPGN 323	2QP-SPGN090312	0.047	0.094	2		○							●	

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

SP



IC : 0.375"
S : 0.125"

Square Positive 11° without hole

K	Cast iron	
S	Superalloy	
H	Hard material	●ⓒ
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	SPGN 321 QBN	SPGN090304-QBN	0.016	0.161	1		○					●
Finishing	SPGN 322 QBN	SPGN090308-QBN	0.031	0.161	1		○					●
Finishing	SPGN 323 QBN	SPGN090312-QBN	0.047	0.161	1		○					●

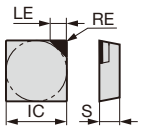
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: Internal toolholder → D052 -

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

SP



IC : 0.500"
S : 0.125"

Square Positive 11° without hole

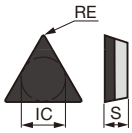
K	Cast iron	
S	Superalloy	
H	Hard material	●◐
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	SPGN 422 QBN	SPGN120308-QBN	0.016	0.161	1		○					●
Finishing	SPGN 423 QBN	SPGN120312-QBN	0.031	0.161	1		○					●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

TB



IC : 0.156"
S : 0.063"

Triangular Positive 5° without hole

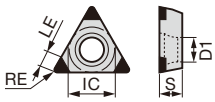
K	Cast iron	
S	Superalloy	
H	Hard material	●◐
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	TBGN 521 QBN	TBGN060104-15-QBN	0.016	-	3		○					●
Finishing	TBGN 522 QBN	TBGN060108-15-QBN	0.031	-	3		○					●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

TC



IC : 0.219"
D1 : 0.098"
S : 0.094"

Triangular Positive 7° with hole

K	Cast iron	
S	Superalloy	
H	Hard material	● ●◐
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20
Finishing	3QP-TCGW 730.5	3QP-TCGW090202	0.008	0.091	3		○					●	●
Finishing	3QP-TCGW 731	3QP-TCGW090204	0.016	0.087	3		○					●	●
Finishing	3QP-TCGW 732	3QP-TCGW090208	0.031	0.075	3		○					●	●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: SP: Internal toolholder → D053
TC: External toolholder → C098 -, Internal toolholder → D056
J-Series toolholder → G054 -

CBN Insert POSITIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

TC



IC : 0.250"
D1 : 0.109"
S : 0.094"

Triangular Positive 7° with hole

K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20
Finishing	3QP-TCGW 21.50.5	3QP-TCGW110202	0.008	0.091	3		○					●	●
	3QP-TCGW 21.51	3QP-TCGW110204	0.016	0.087	3		○					●	●
	3QP-TCGW 21.52	3QP-TCGW110208	0.031	0.075	3		○					●	●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

TC



IC : 0.375"
D1 : 0.173"
S : 0.156"

Triangular Positive 7° with hole

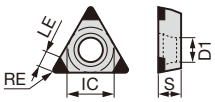
K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20
Finishing	3QP-TCGW 32.50.5	3QP-TCGW16T302	0.008	0.091	3		○					●	●
	3QP-TCGW 32.51	3QP-TCGW16T304	0.016	0.087	3		○					●	●
	3QP-TCGW 32.52	3QP-TCGW16T308	0.031	0.075	3		○					●	●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

TP



IC : 0.187"
D1 : 0.091"
S : 0.094"

Triangular Positive 11° with hole

K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360	BX930
Finishing	3QP-TPGW 630.5	3QP-TPGW080202	0.008	0.091	3		○					●	●								
	3QP-TPGW 631	3QP-TPGW080204		0.087	3		○					●	●	●	●	●	●				
	3QP-TPMW 631	3QP-TPMW080204	0.016	0.087	3		○											●	●	●	●
	Q-TPMW 631	Q-TPMW080204		0.087	1		○												●		
	3QP-TPGW 632	3QP-TPGW080208	0.031	0.075	3		○					●	●								

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: TC: External toolholder → C098 -, Internal toolholder → D056
J-Series toolholder → G054 -
TP: Internal toolholder → D057 -

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

TP



Triangular Positive 11° with hole



IC : 0.219"
D1 : 0.098"
S : 0.094"

		BXA10	BXA20	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360	BX930
K	Cast iron									●	
S	Superalloy										
H	Hard material	●	●◐	●	●◐	●	●◐	●	●	●◐	
	Sintered metal										

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360	BX930
Finishing	3QP-TPGW 730.5	3QP-TPGW090202		0.091	3		○					●	●		●	●	●				
	3QP-TPMW 730.5	3QP-TPMW090202	0.008	0.091	3		○												●	●	●
	Q-TPMW 73Y	Q-TPMW090202		0.094	1		○												●		
	3QP-TPGW 731	3QP-TPGW090204		0.087	3		○					●	●	●	●	●	●				
	3QP-TPMW 731	3QP-TPMW090204	0.016	0.087	3		○											●	●	●	●
	Q-TPMW 731	Q-TPMW090204		0.091	1		○												●		
	3QP-TPGW 732	3QP-TPGW090208	0.031	0.075	3		○					●	●								

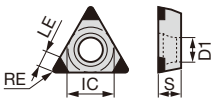
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

TP



Triangular Positive 11° with hole



IC : 0.250"
D1 : 0.109"
S : 0.094"

		BXA10	BXA20	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360	BX470	BX930
K	Cast iron											●
S	Superalloy											
H	Hard material	●	●◐	●	●◐	●	●◐	●	●	●◐		
	Sintered metal										●◐	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360	BX470	BX930
Finishing	3QP-TPGW 21.50.5	3QP-TPGW110202		0.091	3		○					●	●		●	●	●					
	3QP-TPMW 21.50.5	3QP-TPMW110202	0.008	0.091	3		○											●	●	●		●
	Q-TPMW 21.50.5	Q-TPMW110202		0.094	1		○												●			
	3QP-TPGW 21.51	3QP-TPGW110204		0.087	3		○					●	●	●	●	●	●				●	
	3QP-TPMW 21.51	3QP-TPMW110204	0.016	0.087	3		○											●	●	●		●
	Q-TPMW 21.51	Q-TPMW110204		0.087	1		○												●			
	3QP-TPGW 21.52	3QP-TPGW110208	0.031	0.075	3		○					●	●								●	

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: Internal toolholder → D057 -

CBN Insert POSITIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

TP



Triangular Positive 11° with hole



IC : 0.250"
D1 : 0.134"
S : 0.125"

		BXA10	BXA20	BR35F	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360	BX470	BX480	BX910	BX930
K	Cast iron											●◐	●	●	
S	Superalloy											●◐			
H	Hard material	●	●◐	✣	●	●◐	●	●◐	●	●	●◐				
	Sintered metal											●◐	●✣		

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360	BX470	BX480	BX910	BX930
Precision finishing	3QP-TPGW 220.5-LF	3QP-TPGW110302-LF	0.008	0.091	3			○				●	●												
	3QP-TPGW 220.5-L	3QP-TPGW110302-L		0.091	3				○			●	●												
	3QP-TPGW 221 F	3QP-TPGW110304F	0.016	0.087	3			○														●			
	3QP-TPGW 221-LF	3QP-TPGW110304-LF		0.087	3			○				●	●												
	3QP-TPGW 221-L	3QP-TPGW110304-L		0.087	3				○			●	●												
	3QP-TPGW 222 F	3QP-TPGW110308F	0.031	0.075	3			○														●			
	3QP-TPGW 222-LF	3QP-TPGW110308-LF		0.075	3			○				●	●												
	3QP-TPGW 222-L	3QP-TPGW110308-L		0.075	3				○			●	●												
Finishing	3QP-TPGW 220.5	3QP-TPGW110302	0.008	0.091	3		○					●	●			●	●	●					●		
	3QP-TPMW 220.5	3QP-TPMW110302		0.091	3		○												●	●	●				●
	3QP-TPGW 220.5-LC	3QP-TPGW110302-LC		0.091	3					○		●	●												
	3QP-TPGW 221	3QP-TPGW110304	0.016	0.087	3		○					●	●		●	●	●	●				●	●		
	3QP-TPGW 221-SR	3QP-TPGW110304SR		0.087	3		○							●											
	3QP-TPMW 221	3QP-TPMW110304		0.087	3		○												●	●	●				●
	Q-TPMW 221	Q-TPMW110304		0.087	1		○													●					
	3QP-TPGW 221-LC	3QP-TPGW110304-LC		0.087	3					○		●	●												
	3QP-TPGW 222	3QP-TPGW110308	0.031	0.075	3		○					●	●		●	●	●	●				●	●	●	
	3QP-TPGW 222-SR	3QP-TPGW110308SR		0.075	3		○							●											
	3QP-TPMW 222	3QP-TPMW110308		0.075	3		○												●	●	●				●
	Q-TPMW 222	Q-TPMW110308		0.075	1		○													●					
	3QP-TPGW 222-LC	3QP-TPGW110308-LC		0.075	3					○		●	●												
Medium cutting	3QP-TPGW 220.5-H	3QP-TPGW110302-H	0.008	0.091	3						○		●												
	3QP-TPGW 221-H	3QP-TPGW110304-H	0.016	0.087	3						○		●												
	3QP-TPGW 221-HC	3QP-TPGW110304HC		0.087	3						○			●											
	3QP-TPGW 222-H	3QP-TPGW110308-H	0.031	0.075	3						○		●												
	3QP-TPGW 222-HC	3QP-TPGW110308HC		0.075	3						○			●											

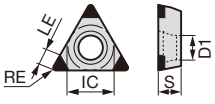
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

TP with chipbreaker



Triangular Positive 11° with hole



IC : 0.250"
D1 : 0.134"
S : 0.125"

		BXA10	BXA20	BR35F	BXM10
K	Cast iron				
S	Superalloy				
H	Hard material	●	●◐	✣	●
	Sintered metal				

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10
Precision finishing	3QP-TPGT 221 HP	3QP-TPGT110304-HP	0.016	0.087	3		○					●	●	●	●
	3QP-TPGT 221 HS	3QP-TPGT110304-HS		0.083	3		○					●	●	●	
	3QP-TPGT 222 HP	3QP-TPGT110308-HP	0.031	0.075	3		○					●	●	●	●
	3QP-TPGT 222 HS	3QP-TPGT110308-HS		0.071	3		○					●	●	●	

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: Mounting hole specification → B146
Internal toolholder → D057 -

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

TP



Triangular Positive 11° with hole



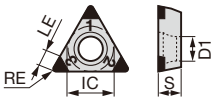
IC : 0.313"
D1 : 0.134"
S : 0.125"

| | | |

CBN Insert POSITIVE TYPE

● : Continuous cutting
ⓒ : Light interrupted cutting
✣ : Heavy interrupted cutting

TP



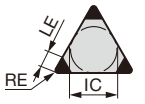
IC : 0.375"
D1 : 0.173"
S : 0.187"

Triangular Positive 11° with hole

| | | |

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

TP



IC : 0.375"
S : 0.125"

Triangular Positive 11° without hole

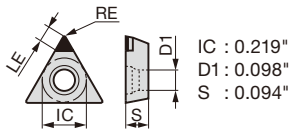
K	Cast iron	●◐ ●
S	Superalloy	●◐
H	Hard material	● ●◐
	Sintered metal	◐✣

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX330	BX360	BX480	BX930
Finishing	3QP-TPGN 321	3QP-TPGN160304	0.016	0.087	3		○							●	
Finishing	3QP-TPMN 321	3QP-TPMN160304		0.087	3		○					●	●		●
Finishing	Q-TPGN 321	Q-TPGN160304		0.091	1		○					●			
Finishing	3QP-TPGN 322	3QP-TPGN160308	0.031	0.075	3		○							●	
Finishing	3QP-TPMN 322	3QP-TPMN160308		0.075	3		○					●	●		●
Finishing	Q-TPGN 322	Q-TPGN160308		0.075	1		○					●			

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

TP



IC : 0.219"
D1 : 0.098"
S : 0.094"

Triangular Positive 11° with hole

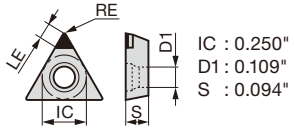
K	Cast iron	
S	Superalloy	
H	Hard material	●◐
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	TPGW 73Y QBN	TPGW090202-QBN	0.008	0.130	1		○					●
Finishing	TPGW 731 QBN	TPGW090204-QBN	0.016	0.125	1		○					●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

TP



IC : 0.250"
D1 : 0.109"
S : 0.094"

Triangular Positive 11° with hole

K	Cast iron	
S	Superalloy	
H	Hard material	●◐
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	TPGW 21.50.5 QBN	TPGW110202-QBN	0.008	0.154	1		○					●
Finishing	TPGW 21.51 QBN	TPGW110204-QBN	0.016	0.146	1		○					●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: Internal toolholder → D057 -

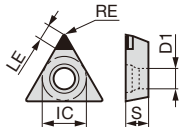
CBN Insert POSITIVE TYPE

● : Continuous cutting
ɔ : Light interrupted cutting
✣ : Heavy interrupted cutting

TP



Triangular Positive 11° with hole



IC : 0.313"
D1 : 0.134"
S : 0.125"

K	Cast iron
S	Superalloy
H	Hard material ●ɔ
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	TPGW 2.520.5 QBN	TPGW130302-QBN	0.008	0.154	1		○					●
	TPGW 2.521 QBN	TPGW130304-QBN	0.016	0.146	1		○					●

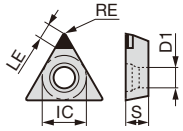
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

TP



Triangular Positive 11° with hole



IC : 0.375"
D1 : 0.173"
S : 0.156"

K	Cast iron
S	Superalloy
H	Hard material ●ɔ
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	TPGW 32.50.5 QBN	TPGW16T302-QBN	0.008	0.173	1		○					●
	TPGW 32.51 QBN	TPGW16T304-QBN	0.016	0.165	1		○					●
	TPGW 32.52 QBN	TPGW16T308-QBN	0.031	0.157	1		○					●

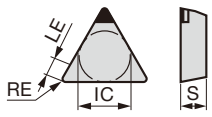
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

TP



Triangular Positive 11° without hole



IC : 0.250"
S : 0.125"

K	Cast iron
S	Superalloy
H	Hard material ●ɔ
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	TPGN 221 QBN	TPGN110304-QBN	0.016	0.146	1		○					●
	TPGN 222 QBN	TPGN110308-QBN	0.031	0.138	1		○					●

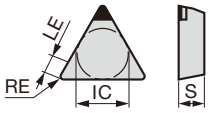
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: Internal toolholder → D057 -

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

TP



IC : 0.375"
S : 0.125"

Triangular Positive 11° without hole

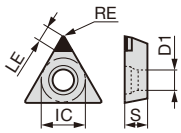
	K	Cast iron
	S	Superalloy
	H	Hard material
		Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	TPGN 321 QBN	TPGN160304-QBN	0.016	0.165	1		○					●
	TPGN 322 QBN	TPGN160308-QBN	0.031	0.157	1		○					●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

TP



IC : 0.219"
D1 : 0.125"
S : 0.094"

Triangular Positive 11° with hole

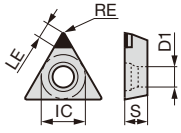
	K	Cast iron
	S	Superalloy
	H	Hard material
		Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	TPGA 73Y QBN	TPGA090202-QBN	0.008	0.122	1		○					●
	TPGA 731 QBN	TPGA090204-QBN	0.016	0.114	1		○					●

Tungaloy's standard hole specifi cation (ISO non-compliant)
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

TP



IC : 0.250"
D1 : 0.118"
S : 0.094"

Triangular Positive 11° with hole

	K	Cast iron
	S	Superalloy
	H	Hard material
		Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	TPGA 21.50.5 QBN	TPGA110202-QBN	0.008	0.154	1		○					●
	TPGA 21.51 QBN	TPGA110204-QBN	0.016	0.146	1		○					●

Tungaloy's standard hole specifi cation (ISO non-compliant)
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

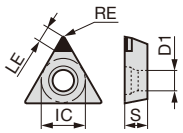
● : Line up

Reference pages: Mounting hole specification → B146
Internal toolholder → D057 -

CBN Insert POSITIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

TP



IC : 0.250"
D1 : 0.125"
S : 0.118"

Triangular Positive 11° with hole

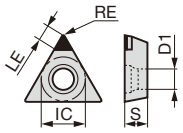
K	Cast iron	
S	Superalloy	
H	Hard material	●◐
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	TPGA 220.5 QBN	TPGA110302-QBN	0.008	0.154	1		○					●
Finishing	TPGA 221 QBN	TPGA110304-QBN	0.016	0.146	1		○					●

Tungaloy's standard hole specifi cation (ISO non-compliant)
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

TP



IC : 0.375"
D1 : 0.157"
S : 0.125"

Triangular Positive 11° with hole

K	Cast iron	
S	Superalloy	
H	Hard material	●◐
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BX360
Finishing	TPGA 320.5 QBN	TPGA160302-QBN	0.008	0.173	1		○					●
Finishing	TPGA 321 QBN	TPGA160304-QBN	0.016	0.165	1		○					●
Finishing	TPGA 322 QBN	TPGA160308-QBN	0.031	0.157	1		○					●

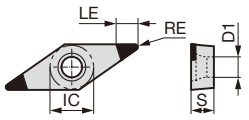
Tungaloy's standard hole specifi cation (ISO non-compliant)
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: Mounting hole specification → B146
Internal toolholder → D057 -

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

VB



IC : 0.250"
D1 : 0.110"
S : 0.094"

35° Rhombic Positive 5° with hole

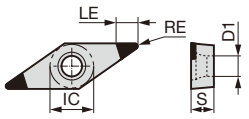
K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20
Finishing	2QP-VBGW 21.50.5	2QP-VBGW110202	0.008	0.138	2		○					●	●
	2QP-VBGW 21.51	2QP-VBGW110204	0.016	0.122	2		○					●	●
	2QP-VBGW 21.52	2QP-VBGW110208	0.031	0.087	2		○					●	●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

VB



IC : 0.250"
D1 : 0.110"
S : 0.125"

35° Rhombic Positive 5° with hole

K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360	BX930
Precision finishing	2QP-VBGW 220.5-LF	2QP-VBGW110302-LF	0.008	0.138	2			○				●	●									
	2QP-VBGW 220.5-L	2QP-VBGW110302-L		0.138	2				○			●	●									
	2QP-VBGW 221-LF	2QP-VBGW110304-LF	0.016	0.122	2			○				●	●									
	2QP-VBGW 221-L	2QP-VBGW110304-L		0.122	2				○			●	●									
	2QP-VBGW 222-LF	2QP-VBGW110308-LF	0.031	0.087	2			○				●	●									
	2QP-VBGW 222-L	2QP-VBGW110308-L		0.087	2				○			●	●									
Finishing	2QP-VBGW 220.2	2QP-VBGW110301	0.004	0.122	2		○					●	●									
	2QP-VBGW 220.5	2QP-VBGW110302	0.008	0.138	2		○					●	●									
	2QP-VBGW 220.5-LC	2QP-VBGW110302-LC		0.138	2					○		●	●									
	2QP-VBGW 221	2QP-VBGW110304	0.016	0.122	2		○					●	●		●	●	●	●				
	2QP-VBGW 221-SR	2QP-VBGW110304SR		0.122	2		○							●								
	2QP-VBMW 221	2QP-VBMW110304		0.122	2		○												●	●	●	●
	2QP-VBGW 221-LC	2QP-VBGW110304-LC		0.122	2					○		●	●									
	2QP-VBGW 222	2QP-VBGW110308	0.031	0.087	2		○					●	●		●	●	●	●				
	2QP-VBGW 222-SR	2QP-VBGW110308SR		0.087	2		○							●								
	2QP-VBMW 222	2QP-VBMW110308		0.087	2		○												●	●	●	●
	2QP-VBGW 222-LC	2QP-VBGW110308-LC		0.087	2					○		●	●									

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

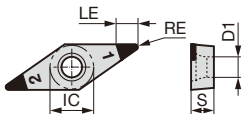
● : Line up

Reference pages: Internal toolholder → D068 - J-Series toolholder → G058 -
TungCap → K027

CBN Insert POSITIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

VB with chipbreaker



IC : 0.250"
D1 : 0.110"
S : 0.125"



35° Rhombic Positive 5° with hole

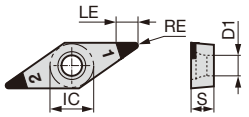
K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BXM10
Precision finishing	2QP-VBGT 331 HP	2QP-VBGT110304-HP	0.016	0.118	2		○					●	●	●
	2QP-VBGT 221 HS	2QP-VBGT110304-HS		0.118	2		○					●	●	
	2QP-VBGT 221 HS	2QP-VBGT110308-HP	0.031	0.087	2		○					●	●	●
	2QP-VBGT 222 HS	2QP-VBGT110308-HS		0.087	2		○					●	●	

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

VB



IC : 0.375"
D1 : 0.173"
S : 0.187"



35° Rhombic Positive 5° with hole

K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360
Precision finishing	2QP-VBGW 330.5-LF	2QP-VBGW160402-LF	0.008	0.138	2			○				●	●								
	2QP-VBGW 330.5-L	2QP-VBGW160402-L		0.138	2				○			●	●								
	2QP-VBGW 331-LF	2QP-VBGW160404-LF	0.016	0.122	2			○				●	●								
	2QP-VBGW 331-L	2QP-VBGW160404-L		0.122	2				○			●	●								
	2QP-VBGW 332-LF	2QP-VBGW160408-LF	0.031	0.087	2			○				●	●								
	2QP-VBGW 332-L	2QP-VBGW160408-L		0.087	2				○			●	●								
Finishing	2QP-VBGW 330.5	2QP-VBGW160402	0.008	0.138	2		○					●	●								
	2QP-VBGW 330.5-LC	2QP-VBGW160402-LC		0.138	2					○		●	●								
	2QP-VBGW 331	2QP-VBGW160404	0.016	0.122	2		○					●	●		●	●	●	●			
	2QP-VBGW 331-SR	2QP-VBGW160404SR		0.122	2		○							●							
	2QP-VBMW 331	2QP-VBMW160404		0.122	2		○												●	●	●
	2QP-VBGW 331-LC	2QP-VBGW160404-LC		0.122	2					○		●	●								
	2QP-VBGW 332	2QP-VBGW160408	0.031	0.087	2		○					●	●		●	●	●	●			
	2QP-VBGW 332-SR	2QP-VBGW160408SR		0.087	2		○							●							
	2QP-VBMW 332	2QP-VBMW160408		0.087	2		○												●	●	●
	2QP-VBGW 332-LC	2QP-VBGW160408-LC		0.087	2					○		●	●								
	2QP-VBGW 333	2QP-VBGW160412	0.047	0.118	2		○					●	●								
Medium cutting	2QP-VBGW 330.5-H	2QP-VBGW160402-H	0.008	0.138	2						○		●								
	2QP-VBGW 331-H	2QP-VBGW160404-H	0.016	0.122	2						○		●								
	2QP-VBGW 331-HC	2QP-VBGW160404HC		0.122	2						○			●							
	2QP-VBGW 332-H	2QP-VBGW160408-H	0.031	0.087	2						○		●								
	2QP-VBGW 332-HC	2QP-VBGW160408HC		0.087	2						○			●							

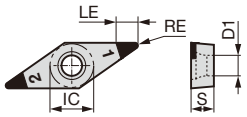
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

Reference pages: VB: Internal toolholder → D068 -, J-Series toolholder → G058 -, TungCap → K027
VC: External toolholder → C113 -, Internal toolholder → D072 -, TungCap → K015 -

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

VB with chipbreaker



IC : 0.375"
D1 : 0.173"
S : 0.187"



35° Rhombic Positive 5° with hole

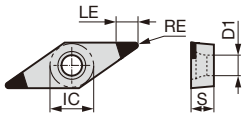
K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BXM10
Precision finishing	2QP-VBGT 331 HP	2QP-VBGT160404-HP	0.016	0.118	2		○					●	●	●
	2QP-VBGT 331 HS	2QP-VBGT160404-HS		0.118	2		○					●	●	
	2QP-VBGT 332 HP	2QP-VBGT160408-HP	0.031	0.087	2		○					●	●	●
	2QP-VBGT 332 HS	2QP-VBGT160408-HS		0.087	2		○					●	●	

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

VC



IC : 0.187"
D1 : 0.091"
S : 0.094"



35° Rhombic Positive 7° with hole

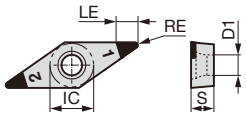
K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20
Finishing	2QP-VCGW 630.5	2QP-VCGW080202	0.008	0.138	2		○					●	●
	2QP-VCGW 631	2QP-VCGW080204	0.016	0.122	2		○					●	●
	2QP-VCGW 632	2QP-VCGW080208	0.031	0.087	2		○					●	●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

VC



IC : 0.375"
D1 : 0.173"
S : 0.187"



35° Rhombic Positive 7° with hole

K	Cast iron
S	Superalloy
H	Hard material
	Sintered metal

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BXM10	BXM20	BXA40	BX330	BX360	BX815	BX930
Precision finishing	2QP-VCGW 332-E	2QP-VCGW160408-E	0.031	0.087	2		○												●	
	2QP-VCGW 332-LT	2QP-VCGW160408-LT		0.087	2						○								●	
	2QP-VCGW 333-E	2QP-VCGW160412-E	0.047	0.118	2		○												●	
	2QP-VCGW 333-LT	2QP-VCGW160412-LT		0.118	2						○								●	
Finishing	2QP-VCGW 330.5	2QP-VCGW160402	0.008	0.138	2		○					●	●							
	2QP-VCGW 331	2QP-VCGW160404	0.016	0.122	2		○					●	●	●	●	●				
	2QP-VCMW 331	2QP-VCMW160404		0.122	2		○										●	●		●
	2QP-VCGW 332	2QP-VCGW160408	0.031	0.087	2		○					●	●							
Medium cutting	2QP-VCGW 330.5-H	2QP-VCGW160402-H	0.008	0.138	2						○	●	●							
	2QP-VCGW 331-H	2QP-VCGW160404-H	0.016	0.122	2						○	●	●							
	2QP-VCGW 332-H	2QP-VCGW160408-H	0.031	0.087	2						○	●	●							

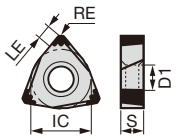
*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

CBN Insert POSITIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

WX



IC : 0.250"
D1 : 0.106"
S : 0.125"

80° Trigon with hole

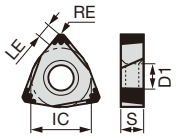
K	Cast iron	
S	Superalloy	
H	Hard material	● ◐ ✣
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F
Finishing	6QS-WXGQ 220.5SPR	6QS-WXGQ040302SPR	0.008	0.071	6		○					●	●	●
	6QS-WXGQ 220.5SPL	6QS-WXGQ040302SPL		0.071	6		○					●	●	●
	6QS-WXGQ 221SPR	6QS-WXGQ040304SPR	0.016	0.071	6		○					●	●	●
	6QS-WXGQ 221SPL	6QS-WXGQ040304SPL		0.071	6		○					●	●	●
	6QS-WXGQ 222SPR	6QS-WXGQ040308SPR	0.031	0.067	6		○					●	●	●
	6QS-WXGQ 222SPL	6QS-WXGQ040308SPL		0.067	6		○					●	●	●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

● : Line up

WX with chipbreaker



IC : 0.250"
D1 : 0.106"
S : 0.125"

80° Trigon with hole

K	Cast iron	
S	Superalloy	
H	Hard material	● ◐ ✣
	Sintered metal	

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Wiper	Standard	Improve issue* Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BR35F
Precision finishing	6QS-WXGU 221R HP	6QS-WXGU040304R-HP	0.016	0.071	6		○					●	●	●
	6QS-WXGU 221L HP	6QS-WXGU040304L-HP		0.071	6		○					●	●	●
	6QS-WXGU 222R HP	6QS-WXGU040308R-HP	0.031	0.067	6		○					●	●	●
	6QS-WXGU 222L HP	6QS-WXGU040308L-HP		0.067	6		○					●	●	●

*Indicates the insert to use if the wear indicated is what happens with the standard hone.

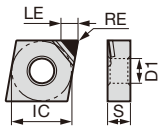
● : Line up

C
D
E
F
G
R
S
T
V
W
Y
OTHERS

Reference pages: External toolholder → C128 - Internal toolholder → D081 -
J-Series toolholder → G069 - TungCap → K025

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

CN



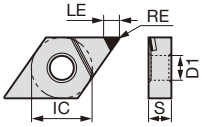
IC : 0.500"
D1 : 0.203"
S : 0.187"

80°Rhombic with hole

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	N Non-ferrous ●◐ DX110	●◐ DX120	●◐ DX140
Finishing	1QP-CNMM 430.5	1QP-CNMM120402	0.008	0.109	1	○	●		
	CNMM 430.5-DIA	CNMM120402-DIA		0.138	1	○		●	
	1QP-CNMM 431	1QP-CNMM120404	0.016	0.109	1	○	●		
	CNMM 431-DIA	CNMM120404-DIA		0.138	1	○		●	
	CNGA 431 DIA	CNGA120404-DIA		0.138	1				●
	CNGA 432 DIA	CNGA120408-DIA	0.031	0.109	1				●

● : Line up

DN



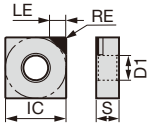
IC : 0.500"
D1 : 0.203"
S : 0.187"

55° Rhombic with hole

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	N Non-ferrous ●◐ DX120	●◐ DX140	●◐ DX160
Finishing	DNMM 430.5-DIA	DNMM150402-DIA	0.008	0.130	1	○	●		
	DNMM 431-DIA	DNMM150404-DIA	0.016	0.122	1	○	●		
	DNGA 431 DIA	DNGA150404-DIA		0.122	1			●	●
	DNGA 432 DIA	DNGA150408-DIA	0.031	0.109	1			●	

● : Line up

SN



IC : 0.500"
D1 : 0.203"
S : 0.187"

Square with hole

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	N Non-ferrous ●◐ DX140
Finishing	SNGA 431 DIA	SNGA120404-DIA	0.016	0.142	1		●
	SNGA 432 DIA	SNGA120408-DIA	0.031	0.142	1		●

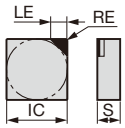
● : Line up

Reference pages: CN: External toolholder → C019 -, Internal toolholder → D027 -
J-Series toolholder → G036, TungCap → K008 -
DN: External toolholder → C036 -, Internal toolholder → D042 -
J-Series toolholder → G052, TungCap → K011 -
SN: External toolholder → C076 -, Internal toolholder → D054 -

PCD Insert NEGATIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

SN



IC : 0.500"
S : 0.187"

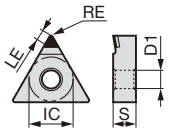
Square without hole

N Non-ferrous ●◐

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX140
Finishing	SNGN 432-DIA	SNGN120408-DIA	0.031	0.142	1		●

● : Line up

TN



IC : 0.375"
D1 : 0.150"
S : 0.187"

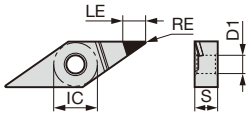
Triangular with hole

N Non-ferrous ●◐ ●◐ ●◐ ●◐

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX110	DX120	DX140	DX160
Finishing	1QP-TNMM 330.5	1QP-TNMM160402	0.008	0.106	1	○	●			
	TNMM 330.5-DIA	TNMM160402-DIA		0.130	1	○		●		
	1QP-TNMM 331	1QP-TNMM160404	0.016	0.102	1	○	●			
	TNMM 331-DIA	TNMM160404-DIA		0.125	1	○		●		
	TNGA 331 DIA	TNGA160404-DIA		0.125	1				●	●
	TNGA 332 DIA	TNGA160408-DIA	0.031	0.114	1				●	●

● : Line up

VN



IC : 0.375"
D1 : 0.150"
S : 0.187"

35° Rhombic with hole

N Non-ferrous ●◐

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX120
Finishing	VNMM 330.5-DIA	VNMM160402-DIA	0.008	0.189	1	○	●
	VNMM 331-DIA	VNMM160404-DIA	0.016	0.173	1	○	●
	VNMM 332-DIA	VNMM160408-DIA	0.031	0.142	1	○	●

● : Line up

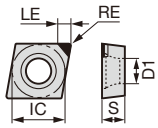
Reference pages: TN: External toolholder → C088 -, Internal toolholder → D063 -
J-Series toolholder → G056 -, TungCap → K013 -
VN: External toolholder → C103 -, Internal toolholder → D077 -, TungCap → K014 -

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

CC



80°Rhombic Positive 7° with hole



IC : 0.250"
D1 : 0.109"
S : 0.094"

N Non-ferrous ●◐ ●◐ ●◐

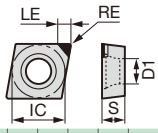
Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX110	DX120	DX140
Finishing	CCGW 21.5V DIA	CCGW060200-DIA	0.002	0.094	1				●
	CCMT 21.50.5 DIA	CCMT060202-DIA	0.008	0.094	1	○		●	
	CCGW 21.50.5 DIA	CCGW060202-DIA		0.094	1				●
	1QP-CCGT 21.51 NS	1QP-CCGT060204-NS	0.016	0.122	1	○	●		
	1QP-CCMT 21.51	1QP-CCMT060204		0.094	1	○	●		
	CCMT 21.51 DIA	CCMT060204-DIA		0.094	1	○		●	
	CCGW 21.51 DIA	CCGW060204-DIA		0.094	1				●

● : Line up

CC



80°Rhombic Positive 7° with hole



IC : 0.375"
D1 : 0.173"
S : 0.156"

N Non-ferrous ●◐ ●◐ ●◐ ●◐

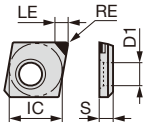
Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX110	DX120	DX140	DX160
Finishing	CCMT 32.50.5 DIA	CCMT09T302-DIA	0.008	0.094	1	○		●		
	CCGW 32.50.5 DIA	CCGW09T302-DIA		0.138	1				●	
	1QP-CCGT 32.51 NS	1QP-CCGT09T304-NS	0.016	0.122	1	○	●			
	1QP-CCMT 32.51	1QP-CCMT09T304		0.094	1	○	●			
	CCMT 32.51 DIA	CCMT09T304-DIA		0.094	1	○		●		
	CCGW 32.51 DIA	CCGW09T304-DIA		0.138	1				●	●
	1QP-CCGT 32.52 NS	1QP-CCGT09T308-NS	0.031	0.118	1	○	●			
	CCGW 32.52 DIA	CCGW09T308-DIA		0.134	1				●	

● : Line up

CP



80° Rhombic Positive 11° with hole



IC : 0.375"
D1 : 0.157"
S : 0.094"

N Non-ferrous ●◐

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX140
Finishing	CPGA 31.50.5 DIA	CPGA090202-DIA	0.008	0.094	1		●
	CPGA 31.51 DIA	CPGA090204-DIA	0.016	0.094	1		●

Tungaloy's standard hole specifi cation (ISO non-compliant)

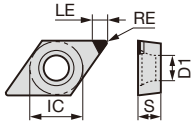
● : Line up

Reference pages: CC: External toolholder → C034 -, Internal toolholder → D018 -
J-Series toolholder → G030 -, TungCap → K011 -

PCD Insert POSITIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

DC



IC : 0.250"
D1 : 0.110"
S : 0.094"

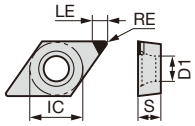
55° Rhombic Positive 7° with hole

N Non-ferrous ●◐ ●◐ ●◐

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX110	DX120	DX140
Finishing	DCGW 21.5V DIA	DCGW070200-DIA	0.002	0.094	1				●
	DCMT 21.50.5 DIA	DCMT070202-DIA	0.008	0.091	1	○		●	
	DCGW 21.50.5 DIA	DCGW070202-DIA		0.091	1			●	●
	1QP-DCGT 21.51 NS	1QP-DCGT070204-NS	0.016	0.118	1	○	●		
	DCMT 21.51 DIA	DCMT070204-DIA		0.083	1	○		●	
	DCGW 21.51 DIA	DCGW070204-DIA		0.083	1				●

● : Line up

DC



IC : 0.375"
D1 : 0.173"
S : 0.156"

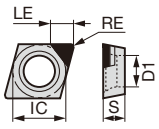
55° Rhombic Positive 7° with hole

N Non-ferrous ●◐ ●◐ ●◐

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX110	DX120	DX140
Finishing	DCMT 32.50.5 DIA	DCMT11T302-DIA	0.008	0.125	1	○		●	
	DCGW 32.50.5 DIA	DCGW11T302-DIA		0.125	1				●
	1QP-DCGT 32.51 NS	1QP-DCGT11T304-NS	0.016	0.118	1	○	●		
	DCMT 32.51 DIA	DCMT11T304-DIA		0.118	1	○		●	
	DCGW 32.51 DIA	DCGW11T304-DIA		0.118	1				●
	1QP-DCGT 32.52 NS	1QP-DCGT11T308-NS	0.031	0.118	1	○	●		
	DCGW 32.52 DIA	DCGW11T308-DIA		0.106	1				●

● : Line up

EP



IC : 0.156"
D1 : 0.091"
S : 0.063"

75° Rhombic Positive 11° with hole

N Non-ferrous ●◐

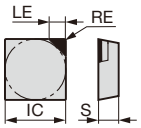
Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX140
Finishing	EPGW 520.5 DIA	EPGW040102-DIA	0.008	0.079	1		●
	EPGW 521 DIA	EPGW040104-DIA	0.016	0.075	1		●

● : Line up

Reference pages: DC: External toolholder → C052 -, Internal toolholder → D032 -
J-Series toolholder → G037 -, TungCap → K015 -
EP : Internal toolholder → D048 -

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

SP



IC : 0.375"
S : 0.125"

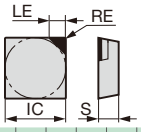
Square Positive 11° without hole

N Non-ferrous ●◐

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX140
Finishing	SPGN 322 DIA	SPGN090308-DIA	0.031	0.142	1		●

● : Line up

SP



IC : 0.500"
S : 0.125"

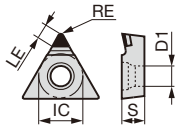
Square Positive 11° without hole

N Non-ferrous ●◐ ●◐

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX140	DX160
Finishing	SPGN 420 DIA	SPGN120302-DIA	0.008	0.142	1		●	
	SPGN 421 DIA	SPGN120304-DIA	0.016	0.142	1		●	
	SPGN 422 DIA	SPGN120308-DIA	0.031	0.142	1		●	●

● : Line up

TC



IC : 0.187"
D1 : 0.106"
S : 0.094"

Triangular Positive 7° with hole

N Non-ferrous ●◐

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX120
Finishing	TCMT 63Y DIA	TCMT080202-DIA	0.008	0.087	1	○	●
	TCMT 631 DIA	TCMT080204-DIA	0.016	0.079	1	○	●

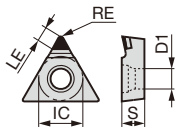
● : Line up

Reference pages: SP: Internal toolholder → D053
TC: External toolholder → C098 -, Internal toolholder → D056
J-Series toolholder → G054 -

PCD Insert POSITIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

TC



IC : 0.250"
D1 : 0.109"
S : 0.094"

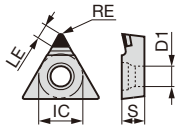
Triangular Positive 7° with hole

N Non-ferrous ●◐

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX120
Finishing	TCMT 21.50.5 DIA	TCMT110202-DIA	0.008	0.094	1	○	●
Finishing	TCMT 21.51 DIA	TCMT110204-DIA	0.016	0.087	1	○	●

● : Line up

TC



IC : 0.250"
D1 : 0.109"
S : 0.125"

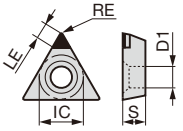
Triangular Positive 7° with hole

N Non-ferrous ●◐ ●◐

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX110	DX120
Finishing	TCMT 220.5 DIA	TCMT110302-DIA	0.008	0.094	1	○		●
Finishing	1QP- TCMT 221	1QP-TCMT110304	0.016	0.087	1	○	●	
Finishing	TCMT 221 DIA	TCMT110304-DIA		0.087	1	○		●

● : Line up

TP



IC : 0.219"
D1 : 0.098"
S : 0.094"

Triangular Positive 11° with hole

N Non-ferrous ●◐

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX140
Finishing	TPGA 73Y DIA	TPGA090202-DIA	0.008	0.094	1		●
Finishing	TPGA 731 DIA	TPGA090204-DIA	0.016	0.087	1		●

Tungaloy's standard hole specifi cation (ISO non-compliant)

● : Line up

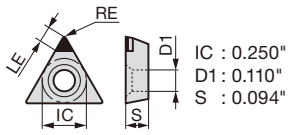
Reference pages: TC: External toolholder → C098 -, Internal toolholder → D056
J-Series toolholder → G054 -
TP: Mounting hole specification → B146, Internal toolholder → D057 -

● : Continuous cutting
ᑕ : Light interrupted cutting
✠ : Heavy interrupted cutting

TP



Triangular Positive 11° with hole



IC : 0.250"
D1 : 0.110"
S : 0.094"

N Non-ferrous ●ᑕ

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX140
Finishing	TPGA 21.50 DIA	TPGA110202-DIA	0.008	0.094	1		●
Finishing	TPGA 21.51 DIA	TPGA110204-DIA	0.016	0.087	1		●

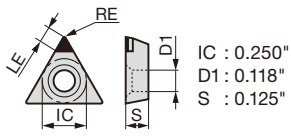
Tungaloy's standard hole specifi cation (ISO non-compliant)

● : Line up

TP



Triangular Positive 11° with hole



IC : 0.250"
D1 : 0.118"
S : 0.125"

N Non-ferrous ●ᑕ

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX140
Finishing	TPGA 220.5 DIA	TPGA110302-DIA	0.008	0.094	1		●
Finishing	TPGA 221 DIA	TPGA110304-DIA	0.016	0.087	1		●
Finishing	TPGA 222 DIA	TPGA110308-DIA	0.031	0.114	1		●

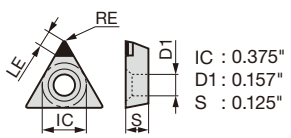
Tungaloy's standard hole specifi cation (ISO non-compliant)

● : Line up

TP



Triangular Positive 11° with hole



IC : 0.375"
D1 : 0.157"
S : 0.125"

N Non-ferrous ●ᑕ

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX140
Finishing	TPGA 320.5 DIA	TPGA160302-DIA	0.008	0.130	1		●
Finishing	TPGA 321 DIA	TPGA160304-DIA	0.016	0.125	1		●
Finishing	TPGA 322 DIA	TPGA160308-DIA	0.031	0.114	1		●

Tungaloy's standard hole specifi cation (ISO non-compliant)

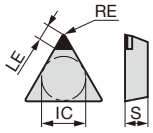
● : Line up

Reference pages: Mounting hole specification → B146
Internal toolholder → D057 -

PCD Insert POSITIVE TYPE

● : Continuous cutting
ᑕ : Light interrupted cutting
✣ : Heavy interrupted cutting

TP



IC : 0.219"
S : 0.094"

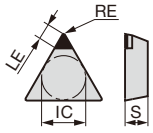
Triangular Positive 11° without hole

N Non-ferrous ●ᑕ

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX140
Finishing	TPGN 731 DIA	TPGN090204-DIA	0.016	0.087	1		●

● : Line up

TP



IC : 0.250"
S : 0.125"

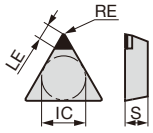
Triangular Positive 11° without hole

N Non-ferrous ●ᑕ ●ᑕ

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX120	DX140
Finishing	TPGN 221 DIA	TPGN110304-DIA	0.016	0.125	1		●	●
	TPGN 222 DIA	TPGN110308-DIA	0.031	0.114	1			●

● : Line up

TP



IC : 0.375"
S : 0.125"

Triangular Positive 11° without hole

N Non-ferrous ●ᑕ ●ᑕ

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX120	DX140
Finishing	TPGN 320.5 DIA	TPGN160302-DIA	0.008	0.130	1			●
	TPGN 321 DIA	TPGN160304-DIA	0.016	0.125	1		●	●
	TPGN 322 DIA	TPGN160308-DIA	0.031	0.114	1			●

● : Line up

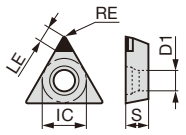
Reference pages: Internal toolholder → D058

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

TP



Triangular Positive 11° with hole



IC : 0.187"
D1 : 0.091"
S : 0.094"

	N Non-ferrous	●◐

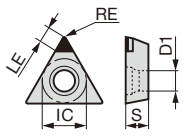
Application	Designation		Dimension (in)		No. of corners	Chipbreaker	DX140
	Inch	Metric	RE	LE			
Finishing	TPGW 63Y DIA	TPGW080202-DIA	0.008	0.094	1		●
	TPGW 631 DIA	TPGW080204-DIA	0.016	0.091	1		●

● : Line up

TP



Triangular Positive 11° with hole



IC : 0.219"
D1 : 0.098"
S : 0.094"

	N Non-ferrous	●◐	●◐

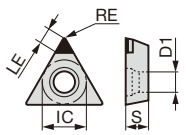
Application	Designation		Dimension (in)		No. of corners	Chipbreaker	DX120	DX140
	Inch	Metric	RE	LE				
Finishing	TPGW 73Y DIA	TPGW090202-DIA	0.008	0.094	1		●	●
	TPGW 731 DIA	TPGW090204-DIA	0.016	0.087	1			●

● : Line up

TP



Triangular Positive 11° with hole



IC : 0.250"
D1 : 0.109"
S : 0.094"

	N Non-ferrous	●◐	●◐

Application	Designation		Dimension (in)		No. of corners	Chipbreaker	DX120	DX140
	Inch	Metric	RE	LE				
Finishing	TPGW 21.50.5 DIA	TPGW110202-DIA	0.008	0.094	1		●	●
	TPGW 21.51 DIA	TPGW110204-DIA	0.016	0.087	1			●

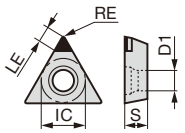
● : Line up

Reference pages: Internal toolholder → D057 -

PCD Insert POSITIVE TYPE

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

TP



IC : 0.313"
D1 : 0.134"
S : 0.125"

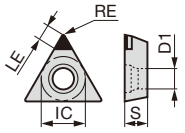


Triangular Positive 11° with hole

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	N Non-ferrous ●◐ DX120	●◐ DX140
Finishing	TPGW 2.520.5 DIA	TPGW130302-DIA	0.008	0.130	1		●	●
Finishing	TPGW 2.521 DIA	TPGW130304-DIA	0.016	0.125	1			●

● : Line up

TP



IC : 0.375"
D1 : 0.173"
S : 0.156"

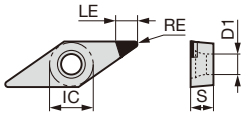


Triangular Positive 11° with hole

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	N Non-ferrous ●◐ DX140
Finishing	TPGW 32.50.5 DIA	TPGW16T302-DIA	0.008	0.130	1		●
Finishing	TPGW 32.51 DIA	TPGW16T304-DIA	0.016	0.125	1		●
Finishing	TPGW 32.52 DIA	TPGW16T308-DIA	0.031	0.114	1		●

● : Line up

VC



IC : 0.375"
D1 : 0.173"
S : 0.187"



35° Rhombic Positive 7° with hole

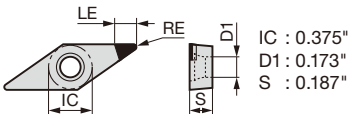
Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	N Non-ferrous ●◐ DX110	●◐ DX120	●◐ DX140
Finishing	VCMT 330.5 DIA	VCMT160402-DIA	0.008	0.189	1	○		●	
Finishing	VCGW 330.5 DIA	VCGW160402-DIA		0.189	1				●
Finishing	1QP-VCGT 331 NS	1QP-VCGT160404-NS	0.016	3	1	○	●		
Finishing	VCMT 331 DIA	VCMT160404-DIA		0.173	1	○		●	
Finishing	VCGW 331 DIA	VCGW160404-DIA		0.173	1				●
Finishing	1QP-VCGT 332 NS	1QP-VCGT160408-NS	0.031	3	1	○	●		

● : Line up

Reference pages: TP: Internal toolholder → D057 -
VC: External toolholder → C113 -, Internal toolholder → D072 -, TungCap → K015 -

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

VB



IC : 0.375"
D1 : 0.173"
S : 0.187"

35° Rhombic Positive 5° with hole

	N Non-ferrous	●ⓒ

Application	Designation Inch	Designation Metric	Dimension (in) RE	Dimension (in) LE	No. of corners	Chipbreaker	DX110
Finishing	1QP-VBGT 331 NS	1QP-VBGT160404-NS	0.016	3	1	○	●
Finishing	1QP-VBGT 332 NS	1QP-VBGT160408-NS	0.031	3	1	○	●

● : Line up

Reference pages: Internal toolholder → D068 - TungCap → K027

● CVD Coated Grades for Turning

ISO		Tungaloy	Mitsubishi Carbide	Sumitomo Electric	Sandvik	Kyocera	Moldino	NTK	Kennametal	Seco Tools	Walter	Iscar	TaeguTec	Ceratizit
Classifi-cation	Symbol													
P	P01	**T9205**	UE6105		GC4305	CA510	HG8010		KCP05B KCP05 KCPK05	TP0501	WPP05S	IC8150 IC9150	TT8105 TT8105B	CTCK110
	P10	**T9205** **T9215**	UE6105 UE6110 MC6015 MC6115	AC8015P AC8020P	GC4305 GC4315 GC4415	CA515	HG8010 GM8020	CP7	KCP10B KCP10	TP0501 TP1501	WPP10S WPP10G WPV10	IC8150 IC9150	TT8115 TT8115B	CTC3110 CTCK120 CTCP115-P
	P20	**T9215** **T9225**	MC6015 MC6025 MC6115 MC6125	AC8015P AC8020P AC8025P	GC4315 GC4325 GC4415 GC4425	CA515 CA525 CA025P	HG8025 GM8020 GM25	CP7	KCP25B KCP25	TP1501 TP2501	WPP20S WPP20G WPV20	IC8150 IC9150 IC8250 IC9250	TT8125 TT8125B TT5100	CTCP115 CTCP115-P CTCP125 CTCP125-P
	P30	**T9225** **T9235**	MC6025 MC6035 MC6125	AC8025P AC8035P AC6030M	GC4325 GC4335 GC4425	CA530 CA025P	HG8025 GM8035 GM25		KCP30B KCP30	TP2501 TP3501	WPP30S WPP30G	IC8350 IC9350	TT8125 TT8125B TT5100 TT8135 TT8135B	CTCP125 CTCP125-P CTCP135-P
	P40	**T9235** **T6215**	MC6035	AC8035P AC6030M	GC4335	CA530	GM8035 GX30		KCP40B KCP40	TP3501		IC8350 IC9350	TT8135 TT8135B TT7100	
M	M10	**T6215**	MC7015	AC6020M	GC2015	CA6515			KCM15B KCM15	TM1501		IC9250	TT9215	CTCM120
	M20	**T6215**	MC7015 MC7025	AC6020M	GC2015 GC2025 GC2220	CA6525	HG8025 GM25		KCM25B KCM25	TM1501 TM2501		IC9350	TT9215 TT9225	CTCM120 CTCM130
	M30	**T6215**	MC7025 US735	AC6030M	GC2025 GC2035	CA6525	GM8035 GM25 GX30		KCM35B KCM35	TM2501 TM3501		IC9350	TT9225 TT9235	CTCM130
	M40		US735		GC2035		GX30			TM4000			TT9235	
K	K01	**T505** **T5105**	MC5005 MC5105 UC5105	AC405K	GC3005 GC3205	CA4505 CA310	HX3505	CP1	KCK05B KCK05	TK0501		IC5005	TT7005	
	K10	**T505** **T515** **T5105** **T5115**	MC5015 MC5115 MH515 UC5115	AC4010K AC415K	GC3210 GC3215	CA4515 CA315	HX3515 HG8010	CP1	KCK15B KCK15	TK0501	WKK10S WKV10 WAK10	IC9150 IC5005 IC5010	TT7005 TT7015	CTC3110 CTCK110
	K20	**T515** **T5115** **T5125**	MC5015 MC5125 UC5115	AC4015K AC420K	GC3225	CA320	HX3515 GM8020	CP1	KCK20B KCK20	TK1501	WKK20S WKV20 WAK20	IC9150 IC5010	TT7015 TT7025 TT7310	CTCK120 CTCP115
	K30	**T5125**		AC8025P			HG8025				WAK30	IC4050 IC8150	TT7025	CTCP125

Note: The above table is selected from a publication. We have not obtained approval from each company.

● PVD Coated Grade for Turning

ISO Classification	ISO Symbol	Tungaloy	Mitsubishi Carbide	Sumitomo Electric	Sandvik	Kyocera	Moldino	NTK	Kennametal	Seco Tools	Walter	Iscar	TaeguTec	Ceratizit
P	P01					PR1705								
	P10	**AH8005**	VP10RT MS6015	AC1030U AC530U ACZ150	GC1105	PR1705 PR930 PR1725	IP2000	VM1 DT4 DM4	KC5010 KCU10	TS2000 CP200		IC807 IC907 IC808 IC908 IC1007	TT4410 TT7010	CTPX710 CTPX715
	P20	**AH120 AH725 SH725 AH730 J740 AH8015 AH6225**	VP15TF VP20MF VP10RT VP20RT UP20M MS6015	AC1030U AC530U	GC1125	PR1725 PR930 PR1225 PR1025	IP2000	VM1 DT4 DM4 TM4 QM3	KC5025 KCU25 KCS10 KCU10 KC5010	TS2500 CP200		IC807 IC907 IC808 IC908 IC830 IC1010	TT9030 TT4410	CTPX710 CTPX715 CTPM125
	P30	**AH120 AH725 AH7025 SH725 SH730 J740 AH8015 AH6225**	VP15TF VP20MF VP20RT UP20M MS7025	AC1030U	GC1125	PR1725 PR1225 PR1535 PR1025	IP3000	QM3 TM4	KC5025 KCU25 KCU25	CP500 CP600		IC928 IC528 IC228 IC830 IC1010 IC1030	TT9030 TT8020 TT8010 TT9080 TT7220	CTPM125
	P40	**AH120 AH725 AH6225**	MS7025			PR1535	IP3000	QM3		CP500 CP600		IC228 IC528 IC1030	TT8020 TT8010 TT4430 TT9020	CTPM125
M	M01										WSM01	IC806 IC1007		
	M10	**AH8005 AH6225**	VP10RT	AC5005S ACZ150	GC1105 GC1115	PR930 PR1725	IP100S IP050S	VM1 DT4 DM4 ZM3	KC5010 KCU10 KCS10B KCS10	TS2000 TS2500 CP200	WSM10 WSM10S WSM01	IC807 IC907 IC808 IC908 IC1010	"TT4410 TT5080"	CTPM125 CTPX710 CTPX715
	M20	**AH8015 AH120 AH7025 AH725 SH725 SH730 AH6225**	VP10RT VP15TF VP20MF VP20RT UP20M MS7025 MS9025	AC5015S	GC1115 GC1125	PR930 PR1225 PR1725 PR1025	IP100S IP050S	VM1 DT4 DM4 ST4 TM4 ZM3 QM3	KC5025 KCU25 KCS10 KCU10 KC5010	TS2500 CP200 CP500 CP600	WSM20S	IC808 IC908 IC830 IC1030	TT9030 TT8010 TT4410 TT5080 TT9080	CTPM125 CWN15
	M30	**AH120 AH725 SH725 SH730 J740 AH6235**	VP15TF VP20MF VP20RT UP20M MP7035 MS7025 MS9025	AC6040M AC1030U AC5025S AC530U	"GC1125 GC2035"	PR1225 PR1535 PR1725 PR1025	IP100S	DT4 DM4 QM3 ST4 TM4 ZM3	KC5025 KCU25	CP500 CP600	WSM30S	IC528 IC228 IC830 IC1030	TT8020 TT4430 TT8010 TT8080 TT7220	CTPM125
	M40	**AH6235**	MP7035	AC6040M	GC2035	PR1535		ST4 QM3 TM4		CP600		IC228 IC528	TT8010 TT8020	
K	K01	**AH110**												
	K10	**GH110 AH110**	VP10RT	ACZ150					KC5010 KCU10 KCS10B KCS10	TS2000 CP200		IC807 IC907	TT9030 TT7010 TT6080	CTPX715
	K20	**AH120 AH7025 AH8015 AH6225**	VP10RT VP20RT VP15TF	AC1030U					KC5025 KCU25	TS2500 CP200 TS2000		IC807 IC907 IC808 IC908 IC1007 IC1010	"TT9030 TT7010 TT6080 TT9080	CTPX715
	K30	**AH120 GH130**	VP15TF VP20RT							CP500		IC807 IC907 IC808 IC908	TT9030	CTPX715
S	S01	**AH8005**	VP05RT MP9005	AC5005S AC5015S ACZ150		PR005S	JP9105		KCS10B		WSM10S	IC804 IC806	TT3010	
	S10	**AH8005 AH8015 AH6225**	VP10RT MP9015	AC5005S AC5015S	GC1105	PR015S PR005S	JP9105 JP9115	QM3 ZM3	KC5025 KCU25 KCS10B KCS10 KC5010 KCU10	TS2000 TS2500 CP200 CP500	WSM10S WSM01 WNN10	IC806 IC1007 IC1010	TT3010 TT3020 TT5080	CTPX710 CTPX715
	S20	**AH8015 AH7025 AH6225**	MP9015 VP20RT MP9025 MS9025	AC5015S AC5025S	GC1115 GC1125	PR015S PR1535	JP9115		KC5025 KCU25 KCS10B	TS2000 TS2500 CP200 CP500 CP600	WSM20S	IC807 IC907 IC808 IC908 IC806 IC1010	TT3020 TT4430 TT9030 TT9080	CTPX710 CTPX715
	S30	**AH7025 AH6235**	VP20RT MP9025 MS9025	AC5025S	GC1125	PR1535				CP600	WSM30S	IC830 IC928	TT4430 TT8020 TT9030	

Note: The above table is selected from a publication. We have not obtained approval from each company.

● Cermet for Turning

ISO		Tungaloy	Mitsubishi Carbide	Sumitomo Electric	Sandvik	Kyocera	Moldino	NTK	Kennametal	Seco Tools	Walter	Iscar	TaeguTec	Ceratizit
Classifi-cation	Symbol													
P	P01	**NS520**	AP25N VP25N	T1000A		TN610 PV710						IC20N IC520N	PV3010	CTEP10 TCM407
	P10	**AT9530** **GT9530** **J9530**	AP25N VP25N NX2525	T1500Z T1500A	CT5015 GC1525	TN610 TN620 PV710 PV720 CCX			KT315 KTP10	TP1020	WCE10	IC20N IC30N IC520N IC530N	PV3010 CT3000	CTEP10 TCM10 TCM407
	P20	**AT9530** **GT9530** **NS9530** **J9530**	AP25N VP25N VP45N NX2525 NX3035 MP3025	T1500A T1500Z T2500A T2500Z	GC1525	TN620 PV720	CZ25			TP1020 TP1030	WCE10	IC20N IC30N IC520N IC530N	PV3010 CT3000	TCM10
	P30	**NS9530**	VP45N NX3035 MP3025	T2500Z T3000Z		PV730	CZ25					IC530N		
M	M10	**NS520**	AP25N VP25N NX2525	T1000A	GC1525	TN620 TN610 PV720 PV710			KT315 KTP10	TP1030		IC20N IC30N IC520N IC530N	PV3010 CT3000	CTEP10 TCM10 TCM407
	M20	**AT9530** **GT9530** **NS9530** **J9530**	AP25N VP25N NX2525	T1500A		TN620 PV720 PV730	CZ25					IC30N IC530N	PV3010 CT3000	
	M30	**NS9530**		T3000Z			CZ25							
K	K01	**NS520**	AP25N VP25N	T1000A		PV7005							PV3010	CTEP10 TCM10 TCM407
	K10	**AT9530** **GT9530** **NS9530** **J9530**	AP25N VP25N NX2525		CT5015	TN60 CCX	CZ25		KT315 KTP10				PV3010 CT3000	TCM10
	K20	**NS9530**	AP25N VP25N NX2525				CZ25						PV3010 CT3000	

Note: The above table is selected from a publication. We have not obtained approval from each company.

● Cemented Carbide for Turning

ISO		Tungaloy	Mitsubishi Carbide	Sumitomo Electric	Sandvik	Kyocera	Moldino	NTK	Kennametal	Seco Tools	Walter	Iscar	TaeguTec	Ceratizit
Classifi-cation	Symbol													
P	P01													
	P10	**TH10**		ST10P										S26T
	P20	**KS20**		ST20E								IC50M	P20	S26T S40T
	P30	**KS15F** **UX30**	UTi20T	A30								IC28 IC50M	P30	S40T
	P40		UTi20T									IC28		
M	M10	**TH10**		EH510					K313 KU10 K68	890		IC20		
	M20	**KS20**	UTi20T	EH520					K313 KU10 K68	HX 883		IC20		CTW7120 H210T U17T
	M30	**UX30**	UTi20T	A30								IC28		
	M40											IC28		S40T
K	K01	**TH03**	HTi05											CTWK601
	K10	**TH10**	HTi10	G10E	H13A	KW10	WH10		K313 KU10 K68	890		IC20	K10	H210T H10T U17T
	K20	**KS15F** **KS20**	UTi20T	G10E	H13A	KW10				890 HX 883		IC20	K20	CTW7120 H210T H10T U17T
	K30		UTi20T		H13A					883				TSM30
	K40													
N	N01	**KS05F**			H10	GW05						IC04		
	N10	**TH10**	HTi10	H1	H10	GW05 KW10	WH10	KM1	K313 KU10 K68	890 HX KX	WK1	IC20 IC28	K10	H210T H10T U17T
	N20	**KS15F**		H1	H13A			KM1		890 HX KX 883	WK1	IC20 IC28	K20	CTW7120 H210T H10T U17T
	N30									883				
S	S01		MT9005 RT9005		H10A	SW05						IC20		
	S10	**KS05F** **TH10**	MT9015 RT9010	EH510	H10F	SW10 KW10	WH10	KM1	K313 KU10 K68	890 883	WK1 WS10	IC20	K10	H210T H10T
	S20	**KS15F** **KS20**	MT9015 RT9010	EH520	H13A H10F	SW25		KM1		890 883	WK1 WS10	IC20 IC28	K20	CTW7120 H210T H10T
	S30									883				
H	H01											IC20		
	H10	**TH10**			H13A		WH10					IC20	K10	
	H20									890 HX 883				

Note: The above table is selected from a publication. We have not obtained approval from each company.

● CBN and PCD for Turning

ISO		Tungaloy	Mitsubishi Carbide	Sumitomo Electric	Sandvik	Kyocera	Moldino	Dijet	NTK	Seco Tools	Kennametal	Iscar	Ingersoll	TaeguTec	Widia	Walter	Ceratizit
Classification	Symbol																
K	K01	**BX930 BX910 BX870**	MB710 MB730 MB5015	NCB100 BN500 BNC500	CB50	KBN475 KBN60M			B52		KB1630 KB1345	IB10K		TB7015	WBH10C	WCB80	CTB S10U
	K10	**BX470 BX480**	MB730 MB5015 MB4020	BN7000 BN500	CB7525 CB50	KBN65M KBN65B		JBN795	B23 B30 B52	CBN200 CBN300 CBN400C	KB1640 KB1345	IB05S IB10S	TB730	TB730	WBK40U	WCB80 WCB50	CTB S10U
	K20	**BXC90 BX90S**	MB4020 MB4120 MBS140	BNC8115 BNS8125	CB7925	KBN900 KBN70M			B23 B30 B52	CBN300 CBN500	KB5630	IB90A IB90 IB25KD		TB7020	WBK45U	WCB80	CTB S20C
	K30	**BXC90 BX90S**	MBS140 BC5030	BNS8125		KBN900			B16	CBN500	KB9640	IB90A IB25KD	KB90A	KB90A			
S	S01	**BX815**	MB730	NCB100 BN7000				JBN795	JP2	CBN170		IB05S IB10S		KB90			CTB S10U
	S10	**BX480**	MB4020 MB4120	BN7500 BN7115	CB7050	KBN65B KBN65M			B23 B30	CBN200	KB1630	IB05S IB10S		KB90A	WBK45U	WCB80	CTB S20C
H	H01	**BXM10 BX310**	BC8105 BC8110 MBC010 MB810 MB8110	BNC2010 BNC2115 BN1000 BN2000 BNX10 BN1000	CB7105	KBN510 KBN05M KBN10M			B52 B5K	CBN010 CBN100 CBN160C CBN050C	KB1610 KB5610"	IB05H IB10HC	TB610	TB610	WBH10C	WCB30	CTB H15C CTB H15U
	H10	**BXA10 BXM10 BX330 BX530**	BC8210 MB020 MB8025 MB8110 MB825	BNC2020 BNC2115 BN2000	CB7015 CB7115 CB7025	KBN525 KBN05M KBN10M		JBN245	B36 B52 B6K	CBN150 CBN200 CBN300 CBN060K CBN160C CBN400C	KB9610 KB1610 KB5610	IB50 IB55 IB10H IB10HC IB20H IB25HA		TB2015	WBH10C WBH10P WBH10U	WCB30 WCB50	CTB H15C CTB H15U
	H20	**BXM20 BXA20 BX360**	BC8220 MBC020 MB8025 MB8120	BNC200 BNC2020 BNC2125 BNX20	CB7015 CB7125 CB50	KBN525 KBN05M KBN10M KBN25M KBN020		JBN300	B22 B36 B40 B6K	CBN200 CBN300 CBN160C CBN400C CH2540	KB5625 KB1625	IB20H IB20HC IB25HA IB25HC	TB650 TB2030	TB650	WBH25P	WCB50 WCB80	CTB H20C CTB H21U
	H30	**BR35F BXC50 BX380**	BC8130 MB8130 MB835	BNC300 BN350 BNX25		KBN30M KBN35M KBN900		JBN300	B22 B40	CH3515	KB1630 KB9640	IB25HC IB90	TB670	TB670	WBH40C		CTB H40C CTB H40U
N	N01	**DX160 DX180**	MD205	DA90	CD05	KPD230		JDA30 JDA735	PD1		KD1405	ID5					CTD PU20
	N10	**DX140**	MD205 MD220	DA150	CD10	KPD010 KPD230		JDA715	PD1	PCD05 PCD10	KD100 KD1400 KD1425	ID5	IN90D	TD810	WDN25U	WCD10	CTD PU20
	N20	**DX120**	MD220 MD230	DA2200 DA1000	CD10	KPD010		JDA715	PD2	PCD05 PCD20	KD1425		IN90D	KP300	WDN25U	WCD10	CTD PD20
	N30	**DX110**	MD2030 MD230	DA2200 DA1000		PKD001		JDA10		OVD20 PCD30 PCD30M				TD830		WCD10	

Note: The above table is selected from a publication. We have not obtained approval from each company.

● Ceramic for Turning

ISO		Tungaloy	Mitsubishi Carbide	Sumitomo Electric	Sandvik	Kyocera	Moldino	Dijet	NTK	Seco Tools	Kennametal	Iscar	Ingersoll	TaeguTec	Widia	Walter	Ceratizit
Classification	Symbol																
K	K01	**TZ120** **LX21**		NB90S	CC620	KA30 A65 KT66 PT600M			HC1 HW2		KY1310 KY1615	IN110		AW120 AB30	CW2015		CTN3105 CTS3105
	K10	**CX710** **FX105**			CC6190 CC650	A65 KT66 A66N PT600M			HC2 HC5 HC6		KY1310 KY1615	IN23 IS6	IN70N	AB30 AS10	CW2015 CW5025	WSN10	CTN3105 CTM3110 CTI3105 CTN3110 CTS3105
	K20	**FX105** **CX710**			CC6190	KS6000 KS6050			SP2 SP9 SX8 SX9		KY1320 KY3400 KY3500 KY4300	IS8	IN70N	SC10	CW5025	WSN10	CTM3110 CTN3110
S	S01	**TS200**							JX1	CS100	KY1525 KY2100	IS25		TC3020			
	S10	**TW43** **TS300** **FX510**		WX120	CC670 CC6060 CC6065	KS6030 KS6040			WA1 WA5 SX9	CW100 CS300	KY1540 KYS30 KY2100 KY4300	IW7 IS35		TC430 TC3030	CW3020	WWS20	
H	H01	**LX10** **LX11**		NB100C	CC6050 CC650	PT600M			HC2 HC5 HC6		KY4300	IN420 IN22		AB2010	CW2015		CTS3105
	H10				CC6050 CC670 CC6190	A66N PT600M			HC7 WA1		KY4400	IN23		AB2010 AB20 AB30	CW2015		CTS3105

Note: The above table is selected from a publication. We have not obtained approval from each company.

Technical Guide - Chipbreaker Comparison Chart

● Negative insert type

ISO Classification	Cutting Mode	Tungaloy	Mitsubishi Carbide	Sumitomo Electric	Kyocera	Sandvik	Moldino	Kennametal	Seco Tools	Iscar	TaeguTec	Walter	Ceratizit
P	Precision finishing	**01** **TF**	PK FH	FA	GP	PF	FE	FS, LF	FF1	SF, PP, TF	FA		
	Finishing and light cutting	**TS, TSF** **PS, ZF** **NS** **AS** **TQ**	FP FY LP SH SA SY	SU FL SE, SX	XP, PP XQ, HQ, CJ, XS	PF LC MF R/L-K XF	BE, BH AB, CT CE	FF, FN	MF2	F3P NF, SF	FG VF, EA FC MC ML, MP	NF3 NS6	CF, TF
	Finishing and light cutting (With Wiper)	**AFW, FW** **ASW, SW**	SW MW	LUW SEW GUW	WP WQ WF	WL, WF WMX WM, WR		FW MW RW	W-FF2 W-MF1 W-M3 W-M6	WF WG	WS WT	NF NM	TFQ TMQ
	Medium cutting	**TM, AM** **PM, DM** **ZM, NM** **All-round, TA**	MA MH , MP	GU GE , UX	HS , PT , GT CS , PS	PM , QM XM , XRM	AH AE , AY , B	MN	MF5 M3	M3P , M3M PP , TF , GN	PC , MT MC , MG	NMT , NM4	TMF , TMM M50
	Medium to heavy cutting	**TH** **THS**	RP, GH	MU, ME HG	PH All-round	HM, PR MR	RE	RN, RP MR	M5 MR7	NR MR	RT	MM5, NM6 NM9	TM TRM
	Heavy cutting	**TU** **TRS** **TUS**	HM, HX HL, HR HZ, HV	HG, HP HU, HW HF	PX	PR, MR HR, QR	TE, UE HX, HE H	RM RH	R RR	R3P NM	HT, HD RX, RH HY, HZ	NR6 NRF NRR	TRR, TR R28, R58 R88
M	Finishing and light cutting	**SF** **SS**	GM, LM	EX, EG SU, EF	GU MQ	MF, XF	MP BH, AB	FP, FF	FF1 MF1 MF3	TF, VL	EA, SF, SU FG	NF4 NMS	CF, F30, M34 F32, TF
	Medium cutting	**SM, SA** **S, TA** **SDM**	MM, MA MS	GU HM	MU	MM, QM XM	PV, SE DE	MP, P	MF4 M3	M3M, PP	EM, ET	NM4	TMF, M42 M30, M52
	Heavy cutting	**SH, TH** **TU**	GH, RM HL	EM, MU	MS TK	MR HM, PR	AH, AE	UP, RP	M5 MR3	MR, MH		NR4 NRT, NRS	TM, M60 TRM, TMR, TRR R80
K	Finishing	**CF**	LK, MA	UZ	C	KF, XF	Y, AH	FN, MT		GN	FG		CF
	Medium cutting	**CM** **All-round**	MK GK	GZ	ZS All-round	KM, QM XM, XMR	RE VA	RP, UN	M4 M5		MT MG	NM5	M50
	Heavy cutting	**CH** **Flat-top**	RK **Flat-top**	**Flat-top**	GC **Flat-top**	KR **Flat-top**	RE,V	MA **Flat-top**	MR9 **Flat-top**		RT	**Flat-top**	TMR , TR R28 R58 , R88
N	Cutting of non-ferrous metals	**P** **28**		AX	AH, A3	MF		MS GR		PP			F32
S	Finishing	**HRF**	FJ, LS MJ	EF EX	SQ, SX	SF	VI	FS MS	MF1			NFT NF4	
	Medium cutting	**HRM** **HMM** **SA, 28** **SDM**	MS RS, GJ	EG MU EM	SQ, SX	SMR	VI	UP RP	MF4 M1	PP	SM	NMS NM4, NRS, NR4	M34, M52

Note: Above charts are based on published data and not authorized by each manufacturer.

● Positive insert type

ISO Classifi-cation	Cutting Mode	Tungaloy	Mitsubishi Carbide	Sumitomo Electric	Kyocera	Sandvik	Moldino	NTK	Kennametal	Seco Tools	Iscar	TaeguTec	Walter	Ceratizit
P	Precision finishing	**01**	FV	FC	CF, CK		JQ		GM	FF1 F1	SF		PF2	F32
	Finishing and light cutting	**PSF, PF, SS** **PS, PSS** **TS, TSF** **TSW, SW** **W08~20**	FP, FV, SV LP SVX SW, MW	FP, LU FK, SC SU LUW, SDW	GQ GP XP PP, VF WP	R/L-K PF UF WF, WK, WM	JQ JE		11, LF VF, FP FW, MW	MF2	PF SM, 14, 17 19, XL R/L RF, LF	FA FG GF	PF5 PF4 PS5 PF, PM	SF SMF SMW, 25Q
	Medium cutting	**PM** **TM** **All-round** **RS**	MP MV No sign	SU, MU SC	All-round HQ, XQ GK	PM UM, PR UR	JE		MP MF	M3 M5	DT, HQ	MT MT	PM5	SM
	High-feed, small depth of cut cutting	**61**									No sign 14	No sign		
M	Finishing	**PSF, SS**	FM, SV	FC		R/L-K UF, MF			11, VF	FF1 MF2		FG		
	Finishing to Medium cutting	**PSS** **PS**	LM SV	SI, GU LB, SU	MQ	MM UM			LF, FP	M3			PF4	SF, SMF
	Medium cut-ting	**PM**	MM	MU	HQ	MR UR			MF, MP	M5			PM5	F23, F43 SM
K	Cutting of cast irons	**CM** **Flat-top**	MK **Flat-top**	FC, MU **Flat-top**	KF KM UM, KR	**Flat-top**			11, VF, FP MP, MF **Flat-top**	M5 **Flat-top**	19	MT **Flat-top**	PS5, PM5 **Flat-top**	SF 25P 27, 29
N	Cutting of non-ferrous metals	**AL** **P** **Ground**	AZ R/L-F R/L	AG AY AW LD, GD	AH	AL			HP, LF	AL	AS	FL	PF2 PM2	23P 25P 27, 29
S	Finishing	**PSF**	FJ	FC	MQ	MF, UF, R/L-K			HP	F1				SF
	Finishing to Medium cutting	**PSS** **PS**	LS.MS	SU, GU		MM SM			LF, FP	MF2				F23
	Medium cutting	**All-round**		SI		UM, MR, UR						FG	PF2, PF4	SM, 25P, 29
P M N S	Turning on small lathes	**JP, 01** **W08, W15, W20** **J08** **JS, JSS** **JRP, JSR, JPP** **J10, TS, JTS** **TSW** **SS**	R/L-SR R/L-SN R/L-SS FS-P, F LS-P SW, MW SRF SMG	W, SD FX, FY LU, FP, FK, SU FC, SI, SC LUW, SDW	CF, SKS R/L-F, R/L-FSF ER/L-U FR/L-U R/L-U FR/L-U, R/L-USF MF, R/F-FSF SK, GF CK, GQ	F, M UM	No sign	AMX AZ7 YL, AM3 U CL	LF		SM F2M	GF, GW SL SA SM SH	PM5	

Note: Above charts are based on published data and not authorized by each manufacturer.

MEMO

External Toolholder



External Toolholder - Content structure

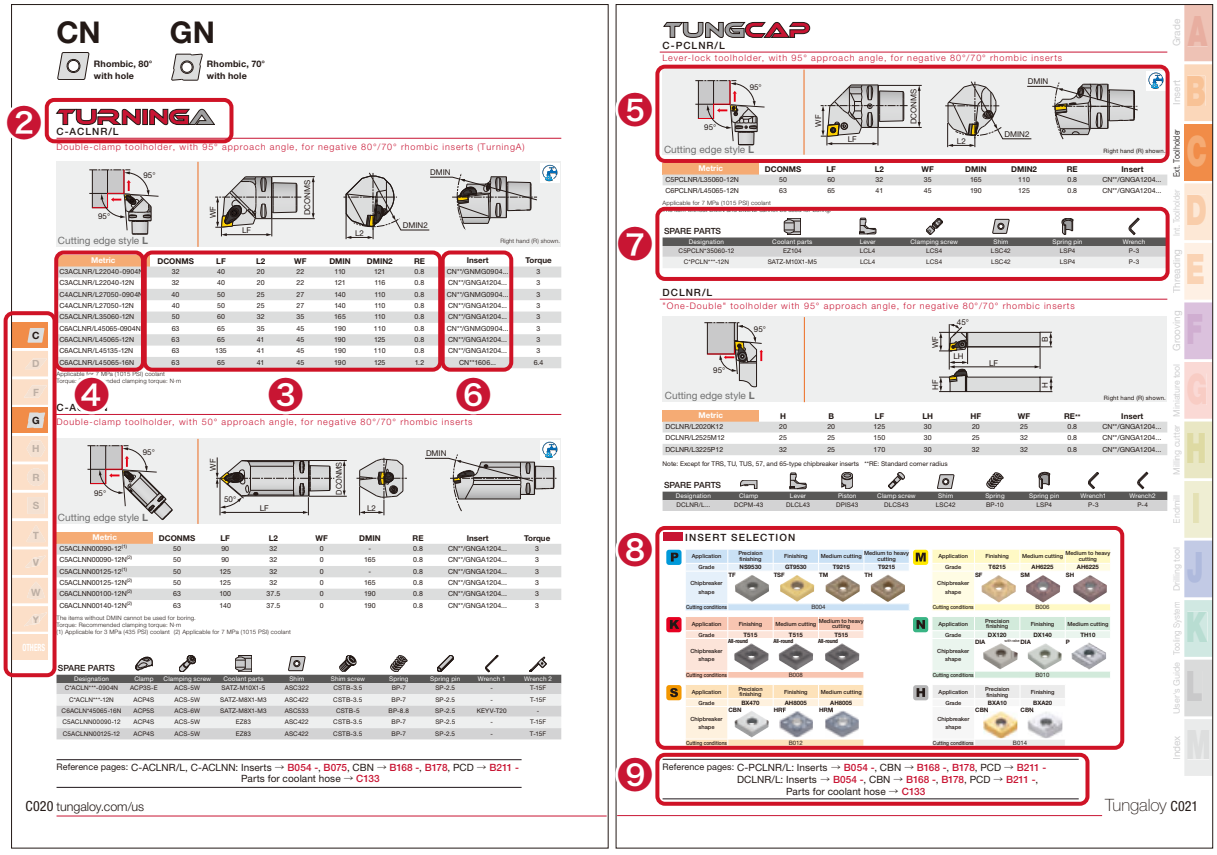
- Indexable toolholders are listed by insert shape.
- Toolholders in the catalog are our standard items.

How to use the page

Method① Select the insert shape described at the left end of each page, jump to the page on the left index, and choose a designation you need (❹) in the dimension table (❸). Applicable inserts are shown in (❻) and (❽).

Method② Select the series name of a toolholder on **C003** and check the details on each page.

Method③ Select an item from Quick Guide on **C004 - C014**.



❶: Insert shape
❷: Series name of indexable external toolholders
❸: Dimension table
❹: Toolholder designation
e.g. right-hand, 1 inch square shank

→ **ACLN R 16 33-A**

❺: Dimension drawing (conforming to ISO13399)
❻: Applicable insert
❼: Spare parts
❽: Basic selection
❾: Reference pages

When ordering
- Please specify the designation and quantity.
  e.g. **ACLNR164-A** ... 1 (one external toolholder per package)

* Inserts are not included. Please order those separately.

Main products

		Inch	Metric
	**ADDMULTITURN** Ultimate solution for multi-directional turning C015	✓	✓
	**TURNTENFEED** Innovative tool realizing both high productivity and economy C017	✓	✓
	**ISOECOTURN** Small-sized “Eco” insert series for maximized profits C018	✓	✓
	**MINIFORCETURN** Economical double-sided inserts with excellent sharpness C057, C119 C128, C129	✓	✓
	**TURNINGA** Highly rigid clamping system with excellent repeatability C019 -	✓	✓
	**TUNGTJETURN** Toolholders for high pressure coolant supply C024 -, C036 -, C093 - C105 -, C121 -	✓	✓
	**DIMPLEFX** Ceramic insert with dimple for highly efficient cast iron machining C027, C042 -, C059 C081, C109	✓	✓
	**TURNTEC** Inserts and toolholders for roughing large depths of cut with high productivity C060, C061	✓	✓
	**Y-PRO SERIES** Inserts with 25° corner angle for profiling C103, C107, C110 C112, C130 - C132	✓	✓
	**TURNFEED** Tool series for super high-feed cutting C127	✓	✓
	**FIXRTURN** Highly productive round insert with 6 indexes C071, C074	✓	✓

External Toolholder - Quick Guide (Square shanks)

Inch

Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Sizes of square shanks (in) 0.750x0.750	1.000x1.000	1.250x1.250	Coolant supply: External supply	Coolant supply: TUNGTJET (Through-coolant)	Page
ADDMULTITURN 	Front turning: 95° Back turning: 21.5°	**ATXOR/L**	6C-TOMG** 	○	○	○	✓		C102
	Front turning: 117.5° Back turning: 27.5°	**ATXOR/L**	6V-TOMG** 	○	○	○	✓		C102
	Front turning: 95° Back turning: 21.5°	**STXCR/L-CHP-MC**	3C-TCMT** 		○			✓	C100
TURNTFEED 	48.5°	**PPXOR/L**-HD**	POMG ** 		○	○	✓		C063
	22.5°	**PPXOR/L**-HF**			○	○	✓		C063
Double clamp A TURNINGA 	L 95°	**ACLNR/L**4**	CN** 43 80° GNGA 43 70°	○	○	○	✓		C019
		ACLNR/L-4-CHP-MC**		○	○			✓	C024
		ACLNR/L33**	CN** 33 80° GNMG 33 70°	○	○		✓		C019
	K 95°	**ACKNR/L**4**	CN** 43 80°		○		✓		C029
	R 75°	**ACRNR/L**4**			○		✓		C032
	L 95°	**AWLNR/L**4**	WN** 43 80°	○	○	○	✓		C121
		AWLNR/L-4-CHP-MC**		○	○			✓	C125
		AWLNR/L33**	WN** 33 80°	○	○		✓		C121
	J 93°	**ATJNR/L**3**	TN** 33 60°	○	○		✓		C088
	G 91°	**ATGNR/L**3**		○	○		✓		C091
	F 91°	**ATFNR/L**3**		○	○		✓		C094
	Q 105°	**ATQNR/L**3**		○	○		✓		C096
	J 93°	**ADJNR/L**4**	DN** 43 55° FNGA 43 45°	○	○	○	✓		C036
		ADJNR/L-4-CHP-MC**		○	○			✓	C040
		ADJNR/L33**	DN** 33 55° FNMG 33 45°	○	○		✓		C036
	P 62.5° *	**ADPNN**4**	DN** 43 55° FNGA 43 45°	○	○		✓		C049

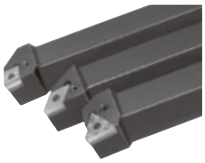
*: Tungaloy's symbol

Inch

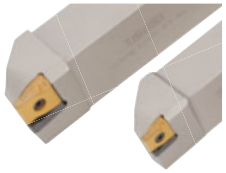
Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Sizes of square shanks (in) 0.750x0.750	1.000x1.000	Coolant supply: External supply	Coolant supply: TUNGTJET (Through-coolant)	Page
Double clamp A 	Q 107.5° 	**ADQNR/L**4**	DN** 43 55° FNGA 43 45°	○	○	✓		C045
		ADQNR/L33**	DN** 33 55° FNMG 33 45°	○	○	✓		C045
	J 93° 	**AVJNR/L**3**	VN** 33 35°	○	○	✓		C103
	V 72.5° 	**AVVNN**3**	YN** 33 25°	○	○	✓		C107
	Q 117.5° 	**AVQNR/L**3**		○	○	✓		C110
	J 93° 	**AVJNR/L**2.33**	VN** 2.33 35°	○	○	✓		C103
	V 72.5° 	**AVVNN**2.33**		○	○	✓		C107
	Q 122.5° 	**AVQNR/L**2.33**		○	○	✓		C110
	B 75° 	**ASBNR/L**4**	SN** 43 90°	○	○	✓		C085
	D 45° 	**ASDNN**4**		○	○	✓		C076
	S 45° 	**ASSNR/L**4**		○	○	✓		C078
	K 75° 	**ASKNR/L**4**		○	○	✓		C082
		**ARGNR/L**	RN**		○	✓		C065

External Toolholder - Quick Guide (Square shanks)

Inch

Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Sizes of square shanks (in) 0.625x0.625	0.750x0.750	1.000x1.000	Coolant supply: External supply	Coolant supply: TUNGTJET (Through-coolant)	Page
Lever lock P 	L 95° 	**PCLNR/L**4-CHP**	CN** 43 80° GNGA 43 70°		○	○		✓	C023
		PCLNR/L33**	CN** 33 80° GNMG 33 70°		○	○	✓		C022
		PCLNR/L33-CHP**			○	○		✓	C023
		PCLNR/L33-CHP-N**			○	○		✓	C025
	L 95° 	**PWLNR/L**4-CHP**	WN** 43 80°		○	○		✓	C124
		PWLNR/L33**	WN** 33 80°		○	○	✓		C123
		PWLNR/L33-CHP**			○	○		✓	C124
	G 91° 	**PTGNR/L**3-CHP**	TN** 33 60°		○	○		✓	C093
		PTGNR/L23**	TN** 23 60°		○	○	✓		C092
		PTGNR/L23-CHP**			○	○		✓	C093
	J 93° 	**PDJNR/L**4-CHP**	DN** 43 55° FNGA 43 45°		○	○		✓	C039
		PDJNR/L33**	DN** 33 55° FNMG 33 45°	○	○	○	✓		C038
		PDJNR/L33-CHP**			○	○		✓	C039
	J 93° 	**PVJNR/L**3-CHP**	VN** 33 35° YN** 33 25°		○	○		✓	C105
		PVJNR/L2.33**	VN** 2.33 35°	○			✓		C104
		PVJNR/L2.33-CHP**			○	○		✓	C105
	Q 107.5° 	**PVQNR/L**3-CHP**	VN** 33 35° YN** 33 25°		○	○		✓	C112

Inch

Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Sizes of square shanks (in) 0.375x0.375	0.500x0.500	0.625x0.625	0.750x0.750	1.000x1.000	1.250x1.250	1.500x1.500	Coolant supply: External supply	Coolant supply: TUNGTJET (Through-coolant)	Page
Screw-on S 	L 95°	**SCLCR/L**3**	CC** 32.5 80°			○	○	○			✓		C034
		SCLCR/L4**	CC** 43 80°				○	○			✓		C034
	L 95°	**JSWLXR/L JSWL2XR/L**	WX** 22 80°	○	○	○	○	○			✓		C128, C129
	G 91°	**STGCR/L**2**	TC** 21.5 60°	○	○						✓		C099
		STGCR/L3**	TC** 32.5 60°			○	○				✓		C099
	J 93°	**SDJCR/L**2**	DC** 21.5 55°	○	○						✓		C052
		SDJCR/L3**	DC** 32.5 55°		○	○	○	○			✓		C052
		JSDJXR/L JSDJ2XR/L	DX** 22 55°	○	○	○	○	○			✓		C057
	J 93°	**SVJCR/L**3**	VC** 33 35°			○	○	○			✓		C113
		JSVJXR/L JSVJ2XR/L	VX** 73.5 35°	○	○	○	○	○			✓		C119
	Q 117.5°	**SVQCR/L**3**	VC** 33 35°					○			✓		C116
	J 93°	**SYJBR/L**	YWMT16 25°				○	○			✓		C130
	Q 122.5°	**SYQBR/L**					○	○			✓		C131
	H 100°	**SYHBR/L**					○	○			✓		C132
	I 76.5°	**SYIBN**					○	○			✓		C131
		SRGCR/L	RCM*					○			✓		C070
		SRDCN						○			✓		C073
Double clamp for dimple ceramic insert C DIMPLEFX 	L 45°	**CCLNR/L-RD**	CNGD 80°					○			✓		C027
	S 45°	**CSSNR/L-RD**	SNGD 90°					○			✓		C081
	S 45°	**CHSNR/L-RD**	HNGD 90°					○			✓		C059
TURNTEC 	A 93°	**TLANR/L-16**	LNMX16 				○	○	○	○	✓		C060
	F 93°	**TLFNR/L-16**	LNMX16 					○	○		✓		C061
	B 75°	**TLBNR/L-24**	LNMX24 							○	✓		C061

External Toolholder - Quick Guide (Square shanks)

Metric

Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Sizes of square shanks (mm) 20x20	25x25	32x25	32x32	40x40	Coolant supply: External supply	Coolant supply: TUNGTJET (Through-coolant)	Page
ADDMULTITURN 	Front turning: 95° Back turning: 21.5°	**ATXOR/L**	6C-TOMG** 	○	○		○		✓		C102
	Front turning: 117.5° Back turning: 27.5°	**ATXOR/L**	6V-TOMG** 	○	○		○		✓		C102
	Front turning: 95° Back turning: 21.5°	**STXCR/L-CHP-MC**	3C-TCMT** 		○					✓	C100
TURNTFEED 	48.5°	**PPXOR/L**-HD**	POMG** 		○		○		✓		C063
	22.5°	**PPXOR/L**-HF**			○		○		✓		C063
Double clamp A TURNINGA 	L 95°	**ACLNR/L**12**	CN**12 80°	○	○	○			✓		C019
		ACLNR/L12-CHP-MC**	GNGA12 70°	○	○					✓	C024
		ACLNR/L0904**	CN**09 80° GNMG09 70°	○	○				✓		C019
	L 95°	**AWLNR/L**08**	WN**08 80°	○	○	○			✓		C121
		AWLNR/L08-CHP-MC**		○	○					✓	C125
		AWLNR/L06**	WN**06 80°	○	○				✓		C121
	J 93°	**ATJNR/L**16**	TN**16 60°	○	○				✓		C088
	G 91°	**ATGNR/L**16**		○	○				✓		C091
	F 91°	**ATFNR/L**16**		○	○				✓		C094
	Q 105°	**ATQNR/L**16**		○	○				✓		C096
	J 93°	**ADJNR/L**15**	DN**15 55° FNGA15 45°	○	○	○			✓		C036
		ADJNR/L15-CHP-MC**		○	○					✓	C040
		ADJNR/L1104**	DN**11 55° FNMG11 45°	○	○				✓		C036
	P 62.5° *	**ADPNN**15**	DN**15 55° FNGA15 45°	○	○				✓		C049
	Q 107.5°	**ADQNR/L**15**		○	○				✓		C045
		ADQNR/L11**	DN**11 55° FNMG11 45°	○	○				✓		C045

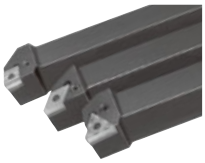
*: Tungaloy's symbol

Metric

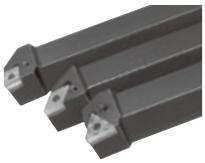
Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Sizes of square shanks (mm) 20x20	25x25	32x25	32x32	40x40	Coolant supply: External supply	Coolant supply: TUNGTJET (Through-coolant)	Page
Double clamp A 	J 93°	**AVJNR/L**16**	VN**16 35°	○	○				✓		C103
	V 72.5°	**AVVNN**16**	YN**16 25°	○	○				✓		C107
	Q 117.5°	**AVQNR/L**16**		○	○				✓		C110
	J 93°	**AVJNR/L**1204**	VN**1204 35°	○	○				✓		C103
	V 72.5°	**AVVNN**1204**		○	○				✓		C107
	Q 122.5°	**AVQNR/L**1204**		○	○				✓		C110
	B 75°	**ASBNR/L12**	SN**12 90°	○	○				✓		C085
	D 45°	**ASDNN12**		○	○				✓		C076
	S 45°	**ASSNR/L12**		○	○				✓		C078
	K 75°	**ASKNR/L12**		○	○				✓		C082
		ARGNR/L	RN**		○				✓		C065
One Double D 	L 95°	**DCLNR/L12**	CN**12 80° GNGA12 70°	○	○	○			✓		C021
	L 95°	**DWLNR/L08**	WN**08 80°	○	○	○			✓		C122
	J 93°	**DDJNR/L15**	DN**15 55° FNGA15 45°	○	○	○			✓		C037
	Q 105°	**DDQNR/L15**		○	○	○			✓		C046
	G 91°	**DTGNR/L16**	TN**16 60°	○	○				✓		C092
	F 91°	**DTFNR/L16**		○	○				✓		C094
	B 75°	**DSBNR/L12**	SN**12 90°	○	○				✓		C086
	D 45°	**DSDNN12**		○	○				✓		C076
	S 45°	**DSSNR/L12**		○	○				✓		C079
	K 75°	**DSKNR/L12**		○	○				✓		C082
		DRGNR/L12	RN**		○				✓		C066

External Toolholder - Quick Guide (Square shanks)

Metric

Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Sizes of square shanks (mm) 16x16	20x20	25x25	32x25	32x32		Coolant supply: External supply	Coolant supply: TUNGTJET (Through-coolant)	Page
Lever lock P 	L 95° 	**PCLNR/L**12** **PCL2NR**12**	CN**12 80°	○	○	○	○			✓		C022
		PCLNR/L12-CHP** **PCLNR/L**12-CHP-MC**	GNGA12 70°		○	○					✓	C023, C024
		PCLNR/L0904**	CN**09 80°		○	○				✓		C022
		PCLNR/L09-CHP-MC**	GNMG09 70°		○						✓	C024
		PCLNR/L09-CHP-N**			○	○					✓	C025
	B 75° 	**PCBNR/L**12**	CN**12 80°			○				✓		C031
	F 91° 	**PCFNR/L**	CN**12 80° GNGA12 70°		○	○				✓		C030
	L 95° 	**PWLNR/L**08-CHP** **PWLNR/L**08-CHP-MC**	WN**08 80°		○	○					✓	C124, C125
		PWLNR/L0604**	WN**06 80°		○	○				✓		C123
		PWLNR/L0604-CHP**			○	○					✓	C124
	L 95° 	**PTL2NR/L**16**	TN**16 60°		○					✓		C088
	J 93° 	**PTJNR/L**1104**	TN**11 60°			○				✓		C089
	G 91° 	**PTGNR/L**16**	TN**16 60°	○	○	○				✓		C092
		PTGNR/L16-CHP**			○	○					✓	C093
		PTGNR/L1104**	TN**11 60°		○	○				✓		C092
		PTGNR/L1104-CHP**			○	○					✓	C093
	F 91° 	**PTFNR/L**16**	TN**16 60°	○	○	○				✓		C095
		PTFNR/L1104**	TN**11 60°		○	○				✓		C095

Metric

Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Sizes of square shanks (mm) 16x16	20x20	25x25	32x25	32x32		Coolant supply: External supply	Coolant supply: TUNGTJET (Through-coolant)	Page
Lever lock P 	J 93° 	**PDJNR/L**15**	DN**15 55°		○	○	○			✓		C038
		PDJNR/L15-CHP**	FNGA15 45°		○	○					✓	C039
		PDJNR/L1104**	DN**11 55°	○	○	○				✓		C038
		**PDJNR/L**1104-CHP**	FNMG11 45°		○	○					✓	C039
	P 62.5° * 	**PDPNN**15**	DN**15 55°			○				✓		C050
	Q 107.5° 	**PDQNR/L15**	FNGA15 45°			○				✓		C047
	J 93° 	**PVJNR/L**16-CHP**	VN**16 35° YN**16 25°		○	○					✓	C105
		PVJNR/L1204**	VN**12 35°	○	○	○				✓		C104
		**PVJNR/L**1204-CHP**			○	○					✓	C105
	Q 107.5° 	**PVQNR/L**1204**	VN**12 35°		○	○				✓		C111
		**PVQNR/L**16-CHP**	VN**16 35° YN**16 25°		○	○					✓	C112
	V 72.5° 	**PVVNN**1204**	VN**12 35°		○	○				✓		C108
	B 75° 	**PSBNR/L12**	SN**12 90°		○	○				✓		C086
	D 45° 	**PSDNN12**			○	○				✓		C077
	S 45° 	**PSSNR/L12**			○	○	○			✓		C080
	K 75° 	**PSKNR/L12**			○	○				✓		C083
		**PRGNR/L**	RN**		○	○				✓		C066
		PRGCR/L	RCM*12			○	○	○		✓		C069
		PRDCN12				○	○			✓		C072

*: Tungaloy's symbol

External Toolholder - Quick Guide (Square shanks)

Metric

Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Sizes of square shanks (mm) 10x10	16x16	20x20	25x25	32x25	32x32	40x40	Coolant supply: External supply	Coolant supply: TUNGTJET (Through-coolant)	Page
Screw-on S 	L 95°	**SCLCR/L**	CC**12 80°			○					✓		C034
	L 95°	**JSWLXR/L JSWL2XR/L**	WX**04 80°	○	○	○	○				✓		C128, C129
	A 91°	**STACR/L**	TC**16 60°		○						✓		C098
	J 93°	**SDJCR/L11**	DC**11 55°		○	○	○				✓		C052
		JSDJXR/L JSDJ2XR/L	DX**07 55°	○	○	○	○				✓		C057
	N 62.5°	**SDNCN11**	DC**11 55°		○	○	○				✓		C054
	Q 107.5°	**SDQCR/L11**				○	○				✓		C054
	J 93°	**SVJCR/L**	VC**16 35°		○	○	○				✓		C113
		JSVJXR/L JSVJ2XR/L	VX**09 35°	○	○	○	○				✓		C119
	V 72.5°	**SVVCN**	VC**16 35°			○	○				✓		C115
	Q 117.5°	**SVQCR/L**				○	○				✓		C116
	J 93°	**SYJBR/L16**	YWMT16 25°			○	○				✓		C130
	Q 122.5°	**SYQBR/L16**				○	○				✓		C131
	H 100°	**SYHBR/L16**				○	○				✓		C132
	I 76.5°	**SYIBN16**				○	○				✓		C131
		SRACR/L	RCM*	○			○				✓		C068
		SRGCR/L		○			○				✓		C070, C071
		SRDCN				○	○				✓		C073, C074
Double clamp for dimple ceramic insert C DIMPLEFX 	L 45°	**CCLNR/L-RD**	CNGD 80°				○	○			✓		C027
	J 93°	**CDJNR/L-RD**	DNGD 55°				○	○			✓		C042
	N 63°	**CDNNN-RD**					○				✓		C044
	V72.5°	**CVVNN-RD**	VNGD 35°				○				✓		C109
	S 45°	**CSSNR/L-RD**	SNGD 90°				○				✓		C081
	S 45°	**CHSNR/L-RD**	HNGD 90°				○				✓		C059
TURNTEC 	A 93°	**TLANR/L6**	LNMX16			○	○		○	○	✓		C060
	F 93°	**TLFNR/L16**	LNMX16				○		○		✓		C061
	B 75°	**TLBNR/L24**	LNMX24							○	✓		C061

External Toolholder - Quick Guide

TUNGCAP

Metric

Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Size C3	Size C4	Size C5	Size C6	Coolant supply: Through-coolant	Coolant supply: TUNGTJET (Through-coolant)	Page
ADDYTURN AXIS 	E	**C6STECN-Y-CHP**	3C-TCMT** 				○	✓		C101
	N	**C6SDNCN-Y-CHP**	2D-DCMT** 				○	✓		C056
Double clamp A	L 95°	**C*ACLNR/L12**	CN**12 80° GNGA12 70°	○	○	○	○	✓		C020
	L 95°	**C*ACLNN12**				○	○	✓		C020
	M	**C6ACMNN0904**	CN**09 80° GNMG09 70°				○	✓		C032
	L 95°	**C*ACLNR/L**0904**		○	○		○	✓		C020
Lever lock P	L 95°	**C*PCLNR/L12**	CN**12 80° GNGA12 70°			○	○	✓		C021
		C*PCLNR/L12-CHP**			○	○	○		✓	C026
	M	**C6PCMNN**12-CHP**					○		✓	C033
	L 95°	**C*PCLNR/L**0904-CHP**	CN**09 80° GNMG09 70°		○		○		✓	C026
Double clamp A	L 95°	**C*AWLNR/L08**	WN**08 80°		○		○	✓		C122
		C*AWLNR/L06	WN**06 80°		○			✓		C122
Lever lock P	L 95°	**C*PWLNR/L**08-CHP**	WN**08 80°		○		○		✓	C126
		C*PWLNR/L06-CHP**	WN**06 80°		○				✓	C126

Metric

Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Size C3	Size C4	Size C5	Size C6	Coolant supply: Through-coolant	Coolant supply: TUNGTJET (Through-coolant)	Page
Double clamp A	J 93°	**C*ADJNR/L15**	DN**15 55°		○	○	○	✓		C036
	N 62.5°	**C*ADNNN15**				○	○	✓		C043
	Q 107.5°	**C*ADQNR/L15**	FNGA15 45°	○	○			✓		C046
	U 93°	**C*ADUNR/L**			○			✓		C051
	J 93°	**C*ADJNR/L1104**	DN**11 55° FNMG11 45°	○	○		○	✓		C036
Lever lock P	J 93°	**C*PDJNR/L15**	DN**15 55°			○	○	✓		C040
		C*PDJNR/L15-CHP**	FNGA15 45°		○	○	○		✓	C041
		C*PDJNR/L1104-CHP**	DN**11 55°		○		○		✓	C041
	M	**C6PDMNL1104-CHP**	FNMG11 45°				○		✓	C048
Screw-on S	J 93°	**C*SDJCR/L-CHP**	DC**11 55°	○					✓	C053
Double clamp A	J 93°	**C4ATJNR/L**	TN**16 60°		○			✓		C089
Lever lock P	J 93°	**C4PTJNR/L**			○			✓		C090
Double clamp A	J 93°	**C*AVJNR/L12**	VN**12 35°		○		○	✓		C104
	Q 117.5°	**C*AVQNR/L16**	VN**16 35° YN**16 25°		○			✓		C110
Lever lock P	J 93°	**C*PVJNR/L**-CHP**	VN**16 35° YN**16 25°		○		○		✓	C106
		C*PVJNR/L1204-CHP**	VN**12 35°		○		○		✓	C106
Screw-on S	J 93°	**C*SVJCR/L**	VC**16 35°			○	○	✓		C114
	V 72.5°	**C*SVVCN**				○	○	✓		C114

ADDMULTI TURN



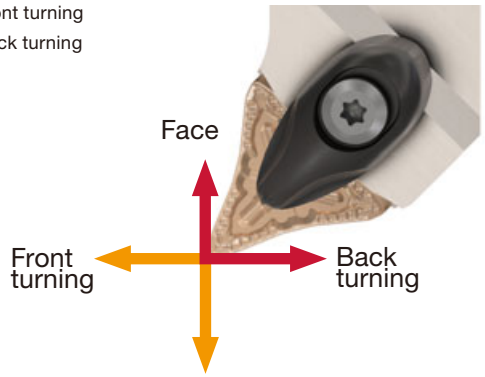
Ultra high productivity of Front Turning, Back Turning, Profiling, and Face Turning with **ONE SINGLE TOOL**

Double-sided 6-corner insert with 80° or 35° corner angle for versatile applications

- Back (pull) turning: High feed designed cutting edge improves productivity about 200% higher than existing ISO tools with no need for special programming.
- Front (push) turning: Same machining process is available using the same cutting edge angle as standard ISO tools.

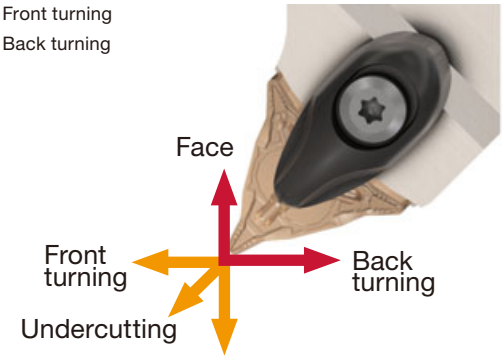
6C-TOMG

Front turning
Back turning



6V-TOMG

Front turning
Back turning

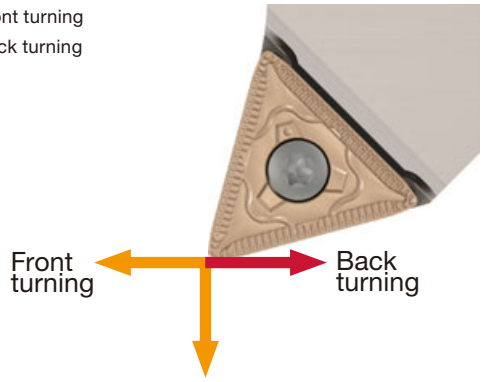


Single-sided 3-corner insert for super high productivity

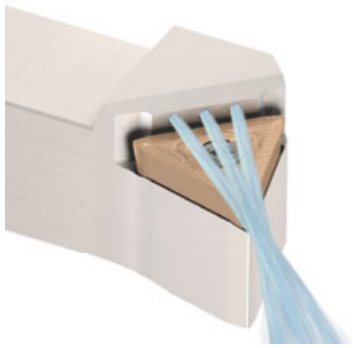
- Back (pull) turning: High feed designed cutting edge improves productivity 300 - 400% higher than standard ISO tools.
- Front (push) turning: Applicable to great D.O.C.

3C-TCMT

Front turning
Back turning



Internal coolant toolholder prevents chip jamming and maximizes performance during back turning operations



Reference pages: C100, C102

ADDY AXIS TURN

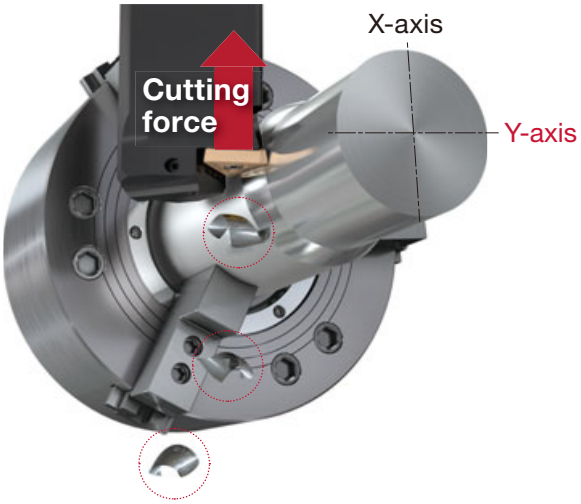


LEADING IN THE NEW DIRECTION

Y-axis turning tool with PSC connection for multitasking machines

■ Y-axis machining benefits

- The cutting force vector is directed in the longitudinal axis of the tool, resulting in higher stability and minimized vibration
- No chip entanglements, chips are directed down and away from the workpiece and toolholder



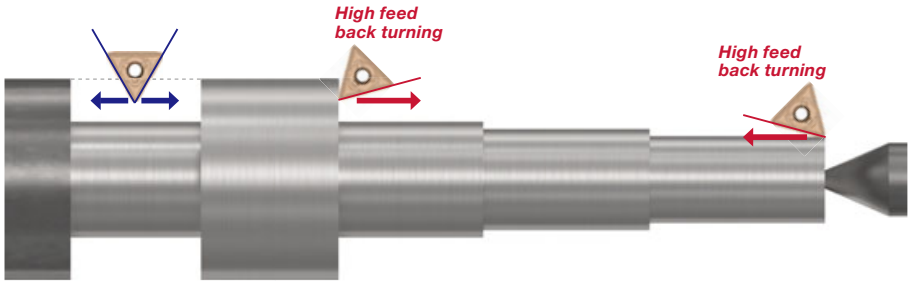
■ Tooling image of Y-axis orientation and applying high feed back turning

Medium cutting



3C-TCMT

Insert: 3C-TCMT29X608-TM
(Single-sided, 3 corners)



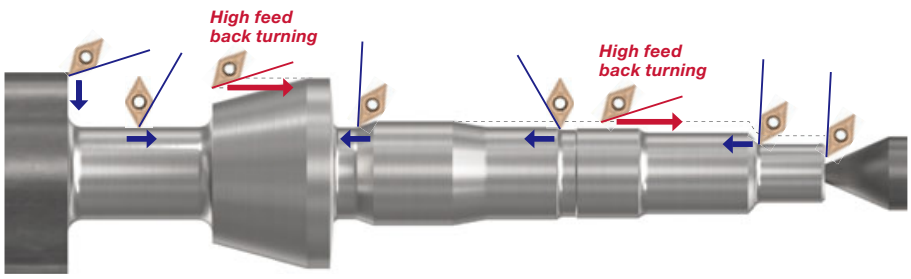
- Thanks to its high-feed geometry, **AddY-axisTurn** insert provides high productivity
- Y-axis tool orientation allows both sides of the cutting edge to be used, providing stable and long tool life

Finishing - Profiling



2D-DCMT

Insert: 2D-DCMT13T404-ZF
(Single-sided, 2 corners)

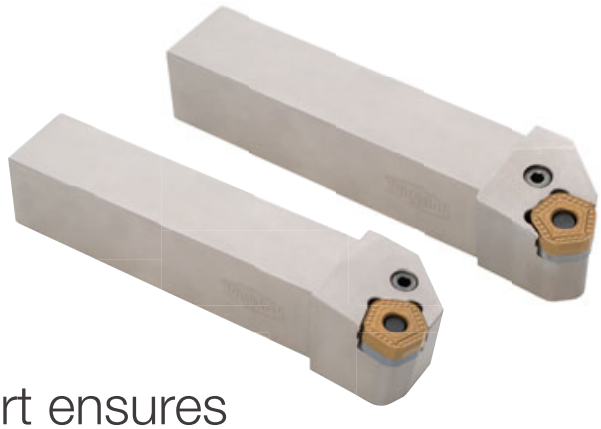


- **AddY-axisTurn** allows a precision workpiece completion with a single tool setup
- No interference with the tailstock
- Eliminates chip entanglement, promoting fully automated manufacturing

Reference pages: C056, C101

TURNTEN FEED



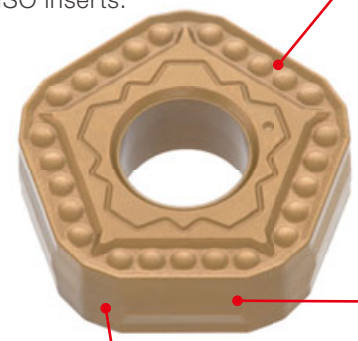


Economical, 10-cornered insert ensures **high machining efficiency**

- Available in 2 types of holders: HD type for large depths of cut and HF type for high feed turning
- Maximum 0.276" depth of cut, or maximum 0.079" feed per rev is attainable!

Economical 10-cornered, double-sided, M-class insert

Achieves outstanding cost efficiency over standard ISO inserts.

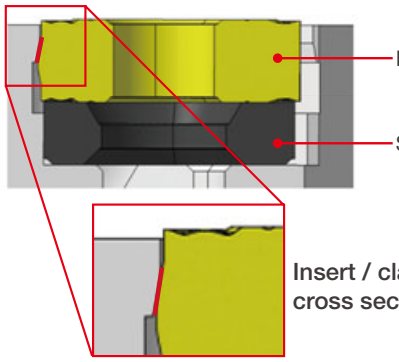


New – MNW style chipbreaker

Features protrusions on the rake face to facilitate smooth chip control, while achieving high crater wear resistance.

Dovetail clamping

Ensures secure insert retention while promoting smooth chip flow thanks to the integration of lever lock and dovetail clamping methods.



Insert / clamp contact cross section

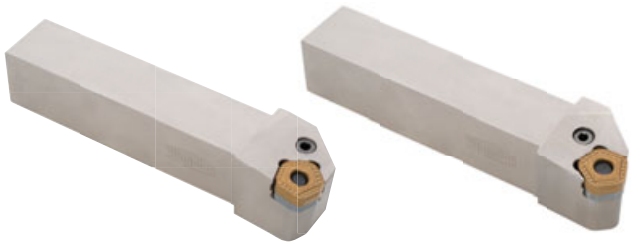
Flat Wiper

Built in the cutting edge to achieve superior machining surface at higher feed rates!

Holder selections

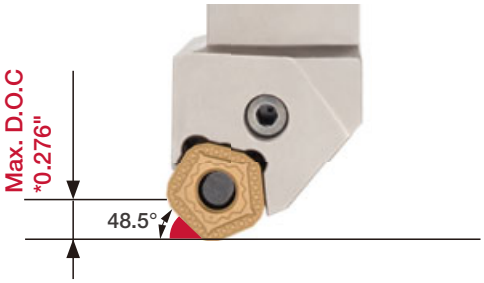
Available in 2 types:
- HD holder for large depths of cut
- HF holder for high feed turning

Inserts are interchangeable between these two holders.

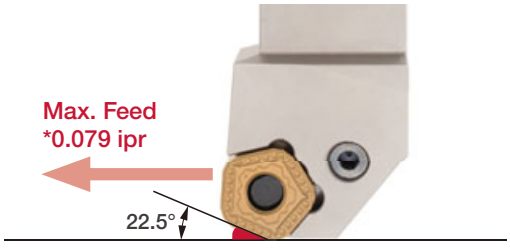


Features of Holders

HD holder
For High Depth of Cut



HF holder
For High Feed



*Insert: POMG 643 MNW

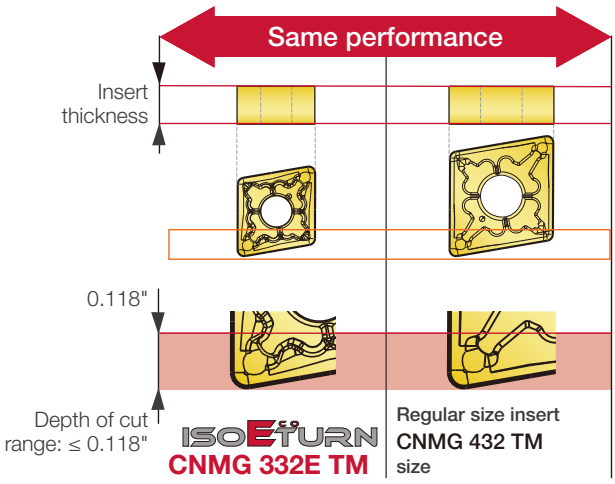
Reference pages: C063

ISO-EcoTurn Small size inserts, for an economical advantage



Uncompromising insert performance

Comparison of ISO-EcoTurn and regular size inserts

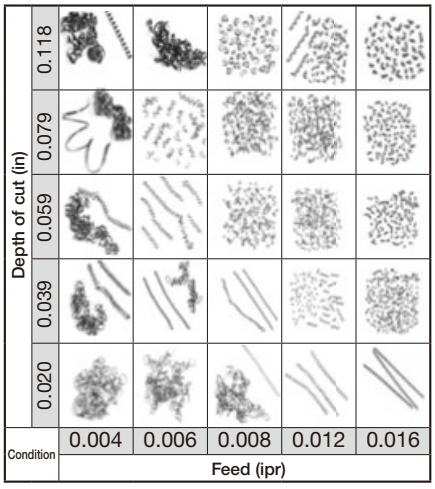


ISO-EcoTurn inserts feature the identical thickness and chipbreaker geometry as Tungaloy's regular size inserts.
These properties provide cutting performance equal to that of the regular size inserts, including chip control at a depth of cut up to 0.118".

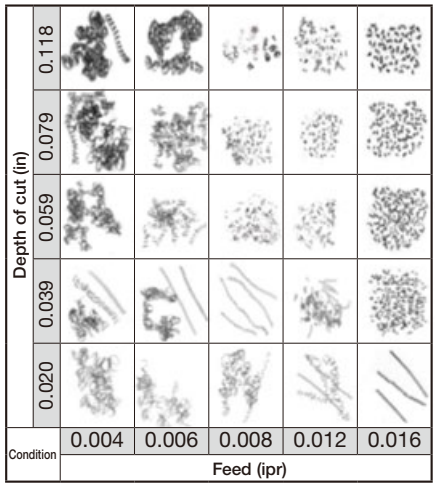
Chip control

ISO-EcoTurn inserts incorporate an identical chipbreaker geometry as regular size inserts providing the same chip removal at a depth of cut up to 0.118".

ISO-EcoTurn
CNMG 332E TM



Regular size
CNMG 432 TM



Workpiece : 1045
Cutting speed : *Vc* = 660 sfm
Coolant : Wet

Reference pages: C019 -, C036 -, C089 -, C103 -, C121 -

CN GN

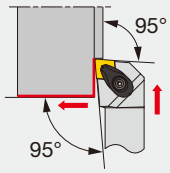
Rhombic, 80° with hole

Rhombic, 70° with hole

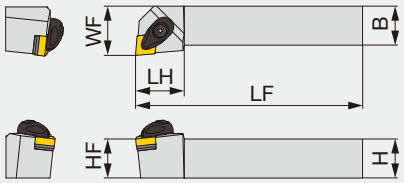
TURNING A

ACLNR/L

Double-clamp toolholder with 95° approach angle, for negative 80°/70° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
ACLNR/L1233-A	0.750	0.750	4.500	0.900	0.750	1.000	0.031	CN**/GNMG 33...	2.2
ACLNR/L124-A	0.750	0.750	4.500	1.000	0.750	1.000	0.031	CN**/GNGA 43...	2.2
ACLNR/L1633-A	1.000	1.000	6.000	1.000	1.000	1.250	0.031	CN**/GNMG 33...	2.2
ACLNR/L164-A	1.000	1.000	6.000	1.250	1.000	1.250	0.031	CN**/GNGA 43...	2.2
ACLNR/L204-A	1.250	1.250	7.000	1.500	1.250	1.500	0.031	CN**/GNGA 43...	2.2
ACLNR/L205-A	1.250	1.250	7.000	1.500	1.250	1.500	0.047	CN** 54...	4.7
ACLNR/L206-A	1.250	1.250	7.000	1.500	1.250	1.500	0.047	CN** 64...	4.7
ACLNR/L245-A	1.500	1.500	8.000	1.500	1.500	1.750	0.047	CN** 54...	4.7
ACLNR/L246-A	1.500	1.500	8.000	1.500	1.500	1.750	0.047	CN** 64...	4.7

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ACLNR/L2020K0904-A	20	20	125	25	20	25	0.8	CN**/GNMG0904...	3
ACLNR/L2020H12-A	20	20	100	26	20	25	0.8	CN**/GNGA1204...	3
ACLNR/L2020K12-A	20	20	125	26	20	25	0.8	CN**/GNGA1204...	3
ACLNR/L2525M0904-A	25	25	150	25	25	32	0.8	CN**/GNMG0904...	3
ACLNR/L2525K12-A	25	25	125	30	25	32	0.8	CN**/GNGA1204...	3
ACLNR/L2525M12-A	25	25	150	30	25	32	0.8	CN**/GNGA1204...	3
ACLNR/L2525M16-A	25	25	150	31	25	32	1.2	CN**1606...	6.4
ACLNR/L3225P12-A	32	25	170	30	32	32	0.8	CN**/GNGA1204...	3
ACLNR/L3225P16-A	32	25	170	31	32	32	1.2	CN**1606...	6.4
ACLNR/L3232P16-A	32	32	170	31	32	40	1.2	CN**1606...	6.4
ACLNR/L3232P19-A	32	32	170	40	32	40	1.2	CN**1906...	6.4
ACLNR/L4040S19-A	40	40	250	40	40	50	1.2	CN**1906...	6.4

Torque: Recommended clamping torque: lbs·ft (*N·m) **RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench1	Wrench2
ACLNR/L**33-A, ACLNR/L**0904-A	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASC322	CSTB-3.5	T-15F	-
ACLNR/L**4-A, ACLNR/L**12-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASC422	CSTB-3.5	T-15F	-
ACLNR/L**5-A, ACLNR/L**16-A	ACP5S	ACS-6W	BP-8.8	SP-2.5	ASC533	CSTB-5	-	KEYV-T20
ACLNR/L**6-A, ACLNR/L**19-A	ACP6S	ACS-6W	BP-8.8	SP-2.5	ASC634	CSTB-5	-	KEYV-T20

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: ACLNR/L: Inserts → B054 -, B075, CBN → B168 -, B178, PCD → B211 -

CN



Rhombic, 80° with hole

GN

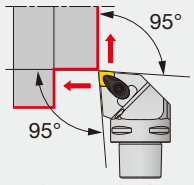


Rhombic, 70° with hole

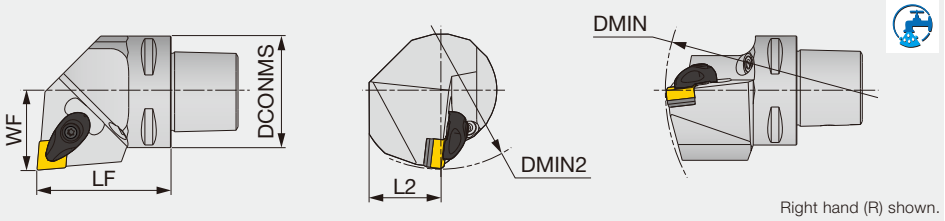
TURNINGA

C-ACLNR/L

Double-clamp toolholder, with 95° approach angle, for negative 80°/70° rhombic inserts (TurningA)



Cutting edge style **L**



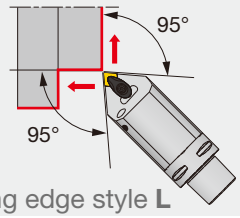
Right hand (R) shown.

Metric	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert	Torque
C3ACLNR/L22040-0904N	32	40	20	22	110	121	0.8	CN**/GNMG0904...	3
C3ACLNR/L22040-12N	32	40	20	22	121	116	0.8	CN**/GNGA1204...	3
C4ACLNR/L27050-0904N	40	50	25	27	140	110	0.8	CN**/GNMG0904...	3
C4ACLNR/L27050-12N	40	50	25	27	140	110	0.8	CN**/GNGA1204...	3
C5ACLNR/L35060-12N	50	60	32	35	165	110	0.8	CN**/GNGA1204...	3
C6ACLNR/L45065-0904N	63	65	35	45	190	110	0.8	CN**/GNMG0904...	3
C6ACLNR/L45065-12N	63	65	41	45	190	125	0.8	CN**/GNGA1204...	3
C6ACLNR/L45135-12N	63	135	41	45	190	110	0.8	CN**/GNGA1204...	3
C6ACLNR/L45065-16N	63	65	41	45	190	125	1.2	CN**1606...	6.4

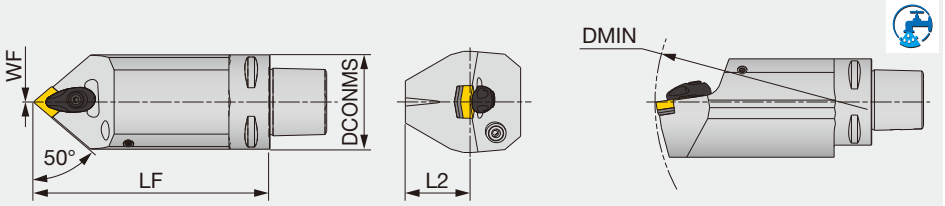
Applicable for 7 MPa (1015 PSI) coolant
Torque: Recommended clamping torque: N·m

C-ACLNN

Double-clamp toolholder, with 50° approach angle, for negative 80°/70° rhombic inserts



Cutting edge style **L**



Metric	DCONMS	LF	L2	WF	DMIN	RE	Insert	Torque
C5ACLNN00090-12(1)	50	90	32	0	-	0.8	CN**/GNGA1204...	3
C5ACLNN00090-12N(2)	50	90	32	0	165	0.8	CN**/GNGA1204...	3
C5ACLNN00125-12(1)	50	125	32	0	-	0.8	CN**/GNGA1204...	3
C5ACLNN00125-12N(2)	50	125	32	0	165	0.8	CN**/GNGA1204...	3
C6ACLNN00100-12N(2)	63	100	37.5	0	190	0.8	CN**/GNGA1204...	3
C6ACLNN00140-12N(2)	63	140	37.5	0	190	0.8	CN**/GNGA1204...	3

The items without DMIN cannot be used for boring.
Torque: Recommended clamping torque: N·m
(1) Applicable for 3 MPa (435 PSI) coolant (2) Applicable for 7 MPa (1015 PSI) coolant

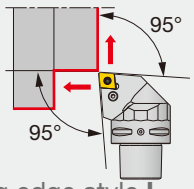
SPARE PARTS

Designation	Clamp	Clamping screw	Coolant parts	Shim	Shim screw	Spring	Spring pin	Wrench 1	Wrench 2
C*ACLN***-0904N	ACP3S-E	ACS-5W	SATZ-M10X1-5	ASC322	CSTB-3.5	BP-7	SP-2.5	-	T-15F
C*ACLN***-12N	ACP4S	ACS-5W	SATZ-M8X1-M3	ASC422	CSTB-3.5	BP-7	SP-2.5	-	T-15F
C6ACLN*45065-16N	ACP5S	ACS-6W	SATZ-M8X1-M3	ASC533	CSTB-5	BP-8.8	SP-2.5	KEYV-T20	-
C5ACLNN00090-12	ACP4S	ACS-5W	EZ83	ASC422	CSTB-3.5	BP-7	SP-2.5	-	T-15F
C5ACLNN00125-12	ACP4S	ACS-5W	EZ83	ASC422	CSTB-3.5	BP-7	SP-2.5	-	T-15F

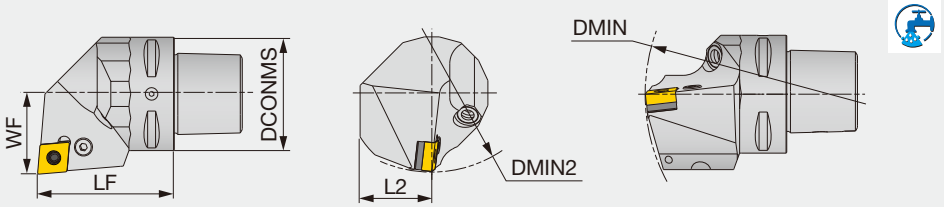
Reference pages: C-ACLNR/L, C-ACLNN: Inserts → B054 -, B075, CBN → B168 -, B178, PCD → B211 -
Parts for coolant hose → C133

C-PCLNR/L

Lever-lock toolholder, with 95° approach angle, for negative 80°/70° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Metric	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
C5PCLNR/L35060-12N	50	60	32	35	165	110	0.8	CN**/GNGA1204...
C6PCLNR/L45065-12N	63	65	41	45	190	125	0.8	CN**/GNGA1204...

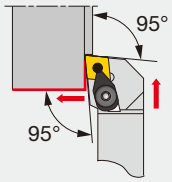
Applicable for 7 MPa (1015 PSI) coolant
The item without DMIN and DMIN2 cannot be used for boring.

SPARE PARTS

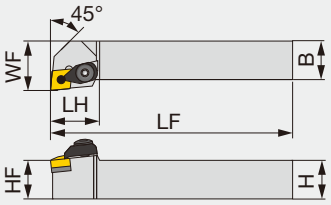
Designation	Coolant parts	Lever	Clamping screw	Shim	Spring pin	Wrench
C5PCLN*35060-12	EZ104	LCL4	LCS4	LSC42	LSP4	P-3
C*PCLN***-12N	SATZ-M10X1-M5	LCL4	LCS4	LSC42	LSP4	P-3

DCLNR/L

"One-Double" toolholder with 95° approach angle, for negative 80°/70° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
DCLNR/L2020K12	20	20	125	30	20	25	0.8	CN**/GNGA1204...
DCLNR/L2525M12	25	25	150	30	25	32	0.8	CN**/GNGA1204...
DCLNR/L3225P12	32	25	170	30	32	32	0.8	CN**/GNGA1204...

Note: Except for TRS, TU, TUS, 57, and 65-type chipbreaker inserts **RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench1	Wrench2
DCLNR/L...	DCPM-43	DLCL43	DPIS43	DLCS43	LSC42	BP-10	LSP4	P-3	P-4

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: C-PCLNR/L: Inserts → B054 -, CBN → B168 -, B178, PCD → B211 -
DCLNR/L: Inserts → B054 -, CBN → B168 -, B178, PCD → B211 -,
Parts for coolant hose → C133

CN



Rhombic, 80° with hole

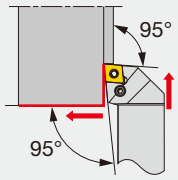
GN



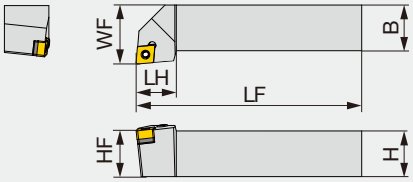
Rhombic, 70° with hole

PCLNR/L

Lever-lock toolholder with 95° approach angle, for negative 80°/70° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PCLNR/L1233	0.750	0.750	4.500	0.813	0.750	1.000	0.031	CN**/GNMG 33...	1.5
PCLNR/L1633	1.000	1.000	6.000	0.813	1.000	1.250	0.031	CN**/GNMG 33...	1.5

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PCLNR/L1616H09	16	16	100	20	16	20	0.8	CN**0903...	2
PCLNR/L1616	16	16	100	26	16	20	0.8	CN**/GNGA1204...	3
PCLNR/L1616H12E	16	16	100	26	16	20	0.8	CN**/GNGA1204...	3
PCLNR/L2020K09	20	20	125	20	20	25	0.8	CN**0903...	2
PCLNR/L2020K0904	20	20	125	20	20	25	0.8	CN**/GNMG0904...	2
PCLNR/L2020	20	20	125	28	20	25	0.8	CN**/GNGA1204...	3
PCLNR/L2020K12E	20	20	125	28	20	25	0.8	CN**/GNGA1204...	3
PCLNR/L2525M09	25	25	150	20	25	32	0.8	CN**0903...	2
PCLNR/L2525M0904	25	25	150	25	25	32	0.8	CN**/GNMG0904...	2
PCLNR/L2525M4	25	25	150	28	25	32	0.8	CN**/GNGA1204...	3
PCLNR/L2525M12E	25	25	150	28	25	32	0.8	CN**/GNGA1204...	3
PCLNR/L2525M16E	25	25	150	31	25	25	1.2	CN**1606...	3
PCLNR/L3225P4	32	25	170	28	32	32	0.8	CN**/GNGA1204...	3
PCLNR/L3232	32	32	170	40	32	40	1.2	CN**1906...	5
PCLNR/L3225P12E	32	25	170	28	32	32	0.8	CN**/GNGA1204...	3
PCLNR/L3225P16E	32	25	150	31	32	32	1.2	CN**1606...	3
PCLNR3232P16E	32	32	170	31	32	40	1.2	CN**1606...	3
PCLNR/L3232P19E	32	32	170	40	32	40	1.2	CN**1906...	5

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius

SPARE PARTS

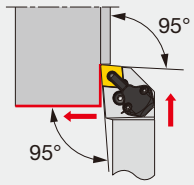
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PCLNR/L**33	LSC317	LCS3	P-2.5	LSP3	LCL33
PCLNR/L**09	ELSC32	LCS3	P-2.5	LSP3L	LCL33
PCLNR/L1616	LSC42	LCS4CA	P-3	LSP4	LCL4
PCLNR/L1616H12E	ELSC42	LCS4CA	P-3	LSP4S	LCL43S
PCLNR/L**0904	LSC317	LCS3	P-2.5	LSP3	LCL33
PCLNR/L2020	LSC42	LCS4	P-3	LSP4	LCL4
PCLNR/L2020K12E, **2525M12E, **3225P12E	ELSC42	LCS4	P-3	LSP4S	LCL43M
PCLNR/L2525M4, **3225P4	LSC42	LCS4	P-3	LSP4	LCL4
PCLNR/L**16E	ELSC53	LCS5	P-3	LSP6C	LCL54
PCLNR/L3232	LSC63	LCS6	P-4	LSP6	LCL6
PCLNR/L3232P19E	ELSC63	LCS6	P-4	LSP6	LCL6

Reference pages: PCLNR/L: Inserts → B054 -, B075, CBN → B168 -, B178, PCD → B211 -

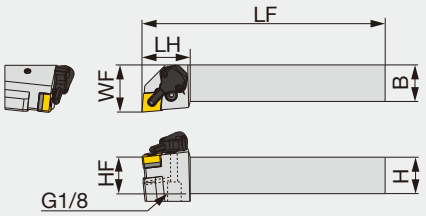
PCLNR/L-CHP

Tube connection

Lever lock toolholders – 95° approach angle.
For negative 80°/70° rhombic insert. High-pressure coolant capability.



Cutting edge style **L**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PCLNR/L1233-CHP	0.750	0.750	4.500	1.300	0.750	1.250	0.031	CN**/GNMG 33...	1.48
PCLNR/L124-CHP	0.750	0.750	4.500	1.300	0.750	1.250	0.031	CN**/GNGA 43...	2.21
PCLNR/L1633-CHP	1.000	1.000	6.000	1.300	1.000	1.250	0.031	CN**/GNMG 33...	1.48
PCLNR/L164-CHP	1.000	1.000	6.000	1.300	1.000	1.250	0.031	CN**/GNGA 43...	2.21

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PCLNR/L2020K0904-CHP	20	20	125	33	20	32	0.8	CN**/GNMG0904...	2
PCLNR/L2020K12-CHP	20	20	125	33	20	32	0.8	CN**/GNGA1204...	3
PCLNR/L2525M0904-CHP	25	25	150	33	25	32	0.8	CN**/GNMG0904...	2
PCLNR/L2525M12-CHP	25	25	150	33	25	32	0.8	CN**/GNGA1204...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PCLNR/L**33-CHP, PCLNR/L**0904-CHP	LSC317	LCS3	P-2.5	LSP3	LCL33
PCLNR/L**4-CHP, PCLNR/L**12-CHP	LSC42	LCS4	P-3	LSP4	LCL4

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PCLNR/L**33-CHP, PCLNR/L**0904-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2
PCLNR/L**4-CHP, PCLNR/L**12-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: PCLNR/L-CHP: Inserts → B054 -, B075, CBN → B168 -, B178, PCD → B211 -
Parts for coolant hose → C133

CN



Rhombic, 80° with hole

GN

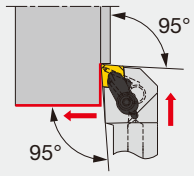


Rhombic, 70° with hole

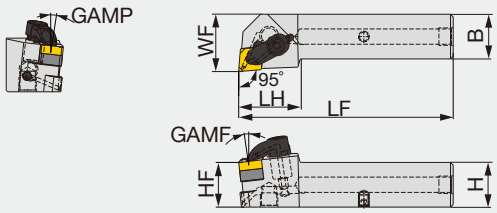
ACLNR/L-CHP-MC

Direct connection | Tube connection

Double clamping tool holders-95°approach angle
For negative 80°/70° rhombic insert. High-pressure coolant capability with tube and direct connections



Cutting edge style **L**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	GAMP	GAMF	Insert	Torque
ACLNR/L12-4-CHP-MC	0.750	0.750	4.500	1.378	0.750	1.000	6°	6°	CN**/GNGA 43...	2.95
ACLNR/L16-4-CHP-MC	1.000	1.000	6.000	1.378	1.000	1.250	6°	6°	CN**/GNGA 43...	2.95

Metric	H	B	LF	LH	HF	WF	GAMP	GAMF	Insert	Torque*
ACLNR/L2020X-12-CHP-MC	20	20	105	35	20	25	6°	6°	CN**/GNGA1204...	4
ACLNR/L2525X-12-CHP-MC	25	25	120	35	25	32	6°	6°	CN**/GNGA1204...	4

Torque: Recommended clamping torque: lbs·ft (*N·m)
Applicable for 14 MPa (2031 PSI) pressure coolant

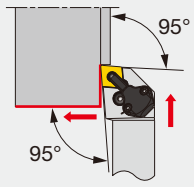
SPARE PARTS

Designation	Clamp set	Shim	Shim screw	screw for tube connection	Coolant plug	O-ring	Wrench
ACLNL...	LCGL-4JCSET	RCT443	SR14-506	PLUGG1/8-6.5TL360	SRM5X5 DIN913TL360	OR4X3NBR70	KEYV-T20
ACLNR...	LCGR-4JCSET	RCT443	SR14-506	PLUGG1/8-6.5TL360	SRM5X5 DIN913TL360	OR4X3NBR70	KEYV-T20

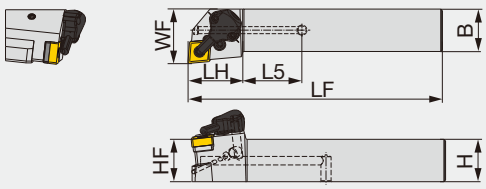
PCLNR/L2020X-CHP-MC

Direct connection

Lever lock toolholders – 95° approach angle.
For negative 80°/70° rhombic insert. High-pressure coolant capability with bottom direct connection



Cutting edge style **L**



Metric	H	B	LF	LH	HF	L5	WF	Insert	Torque
PCLNR/L2020X09-CHP-MC	20	20	97	27	20	29	25	CN**/GNMG0904...	2
PCLNR/L2020X12-CHP-MC	20	20	97	27	25	29	25	CN**/GNGA1204...	3

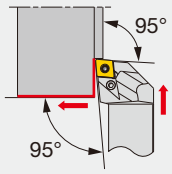
Torque: Recommended clamping torque: N·m

SPARE PARTS

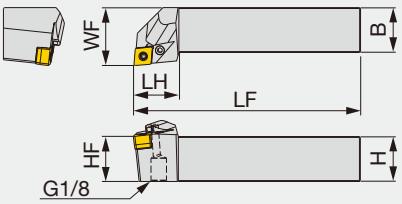
Designation	Shim	Spring	Lever	Spring	Spring pin	Wrench	Coolant unit	Wrench	Coolant plug	Wrench
PCLNR/L2020X09-CHP-MC	TCN323	SP3	LR3	SR117-2014	PN3-4	HW2.5	CU-CW-CHP	T-8/5	SRM5X5 DIN913TL360	-
PCLNR/L2020X12-CHP-MC	TCN443	SP4	LR4DH	SR117-2010	PN3-4L	HW2.5	CU-CW-CHP	T-8/5	SRM5X5 DIN913TL360	HW3.0

Reference pages: ACLNR/L-CHP-MC, PCLNR/L2020X-CHP-MC:
Inserts → B054 -, B075, CBN → B168 -, B178, PCD → B211 -, Parts for coolant hose → C133

Lever-lock toolholder with 95° approach angle, for negative 80°/70° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Air hole	Insert	Torque
PCLNR/L1233-CHP-N	0.750	0.750	4.000	1.300	0.750	1.250	0.031	With	CN**/GNMG 33...	1.48
PCLNR/L1633-CHP-N	1.000	1.000	5.000	1.300	1.000	1.250	0.031	With	CN**/GNMG 33...	1.48

Metric	H	B	LF	LH	HF	WF	RE**	Air hole	Insert	Torque*
PCLNR/L2020H0904-CHP-N	20	20	100	25	20	25	0.8	With	CN**/GNMG0904...	2
PCLNR/L2525K0904-CHP-N	25	25	125	25	25	32	0.8	With	CN**/GNMG0904...	2

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: The holder measurements are true with this insert radius
Applicable for 14 MPa (2031 PSI) pressure coolant

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PCLNR/L**33-CHP-N, PCLNR/L**0904-CHP-N	LSC317	LCS3	P-2.5	LSP3	LCL33

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: PCLNR/L-CHP-N: Inserts → B054 -, B075
Parts for coolant hose → C133

CN



Rhombic, 80° with hole

GN

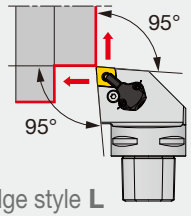


Rhombic, 70° with hole

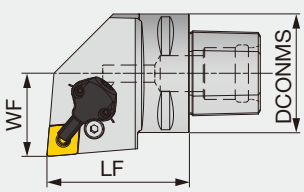
TUNGCAP

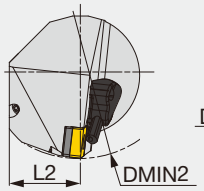
C-PCLNR/L-CHP

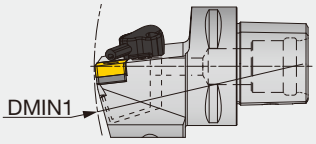
Lever lock toolholders with TungCap connection – 95° approach angle.
For negative 80°/70° rhombic insert. High-pressure coolant capability.



Cutting edge style **L**







Right hand (R) shown.

Metric	DCONMS	LF	L2	WF	DMIN1	DMIN2	RE**	Insert	Torque
C4PCLNR/L27050-0904-CHP	40	50	25	27	140	110	0.8	CN**/GNMG0904...	2
C4PCLNR/L27050-12-CHP	40	50	25	27	140	110	0.8	CN**/GNGA1204...	3
C5PCLNR/L35060-12-CHP	50	60	32	35	165	110	0.8	CN**/GNGA1204...	3
C6PCLNR/L45065-0904-CHP	63	65	41	45	195	125	0.8	CN**/GNMG0904...	2
C6PCLNR/L45065-12-CHP	63	65	41	45	195	125	0.8	CN**/GNGA1204...	3

Torque: Recommended clamping torque: N·m
Applicable for 14 MPa (2031 PSI) pressure coolant
**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C*PCLNR/L**0904-CHP	LSC317	LCS3	P-2.5	LSP3	LCL33
C*PCLNR/L**-12-CHP	LSC42	LCS4	P-3	LSP4	LCL4

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C*PCLNR/L**0904-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N
C*PCLNR/L**-12-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

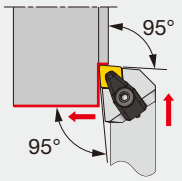
Reference pages: C-PCLNR/L-CHP: Inserts → B054 -, B075, CBN → B168 -, B178, PCD → B211 -
Parts for coolant hose → C133

CN

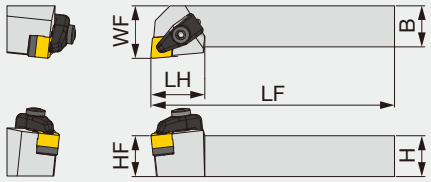
Rhombic, 80°
without hole

DIMPLEFX
CCLNR/L-RD

Double-clamp toolholder with 95° approach angle, for negative 80° rhombic ceramic inserts with dimple



Cutting edge style **L**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
CCLNR/L16M45-RD	1.000	1.000	6.000	1.300	1.000	1.250	0.047	CNGD 45...	3.0

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
CCLNR/L2525M1207-RD	25	25	150	33	25	32	1.2	CNGD1207...	4
CCLNR3225P1207-RD	32	25	170	33	32	32	1.2	CNGD1207...	4

Torque: Recommended clamping torque: lb·ft (*N·m)
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench1	Wrench2
CCLNR/L**-RD	CCP4-A	CCS4-A	CC44-A	BH5-10-A	BP-5-A	P-3	P-4

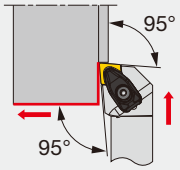
INSERT SELECTION

K	Application	Finishing to medium cutting
	Grade	FX105
	Chipbreaker shape	- 
	Cutting conditions	C136

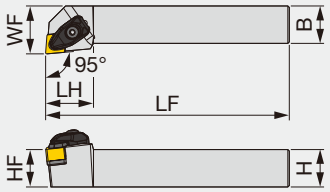
Reference pages: CCLNR/L-RD: Inserts → B065,
Standard cutting conditions → C136

TCLNR/L-F

Toolholder with carbide clamping plate, with 95° approach angle, for negative 80° rhombic ceramic inserts without hole



Cutting edge style **L**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert
TCLNR/L 16-43D-F	1.000	1.000	6.000	1.260	1.000	1.250	0.031	CNGN 432...
TCLNR/L 16-45D-F	1.000	1.000	6.000	1.260	1.000	1.250	0.031	CNGN 432...

Metric	H	B	LF	LH	HF	WF	RE**	Insert
TCLNR/L2525M1204-F	25	25	150	32	25	32	0.8	CNGN1204...
TCLNR/L2525M1207-F	25	25	150	32	25	32	0.8	CNGN1207...

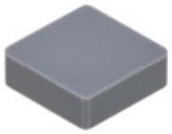
**RE: Standard corner radius

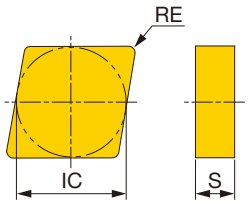
SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench 1	Wrench 2
TCLNR/L **-43D-F TCLNR/L2525M1204-F	DCLS-4F	DLS-4A	TSC-44	BH-40050-A	DSP-4A	T-15F	P-3
TCLNR/L **-45D-F TCLNR/L2525M1207-F	DCLS-4F	DLS-4A	TSC-42	BH-40050-A	DSP-4A	T-15F	P-3

INSERT

CNGN-E/T1





		Ceramic	
		TS200	TS300
P	Steel		
M	Stainless		
K	Cast iron		
N	Non-ferrous		
S	Superalloys	★	★
H	Hard materials		

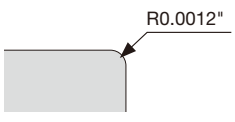
★ : First choice

Designation		Edge prep.*	Ceramic		RE (in)	IC (in)	S (in)
Inch	Metric		TS200	TS300			
CNGN 432-E	CNGN120408-E	E		●	0.031	0.500	0.187
CNGN 433-E	CNGN120412-E	E		●	0.047	0.500	0.187
CNGN 433-T1	CNGN120412-T1	T1	●		0.047	0.500	0.187
CNGN 452-E	CNGN120708-E	E		●	0.031	0.500	0.313
CNGN 453-E	CNGN120712-E	E	●	●	0.047	0.500	0.313
CNGN 454-T1	CNGN120716-T1	T1	●		0.063	0.500	0.313

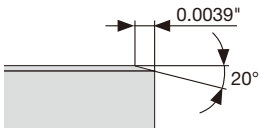
* Types of cutting edge preparations

● : Line up

E: Low cutting force



T1: Strong cutting edge



Reference pages: TCLNR/L-F: Standard cutting conditions → C136

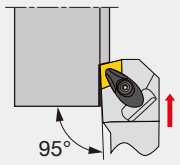
CN

Rhombic, 80°
with hole

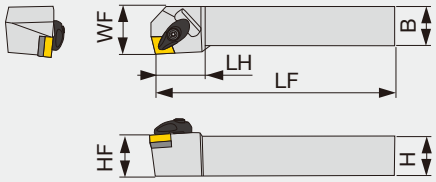
TURNING A

ACKNR/L

Double-clamp toolholder with 95° approach angle, for negative 80° rhombic inserts



Cutting edge style **K**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
ACKNR/L164-A	1.000	1.000	6.000	1.375	1.000	1.312	0.032	CN** 43...	2.2

Torque: Recommended clamping torque: lb·ft
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench 1
ACKNR/L164-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASC422	CSTB-3.5	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: ACKNR/L: Inserts → B054 -, CBN → B168 -, PCD → B211

CN



Rhombic, 80° with hole

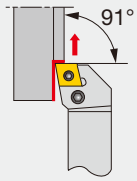
GN



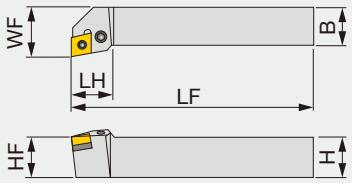
Rhombic, 70° with hole

PCFNR/L

Lever-lock type toolholder for facing with 91° approach angle, for negative 80°/70° rhombic inserts



Cutting edge style **F**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
PCFNR/L2020	20	20	125	28	20	25	0.8	CN**/GNGA1204...
PCFNR/L2525	25	25	150	28	25	32	0.8	CN**/GNGA1204...

**RE : Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PCFNR/L...	LSC42 D30	LCS4	P-3	LSP4	LCL4

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

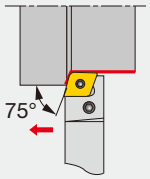
H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

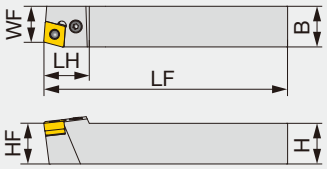
Reference pages: PCFNR/L: Inserts → B054 -, CBN → B168 -, B178, PCD → B211

PCBNR/L

Lever-lock toolholder with 75° approach angle, for negative 80° rhombic inserts



Cutting edge style **B**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
PCBNR/L2525	25	25	150	28	25	22	0.8	CN**1204...

Note: 100° corner is used.
**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PCBNR/L2525	LSC42	LCS4	P-3	LSP4	LCL4

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Medium cutting
Grade	TH10
Chipbreaker Shape	P
Cutting conditions	B010

S

Application	Finishing	Medium cutting
Grade	AH8005	AH8005
Chipbreaker Shape	HRF	HRM
Cutting conditions	B012	

Reference pages: PCBNR/L: Inserts → B054 -, CBN → B168 -, PCD → B211

CN

Rhombic, 80° with hole

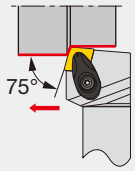
GN

Rhombic, 70° with hole

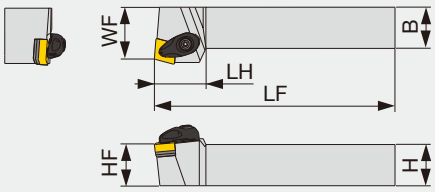
TURNING A

ACRNR/L

Double-clamp toolholder with 75° approach angle, for negative 80° rhombic inserts



Cutting edge style **R**



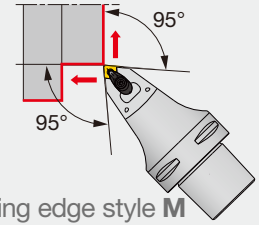
Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
ACRNR/L164-A	1.000	1.000	6.000	1.25	1.000	1.25	0.032	CN** 43...	2.2

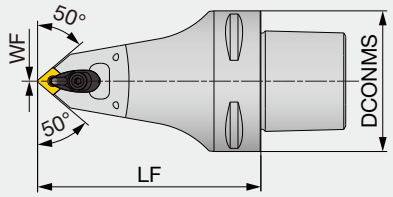
Torque: Recommended clamping torque: lb·ft
**RE: Standard corner radius

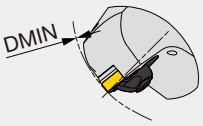
C-ACMNN

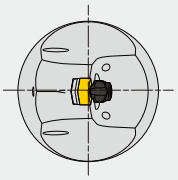
Double-clamp toolholder, with 50° approach angle, for negative 80°/70° rhombic inserts



Cutting edge style **M**







Metric	DCONMS	LF	WF	DMIN	RE**	Insert
C6ACMNN00100-0904N	63	100	0	110	0.8	CN**/GNMG0904...
C6ACMNN00140-0904N	63	140	0	110	0.8	CN**/GNMG0904...

**RE: The holder measurements are true with this insert radius
Applicable for 7 MPa (1015 PSI) coolant

SPARE PARTS









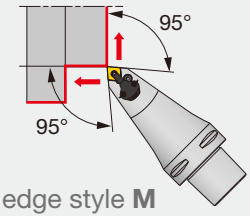
Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Spring pin	Wrench
ACRNR/L164-A	ACP4S	ACS-5W	ASC422	CSTB-3.5	BP-7	SP-2.5	T-15F
C6ACMNN001**-0904N	ACP3S-E	ACS-5W	ASC322	CSTB-3.5	BP-7	SP-2.5	T-15F

Reference pages: ACRNR/L: Inserts → B054 -, CBN → B168 -, PCD → B211
C-ACMNN: Inserts→ B054, B075
Parts for coolant hose → C133

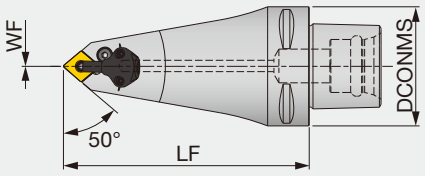
TUNGCAP
C-PCMNN-CHP

Direct connection

Lever lock toolholder with TungCap connection.
For negative 80°/70° rhombic insert. High-pressure coolant capability.



Cutting edge style **M**



Metric	DCONMS	LF	WF	RE**	Insert	Torque
C6PCMNN00130-12-CHP	63	130	0	0.8	CN**/GNGA1204...	3

Torque: Recommended clamping torque: N·m
Applicable for 14 MPa (2031 PSI) pressure coolant
**RE: Standard corner radius

For external turning only.

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C6PCMNN00130-12-CHP	LSC42	LCS4	P-3	LSP4	LCL4

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C6PCMNN00130-12-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: C-PCMNN-CHP: Inserts→ B054, CBN → B168 -, B178, PCD → B211
Parts for coolant hose → C133

CC

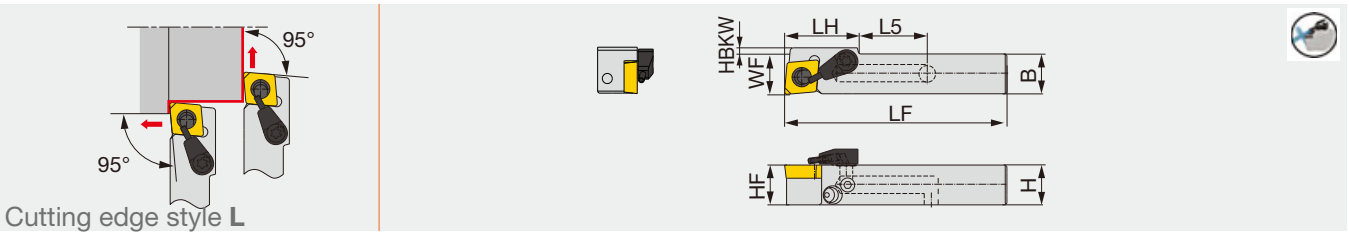


Rhombic, 80°
with hole
Positive 7°

PCLCR/L1616X09S-CHP-MC

Direct connection

Lever lock toolholders – 95° approach angle.
For positive 80° rhombic insert. High-pressure coolant capability with bottom direct connection



Metric	H	B	LF	LH	L5	HF	WF	HBKW	Insert
PCLCR/L1616X09S-CHP-MC	16	16	71	23	17	16	16.2	-	CC**09T3...

Applicable for 14 MPa (2031 PSI) pressure coolant

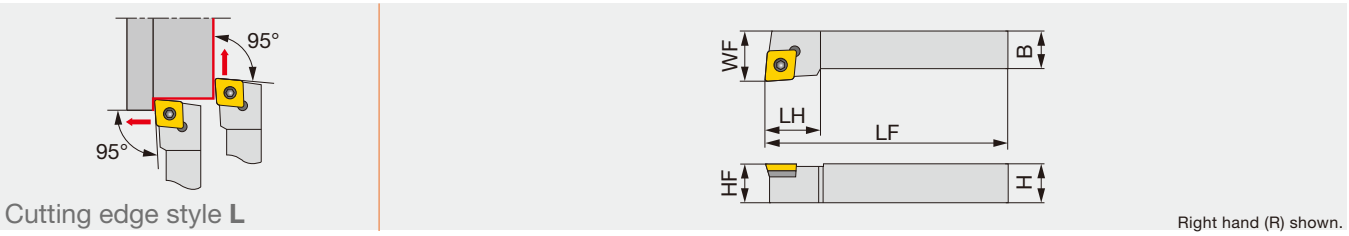
SPARE PARTS



Designation	Lever	Pin	Clamping screw	Wrench	Coolant plug	Coolant unit
PCLCR/L1616X09S-CHP-MC	SLLV-3	SLPI-3	SR10400150	HW2.5/5	SR5/16UNFTL360	S-CU-CHP

SCLCR/L

Screw-on toolholder with 95° approach angle, for positive 80° rhombic inserts



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert
SCLCR/L103	0.625	0.625	4.000	0.625	0.625	0.750	0.031	CC** 32.5...
SCLCR/L123	0.750	0.750	4.500	0.625	0.750	0.750	0.031	CC** 32.5...
SCLCR/L124B	0.750	0.750	4.500	0.625	0.750	0.750	0.031	CC** 43...
SCLCR/L163	1.000	1.000	6.000	0.625	1.000	0.750	0.031	CC** 32.5...
SCLCR/L164D	1.000	1.000	6.000	0.750	1.000	0.750	0.031	CC** 43...

Metric	H	B	LF	LH	HF	WF	RE**	Insert
SCLCR/L1616H09	16	16	100	16	16	20	0.8	CC**09T3...
SCLCR/L2020K12	20	20	125	20	20	25	0.8	CC**1204...

**RE: Standard corner radius

SPARE PARTS

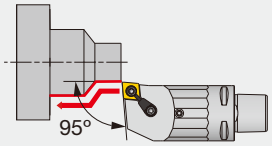


Designation	Clamping screw	Shim screw	Shim	Wrench1	Wrench2
SCLCR/L**3, SCLCR/L1616H09	CSTB-3.5L	DTS5-3.5	SSC32	P-3.5	T-15F
SCLCR/L124B, 164D	CSPB-5	DTS6-4	SSC4T3	P-4	T20F
SCLCR/L2020K12	CSTB-4F	DTS6-4	SSC4T3	P-4	T-15F

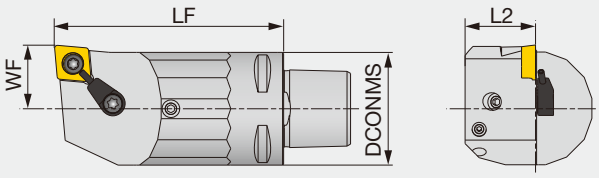
Reference pages: PCLCR/L1616X09S-CHP-MC: Inserts → B112 -, CBN → B189 -, PCD → B213
Parts for coolant hose → C133
SCLCR/L: Inserts → B112 -, CBN → B189 -, PCD → B213

TUNGCAP
C-SCLCL-CHP

Screw-on toolholder, with 95° approach angle, for positive 80° rhombic inserts, with high pressure coolant capability



Cutting edge style **L**



Left hand (L) shown.

Metric	DCONMS	LF	L2	WF	RE	Insert
C3SCLCL18040-09-CHP	32	40	20	18	0.8	CC**09T3...
C3SCLCL18065-09-CHP	32	65	20	18	0.8	CC**09T3...

Applicable for 14 MPa (2031 PSI) coolant
Cannot be used for boring

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
C3SCLCL...	CSTB-4S	S-CU-CHP	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
Grade	NS9530	NS9530	T9215	T9215
Chipbreaker shape	01	PSS	PS	PM
Cutting conditions	B016			

M

Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
Grade	GH330	AH6225	AH6225	AH6225
Chipbreaker shape	W**	PSS	PS	PM
Cutting conditions	B018			

K

Application	Finishing to medium cutting
Grade	T515
Chipbreaker shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	KS05F
Chipbreaker shape	DIA (with rake)	DIA	AL
Cutting conditions	B022		

S

Application	Finishing	Finishing to medium cutting
Grade	AH8015	AH8015
Chipbreaker shape	PSS	PS
Cutting conditions	B024	

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B026	

Reference pages: C-SCLCL-CHP: Inserts → B112 -, CBN → B189 -, PCD → B213
Parts for coolant hose → C133

DN

Rhombic, 55° with hole

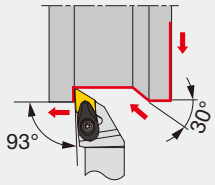
FN

Rhombic, 45° with hole

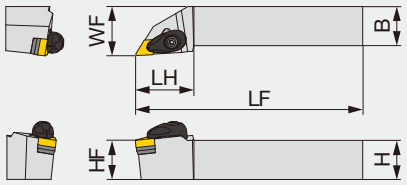
TURNINGA

ADJNR/L

Double-clamp toolholder with 93° approach angle, for negative 55°/45° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

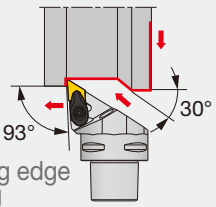
Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
ADJNR/L1233-A	0.750	0.750	4.500	1.250	0.750	1.000	0.031	DN**/FNMG 33...	2.2
ADJNR/L124-A	0.750	0.750	4.500	1.500	0.750	1.000	0.031	DN**/FNGA 43...	2.2
ADJNR/L1633-A	1.000	1.000	6.000	1.250	1.000	1.250	0.031	DN**/FNMG 33...	2.2
ADJNR/L164-A	1.000	1.000	6.000	1.500	1.000	1.250	0.031	DN**/FNGA 43...	2.2
ADJNR/L204-A	1.250	1.250	7.000	1.500	1.250	1.500	0.031	DN**/FNGA 43...	2.2

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ADJNR/L2020K1104-A	20	20	125	30	20	25	0.8	DN**/FNMG1104...	3
ADJNR/L2020K15-A	20	20	125	36	20	25	0.8	DN**/FNGA1504...	3
ADJNR/L2020K1506-A	20	20	125	36	20	25	0.8	DN**/FNGA1506...	3
ADJNR/L2525M1104-A	25	25	150	30	25	32	0.8	DN**/FNMG1104...	3
ADJNR/L2525M15-A	25	25	150	36	25	32	0.8	DN**/FNGA1504...	3
ADJNR/L2525M1506-A	25	25	150	36	25	32	0.8	DN**/FNGA1506...	3
ADJNR/L3225P15-A	32	25	170	36	32	32	0.8	DN**/FNGA1504...	3

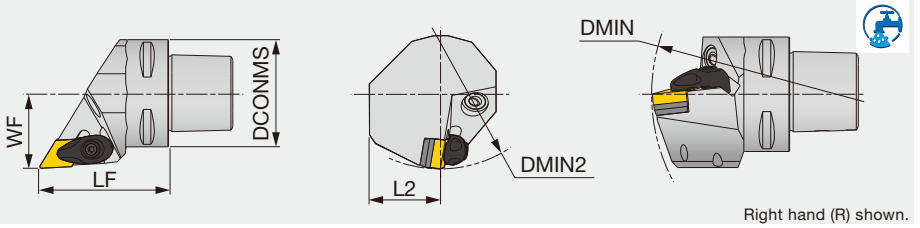
Torque: Recommended clamping torque: lbs·ft (*N·m) **RE: Standard corner radius

C-ADJNR/L

Double-clamp toolholder, with 93° approach angle, for negative 55°/45° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Metric	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
C3ADJNR/L22050-1104N	32	50	20	22	121	85	0.8	DN**/FNMG1104...
C4ADJNR/L27050-1104N	40	50	25	27	145	110	0.8	DN**/FNMG1104...
C4ADJNR/L27050-15N	40	50	25	27	145	110	0.8	DN**/FNGA1504...
C5ADJNR/L35060-15N	50	60	32	35	165	110	0.8	DN**/FNGA1504...
C6ADJNR/L45065-1104N	63	65	35	45	190	110	0.8	DN**/FNMG1104...
C6ADJNR/L45065-15N	63	65	41	45	190	110	0.8	DN**/FNGA1504...
C6ADJNR/L45135-15N	63	135	41	45	190	110	0.8	DN**/FNGA1504...

Applicable for 7 MPa (1015 PSI) coolant

Option: ASD423 (Shim for DN**1506**)

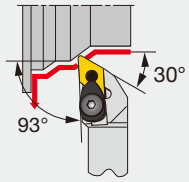
SPARE PARTS

Designation	Clamp	Clamp screw	Coolant parts	Shim	Shim screw	Spring	Spring pin	Wrench
ADJNR/L**33-A, ADJNR/L**1104-A, C*ADJNR/L**-1104N	ACP3S-E	ACS-5W	-	ASD322	CSTB-3.5	BP-7	SP-2.5	T-15F
ADJNR/L**4-A, ADJNR/L**15-A	ACP4S	ACS-5W	-	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F
ADJNR/L**1506-A	ACP4S	ACS-5W	-	ASD423	CSTB-3.5	BP-7	SP-2.5	T-15F
C*ADJNR/L**-15N	ACP4S	ACS-5W	SATZ-M10X1-M5	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F

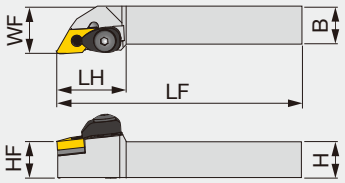
Reference pages: ADJNR/L, C-ADJNR/L: Inserts → B066 -, B075 -, CBN → B172 -, B176 -,PCD → B211

DDJNR/L

One-Double toolholder with 93° approach angle, for negative 55°/45° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
DDJNR/L2020K15	20	20	125	38	20	25	0.8	DN**/FNGA1504...
DDJNR/L2020K1506	20	20	125	38	20	25	0.8	DN**/FNGA1506...
DDJNR/L2525M15	25	25	150	38	25	32	0.8	DN**/FNGA1504...
DDJNR/L2525M1506	25	25	150	38	25	32	0.8	DN**/FNGA1506...
DDJNR/L3225P15	32	25	170	38	32	32	0.8	DN**/FNGA1504...
DDJNR/L3225P1506	32	25	170	38	32	32	0.8	DN**/FNGA1506...

Note: Except for 57-type chipbreaker inserts
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench1	Wrench2
DDJNR/L**15	DCPM-43	DLCL43	DPIS43	DLCS43	LSD42	BP-10	LSP4	P-3	P-4
DDJNR/L**1506	DCPM-43	DLCL43	DPIS44	DLCS43	LSD42	BP-10	LSP4	P-3	P-4

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pagesDDJNR/L: Inserts → B066 -, CBN → B172 -, B176 -,PCD → B211

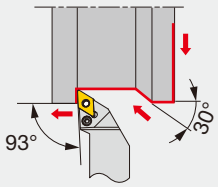
DN FN

Rhombic, 55° with hole

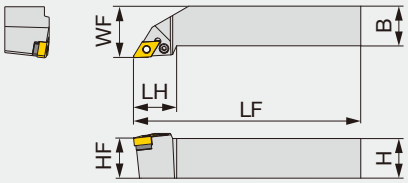
Rhombic, 45° with hole

PDJNR/L

Lever-lock toolholder with 93° approach angle, for negative 55°/45° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PDJNR/L1033	0.625	0.625	4.000	1.125	0.625	0.875	0.031	DN**/FNMG 33...	1.5
PDJNR/L1233	0.750	0.750	4.500	1.125	0.750	1.000	0.031	DN**/FNMG 33...	1.5
PDJNR/L1633	1.000	1.000	6.000	1.125	1.000	1.250	0.031	DN**/FNMG 33...	1.5

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PDJNR/L1616H1104	16	16	100	27	16	20	0.8	DN**/FNMG1104...	2
PDJNR/L1616H11	16	16	100	27	16	20	0.8	DN**/FNMG1104...	2
PDJNR/L2020K1104	20	20	125	27	20	25	0.8	DN**/FNMG1104...	2
PDJNR/L2020K11	20	20	125	27	20	25	0.8	DN**/FNMG1104...	2
PDJNR/L2020	20	20	125	34	20	25	0.8	DN**/FNGA1504...	3
PDJNR2020K15E	20	20	125	36	20	25	0.8	DN**/FNGA1506...	3
PDJNR/L2520	25	20	150	34	25	25	0.8	DN**/FNGA1504...	3
PDJNR/L2525M1104	25	25	150	27	25	32	0.8	DN**/FNMG1104...	2
PDJNR/L2525M11	25	25	150	27	25	32	0.8	DN**/FNMG1104...	2
PDJNR/L2525	25	25	150	34	25	32	0.8	DN**/FNGA1504...	3
PDJNR/L2525M15E	25	25	150	36	25	32	0.8	DN**/FNGA1506...	3
PDJNR/L3225	32	25	170	32	32	32	0.8	DN**/FNGA1504...	3
PDJNR3225P15E	32	25	170	36	32	34	0.8	DN**/FNGA1506...	3

Torque: Recommended clamping torque: lbs·ft (*N·m) **RE: Standard corner radius

SPARE PARTS

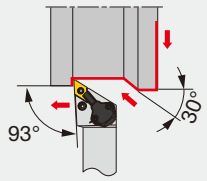
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PDJNR/L**33, PDJNR/L**11/1104	ELSD32	LCS3	P-2.5	LSP3	LCL33L
PDJNR/L2020	LSD42	LCS4	P-3	LSP4	LCL4
PDJNR2020K15E	ELSD42	ELCS4	P-3	LSP4S	LCL44
PDJNR/L2520	LSD42	LCS4	P-3	LSP4	LCL4
PDJNR/L2525	LSD42	LCS4	P-3	LSP4	LCL4
PDJNR/L2525M15E	ELSD42	ELCS4	P-3	LSP4S	LCL44
PDJNR/L3225	LSD42	LCS4	P-3	LSP4	LCL4
PDJNR3225P15E	ELSD42	ELCS4	P-3	LSP4S	LCL44

Reference pages: PDJNR/L: Inserts → B066 -, B075 -, CBN → B172 -, B176 -,PCD → B211

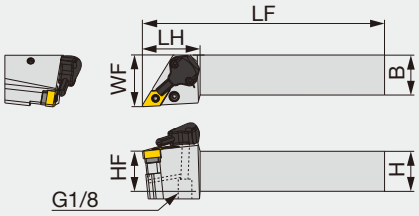
PDJNR/L-CHP

Tube connection

Lever lock toolholders – 93° approach angle.
For negative 55°/45° rhombic insert. High-pressure coolant capability.



Cutting edge style **J**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PDJNR/L1233-CHP	0.750	0.750	4.500	1.420	0.750	1.250	0.031	DN**/FNMG 33...	1.48
PDJNR/L124-CHP	0.750	0.750	4.500	1.420	0.750	1.250	0.031	DN**/FNGA 43...	2.21
PDJNR/L1633-CHP	1.000	1.000	6.000	1.420	1.000	1.250	0.031	DN**/FNMG 33...	1.48
PDJNR/L164-CHP	1.000	1.000	6.000	1.420	1.000	1.250	0.031	DN**/FNGA 43...	2.21

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PDJNR/L2020K1104-CHP	20	20	125	36	20	32	0.8	DN**/FNMG1104...	2
PDJNR/L2020K15-CHP	20	20	125	36	20	32	0.8	DN**/FNGA1504...	3
PDJNR/L2525M1104-CHP	25	25	150	36	25	32	0.8	DN**/FNMG1104...	2
PDJNR/L2525M15-CHP	25	25	150	36	25	32	0.8	DN**/FNGA1504...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius
20Mpa (2901 PSI)

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PDJNR/L**33-CHP, PDJNR/L**1104-CHP	ELSD32	LCS3	P-2.5	LSP3	LCL33L
PDJNR/L**4-CHP, PDJNR/L**15-CHP	LSD43A	LCS4	P-3	LSP4	LCL4

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PDJNR/L**33-CHP, PDJNR/L**1104-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2
PDJNR/L**4-CHP, PDJNR/L**15-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: PDJNR/L-CHP: Inserts → B066 -, B075 -, CBN → B172 -, B176 -,PCD → B211
Parts for coolant hose→ C133

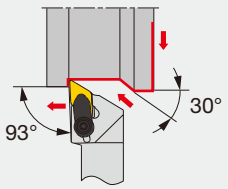
DN FN

Rhombic, 55° with hole — **Rhombic, 45° with hole**

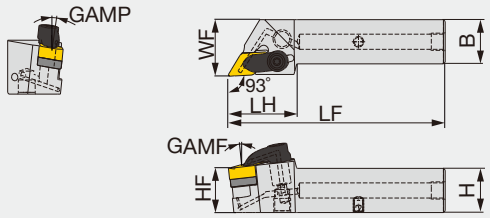
ADJNR/L-CHP-MC

Direct connection | Tube connection

Double clamping tool holders-93°approach angle
For negative 55°/45°rhombic insert. High-pressure coolant capability with tube and direct connections



Cutting edge style **J**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	GAMP	GAMF	Insert	Torque
ADJNR/L12-4-CHP-MC	0.750	0.750	4.331	1.575	0.750	1.000	6°	6°	DN**/FNGA 44(43)...	2.95
ADJNR/L16-4-CHP-MC	1.000	1.000	4.921	1.575	1.000	1.250	6°	6°	DN**/FNGA 44(43)...	2.95

Metric	H	B	LF	LH	HF	WF	GAMP	GAMF	Insert	Torque*
ADJNR/L2020X-15-CHP-MC	20	20	110	40	20	25	6°	6°	DN**/FNGA1506(04)...	4
ADJNR/L2525X-15-CHP-MC	25	25	125	40	25	32	6°	6°	DN**/FNGA1506(04)...	4

Torque: Recommended clamping torque: lbs·ft (*N·m)
Use RDT443 shim when using DN**/FNGA43..., DN**/FNGA1504... inserts
Applicable for 14 MPa (2031 PSI) pressure coolant

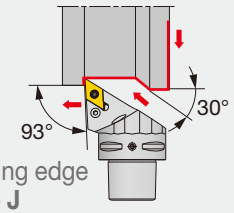
SPARE PARTS

Designation	Clamp set	Shim 1	Shim 2 (Optional)	Shim screw	Screw for tube connection	Coolant plug	O-ring	Wrench
ADJNL...	LCGL-4JCSET	RDT433	(RDT443)	SR14-506	PLUGG1/8-6.5TL360	SRM5X5 DIN913TL360	OR4X3NBR70	KEYV-T20
ADJNR...	LCGR-4JCSET	RDT433	(RDT443)	SR14-506	PLUGG1/8-6.5TL360	SRM5X5 DIN913TL360	OR4X3NBR70	KEYV-T20

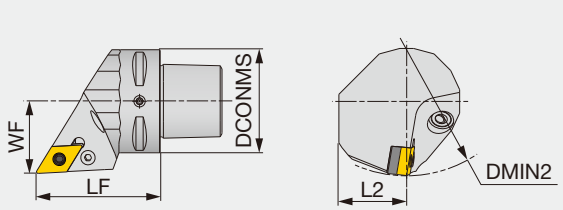
TUNGCAP

C-PDJNR/L

Lever-lock toolholder, with 93° approach angle, for negative 55°/45° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Metric	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
C5PDJNR/L35060-15N	50	60	32	35	165	110	0.8	DN**/FNGA1504(06)...
C6PDJNR/L45065-15N	63	65	41	45	195	95	0.8	DN**/FNGA1504(06)...

Applicable for 7 MPa (1015 PSI) coolant

SPARE PARTS

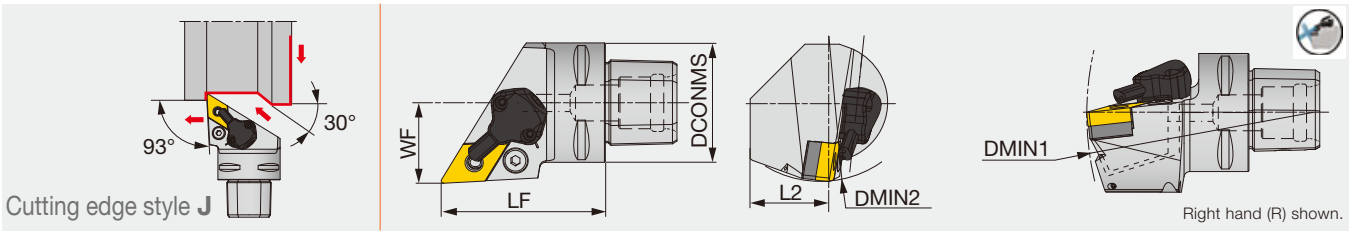
Designation	Coolant parts	Shim	Lever	Clamping screw	Spring pin	Wrench
C5PDJN*35060-15N	SATZ-M10X1-M5	LSD43A	LCL4	LCS4	LSP4	P-3
C6PDJN*45065-15N	SATZ-M10X1-M5	LSD43A	LCL4	LCS4	LSP4S	P-3

Option: LSD42A (Shim for DN**1506**), LSP4S (Spring pin for DN**1506**)

Reference pages: ADJNR/L-CHP-MC: Inserts → B066 -, CBN → B172 -, B176 -,PCD → B211
C-PDJNR/L: Inserts → B066 -, CBN → B172 -, B176 -,PCD → B211
Parts for coolant hose→ C133

TUNGCAP
C-PDJNR/L-CHP

Lever lock toolholders with TungCap connection – 93° approach angle.
For negative 55°/45° rhombic insert. High-pressure coolant capability.



Metric	DCONMS	LF	L2	WF	DMIN1	DMIN2	RE**	Insert	Torque
C4PDJNR/L27055-1104-CHP	40	55	27	27	145	110	0.8	DN**/FNMG1104...	2
C4PDJNR/L27055-15-CHP	40	55	27	27	145	110	0.8	DN**/FNGA1504(06)...	3
C5PDJNR/L35060-15-CHP	50	60	32	35	165	110	0.8	DN**/FNGA1504(06)...	3
C6PDJNR/L45065-1104-CHP	63	65	35	45	195	95	0.8	DN**/FNMG1104...	2
C6PDJNR/L45065-15-CHP	63	65	35	45	195	95	0.8	DN**/FNGA1504(06)...	3

Torque: Recommended clamping torque: N·m
Applicable for 14 MPa (2031 PSI) pressure coolant
**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C*PDJNR/L**1104-CHP	ELSD32	LCS3	P-2.5	LSP3	LCL33L
C*PDJNR/L**-15-CHP	LSD43A	LCS4	P-3	LSP4	LCL4

Option: LSD42A (Shim for DN**1506...), LSP4S (Spring pin for DN**1506...)

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C*PDJNR/L**1104-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N
C*PDJNR/L**-15-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

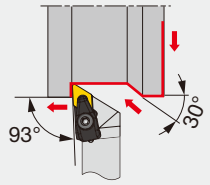
Reference pages: C-PDJNR/L-CHP: Inserts → B066 -, B075 -, CBN → B172 -, B176 -, PCD → B211
Parts for coolant hose→ C133

DN

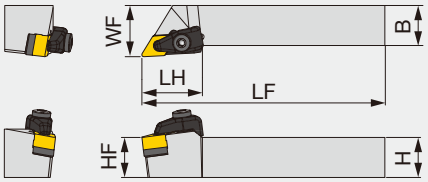
Rhombic, 55° without hole

DIMPLEFX
CDJNR/L-RD

Double-clamp toolholder with 93° approach angle, for negative 55° rhombic ceramic inserts with dimple



Cutting edge style **J**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque
CDJNR/L2525M1507-RD	25	25	150	38	25	32	1.2	DNGD1507...	4
CDJNR3225P1507-RD	32	25	170	38	32	32	1.2	DNGD1507...	4

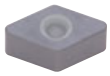
Torque: Recommended clamping torque: N·m
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench1	Wrench2
CDJNR/L**-RD	CCP4-A	CCS4-A	CD44-A	BH5-10-A	BP-5-A	P-3	P-4

INSERT SELECTION

K

Application	Finishing to medium cutting
Grade	FX105
Chipbreaker shape	
Cutting conditions	C136

Reference pages: CDJNR/L-RD: Inserts → B074
Standard cutting conditions → C136

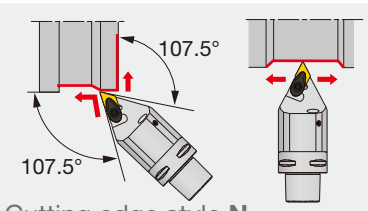
DN FN

Rhombic, 55° with hole — **Rhombic, 45° with hole**

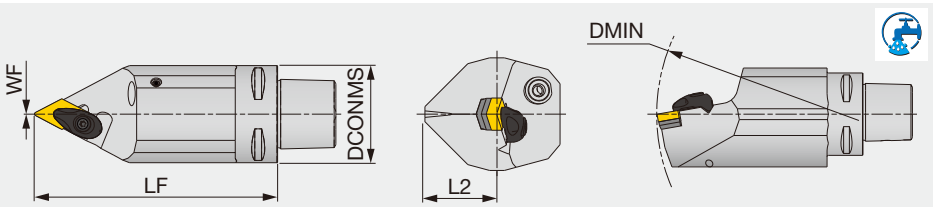
TURNING A

C-ADNNN

Double-clamp toolholder, with 62.5° approach angle, for negative 55°/45° rhombic inserts



Cutting edge style **N**



Metric	DCONMS	LF	L2	WF	DMIN	RE	Insert
C5ADNNN00090-15(1)	50	90	32	0	-	0.8	DN**/FNGA1504(06)...
C5ADNNN00090-15N(2)	50	90	32	0	165	0.8	DN**/FNGA1504(06)...
C5ADNNN00125-15(1)	50	125	32	0	-	0.8	DN**/FNGA1504(06)...
C5ADNNN00125-15N(2)	50	125	32	0	165	0.8	DN**/FNGA1504(06)...
C6ADNNN00100-15N(2)	63	100	37.5	0	190	0.8	DN**/FNGA1504(06)...
C6ADNNN00140-15N(2)	63	140	37.5	0	190	0.8	DN**/FNGA1504(06)...

The items without DMIN cannot be used for boring
(1) Applicable for 3 MPa (435 PSI) coolant (2) Applicable for 7 MPa (1015 PSI) coolant

SPARE PARTS

Designation	Clamp	Clamp screw	Coolant parts	Shim	Shim screw	Spring	Spring pin	Wrench
C5ADNNN00090-15	ACP4S	ACS-5W	EZ104	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F
C5ADNNN00090-15N	ACP4S	ACS-5W	SATZ-M10X1-M5	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F
C5ADNNN00125-15	ACP4S	ACS-5W	EZ104	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F
C5ADNNN00125-15N	ACP4S	ACS-5W	SATZ-M10X1-M5	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F
C6ADNNN00100-15N	ACP4S	ACS-5W	SATZ-M10X1-M5	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F
C6ADNNN00140-15N	ACP4S	ACS-5W	SATZ-M10X1-M5	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F

Option: ASD423 (Shim for DN**1506**)

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

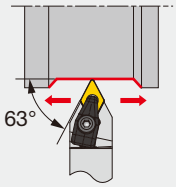
Reference pages: C-ADNNN: Inserts→ B066 -, CBN → B172 -, B176 -, PCD → B211
Parts for coolant hose → C133

DN

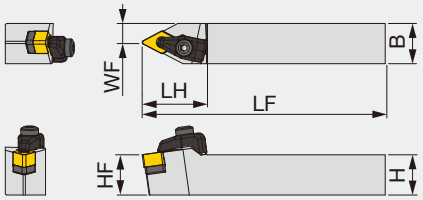
Rhombic, 55° without hole

DIMPLEFX
CDNNN-RD

Double-clamp toolholder with 63° approach angle, for negative 55° rhombic ceramic inserts with dimple



Cutting edge style **N**



Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque
CDNNN2525M1507-RD	25	25	150	40	25	12.5	1.2	DNGD1507...	4

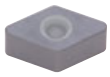
Torque: Recommended clamping torque: N·m
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench1	Wrench2
CDNNN2525M1507-RD	CCP4-A	CCS4-A	CD44-A	BH5-10-A	BP-5-A	P-3	P-4

INSERT SELECTION

K

Application	Finishing to medium cutting
Grade	FX105
Chipbreaker shape	
Cutting conditions	C136

Reference pages: CDNNN-RD: Inserts→ B074
Standard cutting conditions → C136

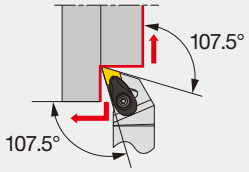
DN FN

Rhombic, 55° with hole | **Rhombic, 45° with hole**

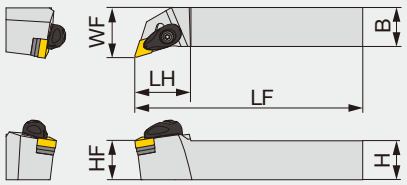
TURNING A

ADQNR/L

Double-clamp toolholder with 107.5° approach angle, for negative 55°/45° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
ADQNR/L1233-A	0.750	0.750	4.500	1.150	0.750	1.000	0.031	DN**/FNMG 33...	2.2
ADQNR/L124-A	0.750	0.750	4.500	1.250	0.750	1.000	0.031	DN**/FNGA 43...	2.2
ADQNR/L1633-A	1.000	1.000	6.000	1.150	1.000	1.250	0.031	DN**/FNMG 33...	2.2
ADQNR/L164-A	1.000	1.000	6.000	1.500	1.000	1.250	0.031	DN**/FNGA 43...	2.2

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ADQNR/L2020K1104-A	20	20	125	30	20	25	0.8	DN**/FNMG1104...	3
ADQNR/L2020K15-A	20	20	125	32	20	25	0.8	DN**/FNGA1504...	3
ADQNR/L2020K1506-A	20	20	125	32	20	25	0.8	DN**/FNGA1506...	3
ADQNR/L2525M1104-A	25	25	150	30	25	32	0.8	DN**/FNMG1104...	3
ADQNR/L2525M15-A	25	25	150	36	25	32	0.8	DN**/FNGA1504...	3
ADQNR/L2525M1506-A	25	25	150	36	25	32	0.8	DN**/FNGA1506...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ADQNR/L**33-A, ADQNR/L**1104-A	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASD322	CSTB-3.5	T-15F
ADQNR/L124, 164-A, ADQNR/L**15-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASD432	CSTB-3.5	T-15F
ADQNR/L**1506-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASD423	CSTB-3.5	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: ADQNR/L: Inserts → B066 -, B075, CBN → B172 -, B176 -, PCD → B211

DN FN

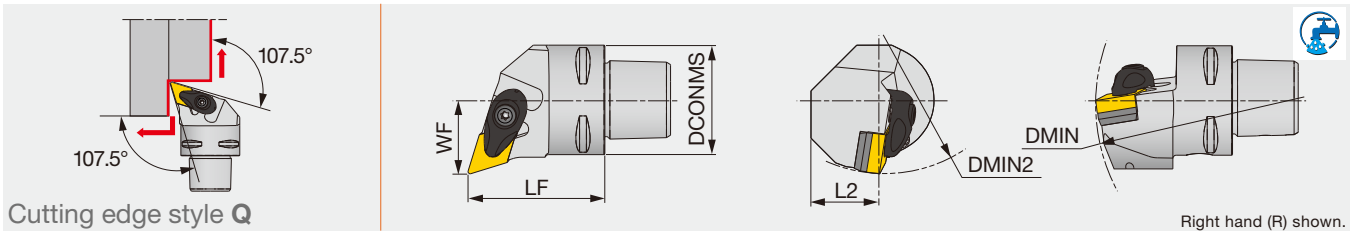
Rhombic, 55° with hole

Rhombic, 45° with hole

TURNING

C-ADQNR/L

Double-clamp toolholder, with 107.5° approach angle, for negative 55°/45° rhombic inserts



Cutting edge style **Q**

Right hand (R) shown.

Metric	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
C3ADQNR/L22040-15N	32	40	20	22	121	85	0.8	DN**/FNGA1504...
C4ADQNR/L27050-15N	40	50	25	27	145	110	0.8	DN**/FNGA1504...

Applicable for 7 MPa (1015 PSI) a coolant

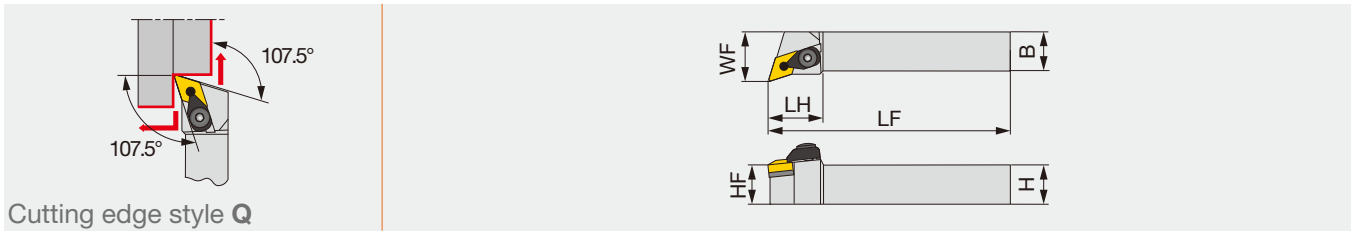
Option: ASD423 (Shim for DN**1506**)

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
C*ADQNR/L**-15N	ACP4S	ACS-5W	BP-7	SP-2.5	ASD432	CSTB-3.5	T-15F

DDQNR/L

"One-Double" toolholder with 107.5° approach angle, for negative 55°/45° rhombic inserts



Cutting edge style **Q**

Metric	H	B	LF	LH	HF	WF	RE**	Insert
DDQNR/L2020K15	20	20	125	35	20	25	0.8	DN**/FNGA1504...
DDQNR/L2020K1506	20	20	125	35	20	25	0.8	DN**/FNGA1506...
DDQNR/L2525M15	25	25	150	35	25	32	0.8	DN**/FNGA1504...
DDQNR/L2525M1506	25	25	150	35	25	32	0.8	DN**/FNGA1506...
DDQNR/L3225P15	32	25	170	35	32	32	0.8	DN**/FNGA1504...
DDQNR/L3225P1506	32	25	170	35	32	32	0.8	DN**/FNGA1506...

Note: Except for 57-type chipbreaker inserts
**RE : Standard corner radius

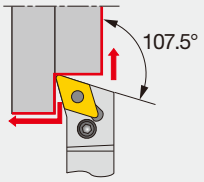
SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DDQNR/L**15	DCPM-43	DLCL43	DPIS43	DLCS43	LSD42	BP-10	LSP4	P-3	P-4
DDQNR/L**1506	DCPM-43	DLCL43	DPIS44	DLCS43	LSD42	BP-10	LSP4	P-3	P-4

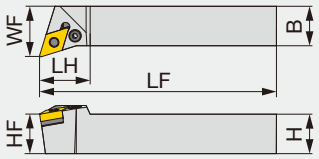
Reference pages: C-ADQNR/L, DDQNR/L: Inserts → B066 -, CBN → B172 -, B176 -, PCD → B211

PDQNR/L

Lever-lock toolholder with 107.5° approach angle, for negative 55°/45° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
PDQNR/L2525	25	25	150	32	25	32	0.8	DN**/FNGA1504...

**RE : Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PDQNR/L...	LSD42 D30	LCS4	P-3	LSP4	LCL4

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: PDQNR/L: Inserts → B066 -, CBN → B172 -, B176 -, PCD → B211

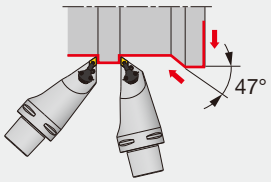
DN FN

Rhombic, 55° with hole — **Rhombic, 45° with hole**

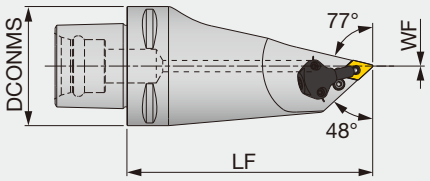
TUNGCAP C-PDMNL-CHP

Direct connection

Lever lock toolholder with TungCap connection.
For negative 55°/45° rhombic insert. High-pressure coolant capability.



Cutting edge style **M**



Left hand (L) shown.

Metric	DCONMS	LF	WF	RE **	Insert	Torque
C6PDMNL00130-1104-CHP	63	130	0	0.8	DN**/FNMG1104...	2

Torque: Recommended clamping torque: N·m
Applicable for 14 MPa (2031 PSI) pressure coolant
**RE: Standard corner radius

For external turning only.

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C6PDMNL00130-1104-CHP	ELSD32	LCS3	P-2.5	LSP3	LCL33L

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C6PDMNL00130-1104-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N

INSERT SELECTION

P

Application	Finishing	Medium cutting
Grade	T9215	T9215
Chipbreaker shape	TSF	TM
Cutting conditions	B004	

M

Application	Finishing	Medium cutting
Grade	AH6225	AH6225
Chipbreaker shape	SS	SM
Cutting conditions	B006	

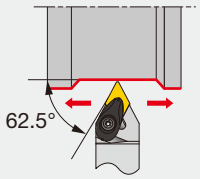
K

Application	Medium cutting
Grade	T515
Chipbreaker shape	TM
Cutting conditions	B008

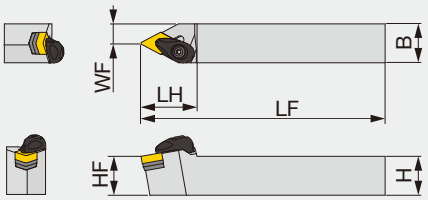
Reference pages: C-PDMNL-CHP: Inserts→ B066 -, B075, CBN → B172
Parts for coolant hose → C133

ADPNN

Double-clamp toolholder with 62.5° approach angle, for negative 55°/45° rhombic inserts



Cutting edge style **P**



Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
ADPNN124-A	0.750	0.750	4.500	1.500	0.750	0.375	0.031	DN**/FNGA 43...	2.2
ADPNN164-A	1.000	1.000	6.000	1.500	1.000	0.500	0.031	DN**/FNGA 43...	2.2

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ADPNN2020K15-A	20	20	125	36	20	7.5	0.8	DN**/FNGA1504...	3
ADPNN2525M15-A	25	25	150	36	25	12.5	0.8	DN**/FNGA1504...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ADPNN...	ACP4S	ACS-5W	BP-7	SP-2.5	ASD432	CSTB-3.5	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: ADPNN: Inserts → B066 -, CBN → B172 -, B176, PCD → B211

DN

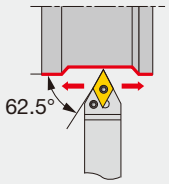
Rhombic, 55° with hole

FN

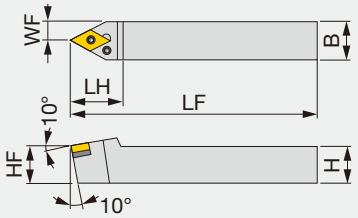
Rhombic, 45° with hole

PDPNN

Lever-lock toolholder with 62.5° approach angle, for negative 55°/45° rhombic inserts



Cutting edge style **P**



Metric	H	B	LF	LH	HF	WF	RE**	Insert
PDPNN2525	25	25	150	36	25	12.5	0.8	DN**/FNGA1504...
PDPNN2525M15E	25	25	150	36	25	12.5	0.8	DN**/FNGA1506...

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PDPNN2525	LSD42	LCS4	P-3	LSP4	LCL4
PDPNN2525M15E	ELSD42	ELCS4	P-3	LSP4S	LCL44

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

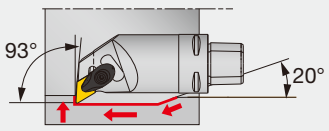
Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

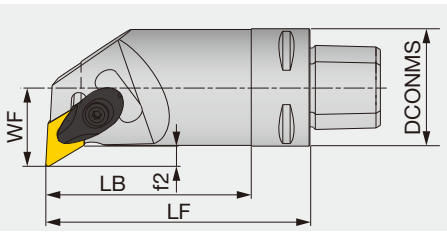
Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

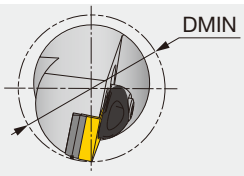
Reference pages: PDPNN: Inserts → B066 -, CBN → B172 -, B176, PCD → B211

Double-clamp internal toolholder, for negative 55°/45° rhombic inserts



Cutting edge style **U**





Right hand (R) shown.

Metric	DMIN	DCONMS	LF	LB	WF	f2	RE	Insert
C4ADUNR20070-15	38	40	70	50	20	5	0.8	DN**/FNGA1504...
C4ADUNR27090-15	50	40	90	-	27	7	0.8	DN**/FNGA1504...

Applicable for 7 MPa (1015 PSI) coolant

SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Spring pin	Wrench
C*ADUNR/L...	ACP4S	ACS-5W	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F

Option: ASD423 (Shim for DN**1506**)

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: C-ADUNR/L: Inserts→ B066 -, CBN → B172 -, B176, PCD → B211
Parts for coolant hose → C133

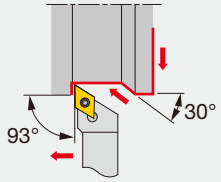
DC



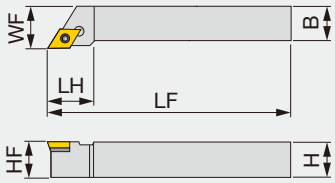
Rhombic, 55°
with hole
Positive 7°

SDJCR/L

Screw-on toolholder with 93° approach angle, for positive 55° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert
SDJCR/L062	0.375	0.375	2.500	0.625	0.375	0.500	0.016	DC** 21.5...
SDJCR/L082	0.500	0.500	3.500	0.625	0.500	0.625	0.016	DC** 21.5...
SDJCR/L083	0.500	0.500	3.500	-	0.500	0.625	0.016	DC** 32.5...
SDJCR/L103	0.625	0.625	4.000	-	0.625	0.750	0.031	DC** 32.5...
SDJCR/L123	0.750	0.750	4.500	-	0.750	1.000	0.031	DC** 32.5...
SDJCR/L163	1.000	1.000	6.000	-	1.000	1.250	0.031	DC** 32.5...

Metric	H	B	LF	LH	HF	WF	RE**	Insert
SDJCR1616H11	16	16	100	20	16	20	0.8	DC**11T3...
SDJCR/L2020K11	20	20	125	20.5	20	25	0.8	DC**11T3...
SDJCR/L2525M11	25	25	150	21.5	25	32	0.8	DC**11T3...

**RE: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench1	Wrench2
SDJCR/L**2	CSTB-2.5	-	-	-	T-8F
SDJCR/L**3, SDJCR/L**11	CSTB-3.5L	DTS5-3.5	SSD32	P-3.5	T-15F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	NS9530	T9215	T9215
Chipbreaker shape	PSS	PS	PM
Cutting conditions	B016		

M

Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
Grade	GH330	AH6225	AH6225	AH6225
Chipbreaker shape	W**	PSS	PS	PM
Cutting conditions	B018			

K

Application	Finishing to medium cutting
Grade	T515
Chipbreaker shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	KS05F
Chipbreaker shape	DIA (with rake)	DIA	AL
Cutting conditions	B022		

S

Application	Finishing	Finishing to medium cutting
Grade	AH8015	AH8015
Chipbreaker shape	PSS	PS
Cutting conditions	B024	

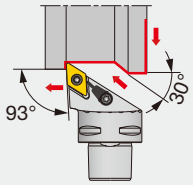
H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B026	

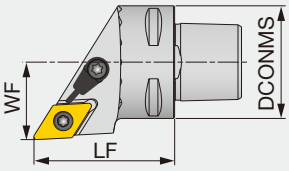
Reference pages: SDJCR/L: Inserts → B121 -, CBN → B194, PCD → B214

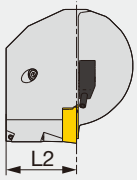
TUNGCAP
C-SDJCR/L-CHP

Screw-on toolholder, with 93° approach angle, for positive 55° rhombic inserts, with high pressure coolant capability



Cutting edge style **J**





Right hand (R) shown.

Metric	DCONMS	LF	L2	WF	RE	Insert
C3SDJCR/L22040-11-CHP	32	40	20	22	0.8	DC**11T3...

Applicable for 14 MPa (2031 PSI) coolant
Cannot be used for boring

SPARE PARTS





Designation	Clamping screw	Coolant unit	Wrench
C3SDJCR/L22040-11-CHP	CSTB-4S	S-CU-CHP	T-15F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	NS9530	T9215	T9215
Chipbreaker shape	PSS	PS	PM
Cutting conditions	B016		

M

Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
Grade	GH330	AH6225	AH6225	AH6225
Chipbreaker shape	W**	PSS	PS	PM
Cutting conditions	B018			

K

Application	Finishing to medium cutting
Grade	T515
Chipbreaker shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	KS05F
Chipbreaker shape	DIA (with rake)	DIA	AL
Cutting conditions	B022		

S

Application	Finishing	Finishing to medium cutting
Grade	AH8015	AH8015
Chipbreaker shape	PSS	PS
Cutting conditions	B024	

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B026	

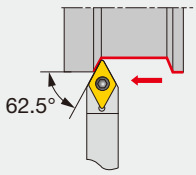
Reference pages: C-SDJCR/L-CHP: Inserts → B121 -, CBN → B194, PCD → B214
Parts for coolant hose → C133

DC

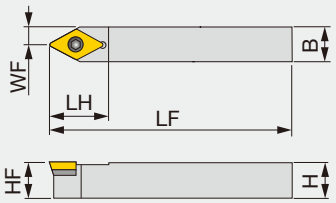
Rhombic, 55°
with hole
Positive 7°

SDNCN

Screw-on toolholder with 62.5° approach angle, for positive 55° rhombic inserts



Cutting edge style **N**

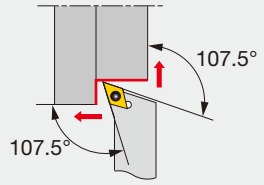


Metric	H	B	LF	LH	HF	WF	RE**	Insert
SDNCN1616H11	16	16	100	21	16	8	0.8	DC**11T3...
SDNCN2020K11	20	20	125	21	20	10	0.8	DC**11T3...
SDNCN2525M11	25	25	150	21	25	12.5	0.8	DC**11T3...

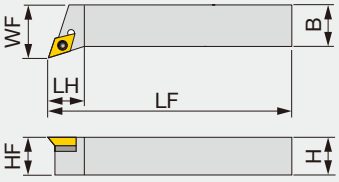
**RE: Standard corner radius

SDQCR/L

Screw-on toolholder with 107.5° approach angle, for positive 55° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
SDQCR/L2020K11	20	20	125	20.5	20	25	0.8	DC**11T3...
SDQCR2525M11	25	25	150	21.5	25	32	0.8	DC**11T3...

**RE : Standard corner radius

SPARE PARTS

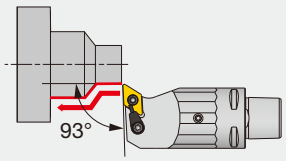
Designation	Clamping screw	Shim screw	Shim	Wrench1	Wrench2
SDNCN..., SDQCR/L...	CSTB-3.5L	DTS5-3.5	SSD32	P-3.5	T-15F

Reference pages: SDNCN, SDQCR/L: Inserts → B121 -, CBN → B194, PCD → B214

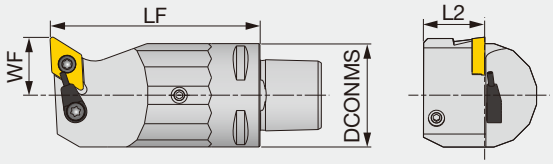
TUNGCAP

C-SDUCL-CHP

Screw-on toolholder, with 93° approach angle, for positive 55° rhombic inserts, with high pressure coolant capability



Cutting edge style **U**



Left hand (L) shown.

Metric	DCONMS	LF	L2	WF	RE	Insert
C3SDUCL18040-11-CHP	32	40	19	18	0.8	DC**11T3...
C3SDUCL18065-11-CHP	32	65	19	18	0.8	DC**11T3...

Applicable for 14 MPa (2031 PSI) coolant
Cannot be used for boring

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
C3SDUCL...	CSTB-4S	S-CU-CHP	T-15F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	NS9530	T9215	T9215
Chipbreaker shape	PSS	PS	PM
Cutting conditions	B016		

M

Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
Grade	GH330	AH6225	AH6225	AH6225
Chipbreaker shape	W**	PSS	PS	PM
Cutting conditions	B018			

K

Application	Finishing to medium cutting
Grade	T515
Chipbreaker shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	KS05F
Chipbreaker shape	DIA (with rake)	DIA	AL
Cutting conditions	B022		

S

Application	Finishing	Finishing to medium cutting
Grade	AH8015	AH8015
Chipbreaker shape	PSS	PS
Cutting conditions	B024	

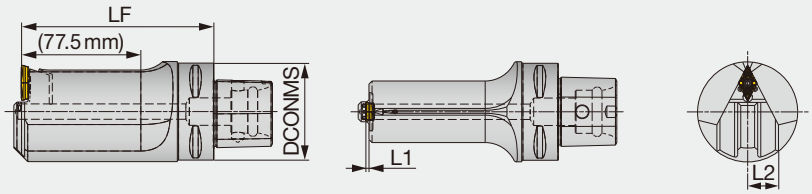
H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B026	

Reference pages: C-SDUCL-CHP: Inserts→ B121 -, CBN → B194, PCD → B214
Parts for coolant hose → C133

C6SDNCN-Y-CHP

Screw-on Y-axis turning toolholder with TungCap connection, for positive 55° rhombic inserts



Cutting edge style **N**

Metric	SS	DCONMS	LF	L1	L2	RE	Insert	Torque
C6SDNCN00125-13-Y-CHP	C6	63	125	2	20	0.4	2D-DCMT13T4...	3.5

Torque: Recommended clamping torque: N·m

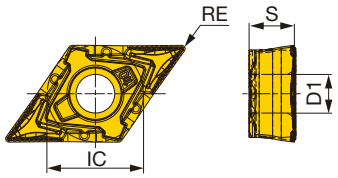
SPARE PARTS

Designation	Clamping screw	Grip	Torx bit
C6SDNCN00125-13-Y-CHP	CSTB-4M	H-TB2W	BT15M

INSERT

2D-DCMT**-ZF





P	Steel	★
M	Stainless	☆
K	Cast iron	☆
N	Non-ferrous	
S	Superalloys	
H	Hard materials	

★ : First choice
☆ : Second choice

Designation	RE (in)	Coated T9215	IC (in)	S (in)	D1 (in)
2D-DCMT13T404-ZF	0.016	●	0.433	0.203	0.173

Please note that 2D-DCMT... insert is not recommended for pull face-turning method (pulling the insert away from the part center).

● : Line up

C D F G H R S T V W Y OTHERS

Reference pages: Standard cutting conditions → C134

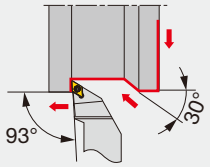
DX

Rhombic, 55° with hole

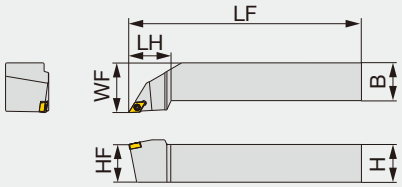
MINIFORCE TURN

JSDJXR/L

Screw-on toolholder with 93° approach angle, for DX*U inserts



Cutting edge style **J**



Right hand (R) shown.

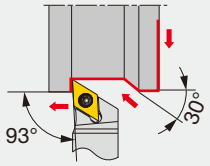
Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
JSDJXR/L122	0.750	0.750	4.500	1.125	0.750	1.000	0.008	DX*U 22**L/R...	0.66
JSDJXR/L162	1.000	1.000	6.000	1.125	1.000	1.250	0.008	DX*U 22**L/R...	0.66

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSDJXR/L2020K07	20	20	125	27	20	25	0.4	DX*U0703**L/R...	0.9
JSDJXR/L2525M07	25	25	150	27	25	32	0.4	DX*U0703**L/R...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m) **RE: Standard corner radius
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

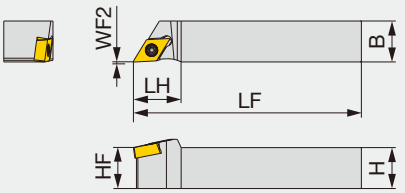
JSDJ2XR/L

Screw-on toolholder with 93° approach angle, for DX*U inserts



Cutting edge style **J2**

Without offset



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF2	RE**	Insert	Torque
JSDJ2XR/L062	0.375	0.375	4.750	0.625	0.375	0	0.008	DX*U 22**L/R...	0.66
JSDJ2XR/L082	0.500	0.500	4.750	0.625	0.500	0	0.008	DX*U 22**L/R...	0.66
JSDJ2XR/L102	0.625	0.625	4.750	0.625	0.625	0	0.008	DX*U 22**L/R...	0.66

Metric	H	B	LF	LH	HF	WF2	RE**	Insert	Torque*
JSDJ2XR/L1010X07	10	10	120	14	10	0	0.2	DX*U0703**L/R...	0.9
JSDJ2XR/L1212F07	12	12	85	14	12	0	0.2	DX*U0703**L/R...	0.9
JSDJ2XR/L1212X07	12	12	120	14	12	0	0.2	DX*U0703**L/R...	0.9
JSDJ2XR/L1616X07	16	16	120	18	16	0	0.2	DX*U0703**L/R...	0.9
JSDJ2XR/L2020H07	20	20	100	18	20	0	0.2	DX*U0703**L/R...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m) **RE: Standard corner radius
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS




Designation	Clamping screw	Wrench
JSDJXR/L..., JSDJ2XR/L...	SR34-514	T-7F

INSERT SELECTION

Swiss lathes

P	Application	Finishing	Medium cutting
	Grade	SH725	AH725
	Chipbreaker shape	JSS 	JTS 
	Cutting conditions	C136	

M	Application	Finishing	Medium cutting
	Grade	SH725	AH725
	Chipbreaker shape	JSS 	JTS 
	Cutting conditions	C136	

Small CNC lathes

P	Application	Finishing	Medium cutting
	Grade	AH725	AH725
	Chipbreaker shape	SS 	TS 
	Cutting conditions	C136	

M	Application	Finishing	Medium cutting
	Grade	AH8015	AH8015
	Chipbreaker shape	SS 	TS 
	Cutting conditions	C136	

Reference pages:
JSDJXR/L, JSDJ2XR/L:
Inserts → B126 -,
Standard cutting conditions → C136

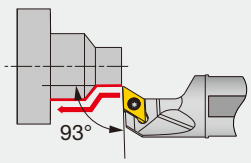
DX

Rhombic, 55° with hole

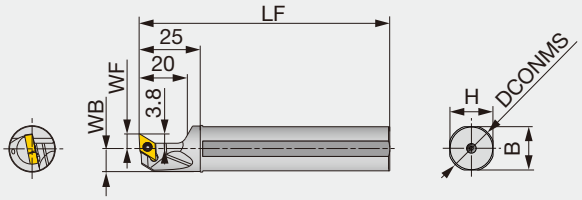
MINIFORCE TURN

JS-SDUXL

Screw-on round-shank toolholder with 93° approach angle, for DX*U inserts



Cutting edge style **U**



Left hand (L) shown.

Metric	DCONMS	WF	LF	H	B	WB	RE**	Insert	Torque
JS14H-SDUXL07	14	6	100	13	13	6.75	0.2	DX*U0703**L...	0.9
JS159F-SDUXL07	15.875	6	85	15	15	7.687	0.2	DX*U0703**L...	0.9
JS16F-SDUXL07	16	6	85	15	15	7.75	0.2	DX*U0703**L...	0.9
JS19G-SDUXL07	19.05	6	90	18	18	9.275	0.2	DX*U0703**L...	0.9
JS19X-SDUXL07	19.05	6	120	18	18	9.275	0.2	DX*U0703**L...	0.9
JS20G-SDUXL07	20	6	90	19	19	9.75	0.2	DX*U0703**L...	0.9
JS20X-SDUXL07	20	6	120	19	19	9.75	0.2	DX*U0703**L...	0.9
JS22X-SDUXL07	22	10	120	21	21	10.75	0.2	DX*U0703**L...	0.9
JS25H-SDUXL07	25	10	100	24	24	12.25	0.2	DX*U0703**L...	0.9
JS254X-SDUXL07	25.4	10	120	24	24	12.45	0.2	DX*U0703**L...	0.9

Torque: Recommended clamping torque: N·m
**RE: Standard corner radius
Note: Use left-hand toolholders (L) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench
JS**-SDUXL07	SR34-514	T-7F

INSERT SELECTION

Swiss lathes

P

Application	Finishing	Medium cutting
Grade	SH725	AH725
Chipbreaker shape	JSS	JTS
Cutting conditions	C136	

M

Application	Finishing	Medium cutting
Grade	SH725	AH725
Chipbreaker shape	JSS	JTS
Cutting conditions	C136	

Small CNC lathes

P

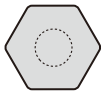
Application	Finishing	Medium cutting
Grade	AH725	AH725
Chipbreaker shape	SS	TS
Cutting conditions	C136	

M

Application	Finishing	Medium cutting
Grade	AH8015	AH8015
Chipbreaker shape	SS	TS
Cutting conditions	C136	

Reference pages: JS-SDUXL: Inserts → B126 -
Standard cutting conditions → C136

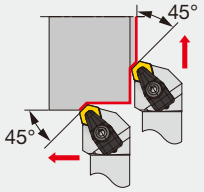
HN



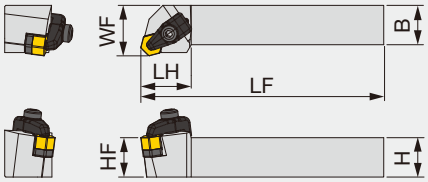
Hexagonal, 120° without hole

DIMPLEFX
CHSNR/L-RD

Double-clamp toolholder with 45° approach angle, for negative 120° hexagonal ceramic inserts with dimple



Cutting edge style **S**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
CHSNR16M45-RD	1.000	1.000	6.000	1.260	1.000	1.250	0.047	HNGD 45...	3.0

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
CHSNR2525M0507-RD	25	25	150	32	25	32	1.2	HNGD0507...	4

Torque: Recommended clamping torque: lb·ft (*N·m)
**RE: Standard corner radius

SPARE PARTS

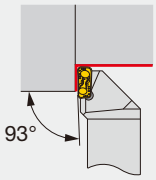
Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench 1	Wrench 2
CHSNR...	CCP4-A	CCS4-A	CH44-A	BH-40050-A	BP-5-A	P-3	P-4

INSERT SELECTION

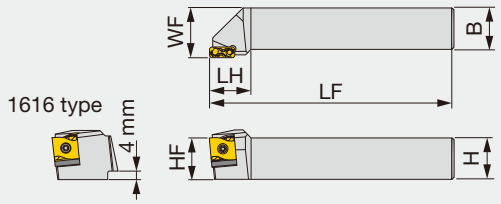
Application	Finishing to medium cutting
Grade	FX105
Chipbreaker Shape	- 
Cutting conditions	C136

Reference pages: CHSNR/L-RD: Inserts → B111
Standard cutting conditions → C136

Screw-on toolholder for roughing with 93° approach angle, for negative tangential inserts



Cutting edge style **A**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	Insert
TLANR/L10-12	0.625	0.625	4.000	0.790	0.625	0.750	LNMX1204**R/L...
TLANR/L12-12	0.750	0.750	4.500	0.790	0.750	1.000	LNMX1204**R/L...
TLANR/L12-16	0.750	0.750	4.500	1.000	0.750	1.000	LNMX1606**R/L...
TLANR/L16-12	1.000	1.000	6.000	0.790	1.000	1.250	LNMX1204**R/L...
TLANR/L16-16	1.000	1.000	6.000	1.000	1.000	1.180	LNMX1606**R/L...
TLANR/L20-16	1.250	1.250	6.000	1.380	1.250	1.460	LNMX1606**R/L...
TLANR/L20-24	1.250	1.250	6.000	1.380	1.250	1.500	LNMX2410**R/L...
TLANR/L24-16	1.500	1.500	7.000	1.380	1.500	1.700	LNMX1606**R/L...
TLANR/L24-24	1.500	1.500	7.000	1.380	1.500	1.700	LNMX2410**R/L...
TLANR/L32-24	2.000	2.000	8.000	1.380	2.000	2.275	LNMX2410**R/L...

Metric	H	B	LF	LH	HF	WF	Insert
TLANR/L1616H12	16	16	100	20	16	20	LNMX1204**R/L...
TLANR/L1616M12S	16	16	150	20	16	20	LNMX1204**R/L...
TLANR/L2020K12	20	20	125	20	20	25	LNMX1204**R/L...
TLANR/L2020K16	20	20	125	25	20	25	LNMX1606**R/L...
TLANR/L2525M12	25	25	150	20	25	30	LNMX1204**R/L...
TLANR/L2525M16	25	25	150	25	25	30	LNMX1606**R/L...
TLANR/L3232P16	32	32	170	35	32	37	LNMX1606**R/L...
TLANR/L3232P24	32	32	170	35	32	38	LNMX2410**R/L...
TLANR/L4040R16	40	40	200	35	40	47	LNMX1606**R/L...
TLANR/L4040R24	40	40	200	40	40	47	LNMX2410**R/L...
TLANR/L5050S24	50	50	250	40	50	57	LNMX2410**R/L...

SPARE PARTS

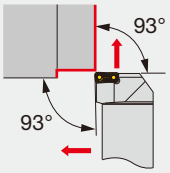
Designation	Clamping screw	Shim screw	Shim	Spring	Wrench 1	Wrench 2
TLANR**12, 12S	CSTB-3.5L115-S	CSTF-2L055-S	TSL12R	-	KEYV-T10	T-6F-S
TLANL**12, 12S	CSTB-3.5L115-S	CSTF-2L055-S	TSL12L	-	KEYV-T10	T-6F-S
TLANR**16	CSTB-4L115-S	-	TSL16R	PSP-16	KEYV-T15	-
TLANL**16	CSTB-4L115-S	-	TSL16L	PSP-16	KEYV-T15	-
TLANR**24	CSTB-5L163-S	-	TSL24R	PSP-16	KEYV-T20	-
TLANL**24	CSTB-5L163-S	-	TSL24L	PSP-16	KEYV-T20	-

C D F G H R S T V W Y OTHERS

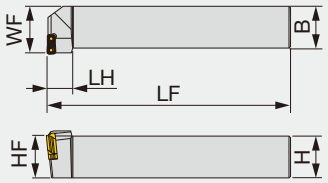
Reference pages: TLANR/L: Inserts → C062, Standard cutting conditions → C137

TLFNR/L

Screw-on toolholder for roughing with 93° approach angle, for negative tangential inserts



Cutting edge style **F**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	Insert
TLFNR/L16-16	1.000	1.000	6.000	0.750	1.000	1.181	LNMX1606**L/R...
TLFNR/L20-16	1.250	1.300	6.693	0.750	1.250	1.457	LNMX1606**L/R...

Metric	H	B	LF	LH	HF	WF	Insert
TLFNR/L2525M16	25	25	150	20	25	30	LNMX1606**L/R...
TLFNR/L3232P16	32	32	170	20	32	37	LNMX1606**L/R...

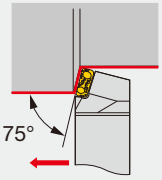
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

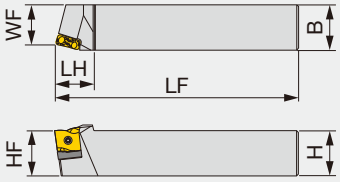
Designation	Clamping screw	Shim	Spring pin	Wrench
TLFNR...	CSTB-4L115-S	TSL16L	PSP-16	KEYV-T15
TLFNL...	CSTB-4L115-S	TSL16R	PSP-16	KEYV-T15

TLBNR/L

Screw-on toolholder for roughing with 75° approach angle, for negative tangential inserts



Cutting edge style **B**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	Insert
TLBNR/L24-24	1.500	1.500	7.874	1.378	1.500	1.378	LNMX2410**R/L...

Metric	H	B	LF	LH	HF	WF	Insert
TLBNR/L4040R24	40	40	200	35	40	35	LNMX2410**R/L...

SPARE PARTS

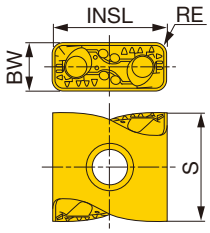
Designation	Clamping screw	Shim	Spring pin	Wrench
TLBNR...	CSTB-5L163-S	TSL24R	PSP-16	KEYV-T20
TLBNL...	CSTB-5L163-S	TSL24L	PSP-16	KEYV-T20

Reference pages: TLFNR/L, TLBNR/L:
Inserts → C062, Standard cutting conditions → C137

INSERT

LNMX12/16/24





P	Steel	★	★	★			
M	Stainless	☆		☆			
K	Cast iron	☆	☆	☆			
N	Non-ferrous						
S	Superalloys						
H	Hard materials						

★ : First choice
☆ : Second choice

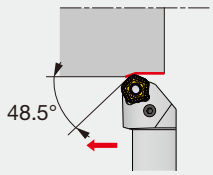
Designation	HAND	RE (in)	Coated										BW (in)	INSL (in)	S (in)
			T9115	T9125	AH725										
LNMX120408R-TDR	R	0.031	●	●									0.189	0.472	0.457
LNMX120408L-TDR	L	0.031	●	●									0.189	0.472	0.457
LNMX120412R-TDR	R	0.047	●	●									0.189	0.472	0.457
LNMX120412L-TDR	L	0.047	●	●									0.189	0.472	0.457
LNMX160608R-TDR	R	0.031	●	●									0.252	0.638	0.531
LNMX160608L-TDR	L	0.031	●	●									0.252	0.638	0.531
LNMX160612R-TDR	R	0.047	●	●									0.252	0.638	0.531
LNMX160612L-TDR	L	0.047	●	●									0.252	0.638	0.531
LNMX160616R-TDR	R	0.063	●	●									0.252	0.638	0.531
LNMX160616L-TDR	L	0.063	●	●									0.252	0.638	0.531
LNMX241016R-TDR	R	0.063	●	●									0.370	0.945	0.807
LNMX241016L-TDR	L	0.063	●	●									0.370	0.945	0.807
LNMX241024R-TDR	R	0.094	●	●									0.370	0.945	0.807
LNMX241024L-TDR	L	0.094	●	●									0.370	0.945	0.807
LNMX160608R-MDR	R	0.031	●		●								0.252	0.638	0.531
LNMX160608L-MDR	L	0.031	●		●								0.252	0.638	0.531
LNMX160612R-MDR	R	0.047	●		●								0.252	0.638	0.531
LNMX160612L-MDR	L	0.047	●		●								0.252	0.638	0.531
LNMX160608R-TWR	R	0.031	●										0.252	0.638	0.531
LNMX160608L-TWR	L	0.031	●	●									0.252	0.638	0.531
LNMX160612R-TWR	R	0.047	●	●									0.252	0.638	0.531
LNMX160612L-TWR	L	0.047	●	●									0.252	0.638	0.531

● : Line up

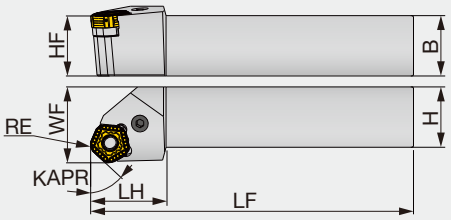
Reference pages: Standard cutting conditions → C137

PPXOR/L-HD

Lever-lock toolholder with 48.5° approach angle, for negative 108° pentagonal inserts



Cutting edge style **X**



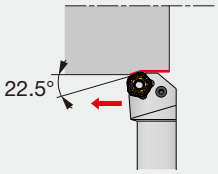
Inch	H	B	LF	LH	HF	WF	KAPR	RE	Insert
PPXOR/L165-HD	1.000	1.000	6.000	1.380	1.000	1.260	48.5°	0.047	POMG 543...
PPXOR/L206-HD	1.250	1.250	7.000	1.500	1.250	1.510	48.5°	0.047	POMG 643...

Metric	H	B	LF	LH	HF	WF	KAPR	RE	Insert
PPXOR/L2525M11-HD	25	25	150	35	25	32	48.5°	1.2	POMG110612...
PPXOR/L3232P13-HD	32	32	170	40	32	40	48.5°	1.2	POMG130612...

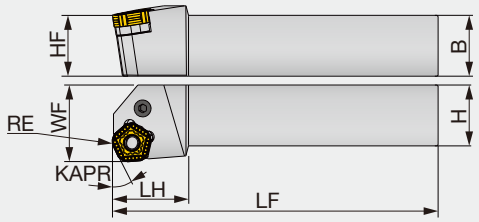
Note: Since the corner angle of TurnTenFeed insert is 108°, the workpiece corner may require additional post-process to remove stock to achieve a right angle.

PPXOR/L-HF

Lever-lock toolholder with 22.5° approach angle, for negative 108° pentagonal inserts



Cutting edge style **X**



Inch	H	B	LF	LH	HF	WF	KAPR	RE	Insert
PPXOR/L165-HF	1.000	1.000	6.000	1.380	1.000	1.260	22.5°	0.047	POMG 543...
PPXOR/L206-HF	1.250	1.250	7.000	1.500	1.250	1.510	22.5°	0.047	POMG 643...

Metric	H	B	LF	LH	HF	WF	KAPR	RE	Insert
PPXOR/L2525M11-HF	25	25	150	35	25	32	22.5°	1.2	POMG110612...
PPXOR/L3232P13-HF	32	32	170	40	32	40	22.5°	1.2	POMG130612...

Note: Since the corner angle of TurnTenFeed insert is 108°, the workpiece corner may require additional post-process to remove stock to achieve a right angle.

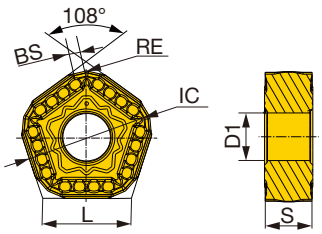
SPARE PARTS

Designation	Shim	Spring pin	Lever	Clamping screw	Wrench
PPXOR/L165-H*, PPXOR/L2525M11-H*	LSPO53	LSP5	LCL5	LCS5	P-3
PPXOR/L206-H*, PPXOR/L3232P13-H*	LSPO63	LSP6	LCL6	LCS6	P-4

Reference pages: PPXOR/L-HD, PPXOR/L-HF:
Inserts → C064, Standard cutting conditions → C135

INSERT

POMG-MNW



P	Steel	★	★				
M	Stainless	☆		☆			
K	Cast iron	☆	☆				
N	Non-ferrous						
S	Superalloys			★			
H	Hard materials						

★ : First choice
☆ : Second choice

Designation		RE	Coated				IC	L	BS	S	D1
Inch	Metric	(in)	T9215	T9225	AH8015		(in)	(in)	(in)	(in)	(in)
POMG 543 MNW	POMG110612-MNW	0.047	●	●	●		0.625	0.454	0.059	0.250	0.250
POMG 643 MNW	POMG130612-MNW	0.047	●	●	●		0.750	0.545	0.079	0.250	0.312

● : Line up

Reference pages: Standard cutting conditions → C135

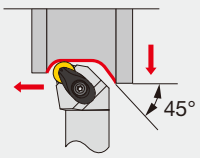
RN

Round, with hole

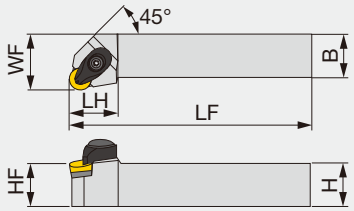
TURNING A

ARGNR/L

Double-clamp toolholder with 91° approach angle, for negative round inserts



Cutting edge style **G**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
ARGNR/L164-A	1.000	1.000	6.000	1.125	1.000	1.250	0.250	RN** 43...	2.2

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ARGNR/L2525M12-A	25	25	150	28	25	32	6.35	RN**120400	3

Torque: Recommended clamping torque: lb·ft (*N·m)
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ARGNR/L...	ACP4S	ACS-5W	BP-7	SP-2.5	ASR420	CSTB-3.5	T-15F

INSERT SELECTION

P

Applicadtion	Heavy cutting
Grade	T9215
Chipbreaker Shape	61 
Cutting conditions	B004

M

Applicadtion	Heavy cutting
Grade	T9215
Chipbreaker Shape	61 
Cutting conditions	B006

K

Applicadtion	Heavy cutting
Grade	T9215
Chipbreaker Shape	61 
Cutting conditions	B008

N

Applicadtion	Heavy cutting
Grade	TH10
Chipbreaker Shape	61 
Cutting conditions	B010

S

Applicadtion	Heavy cutting
Grade	TH10
Chipbreaker Shape	61 
Cutting conditions	B012

H

Applicadtion	Finishing to medium cutting
Grade	LX11
Chipbreaker Shape	- 
Cutting conditions	B014

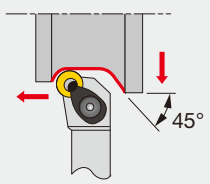
Reference pages: ARGNR/L: Inserts → B076

RN

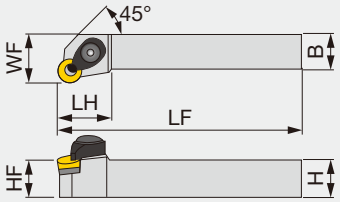
Round, with hole

DRGNR/L

"One-Double" toolholder with 91° approach angle, for negative round inserts



Cutting edge style **G**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
DRGNR/L2525M12	25	25	150	28	25	32	6.35	RN**120400

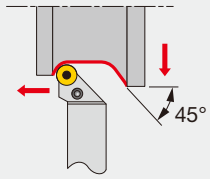
**RE: Standard corner radius

SPARE PARTS

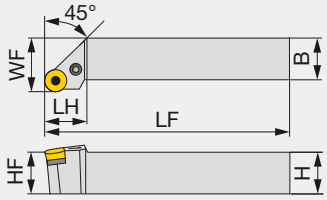
Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DRGNR/L...	DCPM-43	DLCL43	DPIS43	DLCS43	LSR42	BP-10	LSP4	P-3	P-4

PRGNR/L

Lever-lock toolholder with 91° approach angle, for negative round inserts



Cutting edge style **G**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
PRGNR/L2020	20	20	125	19	20	25	4.76	RNMG090300-61
PRGNR/L2525M4	25	25	150	25	25	32	6.35	RN**120400

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PRGNR/L2020	LSR32	LCS3	P-2.5	LSP3	LCL3
PRGNR/L2525M4	LSR42	LCS4	P-3	LSP4	LCL4

INSERT SELECTION

P

Applicadtion	Heavy cutting
Grade	T9215
Chipbreaker Shape	61 
Cutting conditions	B004

M

Applicadtion	Heavy cutting
Grade	T9215
Chipbreaker Shape	61 
Cutting conditions	B006

K

Applicadtion	Heavy cutting
Grade	T9215
Chipbreaker Shape	61 
Cutting conditions	B008

N

Applicadtion	Heavy cutting
Grade	TH10
Chipbreaker Shape	61 
Cutting conditions	B010

S

Applicadtion	Heavy cutting
Grade	TH10
Chipbreaker Shape	61 
Cutting conditions	B012

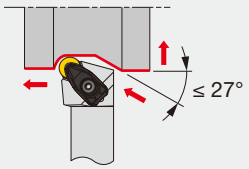
H

Applicadtion	Finishing to medium cutting
Grade	LX11
Chipbreaker Shape	- 
Cutting conditions	B014

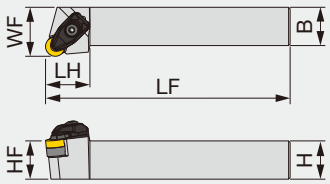
Reference pages: DRGNR/L, PRGNR/L: Inserts → B076

TRGNR/L-F

Toolholder with carbide clamping plate, with 90° approach angle, for negative round ceramic inserts without hole



Cutting edge style **G**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert
TRGNR/L 16-45D-F	1.000	1.000	6.000	1.142	1.000	1.250	0.250	RNGN 45...

Metric	H	B	LF	LH	HF	WF	RE**	Insert
TRGNR/L2525M1207-F	25	25	150	29	25	32	6.35	RNGN1207...

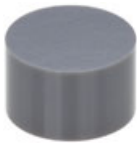
**RE: Standard corner radius

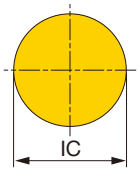
SPARE PARTS

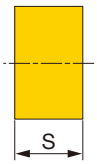
Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench 1	Wrench 2
TRGNR/L...	DCLS-4F	DLS-4A	S-43	BH-M5X0.8X0.8	DSP-4A	T-15F	P-3

INSERT

RNGN-E/T1







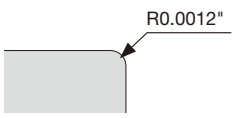
						★ : First choice
P	Steel					
M	Stainless					
K	Cast iron					
N	Non-ferrous					
S	Superalloys	★	★			
H	Hard materials					

Designation		Edge prep.*	Ceramic					RE (in)	IC (in)	S (in)
Inch	Metric		TS200	TS300						
RNGN 45-E	RNGN120700-E	E	●	●				-	0.500	0.313
RNGN 45-T1	RNGN120700-T1	T1	●	●				-	0.500	0.313

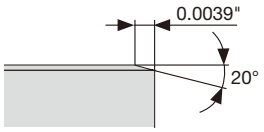
* Types of cutting edge preparations

● : Line up

E: Low cutting force



T1: Strong cutting edge



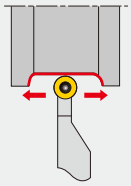
Reference pages: TRGNR/L-F: Standard cutting conditions → C136

RC

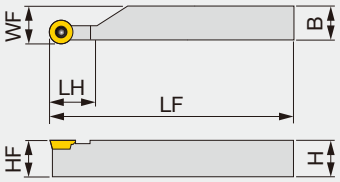
Round,
with hole
Positive 7°

SRACR/L

Screw-on toolholder with 91° approach angle, for positive round inserts



Cutting edge style **A**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	Insert
SRACR1010H05	10	10	100	10	10	10.3	RCMT0502...
SRACR/L1212H05	12	12	100	10	12	12.3	RCMT0502...
SRACR/L1212H06	12	12	100	12	12	12.4	RC*T0602...
SRACR1616H05	16	16	100	10	16	16.3	RCMT0502...
SRACR/L1616H06	16	16	100	12	16	16.4	RC*T0602...
SRACR/L1616H08	16	16	100	16	16	16.5	RC*T0803...
SRACR/L2020K05	20	20	125	10	20	20.3	RCMT0502...
SRACR/L2020K06	20	20	125	12	20	20.4	RC*T0602...
SRACR/L2020K08	20	20	125	16	20	20.5	RC*T0803...
SRACR/L2525M05	25	25	150	10	25	25.3	RCMT0502...
SRACR/L2525M06	25	25	150	12	25	25.4	RC*T0602...
SRACR/L2525M08	25	25	150	16	25	25.5	RC*T0803...

SPARE PARTS

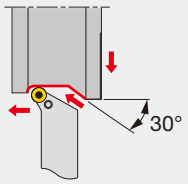



Designation	Clamping screw	Wrench
SRACR/L1*1*H05	CSTB-2.2R	T-7F
SRACR/L1212H06	CSTB-2.5	T-8F
SRACR1616H05	CSTB-2.2R	T-7F
SRACR/L1616H06	CSTB-2.5	T-8F
SRACR/L1616H08	CSTB-3	T-9F
SRACR/L2020K05	CSTB-2.2R	T-7F
SRACR/L2020K06	CSTB-2.5	T-8F
SRACR/L2020K08	CSTB-3	T-9F
SRACR/L2525M05	CSTB-2.2R	T-7F
SRACR/L2525M06	CSTB-2.5	T-8F
SRACR/L2525M08	CSTB-3	T-9F

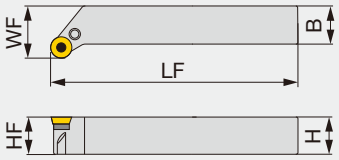
Reference pages: SRACR/L: Inserts → B130 -

PRGCR/L

Lever-lock toolholder with 91° approach angle, for positive round inserts



Cutting edge style **G**



Right hand (R) shown.

Metric	H	B	LF	HF	WF	Insert
PRGCR/L2020K10	20	20	125	20	25	RCMM1003...
PRGCR/L2525M12	25	25	150	25	32	RCM*1204...
PRGCR/L3225P16	32	25	170	32	32	RCM*1606...
PRGCR/L3232P20	32	32	170	32	40	RCM*2006...

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PRGCR/L2020K10	LSR32C	LCS2	P-2	LSP3	LCL3C
PRGCR/L2525M12	LSR42C	LCS3	P-2.5	LSP3	LCL4C
PRGCR/L3225P16	LSR53C	LCS5	P-3	LSP4	LCL5C
PRGCR/L3232P20	LSR63C	LCS5	P-3	LSP6C	LCL6C

INSERT SELECTION

P

Application	Finishing to medium cutting	Heavy cutting
Grade	T9215	T9215
Chipbreaker shape	RS 	61 
Cutting conditions	B016	

M

Application	Heavy cutting
Grade	T9215
Chipbreaker shape	61 
Cutting conditions	B018

K

Application	Heavy cutting
Grade	T9215
Chipbreaker shape	61 
Cutting conditions	B020

N

Application	Finishing to medium cutting
Grade	KS05F
Chipbreaker shape	AL 
Cutting conditions	B022

S

Application	Finishing to medium cutting	Heavy cutting
Grade	AH8015	AH8015
Chipbreaker shape	RS 	61 
Cutting conditions	B024	

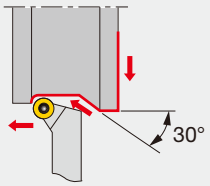
Reference pages: PRGCR/L: Inserts → B130 -

RC

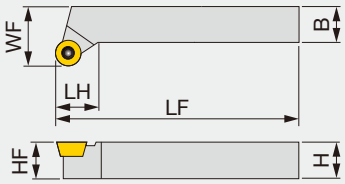
Round,
with hole
Positive 7°

SRGCR/L

Screw-on toolholder with 91° approach angle, for positive round inserts



Cutting edge style **G**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	Insert
SRGCR1212H05	12	12	100	9.5	12	16	RCMT0502...
SRGCR/L1212H06	12	12	100	10	12	16	RC*T0602...
SRGCR/L1616H05	16	16	100	9.5	16	20	RCMT0502...
SRGCR/L1616H06	16	16	100	10	16	20	RC*T0602...
SRGCR/L1616H08	16	16	100	11	16	20	RC*T0803...
SRGCR/L2020K05	20	20	125	11.2	20	25	RCMT0502...
SRGCR/L2020K06	20	20	125	12	20	25	RC*T0602...
SRGCR/L2020K08	20	20	125	12.7	20	25	RC*T0803...
SRGCR/L2020K10	20	20	125	14	25	25	RC*T1003...
SRGCR/L2525M05	25	25	150	14.7	25	32	RCMT0502...
SRGCR/L2525M06	25	25	150	15	25	32	RC*T0602...
SRGCR/L2525M08	25	25	150	16.2	25	32	RC*T0803...
SRGCR/L2525M10	25	25	150	17.5	25	32	RC*T1003...

SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SRGCR1212H05	CSTB-2.2R	-	-	-	T-7F
SRGCR/L1212H06	CSTB-2.5	-	-	-	T-8F
SRGCR/L1616H05	CSTB-2.2R	-	-	-	T-7F
SRGCR/L1616H06	CSTB-2.5	-	-	-	T-8F
SRGCR/L1616H08	CSTB-3	-	-	-	T-9F
SRGCR/L2020K05	CSTB-2.2R	-	-	-	T-7F
SRGCR/L2020K06	CSTB-2.5	-	-	-	T-8F
SRGCR/L2020K08	CSTB-3	-	-	-	T-9F
SRGCR/L2020K10	CSTB-3.5L	DTS5-3.5	SSR32	P-3.5	T-15F
SRGCR/L2525M05	CSTB-2.2R	-	-	-	T-7F
SRGCR/L2525M06	CSTB-2.5	-	-	-	T-8F
SRGCR/L2525M08	CSTB-3	-	-	-	T-9F
SRGCR/L2525M10	CSTB-3.5L	DTS5-3.5	SSR32	P-3.5	T-15F

INSERT SELECTION

P

Application	Finishing to medium cutting	Heavy cutting
Grade	T9215	T9215
Chipbreaker shape	RS 	61 
Cutting conditions	B016	

M

Application	Heavy cutting
Grade	T9215
Chipbreaker shape	61 
Cutting conditions	B018

K

Application	Heavy cutting
Grade	T9215
Chipbreaker shape	61 
Cutting conditions	B020

N

Application	Finishing to medium cutting
Grade	KS05F
Chipbreaker shape	AL 
Cutting conditions	B022

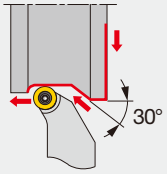
S

Application	Finishing to medium cutting	Heavy cutting
Grade	AH8015	AH8015
Chipbreaker shape	RS 	61 
Cutting conditions	B024	

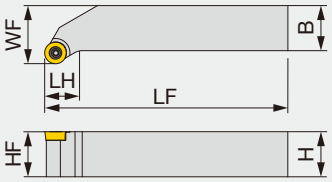
Reference pages: SRGCR/L: Inserts → B130 -

SRGCR/L-6F

Screw-on toolholder with 91° approach angle, for positive round inserts



Cutting edge style **G**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	Insert	Torque
SRGCR/L164-6F	1.000	1.000	6.000	0.690	1.000	1.250	RCMT1204M0-6RS/-6RM	2.21

Metric	H	B	LF	LH	HF	WF	Insert	Torque*
SRGCR/L2525M12-6F	25	25	150	18.6	25	32	RCMT1204M0-6RS/-6RM	3

Torque: Recommended clamping torque: lb·ft (*N·m)

SPARE PARTS

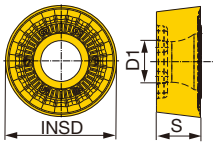
Designation	Clamping screw	Lubricant	Wrench
SRGCR/L...	CSTB-4	M-1000	T-15F

INSERT

RCMT

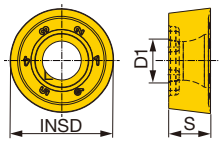


6RS





6RM



P	Steel	★	★					★			
M	Stainless	☆									
K	Cast iron	☆	☆					☆			
N	Non-ferrous										
S	Superalloys										
H	Hard materials										

★ : First choice
☆ : Second choice

Designation	Coated						Cermet							INSD (in)	S (in)	D1 (in)
	T9215	T9225					NS9530									
RCMT1204M0-6RS	●	●					●							0.472	0.187	0.203
RCMT1204M0-6RM	●	●					●							0.472	0.187	0.203

● : Line up

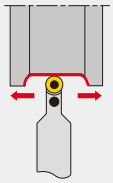
Reference pages: SRGCR/L-6F: Standard cutting conditions → C138

RC

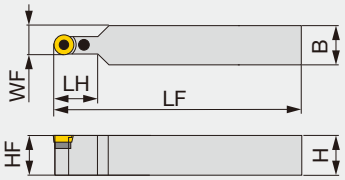
Round,
with hole
Positive 7°

PRDCN

Lever-lock toolholder with 45° approach angle, for positive round inserts



Cutting edge style **D**



Metric	H	B	LF	LH	HF	WF	Insert
PRDCN2020K10	20	20	125	22.5	20	15	RCMM1003...
PRDCN2525M12	25	25	150	24	25	18.5	RCM*1204...
PRDCN3225P12	32	25	170	24	32	18.5	RCM*1204...
PRDCN3225P16	32	25	170	28	32	20.5	RCM*1606...
PRDCN3232P20	32	32	170	32	32	26	RCM*2006...
PRDCN4040R25	40	40	200	42	40	32.5	RCM*2507...

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PRDCN2020K10	LSR32C	LCS2	P-2	LSP3	LCL3C
PRDCN**25*12	LSR42C	LCS3	P-2.5	LSP3	LCL4C
PRDCN3225P16	LSR53C	LCS5	P-3	LSP4	LCL5C
PRDCN3232P20	LSR63C	LCS5	P-3	LSP6C	LCL6C
PRDCN4040R25	LSR84C	LCS8C	P-4	LSP6	LCL8C

INSERT SELECTION

P

Application	Finishing to medium cutting	Heavy cutting
Grade	T9215	T9215
Chipbreaker Shape	RS 	61 
Cutting conditions	B016	

M

Application	Heavy cutting
Grade	T9215
Chipbreaker Shape	61 
Cutting conditions	B018

K

Application	Heavy cutting
Grade	T9215
Chipbreaker Shape	61 
Cutting conditions	B020

N

Application	Finishing to medium cutting
Grade	KS05F
Chipbreaker Shape	AL 
Cutting conditions	B022

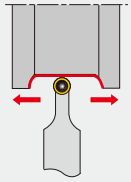
S

Application	Finishing to medium cutting	Heavy cutting
Grade	AH8015	AH8015
Chipbreaker Shape	RS 	61 
Cutting conditions	B024	

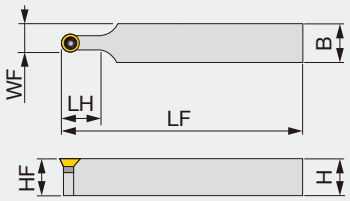
Reference pages: PRDCN: Inserts → B130

SRDCN

Screw-on toolholder with 45° approach angle, for positive round inserts



Cutting edge style **D**



Metric	H	B	LF	LH	HF	WF	Insert
SRDCN2020K06	20	20	125	12	20	13	RC*T0602...
SRDCN2020K08	20	20	125	16	20	14	RC*T0803...
SRDCN2020K10	20	20	125	20.3	25	15	RC*T1003...
SRDCN2525M06	25	25	150	12	25	15.5	RC*T0602...
SRDCN2525M08	25	25	150	16	25	16.5	RC*T0803...
SRDCN2525M10	25	25	150	20.3	25	17.5	RC*T1003...

SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SRDCN2020K06	CSTB-2.5	-	-	-	T-8F
SRDCN2020K08	CSTB-3	-	-	-	T-9F
SRDCN2020K10	CSTB-3.5L	DTS5-3.5	SSR32	P-3.5	T-15F
SRDCN2525M06	CSTB-2.5	-	-	-	T-8F
SRDCN2525M08	CSTB-3	-	-	-	T-9F
SRDCN2525M10	CSTB-3.5L	DTS5-3.5	SSR32	P-3.5	T-15F

INSERT SELECTION

P

Application	Finishing to medium cutting	Heavy cutting
Grade	T9215	T9215
Chipbreaker Shape	RS 	61 
Cutting conditions	B016	

M

Application	Heavy cutting
Grade	T9215
Chipbreaker Shape	61 
Cutting conditions	B018

K

Application	Heavy cutting
Grade	T9215
Chipbreaker Shape	61 
Cutting conditions	B020

N

Application	Finishing to medium cutting
Grade	KS05F
Chipbreaker Shape	AL 
Cutting conditions	B022

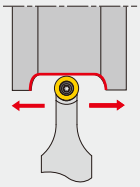
S

Application	Finishing to medium cutting	Heavy cutting
Grade	AH8015	AH8015
Chipbreaker Shape	RS 	61 
Cutting conditions	B024	

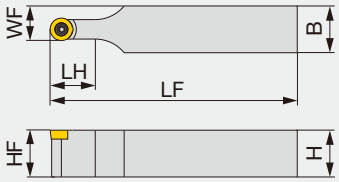
Reference pages: SRDCN: Inserts → B130

SRDCN-6F

Screw-on toolholder with 45° approach angle, for positive round inserts



Cutting edge style **D**



Inch	H	B	LF	LH	HF	WF	Insert	Torque
SRDCN164-6F	1.000	1.000	6.000	0.950	1.000	0.740	RCMT1204M0-6RS/-6RM	2.21

Metric	H	B	LF	LH	HF	WF	Insert	Torque*
SRDCN2525M12-6F	25	25	150	24.1	25	18.5	RCMT1204M0-6RS/-6RM	3

Torque: Recommended clamping torque: lb·ft (*N·m)

SPARE PARTS

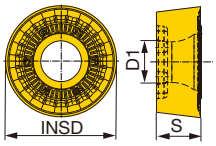
Designation	Clamping screw	Lubricant	Wrench
SRDCN...	CSTB-4	M-1000	T-15F

INSERT

RCMT

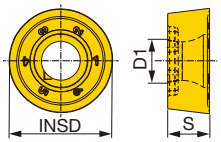


6RS





6RM



		Coated			Cermet					
	Designation	T9215	T9225		NS9530			INSD (in)	S (in)	D1 (in)
P	Steel	★	★		★					
M	Stainless	☆								
K	Cast iron	☆	☆		☆					
N	Non-ferrous									
S	Superalloys									
H	Hard materials									
	RCMT1204M0-6RS	●	●		●			0.472	0.187	0.203
	RCMT1204M0-6RM	●	●		●			0.472	0.187	0.203

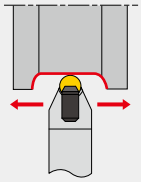
★ : First choice
☆ : Second choice
● : Line up

C D F G H R S T V W Y OTHERS

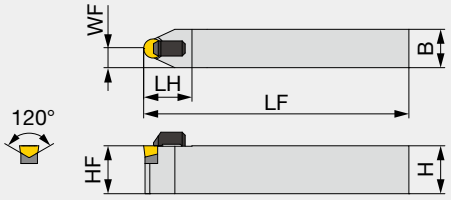
Reference pages: SRDCN-6F: Standard cutting conditions → C138

TRDCN

Toolholder with carbide clamping plate, with 45° approach angle, for positive round ceramic inserts with V-bottom shape



Cutting edge style **D**



Inch	H	B	LF	LH	HF	WF	RE**	Insert
CRDCN 85-3L-120	1.250	1.000	6.800	1.181	1.250	0.500	0.187	RCGX 350...
CRDCN 85-4L-120	1.250	1.000	6.800	1.260	1.250	0.500	0.250	RCGX 450...

Metric	H	B	LF	LH	HF	WF	RE**	Insert
TRDCN3225P09-120	32	25	170	30	32	12.5	4.76	RCGX090700...
TRDCN3225P12-120	32	25	170	32	32	12.5	6.35	RCGX120700...

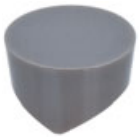
**RE: Standard corner radius

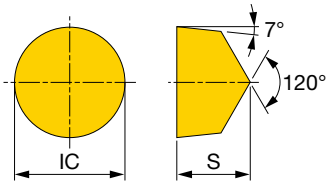
SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Wrench 1	Wrench 2
TRDCN3225P09-120	BCL6-20A	BH-M6X1X25	CBRS-09	BH-M2.5X0.45X10	P-4	P-1.5
TRDCN3225P12-120	BCL6	BH-M6X1X25	CBRS-12	BH-M2.5X0.45X10	P-4	P-1.5

INSERT

RCGX-E/T1





		TS200	TS300
P	Steel		
M	Stainless		
K	Cast iron		
N	Non-ferrous		
S	Superalloys	★	★
H	Hard materials		

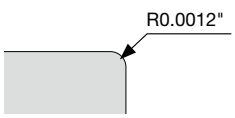
★ : First choice

Designation Inch	Designation Metric	Edge prep.*	Ceramic TS200	Ceramic TS300	RE (in)	IC (in)	S (in)
RCGX 350-E	RCGX090700-E	E	●	●	-	0.375	0.313
RCGX 350-T1	RCGX090700-T1	T1	●	●	-	0.375	0.313
RCGX 450-E	RCGX120700-E	E	●	●	-	0.500	0.313
RCGX 450-T1	RCGX120700-T1	T1	●	●	-	0.500	0.313

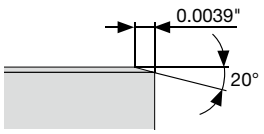
* Types of cutting edge preparations

● : Line up

E: Low cutting force



T1: Strong cutting edge



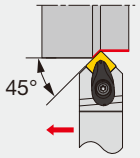
SN

Square with hole

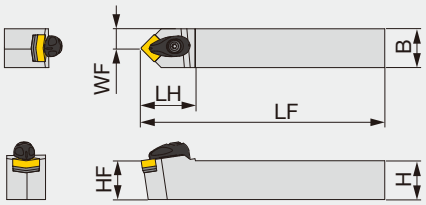
TURNING A

ASDNN

Double-clamp toolholder with 45° approach angle, for negative square inserts



Cutting edge style **D**



Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
ASDNN124-A	0.750	0.750	4.500	1.380	0.750	0.375	0.031	SN** 43...	2.2
ASDNN164-A	1.000	1.000	6.000	1.380	1.000	0.500	0.031	SN** 43...	2.2

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ASDNN2020K12-A	20	20	125	35	20	10	0.8	SN**1204...	3
ASDNN2525M12-A	25	25	150	35	25	12.5	0.8	SN**1204...	3

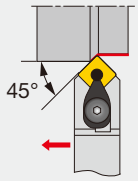
Torque: Recommended clamping torque: lbs·ft (*N·m) **RE: Standard corner radius

SPARE PARTS

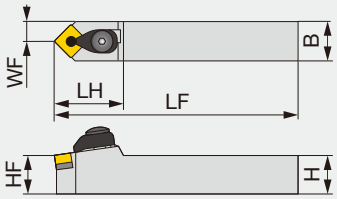
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ASDNN...	ACP4S	ACS-5W	BP-7	SP-2.5	ASS422	CSTB-3.5	T-15F

DSDNN

One-Double toolholder with 45° approach angle, for negative square inserts



Cutting edge style **D**



Metric	H	B	LF	LH	HF	WF	RE**	Insert
DSDNN2020K12	20	20	125	36	20	10	0.8	SN**1204...
DSDNN2525M12	25	25	150	36	25	12.5	0.8	SN**1204...

Note: Except for TRS, TU, TUS, 57, and 65-type chipbreaker inserts **RE: Standard corner radius

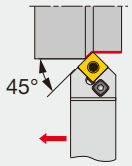
SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DSDNN...	DCPM-43	DLCL43	DPIS43	DLCS43	LSS42	BP-10	LSP4	P-3	P-4

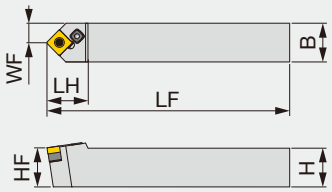
Reference pages: ASDNN, DSDNN: Inserts → B077 -, CBN → B180, PCD → B211

PSDNN

Lever-lock toolholder with 45° approach angle, for negative square inserts



Cutting edge style **D**



Metric	H	B	LF	LH	HF	WF	RE**	Insert
PSDNN1616	16	16	100	22	16	8	0.8	SN**0903...
PSDNN2020	20	20	125	30	20	10.3	0.8	SN**1204...
PSDNN2525	25	25	150	30	25	12.8	0.8	SN**1204...

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PSDNN1616	LSS33	LCS3	P-2.5	LSP3L	LCL3
PSDNN2020	LSS42	LCS4	P-3	LSP4	LCL4
PSDNN2525	LSS42	LCS4	P-3	LSP4	LCL4

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker Shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Finishing	Medium cutting
Grade	DX140	TH10
Chipbreaker Shape	DIA	P
Cutting conditions	B010	

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX480	AH8005	AH8005
Chipbreaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

Reference pages: PSDNN: Inserts → B077 -, CBN → B180, PCD → B211

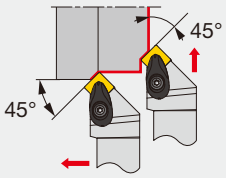
SN

Square with hole

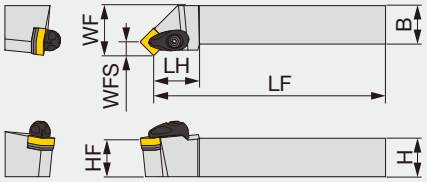
TURNING A

ASSNR/L

Double-clamp toolholder with 45° approach angle (S-style), for negative square inserts



Cutting edge style **S**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	WFS	RE**	Insert	Torque
ASSNR/L124-A	0.750	0.750	4.500	1.250	0.750	1.000	0.327	0.031	SN** 43...	2.2
ASSNR/L164-A	1.000	1.000	6.000	1.250	1.000	1.250	0.327	0.031	SN** 43...	2.2
ASSNR/L205-A	1.250	1.250	7.000	1.500	1.250	1.500	0.406	0.031	SN** 54...	4.7
ASSNR/L206-A	1.250	1.250	7.000	1.500	1.250	1.500	0.492	0.031	SN** 64...	4.7
ASSNR/L245-A	1.500	1.500	8.000	1.500	1.500	1.750	0.406	0.031	SN** 54...	4.7
ASSNR/L246-A	1.500	1.500	8.000	1.500	1.500	1.750	0.492	0.031	SN** 64...	4.7

Metric	H	B	LF	LH	HF	WF	WFS	RE**	Insert	Torque*
ASSNR/L2020K12-A	20	20	125	30	20	25	8.3	0.8	SN**1204...	3
ASSNR/L2525M12-A	25	25	150	30	25	32	8.3	0.8	SN**1204...	3
ASSNR/L2525M15-A	25	25	150	25	25	32	10.3	1.2	SN**1506...	6.4
ASSNR/L3232P15-A	32	32	170	25	32	40	10.3	1.2	SN**1506...	6.4
ASSNR/L3232P19-A	32	32	170	27.5	32	40	12.5	1.2	SN**1906...	6.4
ASSNR/L4040S19-A	40	40	250	27.5	40	50	12.5	1.2	SN**1906...	6.4

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius

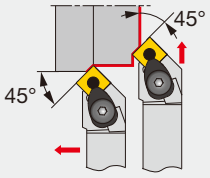
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench 1	Wrench 2
ASSNR/L**4-A, ASSNR/L**12-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASS422	CSTB-3.5	T-15F	-
ASSNR/L**5-A, ASSNR/L**15-A	ACP5S	ACS-6W	BP-8.8	SP-2.5	ASS533	CSTB-5	-	KEYV-T20
ASSNR/L**6-A, ASSNR/L**19-A	ACP6S	ACS-6W	BP-8.8	SP-2.5	ASS634	CSTB-5	-	KEYV-T20

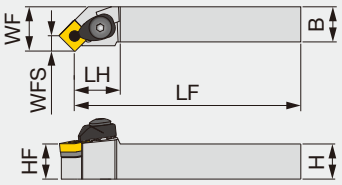
Reference pages: ASSNR/L: Inserts → B077 -, CBN → B180, PCD → B211

DSSNR/L

"One-Double" toolholder with 45° approach angle, for negative square inserts



Cutting edge style **S**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	WFS	RE**	Insert
DSSNR/L2020K12	20	20	125	34.3	20	25	8.3	0.8	SN**1204...
DSSNR/L2525M12	25	25	150	34.3	25	32	8.3	0.8	SN**1204...

Note: Except for TRS, TU, TUS, 57, and 65-type chipbreaker inserts
**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DSSNR/L...	DCPM-43	DLCL43	DPIS43	DLCS43	LSS42	BP-10	LSP4	P-3	P-4

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker Shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Finishing	Medium cutting
Grade	DX140	TH10
Chipbreaker Shape	DIA	P
Cutting conditions	B010	

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX480	AH8005	AH8005
Chipbreaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

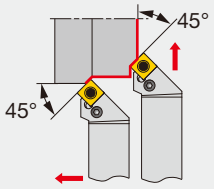
Reference pages: DSSNR/L: Inserts → B077 -, CBN → B180, PCD → B211

SN

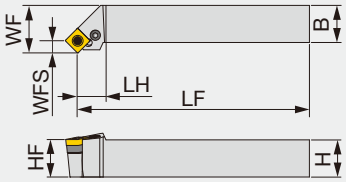
Square with hole

PSSNR/L

Lever-lock toolholder with 45° approach angle, for negative square inserts



Cutting edge style **S**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	WFS	RE**	Insert
PSSNR/L1616	16	16	94	16	16	20	6.1	0.8	SN**0903...
PSSNR/L2020	20	20	116	21	20	25	8.3	0.8	SN**1204...
PSSNR/L2525	25	25	141	21	25	32	8.3	0.8	SN**1204...
PSSNR3225	32	25	161	21	32	32	8.3	0.8	SN**1204...
PSSNR/L3232	32	32	157.5	27.5	32	40	12.5	1.2	SN**1906...

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PSSNR/L1616	LSS33	LCS3	P-2.5	LSP3L	LCL3
PSSNR/L2020	LSS42	LCS4	P-3	LSP4	LCL4
PSSNR/L**25	LSS42	LCS4	P-3	LSP4	LCL4
PSSNR/L3232	LSS63	LCS6	P-4	LSP6	LCL6

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker Shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Finishing	Medium cutting
Grade	DX140	TH10
Chipbreaker Shape	DIA	P
Cutting conditions	B010	

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX480	AH8005	AH8005
Chipbreaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

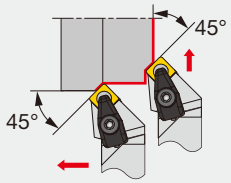
Reference pages: PSSNR/L: Inserts → B077 -, CBN → B180, PCD → B211

SN

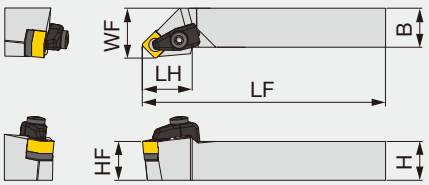
Square
without hole

DIMPLEFX
CSSNR/L-RD

Double-clamp toolholder with 45° approach angle, for negative square ceramic inserts with dimple



Cutting edge style **S**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
CSSNR/L16M45-RD	1.000	1.000	6.000	1.260	1.000	1.250	0.047	SNGD 45...	3.0

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
CSSNR/L2525M1207-RD	25	25	150	32	25	32	1.2	SNGD1207...	4

Torque: Recommended clamping torque: lb·ft (*N·m)
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench 1	Wrench 2
CSSNR/L...	CCP4-A	CCS4-A	CS44-A	BH5-10-A	BP-5-A	P-3	P-4

INSERT SELECTION

Application	Finishing to medium cutting
Grade	FX105
Chipbreaker Shape	
Cutting conditions	C136

Reference pages: CSSNR/L-RD: Insert → B085
Standard cutting conditions → C136

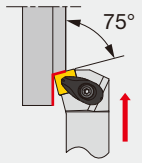
SN

Square with hole

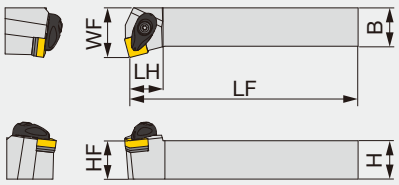
TURNING A

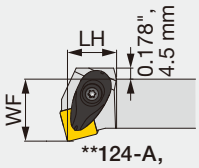
ASKNR/L

Double-clamp toolholder with 75° approach angle, for negative square inserts



Cutting edge style **K**





**124-A,
**2020K12-A

Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
ASKNR/L124-A	0.750	0.750	4.500	0.875	0.750	1.000	0.031	SN** 43...	2.21
ASKNR/L164-A	1.000	1.000	6.000	1.000	1.000	1.260	0.031	SN** 43...	2.21

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ASKNR/L2020K12-A	20	20	125	20	20	25	0.8	SN**1204...	3
ASKNR/L2525M12-A	25	25	150	22	25	32	0.8	SN**1204...	3

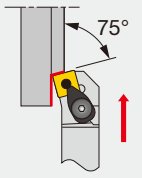
Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius

SPARE PARTS

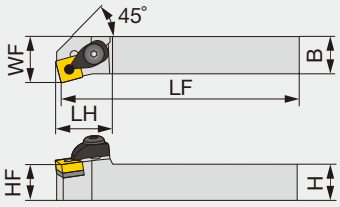
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ASKNR/L...	ACP4S	ACS-5W	BP-7	SP-2.5	ASS422	CSTB-3.5	T-15F

DSKNR/L

"One-Double" toolholder with 75° approach angle, for negative square inserts



Cutting edge style **K**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
DSKNR/L2020K12	20	20	125	31	20	25	0.8	SN**1204...
DSKNR/L2525M12	25	25	150	31	25	32	0.8	SN**1204...

Note: Except for TRS, TU, TUS, 57, and 65-type chipbreaker inserts
**RE : Standard corner radius

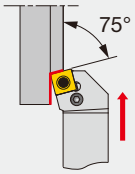
SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DSKNR/L...	DCPM-43	DLCL43	DPIS43	DLCS43	LSS42	BP-10	LSP4	P-3	P-4

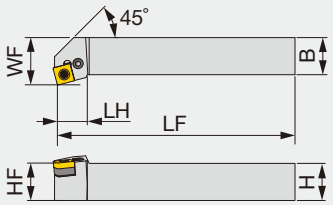
Reference pages: ASKNR/L, DSKNR/L: Inserts → B077 -, CBN → B180, PCD → B211

PSKNR/L

Lever-lock toolholder with 75° approach angle, for negative square inserts



Cutting edge style **K**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
PSKNR/L1616	16	16	100	17	16	25	0.8	SN**0903...
PSKNR/L2020	20	20	125	22	20	25	0.8	SN**1204...
PSKNR/L2525	25	25	150	22	25	32	0.8	SN**1204...
PSKNR3232	32	32	170	40	32	40	1.2	SN**1906...

**RE : Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PSKNR/L1616	LSS33	LCS3	P-2.5	LSP3L	LCL3
PSKNR/L2*2*	LSS42	LCS4	P-3	LSP4	LCL4
PSKNR3232	LSS63	LCS6	P-4	LSP6	LCL6

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker Shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Finishing	Medium cutting
Grade	DX140	TH10
Chipbreaker Shape	DIA	P
Cutting conditions	B010	

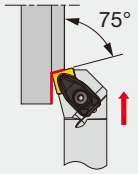
S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX480	AH8005	AH8005
Chipbreaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

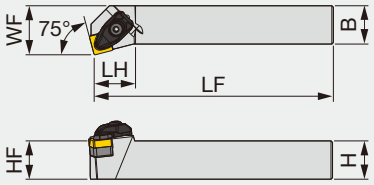
Reference pages: PSKNR/L: Inserts → B077 -, CBN → B180, PCD → B211

TSKNR/L-F

Toolholder with carbide clamping plate, with 75° approach angle, for negative square ceramic inserts without hole



Cutting edge style **K**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert
TSKNR/L 16-45D-F	1.000	1.000	6.000	1.063	1.000	1.250	0.032	SNGN 453...

Metric	H	B	LF	LH	HF	WF	RE**	Insert
TSKNR/L2525M1207-F	25	25	150	27	25	32	0.8	SNGN1207...

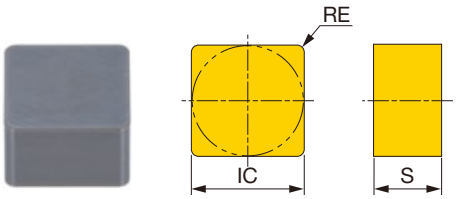
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench 1	Wrench 2
TSKNR/L2525M1207-F	DCLS-4F	DLS-4A	TSS-42	BH-40050-A	DSP-4A	T-15F	P-3

INSERT

SNGN-T1



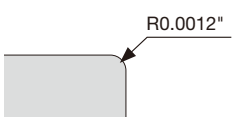
				★ : First choice
P	Steel			
M	Stainless			
K	Cast iron			
N	Non-ferrous			
S	Superalloys	★	★	
H	Hard materials			

Designation		Edge prep.*	Ceramic		RE (in)	IC (in)	S (in)
Inch	Metric		TS200	TS300			
SNGN 453-T1	SNGN120712-T1	T1		●	0.047	0.500	0.313

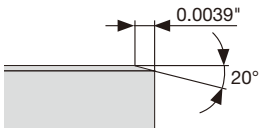
* Types of cutting edge preparations

● : Line up

E: Low cutting force



T1: Strong cutting edge



Reference pages: TSKNR/L-F: Standard cutting conditions → C136

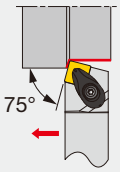
SN

Square
with hole

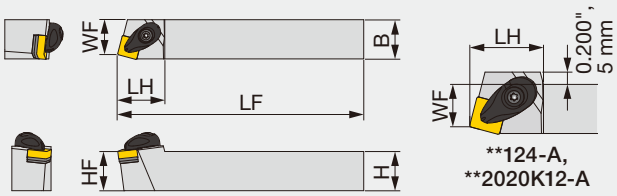
TURNING A

ASBNR/L

Double-clamp toolholder with 75° approach angle, for negative square inserts



Cutting edge style **B**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
ASBNR/L124-A	0.750	0.750	4.500	1.180	0.750	0.625	0.031	SN** 43...	2.2
ASBNR/L164-A	1.000	1.000	6.000	1.180	1.000	0.875	0.031	SN** 43...	2.2
ASBNR/L205-A	1.250	1.250	7.000	1.500	1.250	1.100	0.031	SN** 54...	4.7
ASBNR/L206-A	1.250	1.250	7.000	1.625	1.250	1.100	0.031	SN** 64...	4.7
ASBNR/L245-A	1.500	1.500	8.000	1.500	1.500	1.350	0.031	SN** 54...	4.7
ASBNR/L246-A	1.500	1.500	8.000	1.625	1.500	1.350	0.031	SN** 64...	4.7

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ASBNR/L2020K12-A	20	20	125	30	20	17	0.8	SN**1204...	3
ASBNR/L2525M12-A	25	25	150	30	25	22	0.8	SN**1204...	3
ASBNR/L2525M15-A	25	25	150	42.5	25	22	1.2	SN**1506...	6.4
ASBNR/L3232P15-A	32	32	170	42.5	32	27	1.2	SN**1506...	6.4
ASBNR/L3232P19-A	32	32	170	47.5	32	27	1.2	SN**1906...	6.4
ASBNR/L4040S19-A	40	40	250	47.5	40	35	1.2	SN**1906...	6.4

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench 1	Wrench 2
ASBNR/L**4-A, ASBNR/L**12-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASS422	CSTB-3.5	T-15F	-
ASBNR/L**5-A, ASBNR/L**15-A	ACP5S	ACS-6W	BP-8.8	SP-2.5	ASS533	CSTB-5	-	KEYV-T20
ASBNR/L**6-A, ASBNR/L**19-A	ACP6S	ACS-6W	BP-8.8	SP-2.5	ASS634	CSTB-5	-	KEYV-T20

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker Shape	TF 	TSF 	TM 	TH 
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker Shape	SF 	SM 	SH 
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker Shape	All-round 	All-round 	All-round 
Cutting conditions	B008		

N

Application	Finishing	Medium cutting
Grade	DX140	TH10
Chipbreaker Shape	DIA 	P 
Cutting conditions	B010	

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX480	AH8005	AH8005
Chipbreaker Shape	CBN 	HRF 	HRM 
Cutting conditions	B012		

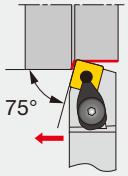
Reference pages: ASBNR/L: Inserts → B077 -, CBN → B180, PCD → B211

SN

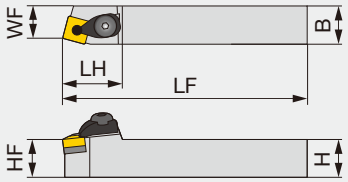
Square with hole

DSBNR/L

"One-Double" toolholder with 75° approach angle, for negative square inserts



Cutting edge style **B**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
DSBNR/L2020K12	20	20	125	35	20	17	0.8	SN**1204...
DSBNR/L2525M12	25	25	150	35	25	22	0.8	SN**1204...

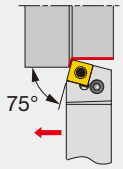
Note: Except for TRS, TU, TUS, 57, and 65-type chipbreaker inserts **RE: Standard corner radius

SPARE PARTS

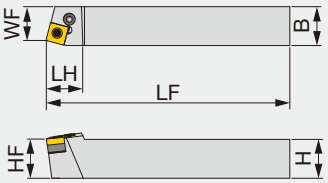
Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DSBNR/L...	DCPM-43	DLCL43	DPIS43	DLCS43	LSS42	BP-10	LSP4	P-3	P-4

PSBNR/L

Lever-lock toolholder with 75° approach angle, for negative square inserts



Cutting edge style **B**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
PSBNR/L1616	16	16	100	22	16	13	0.8	SN**0903...
PSBNR/L2020	20	20	125	28	20	17	0.8	SN**1204...
PSBNR/L2525	25	25	150	24	25	22	0.8	SN**1204...
PSBNR/L3232	32	32	170	40	32	27	1.2	SN**1906...

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PSBNR/L1616	LSS33	LCS3	P-2.5	LSP3L	LCL3
PSBNR/L2*2*	LSS42	LCS4	P-3	LSP4	LCL4
PSBNR/L3232	LSS63	LCS6	P-4	LSP6	LCL6

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker Shape	TF 	TSF 	TM 	TH 
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker Shape	SF 	SM 	SH 
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker Shape	All-round 	All-round 	All-round 
Cutting conditions	B008		

N

Application	Finishing	Medium cutting
Grade	DX140	TH10
Chipbreaker Shape	DIA 	P 
Cutting conditions	B010	

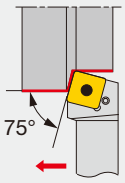
S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX480	AH8005	AH8005
Chipbreaker Shape	CBN 	HRF 	HRM 
Cutting conditions	B012		

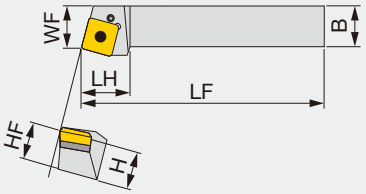
Reference pages: DSBNR/L, PSBNR/L: Inserts → B077 -, CBN → B180 -, PCD → B211

HSRNR/L

Retract-pin toolholder with 75° approach angle, for negative square inserts



Cutting edge style **R**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
HSRNR/L4040R	40	40	200	50	40	43	1.6	SNMM3109...
HSRNR/L5050S	50	50	250	60	50	53	1.6	SNMM3109...

**RE: Standard corner radius

SPARE PARTS

Designation	Pin	Clamping screw	Shim	Wrench
HSRNR/L...	SW99	LS-8	NAS-04	P-4

INSERT SELECTION

P

Application	Heavy cutting
Grade	T9225
Chipbreaker Shape	65 
Cutting conditions	B004

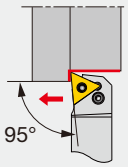
Reference pages: HSRNR/L: Inserts → B083

TN

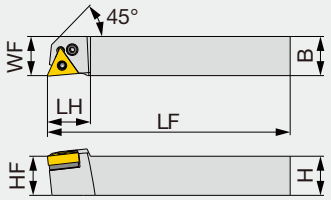
Triangular with hole

PTL2NR/L

Lever-lock toolholder with 95° approach angle, for negative 60° triangular inserts



Cutting edge style **L2**



Without offset

Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PTL2NR/L2020H16	20	20	100	22	20	20	0.4	TN**1604...	2

Torque: Recommended clamping torque: N·m
**RE: Standard corner radius

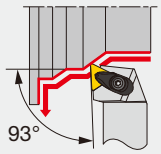
SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PTL2NR/L...	LST317 D30	LCS3	P-2.5	LSP3	LCL3

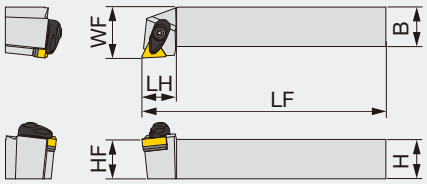
TURNINGA

ATJNR/L

Double-clamp toolholder with 93° approach angle, for negative 60° triangular inserts



Cutting edge style **J**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
ATJNR/L123-A	0.750	0.750	4.500	0.875	0.750	1.000	0.031	TN** 33...	2.2
ATJNR/L163-A	1.000	1.000	6.000	0.875	1.000	1.250	0.031	TN** 33...	2.2
Metric	**H**	**B**	**LF**	**LH**	**HF**	**WF**	**RE****	**Insert**	**Torque***
ATJNR/L2020K16-A	20	20	125	22	20	25	0.8	TN**1604...	3
ATJNR/L2525M16-A	25	25	150	22	25	32	0.8	TN**1604...	3

Torque: Recommended clamping torque: lbs·ft (*N·m) **RE: Standard corner radius

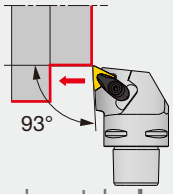
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ATJNR/L...	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F

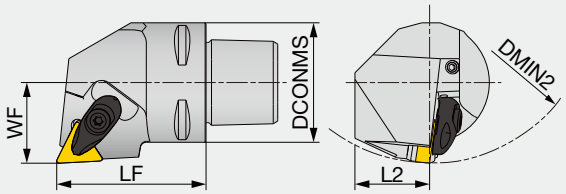
Reference pages: PTL2NR/L, ATJNR/L: Inserts → B087 -, CBN → B182 -, PCD → B212

C-ATJNR/L

Double-clamp toolholder, with 93° approach angle, for negative 60° triangular inserts



Cutting edge style **J**



Right hand (R) shown.

Metric	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
C4ATJNR/L27050-16N	40	50	25	27	140	110	0.8	TN**1604...

Applicable for 7 MPa (1015 PSI) coolant

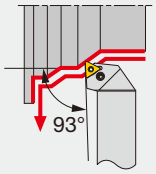
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
C4ATJNR/L**-16N	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F

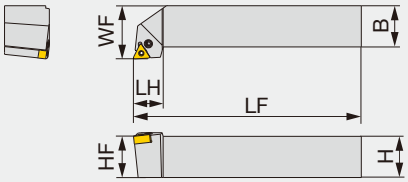
ISO Eco TURN

PTJNR/L-Eco

Lever-lock toolholder with 93° approach angle, for negative triangular inserts



Cutting edge style **J**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PTJNR/L2525M1104	25	25	150	18	25	32	0.8	TN**1104...	2

Torque: Recommended clamping torque: N·m **RE: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench	Lever
PTJNR/L2525M1104	LCS23A	P-2.5	LCL23

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Chipbreaker shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: C-ATJNR/L: Inserts → B087 -, CBN → B182 -, PCD → B212
PTJNR/L-Eco: Inserts → B087 -

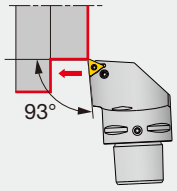
TN

Triangular with hole

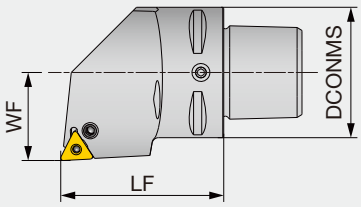
TUNGCAP

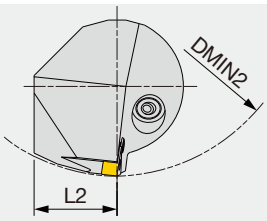
C-PTJNR/L

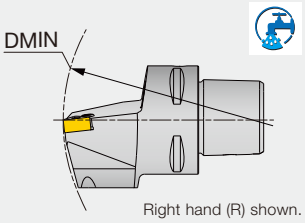
Lever-lock external turning toolholder (P type)



Cutting edge style **J**







Right hand (R) shown.

Metric	DCONMS	LF	L2	WF	DMIN	DMIN2	RE**	Insert
C4PTJNR/L27050-1104N	40	50	25	27	140	110	0.8	TN**1104...

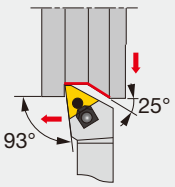
**RE: The holder measurements are true with this insert radius
Applicable for 7 MPa (1015 PSI) coolant

SPARE PARTS

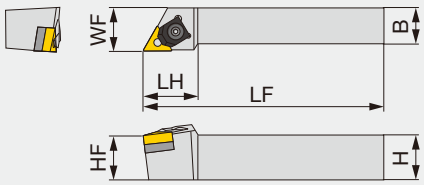
Designation	Clamping screw	Wrench	Lever	Coolant parts
C4PTJNR/L27050-1104N	LCS23A	P-2.5	LCL23	SATZ-M8X1-M3

WTJNR/L

Wedge-on toolholder with 93° approach angle, for negative 60° triangular inserts



Cutting edge style **J**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
WTJNR2020	20	20	125	31	20	25	0.8	TN**1604...
WTJNR/L2525M3	25	25	150	31	25	32	0.8	TN**1604...

**RE: Standard corner radius

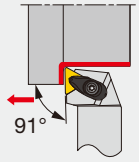
SPARE PARTS

Designation	Clamp	E-ring	Nut	Pin	Clamping screw	Shim	Wrench
WTJNR2020	WCW3	5103-25	WCN3S	WCP3S	WCS3	WST33	P-3
WTJNR/L2525M3	WCW3	5103-25	WCN3	WCP3S	WCS3	WST33	P-3

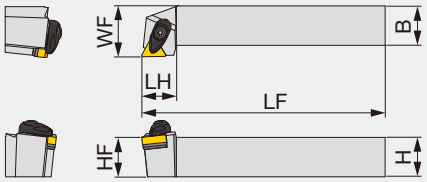
Reference pages: C-PTJNR/L: Inserts → B087 -
WTJNR/L: Inserts → B087 -, CBN → B182 -, PCD → B212

ATGNR/L

Double-clamp toolholder with 91° approach angle, for negative 60° triangular inserts



Cutting edge style **G**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
ATGNR/L123-A	0.750	0.750	4.500	0.875	0.750	1.000	0.031	TN** 33...	2.2
ATGNR/L163-A	1.000	1.000	6.000	0.875	1.000	1.250	0.031	TN** 33...	2.2
ATGNR/L164-A	1.000	1.000	6.000	1.000	1.000	1.250	0.031	TN** 43...	2.2

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ATGNR/L2020K16-A	20	20	125	22	20	25	0.8	TN**1604...	3
ATGNR/L2525M16-A	25	25	150	22	25	32	0.8	TN**1604...	3
ATGNR/L2525M22-A	25	25	150	26	25	32	0.8	TN**2204...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ATGNR/L**3-A, ATGNR/L**16-A	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F
ATGNR/L**4-A, ATGNR/L**22-A	ACP4S	ACS-5W	BP-7	SP-2.5	AST422	CSTB-3.5	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Chipbreaker shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

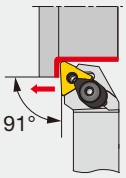
Reference pages: ATGNR/L: Inserts → B087 -, CBN → B182 -, PCD → B212

TN

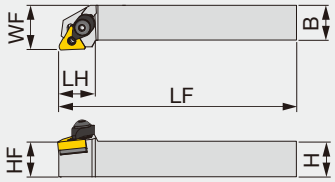
Triangular with hole

DTGNR/L

"One-Double" toolholder with 91° approach angle, for negative 60° triangular inserts



Cutting edge style **G**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
DTGNR/L2020K16	20	20	125	21	20	25	0.8	TN**1604...
DTGNR/L2525M16	25	25	150	21	25	32	0.8	TN**1604...
DTGNR/L2525M22	25	25	150	28	25	32	0.8	TN**2204...

Note: Except for 57-type chipbreaker inserts
**RE: Standard corner radius

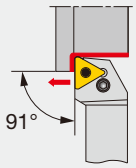
SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DTGNR/L**16	DCPM-33	LCL33	DPIS33	DLCS33	LST317	BP-9	LSP3	P-2.5	P-3
DTGNR/L**22	DCPM-43	DLCL43	DPIS43	DLCS43	LST42	BP-10	LSP4	P-3	P-4

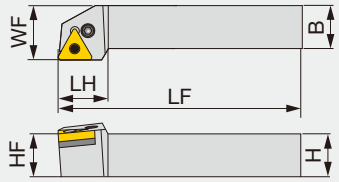
ISOECOTURN

PTGNR/L

Lever-lock toolholder with 91° approach angle, for negative triangular inserts



Cutting edge style **G**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PTGNR/L1223	0.750	0.750	4.500	0.750	0.750	1.000	0.031	TN** 23...	1.5
PTGNR/L1623	1.000	1.000	6.000	0.750	1.000	1.250	0.031	TN** 23...	1.5

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PTGNR/L1616	16	16	100	22	16	20	0.8	TN**1604...	2
PTGNR/L2020K1104	20	20	125	20	20	25	0.8	TN**1104...	2
PTGNR/L2020	20	20	125	22	20	25	0.8	TN**1604...	2
PTGNR/L2525M1104	25	25	150	20	25	32	0.8	TN**1104...	2
PTGNR/L2525M3	25	25	150	22	25	32	0.8	TN**1604...	2
PTGNR/L2525M4	25	25	150	28	25	32	0.8	TN**2204...	3
PTGNR3225P4	32	25	170	28	32	32	0.8	TN**2204...	3

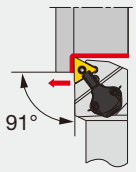
Torque: Recommended clamping torque: lbs·ft (*N·m) **RE: Standard corner radius

SPARE PARTS

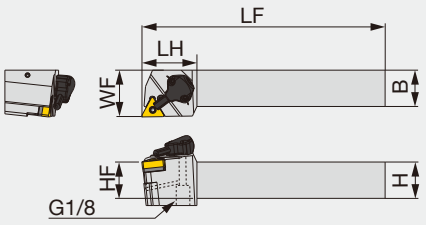
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PTGNR/L**23, PTGNR/L**1104	-	LCS23A	P-2.5	-	LCL23
PTGNR/L1616, 2020	LST317	LCS3	P-2.5	LSP3	LCL3
PTGNR/L2525M3	LST317	LCS3	P-2.5	LSP3	LCL3
PTGNR/L2525M4	LST42	LCS4	P-3	LSP4	LCL4
PTGNR3225P4	LST42	LCS4	P-3	LSP4	LCL4

Reference pages: DTGNR/L, PTGNR/L: Inserts → B087 -, CBN → B182 -, PCD → B212

Lever lock toolholders – 91° approach angle.
For negative triangle insert. High-pressure coolant capability.



Cutting edge style **G**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PTGNR/L1223-CHP	0.750	0.750	4.500	1.500	0.750	1.250	0.031	TN** 23...	1.48
PTGNR/L123-CHP	0.750	0.750	4.500	1.500	0.750	1.250	0.031	TN** 33...	1.48
PTGNR/L1623-CHP	1.000	1.000	6.000	1.500	1.000	1.250	0.031	TN** 23...	1.48
PTGNR/L163-CHP	1.000	1.000	6.000	1.500	1.000	1.250	0.031	TN** 33...	1.48

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PTGNR/L2020K1104-CHP	20	20	125	38	20	32	0.8	TN**1104...	2
PTGNR/L2020K16-CHP	20	20	125	38	20	32	0.8	TN**1604...	2
PTGNR/L2525M1104-CHP	25	25	150	38	25	32	0.8	TN**1104...	2
PTGNR/L2525M16-CHP	25	25	150	38	25	32	0.8	TN**1604...	2

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PTGNR/L**23-CHP, PTGNR/L**1104-CHP	-	LCS23A	P-2.5	LSP3	LCL23
PTGNR/L123, 163-CHP PTGNR/L**16-CHP	LST317	LCS3	P-2.5	LSP3	LCL3

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PTGNR/L**23-CHP, PTGNR/L**1104-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2
PTGNR/L123, 163-CHP PTGNR/L**16-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Chipbreaker shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: PTGNR/L-CHP: Inserts→B087 -, CBN → B182 -, PCD → B212
Parts for coolant hose → C133

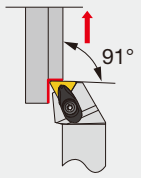
TN

Triangular with hole

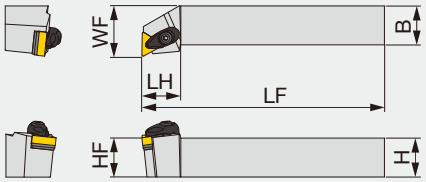
TURNING

ATFNR/L

Double-clamp toolholder for facing with 91° approach angle, for negative 60° triangular inserts



Cutting edge style **F**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
ATFNR/L123-A	0.750	0.750	4.500	1.000	0.750	1.000	0.031	TN** 33...	2.2
ATFNR/L163-A	1.000	1.000	6.000	1.000	1.000	1.250	0.031	TN** 33...	2.2

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ATFNR/L2020K16-A	20	20	125	25	20	25	0.8	TN**1604...	3
ATFNR/L2525M16-A	25	25	150	25	25	32	0.8	TN**1604...	3
ATFNR/L2525M22-A	25	25	150	29	25	32	0.8	TN**2204...	3

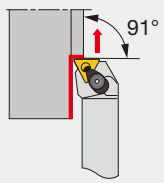
Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius

SPARE PARTS

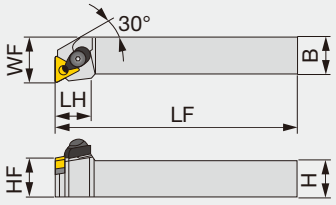
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ATFNR/L**3-A, ATFNR/L**16-A	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F
ATFNR/L**22-A	ACP4S	ACS-5W	BP-7	SP-2.5	AST422	CSTB-3.5	T-15F

DTFNR/L

"One-Double" toolholder with 91° approach angle, for negative 60° triangular inserts



Cutting edge style **F**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
DTFNR/L2020K16	20	20	125	23	20	25	0.8	TN**1604...
DTFNR/L2525M16	25	25	150	23	25	32	0.8	TN**1604...
DTFNR/L2525M22	25	25	150	31	25	32	0.8	TN**2204...

Note: Except for 57-type chipbreaker inserts
**RE : Standard corner radius

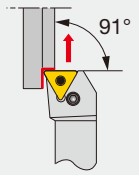
SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DTFNR/L**16	DCPM-33	LCL33	DPIS33	DLCS33	LST317	BP-9	LSP3	P-2.5	P-3
DTFNR/L**22	DCPM-43	DLCL43	DPIS43	DLCS43	LST42	BP-10	LSP4	P-3	P-4

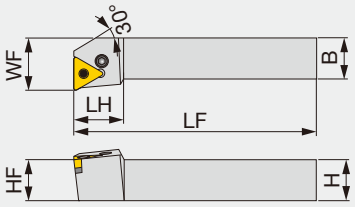
Reference pages: ATFNR/L, DTFNR/L: Inserts → B087 -, CBN → B182 -, PCD → B212

PTFNR/L

Lever-lock toolholder with 91° approach angle, for negative triangular inserts



Cutting edge style **F**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PTFNR/L1616	16	16	100	22	16	20	0.8	TN**1604...	2
PTFNR/L2020K1104	20	20	125	16	20	25	0.8	TN**1104...	2
PTFNR/L2020	20	20	125	22	20	25	0.8	TN**1604...	2
PTFNR/L2525M1104	25	25	150	22	25	32	0.8	TN**1104...	2
PTFNR/L2525M3	25	25	150	22	25	32	0.8	TN**1604...	2
PTFNR/L2525M4	25	25	150	28	25	32	0.8	TN**2204...	3
PTFNR/L3225P4	32	25	170	28	32	32	0.8	TN**2204...	3

Torque: Recommended clamping torque: N·m
**RE : Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench	Spring pin	Lever
PTFNR/L1616, 2020	LST317	-	LCS3	P-2.5	LSP3	LCL3
PTFNR/L**1104	-	LCS23A	-	P-2.5	-	LCL23
PTFNR/L2525M3	LST317	-	LCS3	P-2.5	LSP3	LCL3
PTFNR/L**25*4	LST42	-	LCS4	P-3	LSP4	LCL4

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Chipbreaker shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: PTFNR/L: Inserts → B087 -, CBN → B182 -, PCD → B212

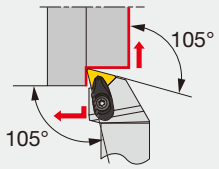
TN

Triangular
with hole

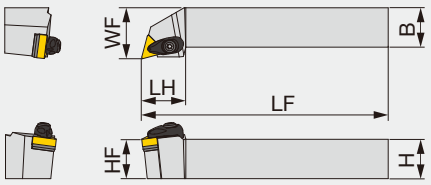
TURNING A

ATQNR/L

Double-clamp toolholder with 105° approach angle, for negative 60° triangular inserts



Cutting edge style **Q**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
ATQNR/L123-A	0.750	0.750	4.500	1.125	0.750	1.000	0.031	TN** 33...	2.2
ATQNR/L163-A	1.000	1.000	6.000	1.125	1.000	1.250	0.031	TN** 33...	2.2

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ATQNR/L2020K16-A	20	20	125	28	20	25	0.8	TN**1604...	3
ATQNR/L2525M16-A	25	25	150	28	25	32	0.8	TN**1604...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ATQNR/L...	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Chipbreaker shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

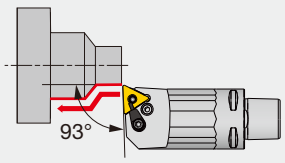
Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: ATQNR/L: Inserts → B087 -, CBN → B182 -, PCD → B212

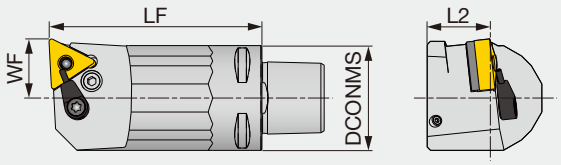
TUNGCAP

C-PTUNL-CHP

Lever-lock toolholder, with 93° approach angle, for negative 60° triangular inserts, with high pressure coolant capability



Cutting edge style **U**



Left hand (L) shown.

Metric	DCONMS	LF	L2	WF	RE	Insert
C3PTUNL18040-16-CHP	32	40	19	18	0.8	TN**1604...
C3PTUNL18065-16-CHP	32	65	19	18	0.8	TN**1604...

Applicable for 14 MPa (2031 PSI) coolant
Cannot be used for boring

SPARE PARTS

Designation	Coolant unit	Shim	Lever	Clamping screw	Spring pin	Wrench
C3PTUNL...	S-CU-CHP	LST317	LCL3	LCS3	LSP3	P-2.5

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Chipbreaker shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Chipbreaker shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Chipbreaker shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

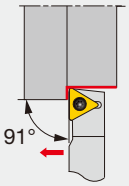
Reference pages: C-PTUNL-CHP: Inserts→ B087 -, CBN → B182 -, PCD → B212
Parts for coolant hose → C133

TC

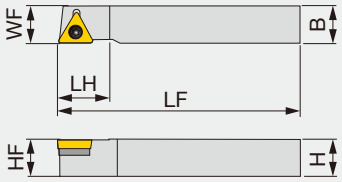
Triangular with hole Positive 7°

STACR/L

Screw-on toolholder with 91° approach angle, for positive 60° triangular inserts



Cutting edge style **A**



Without offset

Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
STACR/L1616H16	16	16	100	22.5	16	16	0.8	TC**16T3...

**RE: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench1	Wrench2
STACR/L...	CSTB-3.5L	DTS5-3.5	SST32	P-3.5	T-15F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	T9215	T9215	T9215
Breaker Shape	PSS	PS	PM
Cutting conditions	B016		

M

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	AH725	AH6225	AH6225
Breaker Shape	PSS	PS	PM
Cutting conditions	B018		

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application	Finishing to medium cutting
Grade	KS05F
Breaker Shape	AL (with rake)
Cutting conditions	B022

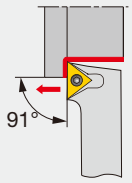
S

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	AH725	AH6225	AH6225
Breaker Shape	PSS	PS	PM
Cutting conditions	B024		

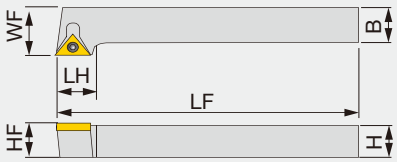
Reference pages: STACR/L: Inserts → B138 -, CBN → B198

STGCR/L

Screw-on system toolholder with 91° approach angle for positive 60° triangular inserts



Cutting edge style **G**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	Insert
STGCR/L062	0.375	0.375	2.500	0.625	0.375	0.500	TC** 21.5...
STGCR/L082	0.500	0.500	3.500	0.625	0.500	0.625	TC** 21.5...
STGCR/L103	0.625	0.625	4.000	0.750	4.000	0.750	TC** 32.5...
STGCR/L123	0.750	0.750	4.500	0.750	4.500	1.000	TC** 32.5...

Except for 57-type chipbreaker inserts

SPARE PARTS

Designation	Shim	Shim screw	Clamp screw	Wrench
STGCR/L0...	-	-	CSTB2.5	T-7F
STGCR/L1...	SKTP-343	SRS-3	CSTB3.5	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
Grade	SH725	SH725	T9215	T9215
Breaker Shape	JP	JS	PS	PM
Cutting conditions	B016			

M

Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
Grade	SH725	SH725	AH6225	AH6225
Breaker Shape	JP	JS	PS	PM
Cutting conditions	B018			

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing to medium cutting
Grade	DX120	KS05F
Breaker Shape	DIA	with rake AL
Cutting conditions	B022	

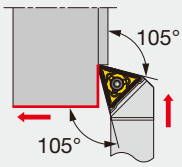
S

Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
Grade	SH725	SH725	AH6225	AH6225
Breaker Shape	JP	JS	PS	PM
Cutting conditions	B024			

Reference pages: STGCR/L: Inserts → B138 -, CBN → B198, PCD → B216

STXCR/L-CHP-MC

Screw-on toolholder with 105° approach angle, for positive triangular inserts



Cutting edge style **X**

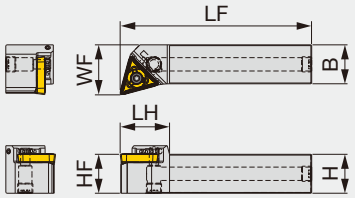


Fig. 1

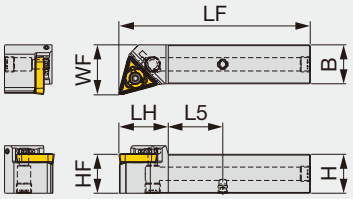


Fig. 2

Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	L5	Insert	Torque	Fig.
STXCR/L169-CHP-MC	1.000	1.000	6.000	1.250	1.000	1.250	-	3C-TCMT29X6...	3.69	1

Metric	H	B	LF	LH	HF	WF	L5	Insert	Torque*	Fig.
STXCR/L2525X29-CHP-MC	25	25	122	32	25	32	35	3C-TCMT29X6...	5	2

Torque: Recommended clamping torque: lb·ft (*N·m)

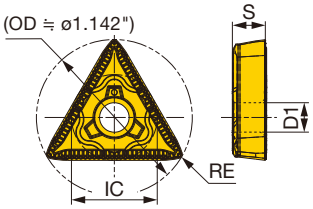
SPARE PARTS

Designation	Clamping screw	Grip	Torx bit	Coolant plug
STXCR/L...	CSTB-5	H-TB2W	BT20M	PLUGG1/8-6.5TL360

INSERT

3C-TCMT**-TM





		Coated
		T9215
P	Steel	★
M	Stainless	☆
K	Cast iron	☆
N	Non-ferrous	
S	Superalloys	
H	Hard materials	

★ : First choice
☆ : Second choice

Designation	RE (in)	Coated T9215	IC (in)	S (in)	D1 (in)
3C-TCMT29X608-TM	0.031	●	0.630	0.242	0.217

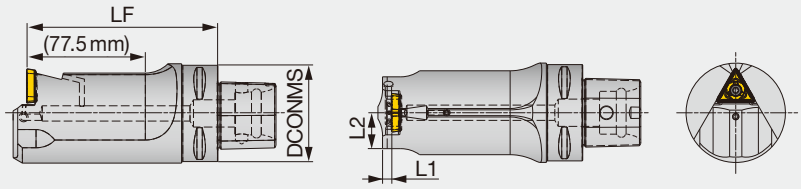
Please note that 3C-TCMT... insert is not recommended for pull face-turning method (pulling the insert away from the part center).

● : Line up

Reference pages: Standard cutting conditions → C134

C6STECN-Y-CHP

Screw-on Y-axis turning toolholder with TungCap connection, for positive triangular inserts



Cutting edge style **E**

Metric	SS	DCONMS	LF	L1	L2	RE	Insert	Torque
C6STECN00125-29-Y-CHP	C6	63	125	6	23.5	0.8	3C-TCMT29X6...	5

Torque: Recommended clamping torque: N·m

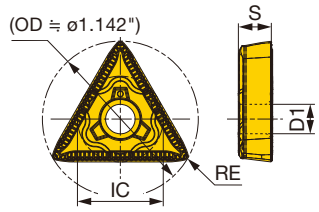
SPARE PARTS

Designation	Clamping screw	Grip	Torx bit
C6STECN00125-29-Y-CHP	CSTB-5	H-TB2W	BT20M

INSERT

3C-TCMT**-TM





		Coated
		T9215
P	Steel	★
M	Stainless	☆
K	Cast iron	☆
N	Non-ferrous	
S	Superalloys	
H	Hard materials	

★ : First choice
☆ : Second choice

Designation	RE (in)	Coated T9215	IC (in)	S (in)	D1 (in)
3C-TCMT29X608-TM	0.031	●	0.630	0.242	0.217

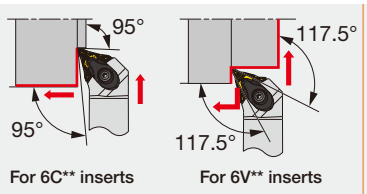
Please note that 3C-TCMT... insert is not recommended for pull face-turning method (pulling the insert away from the part center).

● : Line up

Reference pages: Standard cutting conditions → C134

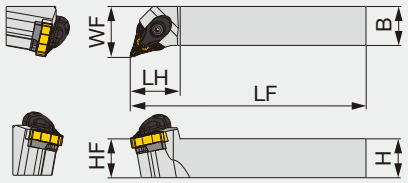
ATXOR/L

Double-clamp toolholder with 95°/117.5° approach angle, for negative 80°/35° triangular inserts



For 6C** inserts For 6V** inserts

Cutting edge style **X**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
ATXOR/L128-A	0.750	0.750	4.500	1.260	0.750	1.000	0.031	6C/6V-TOMG2506...	2.21
ATXOR/L168-A	1.000	1.000	6.000	1.260	1.000	1.250	0.031	6C/6V-TOMG2506...	2.21
ATXOR/L208-A	1.250	1.250	7.000	1.260	1.250	1.500	0.031	6C/6V-TOMG2506...	2.21

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ATXOR/L2020K25-A	20	20	125	32	20	25	0.8	6C/6V-TOMG2506...	3
ATXOR/L2525M25-A	25	25	150	32	25	32	0.8	6C/6V-TOMG2506...	3
ATXOR/L3232P25-A	32	32	170	32	32	40	0.8	6C/6V-TOMG2506...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
RE**: Standard corner radius

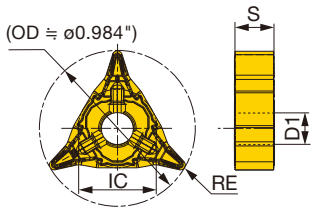
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ATXOR/L**8-A, ATXOR/L**25-A	ACP4S	ACS-5W	BP-7	SP-2.5	LST33 KS15F	CSTB-3.5	T-15F

INSERT

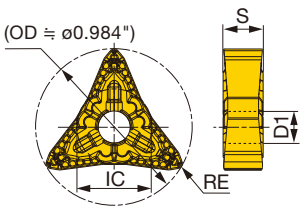
6V-TOMG**F-TSF





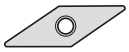
6C-TOMG**M-TM





| | | Coated | | |

VN YN

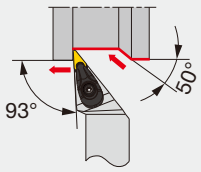
 Rhombic, 35° with hole

 Rhombic, 25° with hole

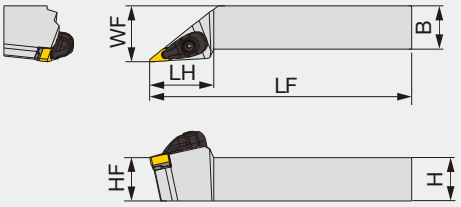
TURNING A

AVJNR/L

Double-clamp toolholder with 93° approach angle, for negative 35°/25° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
AVJNR/L122.33-A	0.750	0.750	4.500	1.500	0.750	1.000	0.031	VN** 2.33...	2.2
AVJNR/L123-A	0.750	0.750	4.500	1.750	0.750	1.000	0.031	VN**/YN** 33...	2.2
AVJNR/L162.33-A	1.000	1.000	6.000	1.500	1.000	1.250	0.031	VN** 2.33...	2.2
AVJNR/L163-A	1.000	1.000	6.000	1.870	1.000	1.250	0.031	VN**/YN** 33...	2.2

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
AVJNR/L2020K1204-A	20	20	125	37	20	25	0.8	VN**1204...	3
AVJNR/L2020K16-A	20	20	125	43	20	25	0.8	VN**/YN**1604...	3
AVJNR/L2525M1204-A	25	25	150	37	25	32	0.8	VN**1204...	3
AVJNR/L2525M16-A	25	25	150	46	25	32	0.8	VN**/YN**1604...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AVJNR/L**2.33-A, AVJNR/L**1204-A	ACP3L-E	ACS-5W	BP-7	SP-2.5	ASV222	CSTB-3.0	T-15F
AVJNR/L123, 163-A, AVJNR/L**16-A	ACP3L	ACS-5W	BP-7	SP-2.5	ASV322	CSTB-3.5	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting
Grade	NS9530	GT9530	T9215
Chipbreaker shape	TF	TSF	TM
Cutting conditions	B004		

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Chipbreaker shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing
Grade	DX120
Chipbreaker shape	DIA with rake
Cutting conditions	B010

S

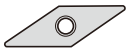
Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: AVJNR/L: Inserts → B098 -, B110, CBN → B186 -, B188, PCD → B212
Parts for coolant hose → C133

VN YN

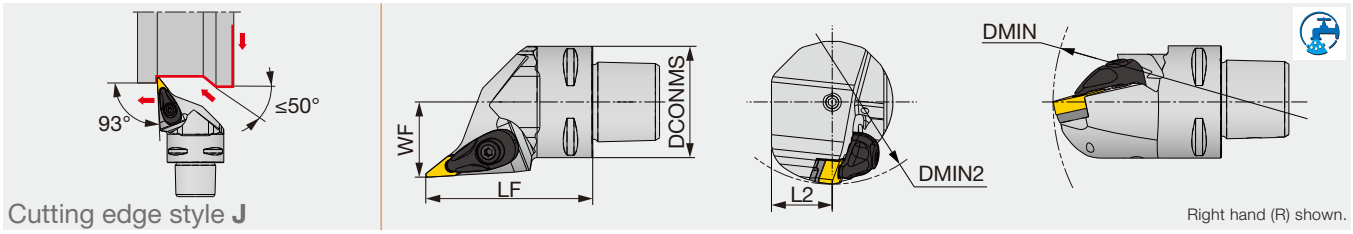
 Rhombic, 35° with hole

 Rhombic, 25° with hole

TUNGCAP

C-AVJNR/L

Double-clamp toolholder, with 93° approach angle, for negative 35° rhombic inserts (TurningA)



Cutting edge style **J**

Right hand (R) shown.

Metric	DCONMS	LF	L2	WF	DMIN	DMIN2	RE**	Insert
C4AVJNR/L27060-1204N	40	60	20	27	140	55	0.8	VN**1204...
C6AVJNR/L45065-1204N	63	65	31.5	45	190	81	0.8	VN**1204...

**RE: The holder measurements are true with this insert radius
Applicable for 7 MPa (1015 PSI) coolant

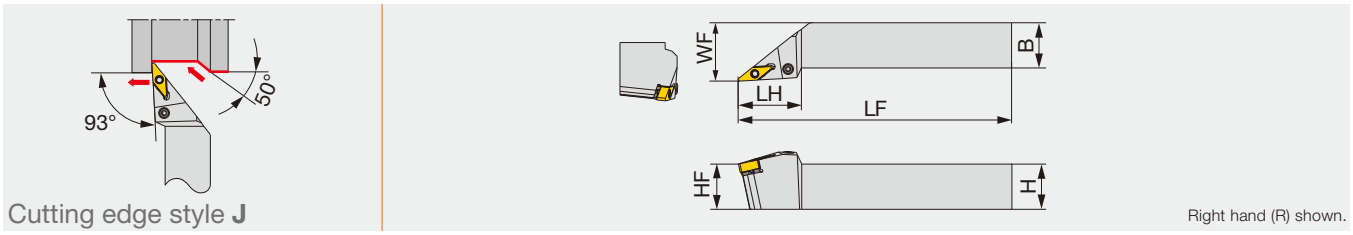
SPARE PARTS

Designation	Clamp	Clamp screw	Coolant parts	Shim	Shim screw	Spring	Spring pin	Wrench 1	Wrench 2
C4AVJNR/L...	ACP3L-E	ACS-5W	-	ASV222	CSTB-3	BP-7	SP-2.5	T-9F	T-15F
C6AVJNR/L...	ACP3L-E	ACS-5W	SATZ-M10X1-M5	ASV222	CSTB-3	BP-7	SP-2.5	T-9F	T-15F

ISOEcoTURN

PVJNR/L-Eco

Lever-lock toolholder with 93° approach angle, for negative 35° rhombic inserts



Cutting edge style **J**

Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PVJNR/L102.33	0.625	0.625	4.000	1.380	0.625	0.875	0.031	VN** 2.33...	1.48

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PVJNR/L1616H1204	16	16	100	35	16	20	0.8	VN**1204...	2
PVJNR/L2020K1204	20	20	125	35	20	25	0.8	VN**1204...	2
PVJNR/L2525M1204	25	25	150	35	25	32	0.8	VN**1204...	2

Torque: Recommended clamping torque: lb·ft (*N·m)
**RE: The holder measurements are true with this insert radius

SPARE PARTS

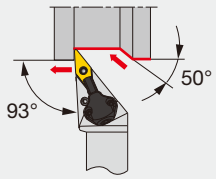
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PVJNR/L...	LSV212	LCS3V	P-2.5	LSP3	LCL3V

Reference pages: AVJNR/L: Inserts → B098 -, Parts for coolant hose → C133
PVJNR/L-Eco: Inserts → B098 -

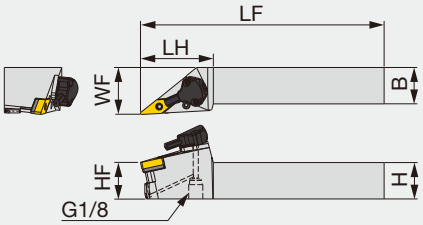
PVJNR/L-CHP

Tube connection

Lever lock toolholders – 93° approach angle.
For negative 35°/25° rhombic insert. High-pressure coolant capability.



Cutting edge style **J**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PVJNR/L123-CHP	0.750	0.750	4.500	1.969	0.750	1.250	0.031	VN**/YN** 33...	1.48
PVJNR/L122.33-CHP	0.750	0.750	4.500	2.000	0.750	1.250	0.031	VN** 2.33...	1.48
PVJNR/L163-CHP	1.000	1.000	6.000	1.969	1.000	1.250	0.031	VN**/YN** 33...	1.48
PVJNR/L162.33-CHP	1.000	1.000	6.000	2.000	1.000	1.250	0.031	VN** 2.33...	1.48

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PVJNR/L2020K1204-CHP	20	20	125	50	20	32	0.8	VN**1204...	2
PVJNR/L2020K16-CHP	20	20	125	50	20	32	0.8	VN**/YN**1604...	2
PVJNR/L2525M1204-CHP	25	25	150	50	25	32	0.8	VN**1204...	2
PVJNR/L2525M16-CHP	25	25	150	50	25	32	0.8	VN**/YN**1604...	2

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius
20Mpa (2901 PSI)

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PVJNR/L**2.33-CHP, PVJNR/L**1204-CHP	LSV212	LCS3V	P-2.5	LSP3	LCL3V
PVJNR/L123, 163-CHP, PVJNR/L**16-CHP	LSV317	LCS3V	P-2.5	LSP3	LCL3V

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PVJNR/L**2.33-CHP, PVJNR/L**1204-CHP	CU-V-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2
PVJNR/L123, 163-CHP, PVJNR/L**16-CHP	CU-V-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting
Grade	NS9530	GT9530	T9215
Chipbreaker shape	TF	TSF	TM
Cutting conditions	B004		

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Chipbreaker shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing
Grade	DX120
Chipbreaker shape	DIA with rake
Cutting conditions	B010

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: PVJNR/L-CHP: Inserts → B098 -, B110, CBN → B186 -, B188, PCD → B212
Parts for coolant hose → C133

VN YN

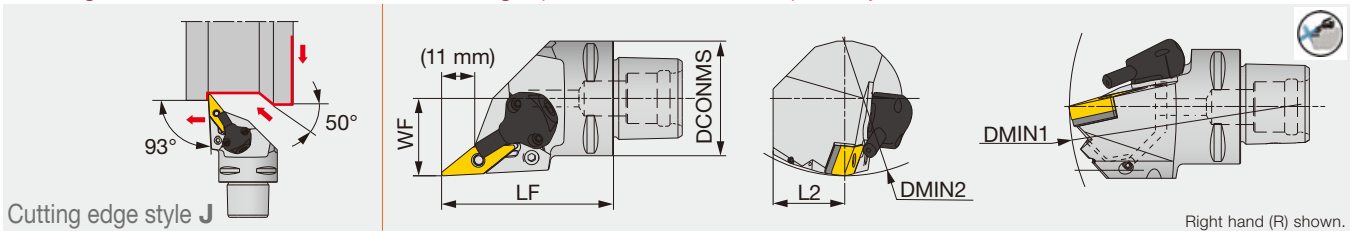
Rhombic, 35° with hole

Rhombic, 25° with hole

TUNGCAP

C-PVJNR/L-CHP

Lever lock toolholders with TungCap connection – 93° approach angle.
For negative 35°/25° rhombic insert. High-pressure coolant capability.



Cutting edge style **J**

Right hand (R) shown.

Metric	DCONMS	LF	L2	WF	DMIN1	DMIN2	RE**	Insert	Torque
C4PVJNR/L27060-1204-CHP	40	60	20	27	140	90	0.8	VN**1204...	2
C4PVJNR/L27060-16-CHP	40	60	20	27	140	110	0.8	VN**/YN**1604...	2
C6PVJNR/L45065-1204-CHP	63	65	31.5	45	190	81	0.8	VN**1204...	2
C6PVJNR/L45065-16-CHP	63	65	31.5	45	190	81	0.8	VN**/YN**1604...	2

Torque: Recommended clamping torque: N·m
Applicable for 14 MPa (2031 PSI) pressure coolant
**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C*PVJNR/L**-1204-CHP	LSV212	LCS3V	P-2.5	LSP3	LCL3V
C*PVJNR/L**-16-CHP	LSV317	LCS3V	P-2.5	LSP3	LCL3V

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C*PVJNR/L**-1204-CHP	CU-V-CHP	SRM3	T-8F	OR6.4X0.9N
C*PVJNR/L**-16-CHP	CU-V-CHP	SRM3	T-8F	OR6.4X0.9N

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting
Grade	NS9530	GT9530	T9215
Chipbreaker shape	TF	TSF	TM
Cutting conditions	B004		

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Chipbreaker shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing
Grade	DX120
Chipbreaker shape	DIA (with rake)
Cutting conditions	B010

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

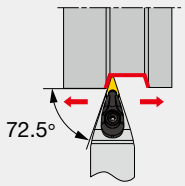
H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

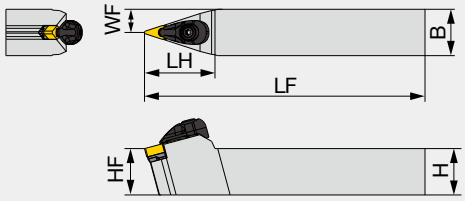
Reference pages: C-PVJNR/L-CHP: Inserts → B098 -, B110, CBN → B186 -, B188, PCD → B212
Parts for coolant hose → C133

AVVNN

Double-clamp toolholder with 72.5° approach angle, for negative 35°/25° rhombic inserts



Cutting edge style **V**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
AVVNN122.33-A	0.750	0.750	4.500	1.500	0.750	0.375	0.031	VN** 2.33...	2.2
AVVNN123-A	0.750	0.750	4.500	1.870	0.750	0.375	0.031	VN**/YN** 33...	2.2
AVVNN162.33-A	1.000	1.000	6.000	1.500	1.000	0.500	0.031	VN** 2.33...	2.2
AVVNN163-A	1.000	1.000	6.000	1.870	1.000	0.500	0.031	VN**/YN** 33...	2.2

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
AVVNN2020K1204-A	20	20	125	38	20	10	0.8	VN**1204...	3
AVVNN2020K16-A	20	20	125	46	20	10	0.8	VN**/YN**1604...	3
AVVNN2525M1204-A	25	25	150	38	25	12.5	0.8	VN**1204...	3
AVVNN2525M16-A	25	25	150	46	25	12.5	0.8	VN**/YN**1604...	3

Torque: Recommended clamping torque: lbs·ft (*N·m) **RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AVVNN**2.33-A, AVVNN**1204-A	ACP3L-E	ACS-5W	BP-7	SP-2.5	ASV222	CSTB-3.0	T-15F
AVVNN123, 163-A, AVVNN**16-A	ACP3L	ACS-5W	BP-7	SP-2.5	ASV322	CSTB-3.5	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting
Grade	NS9530	GT9530	T9215
Chipbreaker shape	TF	TSF	TM
Cutting conditions	B004		

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Chipbreaker shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing
Grade	DX120
Chipbreaker shape	DIA with rake
Cutting conditions	B010

S

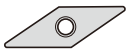
Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: AVVNN: Inserts → B098 -, B110, CBN → B186 -, B188, PCD → B212

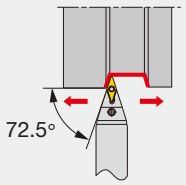
VN



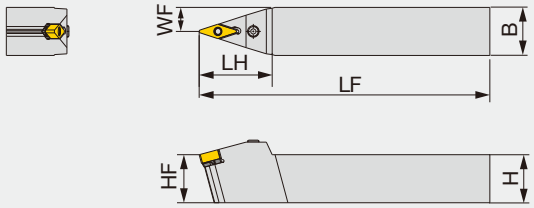
Rhombic, 35° with hole

ISOETURN PVVNN-Eco

Lever-lock toolholder with 72.5° approach angle, for negative 35° rhombic inserts



Cutting edge style **V**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PVVNN2020K1204	20	20	125	38	20	10	0.8	VN**1204...	2
PVVNN2525M1204	25	25	150	38	25	12.5	0.8	VN**1204...	2

Torque: Recommended clamping torque: N·m **RE: Standard corner radius

SPARE PARTS

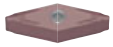
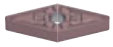
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PVVNN**1204	LSV212	LCS3V	P-2.5	LSP3	LCL3V

INSERT SELECTION

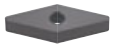
P

Application	Finishing	Medium cutting
Grade	T9215	T9215
Chipbreaker shape	TSF 	TM 
Cutting conditions	B004	

M

Application	Finishing	Medium cutting
Grade	AH6225	AH6225
Chipbreaker shape	SS 	SM 
Cutting conditions	B006	

K

Application	Finishing to medium cutting
Grade	T515
Chipbreaker shape	- 
Cutting conditions	B008

Reference pages: PVVNN-Eco: Inserts → B098 -

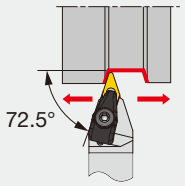
VN



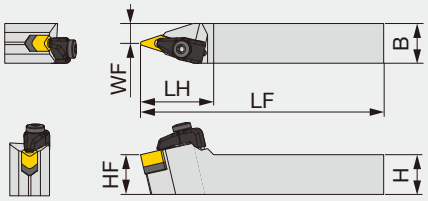
Rhombic, 35°
without hole

DIMPLEFX
CVVNN-RD

Double-clamp toolholder with 72.5° approach angle, for negative 35° rhombic ceramic inserts with dimple



Cutting edge style **V**



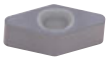
Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque
CVVNN2525M1607-RD	25	25	150	46	25	12.5	1.2	VNGD160712	4

Torque: Recommended clamping torque: N·m
**RE: Standard corner radius

SPARE PARTS

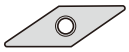
Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench1	Wrench2
CVVNN2525M1607-RD	CCP4-A	CCS4-A	CV34-A	BH-4-10-A	BP-5-A	P-3	P-4

INSERT SELECTION

K	Application	Finishing to medium cutting
	Grade	FX105
	Chipbreaker shape	- 
	Cutting conditions	C136

Reference pages: CVVNN-RD: Inserts→ B101
Standard cutting conditions → C136

VN YN

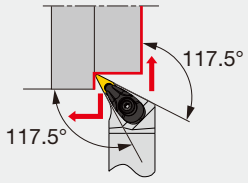
 Rhombic, 35° with hole

 Rhombic, 25° with hole

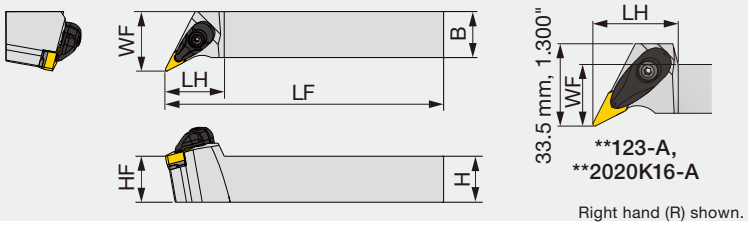
TURNING A

AVQNR/L

Double-clamp toolholder with 117.5° approach angle, for negative 35°/25° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

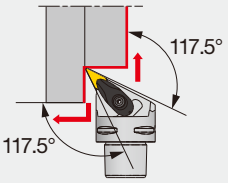
Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
AVQNR/L122.33-A	0.750	0.750	4.500	1.250	0.750	1.000	0.031	VN** 2.33...	2.21
AVQNR/L123-A	0.750	0.750	4.500	1.380	0.750	1.000	0.031	VN**/YN** 33...	2.21
AVQNR/L162.33-A	1.000	1.000	6.000	1.250	1.000	1.250	0.031	VN** 2.33...	2.21
AVQNR/L163-A	1.000	1.000	6.000	1.380	1.000	1.250	0.031	VN**/YN** 33...	2.21

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
AVQNR/L2020K1204-A	20	20	125	32	20	25	0.8	VN**1204...	3
AVQNR/L2020K16-A	20	20	125	35	20	25	0.8	VN**/YN**1604...	3
AVQNR/L2525M1204-A	25	25	150	32	25	32	0.8	VN**1204...	3
AVQNR/L2525M16-A	25	25	150	35	25	32	0.8	VN**/YN**1604...	3

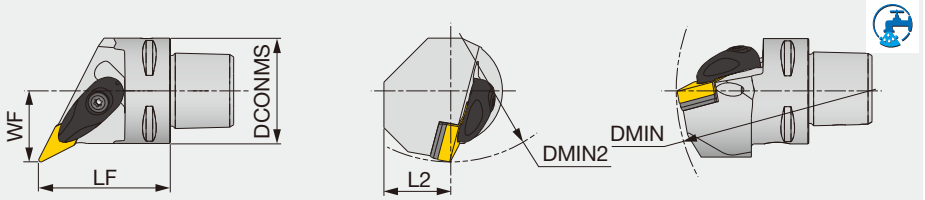
Torque: Recommended clamping torque: lbs·ft (*N·m) **RE: Standard corner radius

C-AVQNR/L

Double-clamp toolholder, with 117.5° approach angle, for negative 35°/25° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Metric	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
C4AVQNR/L27050-16N	40	50	25	27	145	110	0.8	VN**/YN**1604...

Applicable for 7 MPa (1015 PSI) coolant

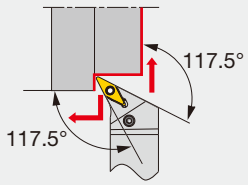
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AVQNR/L**2.33-A, AVQNR/L**1204-A	ACP3L-E	ACS-5W	BP-7	SP-2.5	ASV222	CSTB-3.0	T-15F
AVQNR/L123, 163-A, AVQNR/L**16-A	ACP3L	ACS-5W	BP-7	SP-2.5	ASV322	CSTB-3.5	T-15F
C4AVQNR/L**-16N	ACP3L	ACS-5W	BP-7	SP-2.5	ASV322	CSTB-3.5	T-15F

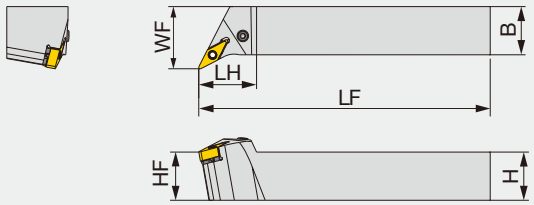
Reference pages: AVQNR/L, C-AVQNR/L: Inserts → B098 -, B110, CBN → B186 -, B188, PCD → B212

PVQNR/L-Eco

Lever-lock toolholder with 117.5° approach angle, for negative 35° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PVQNR/L2020K1204	20	20	125	30	20	25	0.8	VN**1204...	2
PVQNR/L2525M1204	25	25	150	30	25	32	0.8	VN**1204...	2

Torque: Recommended clamping torque: N·m **RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PVQNR/L**1204	LSV212	LCS3V	P-2.5	LSP3	LCL3V

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting
Grade	NS9530	GT9530	T9215
Chipbreaker shape	TF	TSF	TM
Cutting conditions	B004		

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Chipbreaker shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing
Grade	DX120
Chipbreaker shape	DIA with rake
Cutting conditions	B010

S

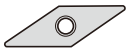
Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages: PVQNR/L-Eco: Inserts → B098 -

VN YN

 Rhombic, 35° with hole

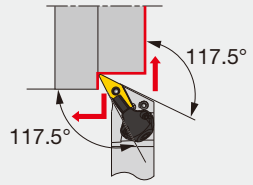
 Rhombic, 25° with hole

TUNGTJET URN

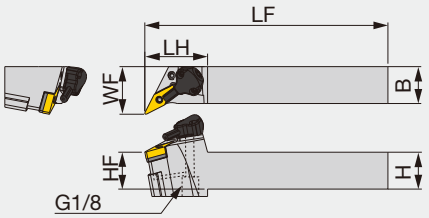
PVQNR/L-CHP

Tube connection

Lever lock toolholders – 117.5° approach angle.
For negative 35°/25° rhombic insert. High-pressure coolant capability.



Cutting edge style **Q**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE **	Insert	Torque
PVQNR/L123-CHP	0.750	0.750	4.500	1.688	0.750	1.250	0.031	VN**/YN** 33...	1.48
PVQNR/L163-CHP	1.000	1.000	6.000	1.688	1.000	1.250	0.031	VN**/YN** 33...	1.48

Metric	H	B	LF	LH	HF	WF	RE **	Insert	Torque*
PVQNR/L2020K16-CHP	20	20	125	42.5	20	32	0.8	VN**/YN**1604...	2
PVQNR/L2525M16-CHP	25	25	150	42.5	25	32	0.8	VN**/YN**1604...	2

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PVQNR/L**-CHP	LSV317	LCS3V	P-2.5	LSP3	LCL3V

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PVQNR/L**-CHP	CU-V-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting
Grade	NS9530	GT9530	T9215
Chipbreaker shape	TF	TSF	TM
Cutting conditions	B004		

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Chipbreaker shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Chipbreaker shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing
Grade	DX120
Chipbreaker shape	DIA with rake
Cutting conditions	B010

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Chipbreaker shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B014	

Reference pages:PVQNR/L-CHP: Inserts→ B098 -, CBN → B186 -, B188 -, PCD → B212
Parts for coolant hose → C133

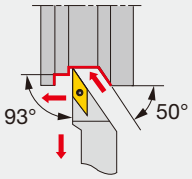
VC



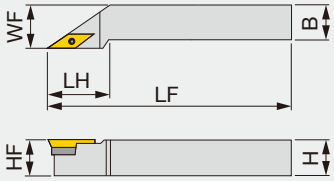
Rhombic, 35° with hole
Positive 7°

SVJCR/L

Screw-on toolholder with 93° approach angle, for positive 35° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert
SVJCR/L103	0.625	0.625	4.500	1.000	0.625	0.725	0.031	VC** 33...
SVJCR/L123	0.750	0.750	4.500	1.250	0.750	0.955	0.031	VC** 33...
SVJCR/L163	1.000	1.000	6.000	1.500	1.000	1.250	0.031	VC** 33...

Metric	H	B	LF	LH	HF	WF	RE**	Insert
SVJCR/L1616H16	16	16	100	32	16	20	0.8	VC**1604...
SVJCR/L2020K16	20	20	125	32	20	25	0.8	VC**1604...
SVJCR/L2525M16	25	25	150	40	25	32	0.8	VC**1604...

**RE: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Shim	Shim screw	Wrench 1	Wrench 2
SVJCR/L...	CSTB-3.5L	SSV32	DTS5-3.5	P-3.5	T-15F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting
Grade	NS9530	T9215
Chipbreaker shape	PSS	PS
Cutting conditions	B016	

M

Application	Finishing	Finishing to medium cutting
Grade	AH6225	AH6225
Chipbreaker shape	PSS	PS
Cutting conditions	B018	

K

Application	Finishing to medium cutting
Grade	T515
Chipbreaker shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	KS05F
Chipbreaker shape	DIA (with rake)	DIA	AL
Cutting conditions	B022		

S

Application	Finishing	Finishing to medium cutting
Grade	AH8015	AH8015
Chipbreaker shape	PSS	PS
Cutting conditions	B024	

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B026	

Reference pages: SVJCR/L: Inserts → B152 -, CBN → B209, PCD → B220

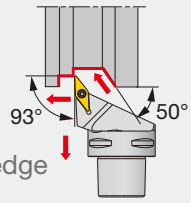
VC

Rhombic, 35° with hole
Positive 7°

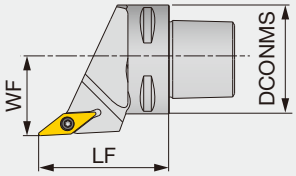
TUNGCAP

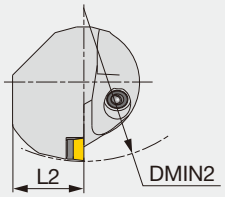
C-SVJCR/L

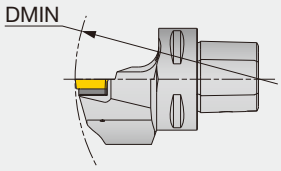
Screw-on toolholder, with 93° approach angle, for positive 35° rhombic inserts



Cutting edge style **J**







Right hand (R) shown.

Metric	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
C3SVJCR/L22040-11N(2)	32	40	20	22	-	-	0.4	VC**1103...
C5SVJCL35060-16(1)	50	60	32	35	-	-	0.8	VC**1604...
C5SVJCR/L35060-16N(2)	50	60	32	35	170	160	0.8	VC**1604...
C6SVJCR/L45065-16(1)	63	65	41	45	-	-	0.8	VC**1604...
C6SVJCR/L45065-16N(2)	63	65	41	45	170	190	0.8	VC**1604...

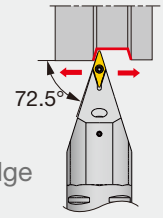
The items without DMIN and DMIN2 cannot be used for boring.
(1) Applicable for 3 MPa (435 PSI) coolant (2) Applicable for 7 MPa (1015 PSI) coolant

SPARE PARTS

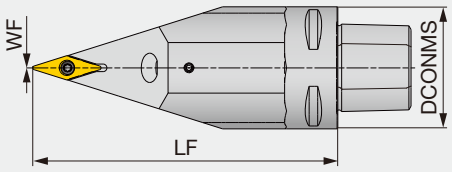
Designation	Clamping screw	Coolant parts	Shim	Shim screw	Wrench 1	Wrench 2
C3SVJC*22040-11N	CSTB-2.5	SATZ-M8X1-M3	-	-	-	T-8F
C5SVJC*35060-16	CSTB-3.5L	EZ104	SSV32	DTS5-3.5	P-3.5	T-15F
C5SVJC*35060-16N	CSTB-3.5L	SATZ-M10X1-M5	SSV32	DTS5-3.5	P-3.5	T-15F
C6SVJC*45065-16	CSTB-3.5L	EZ104	SSV32	DTS5-3.5	P-3.5	T-15F
C6SVJC*45065-16N	CSTB-3.5L	SATZ-M10X1-M5	SSV32	DTS5-3.5	P-3.5	T-15F

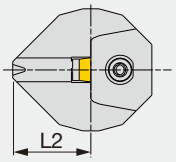
C-SVVCN

Screw-on toolholder, with 72.5° approach angle, for positive 35° rhombic inserts



Cutting edge style **V**





Metric	DCONMS	LF	L2	WF	RE	Insert
C5SVVCN00090-16(1)	50	90	32	0	0.8	VC**1604...
C5SVVCN00090-16N(2)	50	90	32	0	0.8	VC**1604...
C5SVVCN00125-16(1)	50	125	32	0	0.8	VC**1604...
C5SVVCN00125-16N(2)	50	125	32	0	0.8	VC**1604...
C6SVVCN00100-16N(2)	63	100	37.5	0	0.8	VC**1604...
C6SVVCN00140-16N(2)	63	140	37.5	0	0.8	VC**1604...

(1) Applicable for 3 MPa (435 PSI) coolant (2) Applicable for 7 MPa (1015 PSI) coolant

SPARE PARTS

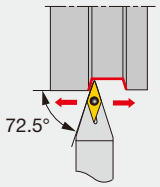
Designation	Clamping screw	Coolant parts	Shim	Shim screw	Wrench 1	Wrench 2
C5SVVCN00090-16	CSTB-3.5L	EZ104	SSV32	DTS5-3.5	P-3.5	T-15F
C5SVVCN00090-16N	CSTB-3.5L	SATZ-M10X1-M5	SSV32	DTS5-3.5	P-3.5	T-15F
C5SVVCN00125-16	CSTB-3.5L	EZ104	SSV32	DTS5-3.5	P-3.5	T-15F
C5SVVCN00125-16N	CSTB-3.5L	SATZ-M10X1-M5	SSV32	DTS5-3.5	P-3.5	T-15F
C6SVVCN00100-16N	CSTB-3.5L	SATZ-M10X1-M5	SSV32	DTS5-3.5	P-3.5	T-15F
C6SVVCN00140-16N	CSTB-3.5L	SATZ-M10X1-M5	SSV32	DTS5-3.5	P-3.5	T-15F

Reference pages: C-SVJCR/L, C-SVVCN: Inserts → B152 -, CBN → B209, PCD → B220

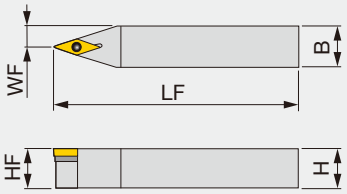
TUNGCAP

SVVCN

Screw-on toolholder with 72.5° approach angle, for positive 35° rhombic inserts



Cutting edge style **V**



Metric	H	B	LF	HF	WF	RE**	Insert
SVVCN2020K16	20	20	125	20	10	0.8	VC**1604...
SVVCN2525M16	25	25	150	25	12.5	0.8	VC**1604...

**RE: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Shim	Shim screw	Wrench 1	Wrench 2
SVVCN...	CSTB-3.5L	SSV32	DTS5-3.5	P-3.5	T-15F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting
Grade	NS9530	T9215
Chipbreaker shape	PSS	PS
Cutting conditions	B016	

M

Application	Finishing	Finishing to medium cutting
Grade	AH6225	AH6225
Chipbreaker shape	PSS	PS
Cutting conditions	B018	

K

Application	Finishing to medium cutting
Grade	T515
Chipbreaker shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	KS05F
Chipbreaker shape	DIA with rake	DIA	AL
Cutting conditions	B022		

S

Application	Finishing	Finishing to medium cutting
Grade	AH8015	AH8015
Chipbreaker shape	PSS	PS
Cutting conditions	B024	

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B026	

Reference pages: SVVCN: Inserts → B152 -, CBN → B209, PCD → B220

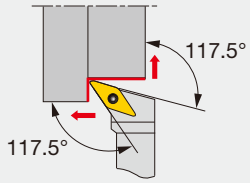
VC



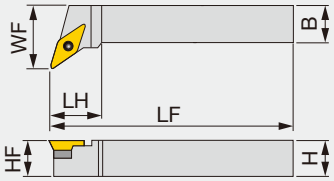
Rhombic, 35° with hole
Positive 7°

SVQCR/L

Screw-on toolholder with 117.5° approach angle, for positive 35° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert
SVQCR163	1.000	1.000	6.000	1.500	1.000	1.250	0.031	VC** 33...

Metric	H	B	LF	LH	HF	WF	RE**	Insert
SVQCR/L2020K16	20	20	125	35	20	27	0.8	VC**1604...
SVQCR/L2525M16	25	25	150	35	25	32	0.8	VC**1604...

**RE : Standard corner radius

SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SVQCR/L...	CSTB-3.5L	DTS5-3.5	SSV32	P-3.5	T-15F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting
Grade	NS9530	T9215
Chipbreaker shape	PSS	PS
Cutting conditions	B016	

M

Application	Finishing	Finishing to medium cutting
Grade	AH6225	AH6225
Chipbreaker shape	PSS	PS
Cutting conditions	B018	

K

Application	Finishing to medium cutting
Grade	T515
Chipbreaker shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	KS05F
Chipbreaker shape	DIA with rake	DIA	AL
Cutting conditions	B022		

S

Application	Finishing	Finishing to medium cutting
Grade	AH8015	AH8015
Chipbreaker shape	PSS	PS
Cutting conditions	B024	

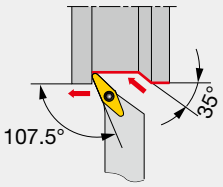
H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B026	

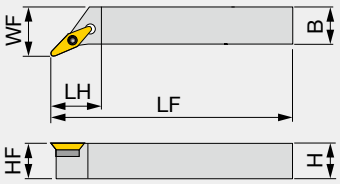
Reference pages: SVQCR/L: Inserts → B152 -, CBN → B209, PCD → B220

SVHCR/L

Screw-on toolholder with 107.5° approach angle, for positive 35° rhombic inserts



Cutting edge style **H**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert
SVHCR/L2525M22	25	25	150	33.8	25	32	0.8	VCG*2205...

**RE : Standard corner radius

SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SVHCR/L2525M22	CSTB-4.5L110P	DTS6-4.5	SSV42	P-4.5	T-15F

INSERT SELECTION

K

Application	Finishing to medium cutting
Grade	KS05F
Chipbreaker Shape	AL 
Cutting conditions	B020

N

Application	Finishing to medium cutting
Grade	KS05F
Chipbreaker Shape	AL 
Cutting conditions	B022

S

Application	Finishing to medium cutting
Grade	KS05F
Chipbreaker Shape	AL 
Cutting conditions	B024

Reference pages: SVHCR/L: Inserts → B153

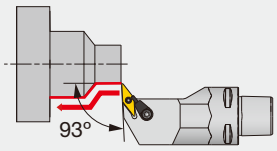
VC



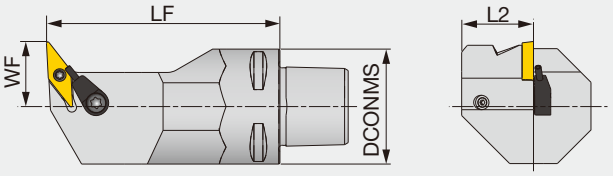
Rhombic, 35° with hole
Positive 7°

TUNGCAP
C-SVUCL-CHP

Screw-on toolholder, with 93° approach angle, for positive 35° rhombic inserts, with high pressure coolant capability



Cutting edge style **U**



Left hand (L) shown.

Metric	DCONMS	LF	L2	WF	RE	Insert
C3SVUCL18065-11-CHP	32	65	20	18	0.4	VC**1103...

Applicable for 14 MPa (2031 PSI) coolant
Cannot be used for boring

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
C3SVUCL18065-11-CHP	CSTB-2.5	S-CU-CHP	T-8F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting
Grade	NS9530	T9215
Chipbreaker shape	PSS	PS
Cutting conditions	B016	

M

Application	Finishing	Finishing to medium cutting
Grade	AH6225	AH6225
Chipbreaker shape	PSS	PS
Cutting conditions	B018	

K

Application	Finishing to medium cutting
Grade	T515
Chipbreaker shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	KS05F
Chipbreaker shape	DIA with rake	DIA	AL
Cutting conditions	B022		

S

Application	Finishing	Finishing to medium cutting
Grade	AH8015	AH8015
Chipbreaker shape	PSS	PS
Cutting conditions	B024	

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Chipbreaker shape	CBN	CBN
Cutting conditions	B026	

Reference pages: C-SVUCL-CHP: Inserts → B152
Parts for coolant hose → C133

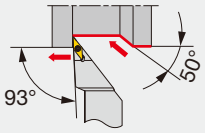
VX

Rhombic, 35° with hole

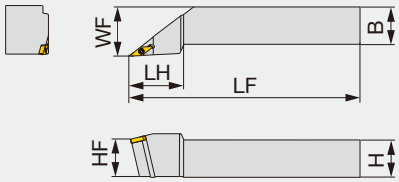
MINIFORCE TURN

JSVJXR/L

Screw-on toolholder with 93° approach angle, for VXGU inserts



Cutting edge style **J**



Right hand (R) shown.

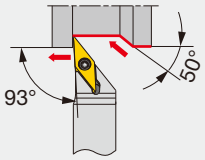
Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
JSVJXR/L127	0.750	0.750	4.500	1.500	0.750	1.000	0.008	VXGU 73.5**L/R...	0.66
JSVJXR/L167	1.000	1.000	6.000	1.500	1.000	1.250	0.008	VXGU 73.5**L/R...	0.66

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVJXR/L2020K09	20	20	125	35	20	25	0.4	VXGU09T2**L/R...	0.9
JSVJXR/L2525M09	25	25	150	35	25	32	0.4	VXGU09T2**L/R...	0.9

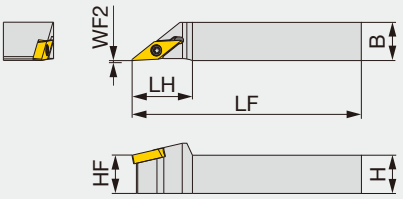
Torque: Recommended clamping torque: lbs·ft (*N·m) **RE: Standard corner radius
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

JSVJ2XR/L

Screw-on toolholder with 93° approach angle, for VXGU inserts



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF2	RE**	Insert	Torque
JSVJ2XR/L067	0.375	0.375	4.750	0.669	0.375	0	0.008	VXGU 73.5**L/R...	0.66
JSVJ2XR/L087	0.500	0.500	4.750	0.748	0.500	0	0.008	VXGU 73.5**L/R...	0.66
JSVJ2XR/L107	0.625	0.625	4.750	0.748	0.625	0	0.008	VXGU 73.5**L/R...	0.66

Metric	H	B	LF	LH	HF	WF2	RE**	Insert	Torque*
JSVJ2XR/L1010X09	10	10	120	17	10	0	0.2	VXGU09T2**L/R...	0.9
JSVJ2XR/L1212F09	12	12	85	19	12	0	0.2	VXGU09T2**L/R...	0.9
JSVJ2XR/L1212X09	12	12	120	19	12	0	0.2	VXGU09T2**L/R...	0.9
JSVJ2XR/L1616X09	16	16	120	19	16	0	0.2	VXGU09T2**L/R...	0.9
JSVJ2XR/L2020H09	20	20	100	19	20	0	0.2	VXGU09T2**L/R...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m) **RE: Standard corner radius
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS




Designation	Clamping screw	Wrench
JSVJXR/L... JSVJ2XR/L...	SR34-508	T-7F

INSERT SELECTION

P	Application	Finishing
	Grade	SH725
	Chipbreaker shape	JRP 
	Cutting conditions	C136

M	Application	Finishing
	Grade	SH725
	Chipbreaker shape	JRP 
	Cutting conditions	C136

Reference pages: JSVJXR/L, JSVJ2XR/L: Inserts→ B155
Standard cutting conditions → C136

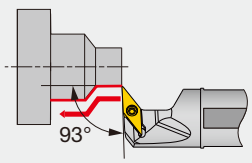
VX

Rhombic, 35° with hole

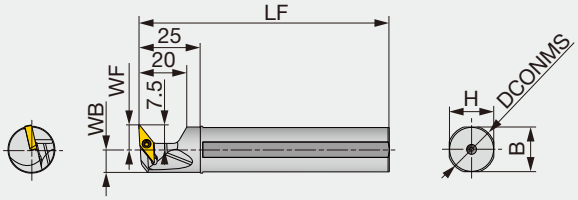
MINI FORCE TURN

JS-SVUXL

Screw-on round-shank toolholder with 93° approach angle, for VXGU inserts



Cutting edge style **U**



Left hand (L) shown.

Metric	DCONMS	WF	LF	H	B	WB	RE**	Insert	Torque
JS159F-SVUXL09	15.875	10	85	15	15	7.7	0.2	VXGU09T2**L...	0.9
JS16F-SVUXL09	16	10	85	15	15	7.7	0.2	VXGU09T2**L...	0.9
JS19G-SVUXL09	19.05	10	90	18	18	9.2	0.2	VXGU09T2**L...	0.9
JS19X-SVUXL09	19.05	10	120	18	18	9.2	0.2	VXGU09T2**L...	0.9
JS20G-SVUXL09	20	10	90	19	19	9.7	0.2	VXGU09T2**L...	0.9
JS20X-SVUXL09	20	10	120	19	19	9.7	0.2	VXGU09T2**L...	0.9
JS22X-SVUXL09	22	10	120	21	21	10.7	0.2	VXGU09T2**L...	0.9
JS25H-SVUXL09	25	10	100	24	24	12.2	0.2	VXGU09T2**L...	0.9
JS254X-SVUXL09	25.4	10	120	24	24	12.4	0.2	VXGU09T2**L...	0.9

Torque: Recommended clamping torque: N·m
**RE: Standard corner radius
Note: Use left-hand toolholders (L) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench
JS**-SVUXL09	SR34-508	T-7F

INSERT SELECTION

P

Application	Finishing
Grade	SH725
Chipbreaker shape	JRP 
Cutting conditions	C136

M

Application	Finishing
Grade	SH725
Chipbreaker shape	JRP 
Cutting conditions	C136

Reference pages: JS-SVUXL: Inserts → B155
Standard cutting conditions → C136

WN

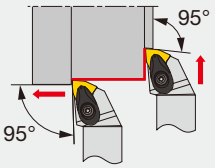


Trigon, 80° with hole

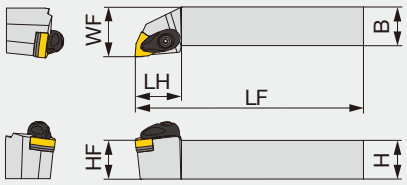
TURNINGA

AWLNR/L

Double-clamp toolholder with 95° approach angle, for negative 80° trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
AWLNR/L1233-A	0.750	0.750	4.500	1.125	0.750	1.000	0.031	WN** 33...	2.21
AWLNR/L123-A	0.750	0.750	4.500	1.125	0.750	1.000	0.031	WN** 33...	2.21
AWLNR/L124-A	0.750	0.750	4.500	1.250	0.750	1.000	0.031	WN** 43...	2.21
AWLNR/L1633-A	1.000	1.000	6.000	1.125	1.000	1.250	0.031	WN** 33...	2.21
AWLNR/L163-A	1.000	1.000	6.000	1.125	1.000	1.250	0.031	WN** 33...	2.21
AWLNR/L164-A	1.000	1.000	6.000	1.250	1.000	1.250	0.031	WN** 43...	2.21
AWLNR/L204-A	1.250	1.250	7.000	1.250	1.250	1.500	0.031	WN** 43...	2.21

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
AWLNR/L2020K0604-A	20	20	125	27	20	25	0.8	WN**0604...	3
AWLNR/L2020H08-A	20	20	100	30	20	25	0.8	WN**0804...	3
AWLNR/L2020K08-A	20	20	125	30	20	25	0.8	WN**0804...	3
AWLNR/L2525M0604-A	25	25	150	27	25	32	0.8	WN**0604...	3
AWLNR/L2525K08-A	25	25	125	30	25	32	0.8	WN**0804...	3
AWLNR/L2525M08-A	25	25	150	30	25	32	0.8	WN**0804...	3
AWLNR/L3225P08-A	32	25	170	30	32	32	0.8	WN**0804...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AWLNR/L**33-A, AWLNR/L**0604-A	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASW322	CSTB-3.5	T-15F
AWLNR/L**3-A	ACP3S	ACS-5W	BP-7	SP-2.5	ASW322	CSTB-3.5	T-15F
AWLNR/L**4-A, AWLNR/L**08-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASW422	CSTB-3.5	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Breaker Shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX480	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	CBN	CBN
Cutting conditions	B014	

Reference pages: AWLNR/L: Inserts → B102 -, CBN → B187
Parts for coolant hose → C133

WN

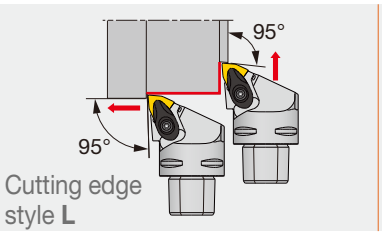


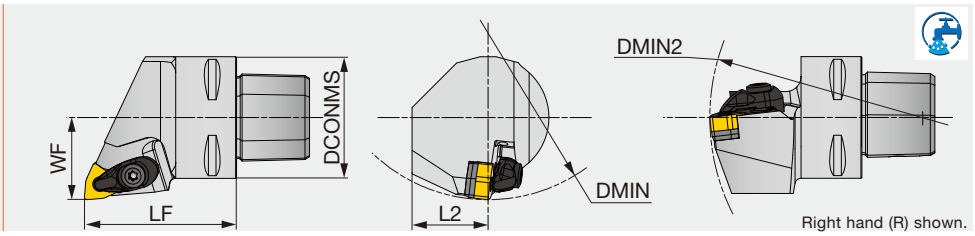
Trigon, 80°
with hole

TURNING

C-AWLNR/L

Double-clamp toolholder, with 95° approach angle, for negative 80° trigon inserts





Metric	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
C4AWLNR/L27050-0604N	40	50	25	27	140	110	0.8	WN**0604...
C4AWLNR/L27050-08N	40	50	25	27	-	-	0.8	WN**0804...
C6AWLNR/L45065-08N	63	65	35	45	190	110	0.8	WN**0804...

Applicable for 7 MPa (1015 PSI) coolant

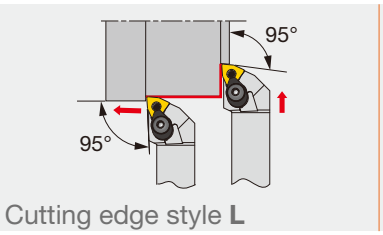
The items without DMIN and DMIN2 cannot be used for boring.

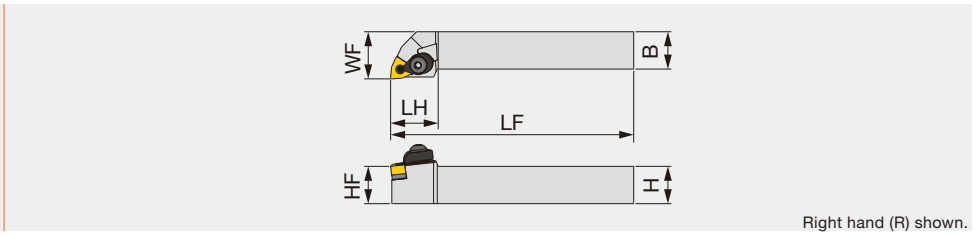
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench	Coolant parts
C4AWLNR/L**-0604N	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASW322	CSTB-3.5	T-15F	-
C4AWLNR/L**-08N	ACP4S	ACS-5W	BP-7	SP-2.5	ASW422	CSTB-3.5	T-15F	-
C6AWLNR/L**-08N	ACP4S	ACS-5W	BP-7	SP-2.5	ASW422	CSTB-3.5	T-15F	SATZ-M8X1-M3

DWLNR/L

One-Double toolholder with 95° approach angle, for negative 80° trigon inserts





Metric	H	B	LF	LH	HF	WF	RE**	Insert
DWLNR/L2020K06	20	20	125	25.5	20	25	0.8	WN**0604...
DWLNR/L2020K08	20	20	125	31	20	25	0.8	WN**0804...
DWLNR/L2525M06	25	25	150	26	25	32	0.8	WN**0604...
DWLNR/L2525M08	25	25	150	31	25	32	0.8	WN**0804...
DWLNR/L3225P08	32	25	170	30	32	32	0.8	WN**0804...

Note: Except for 57-type chipbreaker inserts
**RE: Standard corner radius

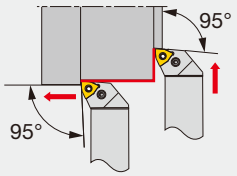
SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench1	Wrench2
DWLNR/L**06	DCPM-33	LCL33	DPIS33	DLCS33	LSW312	BP-9	LSP3	P-2.5	P-3
DWLNR/L**08	DCPM-43	DLCL43	DPIS43	DLCS43	LSW42	BP-10	LSP4	P-3	P-4

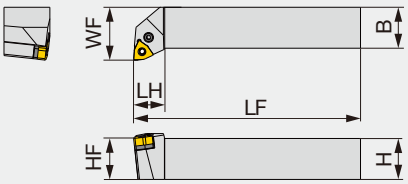
Reference pages: C-AWLNR/L, DWLNR/L: Inserts → B102 -, CBN → B187
Parts for coolant hose → C133

PWLNR/L-Eco

Lever-lock toolholder with 95° approach angle, for negative 80° trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PWLNR/L1233	0.750	0.750	4.500	0.625	0.750	1.000	0.031	WN** 33...	1.48
PWLNR/L1633	1.000	1.000	6.000	0.719	1.000	1.250	0.031	WN** 33...	1.48

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PWLNR/L2020K0604	20	20	125	15	20	25	0.8	WN**0604...	2
PWLNR/L2525M0604	25	25	150	19	25	32	0.8	WN**0604...	2

Torque: Recommended clamping torque: lbs·ft (*N·m) **RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PWLNR/L...	LSW312	LCS3	P-2.5	LSP3	LCL3

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Breaker Shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX480	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	CBN	CBN
Cutting conditions	B014	

Reference pages: PWLNR/L-Eco: Inserts → B102 -

WN

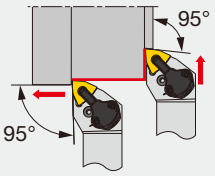


Trigon, 80° with hole

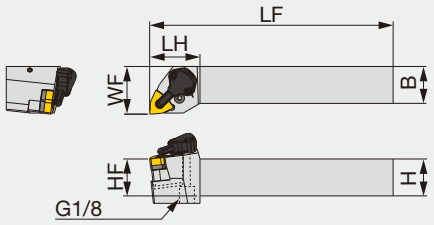
PWLNR/L-CHP

Tube connection

Lever lock toolholders – 95° approach angle.
For negative 80° trigon insert. High-pressure coolant capability.



Cutting edge style **L**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PWLNR/L1233-CHP	0.750	0.750	4.500	1.344	0.750	1.250	0.031	WN** 33...	1.48
PWLNR/L124-CHP	0.750	0.750	4.500	1.344	0.750	1.250	0.031	WN** 43...	2.22
PWLNR/L1633-CHP	1.000	1.000	6.000	1.344	1.000	1.250	0.031	WN** 33...	1.48
PWLNR/L164-CHP	1.000	1.000	6.000	1.344	1.000	1.250	0.031	WN** 43...	2.22

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PWLNR/L2020K0604-CHP	20	20	125	34	20	32	0.8	WN**0604...	2
PWLNR/L2020K08-CHP	20	20	125	34	20	32	0.8	WN**0804...	3
PWLNR/L2525M0604-CHP	25	25	150	34	25	32	0.8	WN**0604...	2
PWLNR/L2525M08-CHP	25	25	150	34	25	32	0.8	WN**0804...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PWLNR/L**33-CHP, PWLNR/L**0604-CHP	LSW312	LCS3	P-2.5	LSP3	LCL3
PWLNR/L**4-CHP, PWLNR/L**08-CHP	LSW42	LCS4	P-2.5	LSP4	LCL4

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PWLNR/L**33-CHP, PWLNR/L**0604-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2
PWLNR/L**4-CHP, PWLNR/L**08-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Breaker Shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX480	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

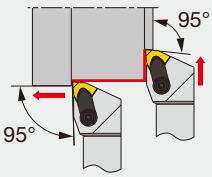
Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	CBN	CBN
Cutting conditions	B014	

Reference pages: PWLNR/L-CHP: Inserts → B102 -, CBN → B187
Parts for coolant hose → C133

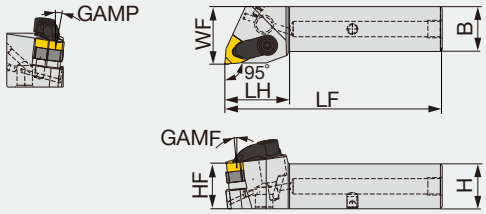
AWLNR/L-CHP-MC

Direct connection | Tube connection

Double clamping tool holders-95°approach angle
For negative 80°trigon insert. High-pressure coolant capability with tube and direct connections



Cutting edge style **L**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	GAMP	GAMF	Insert	Torque
AWLNR/L12-4-CHP-MC	0.750	0.75	4.173	1.417	0.750	1.000	6°	6°	WN** 43...	2.95
AWLNR/L16-4-CHP-MC	1.000	1.000	4.716	1.417	1.000	1.250	6°	6°	WN** 43...	2.95

Metric	H	B	LF	LH	HF	WF	GAMP	GAMF	Insert	Torque*
AWLNR/L2020X-08-CHP-MC	20	20	106	36	20	25	6°	6°	WN**0804...	4
AWLNR/L2525X-08-CHP-MC	25	25	121	36	25	32	6°	6°	WN**0804...	4

Torque: Recommended clamping torque: lbs·ft (*N·m)
Applicable for 14 MPa (2031 PSI) pressure coolant

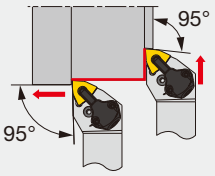
SPARE PARTS

Designation	Clamp set	Shim	Shim screw	Screw for tube connection	Coolant plug	O-ring	Wrench
AWLNL...	LCGL-4JCSET	RWT443	SR14-506	PLUGG1/8-6.5TL360	SRM5X5 DIN913TL360	OR4X3NBR70	KEYV-T20
AWLNR...	LCGR-4JCSET	RWT443	SR14-506	PLUGG1/8-6.5TL360	SRM5X5 DIN913TL360	OR4X3NBR70	KEYV-T20

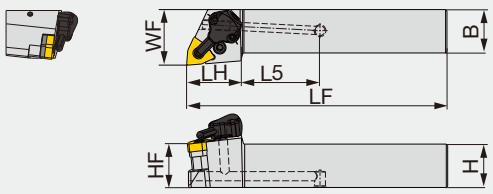
PWLNR/L2020X-CHP-MC

Direct connection

Lever lock toolholders – 95° approach angle.
For negative 80° trigon insert. High-pressure coolant capability with bottom direct connection



Cutting edge style **L**



Metric	H	B	LF	LH	HF	L5	WF	Insert	Torque
PWLNR/L2020X06-CHP-MC	20	20	97	27	20	29	25	WN**0604...	2
PWLNR/L2020X08-CHP-MC	20	20	97	27	20	29	25	WN**0804...	3

Torque: Recommended clamping torque: N·m
Applicable for 30 MPa (4351 PSI) pressure coolant

SPARE PARTS

Designation	Shim	Spring	Lever	Spring	Spring pin	Wrench	Coolant unit	Wrench	Coolant plug	Wrench
PWLNR/L2020X06-CHP-MC	TWN3	SP3	LR3	SR117-2014	PN3-4	HW2.5	CU-CW-CHP	T-8/5	SRM5X5 DIN913TL360	-
PWLNR/L2020X08-CHP-MC	TWN443	SP4	LR4DH	SR117-2010	PN3-4L	HW2.5	CU-CW-CHP	T-8/5	SRM5X5 DIN913TL360	HW3.0

Reference pages: AWLNR/L-CHP-MC, PWLNR/L2020X-CHP-MC:
Inserts → B102 -, CBN → B187, Parts for coolant hose → C133

WN

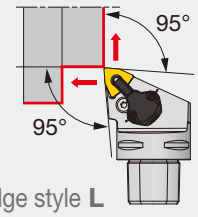


Trigon, 80°
with hole

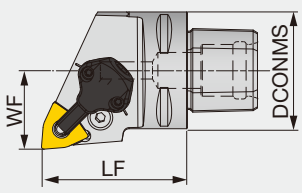
TUNGCAP

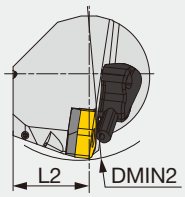
C-PWLNR/L-CHP

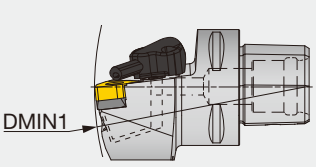
Lever lock toolholders with TungCap connection – 95° approach angle.
For negative 80° trigon insert. High-pressure coolant capability.



Cutting edge style **L**







Right hand (R) shown.

Metric	DCONMS	LF	L2	WF	DMIN1	DMIN2	RE**	Insert	Torque
C4PWLNR/L27050-0604-CHP	40	50	25	27	140	110	0.8	WN**0604...	2
C4PWLNR/L27050-08-CHP	40	50	25	27	140	110	0.8	WN**0804...	3
C6PWLNR/L45065-08-CHP	63	65	41	45	190	110	0.8	WN**0804...	3

Torque: Recommended clamping torque: N·m
Applicable for 14 MPa (2031 PSI) pressure coolant
**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C*PWLNR/L**0604-CHP	LSW312	LCS3	P-2.5	LSP3	LCL3
C*PWLNR/L**-08-CHP	LSW42BL	LCS4	P-3	LSP4	LCL4

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C*PWLNR/L**0604-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N
C*PWLNR/L**-08-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Breaker Shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX480	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

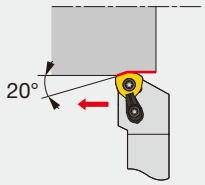
Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	CBN	CBN
Cutting conditions	B012	

Reference pages: C-PWLNR/L-CHP: Inserts → B102 -, CBN → B187
Parts for coolant hose → C133

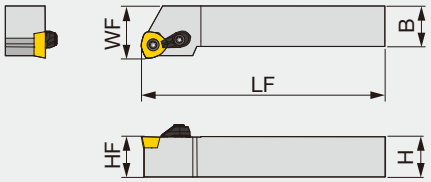
TURNFEED

XWXPR/L

Double-clamp toolholder for roughing with 20° approach angle, for positive 80° trigon inserts



Cutting edge style **X**



Right hand (R) shown.

Inch	H	B	LF	HF	WF	Insert
XWXPR/L16-09	1.000	1.000	6.000	1.000	1.250	WPMT090725ZPR/L-ML
XWXPR/L20-09	1.250	1.250	7.000	1.250	1.500	WPMT090725ZPR/L-ML
XWXPR/L24-09	1.500	1.500	7.000	1.500	2.000	WPMT090725ZPR/L-ML

Metric	H	B	LF	HF	WF	Insert
XWXPR/L2525M09	25	25	150	25	32	WPMT090725ZPR/L-ML
XWXPR/L3232P09	32	32	170	32	40	WPMT090725ZPR/L-ML
XWXPR/L4040S09	40	40	250	40	50	WPMT090725ZPR/L-ML

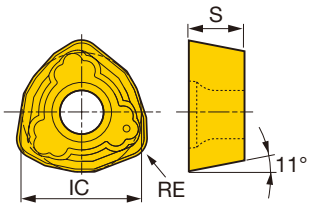
SPARE PARTS

Designation	Clamp set	Clamping screw	Wrench
XWXPR/L...	CSY-20	CSPB-5	IP-20T

Note: Each insert is either right- or left-handed. Please be sure not to use a wrong insert.

INSERT

WPMT09-ML



P	Steel	★	★	★
M	Stainless	☆		☆
K	Cast iron	☆	☆	☆
N	Non-ferrous			
S	Superalloys			
H	Hard materials			

★ : First choice
☆ : Second choice

Designation	RE (in)	Max. ap (in)	Coated T9215	Coated T9225	Coated AH120	IC (in)	S (in)
WPMT090725ZPR-ML	0.098	0.118	●	●	●	0.591	0.276
WPMT090725ZPL-ML	0.098	0.118	●	●	●	0.591	0.276

● : Line up

Reference pages: Standard cutting conditions → C137

WX

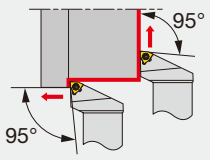


Trigon, 80° with hole

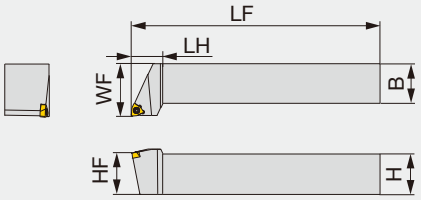
MINIFORCE TURN

JSWLXR/L

Screw-on toolholder with 95° approach angle, for negative 80° trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
JSWLXR/L122	0.750	0.750	4.500	0.625	0.750	1.000	0.008	WXGU 22**L/R...	0.66
JSWLXR/L162	1.000	1.000	6.000	0.750	1.000	1.250	0.008	WXGU 22**L/R...	0.66

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSWLXR/L2020K04	20	20	125	15	20	25	0.4	WXGU0403**L/R...	0.9
JSWLXR/L2525M04	25	25	150	19	25	32	0.4	WXGU0403**L/R...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS





Designation	Clamping screw	Wrench
JSWLXR/L...	SR34-514	T-7F

INSERT SELECTION

Swiss lathes

P

Application	Finishing	Medium cutting
Grade	SH725	AH725
Chipbreaker shape	JSS 	JTS 
Cutting conditions	C136	

M

Application	Finishing	Medium cutting
Grade	SH725	AH725
Chipbreaker shape	JSS 	JTS 
Cutting conditions	C136	

Small CNC lathes

P

Application	Finishing	Medium cutting
Grade	AH725	AH725
Chipbreaker shape	SS 	TS 
Cutting conditions	C136	

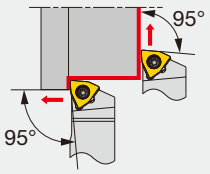
M

Application	Finishing	Medium cutting
Grade	AH8015	AH8015
Chipbreaker shape	SS 	TS 
Cutting conditions	C136	

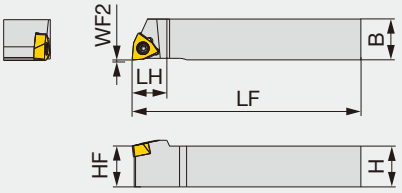
Reference pages: JSWLXR/L: Inserts → B157 -, CBN → B210
Standard cutting conditions → C136

JSWL2XR/L

Screw-on toolholder with 95° approach angle, for WXGU inserts



Cutting edge style **L2**



Without offset

Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF2	RE**	Insert	Torque
JSWL2XR/L062	0.375	0.375	4.750	0.500	0.375	0	0.008	WXGU 22**L/R...	0.66
JSWL2XR/L082	0.500	0.500	4.750	0.500	0.500	0	0.008	WXGU 22**L/R...	0.66
JSWL2XR/L102	0.625	0.625	4.750	0.500	0.625	0	0.008	WXGU 22**L/R...	0.66

Metric	H	B	LF	LH	HF	WF2	RE**	Insert	Torque*
JSWL2XR/L1010X04	10	10	120	11	10	0	0.2	WXGU0403**L/R...	0.9
JSWL2XR/L1212F04	12	12	85	11	12	0	0.2	WXGU0403**L/R...	0.9
JSWL2XR/L1212X04	12	12	120	11	12	0	0.2	WXGU0403**L/R...	0.9
JSWL2XR/L1616X04	16	16	120	13	16	0	0.2	WXGU0403**L/R...	0.9
JSWL2XR/L2020H04	20	20	100	13	20	0	0.2	WXGU0403**L/R...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
JSWL2XR/L...	SR34-514	T-7F

INSERT SELECTION

Swiss lathes

P

Application	Finishing	Medium cutting
Grade	SH725	AH725
Chipbreaker shape	JSS	JTS
Cutting conditions	C136	

M

Application	Finishing	Medium cutting
Grade	SH725	AH725
Chipbreaker shape	JSS	JTS
Cutting conditions	C136	

Small CNC lathes

P

Application	Finishing	Medium cutting
Grade	AH725	AH725
Chipbreaker shape	SS	TS
Cutting conditions	C136	

M

Application	Finishing	Medium cutting
Grade	AH8015	AH8015
Chipbreaker shape	SS	TS
Cutting conditions	C136	

Reference pages: JSWL2XR/L: Inserts → B157 - , CBN → B210
Standard cutting conditions → C136

YW

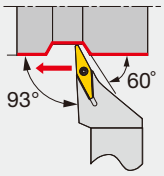


Rhombic, 25°
with hole
Positive 7°

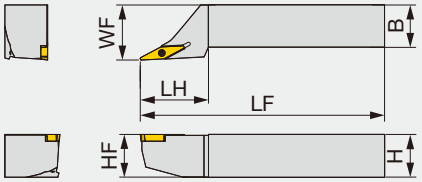
Y-PRO SERIES

SYJBR/L

Screw-on toolholder with 93° approach angle, for positive 25° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert
SYJBR/L123	0.750	0.750	4.500	1.350	0.750	1.000	0.031	YWMT16T3...
SYJBR/L163	1.000	1.000	6.000	1.500	1.000	1.250	0.031	YWMT16T3...

Metric	H	B	LF	LH	HF	WF	RE**	Insert
SYJBR/L2020K16	20	20	125	35	20	25	0.8	YWMT16T3...
SYJBR/L2525M16	25	25	150	40	25	32	0.8	YWMT16T3...

**RE: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench
SYJBR/L...	CSTB-2.5L080	T-8F

INSERT SELECTION

P

Application	Finishing to medium cutting
Grade	T9225
Breaker Shape	ZM 
Cutting conditions	B016

M

Application	Finishing to medium cutting
Grade	AH8015
Breaker Shape	ZM 
Cutting conditions	B018

K

Application	Finishing to medium cutting
Grade	GT9530
Breaker Shape	ZM 
Cutting conditions	B020

S

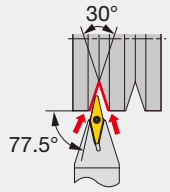
Application	Finishing to medium cutting
Grade	AH8015
Breaker Shape	ZM 
Cutting conditions	B024

C D F G H R S T V W Y OTHERS

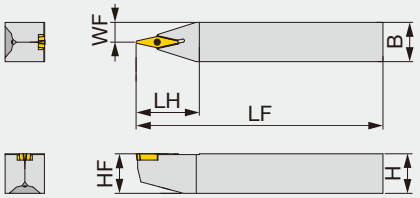
Reference pages: SYJBR/L: Inserts → B159

SYIBN

Screw-on toolholder with 77.5° approach angle, for positive 25° rhombic inserts



Cutting edge style **I**



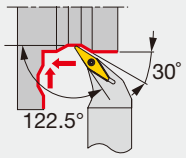
Inch	H	B	LF	LH	HF	WF	RE**	Insert
SYIBN123	0.750	0.750	4.500	1.250	0.750	0.375	0.031	YWMT16T3...
SYIBN163	1.000	1.000	6.000	1.500	1.000	0.500	0.031	YWMT16T3...

Metric	H	B	LF	LH	HF	WF	RE**	Insert
SYIBN2020K16	20	20	125	32	20	10	0.8	YWMT16T3...
SYIBN2525M16	25	25	150	40	25	12.5	0.8	YWMT16T3...

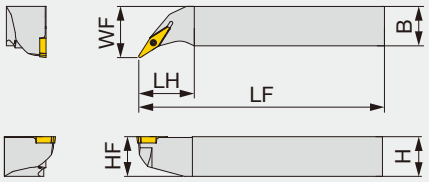
**RE : Standard corner radius

SYQBR/L

Screw-on toolholder with 122.5° approach angle, for positive 25° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert
SYQBR/L123	0.750	0.750	4.500	1.350	0.750	1.000	0.031	YWMT16T3...
SYQBR/L163	1.000	1.000	6.000	1.500	1.000	1.250	0.031	YWMT16T3...

Metric	H	B	LF	LH	HF	WF	RE**	Insert
SYQBR/L2020K16	20	20	125	35	20	27	0.8	YWMT16T3...
SYQBR/L2525M16	25	25	150	35	25	32	0.8	YWMT16T3...

**RE : Standard corner radius

SPARE PARTS




Designation	Clamping screw	Wrench
SYIBN..., SYQBR/L...	CSTB-2.5L080	T-8F

Reference pages: SYIBN, SYQBR/L: Inserts → B159

YW

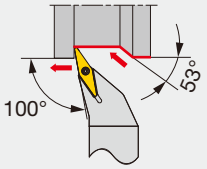


Rhombic, 25°
with hole
Positive 7°

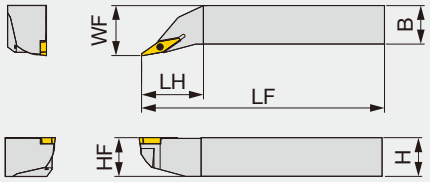
Y-PRO SERIES

SYHBR/L

Screw-on toolholder with 100° approach angle, for positive 25° rhombic inserts



Cutting edge style **H**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert
SYHBR/L123	0.750	0.750	4.500	1.350	0.750	1.000	0.031	YWMT16T3...
SYHBR/L163	1.000	1.000	6.000	1.500	1.000	1.250	0.031	YWMT16T3...

Metric	H	B	LF	LH	HF	WF	RE**	Insert
SYHBR/L2020K16	20	20	125	35	20	27	0.8	YWMT16T3...
SYHBR/L2525M16	25	25	150	40	25	32	0.8	YWMT16T3...

**RE : Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench
SYHBR/L...	CSTB-2.5L080	T-8F

INSERT SELECTION

P

Application	Finishing to medium cutting
Grade	T9225
Breaker Shape	ZM 
Cutting conditions	B016

M

Application	Finishing to medium cutting
Grade	AH8015
Breaker Shape	ZM 
Cutting conditions	B018

K

Application	Finishing to medium cutting
Grade	GT9530
Breaker Shape	ZM 
Cutting conditions	B020

S

Application	Finishing to medium cutting
Grade	AH8015
Breaker Shape	ZM 
Cutting conditions	B024

Reference pages: SYHBR/L: Inserts → B159

PARTS FOR COOLANT HOSE

Connecting hose

Fig. 1

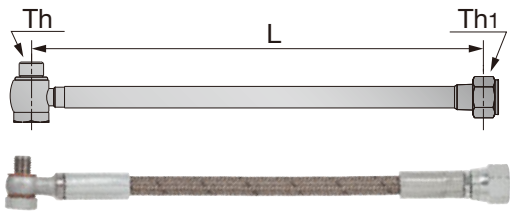
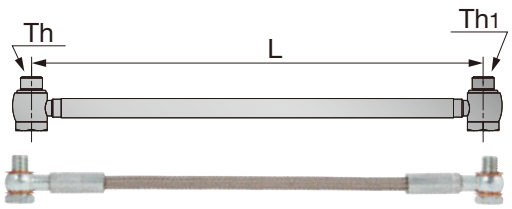
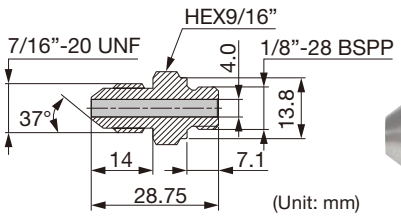


Fig. 2



Metric	L	Th	Th1	Max. pressure Mpa (PSI)	Fig.
CHP-HOSE-G1/8-7/16-200BS	200	G1/8"-28 BSPP	7/16"-20 UNF	26 (3771)	1
CHP-HOSE-G1/8-7/16-250BS	250	G1/8"-28 BSPP	7/16"-20 UNF	26 (3771)	1
CHP-HOSE-5/16-7/16-200BS	200	5/16"-24UNF	7/16"-20 UNF	20 (2901)	1
CHP-HOSE-5/16-G1/8-200BS	200	5/16"-24UNF	G1/8"-28 BSPP	20 (2901)	1
CHP-HOSE-G1/8-G1/8-200BB	200	G1/8"-28 BSPP	G1/8"-28 BSPP	26 (3771)	2
CHP-HOSE-G1/8-G1/8-250BB	250	G1/8"-28 BSPP	G1/8"-28 BSPP	26 (3771)	2

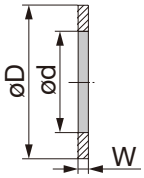
Connector





Metric
CHP-NIPPLE-G1/8-7/16UNF

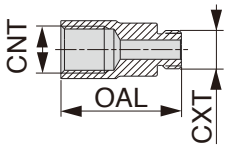
Seal washer





Metric	øD	ød	W
CHP-COPPER-SEAL1/8	15	10	1
CHP-COPPER-SEAL5/16	11.9	8.15	1.35
CHP-COPPER-SEAL5/16-2.5	9.4	8	2.5

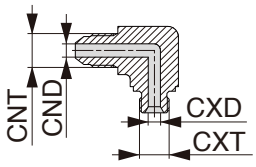
Connector for small lathe with seal washer





Metric	CNT	CXT	OAL
CHP-CONECTOR5/16-G1/8	G1/8"-28 BSPP	5/16"-24 UNF	25
CHP-CONNECTOR-G1/8-R1/8	G1/8"-28 BSPP	R1/8"-28 BSPT	25

Connector elbow





Metric	CNT	CND	CXT	CXD
CHP-ELBOW-90-G1/8-7/16UNF	7/16"-20 UNF	4.4	1/8"-28 BSPP	4
CHP-ELBOW-90-5/16-7/16UNF	7/16"-20 UNF	4.4	5/16"-24 UNF	4

STANDARD CUTTING CONDITIONS

ADDMULTI TURN

Double-sided 6-corner insert

ISO	Operation	Chipbreaker	Grade	Depth of cut: *ap* (in)		Feed: *f* (ipr)		Cutting speed
				Front turning	Back turning	Front turning	Back turning	*Vc* (sfm)
P	Finishing	TSF	T9215	0.008 - 0.059	0.008 - 0.059	0.003 - 0.016	0.008 - 0.047	492 - 1312
		TSF	T9225	0.008 - 0.059	0.008 - 0.059	0.003 - 0.016	0.008 - 0.047	262 - 984
	Medium to heavy cutting	TM	T9215	0.02 - 0.098	0.02 - 0.098	0.008 - 0.024	0.016 - 0.047	492 - 1312
		TM	T9225	0.02 - 0.098	0.02 - 0.098	0.008 - 0.024	0.016 - 0.047	262 - 984
M	Finishing	TSF	T9215	0.008 - 0.059	0.008 - 0.059	0.003 - 0.016	0.008 - 0.047	328 - 820
		TSF	AH8015	0.008 - 0.059	0.008 - 0.059	0.003 - 0.016	0.008 - 0.047	295 - 623
	Medium to heavy cutting	TM	T9215	0.02 - 0.098	0.02 - 0.098	0.008 - 0.024	0.016 - 0.047	328 - 820
		TM	AH8015	0.02 - 0.098	0.02 - 0.098	0.008 - 0.024	0.016 - 0.047	295 - 623
K	Finishing	TSF	T9215	0.008 - 0.059	0.008 - 0.059	0.003 - 0.016	0.008 - 0.047	459 - 1640
	Medium to heavy cutting	TM	T9215	0.02 - 0.098	0.02 - 0.098	0.008 - 0.024	0.016 - 0.047	459 - 1640
S	Finishing	TSF	AH8015	0.008 - 0.059	0.008 - 0.059	0.003 - 0.016	0.008 - 0.047	66 - 262
	Medium to heavy cutting	TM	AH8015	0.02 - 0.098	0.02 - 0.098	0.008 - 0.024	0.016 - 0.047	66 - 262

Single-sided 3-corner insert

ISO	Operation	Chipbreaker	Grade	Depth of cut: *ap* (in)		Feed: *f* (ipr)		Cutting speed
				Front turning	Back turning	Front turning	Back turning	*Vc* (sfm)
P	Medium to heavy cutting	TM	T9215	0.02 - 0.157	0.02 - 0.079	0.008 - 0.024	0.016 - 0.079	492 - 1312
M	Medium to heavy cutting	TM	T9215	0.02 - 0.157	0.02 - 0.079	0.008 - 0.024	0.016 - 0.079	328 - 820
K	Medium to heavy cutting	TM	T9215	0.02 - 0.157	0.02 - 0.079	0.008 - 0.024	0.016 - 0.079	459 - 1640

ADDY AXIS TURN

ISO	Operation	Chipbreaker	Grade	Cutting speed
				Vc (sfm)
P	Finishing	ZF	T9215	492 - 1312
	Medium to heavy cutting	TM	T9215	492 - 1312
M	Finishing	ZF	T9215	328 - 820
	Medium to heavy cutting	TM	T9215	328 - 820
K	Finishing	ZF	T9215	459 - 1640
	Medium to heavy cutting	TM	T9215	459 - 1640

Reference pages: C6SDNCN-Y-CHP → C056, STXCR/L-CHP-MC → C100
C6STECN-Y-CHP → C101, ATXOR/L → C102

STANDARD CUTTING CONDITIONS

TURN TEN FEED

For HD holder
(High Depth of Cut)

ISO	Insert Designation		Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm)	
	Inch	Metric			T9215	T9225
P	POMG 543 MNW	POMG110612-MNW	0.031 - 0.217	0.016 - 0.047	492 - 1312	394 - 984
	POMG 643 MNW	POMG130612-MNW	0.039 - 0.276	0.016 - 0.051	492 - 1312	394 - 984

ISO	Insert Designation		Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm)
	Inch	Metric			AH8015
M	POMG 543 MNW	POMG110612-MNW	0.031 - 0.217	0.016 - 0.047	164 - 492
	POMG 643 MNW	POMG130612-MNW	0.039 - 0.276	0.016 - 0.051	164 - 492
S	POMG 543 MNW	POMG110612-MNW	0.031 - 0.217	0.016 - 0.047	66 - 262
	POMG 643 MNW	POMG130612-MNW	0.039 - 0.276	0.016 - 0.051	66 - 262

For HF holder
(High Feed)

ISO	Insert Designation		Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm)	
	Inch	Metric			T9215	T9225
P	POMG 543 MNW	POMG110612-MNW	0.039 - 0.098	0.020 - 0.059	492 - 1312	394 - 984
	POMG 643 MNW	POMG130612-MNW	0.039 - 0.118	0.020 - 0.079	492 - 1312	394 - 984

ISO	Insert Designation		Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm)
	Inch	Metric			AH8015
M	POMG 543 MNW	POMG110612-MNW	0.039 - 0.098	0.020 - 0.059	164 - 492
	POMG 643 MNW	POMG130612-MNW	0.039 - 0.118	0.020 - 0.079	164 - 492
S	POMG 543 MNW	POMG110612-MNW	0.039 - 0.098	0.020 - 0.059	66 - 262
	POMG 643 MNW	POMG130612-MNW	0.039 - 0.118	0.020 - 0.079	66 - 262

Reference pages: PPXOR/L-HD → C063

STANDARD CUTTING CONDITIONS

MINIFORCE TURN

Applications	ISO	Workpiece material	Priority	Chipbreaker	Grade	Cutting speed *Vc* (sfm)	Depth of cut *ap* (in)	Feed *f* (ipr)
Swiss lathes	P	Low carbon steels , Carbon steels 1045, etc. Low alloy steels, Alloy steels 4140, etc.	First choice	JS	SH725	164 - 590	0.004 - 0.118	0.001 - 0.004
			Sharpness	JSS	SH725	164 - 590	0.004 - 0.059	0.001 - 0.004
	M	Stainless steels (Austenitic) 304, etc. Stainless steels (Martensitic and ferritic) 430, etc. Stainless steels (Precipitation hardened) 174, etc.	First choice	JS	SH725	164 - 590	0.004 - 0.049	0.001 - 0.004
			Sharpness	JSS	SH725	164 - 590	0.004 - 0.059	0.001 - 0.004
Small CNC lathes	P	Low carbon steels, Carbon steels 1045, etc. Low alloy steels, Alloy steels 4140, etc.	First choice	SS	AH725	164 - 590	0.006 - 0.059	0.002 - 0.008
				TS	AH725	164 - 590	0.012 - 0.079	0.003 - 0.012
			Surface quality	SS	NS9530	164 - 656	0.006 - 0.059	0.002 - 0.008
				TS	NS9530	164 - 656	0.012 - 0.079	0.003 - 0.012
			Wear resistance	SS	GT9530	164 - 820	0.006 - 0.059	0.002 - 0.008
				TS	GT9530	164 - 820	0.012 - 0.079	0.003 - 0.012
	M	Stainless steels (Austenitic) 304, etc. Stainless steels (Martensitic and ferritic) 430, etc. Stainless steels (Precipitation hardened) 174, etc.	First choice	SS	AH725	164 - 492	0.006 - 0.059	0.002 - 0.008
			Fracture resistance	TS	AH725	164 - 492	0.012 - 0.079	0.003 - 0.012

DIMPLEFX

ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Depth of cut *ap* (in)	Feed *f* (ipr)
K	Gray cast irons	FX105	2300 (1000 - 3300)	0.040 (0.002 - 0.120)	0.012 (0.002 - 0.024)
	Ductile cast irons	FX105	650 (330 - 1000)	0.040 (0.002 - 0.120)	0.008 (0.002 - 0.016)

TS200 & TS300

ISO	Workpiece materials	Grades	Cutting speed *Vc* (sfm)	Feed *f* (ipr)	Depth of cut *ap* (in)
S	Ni-based super alloys	TS200	656 - 1148	0.004 - 0.016	0.004 - 0.079
		TS300	492 - 820	0.004 - 0.008	0.004 - 0.079
	Co-based super alloys	TS200	656 - 1148	0.004 - 0.016	0.004 - 0.079
		TS300	492 - 820	0.004 - 0.008	0.004 - 0.079

Reference pages: CCLNR/L-RD → C027, TCLNR/L-F → C028, CDJNR/L-RD → C042
CDNNN-RD → C044, JSVJXR/L, JSVJ2XR/L → C047,
JSDJXR/L, JSDJ2XR/L → C057, JS-SDUXL, JS-SVUXL → C058
CHSNR/L → C059, TRGNR/L-F → C067, TRDCN → C075,
CSSNR/L → C081, TSKNR/L-F → C084, CVVNN-RD → C119
JSWLXR/L, JSWL2XR/L → C128

STANDARD CUTTING CONDITIONS

TURNTEC

*Values in red are for facing.

LNMX1204

ISO	Workpiece material	Chip breaker	Grade	Cutting speed *Vc* (sfm)	Depth of cut: *ap* (in)		Feed: *f* (ipr)	
					RE : 0.031	RE : 0.047	RE : 0.031	RE : 0.047
P	Steels 1045, 4130, etc.	TDR	T9115	390 - 820	0.020 - 0.195 0.020 - 0.086	0.031 - 0.195 0.031 - 0.086	0.006 - 0.024	0.010 - 0.031
		TDR	T9125	260 - 590	0.020 - 0.195 0.020 - 0.086	0.031 - 0.195 0.031 - 0.086	0.006 - 0.024	0.010 - 0.031
M	Stainless steels 304, 316, etc.	TDR	T9115	330 - 590	0.020 - 0.195 0.020 - 0.086	0.031 - 0.195 0.031 - 0.086	0.006 - 0.024	0.010 - 0.031
		TDR	T9125	260 - 590	0.020 - 0.195 0.020 - 0.086	0.031 - 0.195 0.031 - 0.086	0.006 - 0.024	0.010 - 0.031

LNMX1606

ISO	Workpiece material	Chip breaker	Grade	Cutting speed *Vc* (sfm)	Depth of cut: *ap* (in)			Feed: *f* (ipr)		
					RE : 0.031	RE : 0.047	RE : 0.063	RE : 0.031	RE : 0.047	RE : 0.063
P	Steels 1045, 4130, etc.	TDR	T9115	390 - 820	0.020 - 0.197 0.020 - 0.126	0.031 - 0.236 0.031 - 0.126	0.039 - 0.315 0.039 - 0.126	0.006 - 0.024	0.010 - 0.031	0.012 - 0.039
		TDR	T9125	260 - 590	0.020 - 0.197 0.020 - 0.126	0.031 - 0.236 0.031 - 0.126	0.039 - 0.315 0.039 - 0.126	0.006 - 0.024	0.010 - 0.031	0.012 - 0.039
		TWR	T9115	390 - 820	0.020 - 0.197 0.020 - 0.126	0.031 - 0.236 0.031 - 0.126	-	0.006 - 0.024	0.010 - 0.031	-
		TWR	T9125	260 - 590	0.020 - 0.197 0.020 - 0.126	0.031 - 0.236 0.031 - 0.126	-	0.006 - 0.024	0.010 - 0.031	-
M	Stainless steels 304, 316, etc.	TDR	T9115	330 - 590	0.020 - 0.197 0.020 - 0.126	0.031 - 0.236 0.031 - 0.126	0.039 - 0.315 0.039 - 0.126	0.006 - 0.024	0.010 - 0.031	0.012 - 0.039
		TDR	T9125	260 - 590	0.020 - 0.197 0.020 - 0.126	0.031 - 0.236 0.031 - 0.126	0.039 - 0.315 0.039 - 0.126	0.006 - 0.024	0.010 - 0.031	0.012 - 0.039
		MDR	T9115	330 - 490	0.059 - 0.236 0.020 - 0.126	0.059 - 0.276 0.031 - 0.126	-	0.004 - 0.020	0.006 - 0.028	-
		MDR	AH725	160 - 490	0.059 - 0.236 0.020 - 0.126	0.059 - 0.276 0.031 - 0.126	-	0.004 - 0.020	0.006 - 0.028	-
		TWR	T9115	330 - 590	0.020 - 0.197 0.020 - 0.126	0.031 - 0.236 0.031 - 0.126	-	0.006 - 0.024	0.010 - 0.031	-
		TWR	T9125	260 - 590	0.020 - 0.197 0.020 - 0.126	0.031 - 0.236 0.031 - 0.126	-	0.006 - 0.024	0.010 - 0.031	-

LNMX2410

ISO	Workpiece material	Chip breaker	Grade	Cutting speed *Vc* (sfm)	Depth of cut: *ap* (in)		Feed: *f* (ipr)	
					RE : 0.063	RE : 0.094	RE : 0.063	RE : 0.094
P	Steels 1045, 4130, etc.	TDR	T9115	390 - 820	0.156 - 0.585 0.039 - 0.176	0.195 - 0.585 0.039 - 0.176	0.012 - 0.039	0.012 - 0.043
		TDR	T9125	260 - 490	0.156 - 0.585 0.039 - 0.176	0.195 - 0.585 0.039 - 0.176	0.012 - 0.039	0.012 - 0.043
M	Stainless steels 304, 316, etc.	TDR	T9115	330 - 590	0.156 - 0.585 0.039 - 0.176	0.195 - 0.585 0.039 - 0.176	0.012 - 0.039	0.012 - 0.043
		TDR	T9125	260 - 490	0.156 - 0.585 0.039 - 0.176	0.195 - 0.585 0.039 - 0.176	0.012 - 0.039	0.012 - 0.043

TURNFEED

ISO	Workpiece material	Grade	Chipbreaker	Cutting speed *Vc* (sfm)	Depth of cut *ap* (in)	Feed *f* (ipr)
P	Mild and low carbon steels 400SS, 1025, etc. < 180 HB	T9225	ML	330 - 990	0.025 - 0.100	0.025 - 0.100
	Carbon and alloy steels 1049, 4142, etc. < 300HB	T9215	ML	390 - 1150	0.025 - 0.100	0.025 - 0.100
M	Stainless steels 304, 316, etc. < 250 HB	T9225	ML	330 - 990	0.025 - 0.100	0.025 - 0.100
K	Gray and ductile cast irons No35B, 60-40-18, etc.	AH120	ML	330 - 820	0.025 - 0.100	0.025 - 0.100

When the side cutting edge is used for facing, the maximum feed is limited to within 0.040 ipr.

Reference pages: TLANR/L → C060, TLFNR/L, TLBNR/L → C061
XWXPR/L → C127

STANDARD CUTTING CONDITIONS

Y-PRO SERIES

For negative insert

ISO	Operation	Chipbreaker	Grades	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm)		
						Low carbon steels, alloy steels	Medium carbon steels, alloy steels	High carbon steels, alloy steels
P	Finishing	ZF	GT9530	0.008 - 0.059	0.001 - 0.008	490 - 980	490 - 980	490 - 980
			NS9530	0.008 - 0.059	0.001 - 0.008	490 - 980	490 - 980	490 - 984
			T9225	0.008 - 0.059	0.001 - 0.008	390 - 980	390 - 980	330 - 820
			T9235	0.008 - 0.059	0.001 - 0.008	164 - 660	164 - 660	164 - 490
	Finishing to medium	ZM	GT9530	0.028 - 0.079	0.006 - 0.016	490 - 980	490 - 980	490 - 980
			NS9530	0.028 - 0.079	0.006 - 0.016	490 - 980	490 - 980	490 - 980
			T9225	0.028 - 0.079	0.006 - 0.016	390 - 980	390 - 980	330 - 820
			T9235	0.028 - 0.079	0.006 - 0.016	164 - 660	164 - 660	164 - 490
							Stainless steels	
M	Finishing	ZF	AH8015	0.008 - 0.059	0.001 - 0.008	164 - 490	164 - 490	164 - 490
	Finishing to medium	ZM	AH8015	0.028 - 0.079	0.006 - 0.016	164 - 490	164 - 490	164 - 490
							Cast iron	
K	Finishing	ZF	T9225	0.008 - 0.059	0.001 - 0.008	460 - 1640	460 - 1640	460 - 1640
	Finishing to medium	ZM	T9225	0.028 - 0.079	0.006 - 0.016	460 - 1640	460 - 1640	460 - 1640
							Heat-resistant alloys	
S	Finishing	ZF	AH8015	0.008 - 0.059	0.001 - 0.008	66 - 260	66 - 260	66 - 260
	Finishing to medium	ZM	AH8015	0.028 - 0.079	0.006 - 0.016	66 - 260	66 - 260	66 - 260

For positive insert

ISO	Operation	Chipbreaker	Grades	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm)		
						Low carbon steels, alloy steels	Medium carbon steels, alloy steels	High carbon steels, alloy steels
P	Finishing to medium	ZF	GT9530	0.008 - 0.059	0.002 - 0.010	490 - 980	490 - 980	490 - 980
			T9225	0.008 - 0.059	0.002 - 0.010	330 - 980	260 - 980	260 - 820
		ZM	GT9530	0.020 - 0.079	0.002 - 0.012	490 - 980	490 - 980	490 - 980
			T9225	0.020 - 0.079	0.002 - 0.012	330 - 980	260 - 980	260 - 820
							Stainless steels	
M	Finishing to medium	ZF	AH8015	0.008 - 0.059	0.002 - 0.010	164 - 490	164 - 490	164 - 490
		ZM	AH8015	0.020 - 0.079	0.002 - 0.012	164 - 490	164 - 490	164 - 490
							Cast iron	
K	Finishing to medium	ZF	T9225	0.008 - 0.059	0.002 - 0.010	460 - 1640	460 - 1640	460 - 1640
		ZM	T9225	0.020 - 0.079	0.002 - 0.012	460 - 1640	460 - 1640	460 - 1640
							Heat-resistant alloys	
S	Finishing to medium	ZF	AH8015	0.008 - 0.059	0.002 - 0.010	66 - 260	66 - 260	66 - 260
		ZM	AH8015	0.020 - 0.079	0.002 - 0.012	66 - 260	66 - 260	66 - 260

FIXRTURN

ISO	Workpiece material	Chipbreaker	Grade	Cutting Speed *Vc* (sfm)	Depth of cut *ap* (in)	Feed *f* (ipr)
P	Steels 1045, etc.	6RS	T9215	394 - 1148	0.020 - 0.079	0.020 - 0.039
		6RS	T9225	328 - 984	0.020 - 0.079	0.020 - 0.039
		6RS	NS9530	492 - 820	0.020 - 0.079	0.020 - 0.039
		6RM	T9215	394 - 1148	0.039 - 0.118	0.020 - 0.039
		6RM	T9225	328 - 984	0.039 - 0.118	0.020 - 0.039
		6RM	NS9530	492 - 820	0.039 - 0.118	0.020 - 0.039

Reference pages: SRGCR/L-6F→ C070, SRDCN-6F→ C074, SVHCR/L→ C117
SYJBR/L → C130, SYIB, SYQBR/L→ C131

Internal Toolholder



Internal Toolholder - Content structure

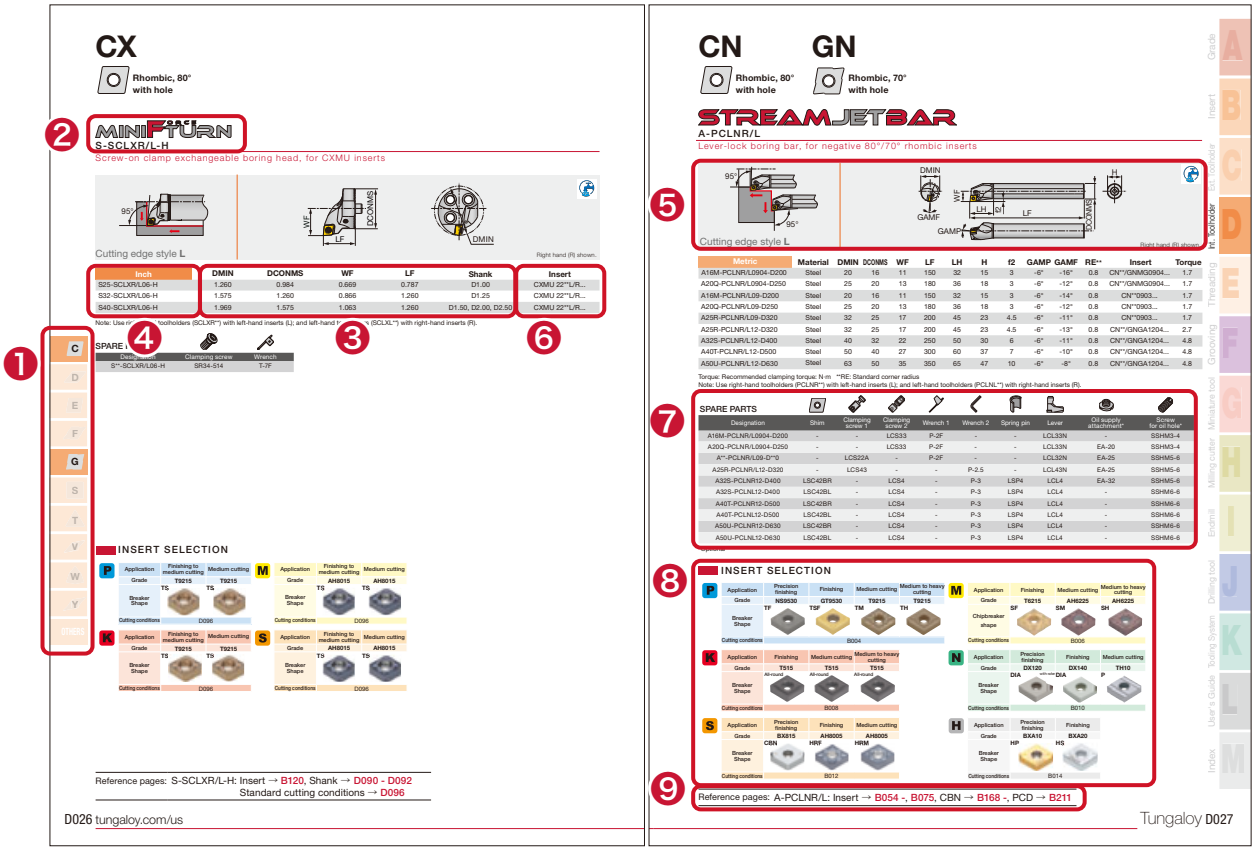
- Indexable toolholders are listed by insert shape.
- Toolholders in the catalog are our standard items.

How to use the page

Method ① Select the insert shape described at the left end of each page, jump to the page on the left index, and choose a designation you need (❹) in the dimension table (❸). Applicable inserts are shown in (❻) and (❽).

Method ② Select the series name of a toolholder on D003 and check the details on each page.

Method ③ Select an item from Quick Guide on D004 - D013.



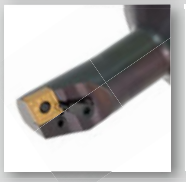
❶ : Insert shape
❷ : Series name of indexable boring bars
❸ : Dimension table
❹ : Toolholder designation
e.g. To select right-handed steel shank with minimum machining diameter ø0.750"

→ **A12-SCLC**R**3-**D16

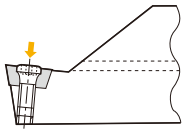
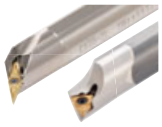
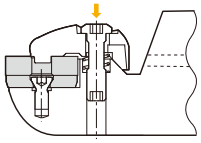
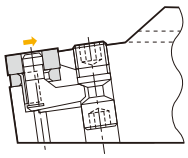
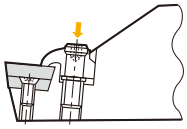
❺ : Dimension drawing (conforming to ISO13399)
❻ : Applicable insert
❼ : Spare parts
❽ : Insert selection
❾ : Reference pages

When ordering
- Please specify the designation and quantity.
e.g. **A12-SCLCR/L3-D16 ...** 1 (one boring bar per package)
* Inserts are not included. Please order those separately.

Main products

		Inch	Metric
	**BOREMEISTER** Boring head suitable for L/D=10 Shank **ø0.625" - ø2.500"** D014	✓	
	**MINIFORCE TURN** Economical double-sided inserts with excellent sharpness Shank **ø0.375" - ø1.000", ø10 - 20 mm** D017	✓	✓
	**ISOECO TURN** Small-sized “Eco” insert series for maximized profits Shank **ø1.000" - ø1.250", ø16 - 32 mm** D030 -, D045 - D064 -, D077 D085	✓	✓
	**STREAMJETBAR** Highly rigid toolholders providing good chip evacuation Shank **ø0.313" - ø1.250", ø4 - 50 mm** D015	✓	✓
	**Y-PRO SERIES** Inserts with 25° corner angle for profiling Shank **ø0.500" - ø0.625", ø12 - 16 mm** D088, D089	✓	✓
	**TURNINGA** Highly rigid clamping system with excellent repeatability Shank **ø1.000" - ø2.000", ø25 - 50 mm** D031, D045, D055, D065, D078, D085	✓	✓
	**TUNGTURN JET** Toolholders for high pressure coolant supply D028, D044	✓	✓
	**TUNGBORE MINI** Multifunctional tool for drilling, external turning and internal turning Shank **ø8 - 12 mm** D016	✓	✓
	Sleeve D093 -	✓	✓

Internal Toolholder - Quick Guide

Screw-on	Double clamping	Lever-lock	Clamp-on
  STREAMJETBAR MINIFTURN	  TURNINGA	  ISOETURN	 
• Simple clamping mechanism. • Smart shape without overhang area. • Minimum bore diameter: 0.250", ø4.5 mm. • Good cutting action by using positive inserts. • Carbide shanks that have excellent resistance to chatter. • "Tsuppari-Ichiban" shanks (reinforced with carbide plates) are also stocked.	• Increased clamping rigidity contributes to superior cutting edge positioning accuracy & longer tool life. • Enlarged insert holding area of the clamp allows more accurate cutting edge positioning. It delivers high performance even when using VNMG type (35° corner angle) inserts, which tend to destabilize cutting edge positioning. • Simple structure keeps cost low. Easy clamping with only one wrench.	• Negative rake, lever-lock type, round shank boring bars. • The insert is positively held into a two wall pocket, excelling in indexing accuracy. • Minimum bore diameter: 1.250", ø20 mm. • "Tsuppari-Ichiban" shanks that are reinforced with carbide plates are also stocked.	• Clamp-on type insert locking mechanism assures secure holding & accurate indexing. • For inserts without a hole, it provides stronger cutting edge strength than S-type tools & can withstand heavier cutting conditions. • Minimum bore diameter: ø16 mm

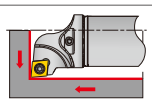
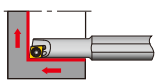
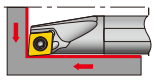
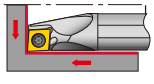
Tool selection according to the ratio of length to tool diameter (L/D) for different shank materials

Steel shank	Carbide reinforced	Carbide shank	BoreMeister
L/D ≤ 3	L/D ≤ 4	L/D ≤ 5	L/D ≤ 10

For custom tooling inquiries, contact Tungaloy

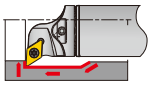
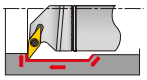
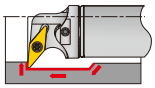
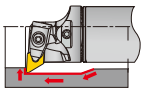
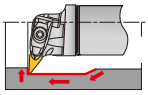
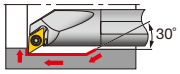
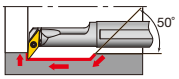
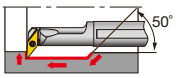
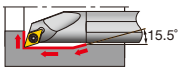
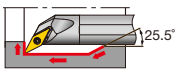
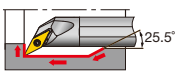
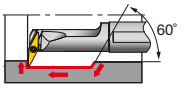
Positive type

Inch

Application	Style	Designation	Insert	Material	Through coolant	ISO Insert	BOREMEISTER	STREAMJETBAR	Min. bore diameter DMIN (in) 0 0.375 0.750 1.125 1.500 2.000	Page
Boring & internal facing		**S-SCLCR/L-H**	CC...	Steel Carbide	○	✓	✓		ø0.787" ø1.969"	D021
		**SEXPR/L**	EP...	Steel Carbide	○	✓		✓	ø0.250" ø0.250"	D048
		**SCLCR/L**	CC...	Steel Carbide	○	✓		✓	ø0.500" ø1.250" ø0.500" ø1.250"	D018
		**SCLPR/L**	CP...	Steel Carbide	○	✓		✓	ø0.500" ø0.875" ø0.500" ø0.875"	D022

Positive type

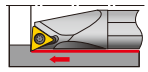
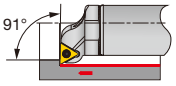
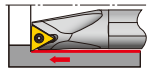
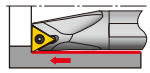
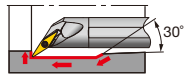
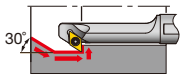
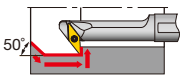
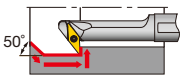
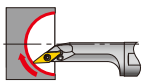
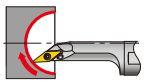
Inch

Appli-cation	Style	Designation	Insert	Material	Through coolant	ISO Insert	BOREMEISTER	STREAMJETBAR	Min. bore diameter DMIN (in) 0 0.375 0.750 1.125 1.500 2.000	Page
Boring & internal profiling		**S-SDUCR/L-H**	DC...	Steel Carbide	○	✓	✓		ø0.787" ø1.969"	D034
		**S-SVUCR/L-H**	VC...	Steel Carbide	○	✓	✓		ø1.063" ø1.220"	D073
		**S-SVLCR/L-H**	VC...	Steel Carbide	○	✓	✓		ø1.575" ø1.969"	D072
		**S-DDUNR/L-H**	DN...	Steel Carbide	○	✓	✓		ø1.575" ø1.969"	D046
		**S-DVUNR/L-H**	VN...	Steel Carbide	○	✓	✓		ø2.205"	D079
		**SDUCR/L**	DC...	Steel Carbide	○	✓		✓	ø0.625" ø1.000" ø0.625" ø1.000"	D032
		**SVUCR/L**	VC...	Steel	○	✓		✓	ø0.875" ø1.000"	D072
		**SVUBR/L**	VB...	Steel	○	✓		✓	ø1.000"	D068
		**SDQCR/L**	DC...	Steel	○	✓		✓	ø0.625" ø0.875"	D035
		**SVQCR/L**	VC...	Steel	○	✓		✓	ø0.688" ø1.000"	D074
		**SVQBR/L**	VB...	Steel	○	✓		✓	ø1.000"	D069
		**SYUBR/L**	YW...	Steel Carbide	○			✓	ø1.000" ø0.875" ø1.000"	D088

Internal Toolholder - Quick Guide

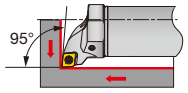
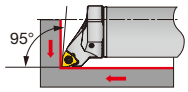
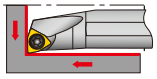
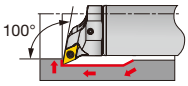
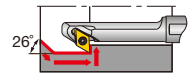
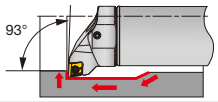
Positive type

Inch

Application	Style	Designation	Insert	Material	Through coolant	ISO Insert	BOREMEISTER	STREAMJETBAR	Min. bore diameter DMIN (in) 0 0.375 0.750 1.125 1.500 2.000	Page
Boring		**STUPR/L**	TP...	Steel Carbide	○	✓		✓	ø0.438" ø1.250" ø0.438" ø0.875"	D060
Blind hole boring		**S-STFPR/L-H**	TP...	Steel Carbide	○	✓	✓		ø0.787" ø1.969"	D059
		**STFPR/L**	TP...	Carbide	○	✓		✓	ø0.500" ø1.000"	D057
		**STFCR/L**	TC...	Carbide	○	✓		✓	ø0.500" ø1.000"	D056
Boring, undercutting & profiling		**SYQBR/L**	YW...	Steel Carbide	○			✓	ø0.750" ø0.875" ø0.750" ø0.875"	D089
Back boring		**SDZCR/L**	DC...	Steel	○	✓		✓	ø0.875"	D037
		**SVZCR/L**	VC...	Steel	○	✓		✓	ø0.750" ø1.000"	D076
		**SVZBR/L**	VB...	Steel	○	✓		✓	ø1.000"	D071
Internal sphere cutting		**SVJCR/L**	VC...	Steel	○	✓		✓	ø1.000"	D075
		**SVJBR/L**	VB...	Steel	○	✓		✓	ø1.000"	D070

Positive double side

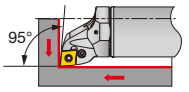
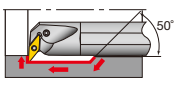
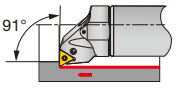
Inch

Appli-cation	Style	Designation	Insert	Material	Through coolant	TUNGBÄMINI	BOREMEISTER	MINIFÜRN	Min. bore diameter DMIN (in) 0 0.375 0.750 1.125 1.500 2.000	Page
Boring & internal facing		**S-SCLXR/L-H**	CX...	Steel Carbide	○		✓	✓	ø1.260" ø1.969"	D026
		**S-SWLXR/L-H**	WX...	Steel Carbide	○		✓	✓	ø1.260" ø1.969"	D082
		**SWLXR/L**	WX...	Steel Carbide	○			✓	ø0.500" ø1.250" ø0.500" ø1.250"	D081
Boring & internal profiling		**S-SDXXR/L-H**	DX...	Steel Carbide	○		✓	✓	ø1.260" ø1.969"	D040
		**SDXXR/L**	DX...	Steel Carbide	○			✓	ø0.625" ø1.000" ø0.625" ø1.000"	D040
Back boring		**SDZXR/L**	DX...	Steel	○			✓	ø0.625" ø0.875"	D041
Boring & internal profiling		**S-SXUOR05-H**	XOMU	Steel Carbide	○	✓	✓		ø0.984" ø1.260"	D087

Negative type

Inch

Lever lock

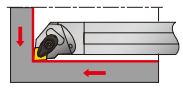
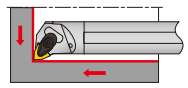
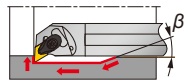
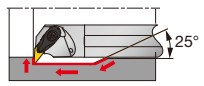
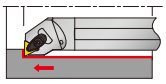
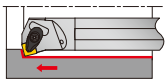
Appli-cation	Style	Designation	Insert	Material	Through coolant	ISOTURN	BOREMEISTER	STREAMJETBAR	Min. bore diameter DMIN (in) 0 0.375 0.750 1.125 1.500 2.000	Page
Boring & internal facing		**S-PCLNR/L-H**	CN..., GN...	Steel Carbide	○	✓	✓		ø1.575" ø1.969"	D030
Boring & internal profiling		**PVUNR/L**	VN...	Steel	○	✓		✓	ø1.250" ø1.650"	D077
Boring		**S-PTFNR/L-H**	TN...	Steel Carbide	○	✓	✓		ø1.575" ø1.969"	D064

Internal Toolholder - Quick Guide

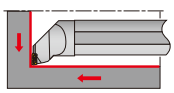
Negative type

Inch

Double clamp

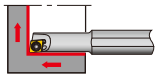
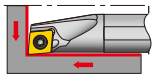
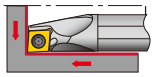
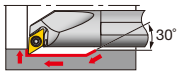
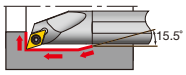
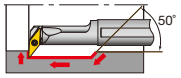
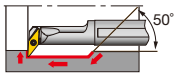
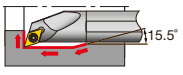
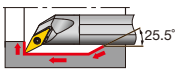
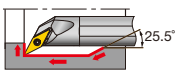
Appli-cation	Style	Designation	Insert	Material	Through coolant	ISO Insert	ISOTURN	TURNING	Min. bore diameter DMIN (in) 0 0.500 1.000 1.500 2.000 2.500	Page
Boring & internal facing		**ACLNR/L**	CN..., GN...	Steel	○	✓	✓	✓	ø1.250" ø2.500"	D031
Boring & internal facing		**AWLNR/L**	WN...	Steel	○	✓	✓	✓	ø1.250" ø2.500"	D085
Boring & internal profiling		**ADUNR/L**	DN..., FN...	Steel	○	✓	✓	✓	ø1.250" ø2.000"	D045
Boring & internal profiling		**AVUNR/L**	VN..., YN...	Steel	○	✓		✓	ø1.560" ø2.000"	D078
Boring		**ATFNR/L**	TN...	Steel	○	✓		✓	ø1.250" ø1.560"	D065
Boring		**ASKNR/L**	SN...	Steel	○	✓		✓	ø1.250" ø1.500"	D055

Screw-on

Appli-cation	Style	Designation	Insert	Material	Through coolant	TURNTEC	Min. bore diameter DMIN (in) 1.500 2.000 2.500 3.000 3.500 4.000	Page
Boring & internal facing		**S-TLANR/L**	LNMX	Steel		✓	ø2.090" ø3.350"	D050

Positive type

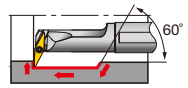
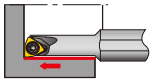
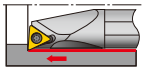
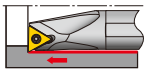
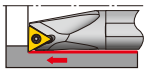
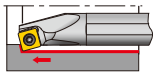
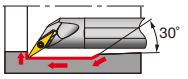
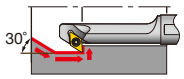
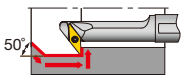
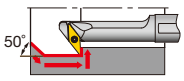
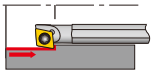
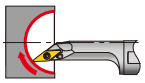
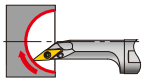
Metric

Appli-cation	Style	Designation	Insert	Material	Through coolant	ISO Insert	BOREMEISTER	STREAMJETBAR	Min. bore diameter DMIN (mm) 0 10 20 30 40 50	Page
Boring & internal facing		**SEXPR/L**	EP...	Steel Carbide	○	✓		✓	ø4.5 ø7 ø4.5 ø7	D048
		**SCLCR/L**	CC...	Steel Carbide Reinforced	○	✓		✓	ø5 ø27 ø5 ø27 ø16 ø32	D018 - D020
		**SCLPR/L**	CP...	Steel Carbide Reinforced	○	✓		✓	ø10 ø27 ø10 ø20 ø14 ø32	D022 D024
Boring & internal profiling		**SDUCR/L**	DC...	Steel Carbide	○	✓		✓	ø13 ø32 ø13 ø27	D032
		**SDUPR/L**	DP...	Steel Carbide	○			✓	ø15 ø22 ø15 ø22	D038
		**SVUCR/L**	VC...	Steel Carbide Reinforced	○	✓		✓	ø16 ø32 ø18 ø32 ø32	D072 D073
		**SVUBR/L**	VB...	Steel Carbide Reinforced	○	✓		✓	ø20 ø32 ø24.5 ø34 ø25	D068
		**SDQCR/L**	DC...	Steel Carbide Reinforced	○	✓		✓	ø13 ø30 ø13 ø25 ø20 ø32	D035 D036
		**SDQPR/L**	DP...	Steel Carbide	○			✓	ø15 ø22 ø15 ø22	D039
		**SVQCR/L**	VC...	Steel Carbide Reinforced	○	✓		✓	ø13.5 ø21.5 ø13.5 ø21.5 ø32	D074
		**SVQBR/L**	VB...	Steel Carbide Reinforced	○	✓		✓	ø17 ø30.5 ø17 ø30.5 ø25	D069 D070

Internal Toolholder - Quick Guide

Positive type

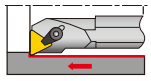
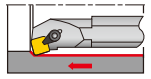
Metric

Application	Style	Designation	Insert	Material	Through coolant	ISO Insert	STREAMJETBAR	Min. bore diameter DMIN (mm) 0 10 20 30 40 50	Page
Boring & internal profiling		**SYUBR/L**	YW...	Steel Carbide	○		✓	ø20 ø20 ø24.5	D088
Boring		**SWUBR/L**	WB...	Steel Carbide	○	✓	✓	ø6 ø8 ø6 ø8	D080
Boring		**STUPR/L**	TP...	Steel Carbide Reinforced	○	✓	✓	ø8 ø34 ø8 ø27 ø14 ø31	D060 - D062
Blind hole boring		**STFPR/L**	TP...	Steel Carbide	○	✓	✓	ø10 ø27 ø10 ø22	D057
Blind hole boring		**STFCR/L**	TC...	Steel Carbide	○	✓	✓	ø12 ø18 ø12 ø18	D056
Through boring		**SSKPR**	SP...	Steel	○	✓	✓	ø20 ø31	D052
Boring, undercutting & profiling		**SYQBR/L**	YW...	Steel Carbide	○		✓	ø17 ø21.5 ø17 ø21.5	D089
Back boring		**SDZCR/L**	DC...	Steel Carbide	○	✓	✓	ø14 ø25 ø18 ø22	D037
Back boring		**SVZCR/L**	VC...	Steel	○	✓	✓	ø16	D076
Back boring		**SVZBR/L**	VB...	Steel	○	✓	✓	ø20 ø40	D071
Back boring		**SEZPR/L**	EP...	Steel Carbide	○	✓	✓	ø5.5 ø6.5 ø5.5 ø6.5	D049
Internal sphere cutting		**SVJCR/L**	VC...	Steel	○	✓	✓	ø16 ø20	D075
Internal sphere cutting		**SVJBR/L**	VB...	Steel	○	✓	✓	ø25 ø30	D070

Positive type

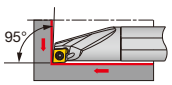
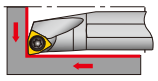
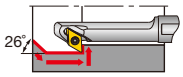
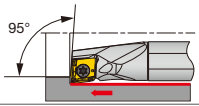
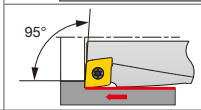
Metric

Clamp on

Appli-cation	Style	Designation	Insert	Material	Through coolant	ISO Insert	Min. bore diameter DMIN (mm) 0 10 20 30 40 50	Page
Blind hole boring		**CTFPR/L**	TP... Without hole	Steel Carbide		✓	ø16 ø40 ø16 ø20	D058
Through boring		**CSKPR/L**	SP... Without hole	Steel		✓	ø20 ø32	D053

Positive double side

Metric

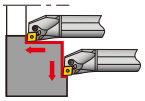
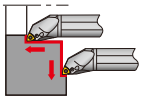
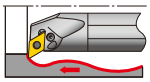
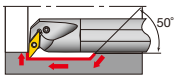
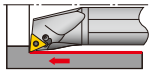
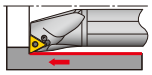
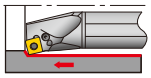
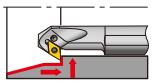
Appli-cation	Style	Designation	Insert	Material	Through coolant	TUNGBMINI	BOREMEISTER	MINIFÜRN	Min. bore diameter DMIN (mm) 0 10 20 30 40 50	Page
Boring & internal facing		**SCLXR/L**	CX...	Steel Carbide	○			✓	ø12 ø22 ø12 ø22	D025
		**SWLXR/L**	WX...	Steel Carbide	○			✓	ø12 ø22 ø12 ø22	D081
Boring & internal profiling		**SDXXR/L**	DX...	Steel Carbide	○			✓	ø13 ø24 ø13 ø24	D040
Back boring		**SDZXR/L**	DX...	Steel Carbide	○			✓	ø14 ø20 ø18 ø22	D041
Boring		**A/E-SXUOR/L**	XOMU	Steel Carbide	○	✓			ø10 ø14 ø10 ø14	D086
		**TBM**	XOMU	Steel	○	✓			ø10 ø16	D086

Internal Toolholder - Quick Guide

Negative type

Metric

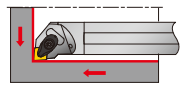
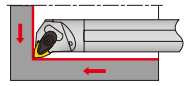
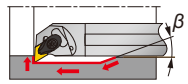
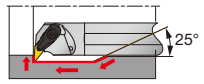
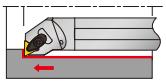
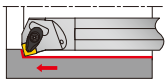
Lever lock

Application	Style	Designation	Insert	Material	Through coolant	ISO Insert	ISOTURN	STREAMJETBAR	TUNGTJET	Min. bore diameter DMIN (mm) 20 30 40 50 60 70	Page
Boring & internal facing		**PCLNR/L**	CN..., GN...	Steel Reinforced	○	✓	✓	✓	✓	ø20 ø63 ø20 ø63	D027 - D029
		**PWLNR/L**	WN...	Steel	○	✓	✓	✓		ø20 ø50	D083 D084
Boring & internal profiling		**PDUNR/L**	DN..., FN...	Steel Reinforced	○	✓	✓	✓	✓	ø25 ø63 ø40 ø63	D042 - D044
		**PVUNR/L**	VN..., YN...	Steel	○	✓	✓	✓		ø37 ø50	D077
Boring		**PTUNR/L**	TN...	Steel Reinforced	○	✓	✓	✓		ø20 ø40 ø20 ø63	D066 D067
		**PTFNR/L**	TN...	Steel	○	✓	✓	✓		ø32 ø63	D063 D064
Through boring		**PSKNR/L**	SN...	Steel	○	✓		✓		ø40 ø63	D054
Back boring		**PDZNR/L**	DN...	Steel	○	✓		✓		ø40 ø63	D046 D047

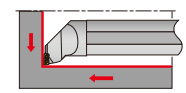
Negative type

Metric

Double clamp

Appli-cation	Style	Designation	Insert	Material	Through coolant	ISO Insert	ISOTURN	TURNING	Min. bore diameter DMIN (mm) 20 30 40 50 60 70	Page
Boring & internal facing		**ACLNR/L**	CN..., GN...	Steel	○	✓	✓	✓	ø32 — ø63	D031
Boring & internal facing		**AWLNR/L**	WN...	Steel	○	✓	✓	✓	ø32 — ø63	D085
Boring & internal profiling		**ADUNR/L**	DN..., FN...	Steel	○	✓	✓	✓	ø32 — ø63	D045
Boring & internal profiling		**AVUNR/L**	VN..., YN...	Steel	○	✓		✓	ø40 — ø50	D078
Boring		**ATFNR/L**	TN...	Steel	○	✓		✓	ø32 — ø40	D065
Boring		**ASKNR/L**	SN...	Steel	○	✓		✓	ø32 — ø40	D055

Screw-on

Appli-cation	Style	Designation	Insert	Material	Through coolant	TURNTEC	Min. bore diameter DMIN (mm) 40 50 60 70 80 90	Page
Boring & internal facing		**S-TLANR/L**	LNMX	Steel		✓	ø53 — ø85	D050

BOREMEISTER

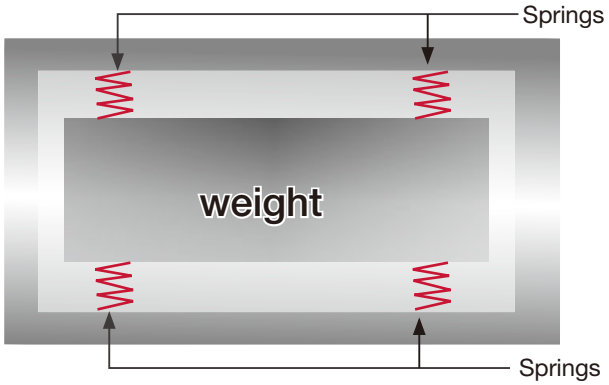


Unique anti-vibration mechanism in the tool body reduces vibration during deep hole boring with long overhangs of up to **L/D = 10**

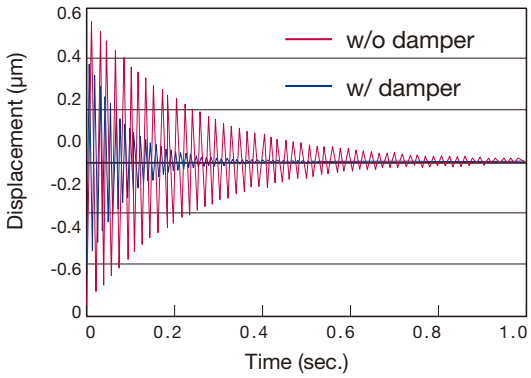
Vibration Dampening Mechanism

When cutting forces create vibration on boring bar set up with long overhangs, the bar's dampening mechanism counters the tool's motion and cancels the vibration.
The dampening mechanism consists of a weight supported by spring elements.
The vibrations die out quickly eliminating noise and chatter marks.

- Concept image of dampening

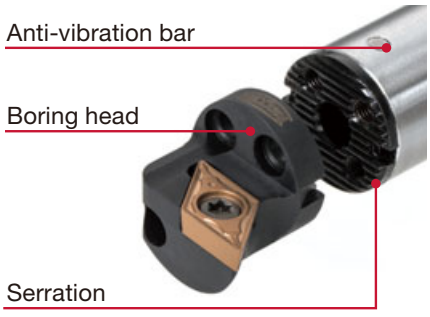


- Tool vibrations with and without vibration damper



Standard Lineup

BoreMeister is comprised of the anti-vibration bar and interchangeable boring head, featuring serrated interfaces for high precision indexing. They are connected by screws, allowing the fitting of a wide range of cutting heads for great flexibility.
- Minimum bore diameter : ø20 mm (0.787")





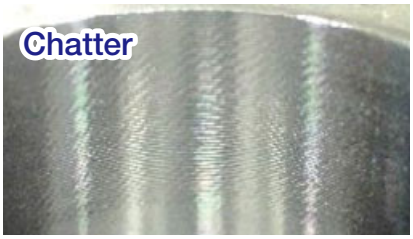
Reference pages: D021, D026, D030, D034, D040, D046, D059, D064, D072, D073, D079, D082, D090 - D092

STREAMJETBAR



Engineered for tool strength and optimal chip evacuation

Tool body of special alloy steel, designed to reduce chatter !



Competitor



STREAMJETBAR

Minimum bore diameter from ø0.177" (ø4.5 mm)

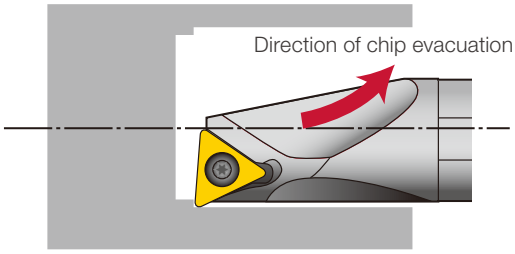
Steel and carbide shank available

New pocket design for excellent chip evacuation

Cutting performance

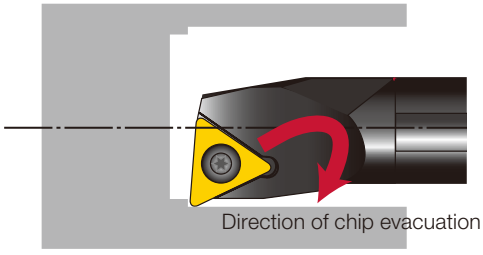
The excellent chip evacuation minimizes tool failure caused by recutting chips and poor chip control. Damage to the work surface from chips is also eliminated.

STREAMJETBAR



Combination of the well designed chip pocket and coolant flow helps chips to effectively evacuate.

Competitor



Chip packing is likely to occur.

Reference pages: D018 -, D032 -, D048 -, D052 -, D056 -, D070 -, D076 -, D080 -

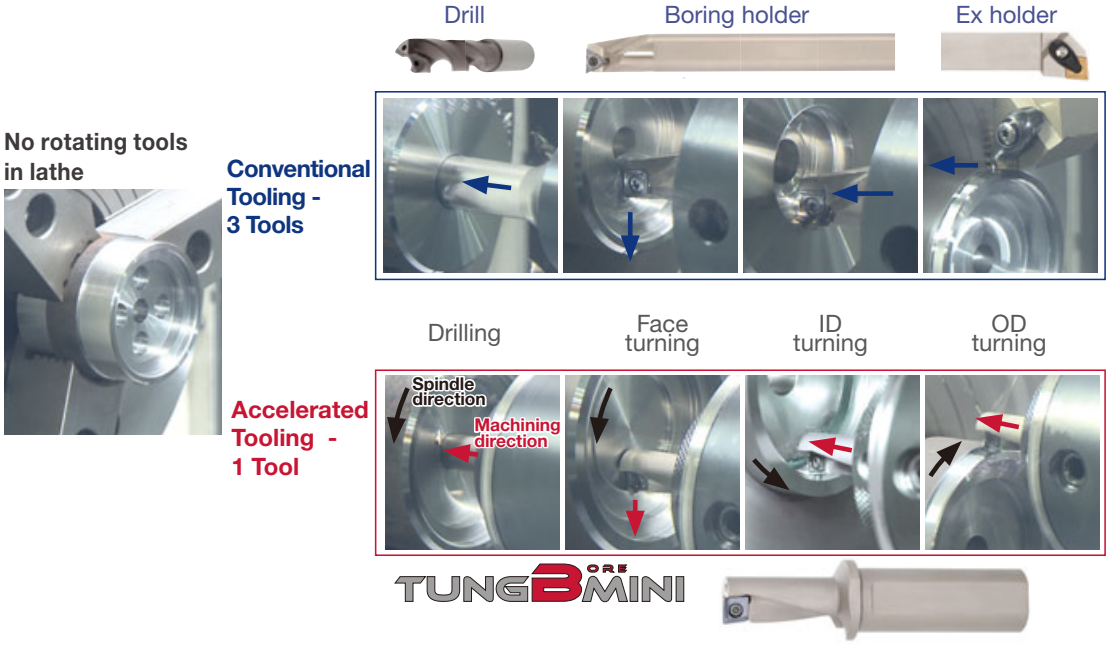
TUNGBORE MINI



Reduced machine downtime thanks to eliminating the need for tool changes. Multifunctional Tool for Drilling and Turning.

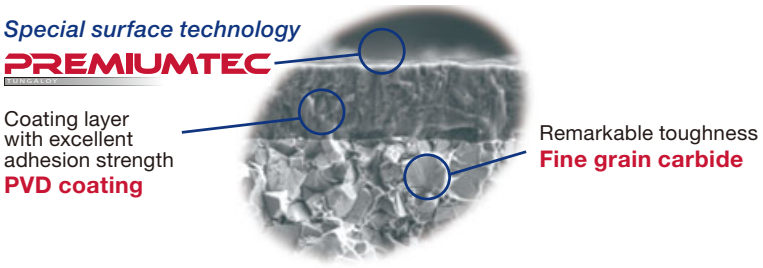
Minimum number of tools for maximum productivity

- A single TungBoreMini tool can handle multiple operations such as ID turning after drilling without exchanging the tools
- Allows drilling and hole enlargement on various materials, instead of using a drill and turning tool
- Can be used just like a standard ISO turning tool for ID, OD, and/or face turning applications



PVD grade: AH725

AH725 features a super tough substrate with a new PVD coating layer.



Reference pages: D086 -

MINIFORCE TURN

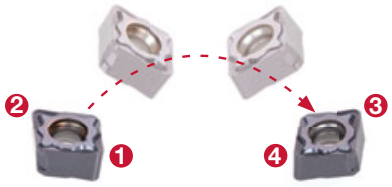


Economical double-sided positive insert

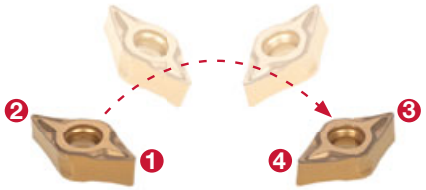
Innovative geometry and seat interface ensures stability and high performance.

Insert

CXMU 22... 4 edges, rhombic 80°



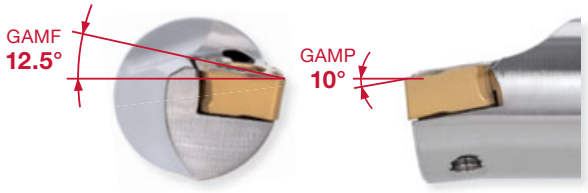
DXM/GU 22... 4 edges, rhombic 55°



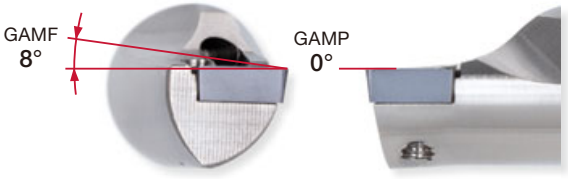
WXGU 22... 6 positive cutting edges



Low cutting force machining with high rake angle



MINIFORCE TURN
A12M-SCLXR06-D140



Conventional
A12M-SCLCR06-D140

Reference pages: D025, D026, D040, D041, D081, D082

CC

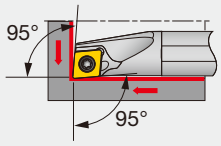


Rhombic, 80°
with hole
Positive 7°

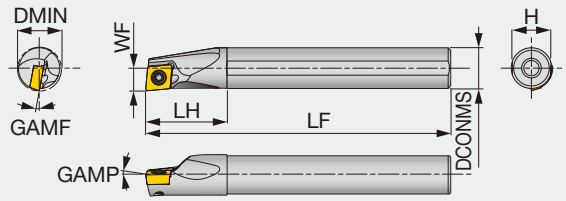
STREAMJETBAR

A/E-SCLCR/L

Screw-on boring bar, for positive 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque
A05-SCLCR/L2-D06	Steel	0.375	0.313	0.200	4.500	0.630	0.300	0°	-14°	0.016	CC** 21.5...	0.89
A06-SCLCR/L2-D08	Steel	0.500	0.375	0.281	5.000	0.750	0.350	0°	-9°	0.016	CC** 21.5...	0.89
A08-SCLCR/L2-D11	Steel	0.687	0.500	0.406	5.000	1.000	0.475	0°	-6°	0.016	CC** 21.5...	0.89
A10-SCLCR/L3-D14	Steel	0.875	0.625	0.531	7.000	1.250	0.600	0°	-7°	0.016	CC** 32.5...	2.2
A12-SCLCR/L3-D16	Steel	1.000	0.750	0.594	7.000	1.438	0.725	0°	-5°	0.031	CC** 32.5...	2.2
A16-SCLCR/L3-D20	Steel	1.250	1.000	0.687	7.000	1.750	0.975	0°	-4°	0.031	CC** 32.5...	2.2
E06-SCLCR/L2-D08	Carbide	0.500	0.375	0.281	5.000	0.750	0.350	0°	-9°	0.016	CC** 21.5...	0.89
E08-SCLCR/L2-D11	Carbide	0.688	0.500	0.406	5.000	1.000	0.475	0°	-6°	0.016	CC** 21.5...	0.89
E10-SCLCR/L2-D14	Carbide	0.875	0.625	0.531	7.000	1.250	0.600	0°	-7°	0.016	CC** 21.5...	0.89
E10-SCLCR/L3-D14	Carbide	0.875	0.625	0.531	7.000	1.250	0.600	0°	-7°	0.016	CC** 32.5...	2.2
E12-SCLCR/L3-D16	Carbide	1.000	0.750	0.594	7.000	1.438	0.725	0°	-5°	0.031	CC** 32.5...	2.2
E16-SCLCR/L3-D20	Carbide	1.250	1.000	0.687	10.000	1.750	0.975	0°	-4°	0.031	CC** 32.5...	2.2

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A04F-SCLCR/L03-D050	Steel	5	4	2.5	80	8	3.8	0°	-15°	0.2	CC**03X1...	0.6
A05F-SCLCR/L03-D060	Steel	6	5	3	80	9	4.8	0°	-13°	0.2	CC**03X1...	0.6
A06G-SCLCR/L04-D070	Steel	7	6	3.5	90	11	5.75	0°	-13°	0.2	CC**04T1...	0.6
A07G-SCLCR/L04-D080	Steel	8	7	4	90	12	6.75	0°	-11°	0.2	CC**04T1...	0.6
A08H-SCLCR/L06-D100	Steel	10	8	5.5	100	16	7.5	0°	-13°	0.4	CC**0602...	1.2
A10F-SCLCR06-D120	Steel	12	10	6	80	20	9	0°	-10°	0.4	CC**0602...	1.2
A10K-SCLCR/L06-D120	Steel	12	10	6	125	20	9	0°	-10°	0.4	CC**0602...	1.2
A12H-SCLCR06-D140	Steel	14	12	7	100	24	11	0°	-8°	0.4	CC**0602...	1.2
A12M-SCLCR/L06-D140	Steel	14	12	7	150	24	11	0°	-8°	0.4	CC**0602...	1.2
A12H-SCLCR06-D160	Steel	16	12	9	100	24	11	0°	-7°	0.4	CC**0602...	1.2
A12M-SCLCR/L06-D160	Steel	16	12	9	150	24	11	0°	-7°	0.4	CC**0602...	1.2
A16K-SCLCR09-D180	Steel	18	16	9	125	32	15	0°	-9°	0.8	CC**09T3...	3
A16Q-SCLCR/L09-D180	Steel	18	16	9	180	32	15	0°	-10°	0.8	CC**09T3...	3
A16K-SCLCR09-D200	Steel	20	16	11	125	32	15	0°	-9°	0.8	CC**09T3...	3
A16Q-SCLCR/L09-D200	Steel	20	16	11	180	32	15	0°	-9°	0.8	CC**09T3...	3
A20R-SCLCR/L09-D220	Steel	22	20	11	200	32	18	0°	-8°	0.8	CC**09T3...	3
A25S-SCLCR/L09-D270	Steel	27	25	13.5	250	45	23	0°	-6°	0.8	CC**09T3...	3
E04G-SCLCR/L03-D050	Carbide	5	4	2.5	90	9	3.8	0°	-15°	0.2	CC**03X1...	0.6
E05G-SCLCR/L03-D060	Carbide	6	5	3	90	10	4.8	0°	-13°	0.2	CC**03X1...	0.6
E06H-SCLCR/L04-D070	Carbide	7	6	3.5	100	12	5.75	0°	-13°	0.2	CC**04T1...	0.6
E07H-SCLCR/L04-D080	Carbide	8	7	4	100	14	6.75	0°	-11°	0.2	CC**04T1...	0.6
E08G-SCLCR06-D100	Carbide	10	8	5.5	90	22	7.5	0°	-13°	0.4	CC**0602...	1.2
E08K-SCLCR/L06-D100	Carbide	10	8	5.5	125	22	7.5	0°	-13°	0.4	CC**0602...	1.2
E10F-SCLCR06-D120	Carbide	12	10	6	80	25	9	0°	-10°	0.4	CC**0602...	1.2
E10H-SCLCR06-D120	Carbide	12	10	6	100	25	9	0°	-10°	0.4	CC**0602...	1.2
E10M-SCLCR/L06-D120	Carbide	12	10	6	150	25	9	0°	-10°	0.4	CC**0602...	1.2
E12G-SCLCR06-D140	Carbide	14	12	7	90	27	11	0°	-8°	0.4	CC**0602...	1.2
E12J-SCLCR06-D140	Carbide	14	12	7	110	27	11	0°	-8°	0.4	CC**0602...	1.2
E12Q-SCLCR/L06-D140	Carbide	14	12	7	180	27	11	0°	-8°	0.4	CC**0602...	1.2
E12G-SCLCR06-D160	Carbide	16	12	9	90	27	11	0°	-7°	0.4	CC**0602...	1.2
E12J-SCLCR06-D160	Carbide	16	12	9	110	27	11	0°	-7°	0.4	CC**0602...	1.2
E12Q-SCLCR/L06-D160	Carbide	16	12	9	180	27	11	0°	-7°	0.4	CC**0602...	1.2
E16H-SCLCR09-D180	Carbide	18	16	9	100	32	15	0°	-10°	0.8	CC**09T3...	3
E16L-SCLCR09-D180	Carbide	18	16	9	130	32	15	0°	-10°	0.8	CC**09T3...	3
E16R-SCLCR/L09-D180	Carbide	18	16	9	200	32	15	0°	-10°	0.8	CC**09T3...	3

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
E16H-SCLCR09-D200	Carbide	20	16	11	100	32	15	0°	-9°	0.8	CC**09T3...	3
E16L-SCLCR09-D200	Carbide	20	16	11	130	32	15	0°	-9°	0.8	CC**09T3...	3
E16R-SCLCR/L09-D200	Carbide	20	16	11	200	32	15	0°	-9°	0.8	CC**09T3...	3
E20S-SCLCR09-D220	Carbide	22	20	11	250	36	18	0°	-8°	0.8	CC**09T3...	3
E25T-SCLCR09-D270	Carbide	27	25	13.5	300	45	23	0°	-6°	0.8	CC**09T3...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius
Note: Use right-hand toolholders (SCLCR**) with left-hand inserts (L); and left-hand toolholders (SCLCL**) with right-hand inserts (R).

INCH SPARE PARTS

Designation	Clamping screw	Wrench
A**-SCLCR/L2-D...	CSTB-2.5S	T-8F
A**-SCLCR/L3-D...	CSTB-4S	T-15F
E06-SCLCR/L2-D08	CSTB-2.5S	T-8F
E**-SCLCR/L2-D...	CSTB-2.5B	T-8F
E**-SCLCR/L3-D...	CSTB-4S	T-15F

METRIC SPARE PARTS

Designation	Clamping screw	Wrench
A**-SCLCR/L03-D...	CSTA-1.6	T-6F
A**-SCLCR/L04-D...	CSTB-2	T-6F
A**-SCLCR/L06-D...	CSTB-2.5S	T-8F
A**-SCLCR/L09-D...	CSTB-4S	T-15F
E**-SCLCR/L03-D...	CSTA-1.6	T-6F
E**-SCLCR/L04-D...	CSTB-2	T-6F
E**-SCLCR/L06-D...	CSTB-2.5S	T-8F
E16*-SCLCR/L09-D...	CSTB-4L060	T-15F
E2**-SCLCR/L09-D...	CSTB-4S	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	NS9530	SH725	T9215
Breaker Shape	JP	PSS	JS	PS
Cutting conditions	B016			

M

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	AH6225	SH725	AH6225
Chipbreaker shape	JP	PSS	JS	PS
Cutting conditions	B018			

P

Application	Medium cutting
Grade	T9215
Breaker Shape	PM
Cutting conditions	B016

M

Application	Medium cutting
Grade	AH6225
Chipbreaker shape	PM
Cutting conditions	B018

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	KS05F
Breaker Shape	DIA (with rake)	DIA	AL
Cutting conditions	B022		

S

Application	Precision finishing	Finishing	Finishing to medium cutting
Grade	BX470	AH8005	AH8015
Breaker Shape	CBN	PS	PS
Cutting conditions	B024		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B026	

Reference pages: A/E-SCLCR/L: Insert → B112 -, CBN → B189 -, PCD → B213

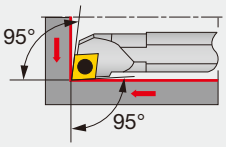
CC



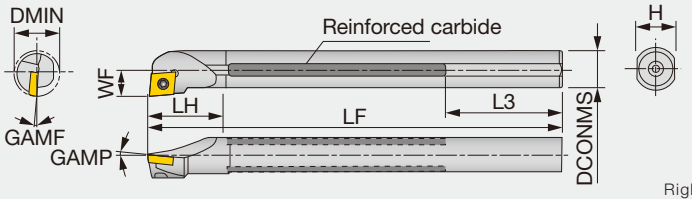
Rhombic, 80°
with hole
Positive 7°

T-SCLCR/L

Screw-on boring bar, for positive 80° rhombic inserts (Tsuppari-Ichiban)



Cutting edge style **L**



Right hand (R) shown.

Metric	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	GAMF	GAMP	RE**	Insert	Torque
T12M-SCLCR/L06	Reinforced	16	–	12	9	150	22	59	11	-10°	0°	0.4	CC**0602...	1.2
T16Q-SCLCR/L09	Reinforced	20	–	16	11	180	27	59	15	-10°	0°	0.8	CC**09T3...	3
T20R-SCLCR/L09C	Reinforced	25	Rc1/4	20	13	200	35	49	18	-8°	0°	0.8	CC**09T3...	3
T25S-SCLCR/L09C	Reinforced	32	Rc1/4	25	17	250	40	64	23	-6°	0°	0.8	CC**09T3...	3

Torque: Recommended clamping torque: N·m
**RE: Standard corner radius
*The hole specification of applicable inserts conforms to ISO standard.
Note: Use right-hand toolholders (SCLCR**) with left-hand inserts (L); and left-hand toolholders (SCLCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
T12M-SCLCR/L06	CSTB-2.5	T-8F
T16Q-SCLCR/L09	CSTB-4S	T-15F
T20R-SCLCR/L09C	CSTB-4S	T-15F
T25S-SCLCR/L09C	CSTB-4S	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	NS9530	SH725	T9215
Breaker Shape	JP	PSS	JS	PS
Cutting conditions	B016			

M

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	AH6225	SH725	AH6225
Chipbreaker shape	JP	PSS	JS	PS
Cutting conditions	B018			

P

Application	Medium cutting
Grade	T9215
Breaker Shape	PM
Cutting conditions	B016

M

Application	Medium cutting
Grade	AH6225
Chipbreaker shape	PM
Cutting conditions	B018

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	KS05F
Breaker Shape	DIA (with rake)	DIA	AL
Cutting conditions	B022		

S

Application	Precision finishing	Finishing	Finishing to medium cutting
Grade	BX470	AH8005	AH8015
Breaker Shape	CBN	PS	PS
Cutting conditions	B024		

H

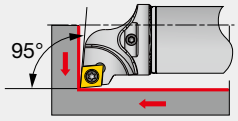
Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B026	

Reference pages: T-SCLCR/L: Insert → B112 -, CBN → B189 -, PCD → B213

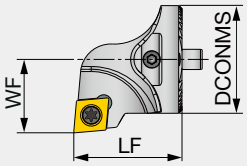
BOREMEISTER

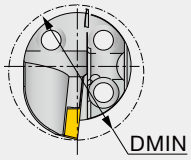
S-SCLCR/L-H

Screw-on clamp exchangeable boring head, for positive 80° rhombic inserts



Cutting edge style **L**





Right hand (R) shown.

Inch	DMIN	DCONMS	WF	LF	Shank	Insert
S16-SCLCR/L06-H	0.787	0.630	0.433	0.787	D/G.625	CC** 21.5...
S20-SCLCR/L09-H	0.984	0.787	0.512	0.787	D/G.750	CC** 32.5...
S25-SCLCR/L09-H	1.260	0.984	0.669	0.787	D1.00	CC** 32.5...
S32-SCLCR/L09-H	1.575	1.260	0.866	1.260	D1.25	CC** 32.5...
S40-SCLCR/L12T-H	1.969	1.575	1.063	1.496	D1.50, D2.00, D2.50	CC** 43...

Note: Use right-hand toolholders (SCLCR**) with left-hand inserts (L); and left-hand toolholders (SCLCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench	Shim	Shim screw
S16-SCLCR/L06-H	SR14-548	T-7/5	-	-
S20-SCLCR/L09-H	SR16-236	T-15/5	-	-
S25-SCLCR/L09-H	SR16-236	T-15/5	-	-
S32-SCLCR/L09-H	SR16-236	T-15/5	-	-
S40-SCLCR/L12T-H	SR16-212	T-20/5	TCC4-2	SRTC-4

INSERT SELECTION

P

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	NS9530	SH725	T9215
Breaker Shape	JP	PSS	JS	PS
Cutting conditions	B016			

M

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	AH6225	SH725	AH6225
Chipbreaker shape	JP	PSS	JS	PS
Cutting conditions	B018			

P

Application	Medium cutting
Grade	T9215
Breaker Shape	PM
Cutting conditions	B016

M

Application	Medium cutting
Grade	AH6225
Chipbreaker shape	PM
Cutting conditions	B018

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	KS05F
Breaker Shape	DIA (with rake)	DIA	AL
Cutting conditions	B022		

S

Application	Precision finishing	Finishing	Finishing to medium cutting
Grade	BX470	AH8005	AH8015
Breaker Shape	CBN	PS	PS
Cutting conditions	B024		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B026	

Reference pages: S-SCLCR/L-H: Insert → B112 -, CBN → B189 -, PCD → B213
Shank → D090 - D092

CP

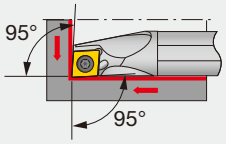


Rhombic, 80°
with hole
Positive 11°

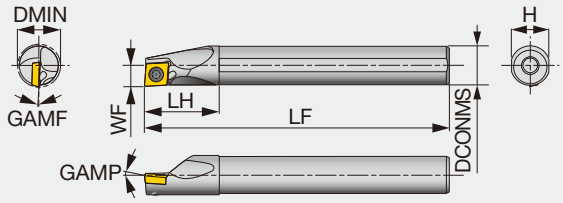
STREAMJETBAR

A/E-SCLPR/L

Screw-on boring bar, for positive 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque
A06-SCLPR/L2-D08	Steel	0.500	0.375	0.281	5.000	0.750	0.350	5°	-5°	0.016	CP** 21.5...	0.89
A08-SCLPR/L2-D11	Steel	0.687	0.500	0.406	5.000	1.000	0.475	5°	-2°	0.016	CP** 21.5...	0.89
A10-SCLPR/L3-D14	Steel	0.875	0.625	0.531	7.000	1.250	0.600	5°	-2°	0.016	CP** 32.5...	2.21
E06-SCLPR/L2-D08	Carbide	0.500	0.375	0.281	5.000	0.750	0.350	0°	-9°	0.016	CP** 21.5...	0.89
E08-SCLPR/L2-D11	Carbide	0.688	0.500	0.406	5.000	1.000	0.475	0°	-6°	0.016	CP** 21.5...	0.89
E10-SCLPR/L3-D14	Carbide	0.875	0.625	0.531	7.000	1.250	0.600	0°	-7°	0.032	CP** 32.5...	2.21

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A08H-SCLPR/L06-D100	Steel	10	8	5.5	100	16	7.5	5°	-8°	0.4	CP**0602...	1.2
A10K-SCLPR/L06-D120	Steel	12	10	6	125	20	9	5°	-5°	0.4	CP**0602...	1.2
A10K-SCLPR/L08-D120	Steel	12	10	6	125	20	9	5°	-5°	0.4	CP**0802...	1.4
A12M-SCLPR/L06-D140	Steel	14	12	7	150	24	11	5°	-4°	0.4	CP**0602...	1.2
A12M-SCLPR/L08-D140	Steel	14	12	7	150	24	11	5°	-4°	0.4	CP**0802...	1.4
A12M-SCLPR/L08-D160	Steel	16	12	9	150	24	11	5°	-3°	0.4	CP**0802...	1.4
A16Q-SCLPR/L09-D180	Steel	18	16	9	180	32	15	5°	-3.5°	0.8	CP**0903...	3
A16Q-SCLPR/L09-D200	Steel	20	16	11	180	32	15	5°	-3°	0.8	CP**0903...	3
A20R-SCLPR/L09-D220	Steel	22	20	11	200	36	18	5°	-2°	0.8	CP**0903...	3
A25S-SCLPR/L09-D270	Steel	27	25	13.5	250	45	23	5°	-1°	0.8	CP**0903...	3
E08K-SCLPR/L06-D100	Carbide	10	8	5.5	125	22	7.5	5°	-8°	0.4	CP**0602...	1.2
E10M-SCLPR/L06-D120	Carbide	12	10	6	150	25	9	5°	-5°	0.4	CP**0602...	1.2
E10H-SCLPR08-D120	Carbide	12	10	6	100	25	9	5°	-5°	0.4	CP**0802...	1.4
E10M-SCLPR/L08-D120	Carbide	12	10	6	150	25	9	5°	-5°	0.4	CP**0802...	1.4
E12Q-SCLPR/L06-D140	Carbide	14	12	7	180	27	11	5°	-4°	0.4	CP**0602...	1.2
E12G-SCLPR08-D140	Carbide	14	12	7	90	27	11	5°	-4°	0.4	CP**0802...	1.4
E12J-SCLPR08-D140	Carbide	14	12	7	110	27	11	5°	-4°	0.4	CP**0802...	1.4
E12Q-SCLPR/L08-D140	Carbide	14	12	7	180	27	11	5°	-4°	0.4	CP**0802...	1.4
E12G-SCLPR08-D160	Carbide	16	12	9	90	27	11	5°	-3°	0.4	CP**0802...	1.4
E12J-SCLPR08-D160	Carbide	16	12	9	110	27	11	5°	-3°	0.4	CP**0802...	1.4
E12Q-SCLPR/L08-D160	Carbide	16	12	9	180	27	11	5°	-3°	0.4	CP**0802...	1.4
E16H-SCLPR09-D180	Carbide	18	16	9	100	32	15	5°	-3.5°	0.8	CP**0903...	3
E16L-SCLPR09-D180	Carbide	18	16	9	130	32	15	5°	-3.5°	0.8	CP**0903...	3
E16R-SCLPL09-D180	Carbide	18	16	9	200	32	15	5°	-3.5°	0.8	CP**0903...	3
E16H-SCLPR09-D200	Carbide	20	16	11	100	32	15	5°	-3°	0.8	CP**0903...	3
E16L-SCLPR09-D200	Carbide	20	16	11	130	32	15	5°	-3°	0.8	CP**0903...	3
E16R-SCLPL09-D200	Carbide	20	16	11	200	32	15	5°	-3°	0.8	CP**0903...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius
Note: Use right-hand toolholders (SCLPR**) with left-hand inserts (L); and left-hand toolholders (SCLPL**) with right-hand inserts (R).

Reference pages: A/E-SCLPR/L: Insert → B118 -, CBN → B192

INCH SPARE PARTS




Designation	Clamping screw	Wrench
A06-SCLPR/L2-D08	CSTB-2.5L042	T-8F
A08-SCLPR/L2-D11	CSTB-2.5S	T-8F
A10-SCLPR/L3-D14	CSTB-4L070	T-15F
E06-SCLPR/L2-D08	CSTB-2.5S	T-8F
E08-SCLPR/L2-D11	CSTB-2.5B	T-8F
E10-SCLPR/L3-D14	CSTB-4S	T-15F

METRIC SPARE PARTS




Designation	Clamping screw	Wrench
A**-SCLPR/L06-D...	CSTB-2.5S	T-8F
A10K-SCLPR/L08-D120	CSTB-3L042	T-9F
A12M-SCLPR/L08-D...	CSTB-3L050	T-9F
A**-SCLPR/L09-D...	CSTB-4L060	T-15F
E**-SCLPR/L06-D...	CSTB-2.5S	T-8F
E10*-SCLPR/L08-D...	CSTB-3L042	T-9F
E12*-SCLPR/L08-D...	CSTB-3L050	T-9F
E16*-SCLPR/L09-D...	CSTB-4L060	T-15F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	NS9530	T9215	T9215
Breaker Shape	PSS	PS	PM
Cutting conditions	B016		

M

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	AH6225	AH6225	AH6225
Chipbreaker shape	PSS	PS	PM
Cutting conditions	B018		

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application	Finishing
Grade	DX140
Breaker Shape	DIA
Cutting conditions	B022

S

Application	Finishing	Finishing to medium cutting
Grade	AH8005	AH8015
Breaker Shape	PSS	PS
Cutting conditions	B024	

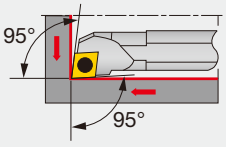
CP



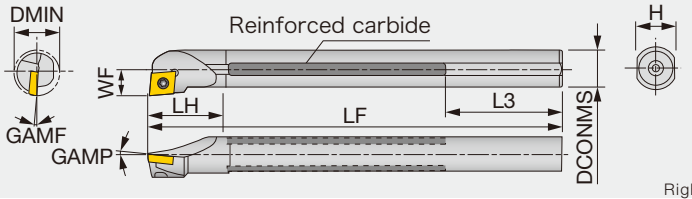
Rhombic, 80°
with hole
Positive 11°

T-SCLPR/L

Screw-on boring bar, for positive 80° rhombic inserts (Tsuppari-Ichiban)



Cutting edge style **L**



Right hand (R) shown.

Metric	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	GAMF	GAMP	RE**	Insert	Torque
T12M-SCLPR08-D14	Reinforced	14	-	12	7	150	22	59	11	-4°	5°	0.4	CP**0802...	1.4
T12M-SCLPR/L08	Reinforced	16	-	12	9	150	25	59	11	-3°	5°	0.4	CP**0802...	1.4
T16Q-SCLPR09-D18	Reinforced	18	-	16	9	180	27	59	15	-3.5°	5°	0.8	CP**0903...	3
T16Q-SCLPR/L09	Reinforced	20	-	16	11	180	30	59	15	-4°	5°	0.8	CP**0903...	3
T20R-SCLPR09C-D22	Reinforced	22	Rc1/4	20	11	200	35	49	18	-2°	5°	0.8	CP**0903...	3
T20R-SCLPR/L09	Reinforced	25	-	20	13	200	35	49	18	-2°	5°	0.8	CP**0903...	3
T25S-SCLPR09C-D27	Reinforced	27	Rc1/4	25	13.5	250	40	64	23	-1°	5°	0.8	CP**0903...	3
T25S-SCLPR/L09	Reinforced	32	-	25	17	250	40	64	23	0°	5°	0.8	CP**0903...	3

Torque: Recommended clamping torque: N·m
**RE: Standard corner radius
Note: Use right-hand toolholders (SCLPR**) with left-hand inserts (L); and left-hand toolholders (SCLPL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
T12M-SCLPR/L08...	CSTB-3L050	T-9F
T16Q-SCLPR09-D18	CSTB-4L060	T-15F
T16Q-SCLPR/L09	CSTB-4S	T-15F
T20R-SCLPR09C-D22	CSTB-4L060	T-15F
T20R-SCLPR/L09	CSTB-4S	T-15F
T25S-SCLPR09C-D27	CSTB-4L060	T-15F
T25S-SCLPR/L09	CSTB-4S	T-15F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	NS9530	T9215	T9215
Breaker Shape	PSS	PS	PM
Cutting conditions	B016		

M

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	AH6225	AH6225	AH6225
Chipbreaker shape	PSS	PS	PM
Cutting conditions	B018		

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application	Finishing
Grade	DX140
Breaker Shape	DIA
Cutting conditions	B022

S

Application	Finishing	Finishing to medium cutting
Grade	AH8005	AH8015
Breaker Shape	PSS	PS
Cutting conditions	B024	

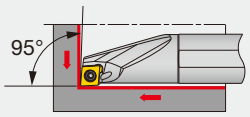
Reference pages: T-SCLPR/L: Insert → B118 -, CBN → B192

CX

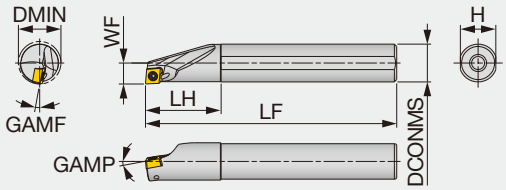
Rhombic, 80° with hole

MINIFORCE TURN
A/E-SCLXR/L

Screw-on boring bar, for CXMU inserts



Cutting edge style **L**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque
A10K-SCLXR/L06-D120	Steel	12	10	6	125	20	9	-10°	-14.5°	0.4	CXMU0603**L/R...	0.9
A12M-SCLXR/L06-D140	Steel	14	12	7	150	24	11	-10°	-12.5°	0.4	CXMU0603**L/R...	0.9
A16Q-SCLXR/L06-D180	Steel	18	16	9	180	32	15	-10°	-9.5°	0.4	CXMU0603**L/R...	0.9
A20R-SCLXR/L06-D220	Steel	22	20	11	200	36	18	-10°	-8°	0.4	CXMU0603**L/R...	0.9
E10M-SCLXR/L06-D120	Carbide	12	10	6	150	25	9	-10°	-14.5°	0.4	CXMU0603**L/R...	0.9
E12Q-SCLXR/L06-D140	Carbide	14	12	7	180	27	11	-10°	-12.5°	0.4	CXMU0603**L/R...	0.9
E16R-SCLXR/L06-D180	Carbide	18	16	9	200	32	15	-10°	-9.5°	0.4	CXMU0603**L/R...	0.9
E20S-SCLXR/L06-D220	Carbide	22	20	11	250	36	18	-10°	-8°	0.4	CXMU0603**L/R...	0.9

Torque: Recommended clamping torque: N·m **RE: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A/E**-SCLXR/L...	SR34-514	T-7F

❶ Use the right hand toolholder (R) for the left hand insert (L)
❷ Use the left hand toolholder (L) for the right hand insert (R)



❶ Right hand toolholder with left hand insert shown



❷ Left hand toolholder with right hand insert shown

INSERT SELECTION

P

Application	Finishing to medium cutting	Medium cutting
Grade	T9215	T9215
Breaker Shape	TS	TS
Cutting conditions	D096	

M

Application	Finishing to medium cutting	Medium cutting
Grade	AH8015	AH8015
Breaker Shape	TS	TS
Cutting conditions	D096	

K

Application	Finishing to medium cutting	Medium cutting
Grade	T9215	T9215
Breaker Shape	TS	TS
Cutting conditions	D096	

S

Application	Finishing to medium cutting	Medium cutting
Grade	AH8015	AH8015
Breaker Shape	TS	TS
Cutting conditions	D096	

Reference pages: A/E-SCLXR/L: Insert → B120
Standard cutting conditions → D096

CX

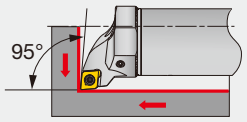


Rhombic, 80° with hole

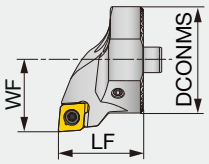
MINIFORCE TURN

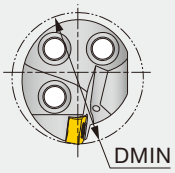
S-SCLXR/L-H

Screw-on clamp exchangeable boring head, for CXMU inserts



Cutting edge style **L**





Right hand (R) shown.

Inch	DMIN	DCONMS	WF	LF	Shank	Insert
S25-SCLXR/L06-H	1.260	0.984	0.669	0.787	D1.00	CXMU 22**L/R...
S32-SCLXR/L06-H	1.575	1.260	0.866	1.260	D1.25	CXMU 22**L/R...
S40-SCLXR/L06-H	1.969	1.575	1.063	1.260	D1.50, D2.00, D2.50	CXMU 22**L/R...

Note: Use right-hand toolholders (SCLXR**) with left-hand inserts (L); and left-hand toolholders (SCLXL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
S**-SCLXR/L06-H	SR34-514	T-7F

INSERT SELECTION

P

Application	Finishing to medium cutting	Medium cutting
Grade	T9215	T9215
Breaker Shape	TS	TS
Cutting conditions	D096	

M

Application	Finishing to medium cutting	Medium cutting
Grade	AH8015	AH8015
Breaker Shape	TS	TS
Cutting conditions	D096	

K

Application	Finishing to medium cutting	Medium cutting
Grade	T9215	T9215
Breaker Shape	TS	TS
Cutting conditions	D096	

S

Application	Finishing to medium cutting	Medium cutting
Grade	AH8015	AH8015
Breaker Shape	TS	TS
Cutting conditions	D096	

Reference pages: S-SCLXR/L-H: Insert → B120, Shank → D090 - D092
Standard cutting conditions → D096

CN GN

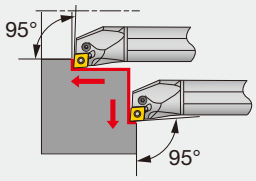
Rhombic, 80° with hole

Rhombic, 70° with hole

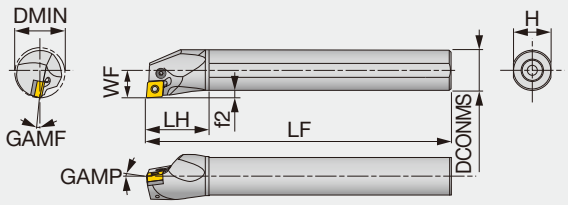
STREAMJETBAR

A-PCLNR/L

Lever-lock boring bar, for negative 80°/70° rhombic inserts



Cutting edge style **L**



Righthand(R)shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A16M-PCLNR/L0904-D200	Steel	20	16	11	150	32	15	3	-6°	-16°	0.8	CN**/GNMG0904...	1.7
A20Q-PCLNR/L0904-D250	Steel	25	20	13	180	36	18	3	-6°	-12°	0.8	CN**/GNMG0904...	1.7
A16M-PCLNR/L09-D200	Steel	20	16	11	150	32	15	3	-6°	-14°	0.8	CN**0903...	1.7
A20Q-PCLNR/L09-D250	Steel	25	20	13	180	36	18	3	-6°	-12°	0.8	CN**0903...	1.7
A25R-PCLNR/L09-D320	Steel	32	25	17	200	45	23	4.5	-6°	-11°	0.8	CN**0903...	1.7
A25R-PCLNR/L12-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	CN**/GNGA1204...	2.7
A32S-PCLNR/L12-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	0.8	CN**/GNGA1204...	4.8
A40T-PCLNR/L12-D500	Steel	50	40	27	300	60	37	7	-6°	-10°	0.8	CN**/GNGA1204...	4.8
A50U-PCLNR/L12-D630	Steel	63	50	35	350	65	47	10	-6°	-8°	0.8	CN**/GNGA1204...	4.8

Torque: Recommended clamping torque: N·m **RE: Standard corner radius
Note: Use right-hand toolholders (PCLNR**) with left-hand inserts (L); and left-hand toolholders (PCLNL**) with right-hand inserts (R).

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A16M-PCLNR/L0904-D200	-	-	LCS33	P-2F	-	-	LCL33N	-	SSHM3-4
A20Q-PCLNR/L0904-D250	-	-	LCS33	P-2F	-	-	LCL33N	EA-20	SSHM3-4
A**-PCLNR/L09-D**0	-	LCS22A	-	P-2F	-	-	LCL32N	EA-25	SSHM5-6
A25R-PCLNR/L12-D320	-	LCS43	-	-	P-2.5	-	LCL43N	EA-25	SSHM5-6
A32S-PCLNR12-D400	LSC42BR	-	LCS4	-	P-3	LSP4	LCL4	EA-32	SSHM5-6
A32S-PCLNL12-D400	LSC42BL	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A40T-PCLNR12-D500	LSC42BR	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A40T-PCLNL12-D500	LSC42BL	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A50U-PCLNR12-D630	LSC42BR	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A50U-PCLNL12-D630	LSC42BL	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6

*Optional

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Breaker Shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX815	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B014	

Reference pages: A-PCLNR/L: Insert → B054 -, B075, CBN → B168 -, PCD → B211

CN

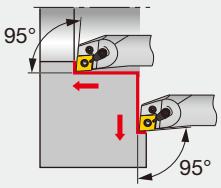
Rhombic, 80° with hole

GN

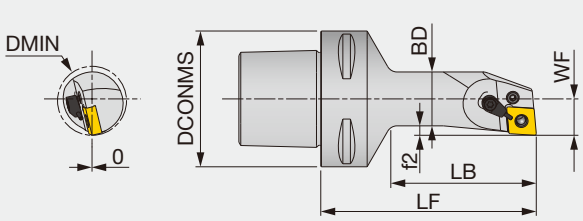
Rhombic, 70° with hole

TUNGCAP C-PCLNL-CHP

Lever-lock boring bar with TungCap connection, with 95° approach angle, for negative 80°/70° rhombic inserts, with high pressure coolant capability



Cutting edge style **L**



Left hand (L) shown.

Metric	DMIN	DCONMS	BD	LF	LB	WF	f2	RE**	Insert
C6PCLNL17100-12-CHP	32	63	25	100	67.5	17	4.5	0.8	CN**/GNGA1204...

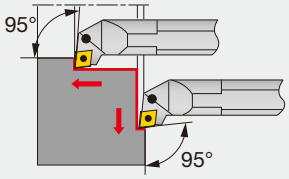
Applicable for 14 MPa coolant
**RE: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	Lever
C6PCLNL17100-12-CHP	LCS43	S-CU-CHP	P-2.5F	LCL43N

S-PCLNR/L

Lever-lock boring bar, for negative 80°/70° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMP	GAMF	RE**	Insert	Torque
S16M-PCLNR/L09	Steel	20	16	11	150	30	15	15.5	-6°	-14°	0.8	CN**0903...	1.7
S20Q-PCLNR/L09	Steel	25	20	13	180	35	18	19	-6°	-12°	0.8	CN**0903...	1.7
S25R-PCLNR/L09	Steel	32	25	17	200	40	23	24	-6°	-11°	0.8	CN**0903...	1.7
S32S-PCLNR/L12	Steel	40	32	22	250	50	30	29.5	-6°	-11°	0.8	CN**/GNGA1204...	4.8
S40T-PCLNR/L12	Steel	50	40	27	300	55	37	37.5	-6°	-10°	0.8	CN**/GNGA1204...	4.8
S50U-PCLNR/L12	Steel	63	50	35	350	65	47	47.5	-6°	-8°	0.8	CN**/GNGA1204...	4.8

Torque: Recommended clamping torque: N·m
**RE: Standard corner radius
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

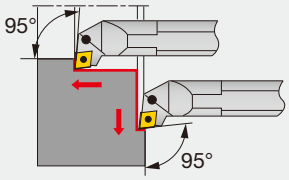
SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever
S**-PCLNR/L09	-	LCS22A	-	P-2F	-	-	LCL32N
S32S-PCLNR/L12	LSC42BR/L	-	LCS4	-	P-3	LSP4	LCL4
S40T-PCLNR/L12	LSC42BR/L	-	LCS4	-	P-3	LSP4	LCL4
S50U-PCLNR/L12	LSC42BR/L	-	LCS4	-	P-3	LSP4	LCL4

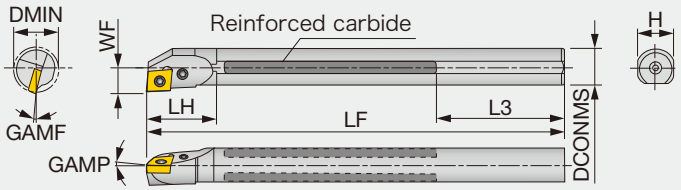
Reference pages: C-PCLNL-CHP, S-PCLNR/L: Insert → B054 -, B075, CBN → B168 -, PCD → B211

T-PCLNR

Lever-lock boring bar, for negative 80°/70° rhombic inserts (Tsuppari-Ichiban)



Cutting edge style **L**



Right hand (R) shown.

Metric	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	GAMP	GAMF	RE**	Insert	Torque
T16Q-PCLNR09	Reinforced	20	-	16	11	180	27	59	15	-6°	-14°	0.8	CN**0903...	1.7
T20R-PCLNR09C	Reinforced	25	Rc1/4	20	13	200	35	49	18	-6°	-12°	0.8	CN**0903...	1.7
T25S-PCLNR09C	Reinforced	32	Rc1/4	25	17	250	40	64	23	-6°	-11°	0.8	CN**0903...	1.7
T32U-PCLNR12C	Reinforced	40	Rc1/2	32	22	350	50	103	30	-6°	-11°	0.8	CN**/GNGA1204...	4.8
T40V-PCLNR12C	Reinforced	50	Rc1/2	40	27	400	55	88	37	-6°	-10°	0.8	CN**/GNGA1204...	4.8
T50W-PCLNR12C	Reinforced	63	Rc1/2	50	35	450	65	63	47	-6°	-8°	0.8	CN**/GNGA1204...	4.8

Torque: Recommended clamping torque: N·m
**RE: Standard corner radius
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever
T**-PCLNR09...	-	LCS22A	-	P-2F	-	-	LCL32N
T**-PCLNR12C	LSC42BR	-	LCS4	-	P-3	LSP4	LCL4

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Breaker Shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX815	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B014	

Reference pages: T-PCLNR: Insert → B054 -, B075, CBN → B168 -, PCD → B211

CN

Rhombic, 80° with hole

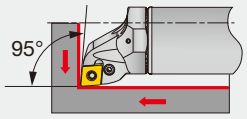
GN

Rhombic, 70° with hole

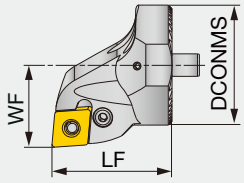
BOREMEISTER

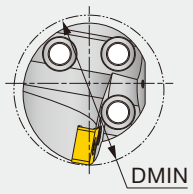
S-PCLNR/L-H

Lever-lock clamp exchangeable boring head, for negative 80°/70° rhombic inserts



Cutting edge style **L**





Right hand (R) shown.

Inch	DMIN	DCONMS	WF	LF	Shank	Insert
S32-PCLNR/L09-H	1.575	1.260	0.866	1.260	D1.25	CN**/GNMG 33...
S40-PCLNR/L09-H	1.969	1.575	1.063	1.260	D1.50, D2.00, D2.50	CN**/GNMG 33...

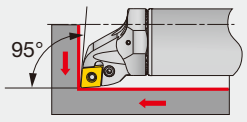
Note: Use right-hand toolholders (PCLNR**) with left-hand inserts (L); and left-hand toolholders (PCLNL**) with right-hand inserts (R).

SPARE PARTS

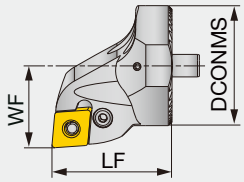
Designation	Lever	Clamping screw	Shim	Spring pin	Wrench
S32-PCLNR/L09-H	LCL33N	LCS33	-	-	P-2F
S40-PCLNR/L09-H	LCL33	LCS3	LSC317	LSP3	P-2.5

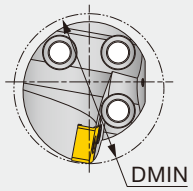
S-PCLNR/L-H-SP

Lever-lock clamp exchangeable boring head, for negative 80°/70° rhombic inserts



Cutting edge style **L**





Right hand (R) shown.

Inch	DMIN	DCONMS	WF	LF	Shank	Insert
S25-PCLNR/L12-H-SP	1.260	0.984	0.669	1.38	D/G1.00	CNMG 43...
S32-PCLNR/L12-H-SP	1.575	1.260	0.866	1.38	D/G1.25	CNMG 43...
S40-PCLNR/L12-H-SP	1.969	1.575	1.063	1.57	D/G1.50/D2.00/D2.50	CNMG 43...

SPARE PARTS

Designation	Lever	Clamping screw	Shim	Spring pin	Wrench
S**-PCLNR/L12-H-SP	WCD.ER3.101.000	WCD.ER4.101.107	WCD.ER2.101.003	WCD.ER1.101.000	P-2F

INSERT SELECTION

P

Application	Finishing	Medium cutting
Grade	T9215	T9215
Chipbreaker shape	TSF	TM
Cutting conditions	B004	

M

Application	Finishing	Medium cutting
Grade	AH6225	AH6225
Chipbreaker shape	SS	SM
Cutting conditions	B006	

K

Application	Medium cutting
Grade	T515
Chipbreaker shape	TM
Cutting conditions	B008

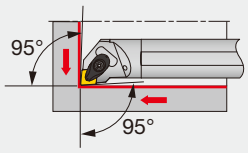
S

Application	Medium cutting
Grade	AH8015
Chipbreaker shape	TM
Cutting conditions	B012

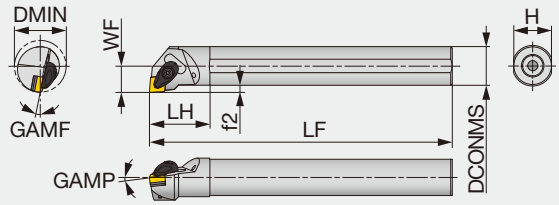
Reference pages: S-PCLNR/L-H, S-PCLNR/L-H-SP: Insert → B054 -, B075, CBN → B168 -, PCD → B211
Shank → D090 - D092

A-ACLNR/L

Double-clamp boring bar, for negative 80°/70° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A16-ACLNR/L33-D20	Steel	1.250	1.000	0.672	12.000	1.750	0.906	0.172	-6°	-13°	0.031	CN**/GNMG 33...	2.21
A20-ACLNR/L33-D25	Steel	1.560	1.250	0.859	14.000	1.938	1.188	0.234	-6°	-10°	0.031	CN**/GNMG 33...	2.21
A16-ACLNR/L4-D20	Steel	1.250	1.000	0.640	12.000	1.750	0.906	0.177	-6°	-13°	0.031	CN**/GNGA 43...	2.21
A20-ACLNR/L4-D25	Steel	1.560	1.250	0.770	14.000	1.930	1.180	0.236	-6°	-10°	0.031	CN**/GNGA 43...	2.21
A24-ACLNR/L4-D32	Steel	2.000	1.500	0.890	14.000	2.160	1.450	0.275	-6°	-8°	0.031	CN**/GNGA 43...	2.21
A32-ACLNR/L4-D40	Steel	2.500	2.000	1.280	16.000	2.550	1.850	0.393	-6°	-7°	0.031	CN**/GNGA 43...	2.21

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-ACLNR/L0904-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	CN**/GNMG0904...	3
A32S-ACLNR/L0904-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	CN**/GNMG0904...	3
A25R-ACLNR/L12-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	CN**/GNGA1204...	3
A32S-ACLNR/L12-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	CN**/GNGA1204...	3
A40T-ACLNR/L12-D500	Steel	50	40	27	300	55	37	7	-6°	-8°	0.8	CN**/GNGA1204...	3
A50U-ACLNR12-D630	Steel	63	50	35	350	65	47	10	-6°	-7°	0.8	CN**/GNGA1204...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ACLNR/L33-D..., A**-ACLNR/L0904-D...	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASC322	CSTB-3.5	T-15F
A**-ACLNR/L4-D..., A**-ACLNR/L12-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASC422	CSTB-3.5	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Breaker Shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX815	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B014	

Reference pages: A-ACLNR/L: Insert → B054 -, B075, CBN → B168 -, PCD → B211

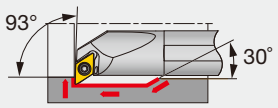
DC

Rhombic, 55°
with hole
Positive 7°

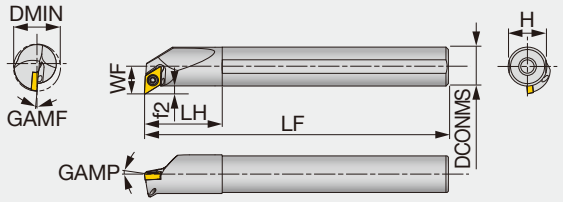
STREAMJETBAR

A/E-SDUCR/L

Screw-on boring bar, for positive 55° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A06-SDUCR2-D10	Steel	0.625	0.375	0.406	5.000	0.750	0.350	0.218	0°	-8°	0.016	DC** 21.5...	0.89
A08-SDUCR/L2-D11	Steel	0.688	0.500	0.406	5.000	1.000	0.475	0.156	0°	-6°	0.016	DC** 21.5...	0.89
A10-SDUCR2-D14	Steel	0.875	0.625	0.531	7.000	1.250	0.600	0.218	0°	-4°	0.016	DC** 21.5...	0.89
A12-SDUCR/L3-D16	Steel	1.000	0.750	0.594	10.000	1.500	0.700	0.218	0°	-2°	0.032	DC** 32.5...	2.2
E06-SDUCR2-D10	Carbide	0.625	0.375	0.406	5.000	1.000	0.375	0.218	0°	-7°	0.016	DC** 21.5...	0.89
E08-SDUCR2-D11	Carbide	0.688	0.500	0.406	5.000	1.062	0.475	0.156	0°	-6°	0.016	DC** 21.5...	0.89
E10-SDUCR2-D14	Carbide	0.875	0.625	0.531	7.000	1.250	0.600	0.218	0°	-4°	0.016	DC** 21.5...	0.89
E12-SDUCR/L3-D16	Carbide	1.000	0.750	0.594	7.000	1.438	0.750	0.218	0°	-5°	0.032	DC** 32.5...	2.2

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A10K-SDUCR/L07-D130	Steel	13	10	7	125	20	9	2	0°	-10°	0.4	DC**0702...	1.2
A12M-SDUCR/L07-D160	Steel	16	12	9.3	150	24	11	3.3	0°	-6°	0.4	DC**0702...	1.2
A16Q-SDUCR/L07-D200	Steel	20	16	11.3	180	32	15	3.3	0°	-5°	0.4	DC**0702...	1.2
A20R-SDUCR/L11-D270	Steel	27	20	16.1	200	36	18	6.1	0°	-5°	0.8	DC**11T3...	3
A25S-SDUCR/L11-D320	Steel	32	25	18.6	250	45	23	6.1	0°	-4°	0.8	DC**11T3...	3
E10H-SDUCR07-D130	Carbide	13	10	7	100	25	9	1.9	5°	-3.5°	0.4	DC**0702...	1.2
E10M-SDUCR/L07-D130	Carbide	13	10	7	150	25	9	2	0°	-10°	0.4	DC**0702...	1.2
E12J-SDUCR07-D160	Carbide	16	12	9.3	110	27	11	3.2	0°	-6°	0.4	DC**0702...	1.2
E12Q-SDUCR/L07-D160	Carbide	16	12	9.3	180	27	11	3.3	0°	-6°	0.4	DC**0702...	1.2
E16L-SDUCR07-D200	Carbide	20	16	11.3	130	32	15	3.2	0°	-5°	0.4	DC**0702...	1.2
E16R-SDUCR/L07-D200	Carbide	20	16	11.3	200	32	15	3.3	0°	-5°	0.4	DC**0702...	1.2
E20S-SDUCR11-D270	Carbide	27	20	16.1	250	36	18	6.1	0°	-5°	0.8	DC**11T3...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius
Note: Use right-hand toolholders (SDUCR**) with left-hand inserts (L); and left-hand toolholders (SDUCL**) with right-hand inserts (R).

Reference pages: A/E-SDUCR/L: Insert → B121, CBN → B193 -, PCD → B214

INCH SPARE PARTS




Designation	Clamping screw	Wrench
A/E06-SDUCR2-D10, A/E10-SDUCR2-D14	CSTB-2.5	T-8F
A08-SDUCR/L2-D11 E08-SDUCR2-D11	CSTB-2.5B	T-8F
A12-SDUCR/L3-D16	CSTB-3.5	T-15F
E12-SDUCR/L3-D16	CSTB-4S	T15-F

METRIC SPARE PARTS




Designation	Clamping screw	Wrench
A1**-SDUCR/L07-D1*0	CSTB-2.5S	T-8F
A16Q-SDUCR/L07-D200	CSTB-2.5	T-8F
A2**-SDUCR/L11-D**0	CSTB-4S	T-15F
E1**-SDUCR/L07-D1*0	CSTB-2.5S	T-8F
E16*-SDUCR/L07-D200	CSTB-2.5	T-8F
E20S-SDUCR11-D270	CSTB-4S	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	NS9530	T9215
Breaker Shape	JP	JS	PSS	PS
Cutting conditions	B016			

P

Application	Medium cutting
Grade	T9215
Breaker Shape	PM
Cutting conditions	B016

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

S

Application	Precision finishing	Finishing	Finishing to medium cutting
Grade	BX470	AH8005	AH8015
Breaker Shape	CBN	PS	PS
Cutting conditions	B024		

M

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	AH6225	AH6225
Breaker Shape	JP	JS	PSS	PS
Cutting conditions	B018			

M

Application	Medium cutting
Grade	AH6225
Breaker Shape	PM
Cutting conditions	B018

N

Application	Precision finishing	Finishing	Finishing to medium cutting
Grade	DX120	DX140	KS05F
Breaker Shape	DIA (with rake)		AL
Cutting conditions	B022		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B026	

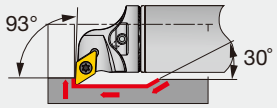
DC

Rhombic, 55°
with hole
Positive 7°

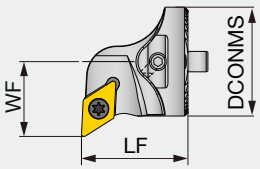
BOREMEISTER

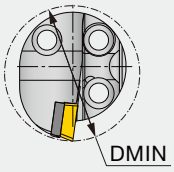
S-SDUCR/L-H

Screw-on clamp exchangeable boring head, for positive 55° rhombic inserts



Cutting edge style **U**





Right hand (R) shown.

Inch	DMIN	DCONMS	WF	LF	Shank	Insert
S16-SDUCR/L07-H	0.787	0.630	0.433	0.787	D/G.625	DC** 21.5...
S20-SDUCR/L11-H	0.984	0.787	0.512	0.787	D/G.750	DC** 32.5...
S25-SDUCR/L11-H	1.260	0.984	0.669	0.787	D1.00	DC** 32.5...
S32-SDUCR/L11T-H	1.575	1.260	0.866	1.260	D1.25	DC** 32.5...
S40-SDUCR/L11T-H	1.969	1.575	1.063	1.260	D1.50, D2.00, D2.50	DC** 32.5...

Note: Use right-hand toolholders (SDUCR**) with left-hand inserts (L); and left-hand toolholders (SDUCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench	Shim	Shim screw
S16-SDUCR/L07-H	SR14-548	T-7/5	-	-
S20-SDUCR/L11-H	SR16-236P	T-15/5	-	-
S25-SDUCR/L11-H	SR16-236P	T-15/5	-	-
S32-SDUCR/L11T-H	SR16-236P	T-15/5	TDC3-1P	SRTC-3P
S40-SDUCR/L11T-H	SR16-236P	T-15/5	TDC3-1P	SRTC-3P

INSERT SELECTION

P

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	NS9530	T9215
Breaker Shape	JP	JS	PSS	PS
Cutting conditions	B016			

P

Application	Medium cutting
Grade	T9215
Breaker Shape	PM
Cutting conditions	B016

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

S

Application	Precision finishing	Finishing	Finishing to medium cutting
Grade	BX470	AH8005	AH8015
Breaker Shape	CBN	PS	PS
Cutting conditions	B024		

M

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	AH6225	AH6225
Breaker Shape	JP	JS	PSS	PS
Cutting conditions	B018			

M

Application	Medium cutting
Grade	AH6225
Breaker Shape	PM
Cutting conditions	B018

N

Application	Precision finishing	Finishing	Finishing to medium cutting
Grade	DX120	DX140	KS05F
Breaker Shape	DIA (with rake)		AL
Cutting conditions	B022		

H

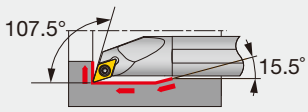
Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B026	

Reference pages: S-SDUCR/L-H: Insert → B121 -, CBN → B193 -, PCD → B214
Shank → D090 - D092

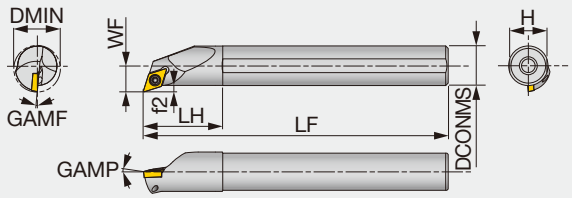
STREAMJETBAR

A/E-SDQCR/L

Screw-on boring bar, for positive 55° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A06-SDQCR2-D10	Steel	0.625	0.375	0.406	5.000	0.750	0.350	-	0°	-7°	0.016	DC** 21.5...	0.89
A08-SDQCR2-D11	Steel	0.688	0.500	0.406	5.000	1.000	0.475	-	0°	-6°	0.016	DC** 21.5...	0.89
A10-SDQCR2-D14	Steel	0.875	0.625	0.531	7.000	1.250	0.600	-	0°	-4°	0.016	DC** 21.5...	0.89

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A10K-SDQCR/L07-D130	Steel	13	10	7.6	125	20	9	2.6	0°	-8°	0.4	DC**0702...	1.2
A12M-SDQCR/L07-D160	Steel	16	12	8.6	150	24	11	2.6	0°	-6°	0.4	DC**0702...	1.2
A16Q-SDQCR/L07-D200	Steel	20	16	10.6	180	32	15	2.6	0°	-5°	0.4	DC**0702...	1.2
A20R-SDQCR/L11-D250	Steel	25	20	13.7	200	36	18	3.7	0°	-7°	0.8	DC**11T3...	3
A25S-SDQCR/L11-D300	Steel	30	25	16.2	250	45	23	3.7	0°	-4°	0.8	DC**11T3...	3
E10H-SDQCR07-D130	Carbide	13	10	7.6	100	25	9	2.5	0°	-8°	0.4	DC**0702...	1.2
E10M-SDQCR/L07-D130	Carbide	13	10	7.6	150	25	9	2.6	0°	-8°	0.4	DC**0702...	1.2
E12J-SDQCR07-D160	Carbide	16	12	8.6	110	27	11	2.5	0°	-6°	0.4	DC**0702...	1.2
E12Q-SDQCR/L07-D160	Carbide	16	12	8.6	180	27	11	2.6	0°	-6°	0.4	DC**0702...	1.2
E16L-SDQCR07-D200	Carbide	20	16	10.6	130	32	15	2.5	0°	-5°	0.4	DC**0702...	1.2
E16R-SDQCR/L07-D200	Carbide	20	16	10.6	200	32	15	2.6	0°	-5°	0.4	DC**0702...	1.2
E20S-SDQCR/L11-D250	Carbide	25	20	13.7	250	36	18	3.7	0°	-7°	0.8	DC**11T3...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius
Note: Use right-hand toolholders (SDQCR**) with left-hand inserts (L); and left-hand toolholders (SDQCL**) with right-hand inserts (R).

SPARE PARTS




Designation	Clamping screw	Wrench
A**-SDQCR2-D...	CSTB-2.5B	T-8F
A1**-SDQCR/L07-D**0	CSTB-2.5S	T-8F
A2**-SDQCR/L11-D**0	CSTB-4S	T-15F
E1**-SDQCR/L07-D**0	CSTB-2.5S	T-8F
E20S-SDQCR/L11-D250	CSTB-4S	T-15F

Reference pages: A/E-SDQCR/L: Insert → B121, CBN → B193 -, PCD → B214

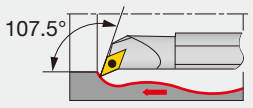
DC



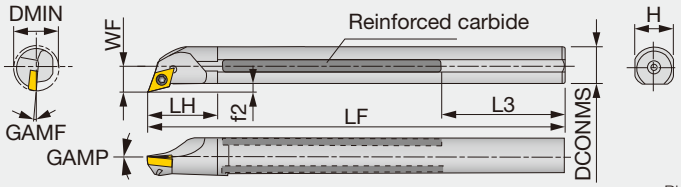
Rhombic, 55°
with hole
Positive 7°

T-SDQCR/L

Screw-on boring bar, for positive 55° rhombic inserts (Tsuppari-Ichiban)



Cutting edge style **Q**



Right hand (R) shown.

Metric	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque
T16Q-SDQCR/L07	Reinforced	20	-	16	11	180	27	59	15	3	0°	-6°	0.4	DC**0702...	1.2
T20R-SDQCR/L11C	Reinforced	25	Rc1/4	20	13	200	35	49	18	3	0°	-6°	0.8	DC**11T3...	3
T25S-SDQCR/L11C	Reinforced	32	Rc1/4	25	17	250	40	64	23	4.5	0°	-4°	0.8	DC**11T3...	3

Torque: Recommended clamping torque: N·m
**RE : Standard corner radius
*The hole specification of applicable inserts conforms to ISO standard.
Note: Use right-hand toolholders (SDQCR**) with left-hand inserts (L); and left-hand toolholders (SDQCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
T16Q-SDQCR/L07	CSTB-2.5	T-8F
T20R-SDQCR/L11C	CSTB-4M	T-15F
T25S-SDQCR/L11C	CSTB-4	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	NS9530	T9215
Breaker Shape	JP	JS	PSS	PS
Cutting conditions	B016			

P

Application	Medium cutting
Grade	T9215
Breaker Shape	PM
Cutting conditions	B016

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

S

Application	Precision finishing	Finishing	Finishing to medium cutting
Grade	BX470	AH8005	AH8015
Breaker Shape	CBN	PS	PS
Cutting conditions	B024		

M

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	AH6225	AH6225
Breaker Shape	JP	JS	PSS	PS
Cutting conditions	B018			

M

Application	Medium cutting
Grade	AH6225
Breaker Shape	PM
Cutting conditions	B018

N

Application	Precision finishing	Finishing	Finishing to medium cutting
Grade	DX120	DX140	KS05F
Breaker Shape	DIA (with rake)		AL
Cutting conditions	B022		

H

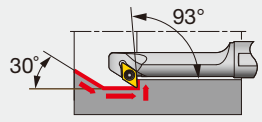
Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B026	

Reference pages: T-SDQCR/L: Insert → B121, CBN → B193 -, PCD → B214

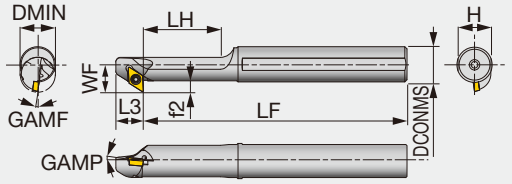
STREAMJETBAR

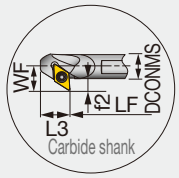
A/E-SDZCR/L

Screw-on boring bar, for positive 55° rhombic inserts



Cutting edge style **Z**





Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque
A10-SDZCR2-D14	Steel	0.875	0.625	0.531	7.000	1.250	0.500	0.600	0.219	0°	-4°	0.016	DC** 21.5...	0.89

Metric	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SDZCR/L07-D140	Steel	14	12	10.5	150	30	12.5	11	4.5	0°	-9°	0.4	DC**0702...	1.2
A16Q-SDZCR/L07-D160	Steel	16	16	12.5	180	35	12.5	15	4.5	0°	-8°	0.4	DC**0702...	1.2
A20R-SDZCR/L11-D200	Steel	20	20	15.5	200	40	15.0	18	5.5	0°	-8°	0.8	DC**11T3...	3
A25S-SDZCR/L11-D250	Steel	25	25	18	250	50	15	23	5.5	0°	-6°	0.8	DC**11T3...	3
E12Q-SDZCR/L07-D180	Carbide	18	12	10.5	180	-	12.5	11	4.5	0°	-8°	0.4	DC**0702...	1.2
E16R-SDZCR/L07-D220	Carbide	22	16	12.5	200	-	12.5	15	4.5	0°	-6°	0.4	DC**0702...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius
Note: Use right-hand toolholders (SDZCR**) with right-hand inserts (R); and left-hand toolholders (SDZCL**) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench
A10-SDZCR2-D14	CSTB-2.5	T-8F
A1**-SDZCR/L07-D1*0	CSTB-2.5	T-8F
A2**-SDZCR/L11-D2*0	CSTB-4S	T-15F
E1**-SDZCR/L07-D**0	CSTB-2.5	T-8F

INSERT SELECTION

P

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	NS9530	T9215
Breaker Shape	JP	JS	PSS	PS
Cutting conditions	B016			

M

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	AH6225	AH6225
Breaker Shape	JP	JS	PSS	PS
Cutting conditions	B018			

P

Application	Medium cutting
Grade	T9215
Breaker Shape	PM
Cutting conditions	B016

M

Application	Medium cutting
Grade	AH6225
Breaker Shape	PM
Cutting conditions	B018

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing	Finishing to medium cutting
Grade	DX120	DX140	KS05F
Breaker Shape	DIA (with rake)		AL
Cutting conditions	B022		

S

Application	Precision finishing	Finishing	Finishing to medium cutting
Grade	BX470	AH8005	AH8015
Breaker Shape	CBN	PS	PS
Cutting conditions	B024		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B026	

Reference pages: A/E-SDZCR/L: Insert → B121, CBN → B193 -, PCD → B214

DP

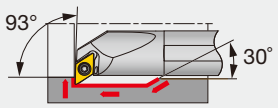


Rhombic, 55°
with hole
Positive 11°

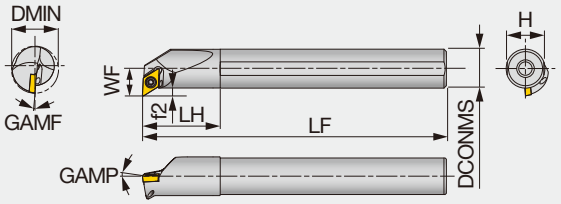
STREAMJETBAR

A/E-SDUPR/L

Screw-on boring bar, for positive 55° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A12M-SDUPR07-D150-P	Special alloy steel	15	12	8.3	150	24	11	2.3	5	0	0.4	DPMT0702...	1.2
A12M-SDUPL07-D150-P	Special alloy steel	15	12	8.3	150	24	11	2.3	5	0	0.4	DPMT0702...	1.2
A12M-SDUPR07-D180-P	Special alloy steel	18	12	10.3	150	24	11	4.3	5	0	0.4	DPMT0702...	1.2
A12M-SDUPL07-D180-P	Special alloy steel	18	12	10.3	150	24	11	4.3	5	0	0.4	DPMT0702...	1.2
A16Q-SDUPR07-D220-P	Special alloy steel	22	16	12.3	180	32	15	4.3	5	0	0.4	DPMT0702...	1.2
A16Q-SDUPL07-D220-P	Special alloy steel	22	16	12.3	180	32	15	4.3	5	0	0.4	DPMT0702...	1.2
E12Q-SDUPR07-D150	Carbide	15	12	8.3	180	27	11	2.3	5	0	0.4	DPMT0702...	1.2
E12Q-SDUPL07-D150	Carbide	15	12	8.3	180	27	11	2.3	5	0	0.4	DPMT0702...	1.2
E12Q-SDUPR07-D180	Carbide	18	12	10.3	180	27	11	4.3	5	0	0.4	DPMT0702...	1.2
E12Q-SDUPL07-D180	Carbide	18	12	10.3	180	27	11	4.3	5	0	0.4	DPMT0702...	1.2
E16R-SDUPR07-D220	Carbide	22	16	12.3	200	32	15	4.3	5	0	0.4	DPMT0702...	1.2
E16R-SDUPL07-D220	Carbide	22	16	12.3	200	32	15	4.3	5	0	0.4	DPMT0702...	1.2

Torque: Recommended clamping torque: N·m
**RE : Standard corner radius
Note: Use right-hand toolholders (SCLPR**) with left-hand inserts (L); and left-hand toolholders (SCLPL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SDUPR/L07-D**0-P	CSTB-2.5S	T-8F
E**-SDUPR/L07-D**0	CSTB-2.5S	T-8F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting
Grade	NS9530	T9215
Breaker Shape	PS	PS
Cutting conditions	B016	

M

Application	Finishing	Finishing to medium cutting
Grade	AH6225	AH6225
Chipbreaker shape	PS	PS
Cutting conditions	B018	

K

Application	Finishing	Finishing to medium cutting
Grade	NS9530	T9215
Breaker Shape	PS	PS
Cutting conditions	B020	

S

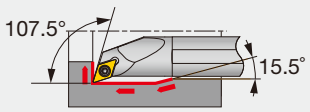
Application	Finishing	Finishing to medium cutting
Grade	AH8015	AH8015
Breaker Shape	PS	PS
Cutting conditions	B024	

Reference pages: A/E-SDUPR/L: Insert → B126

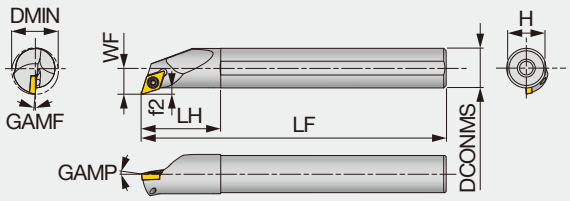
STREAMJETBAR

A/E-SDQPR/L

Screw-on boring bar, for positive 55° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A12M-SDQPR07-D150-P	Special alloy steel	15	12	8.3	150	24	11	2.3	5	0	0.40	DPMT0702...	1.2
A12M-SDQPL07-D150-P	Special alloy steel	15	12	8.3	150	24	11	2.3	5	0	0.40	DPMT0702...	1.2
A12M-SDQPR07-D180-P	Special alloy steel	18	12	9.6	150	24	11	3.6	5	0	0.40	DPMT0702...	1.2
A12M-SDQPL07-D180-P	Special alloy steel	18	12	9.6	150	24	11	3.6	5	0	0.40	DPMT0702...	1.2
A16Q-SDQPR07-D220-P	Special alloy steel	22	16	11.6	180	32	15	3.6	5	0	0.40	DPMT0702...	1.2
A16Q-SDQPL07-D220-P	Special alloy steel	22	16	11.6	180	32	15	3.6	5	0	0.40	DPMT0702...	1.2
E12Q-SDQPR07-D150	Carbide	15	12	8.3	180	27	11	2.3	5	0	0.40	DPMT0702...	1.2
E12Q-SDQPL07-D150	Carbide	15	12	8.3	180	27	11	2.3	5	0	0.40	DPMT0702...	1.2
E12Q-SDQPR07-D180	Carbide	18	12	9.6	180	27	11	3.6	5	0	0.40	DPMT0702...	1.2
E12Q-SDQPL07-D180	Carbide	18	12	9.6	180	27	11	3.6	5	0	0.40	DPMT0702...	1.2
E16R-SDQPR07-D220	Carbide	22	16	11.6	200	32	15	3.6	5	0	0.40	DPMT0702...	1.2
E16R-SDQPL07-D220	Carbide	22	16	11.6	200	32	15	3.6	5	0	0.40	DPMT0702...	1.2

Torque: Recommended clamping torque: N·m
**RE : Standard corner radius
Note: Use right-hand toolholders (SDQCR**) with left-hand inserts (L); and left-hand toolholders (SDQCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SDQPR/L07-D**0-P	CSTB-2.5S	T-8F
E**-SDQPR/L07-D**0	CSTB-2.5S	T-8F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting
Grade	NS9530	T9215
Breaker Shape	PS	PS
Cutting conditions	B016	

M

Application	Finishing	Finishing to medium cutting
Grade	AH6225	AH6225
Chipbreaker shape	PS	PS
Cutting conditions	B018	

K

Application	Finishing	Finishing to medium cutting
Grade	NS9530	T9215
Breaker Shape	PS	PS
Cutting conditions	B020	

S

Application	Finishing	Finishing to medium cutting
Grade	AH8015	AH8015
Breaker Shape	PS	PS
Cutting conditions	B024	

Reference pages: A/E-SDQPR/L: Insert → B126

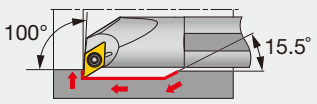
DX

Rhombic, 55° with hole

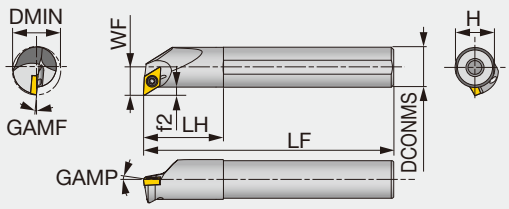
MINIFORCE TURN

A/E-SDXXR/L

Screw-on boring bar, for DXG/MU inserts



Cutting edge style **X**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A06-SDXXR/L2-D10	Steel	0.625	0.375	0.406	5.000	0.750	0.350	0.218	-14°	-16°	0.016	DXG/MU 22**L/R...	0.66
A08-SDXXR/L2-D11	Steel	0.688	0.500	0.406	5.000	1.000	0.475	0.156	-14°	-14°	0.016	DXG/MU 22**L/R...	0.66
A10-SDXXR/L2-D14	Steel	0.875	0.625	0.531	7.000	1.250	0.600	0.218	-13°	-13°	0.016	DXG/MU 22**L/R...	0.66
A12-SDXXR/L2-D16	Steel	1.000	0.750	0.593	7.000	1.438	0.725	0.218	-13°	-12°	0.016	DXG/MU 22**L/R...	0.66
E06-SDXXR/L2-D10	Carbide	0.625	0.375	0.406	5.000	1.000	0.350	-	-14°	-16°	0.016	DXG/MU 22**L/R...	0.66
E08-SDXXR/L2-D11	Carbide	0.688	0.500	0.406	5.000	1.063	0.475	-	-14°	-14°	0.016	DXG/MU 22**L/R...	0.66
E10-SDXXR/L2-D14	Carbide	0.875	0.625	0.531	7.000	1.250	0.600	-	-13°	-13°	0.016	DXG/MU 22**L/R...	0.66
E12-SDXXR/L2-D16	Carbide	1.000	0.750	0.593	7.000	1.438	0.725	-	-13°	-12°	0.016	DXG/MU 22**L/R...	0.66

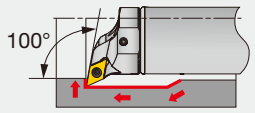
Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A10K-SDXXR/L07-D130	Steel	13	10	7.6	125	20	9	2.6	-14°	-16°	0.4	DXG/MU0703**L/R...	0.9
A12M-SDXXR/L07-D160	Steel	16	12	8.6	150	24	11	2.6	-14°	-14°	0.4	DXG/MU0703**L/R...	0.9
A16Q-SDXXR/L07-D200	Steel	20	16	10.6	180	32	15	2.6	-13°	-13°	0.4	DXG/MU0703**L/R...	0.9
A20R-SDXXR/L07-D240	Steel	24	20	12.6	200	36	18	2.6	-13°	-12°	0.4	DXG/MU0703**L/R...	0.9
E10M-SDXXR/L07-D130	Carbide	13	10	7.6	150	25	9	2.6	-14°	-16°	0.4	DXG/MU0703**L/R...	0.9
E12Q-SDXXR/L07-D160	Carbide	16	12	8.6	180	27	11	2.6	-14°	-14°	0.4	DXG/MU0703**L/R...	0.9
E16R-SDXXR/L07-D200	Carbide	20	16	10.6	200	32	15	2.6	-13°	-13°	0.4	DXG/MU0703**L/R...	0.9
E20S-SDXXR/L07-D240	Carbide	24	20	12.6	250	36	18	2.6	-13°	-12°	0.4	DXG/MU0703**L/R...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m) **RE : Standard corner radius

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R)

S-SDXXR/L-H

Screw-on clamp exchangeable boring head, for DXG/MU inserts



Cutting edge style **X**



Right hand (R) shown.

Inch	DMIN	DCONMS	WF	LF	Shank	Insert
S25-SDXXR/L07-H	1.260	0.984	0.669	0.787	D1.00	DXG/MU 22**L/R...
S32-SDXXR/L07-H	1.575	1.260	0.866	1.260	D1.25	DXG/MU 22**L/R...
S40-SDXXR/L07-H	1.969	1.575	1.063	1.260	D1.50, D2.00, D2.50	DXG/MU 22**L/R...

Note: Use right-hand toolholders (SDXXR**) with left-hand inserts (L); and left-hand toolholders (SDXXL**) with right-hand inserts (R).

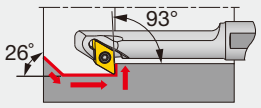
SPARE PARTS

Designation	Clamping screw	Wrench
A/E**-SDXXR/L...	SR34-514	T-7F
S**-SDXXR/L07-H	SR34-514	T-7F

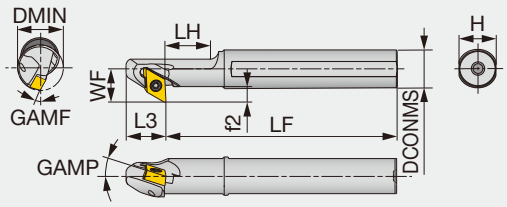
Reference pages: A/E-SDXXR/L: Insert → B126 -
S-SDXXR/L-H: Insert → B126 -, Shank → D090 - D092
Standard cutting conditions → D096

A/E-SDZXR/L

Screw-on boring bar, for DXG/MU inserts



Cutting edge style **Z**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque
A08-SDZXR/L2-D10	Steel	0.625	0.500	0.438	5.000	1.125	0.500	0.475	0.188	-10°	-14°	0.016	DXG/MU 22**R/L...	0.66
A10-SDZXR/L2-D11	Steel	0.688	0.625	0.500	7.000	1.250	0.500	0.600	0.188	-10°	-12.5°	0.016	DXG/MU 22**R/L...	0.66
A12-SDZXR/L2-D14	Steel	0.875	0.750	0.563	7.000	1.375	0.500	0.725	0.188	-10°	-10.5°	0.016	DXG/MU 22**R/L...	0.66

Metric	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SDZXR/L07-D140	Steel	14	12	10.5	150	30	13	11	4.5	-10°	-14°	0.4	DXG/MU0703**R/L...	0.9
A16Q-SDZXR/L07-D160	Steel	16	16	12.5	180	35	13	15	4.5	-10°	-12.5°	0.4	DXG/MU0703**R/L...	0.9
A20R-SDZXR/L07-D200	Steel	20	20	14.5	200	40	13	18	4.5	-10°	-10.5°	0.4	DXG/MU0703**R/L...	0.9
E12Q-SDZXR/L07-D180	Carbide	18	12	10.5	180	-	13	11	4.5	-11°	-11°	0.4	DXG/MU0703**R/L...	0.9
E16R-SDZXR/L07-D220	Carbide	22	16	12.5	200	-	13	15	4.5	-11°	-9°	0.4	DXG/MU0703**R/L...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m) **RE : Standard corner radius
Note: Use right-hand toolholders (R) with right-hand inserts (R); and left-hand toolholders (L) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench
A/E**-SDZXR/L...	SR34-514	T-7F

INSERT SELECTION

P

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	NS9530	T9215
Breaker Shape	JS	JTS	SS	TS
Cutting conditions	D096			

P

Application	Medium cutting
Grade	T9215
Breaker Shape	TS
Cutting conditions	D096

K

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	NS9530	T9215
Breaker Shape	JS	JTS	SS	TS
Cutting conditions	D096			

K

Application	Medium cutting
Grade	T9215
Breaker Shape	TS
Cutting conditions	D096

M

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	AH8015	AH8015
Chipbreaker shape	JS	JTS	SS	TS
Cutting conditions	D096			

M

Application	Medium cutting
Grade	AH8015
Chipbreaker shape	TS
Cutting conditions	D096

N

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	KS05F	KS05F	KS05F
Breaker Shape	SS	TS	TS
Cutting conditions	D096		

S

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	AH8015	AH8015
Breaker Shape	JS	JTS	SS	TS
Cutting conditions	D096			

S

Application	Medium cutting
Grade	AH8015
Breaker Shape	TS
Cutting conditions	D096

Reference pages: A/E-SDZXR/L: Insert → B126 -
Standard cutting conditions → D096

DN FN

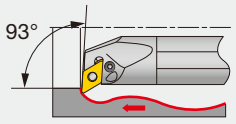
Rhombic, 55° with hole

Rhombic, 45° with hole

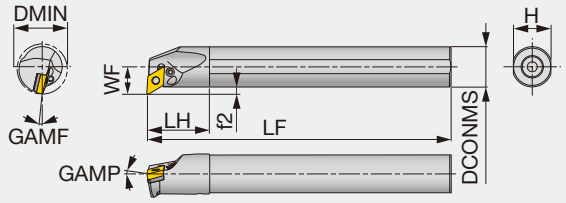
STREAMJETBAR

A-PDUNR/L

Lever-lock boring bar, for negative 55°/45° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A20Q-PDUNR/L1104-D250	Steel	25	20	13	180	36	18	3	-6°	-14°	0.8	DN**/FNMG1104...	1.7
A20Q-PDUNR/L11-D250	Steel	25	20	13	180	36	18	3	-6°	-14°	0.8	DN**/FNMG1104...	1.7
A25R-PDUNR/L11-D320	Steel	32	25	17	200	45	23	4.5	-6°	-12°	0.8	DN**/FNMG1104...	2.7
A32S-PDUNR/L15-D400	Steel	40	32	22	250	50	30	6	-6°	-13°	0.8	DN**/FNGA1504...	4.8
A40T-PDUNR/L15-D500	Steel	50	40	27	300	60	37	7	-6°	-10°	0.8	DN**/FNGA1504...	4.8
A50U-PDUNR/L15-D630	Steel	63	50	35	350	65	47	10	-6°	-8°	0.8	DN**/FNGA1504...	4.8
A32S-PDUNR/L1506-D400	Steel	40	32	22	250	50	30	6	-6°	-13°	0.8	DN**/FNGA1506...	4.8
A40T-PDUNR/L1506-D500	Steel	50	40	27	300	60	37	7	-6°	-11°	0.8	DN**/FNGA1506...	4.8
A50U-PDUNR/L1506-D630	Steel	63	50	35	350	65	47	10	-6°	-10°	0.8	DN**/FNGA1506...	4.8

Torque: Recommended clamping torque: N·m
**RE : Standard corner radius
Note: Use right-hand toolholders (PDUNR**) with left-hand inserts (L); and left-hand toolholders (PDUNL**) with right-hand inserts (R).

SPARE PARTS

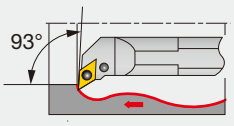
Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A20Q-PDUNR/L1104-D250	-	LCS22A	-	P-2F	-	-	LCL33NL	EA-20	SSHM2.5-3
A20Q-PDUNR/L11-D250	-	LCS22A	-	P-2F	-	-	LCL33NL	EA-20	SSHM2.5-3
A25R-PDUNR/L11-D320	ELSD317BR/L	-	LCS3	-	P-2.5	LSP3	LCL33L	EA-25	SSHM3-4
A32S-PDUNR/L15-D400	LSD42BR/L	-	LCS4	-	P-3	LSP4	LCL4	EA-32	SSHM5-6
A40T-PDUNR/L15-D500	LSD42BR/L	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A50U-PDUNR/L15-D630	LSD42BR/L	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A32S-PDUNR/L1506-D400	ELSD42	-	ELCS4	-	P-3	LSP4S	LCL44	EA-20	SSHM5-6
A40T-PDUNR/L1506-D500	ELSD42	-	ELCS4	-	P-3	LSP4S	LCL44	-	SSHM6-6
A50U-PDUNR/L1506-D630	ELSD42	-	ELCS4	-	P-3	LSP4S	LCL44	-	SSHM6-6

*Optional

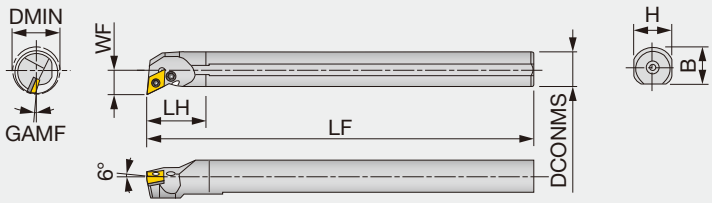
Reference pages: A-PDUNR/L: Insert → B066 -, B075, CBN → B172 -, PCD → B211

S-PDUNR/L

Lever-lock boring bar, for negative 55°/45° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert
S20Q-PDUNR/L11	Steel	25	20	13	180	35	18	19	-14°	0.8	DN**/FNMG1104...
S25R-PDUNR/L11	Steel	32	25	17	200	40	23	24	-12°	0.8	DN**/FNMG1104...
S32S-PDUNR/L15	Steel	40	32	22	250	50	30	29.5	-13°	0.8	DN**/FNGA1504...
S40T-PDUNR/L15	Steel	50	40	27	300	55	37	37.5	-10°	0.8	DN**/FNGA1504...
S50U-PDUNR/L15	Steel	63	50	35	350	65	47	47.5	-8°	0.8	DN**/FNGA1504...

**RE : Standard corner radius

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever
S20Q-PDUNR/L11	-	LCS22A	-	P-2F	-	-	LCL33NL
S25R-PDUNR11	ELSD317BR	-	LCS3	-	P-2.5	LSP3	LCL33L
S25R-PDUNL11	ELSD317BL	-	LCS3	-	P-2.5	LSP3	LCL33L
S32S-PDUNR15	LSD42BR	-	LCS4	-	P-3	LSP4	LCL4
S32S-PDUNL15	LSD42BL	-	LCS4	-	P-3	LSP4	LCL4
S40T-PDUNR15	LSD42BR	-	LCS4	-	P-3	LSP4	LCL4
S40T-PDUNL15	LSD42BL	-	LCS4	-	P-3	LSP4	LCL4
S50U-PDUNR15	LSD42BR	-	LCS4	-	P-3	LSP4	LCL4
S50U-PDUNL15	LSD42BL	-	LCS4	-	P-3	LSP4	LCL4

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Breaker Shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B014	

Reference pages: S-PDUNR/L: Insert → B066 -, B075, CBN → B172 -, PCD → B211

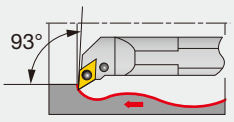
DN FN

Rhombic, 55° with hole

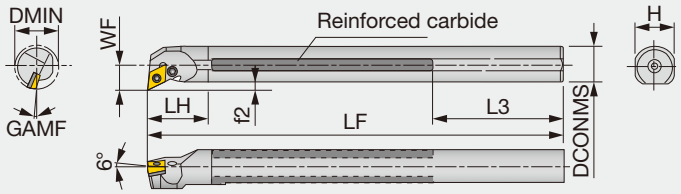
Rhombic, 45° with hole

T-PDUNR

Lever-lock boring bar, for negative 55°/45° rhombic inserts (Tsuppari-Ichiban)



Cutting edge style **U**



Right hand (R) shown.

Metric	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	f2	GAMF	RE**	Insert
T32U-PDUNR15C	Reinforced	40	Rc1/2	32	22	350	50	103	30	6	-13°	0.8	DN**/FNGA1504...
T40V-PDUNR15C	Reinforced	50	Rc1/2	40	27	400	55	88	37	7	-10°	0.8	DN**/FNGA1504...
T50W-PDUNR15C	Reinforced	63	Rc1/2	50	35	450	65	63	47	10	-8°	0.8	DN**/FNGA1504...

**RE : Standard corner radius

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

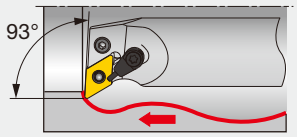
SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
T**-PDUNR15C	LSD42BR	LCS4	P-3	LSP4	LCL4

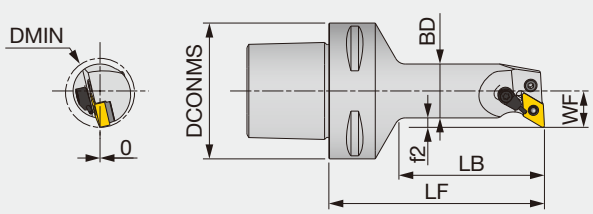
TUNGCAP

C-PDUNL-CHP

Lever-lock boring bar with TungCap connection, with 93° approach angle, for negative 55°/45° rhombic inserts, with high pressure coolant capability



Cutting edge style **U**



Left hand (L) shown.

Metric	DMIN	DCONMS	BD	LF	LB	WF	f2	RE**	Insert
C6PDUNL17100-1104-CHP	32	63	25	100	67.5	17	4.5	0.8	DN**/FNMG1104...

Applicable for 14 MPa coolant

**RE : Standard corner radius

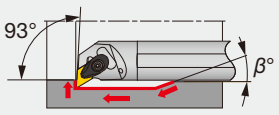
SPARE PARTS

Designation	Shim	Clamping screw	Coolant unit	Wrench	Spring pin	Lever
C6PDUNL17100-1104-CHP	ELSD317BL	LCS43	S-CU-CHP	P-2.5	LSP3	LCL33L

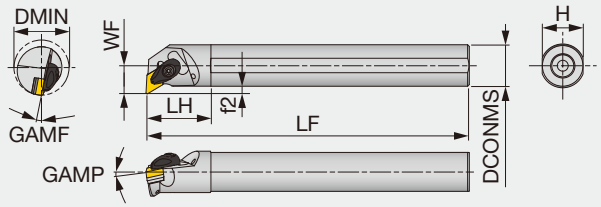
Reference pages: T-PDUNR, C-PDUNL-CHP: Insert → B066 -, B075, CBN → B172 -, PCD → B211

A-ADUNR/L

Double-clamp boring bar, for negative 55°/45° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	β°	RE**	Insert	Torque
A16-ADUNR/L33-D20	Steel	1.250	1.000	0.672	12.000	1.750	0.906	0.172	-6°	-13°	20	0.031	DN**/FNMG 33...	2.21
A20-ADUNR/L33-D25	Steel	1.560	1.250	0.859	14.000	1.938	1.188	0.234	-6°	-11°	20	0.031	DN**/FNMG 33...	2.21
A16-ADUNR/L4-D20	Steel	1.250	1.000	0.672	12.000	1.770	0.906	0.177	-6°	-13°	30	0.031	DN**/FNGA 43...	2.21
A20-ADUNR/L4-D25	Steel	1.500	1.250	0.859	14.000	1.960	1.180	0.236	-6°	-11°	20	0.031	DN**/FNGA 43...	2.21
A24-ADUNR/L4-D32	Steel	2.000	1.500	1.063	14.000	2.160	1.450	0.275	-6°	-8°	15	0.031	DN**/FNGA 43...	2.21

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	β°	RE**	Insert	Torque*
A25R-ADUNR/L1104-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	20	0.8	DN**/FNMG1104...	3
A32S-ADUNR/L1104-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	20	0.8	DN**/FNMG1104...	3
A25R-ADUNR/L15-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	30	0.8	DN**/FNGA1504...	3
A32S-ADUNR/L15-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	20	0.8	DN**/FNGA1504...	3
A40T-ADUNR15-D500	Steel	50	40	27	300	55	37	7	-6°	-8°	15	0.8	DN**/FNGA1504...	3
A50U-ADUNR15-D630	Steel	63	50	35	350	65	47	10	-6°	-7°	15	0.8	DN**/FNGA1504...	3
A25R-ADUNR/L1506-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	15	0.8	DN**/FNGA1506...	3
A32S-ADUNR/L1506-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	20	0.8	DN**/FNGA1506...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ADUNR/L33-D..., A**-ADUNR/L1104-D...	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASD322	CSTB-3.5	T-15F
A**-ADUNR/L4-D..., A**-ADUNR/L15-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASD432	CSTB-3.5	T-15F
A**-ADUNR/L1506-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASD423	CSTB-3.5	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Breaker Shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B014	

Reference pages: A-ADUNR/L: Insert → B066 -, B075, CBN → B172 -, PCD → B211

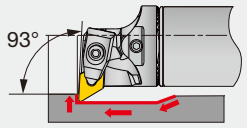
DN FN

Rhombic, 55° with hole | **Rhombic, 45° with hole**

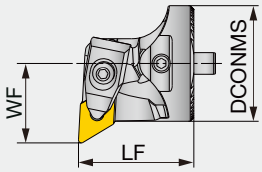
BOREMEISTER

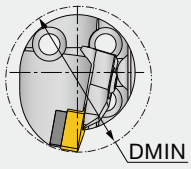
S-DDUNR/L-H

Double-clamp exchangeable boring head, for negative 55°/45° rhombic inserts



Cutting edge style **U**





Right hand (R) shown.

Inch	DMIN	DCONMS	WF	LF	Shank size	Insert
S32-DDUNR/L11T-H	1.575	1.260	0.866	1.260	D1.25	DN**/FNMG 33...
S40-DDUNR/L15T-H(1)	1.969	1.575	1.063	1.496	D1.50, D2.00, D2.50	DN**/FNGA 44(43)...

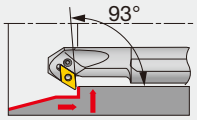
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (DDUNL** type), and the left hand insert (L) is used for the right hand toolholders (DDUNR** type).
(1) DN**/FNGA 43... inserts require a separate shim (# RDT443).

SPARE PARTS

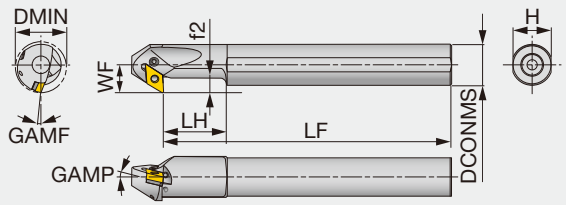
Designation	Shim 1	Shim 2 (Optional)	Shim screw	Clamp	Clamping screw	Spring	Wrench
S32-DDUNR/L11T-H	RDT3-2	-	SR40085I	LCGR-3	SRRC3	KSP3	HW2.5
S40-DDUNR/L15T-H	RDT433	(RDT443)	SR14-506	DLM4	DLS4	DSP4	HW3.0

A-PDZNR/L

Lever-lock boring bar, for negative 55°/45° rhombic inserts



Cutting edge style **Z**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A32S-PDZNR/L15-D400	Steel	40	32	22	250	50	30	11.5	-6°	-13°	0.8	DN**/FNGA1504...	4.8
A40T-PDZNR/L15-D500	Steel	50	40	27	300	60	37	14.5	-6°	-10°	0.8	DN**/FNGA1504...	4.8
A50U-PDZNR/L15-D630	Steel	63	50	35	350	65	47	14.5	-6°	-8°	0.8	DN**/FNGA1504...	4.8

Torque: Recommended clamping torque: N·m
**RE : Standard corner radius
Note: Use right-hand toolholders (PDZNR**) with right-hand inserts (R); and left-hand toolholders (PDZNL**) with left-hand inserts (L).

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A32S-PDZNR15-D400	LSZ42BR	LCS4	P-3	LSP4	LCL4	EA-32	SSHM4-5
A32S-PDZNL15-D400	LSZ42BL	LCS4	P-3	LSP4	LCL4	EA-32	SSHM4-5
A40T-PDZNR15-D500	LSZ42BR	LCS4	P-3	LSP4	LCL4	-	SSHM5-6
A40T-PDZNL15-D500	LSZ42BL	LCS4	P-3	LSP4	LCL4	-	SSHM5-6
A50U-PDZNR15-D630	LSZ42BR	LCS4	P-3	LSP4	LCL4	-	SSHM6-6
A50U-PDZNL15-D630	LSZ42BL	LCS4	P-3	LSP4	LCL4	-	SSHM6-6

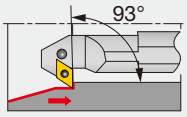
*Optional

Reference pages: S-DDUNR/L-H: Insert → B066 -, B075, CBN → B172 -, PCD → B211
Shank → D090 - D092
A-PDZNR/L: Insert → B066 -, B075, CBN → B172 -, PCD → B211

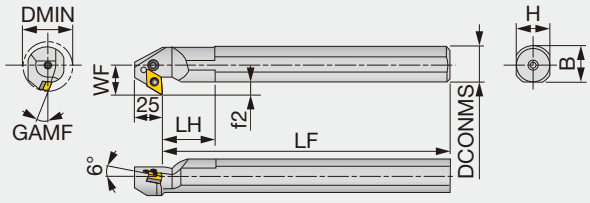
STREAMJETBAR

S-PDZNR/L

Lever-lock boring bar, for negative 55°/45° rhombic inserts



Cutting edge style **Z**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	B	GAMF	RE**	Insert
S32S-PDZNR/L15	Steel	40	32	22	250	30	30	6	29.5	-13°	0.8	DN**/FNGA1504...
S40T-PDZNR15	Steel	50	40	27	300	35	37	7	37.5	-10°	0.8	DN**/FNGA1504...
S50U-PDZNR15	Steel	60	50	35	350	40	47	10	47.5	-8°	0.8	DN**/FNGA1504...

**RE : Standard corner radius

Note: Use right-hand toolholders (R) with right-hand inserts (R); and left-hand toolholders (L) with left-hand inserts (L)

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
S32S-PDZNR15	LSZ42BR	LCS4	P-3	LSP4	LCL4
S32S-PDZNL15	LSZ42BL	LCS4	P-3	LSP4	LCL4
S*0*-PDZNR15	LSZ42BR	LCS4	P-3	LSP4	LCL4

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Breaker Shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B014	

Reference pages: S-PDZNR/L: Insert → B066 -, B075, CBN → B172 -, PCD → B211

EP

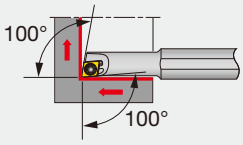


Rhombic, 75°
with hole
Positive 11°

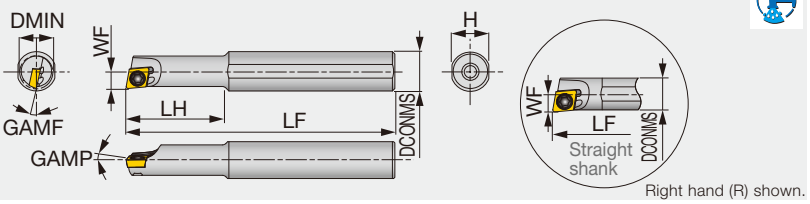
STREAMJETBAR

A/E-SEXPR/L

Screw-on boring bar, for positive 75° rhombic inserts



Cutting edge style **X**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque
A05-SEXPR/L04-D04	Steel	0.250	0.313	0.125	5.000	0.812	0.287	0°	-12°	0.016	EPGT 52...	0.44
E05-SEXPR04-D04	Carbide	0.250	0.313	0.125	5.000	1.562	0.287	0°	-12°	0.016	EPGT 52...	0.44

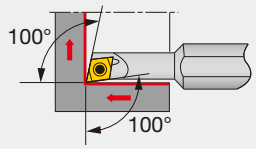
Metric	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A04F-SEXPR/L03-D045	Steel	4.5	4	2.3	80	8	3.8	0°	-15°	0.2	EP**03X1...	0.6
A04F-SEXPR/L03-D050	Steel	5	4	2.5	80	8	3.8	0°	-13°	0.2	EP**03X1...	0.6
A05F-SEXPR/L04-D055	Steel	5.5	5	2.75	80	9	4.8	0°	-12°	0.4	EP**0401...	0.6
A06G-SEXPR/L04-D070	Steel	7	6	3.6	90	11	5.75	0°	-12°	0.4	EP**0401...	0.6
A08H-SEXPR/L04-D055	Steel	5.5	8	2.75	100	16	7.5	0°	-12°	0.4	EP**0401...	0.6
A08H-SEXPR/L04-D070	Steel	7	8	3.6	100	20	7.5	0°	-12°	0.4	EP**0401...	0.6
E04G-SEXPR/L03-D045	Carbide	4.5	4	2.3	90	9	3.8	0°	-15°	0.2	EP**03X1...	0.6
E04G-SEXPR/L03-D050	Carbide	5	4	2.5	90	9	3.8	0°	-13°	0.2	EP**03X1...	0.6
E05G-SEXPR/L04-D055	Carbide	5.5	5	2.75	90	10	4.8	0°	-12°	0.4	EP**0401...	0.6
E06H-SEXPR/L04-D070	Carbide	7	6	3.6	100	12	5.75	0°	-12°	0.4	EP**0401...	0.6
E08K-SEXPR/L04-D055	Carbide	5.5	8	2.75	125	28	7.5	0°	-12°	0.4	EP**0401...	0.6
E08K-SEXPR/L04-D070	Carbide	7	8	3.6	125	40	7.5	0°	-12°	0.4	EP**0401...	0.6

Torque: Recommended clamping torque: lbs·ft (*N·m) **RE : Standard corner radius
Note: Use right-hand toolholders (SEXPR**) with left-hand inserts (L); and left-hand toolholders (SEXPL**) with right-hand inserts (R).

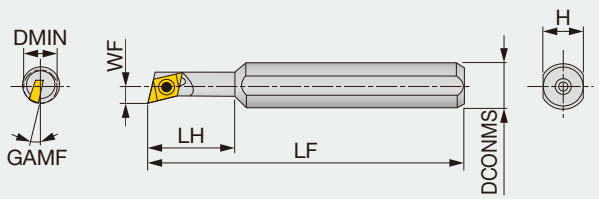
J-SERIES

JS-SEXPR/L

Screw-on boring bar, for positive 75° rhombic inserts



Cutting edge style **X**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	GAMF	RE**	Insert	Torque
JS08H-SEXPR045	Steel	5.5	8	2.7	100	16	7	12°	0.4	EP**0401...	0.6
JS08H-SEXPR047	Steel	7	8	3.6	100	20	7	12°	0.4	EP**0401...	0.6

Torque: Recommended clamping torque: N·m **RE : Standard corner radius
Note: Use right-hand toolholders (SEXPR**) with left-hand inserts (L); and left-hand toolholders (SEXPL**) with right-hand inserts (R).

SPARE PARTS



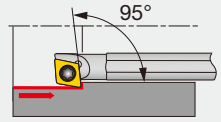

Designation	Clamping screw	Wrench
A**-SEXPR/L03-D...	CSTA-1.6	T-6F
A**-SEXPR/L04-D...	CSTB-2	T-6F
E**-SEXPR/L03-D...	CSTA-1.6	T-6F
E**-SEXPR/L04-D...	CSTB-2	T-6F
JS08H-SEXPR04...	CSTB-2	T-6F

Reference pages: A/E-SEXPR/L, JS-SEXPR/L: Insert → B128 -, CBN → B195, PCD → B214

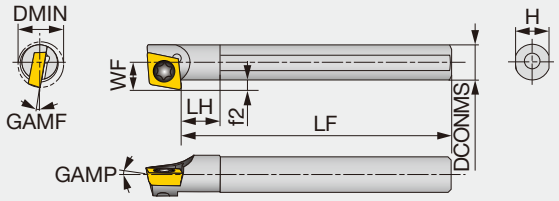
STREAMJETBAR

A/E-SEZPR/L

Screw-on boring bar, for positive 75° rhombic inserts



Cutting edge style **Z**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A04F-SEZPR/L03-D055	Steel	5.5	4	3.2	80	4	3.8	1.2	0°	-8°	0.2	EP**03X1...	0.6
A05F-SEZPR/L03-D065	Steel	6.5	5	3.7	80	5	4.8	1.2	0°	-6°	0.2	EP**03X1...	0.6
E04G-SEZPR/L03-D055	Carbide	5.5	4	3.2	90	5	3.8	1.2	0°	-8°	0.2	EP**03X1...	0.6
E05G-SEZPR/L03-D065	Carbide	6.5	5	3.7	90	6	4.8	1.2	0°	-6°	0.2	EP**03X1...	0.6

Torque: Recommended clamping torque: N·m
**RE : Standard corner radius
Note: Use right-hand toolholders (SEZPR**) with right-hand inserts (R); and left-hand toolholders (SEZPL**) with left-hand inserts (L).

SPARE PARTS

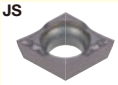
Designation	Clamping screw	Wrench
A**-SEZPR/L03-D...	CSTA-1.6	T-6F
E**-SEZPR/L03-D...	CSTA-1.6	T-6F

INSERT SELECTION

P

Application	Finishing
Grade	SH725
Breaker Shape	JS 
Cutting conditions	B016

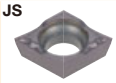
M

Application	Finishing
Grade	SH725
Breaker Shape	JS 
Cutting conditions	B018

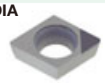
K

Application	Finishing
Grade	SH725
Breaker Shape	JS 
Cutting conditions	B020

S

Application	Finishing
Grade	SH725
Breaker Shape	JS 
Cutting conditions	B024

N

Application	Precision finishing	Finishing
Grade	DX140	SH725
Breaker Shape	DIA 	JS 
Cutting conditions	B022	

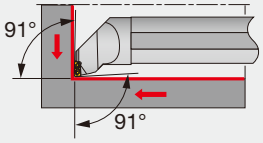
H

Application	Precision finishing
Grade	BX310
Breaker Shape	CBN 
Cutting conditions	B026

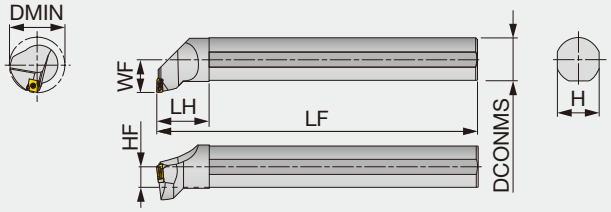
Reference pages: A/E-SEZPR/L: Insert → B128 -, CBN → B195, PCD → B214

S-TLANR/L

Screw-on boring bar for roughing, for negative tangential inserts



Cutting edge style **A**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	HF	Insert
S16-TLANR/L12-D34	Steel	2.090	1.000	0.670	12.000	1.500	0.920	0.460	LNMX1204**L/R...
S20-TLANR/L12-D34	Steel	2.090	1.250	0.870	14.000	1.750	1.140	0.570	LNMX1204**L/R...
S24-TLANR/L12-D34	Steel	2.090	1.500	1.060	16.000	2.000	1.340	0.670	LNMX1204**L/R...
S32-TLANR/L16-D54	Steel	3.350	2.000	1.460	16.000	2.360	1.810	0.905	LNMX1606**L/R...

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	HF	Insert
S25T-TLANR/L12-D530	Steel	53	25	17	300	40	23	11.5	LNMX1204**L/R...
S32U-TLANR/L12-D530	Steel	53	32	22	350	45	30	15	LNMX1204**L/R...
S40V-TLANR/L12-D530	Steel	53	40	27	400	53	37	18.5	LNMX1204**L/R...
S50U-TLANR/L16-D850	Steel	85	50	37	350	63	47	23.5	LNMX1606**L/R...

Note: Use right-hand toolholders (TLANR**) with left-hand inserts (L); and left-hand toolholders (TLANL**) with right-hand inserts (R).

SPARE PARTS

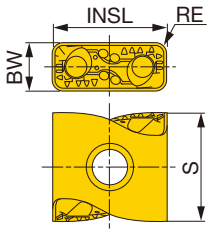
Designation	Clamping screw	Shim screw	Shim	Spring pin	Wrench 1	Wrench 2
S**-TLANR/L12-D34, S**-TLANR/L12-D530	CSTB-3.5L115-S	CSTF-2L055-S	TSL12L/RI	-	KEYV-T10	T-6F-S
S32-TLANR16-D54, S50U-TLANR16-D850	CSTB-4L115-S	-	TSL16LI	PSP-16	KEYV-T15	-
S32-TLANL16-D54, S50U-TLANL16-D850	CSTB-4L115-S	-	TSL16RI	PSP-16	KEYV-T15	-

Reference pages: Standard cutting conditions → D097

INSERT

LNMX12/16/24





P	Steel	★	★	★			
M	Stainless	☆		☆			
K	Cast iron	☆	☆	☆			
N	Non-ferrous						
S	Superalloys						
H	Hard materials						

★ : First choice
☆ : Second choice

Designation	HAND	RE (in)	Coated									BW (in)	INSL (in)	S (in)
			T9115	T9125	AH725									
LNMX120408R-TDR	R	0.031	●	●								0.189	0.472	0.457
LNMX120408L-TDR	L	0.031	●	●								0.189	0.472	0.457
LNMX120412R-TDR	R	0.047	●	●								0.189	0.472	0.457
LNMX120412L-TDR	L	0.047	●	●								0.189	0.472	0.457
LNMX160608R-TDR	R	0.031	●	●								0.252	0.638	0.531
LNMX160608L-TDR	L	0.031	●	●								0.252	0.638	0.531
LNMX160612R-TDR	R	0.047	●	●								0.252	0.638	0.531
LNMX160612L-TDR	L	0.047	●	●								0.252	0.638	0.531
LNMX160616R-TDR	R	0.063	●	●								0.252	0.638	0.531
LNMX160616L-TDR	L	0.063	●	●								0.252	0.638	0.531
LNMX241016R-TDR	R	0.063	●	●								0.370	0.945	0.807
LNMX241016L-TDR	L	0.063	●	●								0.370	0.945	0.807
LNMX241024R-TDR	R	0.094	●	●								0.370	0.945	0.807
LNMX241024L-TDR	L	0.094	●	●								0.370	0.945	0.807
LNMX160608R-MDR	R	0.031	●		●							0.252	0.638	0.531
LNMX160608L-MDR	L	0.031	●		●							0.252	0.638	0.531
LNMX160612R-MDR	R	0.047	●		●							0.252	0.638	0.531
LNMX160612L-MDR	L	0.047	●		●							0.252	0.638	0.531
LNMX160608R-TWR	R	0.031	●									0.252	0.638	0.531
LNMX160608L-TWR	L	0.031	●	●								0.252	0.638	0.531
LNMX160612R-TWR	R	0.047	●	●								0.252	0.638	0.531
LNMX160612L-TWR	L	0.047	●	●								0.252	0.638	0.531

● : Line up

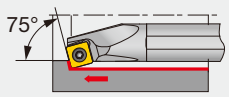
SP

Square
with hole
Positive 11°

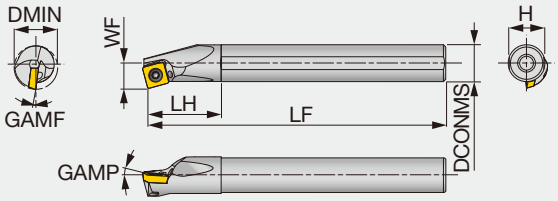
STREAMJETBAR

A-SSKPR

Screw-on boring bar, for positive square inserts



Cutting edge style **K**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque
A16Q-SSKPR09-D200	Steel	20	16	11	180	32	15	5°	-6°	0.8	SP**0903...	3
A20R-SSKPR09-D240	Steel	24	20	13	200	36	18	5°	-2°	0.8	SP**0903...	3
A25S-SSKPR12-D310	Steel	31	25	17	250	45	23	5°	-2°	0.8	SP**1204...	6

Torque: Recommended clamping torque: N·m
**RE : Standard corner radius
Note: Use right-hand toolholders (SSKPR**) with left-hand inserts (L); and left-hand toolholders (SSKPL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SSKPR09-D2*0	CSTB-4L060	T-15F
A25S-SSKPR12-D310	CSTB-5S	T-20F

INSERT SELECTION

P

Application	Finishing to medium cutting
Grade	T9215
Breaker Shape	PS 
Cutting conditions	B016

M

Application	Finishing to medium cutting
Grade	AH6225
Breaker Shape	PS 
Cutting conditions	B018

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM 
Cutting conditions	B020

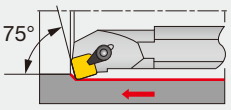
Reference pages: A-SSKPR: Insert → B135 -, CBN → B195 -

SP

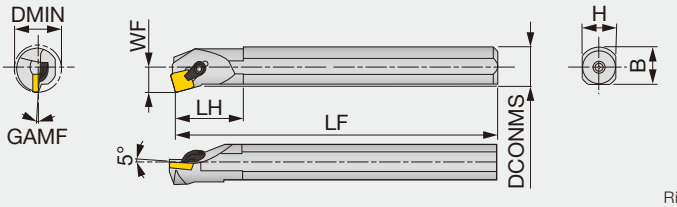
Square
without hole
Positive 11°

S/C-CSKPR/L

Clamp-on boring bar, for positive square inserts



Cutting edge style **K**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert
S16Q-CSKPR09	Steel	20	16	11	180	30	15	15	-4°	0.8	SP**0903...
S20R-CSKPR/L09	Steel	25	20	13	200	40	18	18.5	-2°	0.8	SP**0903...
S25S-CSKPR12	Steel	32	25	17	250	45	23	22.5	0°	0.8	SP**1203...

**RE : Standard corner radius
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Clamp set	Wrench
S16Q-CSKPR09	CSG-5S	P-2.5
S20R-CSKPR/L09	CSG-5	P-2.5
S25S-CSKPR12	CSG-6	P-3

Reference pages: S/C-CSKPR/L: Insert → B135 -, CBN → B195 -, PCD → B215

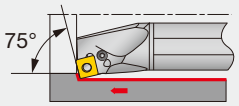
SN

Square with hole

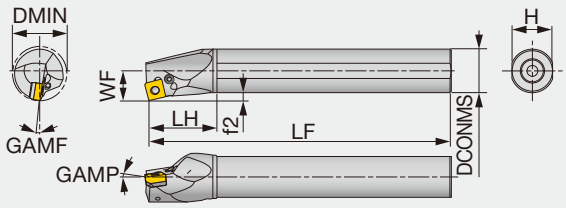
STREAMJETBAR

A-PSKNR/L

Lever-lock boring bar, for negative square inserts



Cutting edge style **K**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A32S-PSKNR/L12-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	SN**1204...	4.8
A40T-PSKNR/L12-D500	Steel	50	40	27	300	60	37	7	-6°	-10°	0.8	SN**1204...	4.8
A50U-PSKNR/L12-D630	Steel	63	50	35	350	65	47	10	-6°	-8°	0.8	SN**1204...	4.8

Torque: Recommended clamping torque: N·m
**RE : Standard corner radius
Note: Use right-hand toolholders (PSKNR**) with left-hand inserts (L); and left-hand toolholders (PSKNL**) with right-hand inserts (R).

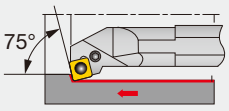
SPARE PARTS

Designation	Shim	Screw	Wrench	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A32S-PSKNR/L12-D400	LSS42BR/L	LCS4	P-3	LSP4	LCL4	EA-32	SSHM4-5
A40T-PSKNR/L12-D500	LSS42BR/L	LCS4	P-3	LSP4	LCL4	-	SSHM6-6
A50U-PSKNR/L12-D630	LSS42BR/L	LCS4	P-3	LSP4	LCL4	-	SSHM6-6

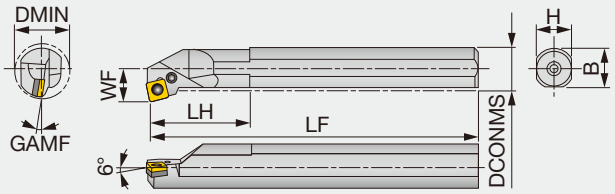
*Optional

S-PSKNR

Lever-lock boring bar, for negative square inserts



Cutting edge style **K**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert
S32S-PSKNR12	Steel	40	32	22	250	50	30	29.5	-10°	0.8	SN**1204...
S40T-PSKNR12	Steel	50	40	27	300	55	37	37.5	-10°	0.8	SN**1204...
S50U-PSKNR12	Steel	63	50	35	350	65	47	47.5	-8°	0.8	SN**1204...

**RE : Standard corner radius
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

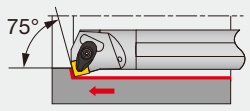
SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
S**-PSKNR12	LSS42BR	LCS4	P-3	LSP4	LCL4

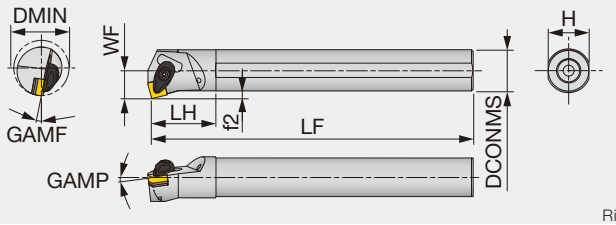
Reference pages: A-PSKNR/L, S-PSKNR: Insert → B077 -, CBN → B180, PCD → B211

A-ASKNR/L

Double-clamp boring bar, for negative square inserts



Cutting edge style **K**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A16-ASKNR/L4-D20	Steel	1.250	1.000	0.672	12.000	1.770	0.906	0.177	-6°	-13°	0.031	SN** 43...	2.21
A20-ASKNR/L4-D25	Steel	1.500	1.250	0.859	14.000	1.960	1.180	0.236	-6°	-10°	0.031	SN** 43...	2.21

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-ASKNR/L12-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	SN**1204...	3
A32S-ASKNR/L12-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	SN**1204...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ASKNR/L...	ACP4S	ACS-5W	BP-7	SP-2.5	ASS422	CSTB-3.5	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker Shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Finishing	Medium cutting
Grade	DX140	TH10
Breaker Shape	T-DIA	P
Cutting conditions	B010	

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX480	AH8005	AH8005
Breaker Shape	T-CBN	HRF	HRM
Cutting conditions	B012		

Reference pages: A-ASKNR/L: Insert → B077 -, CBN → B180, PCD → B211

TC

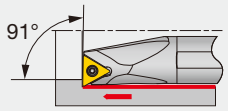


Triangular with hole Positive 7°

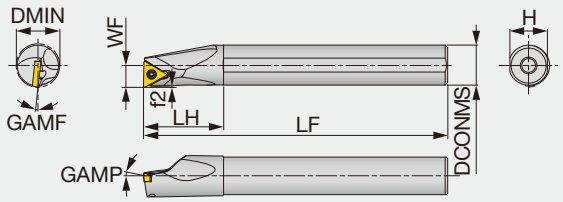
STREAMJETBAR

A/E-STFCR/L

Screw-on boring bar, for positive 60° triangular inserts



Cutting edge style **F**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
E06-STFCR/L2-D08	Carbide	0.500	0.375	0.281	5.000	1.000	0.350	-	0°	-9°	0.016	TC** 21.5...	0.89
E08-STFCR2-D11	Carbide	0.688	0.500	0.406	5.000	1.062	0.475	-	0°	-6°	0.016	TC** 21.5...	0.89
E10-STFCR2-D14	Carbide	0.875	0.625	0.531	7.000	1.250	0.600	-	0°	-5°	0.016	TC** 21.5...	0.89
E12-STFCR3-D16	Carbide	1.000	0.750	0.594	7.000	1.438	0.750	-	0°	-5°	0.032	TC** 32.5...	2.2

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A10K-STFCR/L1103-D120	Steel	12	10	6.5	125	20	9	0.6	0°	-13°	0.4	TC**1103...	1.2
A12M-STFCR/L1103-D140	Steel	14	12	7	150	24	11	0.5	0°	-10°	0.4	TC**1103...	1.2
A16Q-STFCR/L1103-D180	Steel	18	16	9	180	32	15	0.5	0°	-7°	0.4	TC**1103...	1.2
E10M-STFCR/L1103-D120	Carbide	12	10	6.5	150	25	9	0.7	0°	-13°	0.4	TC**1103...	1.2
E12Q-STFCR/L1103-D140	Carbide	14	12	7	180	27	11	0.5	0°	-10°	0.4	TC**1103...	1.2
E16R-STFCR/L1103-D180	Carbide	18	16	9	200	32	15	0.5	0°	-7°	0.4	TC**1103...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius
Note: Use right-hand toolholders (STFCR**) with left-hand inserts (L); and left-hand toolholders (STFCL**) with right-hand inserts (R).

SPARE PARTS




Designation	Clamping screw	Wrench
E**-STFCR/L2-D...	CSTB-2.5	T-8F
E12-STFCR3-D16	CSTB-4S	T15-F
A**-STFCR/L1103-D...	CSTB-2.5	T-8F
E**-STFCR/L1103-D...	CSTB-2.5	T-8F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
Grade	SH725	SH725	T9215	T9215
Breaker Shape	JP	JS	PS	PM
Cutting conditions	B016			

M

Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
Grade	SH725	SH725	AH6225	AH6225
Breaker Shape	JP	JS	PS	PM
Cutting conditions	B018			

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing to medium cutting
Grade	DX120	KS05F
Breaker Shape	DIA	AL (with rake)
Cutting conditions	B022	

S

Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
Grade	SH725	SH725	AH6225	AH6225
Breaker Shape	JP	JS	PS	PM
Cutting conditions	B024			

Reference pages: A/E-STFCR/L: Insert → B138 -, PCD → B216

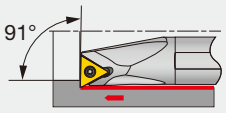
TP

Triangular with hole Positive 11°

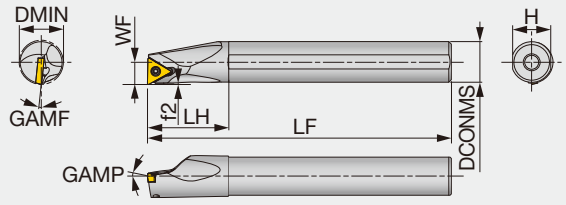
STREAMJETBAR

A/E-STFPR/L

Screw-on boring bar, for positive 60° triangular inserts



Cutting edge style **F**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
E06-STFPR2-D08	Carbide	0.500	0.375	0.281	5.000	1.000	0.350	-	0°	-5°	0.016	TP** 21.5...	0.89
E08-STFPR2-D11	Carbide	0.688	0.500	0.406	5.000	1.062	0.475	-	0°	-3°	0.016	TP** 21.5...	0.89
E10-STFPR2-D14	Carbide	0.875	0.625	0.531	7.000	1.250	0.605	-	0°	-2°	0.016	TP** 21.5...	0.89
E12-STFPR/L3-D16	Carbide	1.000	0.750	0.594	7.000	1.438	0.725	-	0°	-2°	0.032	TP** 32.5...	2.2

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A08H-STFPR/L09-D100	Steel	10	8	5.5	100	16	7.5	0.7	5°	-8°	0.4	TP**0902...	0.9
A10K-STFPR/L1102-D120	Steel	12	10	6.5	125	20	9	0.7	5°	-6°	0.4	TP**1102...	1.2
A12M-STFPR/L1102-D140	Steel	14	12	7.0	150	24	11	0.6	5°	-4°	0.4	TP**1102...	1.2
A16Q-STFPR/L13-D180	Steel	18	16	9	180	32	15	0.7	5°	-2°	0.4	TP**1303...	1.4
A20R-STFPR13-D220	Steel	22	20	11	200	36	18	0.8	5°	-2°	0.4	TP**1303...	1.4
A25S-STFPR16-D270	Steel	27	25	13.5	250	45	23	0.6	5°	-1°	0.4	TP**16T3...	3
E08K-STFPR/L09-D100	Carbide	10	8	5.5	125	22	7.5	0.7	5°	-8°	0.4	TP**0902...	0.9
E10M-STFPR/L1102-D120	Carbide	12	10	6.5	150	25	9	0.7	5°	-6°	0.4	TP**1102...	1.2
E12Q-STFPR/L1102-D140	Carbide	14	12	7	180	27	11	0.6	5°	-4°	0.4	TP**1102...	1.2
E16R-STFPR13-D180	Carbide	18	16	9	200	32	15	0.7	5°	-2°	0.4	TP**1303...	1.4
E20S-STFPR13-D220	Carbide	22	20	11	250	36	18	0.8	5°	-2°	0.4	TP**1303...	1.4

Torque: Recommended clamping torque: lbs·ft (*N·m) **RE : Standard corner radius
Note: Use right-hand toolholders (STFPR**) with left-hand inserts (L); and left-hand toolholders (STFPL**) with right-hand inserts (R).
TPGH, TPGM, and TPGA inserts cannot be used.

INCH SPARE PARTS

Designation	Clamping screw	Wrench
E06-STFPR2-D08	CSTB-2.5B	T-8F
E08/10-STFPR2-D1...	CSTB-2.5	T-8F
E12-STFPR/L3-D16	CSTB-4S	T-15F

METRIC SPARE PARTS

Designation	Clamping screw	Wrench
A08H-STFPR/L09-D100	CSTB-2.2S	T-7F
A10K-STFPR/L1102-D120	CSTB-2.5B	T-8F
A12M-STFPR/L1102-D140	CSTB-2.5	T-8F
A16Q-STFPR/L13-D180	CSTB-3S	T-9F
A20R-STFPR13-D220	CSTB-3	T-9F
A25S-STFPR16-D270	CSTB-4M	T-15F
E08K-STFPR/L09-D100	CSTB-2.2S	T-7F
E10M-STFPR/L1102-D120	CSTB-2.5B	T-8F
E12Q-STFPR/L1102-D140	CSTB-2.5	T-8F
E16R-STFPR13-D180	CSTB-3S	T-9F
E20S-STFPR13-D220	CSTB-3	T-9F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	NS9530	T9215	T9215
Breaker Shape	PSS	PS	PM
Cutting conditions	B016		

M

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	AH6225	AH6225	AH6225
Breaker Shape	PSS	PS	PM
Cutting conditions	B018		

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application	Precision finishing
Grade	DX140
Breaker Shape	DIA (with rake)
Cutting conditions	B022

S

Application	Precision finishing
Grade	BX470
Breaker Shape	CBN
Cutting conditions	B024

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B026	

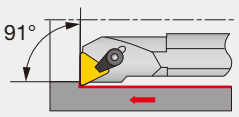
Reference pages: A/E-STFPR/L: Insert → B142 -, CBN → B199 -, PCD → B216 -

TP

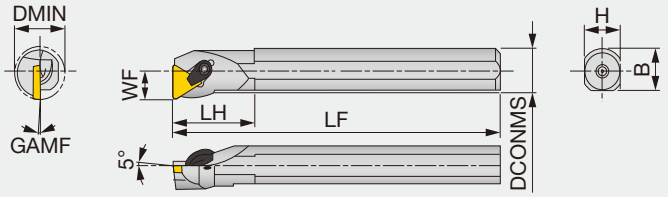
Triangular
without hole
Positive 11°

S/C-CTFPR/L

Clamp-on boring bar, for positive 60° triangular inserts



Cutting edge style **F**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert
S12M-CTFPR/L11	Steel	16	12	9	150	25	11	11.5	-6°	0.4	TP**1103...
S16Q-CTFPR/L11	Steel	20	16	11	180	30	15	15	-4°	0.4	TP**1103...
S20R-CTFPR/L16	Steel	25	20	13	200	40	18	18.5	-2°	0.8	TP**1603...
S25S-CTFPR/L16	Steel	32	25	17	250	45	23	22.5	0°	0.8	TP**1603...
S32T-CTFPR/L16	Steel	40	32	22	300	50	30	29.5	0°	0.8	TP**1603...
C12Q-CTFPR/L11	Carbide	16	12	9	180	-	11	-	-6°	0.4	TP**1103...
C16R-CTFPR/L11	Carbide	20	16	11	200	-	15	-	-4°	0.4	TP**1103...

**RE : Standard corner radius
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Clamp set 1	Clamp set 2	Wrench	Shim	Shim screw
S12M-CTFPR/L11	CSW-00	-	P-2.5	-	-
S16Q-CTFPR/L11	-	CSG-5S	P-2.5	-	-
S20R-CTFPR/L16	-	CSG-6S	P-3	-	-
S25S-CTFPR/L16	-	CSG-6	P-3	-	-
S32T-CTFPR/L16	-	CSG-6	P-3	PAT-32	M3X0.5X6
C12Q-CTFPR/L11	CSW-00	-	P-2.5	-	-
C16R-CTFPR/L11	-	CSG-5S	P-2.5	-	-

Reference pages: S/C-CTFPR/L: Insert → B142 -, CBN → B199 -, PCD → B217 -

TP

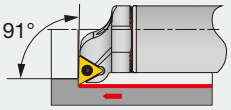


Triangular
with hole
Positive 11°

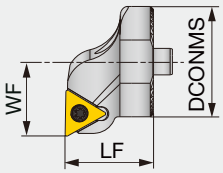
BOREMEISTER

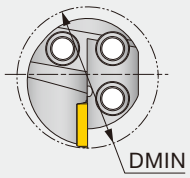
S-STFPR/L-H

Screw-on clamp exchangeable boring head, for positive 60° triangular inserts



Cutting edge style **F**





Right hand (R) shown.

Inch	DMIN	DCONMS	WF	LF	Shank	Insert
S16-STFPR/L09-H	0.787	0.630	0.433	0.787	D/G.625	TP** 73...
S16-STFPR/L11-H	0.787	0.630	0.433	0.787	D/G.625	TP** 21.5...
S20-STFPR/L11-H	0.984	0.787	0.512	0.787	D/G.750	TP** 21.5...
S25-STFPR/L11-H	1.260	0.984	0.669	0.787	D1.00	TP** 21.5...
S32-STFPR/L16-H	1.575	1.260	0.866	1.260	D1.25	TP** 32.5...
S40-STFPR/L16-H	1.969	1.575	1.063	1.260	D1.50, D2.00, D2.50	TP** 32.5...

Note: Use right-hand toolholders (STFPR**) with left-hand inserts (L); and left-hand toolholders (STFPL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
S16-STFPR/L09-H	CSTB-2.2S	T-7F
S16-STFPR/L11-H	CSTB-2.5	T-8F
S20-STFPR/L11-H	CSTB-2.5	T-8F
S25-STFPR/L11-H	CSTB-2.5	T-8F
S32-STFPR/L16-H	CSTB-4M	T-15F
S40-STFPR/L16-H	CSTB-4M	T-15F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	NS9530	T9215	T9215
Breaker Shape	PSS	PS	PM
Cutting conditions	B016		

M

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	AH6225	AH6225	AH6225
Breaker Shape	PSS	PS	PM
Cutting conditions	B018		

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application	Precision finishing
Grade	DX140
Breaker Shape	DIA (with rake)
Cutting conditions	B022

S

Application	Precision finishing
Grade	BX470
Breaker Shape	CBN
Cutting conditions	B024

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B026	

Reference pages: S-STFPR/L-H: Insert → B142 -, CBN → B199 -, PCD → B216 -
Shank → D090 - D092

TP

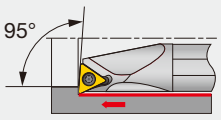


Triangular with hole Positive 11°

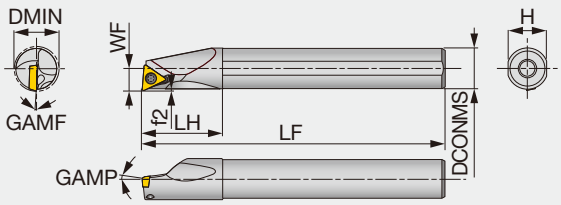
STREAMJETBAR

A/E-STUPR/L

Screw-on boring bar, for positive 60° triangular inserts



Cutting edge style **U**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A05-STUPR/L7-D07	Steel	0.438	0.313	0.250	5.00	0.625	2.880	-	5°	-7°	0.016	TP** 73...(1)	0.66
A06-STUPR/L2-D08	Steel	0.500	0.375	0.281	5.00	0.750	0.350	-	5°	-5°	0.016	TP** 21.5...(1)	0.89
A08-STUPR/L2-D11	Steel	0.688	0.500	0.406	5.00	1.000	0.475	-	5°	-3°	0.016	TP** 21.5...(1)	0.89
A10-STUPR/L2-D14	Steel	0.875	0.625	0.531	7.00	1.250	0.600	-	5°	-2°	0.016	TP** 21.5...(1)	1.00
A10-STUPR/L2.5-D14	Steel	0.875	0.625	0.531	7.00	1.250	0.600	-	5°	-2°	0.016	TP** 22...(1)	1.00
A12-STUPR/L3-D16	Steel	1.000	0.750	0.594	7.00	1.437	0.725	-	5°	-2°	0.032	TP** 32.5...(1)	1.00
A16-STUPR/L3-D20	Steel	1.250	1.000	0.688	7.00	1.750	0.975	-	5°	0°	0.032	TP** 32.5...(1)	2.20
E05-STUPR7-D07	Carbide	0.438	0.313	0.250	5.00	0.625	2.880	-	5°	-7°	0.016	TP** 73...(1)	0.66
E06-STUPR2-D08	Carbide	0.500	0.375	0.281	5.00	0.750	0.350	-	5°	-5°	0.016	TP** 21.5...(1)	0.89
E08-STUPR2-D11	Carbide	0.688	0.500	0.406	5.00	1.000	0.475	-	5°	-3°	0.016	TP** 21.5...(1)	0.89
E10-STUPR2.5-D14	Carbide	0.875	0.625	0.531	7.00	1.250	0.600	-	5°	-2°	0.016	TP** 22...(1)	1.00

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A07G-STUPR/L07-D080	Steel	8	7	4	90	12	6.75	0.4	5°	-10°	0.4	TP**0701...	0.9
A08H-STUPR/L07-D080	Steel	8	8	4	100	19.5	7.5	0.5	5°	-10°	0.4	TP**0701...	0.9
A08H-STUPR/L09-D100	Steel	10	8	5.5	100	16	7.5	0.6	5°	-8°	0.4	TP**0902...(1)	0.9
A10F-STUPR1102-D120	Steel	12	10	6.5	80	20	9	1.4	5°	-6°	0.4	TP**1102...(1)	1.2
A10K-STUPR/L1102-D120	Steel	12	10	6.5	125	20	9	0.7	5°	-6°	0.4	TP**1102...(1)	1.2
A10K-STUPR/L1103-D120	Steel	12	10	6.5	125	20	9	0.6	5°	-10°	0.4	TP**1103...(1)	1.4
A12H-STUPR1102-D140	Steel	14	12	7	100	24	11	0.8	5°	-4°	0.4	TP**1102...(1)	1.2
A12M-STUPR/L1102-D140	Steel	14	12	7	150	24	11	0.8	5°	-4°	0.4	TP**1102...(1)	1.2
A12M-STUPR/L1103-D140	Steel	14	12	7	150	24	11	0.6	5°	-6°	0.4	TP**1103...(1)	1.4
A12H-STUPR1102-D160	Steel	16	12	9	100	24	11	0.6	5°	-3°	0.4	TP**1102...(1)	1.2
A12M-STUPR/L1102-D160	Steel	16	12	9	150	24	11	0.6	5°	-3°	0.4	TP**1102...(1)	1.2
A16K-STUPR13-D180	Steel	18	16	9	125	32	15	0.8	5°	-3°	0.4	TP**1303...(1)	1.4
A16Q-STUPR/L1103-D180	Steel	18	16	9	180	32	15	0.8	5°	-4°	0.4	TP**1103...(1)	1.4
A16Q-STUPR/L13-D180	Steel	18	16	9	180	32	15	0.8	5°	-3°	0.4	TP**1303...(1)	1.4
A16K-STUPR13-D200	Steel	20	16	11	125	32	15	0.6	5°	-3°	0.4	TP**1303...(1)	1.4
A16Q-STUPR/L13-D200	Steel	20	16	11	180	32	15	0.6	5°	-3°	0.4	TP**1303...(1)	1.4
A20R-STUPR/L1103-D220	Steel	22	20	11	200	36	18	0.7	5°	-2°	0.4	TP**1103...(1)	1.4
A20R-STUPR/L13-D220	Steel	22	20	11	200	36	18	0.7	5°	-2°	0.4	TP**1303...(1)	1.4
A25S-STUPR/L16-D270	Steel	27	25	13.5	250	45	23	0.5	5°	-1°	0.8	TP**16T3...(1)	3
A32T-STUPR/L16-D340	Steel	34	32	17	300	50	30	0.7	5°	0°	0.8	TP**16T3...	3
E07H-STUPR/L07-D080	Carbide	8	7	4	100	14	6.75	0.3	5°	-10°	0.4	TP**0701...	0.9
E08G-STUPR07-D080	Carbide	8	8	4	90	44.5	7.5	0.5	5°	-10°	0.4	TP**0701...	0.9
E08K-STUPR/L07-D080	Carbide	8	8	4	125	44.5	7.5	0.5	5°	-10°	0.4	TP**0701...	0.9
E08G-STUPR09-D100	Carbide	10	8	5.5	90	22	7	0.6	5°	-8°	0.4	TP**0902...(1)	0.9
E08K-STUPR/L09-D100	Carbide	10	8	5.5	125	22	7	0.6	5°	-8°	0.4	TP**0902...(1)	0.9
E10F-STUPR1102-D120	Carbide	12	10	6.5	80	25	9	0.5	5°	-6°	0.4	TP**1102...(1)	1.2
E10H-STUPR1102-D120	Carbide	12	10	6.5	100	25	9	0.6	5°	-6°	0.4	TP**1102...(1)	1.2
E10M-STUPR/L1102-D120	Carbide	12	10	6.5	150	25	9	0.6	5°	-6°	0.4	TP**1102...(1)	1.2
E10M-STUPR/L1103-D120	Carbide	12	10	6.5	150	25	9	0.7	5°	-10°	0.4	TP**1103...(1)	1.4
E12G-STUPR1102-D140	Carbide	14	12	7	90	27	11	0.8	5°	-4°	0.4	TP**1102...(1)	1.2
E12J-STUPR1102-D140	Carbide	14	12	7	110	27	11	0.8	5°	-4°	0.4	TP**1102...(1)	1.2
E12Q-STUPR/L1102-D140	Carbide	14	12	7	180	27	11	0.8	5°	-4°	0.4	TP**1102...(1)	1.2
E12Q-STUPR/L1103-D140	Carbide	14	12	7	180	27	11	0.7	5°	-6°	0.4	TP**1103...(1)	1.4
E12G-STUPR1102-D160	Carbide	16	12	9	90	27	11	0.6	5°	-3°	0.4	TP**1102...(1)	1.2
E12J-STUPR1102-D160	Carbide	16	12	9	110	27	11	0.6	5°	-3°	0.4	TP**1102...(1)	1.2

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
E12Q-STUPR/L1102-D160	Carbide	16	12	9	180	27	11	0.6	5°	-3°	0.4	TP**1102...(1)	1.2
E16H-STUPR13-D180	Carbide	18	16	9	100	32	15	0.9	5°	-3°	0.4	TP**1303...(1)	1.4
E16R-STUPR/L1103-D180	Carbide	18	16	9	200	32	15	0.8	5°	-3°	0.4	TP**1103...(1)	1.4
E16L-STUPR13-D180	Carbide	18	16	9	130	32	15	0.6	5°	-3°	0.4	TP**1303...(1)	1.4
E16R-STUPR/L13-D180	Carbide	18	16	9	200	32	15	0.6	5°	-3°	0.4	TP**1303...(1)	1.4
E16H-STUPR13-D200	Carbide	20	16	11	100	32	15	0.6	5°	-3°	0.4	TP**1303...(1)	1.4
E16L-STUPR13-D200	Carbide	20	16	11	130	32	15	0.6	5°	-3°	0.4	TP**1303...(1)	1.4
E16R-STUPR/L13-D200	Carbide	20	16	11	200	32	15	0.6	5°	-3°	0.4	TP**1303...(1)	1.4
E20S-STUPR1103-D220	Carbide	22	20	11	250	36	18	0.7	5°	-2°	0.4	TP**1103...(1)	1.4
E20S-STUPR13-D220	Carbide	22	20	11	250	36	18	0.6	5°	-2°	0.4	TP**1303...(1)	1.4
E25T-STUPR16-D270	Carbide	27	25	13.5	300	45	23	0.5	5°	-1°	0.8	TP**16T3...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius
Note: Use right-hand toolholders (STUPR**) with left-hand inserts (L); and left-hand toolholders (STUPL**) with right-hand inserts (R).
(1) TPGH, TPGM, and TPGA inserts cannot be used.

INCH SPARE PARTS

Designation	Clamping screw	Wrench
A05-STUPR/L7-D07	CSTB-2.2S	T-7F
A06-STUPR/L2-D08	CSTB-2.5S	T-8F
A08-STUPR/L2-D11	CSTB-2.5B	T-8F
A10-STUPR/L2-D14	CSTB-2.5	T-8F
A10-STUPR/L2.5-D14	CSTB-2.5	T-8F
A12-STUPR/L3-D16	CSTB-4M	T-15F
A16-STUPR/L3-D20	CSTB-4M	T-15F
E05-STUPR7-D07	CSTB-2.2S	T-7F
E06-STUPR2-D08	CSTB-2.5S	T-8F
E08-STUPR2-D11	CSTB-2.5B	T-8F
E10-STUPR2.5-D14	CSTB-3	T-9F

METRIC SPARE PARTS

Designation	Clamping screw	Wrench
A/E07*-STUPR/L07-...	CSTB-2.2L038	T-7F
A/E08*-STUPR/L07-...	CSTB-2.2L038	T-7F
A/E08*-STUPR/L09-...	CSTB-2.2L038	T-7F
A/E10*-STUPR/L1102-...	CSTB-2.5S	T-8F
A/E10*-STUPR/L1103-...	CSTB-3L050	T-9F
A/E12*-STUPR/L1102-...	CSTB-2.5B	T-8F
A/E12*-STUPR/L1103-...	CSTB-3L050	T-9F
A/E16*-STUPR/L1103-...	CSTB-3S	T-9F
A/E16*-STUPR/L13-...	CSTB-3S	T-9F
A/E20*-STUPR/L1103-...	CSTB-3S	T-9F
A/E20*-STUPR/L13-...	CSTB-3	T-9F
A/E25*-STUPR/L16-...	CSTB-4M	T-15F
A32*-STUPR/L16-...	CSTB-4M	T-15F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	NS9530	T9215	T9215
Breaker Shape	PSS	PS	PM
Cutting conditions	B016		

M

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	AH6225	AH6225	AH6225
Breaker Shape	PSS	PS	PM
Cutting conditions	B018		

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application	Precision finishing
Grade	DX140
Breaker Shape	DIA (with rake)
Cutting conditions	B022

S

Application	Precision finishing
Grade	BX470
Breaker Shape	CBN
Cutting conditions	B024

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B026	

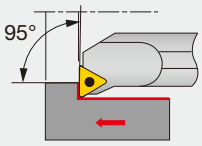
Reference pages: A/E-STUPR/L: Insert → B142 -, CBN → B199 -, PCD → B216 -

TP

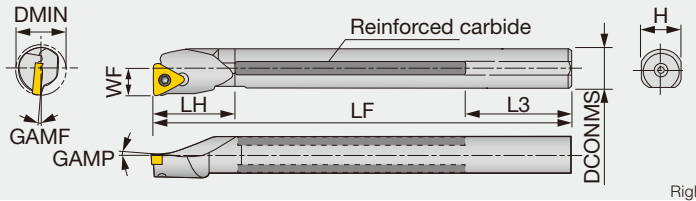
Triangular with hole Positive 11°

T-STUPR/L

Screw-on boring bar, for positive 60° triangular inserts (Tsuppari-Ichiban)



Cutting edge style **U**



Right hand (R) shown.

Metric	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	GAMP	GAMF	RE**	Insert	Torque
T12M-STUPR11-D14	Reinforced	14	-	12	7	150	24	59	11	5°	-4°	0.4	TP**1102...	1.2
T12M-STUPR/L11	Reinforced	16	-	12	9	150	24	58	11	5°	-4°	0.4	TP**1102...	1.2
T16Q-STUPR13-D18	Reinforced	18	-	16	9	180	30	59	15	5°	-3.5°	0.4	TP**1303...	1.4
T16Q-STUPR/L13	Reinforced	20	-	16	11	180	30	59	15	5°	-3°	0.4	TP**1303...	1.4
T20R-STUPR13C-D22	Reinforced	22	Rc1/4	20	11	200	35	49	18	5°	-2°	0.4	TP**1303...	1.4
T20R-STUPR/L13	Reinforced	24	-	20	13	200	40	49	18	5°	-2°	0.4	TP**1303...	1.4
T25S-STUPR16C-D27	Reinforced	27	Rc1/4	25	13.5	250	40	64	23	5°	-1°	0.8	TP**16T3...	3
T25S-STUPR/L16	Reinforced	31	-	25	17	250	45	64	23	5°	0°	0.8	TP**16T3...	3

Torque: Recommended clamping torque: N·m
**RE : Standard corner radius
Note: Use right-hand toolholders (STUPR**) with left-hand inserts (L); and left-hand toolholders (STUPL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
T12M-STUPR11-D14	CSTB-2.5B	T-8F
T12M-STUPR/L11	CSTB-2.5	T-8F
T16Q-STUPR13-D18	CSTB-3S	T-9F
T16Q-STUPR/L13	CSTB-3	T-9F
T20R-STUPR13C-D22	CSTB-3S	T-9F
T20R-STUPR/L13	CSTB-3	T-9F
T25S-STUPR/L16...	CSTB-4S	T-15F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	NS9530	T9215	T9215
Breaker Shape	PSS	PS	PM
Cutting conditions	B016		

M

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	AH6225	AH6225	AH6225
Breaker Shape	PSS	PS	PM
Cutting conditions	B018		

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application	Precision finishing
Grade	DX140
Breaker Shape	DIA (with rake)
Cutting conditions	B022

S

Application	Precision finishing
Grade	BX470
Breaker Shape	CBN
Cutting conditions	B024

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B026	

Reference pages: T-STUPR/L: Insert → B142 -, CBN → B199 -, PCD → B216 -

TN

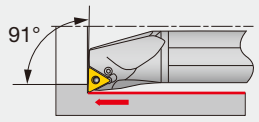


Triangular with hole

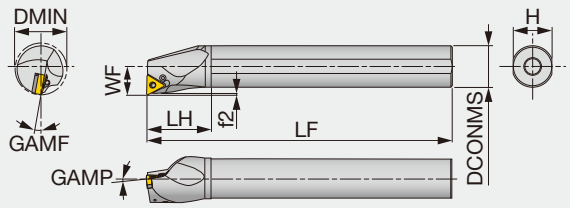
STREAMJETBAR

A-PTFNR/L

Lever-lock boring bar, for negative triangular inserts



Cutting edge style **F**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A25R-PTFNR/L1104-D320	Steel	32	25	17	200	45	23	1.31	-6°	-12°	0.8	TN**1104...	2
A32S-PTFNR/L1104-D400	Steel	40	32	22	250	50	30	1.25	-6°	-10°	0.8	TN**1104...	2
A25R-PTFNR/L16-D320	Steel	32	25	17	200	45	23	1.2	-6°	-12°	0.8	TN**1604...	2.7
A32S-PTFNR/L16-D400	Steel	40	32	22	250	50	30	1.1	-6°	-10°	0.8	TN**1604...	2.7
A40T-PTFNR/L16-D500	Steel	50	40	27	300	60	37	1.1	-6°	-10°	0.8	TN**1604...	2.7
A50U-PTFNR/L16-D630	Steel	63	50	35	350	65	47	1.1	-6°	-8°	0.8	TN**1604...	2.7

Torque: Recommended clamping torque: N·m **RE : Standard corner radius
Note: Use right-hand toolholders (PTFNR**) with left-hand inserts (L); and left-hand toolholders (PTFNL**) with right-hand inserts (R).

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A25R-PTFNR/L1104-D320	-	LCS23A	-	P-2.5	-	LCL23	EA-25	SSHM4-5
A32S-PTFNR/L1104-D400	-	LCS23A	-	P-2.5	-	LCL23	EA-32	SSHM4-5
A25R-PTFNR/L16-D320	ELST317BR/L	-	LCS3	P-2.5	LSP3	LCL33	EA-25	SSHM4-5
A32S-PTFNR/L16-D400	LST317BR/L	-	LCS3	P-2.5	LSP3	LCL3	EA-32	SSHM4-5
A40T-PTFNR/L16-D500	LST317BR/L	-	LCS3	P-2.5	LSP3	LCL3	-	SSHM6-6
A50U-PTFNR/L16-D630	LST317BR/L	-	LCS3	P-2.5	LSP3	LCL3	-	SSHM6-6

*Optional

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Breaker Shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Breaker Shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B014	

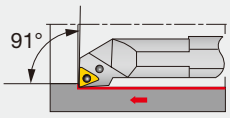
Reference pages: A-PTFNR/L: Insert → B087 -, CBN → B182 -, PCD → B212

TN

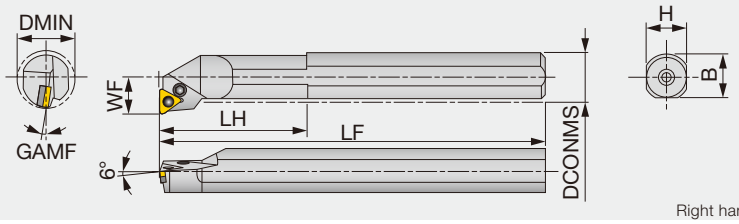
Triangular with hole

S-PTFNR/L

Lever-lock boring bar, for negative 60° triangular inserts



Cutting edge style **F**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert	Torque
S32S-PTFNR/L16	Steel	40	32	22	250	50	30	29.5	-10°	0.8	TN**1604...	2.7
S40T-PTFNR/L16	Steel	50	40	27	300	55	37	37.5	-10°	0.8	TN**1604...	2.7
S50U-PTFNR16	Steel	63	50	35	350	65	47	47.5	-8°	0.8	TN**1604...	2.7

Torque: Recommended clamping torque: N·m **RE : Standard corner radius
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

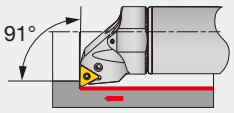
SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
S32S-PTFNR16	LST317BR	LCS3	P-2.5	LSP3	LCL3
S32S-PTFNL16	LST317BL	LCS3	P-2.5	LSP3	LCL3
S40T-PTFNR16	LST317BR	LCS3	P-2.5	LSP3	LCL3
S40T-PTFNL16	LST317BL	LCS3	P-2.5	LSP3	LCL3
S50U-PTFNR16	LST317BR	LCS3	P-2.5	LSP3	LCL3

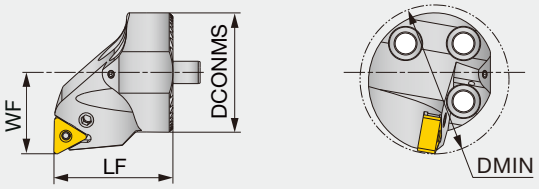
BOREMEISTER

S-PTFNR/L-H

Lever-lock clamp exchangeable boring head, for negative 60° triangular inserts



Cutting edge style **F**



Right hand (R) shown.

Inch	DMIN	DCONMS	WF	LF	Shank	Insert
S32-PTFNR/L11-H	1.575	1.260	0.866	1.260	D1.25	TN** 23...
S40-PTFNR/L11-H	1.969	1.575	1.063	1.260	D1.50, D2.00, D2.50	TN** 23...

Note: Use right-hand toolholders (PTFNR**) with left-hand inserts (L); and left-hand toolholders (PTFNL**) with right-hand inserts (R).

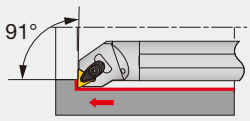
SPARE PARTS

Designation	Lever	Clamping screw	Wrench
S**-PTFNR/L11-H	LCL23	LCS23A	P-2.5

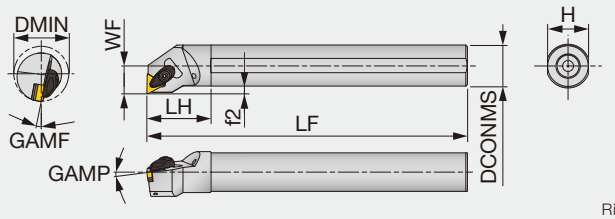
Reference pages: S-PTFNR/L: Insert → B087 -, CBN → B182 -, PCD → B212
S-PTFNR/L-H: Insert → B087 -
Shank → D090 - D092

A-ATFNR/L

Double-clamp boring bar, for negative 60° triangular inserts



Cutting edge style **F**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A16-ATFNR/L3-D20	Steel	1.250	1.000	0.672	12.000	1.770	0.906	0.177	-6°	-13°	0.031	TN** 33...	2.21
A20-ATFNR/L3-D25	Steel	1.560	1.250	0.859	14.000	1.960	1.180	0.236	-6°	-10°	0.031	TN** 33...	2.21

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-ATFNR/L16-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	TN**1604...	3
A32S-ATFNR/L16-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	TN**1604...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ATFNR/L...	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Breaker Shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Breaker Shape	DIA with rake	DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B014	

Reference pages: A-ATFNR/L: Insert → B087 -, CBN → B182 -, PCD → B212

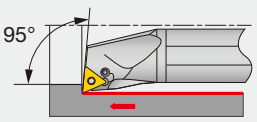
TN

Triangular with hole

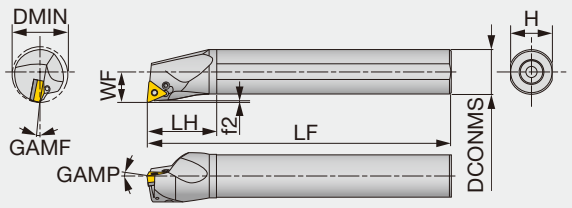
STREAMJETBAR

A-PTUNR/L

Lever-lock boring bar, for negative 60° triangular inserts



Cutting edge style **U**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A25R-PTUNR/L1104-D320	Steel	32	25	17	200	45	23	1.22	-6°	-12°	0.8	TN**1104...	2
A32S-PTUNR/L1104-D400	Steel	40	32	22	250	50	30	1.16	-6°	-10°	0.8	TN**1104...	2
A16M-PTUNR/L11-D200	Steel	20	16	11	150	32	15	1	-6°	-14°	0.4	TN**1103...	1.7
A20Q-PTUNR/L11-D250	Steel	25	20	13	180	36	18	1	-6°	-12°	0.4	TN**1103...	1.7
A25R-PTUNR/L16-D320	Steel	32	25	17	200	45	23	1.4	-6°	-12°	0.8	TN**1604...	2.7
A32S-PTUNR/L16-D400	Steel	40	32	22	250	50	30	1.3	-6°	-10°	0.8	TN**1604...	2.7

Torque: Recommended clamping torque: N·m **RE : Standard corner radius
*The hole specification of applicable inserts conforms to ISO standard.
Toolholder length may not conform to ISO standard.
Note: Use right-hand toolholders (PTUNR**) with left-hand inserts (L); and left-hand toolholders (PTUNL**) with right-hand inserts (R).

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A25R-PTUNR/L1104-D320	-	LCS23A	-	-	P-2.5	-	LCL23	EA-25	SSHM4-5
A32S-PTUNR/L1104-D400	-	LCS23A	-	-	P-2.5	-	LCL23	EA-32	SSHM4-5
A16M-PTUNR/L11-D200	-	LCS22A	-	P-2F	-	-	LCL22N	-	SSHM3-4
A20Q-PTUNR/L11-D250	-	LCS22A	-	P-2F	-	-	LCL22N	EA-20	SSHM3-4
A25R-PTUNR/L16-D320	ELST317BR/L	-	LCS3	-	P-2.5	LSP3	LCL33	EA-25	SSHM4-5
A32S-PTUNR/L16-D400	LST317BR/L	-	LCS3	-	P-2.5	LSP3	LCL3	EA-32	SSHM4-5

*Optional

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Breaker Shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Breaker Shape	DIA	with rake T-DIA	P
Cutting conditions	B010		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

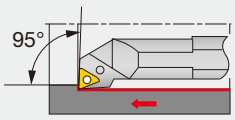
H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B014	

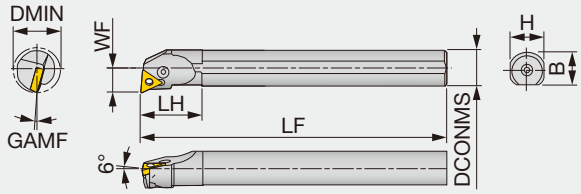
Reference pages: A-PTUNR/L: Insert → B087 -, CBN → B182 -, PCD → B212

A/S-PTUNR/L

Lever-lock boring bar, for negative 60° triangular inserts



Cutting edge style **U**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert	Torque
S16M-PTUNR/L11	Steel	20	16	11	150	30	15	15.5	-14°	0.4	TN**1103...	1.7
S20Q-PTUNR/L11	Steel	25	20	13	180	35	18	19	-12°	0.4	TN**1103...	1.7
S25R-PTUNR/L16	Steel	32	25	17	200	40	23	24	-12°	0.8	TN**1604...	2.7
A32S-PTUNR/L16	Steel	40	32	22	250	50	30	29.5	-12°	0.8	TN**1604...	2.7

Torque: Recommended clamping torque: N·m **RE : Standard corner radius
*The hole specification of applicable inserts conforms to ISO standard.
Toolholder length may not conform to ISO standard.
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

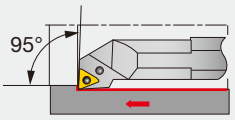
SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever	Oil supply attachment*
S**-PTUNR/L11	-	LCS22A	-	P-2F	-	-	LCL22N	-
S25R-PTUNR16	ELST317BR	-	LCS3	-	P-2.5	LSP3	LCL33	-
S25R-PTUNL16	ELST317BL	-	LCS3	-	P-2.5	LSP3	LCL33	-
A32S-PTUNR16	LST317BR	-	LCS3	-	P-2.5	LSP3	LCL3	EA-32
A32S-PTUNL16	LST317BL	-	LCS3	-	P-2.5	LSP3	LCL3	EA-32

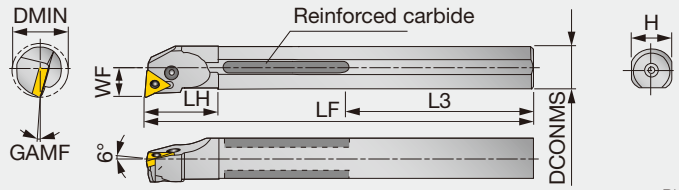
*Optional

T-PTUNR

Lever-lock boring bar, for negative 60° triangular inserts (Tsuppari-Ichiban)



Cutting edge style **U**



Right hand (R) shown.

Metric	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	GAMF	RE**	Insert	Torque
T16Q-PTUNR11	Reinforced	20	-	16	11	180	27	59	15	-14°	0.4	TN**1103...	1.7
T20R-PTUNR11C	Reinforced	25	Rc1/4	20	13	200	35	49	18	-12°	0.4	TN**1103...	1.7
T25S-PTUNR16C	Reinforced	32	Rc1/4	25	17	250	40	64	23	-12°	0.8	TN**1604...	2.7
T32U-PTUNR16C	Reinforced	40	Rc1/2	32	22	350	50	103	30	-10°	0.8	TN**1604...	2.7
T40V-PTUNR16C	Reinforced	50	Rc1/2	40	27	400	55	88	37	-10°	0.8	TN**1604...	2.7
T50W-PTUNR16C	Reinforced	63	Rc1/2	50	35	450	65	63	47	-8°	0.8	TN**1604...	2.7

Torque: Recommended clamping torque: N·m
**RE : Standard corner radius
*The hole specification of applicable inserts conforms to ISO standard.
Toolholder length may not conform to ISO standard.
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever
T**-PTUNR11...	-	LCS22A	-	P-2F	-	-	LCL22N
T25S-PTUNR16C	ELST317BR	-	LCS3	-	P-2.5	LSP3	LCL33
T**-PTUNR16C	LST317BR	-	LCS3	-	P-2.5	LSP3	LCL3

Reference pages: A/S-PTUNR/L, T-PTUNR: Insert → B087 -, CBN → B182 -, PCD → B212

VB

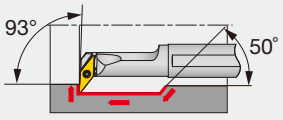


Rhombic, 35° with hole
Positive 5°

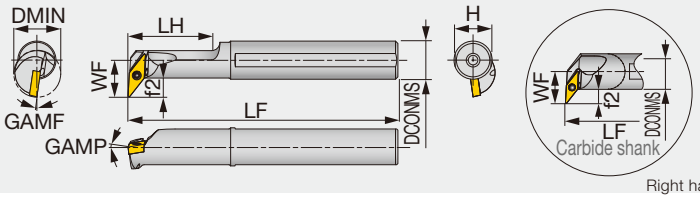
STREAMJETBAR

A/E-SVUBR/L

Screw-on boring bar, for positive 35° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

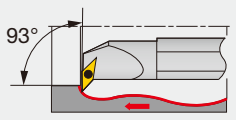
Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A12-SVUBR2-D16	Steel	1.000	0.750	0.594	10.000	1.425	0.725	0.218	-0°	-6°	0.016	VB** 22...	0.89

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16Q-SVUBR/L11-D200	Steel	20	16	15.5	180	35	15	8	0°	-8°	0.4	VB**1103...	1.2
A20R-SVUBR/L11-D250	Steel	25	20	17.5	200	40	19	8	0°	-7°	0.4	VB**1103...	1.2
A25S-SVUBR/L16-D320	Steel	32	25	20.5	250	50	23	8.5	0°	-6°	0.8	VB**1604...	3
E16R-SVUBR/L11-D245	Carbide	24.5	16	16	200	-	15	8	0°	-8°	0.4	VB**1103...	1.2
E20S-SVUBR/L11-D285	Carbide	28.5	20	18	250	-	19	8	0°	-7°	0.4	VB**1103...	1.2
E25T-SVUBR/L16-D340	Carbide	34	25	21	300	-	23	8.5	0°	-6°	0.8	VB**1604...	3

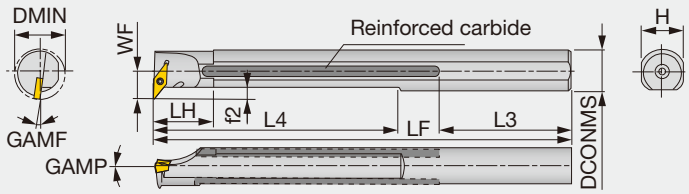
Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius
Note: Use right-hand toolholders (SVUBR**) with left-hand inserts (L); and left-hand toolholders (SVUBL**) with right-hand inserts (R).

T-SVUBR

Screw-on boring bar, for positive 35° rhombic inserts (Tsuppari-Ichiban)



Cutting edge style **U**



Right hand (R) shown.

Metric	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	L4	H	f2	GAMP	GAMF	RE**	Insert	Torque
T20R-SVUBR11C	Reinforced	25	Rc1/4	20	14	200	30	59	121	18	4	0°	-8°	0.4	VB**1103...	1.2

Torque: Recommended clamping torque: N·m
**RE : Standard corner radius
Note: Use right-hand toolholders (SVUBR**) with left-hand inserts (L).

SPARE PARTS

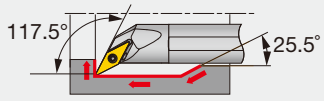
Designation	Clamping screw	Wrench
A12-SVUBR2-D16	CSTB-2.5	T-8F
A**-SVUBR/L11-D2*0	CSTB-2.5	T-8F
A25S-SVUBR/L16-D320	CSTB-3.5	T-15F
E**-SVUBR/L11-D2*5	CSTB-2.5	T-8F
E25T-SVUBR/L16-D340	CSTB-3.5	T-15F
T20R-SVUBR11C	CSTB-2.5	T-8F

Reference pages: A/E-SVUBR/L, T-SVUBR: Insert → B150 -, CBN → B207 -

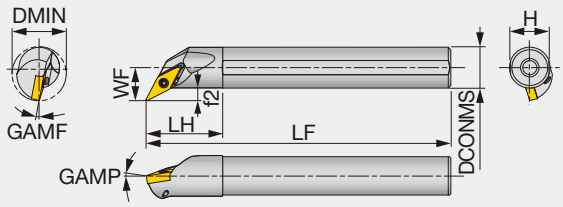
STREAMJETBAR

A/E-SVQBR/L

Screw-on boring bar, for positive 35° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A10-SVQBR2-D16	Steel	1.000	0.625	0.500	7.000	1.250	0.600	0.188	-5°	-6°	0.016	VB** 22...	0.89

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SVQBR/L11-D170	Steel	17	12	10.5	150	24	11	4.5	-5°	-10°	0.4	VB**1103...	1.2
A16Q-SVQBR/L11-D215	Steel	21.5	16	13	180	30	15	5	-5°	-8°	0.4	VB**1103...	1.2
A20R-SVQBR/L11-D255	Steel	25.5	20	15	200	36	18	5	-5°	-6°	0.4	VB**1103...	1.2
A25S-SVQBR/L16-D305	Steel	30.5	25	17.5	250	45	23	5	-5°	-8°	0.8	VB**1604...	3
E12Q-SVQBR/L11-D170	Carbide	17	12	10.5	180	27	11	4.5	-5°	-10°	0.4	VB**1103...	1.2
E16R-SVQBR/L11-D215	Carbide	21.5	16	13	200	32	15	5	-5°	-8°	0.4	VB**1103...	1.2
E20S-SVQBR/L11-D255	Carbide	25.5	20	15	250	36	18	5	-5°	-6°	0.4	VB**1103...	1.2
E25T-SVQBR/L16-D305	Carbide	30.5	25	17.5	300	45	23	5	-5°	-8°	0.8	VB**1604...	3

Torque: Recommended clamping torque: lbs·ft (*N·m) **RE : Standard corner radius
Note: Use right-hand toolholders (SVQBR**) with left-hand inserts (L); and left-hand toolholders (SVQBL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A10-SVQBR2-D16	CSTB-2.5	T-8F
A**-SVQBR/L11-D...	CSTB-2.5	T-8F
A25S-SVQBR/L16-D305	CSTB-3.5	T-15F
E**-SVQBR/L11-D...	CSTB-2.5	T-8F
E25T-SVQBR/L16-D305	CSTB-3.5	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	NS9530	T9215
Breaker Shape	JP	JS	PSS	PS
Cutting conditions	B014			

M

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	AH6225	AH6225
Chipbreaker shape	JP	JS	PSS	PS
Cutting conditions	B016			

P

Application	Medium cutting
Grade	T9215
Breaker Shape	PS
Cutting conditions	B014

M

Application	Medium cutting
Grade	AH6225
Chipbreaker shape	PS
Cutting conditions	B016

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

S

Application	Finishing	Finishing to medium cutting
Grade	AH8005	AH8015
Breaker Shape	PS	PS
Cutting conditions	B024	

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B026	

Reference pages: A/E-SVQBR/L: Insert → B150 -, CBN → B207 -

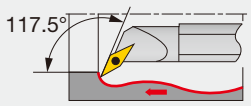
VB



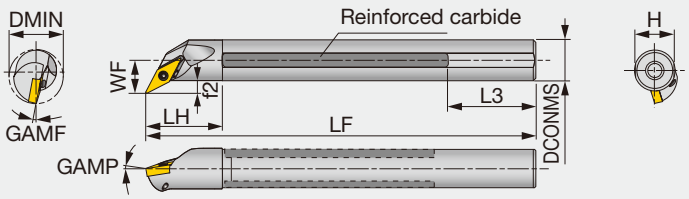
Rhombic, 35° with hole
Positive 5°

T-SVQBR

Screw-on boring bar, for positive 35° rhombic inserts (Tsuppari-Ichiban)



Cutting edge style **Q**



Right hand (R) shown.

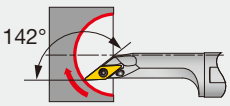
Metric	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque
T20R-SVQBR11C	Reinforced	25	Rc1/4	20	14	200	30	59	18	4	-5°	-7°	0.4	VB**1103...	1.2

Torque: Recommended clamping torque: N·m
**RE : Standard corner radius
*The hole specification of applicable inserts conforms to ISO standard.
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

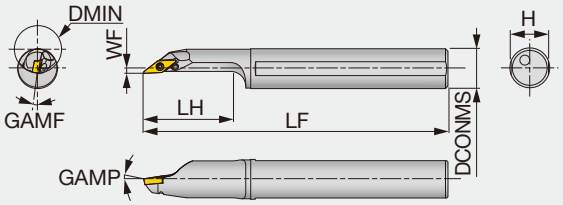
STREAMJETBAR

A-SVJBR/L

Screw-on boring bar, for positive 35° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque
A10-SVJBR/L2-D16	Steel	1.000	0.625	0.156	7.000	1.250	0.600	-5°	-6°	0.016	VB** 22...	0.89

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A20R-SVJBR/L11-D250	Steel	25	20	2	200	40	18	-5°	-5°	0.4	VB**1103...	1.2
A25S-SVJBR/L11-D300	Steel	30	25	3.5	250	50	23	-5°	-5°	0.4	VB**1103...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius
Note: Use right-hand toolholders (SVJBR**) with left-hand inserts (L); and left-hand toolholders (SVJBL**) with right-hand inserts (R).

SPARE PARTS

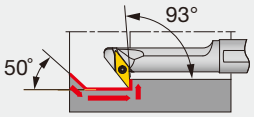
Designation	Clamping screw	Wrench
T20R-SVQBR11C	CSTB-2.5	T-8F
A**-SVJBR/L...	CSTB-2.5	T-8F

Reference pages: T-SVQBR, A-SVJBR/L: Insert → B150 -, CBN → B207 -

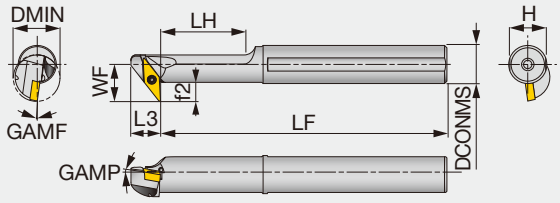
STREAMJETBAR

A-SVZBR/L

Screw-on boring bar, for positive 35° rhombic inserts



Cutting edge style **Z**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque
A12-SVZBR2-D16	Steel	1.000	0.750	0.594	10.000	1.425	0.500	0.725	0.219	0°	-5°	0.016	VB** 22...	0.89

Metric	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16Q-SVZBR/L11-D200	Steel	20	16	15.5	180	35	12.5	15	8	0°	-8°	0.4	VB**1103...	1.2
A20R-SVZBR/L11-D250	Steel	25	20	17.5	200	40	12.5	18	8	0°	-7°	0.4	VB**1103...	1.2
A25S-SVZBR/L16-D320	Steel	32	25	24	250	50	17.5	23	12	0°	-6°	0.8	VB**1604...	3
A32T-SVZBR/L16-D400	Steel	40	32	27.5	300	72	17.5	30	12	0°	-5°	0.8	VB**1604...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius
Note: Use right-hand toolholders (SVZBR**) with right-hand inserts (R); and left-hand toolholders (SVZBL**) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench
A12-SVZBR2-D16	CSTB-2.5	T-8F
A**-SVZBR/L11-D2*0	CSTB-2.5	T-8F
A25S-SVZBR/L16-D320	CSTB-3.5	T-15F
A32T-SVZBR/L16-D400	CSTB-3.5L	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	NS9530	T9215
Breaker Shape	JP	JS	PSS	PS
Cutting conditions	B014			

M

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	AH6225	AH6225
Chipbreaker shape	JP	JS	PSS	PS
Cutting conditions	B016			

P

Application	Medium cutting
Grade	T9215
Breaker Shape	PS
Cutting conditions	B014

M

Application	Medium cutting
Grade	AH6225
Chipbreaker shape	PS
Cutting conditions	B016

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

S

Application	Finishing	Finishing to medium cutting
Grade	AH8005	AH8015
Breaker Shape	PS	PS
Cutting conditions	B024	

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B026	

Reference pages: A-SVZBR/L: Insert → B150 -, CBN → B207 -

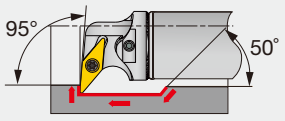
VC

Rhombic, 35° with hole
Positive 7°

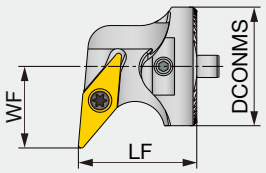
BOREMEISTER

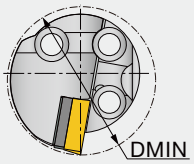
S-SVLCR/L-H

Screw-on clamp exchangeable boring head, for positive 35° rhombic inserts



Cutting edge style **L**





Right hand (R) shown.

Inch	DMIN	DCONMS	WF	LF	Shank	Insert
S32-SVLCR/L16T-H	1.575	1.260	0.866	1.260	D1.25	VC** 33...
S40-SVLCR/L16T-H	1.969	1.575	1.063	1.260	D1.50, D2.00, D2.50	VC** 33...

Note: Use right-hand toolholders (SVLCR**) with left-hand inserts (L); and left-hand toolholders (SVLCL**) with right-hand inserts (R).

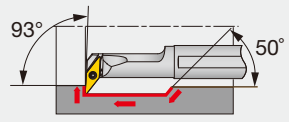
SPARE PARTS

Designation	Clamping screw	Wrench	Shim	Shim screw
S32-SVLCR/L16T-H	SR16-236P	T-15/5	TVC 3-1P	SRTC-3P
S40-SVLCR/L16T-H	SR16-236P	T-15/5	TVC 3-1P	SRTC-3P

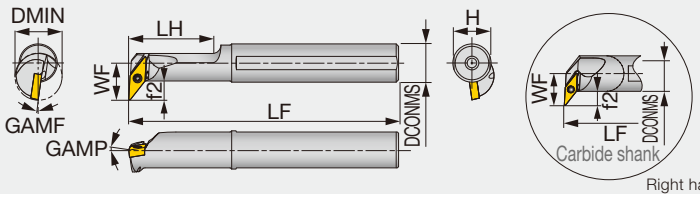
STREAMJETBAR

A/E-SVUCR/L

Screw-on boring bar, for positive 35° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A10-SVUCR6-D14	Steel	0.875	0.625	0.531	7.000	1.250	0.600	0.218	0°	-5°	0.016	VC** 63...	0.44
A12-SVUCR2-D16	Steel	1.000	0.750	0.594	10.000	1.420	0.725	0.218	0°	-5°	0.016	VC** 22...	1.0

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SVUCR/L08-D160	Steel	16	12	11	150	30	11	5.5	0°	-8°	0.4	VC**0802...	0.6
A25S-SVUCR/L16-D320	Steel	32	25	19	250	45	23	6.5	0°	-5°	0.8	VC**1604...	3
E12Q-SVUCR/L08-D180	Carbide	18	12	11.5	180	-	11	5.5	0°	-8°	0.4	VC**0802...	0.6
E25T-SVUCR/L16-D320	Carbide	32	25	19	300	-	23	6.5	0°	-5°	0.8	VC**1604...	3

Torque: Recommended clamping torque: lbs·ft (*N·m) **RE : Standard corner radius
Note: Use right-hand toolholders (SVUCR**) with left-hand inserts (L); and left-hand toolholders (SVUCL**) with right-hand inserts (R).

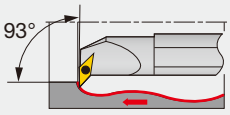
SPARE PARTS

Designation	Clamping screw	Wrench
A10-SVUCR6-D14	CSTB-2L	T-6F
A12-SVUCR2-D16	CSTB-2.5	T-8F
A12M-SVUCR/L08-D160	CSTB-2L	T-6F
A25S-SVUCR/L16-D320	CSTB-3.5	T-15F
E12Q-SVUCR/L08-D180	CSTB-2L	T-6F
E25T-SVUCR/L16-D320	CSTB-3.5	T-15F

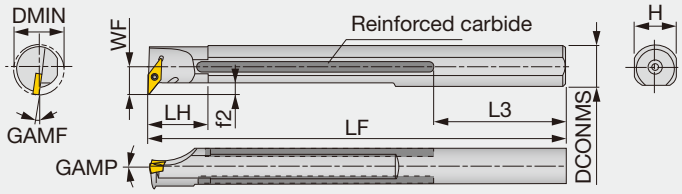
Reference pages: S-SVLCR/L-H: Insert → B152 -, CBN → B209, PCD → B220
Shank → D090 - D092
A/E-SVUCR/L: Insert → B152 -, CBN → B209, PCD → B220

T-SVUCR

Screw-on boring bar, for positive 35° rhombic inserts (Tsuppari-Ichiban)



Cutting edge style **U**



Right hand (R) shown.

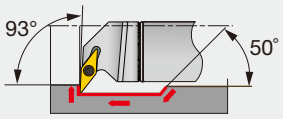
Metric	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque
T25S-SVUCR16C	Reinforced	32	Rc1/4	25	19	250	40	64	23	6.5	0°	-5°	0.8	VC**1604...	3

Torque: Recommended clamping torque: N·m **RE : Standard corner radius
*The hole specification of applicable inserts conforms to ISO standard.
Note: Use right-hand toolholders (SVUCR**) with left-hand inserts (L).

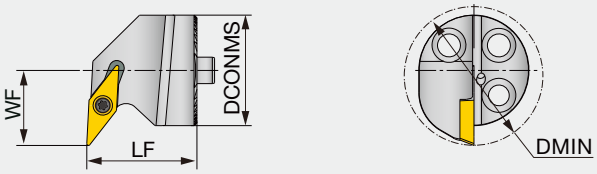
BOREMEISTER

S-SVUCR/L-H

Screw-on clamp exchangeable boring head, for positive 35° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Inch	DMIN	DCONMS	WF	LF	Shank	Insert
S20-SVUCR/L11-H	1.063	0.787	0.630	0.787	D/G.750	VC** 22...
S25-SVUCR/L11-H	1.220	0.984	0.669	0.984	D1.00	VC** 22...

Note: Use right-hand toolholders (SVUCR**) with left-hand inserts (L); and left-hand toolholders (SVUCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
T25S-SVUCR16C	CSTB-3.5L	T-15F
S**-SVUCR/L11-H	SR14-560	T-8/5

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting
Grade	NS9530	T9215
Breaker Shape	PSS	PS
Cutting conditions	B016	

M

Application	Finishing	Finishing to medium cutting
Grade	AH6225	AH6225
Chipbreaker shape	PSS	PS
Cutting conditions	B018	

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	KS05F
Breaker Shape	DIA with rake	DIA	AL
Cutting conditions	B022		

S

Application	Finishing	Finishing to medium cutting
Grade	AH8005	AH8015
Breaker Shape	PS	PS
	B024	

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	CBN	CBN
	B026	

Reference pages: T-SVUCR: Insert → B152 -, CBN → B209, PCD → B220
S-SVUCR/L-H: Insert → B152 -, CBN → B209, PCD → B220
Shank → D090 - D092

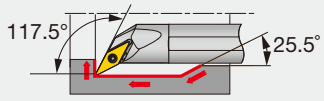
VC

Rhombic, 35° with hole
Positive 7°

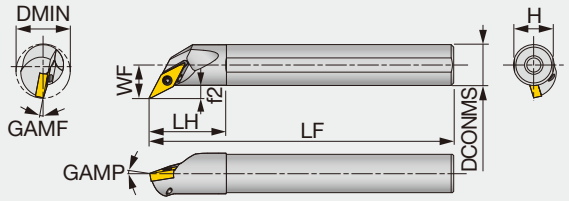
STREAMJETBAR

A/E-SVQCR/L

Screw-on boring bar, for positive 35° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

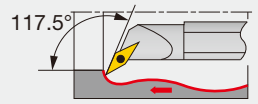
Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A08-SVQCR6-D11	Steel	0.688	0.500	0.375	5.000	1.000	0.475	0.125	-5°	-8°	0.016	VC** 63...	0.44
A10-SVQCR2-D16	Steel	1.000	0.625	0.500	10.000	1.250	0.600	0.188	-5°	-8°	0.016	VC** 22...	0.89

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A10K-SVQCR/L08-D135	Steel	13.5	10	8	125	20	9	3	-5°	-8°	0.4	VC**0802...	0.6
A16Q-SVQCR/L11-D215	Steel	21.5	16	13	180	30	15	4.9	-5°	-8°	0.4	VC**1103...	1.2
E10M-SVQCR/L08-D135	Carbide	13.5	10	8	150	25	9	3	-5°	-8°	0.4	VC**0802...	0.6
E16R-SVQCR/L11-D215	Carbide	21.5	16	13	200	32	15	4.9	-5°	-8°	0.4	VC**1103...	1.2

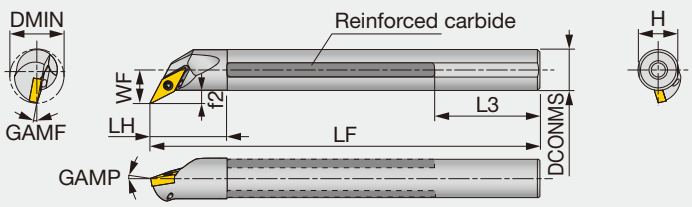
Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius
Note: Use right-hand toolholders (SVQCR**) with left-hand inserts (L); and left-hand toolholders (SVQCL**) with right-hand inserts (R).

T-SVQCR

Screw-on boring bar, for positive 35° rhombic inserts (Tsuppari-Ichiban)



Cutting edge style **Q**



Right hand (R) shown.

Metric	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque
T25S-SVQCR16C	Reinforced	32	Rc1/4	25	17	250	40	64	23	4.5	0°	-5°	0.8	VC**1604...	3

Torque: Recommended clamping torque: N·m
**RE : Standard corner radius
*The hole specification of applicable inserts conforms to ISO standard.
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

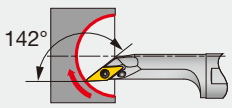
Designation	Clamping screw	Wrench
A08-SVQCR6-D11	CSTB-2L	T-6F
A10-SVQCR2-D16	CSTB-2.5	T-8F
A10K-SVQCR/L08-D135	CSTB-2L	T-6F
A16Q-SVQCR/L11-D215	CSTB-2.5	T-8F
E10M-SVQCR/L08-D135	CSTB-2L	T-6F
E16R-SVQCR/L11-D215	CSTB-2.5	T-8F
T25S-SVQCR16C	CSTB-3.5L	T-15F

Reference pages: A/E-SVQCR/L, T-SVQCR: Insert → B152 -, CBN → B209, PCD → B220

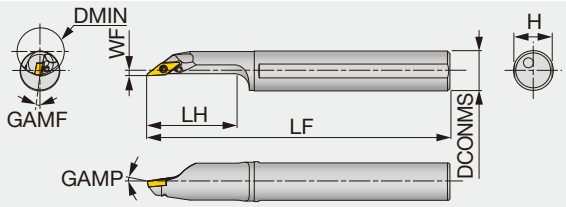
STREAMJETBAR

A-SVJCR/L

Screw-on boring bar, for positive 35° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque
A10-SVJCR2-D16	Steel	1.000	0.625	0.156	7.000	1.750	0.600	-5°	-6°	0.016	VC** 22..	0.89

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A12M-SVJCR/L08-D160	Steel	16	12	2	150	28	11	-5°	-5°	0.4	VC**0802...	0.6
A16Q-SVJCR/L08-D200	Steel	20	16	2	180	35	15	-5°	-5°	0.4	VC**0802...	0.6

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius
Note: Use right-hand toolholders (SVJCR**) with left-hand inserts (L); and left-hand toolholders (SVJCL**) with right-hand inserts (R).

SPARE PARTS




Designation	Clamping screw	Wrench
A**-SVJCR/L...	CSTB-2L	T-6F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting
Grade	NS9530	T9215
Breaker Shape	PSS	PS
Cutting conditions	B014	

M

Application	Finishing	Finishing to medium cutting
Grade	AH6225	AH6225
Chipbreaker shape	PSS	PS
Cutting conditions	B016	

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	KS05F
Breaker Shape	DIA with rake	DIA	AL
Cutting conditions	B022		

S

Application	Finishing	Finishing to medium cutting
Grade	AH8005	AH8015
Breaker Shape	PS	PS
Cutting conditions	B024	

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	CBN	CBN
Cutting conditions	B026	

Reference pages: A-SVJCR/L: Insert → B152 -

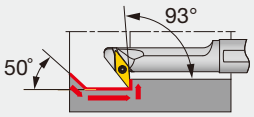
VC

Rhombic, 35° with hole
Positive 7°

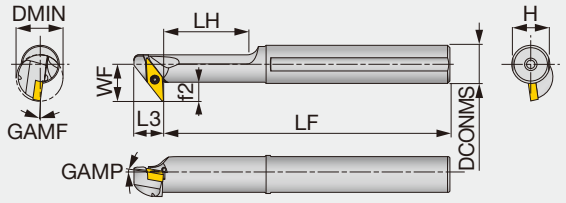
STREAMJETBAR

A-SVZCR/L

Screw-on boring bar, for positive 35° rhombic inserts



Cutting edge style **Z**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque
A08-SVZCR6-D12	Steel	0.750	0.500	0.438	5.000	1.000	0.395	0.475	0.188	0°	-6°	0.016	VC** 63...	0.44
A12-SVZCR2-D16	Steel	1.000	0.750	0.593	10.000	1.425	0.500	0.725	0.218	0°	-7°	0.016	VC** 22...	0.44

Metric	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SVZCR/L08-D160	Steel	16	12	11	150	30	10	11	5.5	0°	-8°	0.4	VC**0802...	0.6

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius
Note: Use right-hand toolholders (SVZCR**) with right-hand inserts (R); and left-hand toolholders (SVZCL**) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench
A08-SVZCR6-D12	CSTB-2L	T-6F
A12-SVZCR2-D16	CSTB-2.5	T-8F
A12M-SVZCR/L08-D160	CSTB-2L	T-6F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting
Grade	NS9530	T9215
Breaker Shape	PSS	PS
Cutting conditions	B016	

M

Application	Finishing	Finishing to medium cutting
Grade	AH6225	AH6225
Chipbreaker shape	PSS	PS
Cutting conditions	B018	

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	KS05F
Breaker Shape	DIA with rake	DIA	AL
Cutting conditions	B022		

S

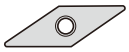
Application	Finishing	Finishing to medium cutting
Grade	AH8005	AH8015
Breaker Shape	PS	PS
Cutting conditions	B024	

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	CBN	CBN
Cutting conditions	B026	

Reference pages: A-SVZCR/L: Insert → B152 -, CBN → B209, PCD → B220

VN YN

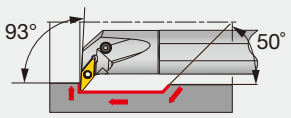
 Rhombic, 35° with hole

 Rhombic, 25° with hole

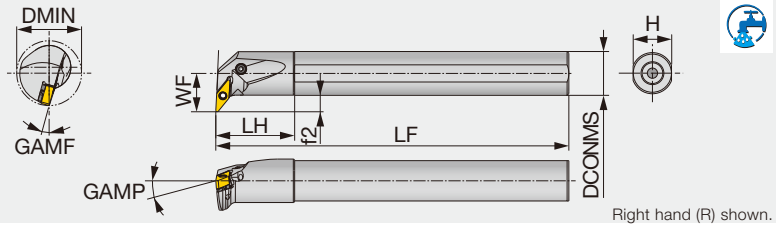
STREAMJETBAR

A-PVUNR/L

Lever-lock boring bar, for negative 35°/25° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A16-PVUNR/L2.33-D20	Steel	1.250	1.000	0.672	12.000	1.750	0.906	0.197	-6°	-13°	0.031	VN** 2.33...	2.2
A16-PVUNR/L2.33-D24	Steel	1.500	1.000	0.859	12.000	1.750	0.906	0.315	-6°	-10°	0.031	VN** 2.33...	2.2
A20-PVUNR/L2.33-D26	Steel	1.650	1.250	0.859	14.000	2.000	1.188	0.217	-6°	-10°	0.031	VN** 2.33...	2.2

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-PVUNR/L1204-D320	Steel	32	25	18	200	45	23	5.0	-5°	-15°	0.8	VN**1204...	3
A25R-PVUNR/L1204-D370	Steel	37	25	22	200	45	23	8.0	-4°	-15°	0.8	VN**1204...	3
A32S-PVUNR/L1204-D400	Steel	40	32	22	250	50	30	5.5	-6°	-12°	0.8	VN**1204...	3
A25R-PVUNR/L16-D370	Steel	37	25	22	200	45	23	9.5	-5°	-14°	0.8	VN**/YN**1604...	2.7
A32S-PVUNR/L16-D400	Steel	40	32	22	250	50	30	6	-5°	-12°	0.8	VN**/YN**1604...	2.7
A40T-PVUNR/L16-D500	Steel	50	40	27	300	60	37	7	-5°	-10°	0.8	VN**/YN**1604...	2.7

Torque: Recommended clamping torque: lbs·ft (*N·m) **RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A16-PVUNR/L2.33-D..., A25R-PVUNR/L1204-D...	LSV212	LCS3V	P-2.5	LSP3	LCL3V	EA-25	SSHM4-5
A20-PVUNR/L2.33-D26, A32S-PVUNR/L1204-D400	LSV212	LCS3V	P-2.5	LSP3	LCL3V	EA-32	SSHM4-5
A25R-PVUNR/L16-D370	LSV317BR/L	LCS3V	P-2.5	LSP3	LCL3V	EA-25	SSHM4-5
A32S-PVUNR/L16-D400	LSV317BR/L	LCS3V	P-2.5	LSP3	LCL3V	EA-32	SSHM4-5
A40T-PVUNR/L16-D500	LSV317BR/L	LCS3V	P-2.5	LSP3	LCL3V	-	SSHM5-6

*Optional

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting
Grade	NS9530	GT9530	T9215
Breaker Shape	TF	TSF	TM
Cutting conditions	B004		

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Chipbreaker shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing
Grade	DX120
Breaker Shape	DIA with rake
Cutting conditions	B010

S

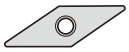
Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B014	

Reference pages: A-PVUNR/L: Insert → B098 -, B110, CBN → B186 -, PCD → B212

VN YN

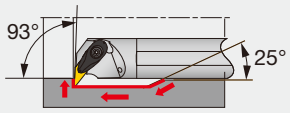
 Rhombic, 35° with hole

 Rhombic, 25° with hole

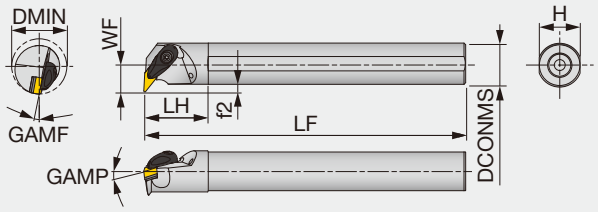
TURNING A

A-AVUNR/L

Double-clamp boring bar, for negative 35°/25° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A20-AVUNR/L3-D25	Steel	1.560	1.250	0.859	14.000	1.960	1.180	0.236	-6	-10	0.031	VN**/YN** 33...	2.21
A24-AVUNR/L3-D32	Steel	2.000	1.500	1.060	14.000	2.160	1.440	0.275	-6	-8	0.031	VN**/YN** 33...	2.21

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A32S-AVUNR/L16-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	VN**/YN**1604...	3
A40T-AVUNR/L16-D500	Steel	50	40	27	300	55	37	7	-6°	-8°	0.8	VN**/YN**1604...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-AVUNR/L...	ACP3L	ACS-5W	BP-7	SP-2.5	ASV322	CSTB-3.5	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting
Grade	NS9530	GT9530	T9215
Breaker Shape	TF	TSF	TM
Cutting conditions	B004		

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Chipbreaker shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing
Grade	DX120
Breaker Shape	DIA with rake
Cutting conditions	B010

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

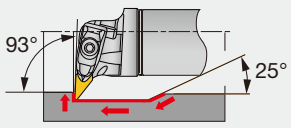
Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B014	

Reference pages: A-AVUNR/L: Insert → B098 -, B110, CBN → B186 -, PCD → B212

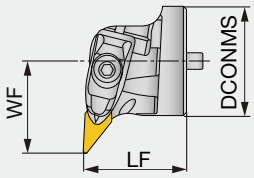
BOREMEISTER

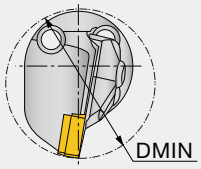
S-DVUNR/L-H

Double-clamp exchangeable boring head, for negative 35° rhombic inserts



Cutting edge style **U**





Right hand (R) shown.

Inch	DMIN	DCONMS	WF	LF	Shank	Insert
S40-DVUNR/L16T-H	2.205	1.575	1.339	1.496	D1.50, D2.00, D2.50	VN** 33...

SPARE PARTS

Designation	Shim	Shim screw	Clamp	Clamp screw	Spring	Wrench
S40-DVUNR/L16T-H	ASV322	SR35080I	DLM3V	SR10402267	KSP5	HW4.0

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting
Grade	NS9530	GT9530	T9215
Breaker Shape	TF	TSF	TM
Cutting conditions	B004		

M

Application	Finishing	Medium cutting
Grade	T6215	AH6225
Chipbreaker shape	SF	SM
Cutting conditions	B006	

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application	Precision finishing
Grade	DX120
Breaker Shape	DIA with rake
Cutting conditions	B010

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
Cutting conditions	B014	

Reference pages: S-DVUNR/L-H: Insert → B098 -, B110, CBN → B186 -, PCD → B212
Shank → D090 - D092

WB

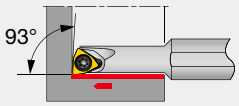


Trigon, 80°
with hole
Positive 5°

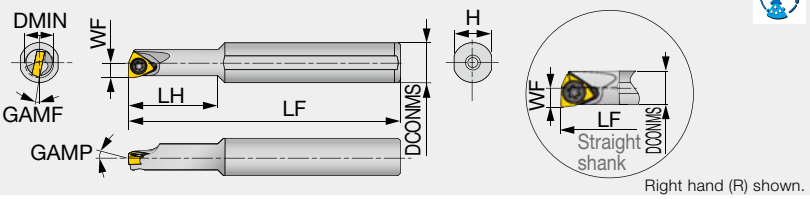
STREAMJETBAR

A/E-SWUBR/L

Screw-on boring bar, for positive 80° trigon inserts



Cutting edge style **U**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque
A05F-SWUBR/L03-D060	Steel	6	5	3	80	9	4.8	0°	-13°	0.4	WB**0301...	0.6
A06G-SWUBR/L03-D070	Steel	7	6	3.5	90	11	5.75	0°	-12°	0.4	WB**0301...	0.6
A07G-SWUBR/L03-D080	Steel	8	7	4	90	12	6.75	0°	-11°	0.4	WB**0301...	0.6
A08H-SWUBR03-D060	Steel	6	8	3.1	100	18	7.5	0°	-12°	0.4	WB**0301...	0.6
A08H-SWUBR03-D070	Steel	7	8	3.6	100	20	7.5	0°	-12°	0.4	WB**0301...	0.6
E05G-SWUBR/L03-D060	Carbide	6	5	3	90	10	4.8	0°	-13°	0.4	WB**0301...	0.6
E06H-SWUBR/L03-D070	Carbide	7	6	3.5	100	12	5.75	0°	-12°	0.4	WB**0301...	0.6
E07H-SWUBR/L03-D080	Carbide	8	7	4	100	14	6.75	0°	-11°	0.4	WB**0301...	0.6
E08K-SWUBR03-D060	Carbide	6	8	3.1	125	30	7.5	0°	-12°	0.4	WB**0301...	0.6
E08K-SWUBR03-D070	Carbide	7	8	3.6	125	40	7.5	0°	-12°	0.4	WB**0301...	0.6

Torque: Recommended clamping torque: N·m
**RE : Standard corner radius
Note: Use right-hand toolholders (SWUBL**) with left-hand inserts (L); and left-hand toolholders (SWUBL**) with right-hand inserts (R).

SPARE PARTS




Designation	Clamping screw	Wrench
A/E**-SWUBR/L...	CSTB-2	T-6F

INSERT SELECTION

P

Application	Finishing
Grade	SH725
Breaker Shape	JS 
Cutting conditions	B016

M

Application	Finishing
Grade	SH725
Breaker Shape	JS 
Cutting conditions	B018

K

Application	Finishing
Grade	SH725
Breaker Shape	JS 
Cutting conditions	B020

N

Application	Finishing
Grade	SH725
Breaker Shape	JS 
Cutting conditions	B022

Reference pages: A/E-SWUBR/L: Insert → B156

WX

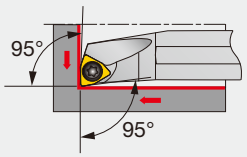


Trigon, 80°
with hole

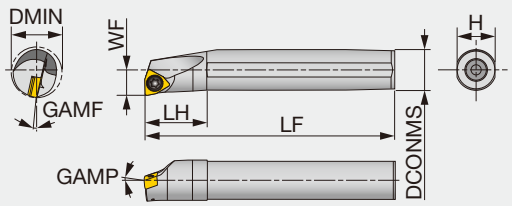
MINIFORCE TURN

A/E-SWLXR/L

Screw-on boring bar, for WXGU inserts



Cutting edge style **L**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque
A06-SWLXR/L2-D08	Steel	0.500	0.375	0.281	5.000	0.750	0.350	-10°	-14°	0.016	WXGU 22**L/R...	0.66
A08-SWLXR/L2-D11	Steel	0.688	0.500	0.406	5.000	1.000	0.475	-10°	-10°	0.016	WXGU 22**L/R...	0.66
A10-SWLXR/L2-D14	Steel	0.875	0.625	0.531	7.000	1.250	0.600	-10°	-8°	0.016	WXGU 22**L/R...	0.66
A12-SWLXR/L2-D16	Steel	1.000	0.750	0.593	7.000	1.438	0.725	-10°	-7°	0.016	WXGU 22**L/R...	0.66
A16-SWLXR/L2-D20	Steel	1.250	1.000	0.625	7.000	1.438	0.938	-10°	-7°	0.016	WXGU 22**L/R...	0.66
E06-SWLXR/L2-D08	Carbide	0.500	0.375	0.281	5.000	1.000	0.350	-10°	-14°	0.016	WXGU 22**L/R...	0.66
E08-SWLXR/L2-D11	Carbide	0.688	0.500	0.406	5.000	1.063	0.475	-10°	-10°	0.016	WXGU 22**L/R...	0.66
E10-SWLXR/L2-D14	Carbide	0.875	0.625	0.531	7.000	1.250	0.600	-10°	-8°	0.016	WXGU 22**L/R...	0.66
E12-SWLXR/L2-D16	Carbide	1.000	0.750	0.593	7.000	1.438	0.725	-10°	-7°	0.016	WXGU 22**L/R...	0.66
E16-SWLXR/L2-D20	Carbide	1.250	1.000	0.625	10.000	1.812	0.938	-10°	-7°	0.016	WXGU 22**L/R...	0.66

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A10K-SWLXR/L04-D120	Steel	12	10	6	125	20	9	-10°	-16°	0.4	WXGU0403**L/R...	0.9
A12M-SWLXR/L04-D140	Steel	14	12	7	150	24	11	-10°	-14°	0.4	WXGU0403**L/R...	0.9
A16Q-SWLXR/L04-D180	Steel	18	16	9	180	32	15	-10°	-11°	0.4	WXGU0403**L/R...	0.9
A20R-SWLXR/L04-D220	Steel	22	20	11	200	36	18	-10°	-10°	0.4	WXGU0403**L/R...	0.9
E10M-SWLXR/L04-D120	Carbide	12	10	6	150	25	9	-10°	-16°	0.4	WXGU0403**L/R...	0.9
E12Q-SWLXR/L04-D140	Carbide	14	12	7	180	27	11	-10°	-14°	0.4	WXGU0403**L/R...	0.9
E16R-SWLXR/L04-D180	Carbide	18	16	9	200	32	15	-10°	-11°	0.4	WXGU0403**L/R...	0.9
E20S-SWLXR/L04-D220	Carbide	22	20	11	250	36	18	-10°	-10°	0.4	WXGU0403**L/R...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m) **RE: Standard corner radius
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R)

SPARE PARTS

Designation	Clamping screw	Wrench
A/E**-SWLXR/L...	SR34-514	T-7F

Reference pages: A/E-SWLXR/L: Insert → B157 -, CBN → B210
Standard cutting conditions → D096

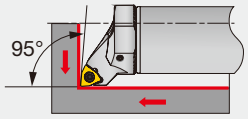
WX



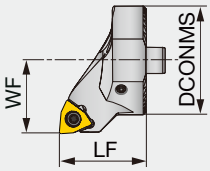
Trigon, 80°
with hole

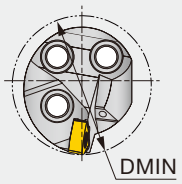
MINIFORCE TURN
S-SWLXR/L-H

Screw-on clamp exchangeable boring head, for WXGU inserts



Cutting edge style **L**





Right hand (R) shown.

Inch	DMIN	DCONMS	WF	LF	Shank	Insert
S25-SWLXR/L04-H	1.260	0.984	0.669	0.787	D1.00	WXGU…
S32-SWLXR/L04-H	1.575	1.260	0.866	1.260	D1.25	WXGU…
S40-SWLXR/L04-H	1.969	1.575	1.063	1.260	D1.50, D2.00, D2.50	WXGU…

Note: Use right-hand toolholders (SWLXR**) with left-hand inserts (L); and left-hand toolholders (SWLXL**) with right-hand inserts (R).

SPARE PARTS





Designation	Clamping screw	Wrench
S**-SWLXR/L04-H	SR34-514	T-7F

INSERT SELECTION

P

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	NS9530	AH8015
Breaker Shape	JS	JTS	SS	TS
Cutting conditions	D096			

P

Application	Medium cutting
Grade	AH8015
Breaker Shape	TS
Cutting conditions	D096

K

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	NS9530	AH8015
Breaker Shape	JS	JTS	SS	TS
Cutting conditions	D096			

K

Application	Medium cutting
Grade	AH8015
Breaker Shape	TS
Cutting conditions	D096

H

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	BXA10	BXA20	BXA20
Breaker Shape	HP	CBN	CBN
Cutting conditions	D096		

M

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	AH8015	AH8015
Chipbreaker shape	JS	JTS	SS	TS
Cutting conditions	D096			

M

Application	Medium cutting
Grade	AH8015
Chipbreaker shape	TS
Cutting conditions	D096

N

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	KS05F	KS05F	KS05F
Breaker Shape	SS	TS	TS
Cutting conditions	D096		

S

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	AH8015	AH8015
Breaker Shape	JS	JTS	SS	TS
Cutting conditions	D096			

S

Application	Medium cutting
Grade	AH8015
Breaker Shape	TS
Cutting conditions	D096

Reference pages: S-SWLXR/L-H: Insert → B157 -, CBN → B210, Shank → D090 - D092
Standard cutting conditions → D096

WN

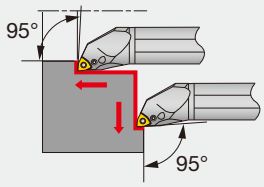


Trigon, 80°
with hole

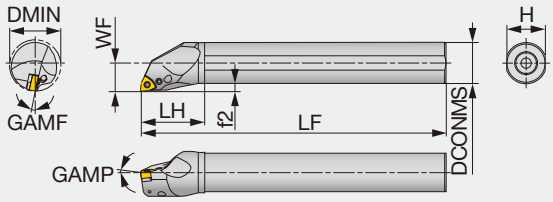
STREAMJETBAR

A-PWLNR/L

Lever-lock boring bar, for negative 80° trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A16M-PWLNR/L0604-D200	Steel	20	16	11	150	32	15	3	-8°	-17°	0.8	WN**0604...	1.7
A20Q-PWLNR/L0604-D250	Steel	25	20	13	180	36	18	3	-6°	-14°	0.8	WN**0604...	1.7
A16M-PWLNR/L06-D200	Steel	20	16	11	150	32	15	3	-8°	-17°	0.8	WN**0604...	1.7
A20Q-PWLNR/L06-D250	Steel	25	20	13	180	36	18	3	-6°	-14°	0.8	WN**0604...	1.7
A25R-PWLNR/L06-D320	Steel	32	25	17	200	45	23	4.5	-6°	-12°	0.8	WN**0604...	2.7
A32S-PWLNR/L06-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	0.8	WN**0604...	2.7
A25R-PWLNR/L08-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	WN**0804...	2.7
A32S-PWLNR/L08-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	0.8	WN**0804...	4.8
A40T-PWLNR/L08-D500	Steel	50	40	27	300	60	37	7	-6°	-10°	0.8	WN**0804...	4.8

Torque: Recommended clamping torque: N·m **RE: Standard corner radius
Note: Use right-hand toolholders (PWLNR**) with left-hand inserts (L); and left-hand toolholders (PWLNL**) with right-hand inserts (R).

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A16M-PWLNR/L0604-D200	-	-	LCS33	P-2F	-	-	LCL33N	-	SSHM3-4
A20Q-PWLNR/L0604-D250	-	-	LCS33	P-2F	-	-	LCL33N	EA-20	SSHM3-4
A16M-PWLNR/L06-D200	-	LCS33	-	P-2F	-	-	LCL33N	-	SSHM3-4
A20Q-PWLNR/L06-D250	-	LCS33	-	P-2F	-	-	LCL33N	EA-20	SSHM3-4
A25R-PWLNR/L06-D320	LSW312BR/L	-	LCS3B	-	P-2.5	LSP3	LCL3	EA-25	SSHM4-5
A32S-PWLNR/L06-D400	LSW312BR/L	-	LCS3	-	P-2.5	LSP3	LCL3	EA-32	SSHM4-5
A25R-PWLNR/L08-D320	-	LCS43	-	-	P-2.5	-	LCL43N	EA-25	SSHM4-5
A32S-PWLNR/L08-D400	LSW42BR/L	-	LCS4	-	P-3	LSP4	LCL4	EA-32	SSHM4-5
A40T-PWLNR/L08-D500	LSW42BR/L	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM4-5

*Optional

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Breaker Shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

S

Application	Precision finishing	Finishing	Medium cutting
Grade	BX480	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXM10	BXM20
Breaker Shape	CBN	CBN
Cutting conditions	B014	

Reference pages: A-PWLNR/L: Insert → B102 -, CBN → B187

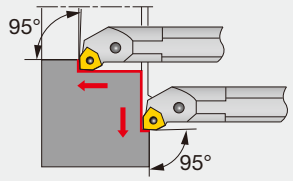
WN



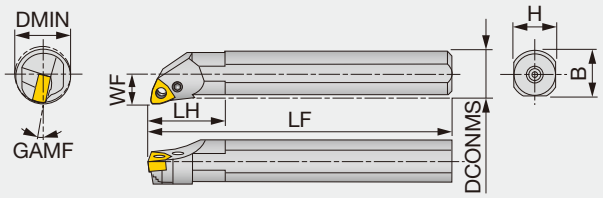
Trigon, 80°
with hole

S-PWLNR/L

Lever-lock boring bar, for negative 80° trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert
S16M-PWLNR/L06	Steel	20	16	11	150	30	15	15.5	-17°	0.8	WN**0604...
S20Q-PWLNR/L06	Steel	25	20	13	180	35	18	19	-14°	0.8	WN**0604...
S25R-PWLNR/L06	Steel	32	25	17	200	40	23	24	-12°	0.8	WN**0604...

**RE : Standard corner radius

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench	Spring pin	Lever
S**-PWLNR/L06	-	LCS33	-	P-2F	-	-	LCL33N
S25R-PWLNR06	LSW312BR	-	LCS3B	-	P-2.5	LSP3	LCL3
S25R-PWLNL06	LSW312BL	-	LCS3B	-	P-2.5	LSP3	LCL3

INSERT SELECTION

P

Application	Finishing	Medium cutting
Grade	T9215	T9215
Breaker Shape	TSF 	TM 
Cutting conditions	B004	

M

Application	Finishing	Medium cutting
Grade	AH6225	AH6225
Chipbreaker shape	SS 	SM 
Cutting conditions	B006	

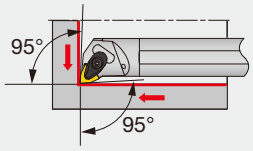
K

Application	Medium cutting
Grade	T515
Breaker Shape	TM 
Cutting conditions	B008

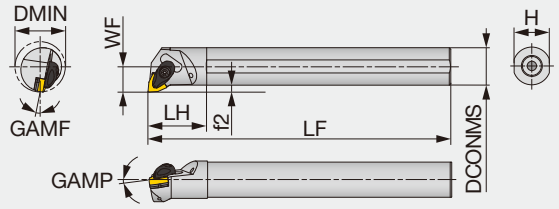
Reference pages: A-PWLNR/L: Insert → B102 -, CBN → B187

A-AWLNR/L

Double-clamp boring bar, for negative 80° trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A16-AWLNR/L33-D20	Steel	1.250	1.000	0.672	12.000	1.750	0.906	0.172	-6°	-13°	0.031	WN** 33...	2.21
A20-AWLNR/L33-D25	Steel	1.560	1.250	0.859	14.000	1.938	1.188	0.234	-6°	-10°	0.031	WN** 33...	2.21
A16-AWLNR/L3-D20	Steel	1.250	1.000	0.672	12.000	1.770	0.906	0.177	-6°	-13°	0.031	WN** 33...	2.21
A20-AWLNR/L3-D25	Steel	1.560	1.250	0.859	14.000	1.960	1.180	0.236	-6°	-10°	0.031	WN** 33...	2.21
A16-AWLNR/L4-D20	Steel	1.250	1.000	0.672	12.000	1.770	0.906	0.177	-6°	-13°	0.031	WN** 43...	2.21
A20-AWLNR/L4-D25	Steel	1.560	1.250	0.859	14.000	1.960	1.180	0.236	-6°	-10°	0.031	WN** 43...	2.21
A24-AWLNR/L4-D32	Steel	2.000	1.500	1.060	14.000	2.160	1.460	0.275	-6°	-8°	0.031	WN** 43...	2.21
A32-AWLNR/L4-D40	Steel	2.500	2.000	1.370	16.000	2.550	1.850	0.393	-6°	-7°	0.031	WN** 43...	2.21

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-AWLNR/L0604-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	WN**0604...	3
A32S-AWLNR/L0604-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	WN**0604...	3
A25R-AWLNR/L06-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	WN**0604...	3
A32S-AWLNR/L06-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	WN**0604...	3
A25R-AWLNR/L08-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	WN**0804...	3
A32S-AWLNR/L08-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	WN**0804...	3
A40T-AWLNR/L08-D500	Steel	50	40	27	300	55	37	7	-6°	-8°	0.8	WN**0804...	3
A50U-AWLNR/L08-D630	Steel	63	50	35	350	65	47	10	-6°	-7°	0.8	WN**0804...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-AWLNR/L33-D..., A**-AWLNR/L0604-D...	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASW322	CSTB-3.5	T-15F
A**-AWLNR/L3-D..., A**-AWLNR/L06-D...	ACP3S	ACS-5W	BP-7	SP-2.5	ASW322	CSTB-3.5	T-15F
A**-AWLNR/L4-D..., A**-AWLNR/L08-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASW422	CSTB-3.5	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Breaker Shape	SF	SM	SH
Cutting conditions	B006		

K

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

S

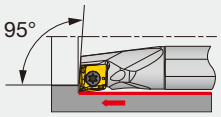
Application	Precision finishing	Finishing	Medium cutting
Grade	BX480	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application	Precision finishing	Finishing
Grade	BXM10	BXM20
Breaker Shape	CBN	CBN
Cutting conditions	B014	

Reference pages: A-AWLNR/L: Insert → B102 -, CBN → B187

Screw-on boring bar, for XOMU rhombic inserts



Cutting edge style **U**



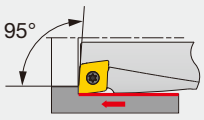
Metric	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	Insert
A08H-SXUOR/L05-D100	10	8	5	100	16	7.5	-7°	-0.8°	XOMU05X204-PS
A12M-SXUOR/L07-D140	14	12	7	150	24	11	-7.2°	3.2°	XOMU07H304-PS
E08K-SXUOR/L05-D100	10	8	5	125	22	7.5	-7°	-0.8°	XOMU05X204-PS
E12Q-SXUOR/L07-D140	14	12	7	180	27	11	-7.2°	3.2°	XOMU07H304-PS

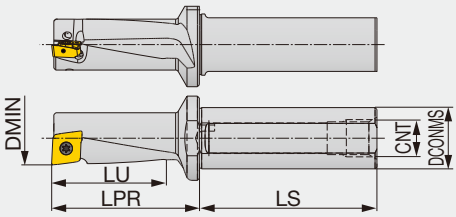
SPARE PARTS

Designation	Clamping screw	Wrench
A08H-SXUOR/L05-D100	CSTB-2L040	T-6F
A12M-SXUOR/L07-D140	CSPB-2.5	IP-8D
E08K-SXUOR/L05-D100	CSTB-2L040	T-6F
E12Q-SXUOR/L07-D140	CSPB-2.5	IP-8D

TBM

Maximum hole depth for LH/DC = 2.25





Metric	DMIN	DCONMS	LU	LS	LPR	CNT	Insert
TBM10R/LF12-2.25	10	12	22.5	41.5	28.45	UNF 5/16-24	XOMU05X204-PS
TBM12R/LF16-2.25	12	16	27	43.9	33.53	G1/8	XOMU06H204-PS
TBM14R/LF16-2.25	14	16	31.5	46.4	38.57	G1/8	XOMU07H304-PS
TBM16R/LF20-2.25	16	20	36	57.1	42.9	G1/8	XOMU08T304-PS

SPARE PARTS

Designation	Clamping screw	Wrench
TBM10R/LF12-2.25	CSTB-2L040	T-6D
TBM12R/LF16-2.25	CSPB-2.2	IP-7D
TBM14R/LF16-2.25	CSPB-2.5	IP-8D
TBM16R/LF20-2.25	CSTB-3	T-9D

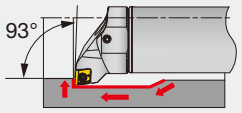
C
D
E
F
G
S
T
V
W
Y
OTHERS

Reference pages: Insert → D087
Standard cutting conditions → D098

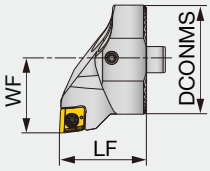
BOREMEISTER

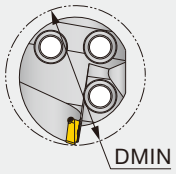
S-SXUOR05-H

Screw-on clamp exchangeable boring head, for XOMU inserts



Cutting edge style **U**





Right hand (R) shown.

Inch	DMIN	DCONMS	WF	LF	Shank	Insert
S20-SXUOR05-H	0.984	0.787	0.512	0.787	D/G.750	XOMU05X204-PS
S25-SXUOR05-H	1.260	0.984	0.669	0.787	D1.00	XOMU05X204-PS

SPARE PARTS



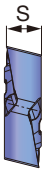


Designation	Clamping screw	Wrench
S**-SXUOR05-H	CSTB-2L040	T-6F

INSERT

XOMU-PS





		Coated
		AH725
P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	★
S	Superalloys	
H	Hard materials	

★ : First choice
☆ : Second choice

Designation	RE (in)	AH725	S (in)	LE (in)
XOMU05X204-PS	0.016	●	0.091	0.219
XOMU06H204-PS	0.016	●	0.106	0.248
XOMU07H304-PS	0.016	●	0.130	0.287
XOMU08T304-PS	0.016	●	0.156	0.327

●: Line up

Reference pages: Shank → D090 - D092
Standard cutting conditions → D098

YW

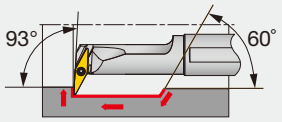


Rhombic, 25°
with hole
Positive 7°

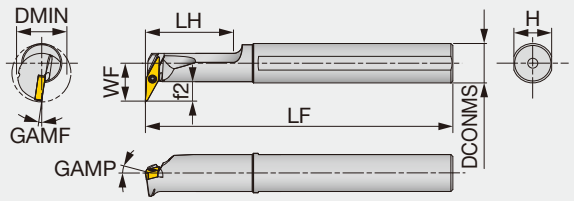
Y-PRO SERIES

A/E-SYUBR/L

Screw-on boring bar, for positive 25° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A10-SYUBR/L2-D16	Steel	1.000	0.625	0.625	7.000	1.250	0.600	0.312	0°	-8°	0.016	YW**11T2...	0.44
E08-SYUBR/L2-D14	Carbide	0.875	0.500	0.563	5.000	1.060	0.475	0.307	0°	-8°	0.016	YW**11T2...	0.44
E10-SYUBR/L2-D16	Carbide	1.000	0.625	0.625	7.000	1.250	0.600	0.307	0°	-8°	0.016	YW**11T2...	0.44

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16Q-SYUBR/L11-D200	Steel	20	16	15.5	180	35	15	8	0°	-8°	0.4	YW**11T2...	0.6
E12Q-SYUBR/L11-D200	Carbide	20	12	13.5	180	27	11	7.5	0°	-8°	0.4	YW**11T2...	0.6
E16R-SYUBR/L11-D245	Carbide	24.5	16	16	200	32	15	8	0°	-8°	0.4	YW**11T2...	0.6

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius

SPARE PARTS




Designation	Clamping screw	Wrench
A**-SYUBR/L...	CSTB-2L	T-6F
E**-SYUBR/L...	CSTB-2L	T-6F

INSERT SELECTION

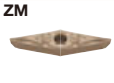
P

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	GT9215	T9215	T9215
Breaker Shape	ZF 	ZF 	ZM 
Cutting conditions	B016		

M

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	AH8015	AH8015	AH8015
Breaker Shape	ZF 	ZF 	ZM 
Cutting conditions	B018		

K

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	GT9530	T9215	T9215
Breaker Shape	ZF 	ZF 	ZM 
Cutting conditions	B020		

S

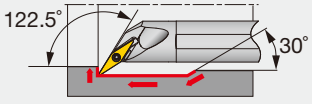
Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	AH8015	AH8015	AH8015
Breaker Shape	ZF 	ZF 	ZM 
Cutting conditions	B024		

Reference pages: A/E-SYUBR/L: Insert → B159

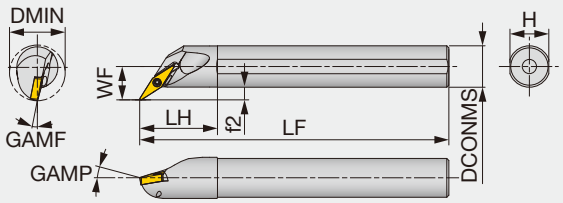
Y-PRO SERIES

A/E-SYQBR/L

Screw-on boring bar, for positive 25° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque
A08-SYQBR2-D12	Steel	0.750	0.500	0.438	5.000	1.000	0.475	0.188	-5°	-10°	0.016	YW**11T2...	0.44
A10-SYQBR2-D14	Steel	0.875	0.625	0.500	7.000	1.250	0.600	0.188	-5°	-8°	0.016	YW**11T2...	0.44
E08-SYQBR2-D12	Carbide	0.750	0.500	0.438	5.000	1.000	0.475	0.188	-5°	-10°	0.016	YW**11T2...	0.44
E10-SYQBR2-D14	Carbide	0.875	0.625	0.500	7.000	1.250	0.600	0.188	-5°	-8°	0.016	YW**11T2...	0.44

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SYQBR/L11-D170	Steel	17	12	10.5	150	24	11	4.5	-5°	-10°	0.4	YW**11T2...	0.6
A16Q-SYQBR/L11-D215	Steel	21.5	16	13	180	30	15	5	-5°	-8°	0.4	YW**11T2...	0.6
E12Q-SYQBR/L11-D170	Carbide	17	12	10.5	180	27	11	4.5	-5°	-10°	0.4	YW**11T2...	0.6
E16R-SYQBR/L11-D215	Carbide	21.5	16	13	200	32	15	5	-5°	-8°	0.4	YW**11T2...	0.6

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE : Standard corner radius

SPARE PARTS




Designation	Clamping screw	Wrench
A/E**-SYQBR/L...	CSTB-2L	T-6F

INSERT SELECTION

P

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	GT9215	T9215	T9215
Breaker Shape	ZF	ZF	ZM
Cutting conditions	B016		

M

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	AH8015	AH8015	AH8015
Breaker Shape	ZF	ZF	ZM
Cutting conditions	B018		

K

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	GT9530	T9215	T9215
Breaker Shape	ZF	ZF	ZM
Cutting conditions	B020		

S

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	AH8015	AH8015	AH8015
Breaker Shape	ZF	ZF	ZM
Cutting conditions	B024		

Reference pages: A/E-SYQBR/L: Insert → B159

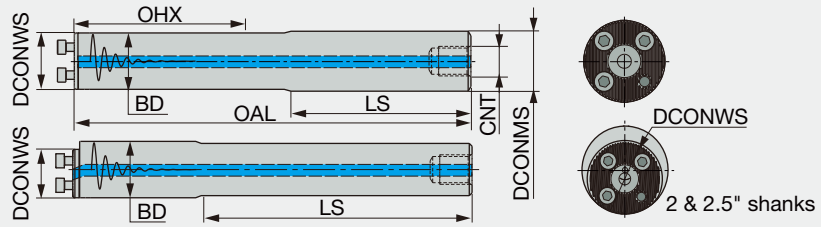
BOREMEISTER

Anti-vibration bar

Anti-vibration bar for exchangeable turning heads, with through coolant

Fig. 1

Fig. 2



Inch	Material	DCONWS	DCONMS	BD	OAL	LS	OHX	CNT	Fig.
D.625-L6.14-7D-C	Steel	0.630	0.625	0.630	6.140	3.600	3.500	G1/8	1
G.625-L8.03-10D-E	Carbide	0.630	0.625	0.630	8.030	5.220	5.500	-	1
D.750-L7.87-7D-C	Steel	0.787	0.750	0.787	7.870	4.940	4.400	G1/4	1
G.750-L10.24-10D-E	Carbide	0.787	0.750	0.787	10.240	6.770	7.000	-	1
D1.00-L10.2-7D-C	Steel	0.984	1.000	0.984	10.200	6.830	6.200	G1/4	1
D1.00-L13.21-10D-C	Steel	0.984	1.000	0.984	13.210	8.650	9.200	G1/4	1
D1.25-L12.48-7D-C	Steel	1.260	1.250	1.260	12.480	7.370	7.500	G3/8	1
D1.25-L16.24-10D-C	Steel	1.260	1.250	1.260	16.240	9.670	11.200	G3/8	1
D1.50-L15.26-7D-C	Steel	1.575	1.500	1.575	15.260	9.130	9.200	G1/2	1
D1.50-L19.8-10D-C	Steel	1.575	1.500	1.575	19.800	13.350	13.700	G1/2	1
D2.00-L20.74-7D-C	Steel	1.575	2.000	2.000	20.740	-	12.700	G1/2	2
D2.00-L26.73-10D-C	Steel	1.575	2.000	2.000	26.730	-	18.700	G1/2	2
D2.50-L26.2-7D-C	Steel	1.575	2.500	2.500	26.200	-	16.200	G3/4	2
D2.50-L33.72-10D-C	Steel	1.575	2.500	2.500	33.720	-	23.700	G3/4	2

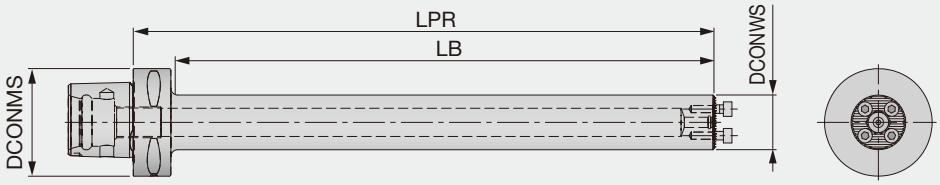
SPARE PARTS




Designation	Clamping screw	Wrench
D.625..., G.625...	SRM3X10DIN912	HW2.5
D.750..., G.750...	SR55-2M3.5X10	HW2.5
D1.00...	SRM4X12DIN912	HW3.0
D1.25...	SRM5X12DIN912	HW4.0
D1.50..., D2.00... D2.50...	SRM6X16DIN912-12.9	HW5.0

C6-9D-C

PSC adapter with anti vibration, L/D = 9



Metric	Material	DCONWS	DCONMS	LPR	LB	WT (kg)
C6-D25-L230-9D-C	Steel	25	63	230.5	200.1	1.65
C6-D32-L288-9D-C	Steel	32	63	288.5	259.5	2.73
C6-D40-L368-9D-C	Steel	40	63	368.5	339	4.45

SPARE PARTS




Designation	Clamping screw	Wrench
C6-D25...	SRM4X12DIN912	HW3.0
C6-D32...	SRM5X12DIN912	HW4.0
C6-D40...	SRM6X16DIN912-12.9	HW5.0

BOREMEISTER

C#-SH-CHP / C#-SH-E-CHP

PSC compatible adapter with steel or carbide core

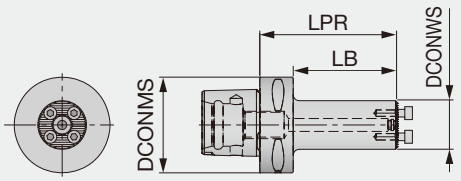


Fig. 1

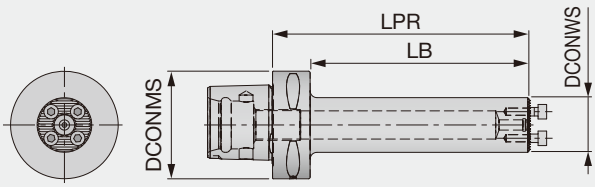


Fig. 2

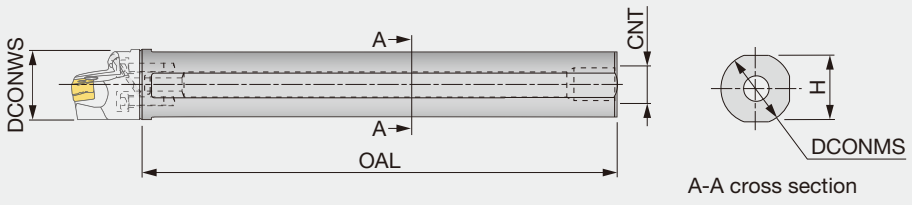
Metric	Material	DCONWS	DCONMS	LPR	LB	Fig.
C4-SH-D16-2.5D-CHP	Steel	16	40	40	20	1
C4-SH-D20-2.5D-CHP	Steel	20	40	50	30	1
C4-SH-D25-2.5D-CHP	Steel	25	40	55	35	1
C4-SH-D32-2.5D-CHP	Steel	32	40	75	55	1
C4-SH-D40-3D-CHP	Steel	40	40	80	80	1
C6-SH-D20-5D-E-CHP	Carbide	20	63	100	78	2
C6-SH-D25-5D-E-CHP	Carbide	25	63	115	93	2
C6-SH-D32-5D-E-CHP	Carbide	32	63	150	128	2
C6-SH-D40-5D-E-CHP	Carbide	40	63	185	163	2

SPARE PARTS

Designation	Clamping screw	Wrench
C4**D16...	SRM3X10DIN912	HW2.5
C4/C6**D20...	SR55-2M3.5X10	HW2.5
C4/C6**D25...	SRM4X12DIN912	HW3.0
C4/C6**D32...	SRM5X12DIN912	HW4.0
C4/C6**D40...	SRM6X16DIN912-12.9	HW5.0

D#4D-SH

Steel shank for internal turning, with through coolant



A-A cross section

Inch	Material	DCONWS	DCONMS	OAL	CNT	H
D1.00-L7.2-4D-SH	Steel	1.000	1.000	7.200	UNF-2B 1/2"-20	0.921
D1.25-L8.74-4D-SH	Steel	1.250	1.250	8.740	UNF-2B 1/2"-20	1.142
D1.50-L10.75-4D-SH	Steel	1.575	1.500	10.75	UNF-2B 1/2"-20	1.339
D2.00-L14.72-4D-SH	Steel	1.575	2.000	14.72	UNF-2B 1/2"-20	1.811
D2.50-L18.74-4D-SH	Steel	1.575	2.500	18.74	UNF-2B 1/2"-20	2.283

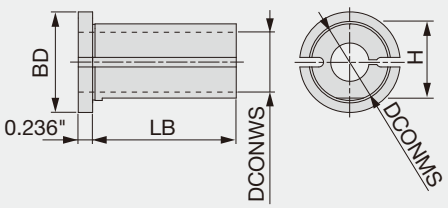
SPARE PARTS

Designation	Clamping screw	Wrench
D1.00-L7.2-4D-SH	SR M4X12DIN912	HW 3.0
D1.25-L8.74-4D-SH	SR M5X12 DIN912	HW 4.0
D1.50-L10.75-4D-SH	SRM6X16DIN912-12.9	HW 5.0
D2.00-L14.72-4D-SH	SRM6X16DIN912-12.9	HW 5.0
D2.50-L18.74-4D-SH	SRM6X16DIN912-12.9	HW 5.0

BOREMEISTER

RSL sleeve

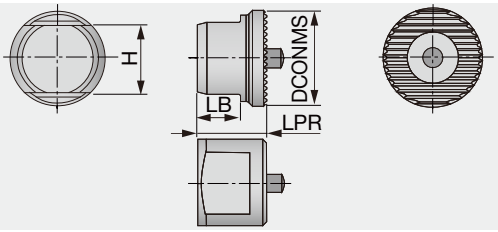
Split sleeve for anti-vibration bar



Inch	DCONWS	DCONMS	BD	LB	H
RSL-31.8-15.9-L66	0.625	1.250	1.654	2.362	1.210
RSL-31.8-19-L66	0.750	1.250	1.654	2.362	1.210
RSL-31.8-25.4-L66	1.000	1.250	1.654	2.362	1.210
RSL-38.1-15.9-L106	0.625	1.500	1.969	3.937	1.461
RSL-38.1-19-L106	0.750	1.500	1.969	3.937	1.461
RSL-38.1-25.4-L106	1.000	1.500	1.969	3.937	1.461
RSL-38.1-31.8-L106	1.250	1.500	1.969	3.937	1.461
RSL-50.8-19-L126	0.750	2.000	2.362	4.724	1.941
RSL-50.8-25.4-L126	1.000	2.000	2.362	4.724	1.941
RSL-50.8-31.8-L126	1.250	2.000	2.362	4.724	1.941
RSL-50.8-38.1-L126	1.500	2.000	2.362	4.724	1.941
RSL-63.5-31.8-L156	1.250	2.500	2.756	5.906	2.441
RSL-63.5-38.1-L156	1.500	2.500	2.756	5.906	2.441
RSL-63.5-50.8-L156	2.000	2.500	2.756	5.906	2.441

AVC-SET

Center height set up device

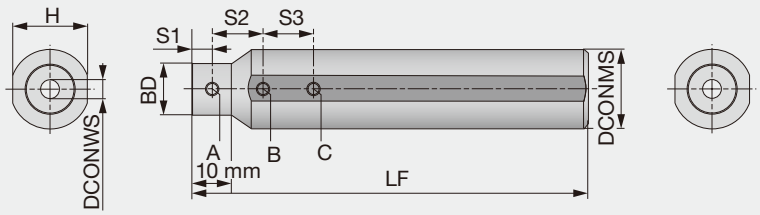


Inch	DCONMS	H	LPR	LB	Applicable shank
AVC-SET16-25	0.787	0.591	0.571	0.350	D/G.625, D/G.750, D1.00
AVC-SET32-60	1.142	0.630	0.689	0.450	D1.25, D1.50, D2.00, D2.50

STREAMJETBAR

BLM sleeve

Round shank sleeve for StreamJetBar-Mini series



Metric	DCONMS	DCONWS	BD	LF	H	S1	S2	S3
BLM159-04	15.875 (0.625")	4	15	100	15	5	15	15
BLM159-05	15.875 (0.625")	5	15	100	15	5	15	15
BLM159-06	15.875 (0.625")	6	15	100	15	5	20	20
BLM159-07	15.875 (0.625")	7	15	100	15	5	20	20
BLM16-04	16	4	15	100	15	5	15	15
BLM16-05	16	5	15	100	15	5	15	15
BLM16-06	16	6	15	100	15	5	20	20
BLM16-07	16	7	15	100	15	5	20	20
BLM19-04	19.05 (0.750")	4	18	100	18	5	15	15
BLM19-05	19.05 (0.750")	5	18	100	18	5	15	15
BLM19-06	19.05 (0.750")	6	18	100	18	5	20	20
BLM19-07	19.05 (0.750")	7	18	100	18	5	20	20
BLM20-04	20	4	13	100	19	5	15	15
BLM20-05	20	5	14	100	19	5	15	15
BLM20-06	20	6	15	100	19	5	20	20
BLM20-07	20	7	16	100	19	5	20	20
BLM22-04	22	4	13	125	21	5	15	15
BLM22-05	22	5	14	125	21	5	15	15
BLM22-06	22	6	15	125	21	5	20	20
BLM22-07	22	7	16	125	21	5	20	20
BLM25-04	25	4	13	125	24	5	15	15
BLM25-05	25	5	14	125	24	5	15	15
BLM25-06	25	6	15	125	24	5	20	20
BLM25-07	25	7	16	125	24	5	20	20
BLM254-04	25.4 (1.000")	4	13	125	24	5	15	15
BLM254-05	25.4 (1.000")	5	14	125	24	5	15	15
BLM254-06	25.4 (1.000")	6	15	125	24	5	20	20
BLM254-07	25.4 (1.000")	7	16	125	24	5	20	20

SPARE PARTS





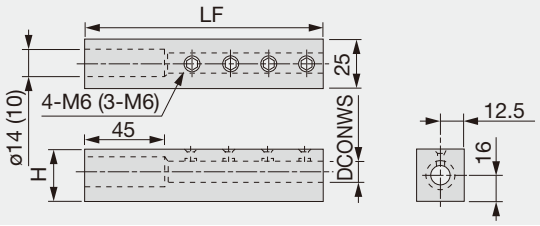

Designation	Clamping screw A	Clamping screw B, C	Wrench	Seal cap* (inner screw)
BLM159, 16...	SSHM4-4	SSHM4-4	P-2	CA-16(M6)
BLM19-04	SSHM4-4	SSHM4-6	P-2	CA-16(M6)
BLM19-05, 06, 07	SSHM4-4	SSHM4-4	P-2	CA-16(M6)
BLM20-04, 05	SSHM4-4	SSHM4-6	P-2	CA-16(M6)
BLM20-06, 07	SSHM4-4	SSHM4-4	P-2	CA-16(M6)
BLM22-...	SSHM4-4	SSHM4-6	P-2	CA-16(M6)
BLM25-04, 05	SSHM4-4	SSHM4-8	P-2	CA-16(M6)
BLM25-06	SSHM4-4	SSHM4-8	P-2	CA-16(M6)
BLM25-07	SSHM4-4	SSHM4-6	P-2	CA-16(M6)
BLM254-04, 05, 06	SSHM4-4	SSHM4-8	P-2	CA-16(M6)
BLM254-07	SSHM4-4	SSHM4-6	P-2	CA-16(M6)

*Optional

STREAMJETBAR

BLS sleeve

Square shank sleeve for boring bars (regular length)



(Unit: mm)

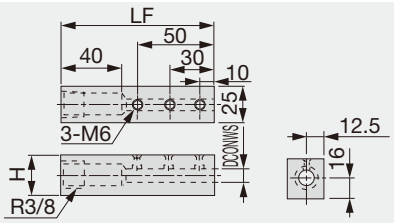
Metric	DCONWS	LF	H
BLS16-08	8	125	28
BLS16-10	10	125	28
BLS16-12	12	125	28

SPARE PARTS

Designation	Wrench
BLS16-...	P-3

BLS-C sleeve

Square shank sleeve for boring bars (short type)



(Unit: mm)

Metric	DCONWS	LF	H
BLS16-08C	8	100	28
BLS16-10C	10	100	28
BLS16-12C	12	100	28

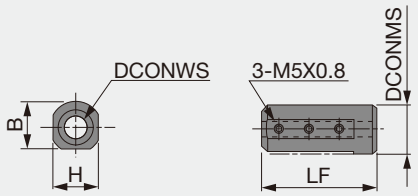
SPARE PARTS

Designation	Wrench
BLS16-**C	P-3

STREAMJETBAR

BLM sleeve

Round shank sleeve for boring bars



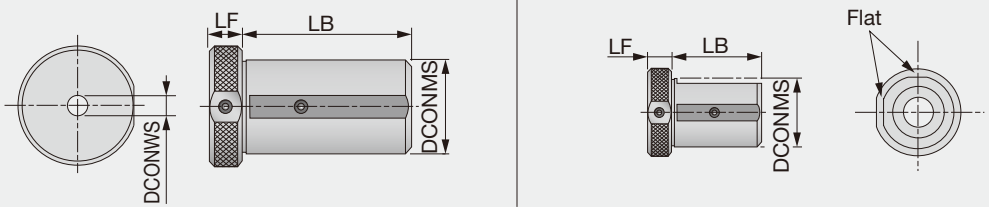
Metric	DCONWS	DCONMS	LF	H	B
BLM19-08	8	19.05	100	18	18
BLM20-08	8	20	100	18	19
BLM22-08	8	22	125	21	21
BLM254-08	8	25.4	125	24	24
BLM25-08C	8	25	55	23	24
BLM25-10C	10	25	55	23	24
BLM25-12C	12	25	55	23	24

SPARE PARTS

Designation	Wrench
BLM...	P-2.5

BLC sleeve

Round shank sleeve for boring bars



Metric	DCONWS	LB	LF	DCONMS
BLC40-8	8	73	13	40
BLC40-10	10	73	13	40
BLC40-12	12	73	13	40
BLC40-16	16	73	13	40
BLC32-8C	8	45	20	32
BLC32-10C	10	45	20	32
BLC32-12C	12	45	20	32
BLC40-8C	8	55	13	40
BLC40-10C	10	55	13	40
BLC40-12C	12	55	13	40
BLC40-16C	16	55	13	40

SPARE PARTS

Designation	Wrench
BLC40-8	P-3
BLC40-1...	P-4
BLC32-8C	P-3
BLC32-1*C	P-4
BLC40-8C	P-3
BLC40-1*C	P-4

MINI FORCE TURN

STANDARD CUTTING CONDITIONS

FOR INTERNAL TURNING

ISO	Workpiece material	Grade		Cutting speed *Vc* (sfm)	Depth of cut *ap* (in)	Feed *f* (ipr)
		First choice	Second choice			
P	Low carbon steel / Low alloy steel	T9215	-	394 - 1148	0.012 - 0.079	0.003 - 0.012
		T9225	-	328 - 984	0.012 - 0.079	0.003 - 0.012
		AH8015	-	164 - 656	0.012 - 0.079	0.003 - 0.012
		-	AH725	164 - 591	0.012 - 0.079	0.003 - 0.012
		-	NS9530	262 - 820	0.012 - 0.079	0.003 - 0.012
		-	GT9530	262 - 984	0.012 - 0.079	0.003 - 0.012
	Carbon steel / Alloy steel	T9215	-	262 - 1148	0.012 - 0.079	0.003 - 0.012
		T9225	-	262 - 984	0.012 - 0.079	0.003 - 0.012
		AH8015	-	164 - 656	0.012 - 0.079	0.003 - 0.012
		-	AH725	164 - 591	0.012 - 0.079	0.003 - 0.012
		-	NS9530	262 - 820	0.012 - 0.079	0.003 - 0.012
		-	GT9530	262 - 984	0.012 - 0.079	0.003 - 0.012
M	Stainless steel (Austenitic)	AH8015	-	164 - 492	0.012 - 0.079	0.003 - 0.012
		-	AH725	164 - 492	0.012 - 0.079	0.003 - 0.012
		-	T9215	164 - 656	0.012 - 0.079	0.003 - 0.012
	Stainless steel (Martensitic and ferritic)	AH8015	-	164 - 492	0.012 - 0.079	0.003 - 0.012
		-	AH725	164 - 492	0.012 - 0.079	0.003 - 0.012
		-	T9215	164 - 656	0.012 - 0.079	0.003 - 0.012
	Stainless steel (Precipitation hardening)	AH8015	-	164 - 492	0.012 - 0.079	0.003 - 0.012
		-	AH725	164 - 492	0.012 - 0.079	0.003 - 0.012
		-	T9215	164 - 656	0.012 - 0.079	0.003 - 0.012
K	Gray cast iron	T9215	-	328 - 1148	0.012 - 0.079	0.003 - 0.012
		T9225	-	328 - 1148	0.012 - 0.079	0.003 - 0.012
		-	AH8015	164 - 656	0.012 - 0.079	0.003 - 0.012
		-	AH725	164 - 591	0.012 - 0.079	0.003 - 0.012
		-	NS9530	262 - 820	0.012 - 0.079	0.003 - 0.012
		-	GT9530	262 - 984	0.012 - 0.079	0.003 - 0.012
	Ductile cast iron	T9215	-	328 - 1148	0.012 - 0.079	0.003 - 0.012
		T9225	-	328 - 1148	0.012 - 0.079	0.003 - 0.012
		-	AH8015	164 - 656	0.012 - 0.079	0.003 - 0.012
		-	AH725	164 - 591	0.012 - 0.079	0.003 - 0.012
		-	NS9530	262 - 820	0.012 - 0.079	0.003 - 0.012
		-	GT9530	262 - 984	0.012 - 0.079	0.003 - 0.012
N	Aluminum alloys	KS05F	-	328 - 984	0.012 - 0.079	0.003 - 0.012
	Copper alloys	KS05F	-	328 - 984	0.012 - 0.079	0.003 - 0.012
S	Titanium alloys	AH8015	-	66 - 262	0.012 - 0.079	0.003 - 0.012
	Nickel-based alloys	AH8015	-	66 - 262	0.012 - 0.079	0.003 - 0.012
H	Hardened steel	BXA20	-	164 - 722	0.005 - 0.031	0.004 - 0.012
		-	BXA10	164 - 722	0.005 - 0.031	0.004 - 0.012

Reference pages: A/E-SCLXR/L → D025, S-SCLXR/L-H → D026
A/E-SWLXR/L → D081, S-SWLXR/L-H → D082
A/E-SDXXR/L → D040, A/E-SDZXR/L → D041

TURNTEC

STANDARD CUTTING CONDITIONS

*Values in red are for facing.

LNMX1204

ISO	Workpiece material	Chip breaker	Grade	Cutting speed *Vc* (sfm)	Depth of cut: *ap* (in)		Feed: *f* (ipr)	
					RE : 0.031	RE : 0.047	RE : 0.031	RE : 0.047
P	Steels 1045, 4130, etc.	TDR	T9115	390 - 820	0.020 - 0.195 0.020 - 0.086	0.031 - 0.195 0.031 - 0.086	0.006 - 0.024	0.010 - 0.031
		TDR	T9125	260 - 590	0.020 - 0.195 0.020 - 0.086	0.031 - 0.195 0.031 - 0.086	0.006 - 0.024	0.010 - 0.031
M	Stainless steels 304, 316, etc.	TDR	T9115	330 - 590	0.020 - 0.195 0.020 - .086	0.031 - 0.195 0.031 - 0.086	0.006 - 0.024	0.010 - 0.031
		TDR	T9125	260 - 590	0.020 - 0.195 0.020 - 0.086	0.031 - 0.195 0.031 - 0.086	0.006 - 0.024	0.010 - 0.031

LNMX1606

ISO	Workpiece material	Chip breaker	Grade	Cutting speed *Vc* (sfm)	Depth of cut: *ap* (in)			Feed: *f* (ipr)		
					RE : 0.031	RE : 0.047	RE : 0.063	RE : 0.031	RE : 0 .047	RE : 0.063
P	Steels 1045, 4130, etc.	TDR	T9115	390 - 820	0.020 - 0.197 0.020 - .126	0.031 - 0.236 .031 - .126	0.039 - 0.315 0.039 - 0.126	0.006 - 0.024	0.010 - 0.031	0.012 - 0.039
		TDR	T9125	260 - 590	0.020 - 0.197 0.020 - .126	0.031 - 0.236 .031 - .126	0.039 - 0.315 0.039 - 0.126	0.006 - 0.024	0.010 - 0.031	0.012 - 0.039
		TWR	T9115	390 - 820	0.020 - 0.197 0.020 - 0.126	0.031 - 0.236 0.031 - 0.126	-	0.006 - 0.024	0.010 - 0.031	-
		TWR	T9125	260 - 590	0.020 - 0.197 0.020 - 0.126	0.031 - 0.236 0.031 - 0.126	-	0.006 - 0.024	0.010 - 0.031	-
M	Stainless steels 304, 316, etc.	TDR	T9115	330 - 590	0.020 - 0.197 0.020 - 0.126	0.031 - 0.236 0.031 - 0.126	0.039 - 0.315 0.039 - 0.126	0.006 - 0.024	0.010 - 0.031	0.012 - 0.039
		TDR	T9125	260 - 590	0.020 - 0.197 0.020 - 0.126	0.031 - 0.236 0.031 - 0.126	0.039 - 0.315 0.039 - 0.126	0.006 - 0.024	0.010 - 0.031	0.012 - 0.039
		MDR	T9115	330 - 490	0.059 - 0.236 0.020 - 0.126	0.059 - 0.276 0.031 - 0.126	-	0.004 - 0.020	0.006 - 0.028	-
		MDR	AH725	160 - 490	0.059 - 0.236 0.020 - 0.126	0.059 - 0.276 0.031 - 0.126	-	0.004 - 0.020	0.006 - 0.028	-
		TWR	T9115	330 - 590	0.020 - 0.197 0.020 - 0.126	0.031 - 0.236 0.031 - 0.126	-	0.006 - 0.024	0.010 - 0.031	-
		TWR	T9125	260 - 590	0.020 - 0.197 0.020 - 0.126	0.031 - 0.236 0.031 - 0.126	-	0.006 - 0.024	0.010 - 0.031	-

LNMX2410

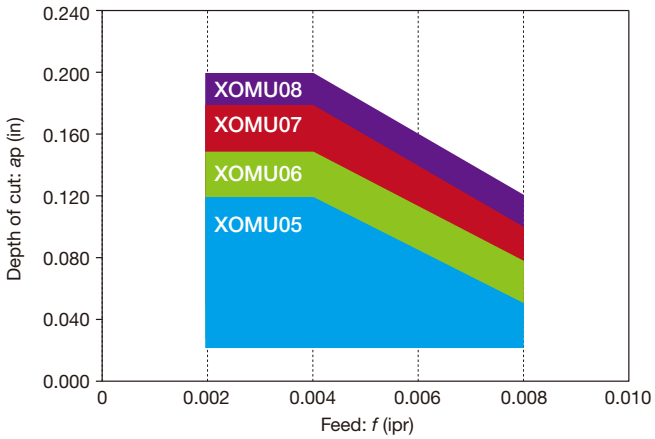
ISO	Workpiece material	Chip breaker	Grade	Cutting speed *Vc* (sfm)	Depth of cut: *ap* (in)		Feed: *f* (ipr)	
					RE : 0.063	RE : 0.094	RE : 0.063	RE : 0.094
P	Steels 1045, 4130, etc.	TDR	T9115	390 - 820	0.156 - 0.585 0.039 - 0.176	0.195 - 0.585 0.039 - 0.176	0.012 - 0.039	0.012 - 0.043
		TDR	T9125	260 - 490	0.156 - 0.585 0.039 - 0.176	0.195 - 0.585 0.039 - 0.176	0.012 - 0.039	0.012 - 0.043
M	Stainless steels 304, 316, etc.	TDR	T9115	330 - 590	0.156 - 0.585 0.039 - 0.176	0.195 - 0.585 0.039 - 0.176	0.012 - 0.039	0.012 - 0.043
		TDR	T9125	260 - 490	0.156 - 0.585 0.039 - 0.176	0.195 - 0.585 0.039 - 0.176	0.012 - 0.039	0.012 - 0.043

Reference pages: S-TLANR/L → D050

TUNGBORE MINI

STANDARD CUTTING CONDITIONS

DMIN	Description Insert	Depth of cut *ap* (in)	Feed *f* (ipr)	Cutting speed: *Vc* (sfm) Carbon steel, Alloy steel	Cutting speed: *Vc* (sfm) Stainless steel
ø10 mm (ø0.394")	XOMU05X204-PS	0.020 - 0.118	0.002 - 0.008	164 - 591	164 - 525
ø12 mm (ø0.472")	XOMU06H204-PS	0.020 - 0.138			
ø14 mm (ø0.551")	XOMU07H304-PS	0.020 - 0.177			
ø16 mm (ø0.630")	XOMU08T304-PS	0.020 - 0.197			



Reference pages: A/E-SXUOR/L → D086, D087

Threading Tool

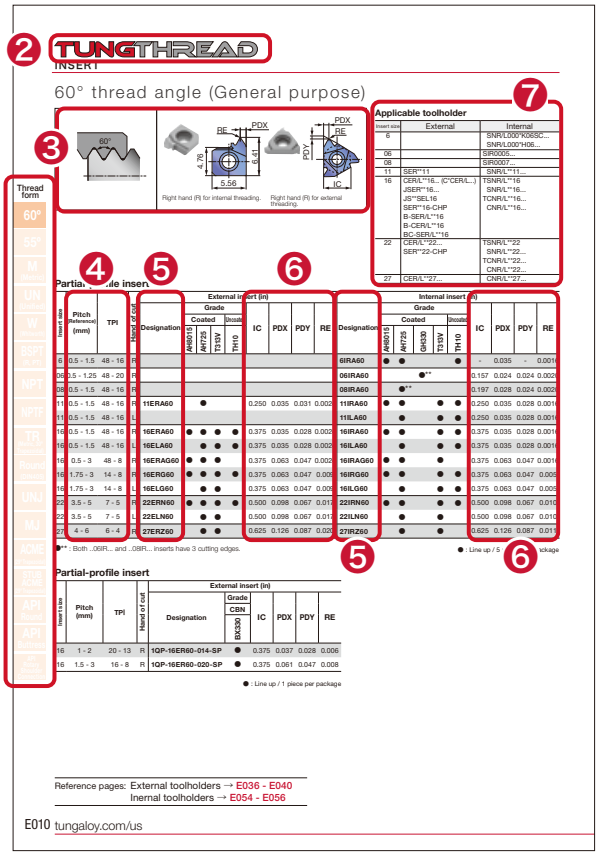


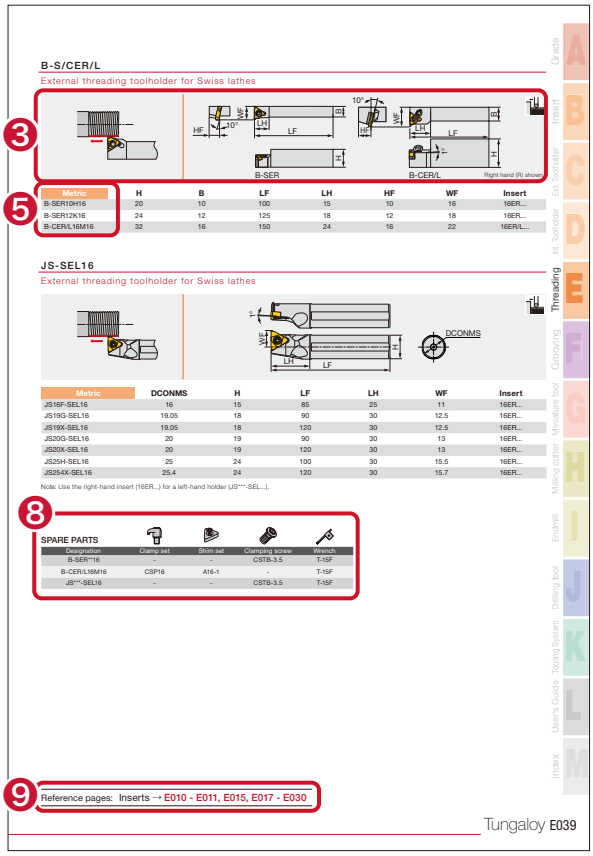
Threading Tool - Content structure

- Products are listed by product series and thread to be consistent with wording throughout.
- Inserts and toolholders in the catalog are our standard items.

Select the Thread form

Method ① Select the screw shape described at the left end of each page, jump to the page on the left index, and choose a designation you need (❺) in the dimension table (❻). Applicable toolholders are shown in (❼).
Method ② Select the series name on E003 and check the details on the product page.
Method ③ Select an item from Quick Guide on E004 - E007.





❶ : Screw shape
❷ : Series name
❸ : Drawing of thread, threading insert, threading toolholder
❹ : Applicable pitch and the number of threads
❺ : Designation (for external, for internal)
❻ : Dimension table (conforming to ISO13399)
❼ : Applicable toolholder
❽ : Spare parts
❾ : Reference page

When ordering
- Please specify the designation and quantity for threading toolholders.
  e.g. **TSNR0020R22 ...** 1 (one threading toolholder per package)
- Please specify the designation, grade, and quantity for threading inserts.
  e.g. **16IR175ISO AH725 ...** 5 (five threading inserts per package)

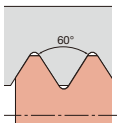
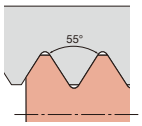
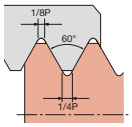
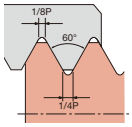
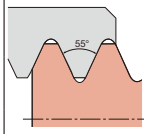
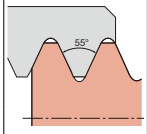
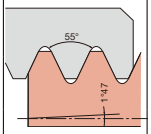
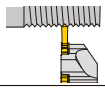
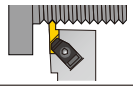
Main products

Thread form

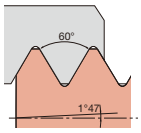
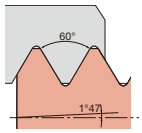
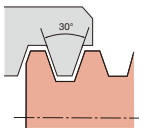
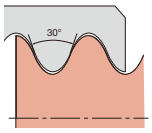
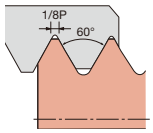
60° E010
55° E015
M (Metric) E017
UN (Unified) E021
W (Whitworth) E023
BSPT (R, PT) E024
NPT E025
NPTF E026
TR (Metric, 30° Trapezoidal) E027
Round (DIN405) E027
UNJ E028
MJ E028
ACME (29° Trapezoidal) E029
STUB ACME (29° Trapezoidal) E030
API Round E030
API Buttress E032
API Rotary Shoulder Connection E035

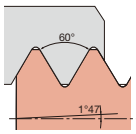
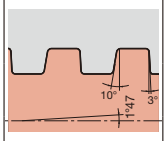
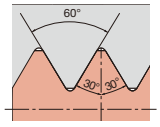
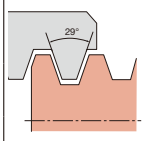
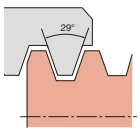
		Inch	Metric
	**TUNGTHREAD** **Lay down insert, toolholder** Standard items cover a wide variety of threading inserts. Standard tool series with double-clamp system for excellent insert stability in machining API-standard threads.	E004 -, E010 - E065	✓	✓
	**TETRAMINICUT** Standard tool with 4 corners for threading on Swiss lathes. In small diameter threading it is less likely that interference will occur with the center on general NC lathes.	E004 -, E008	✓	✓
	**DUOJUSTCUT** Standard tool suitable for all types of threading on Swiss lathes. The incomplete thread part from the workpiece face to the thread groove can be the shortest thanks to the excellent accessibility to the workpiece face.	E004 -, E009	✓	
	**J-SERIES** Tool series with 3-cornered inserts. Subselection for threading on Swiss lathes. Standard tool also suitable for radial Swiss lathes.	E004, E013 E016, E048	✓	✓
	**TUNGT-CLAMP** Tool with high clamp rigidity that firmly holds the insert. Grooving insert and threading insert can be used with the same toolholder.	E004 -, E014 E064 -, E069	✓	
	**On edge insert, toolholder** ACME and STUB ACME inserts can be used for the range of 16 to 3TPI with 2 types of toolholders. The special full-profile insert realizes both the fine adjustment of thread height and the minimum burr on the crest.	E004 -, E029 - E052, E066	✓	✓
	**Chaser** Threading tool with multiple cutting edges for highly efficient machining of API-standard round, buttress, and NPT.	E005 -, E026 E031 -, E053 E067	✓	✓
	**BOREMEISTER** Boring heads for deep hole threading. All 16-size inserts of TungThread Internal series are applicable, allowing for a large variety of threads type.	E056 -	✓	✓
	**TINYMINITURN** Internal threading tool suitable for a minimum machining diameter ø4. All tools have oil holes that can supply coolant to the cutting edge.	E060 -, E069		✓
	**Other tool** TT type	E004 -, E014 E016, E053, E067	✓	✓

Applicable tool for each external thread type

Applicable tool for each external thread type			General purpose, Machine parts for machine and automotive parts				For valve and pump parts; pneumatic, hydraulic, oil and gas pipes		
Thread types			60°	55°	ISO metric threads, coarse and fine	Unified national threads series, 60° inch threads	- British standard whitworth - British standard fine	- British standard parallel pipe - British standard pipe - Parallel pipe thread (JIS B 9912) - 55° inch thread	- JIS tapered pipe thread - British standard pipe taper
Thread symbols			M, UN, UNC, UNF, UNEF, UNS	G, BSP, PF, BSPP	M	UN, UNR, UNC, UNRC, UNF, UNRF, UNEF, UNREF, UNS, UNRS	BSW, BSF, W	G, BSP, PF, BSPP	R, PT, BSPT
Thread form									
Tool type	Full profile With	Full profile Without							
ST type  E036	○		—	—	0.5 ~ 6 mm E017	32 ~ 5TPI E021	28 ~ 5TPI E023	28 ~ 5TPI E023	28 ~ 11TPI E024
		○	0.5 ~ 6 mm 48 ~ 4TPI E010	0.5 ~ 5 mm 48 ~ 5TPI E015	—	—	—	—	—
TETRAMCUT  E041	○		—	—	0.5 ~ 1.5 mm E020	—	—	—	—
		○	0.4 ~ 3 mm 64 ~ 8TPI E012	—	—	—	—	—	—
DUOJCUT  E047		○	0.2 ~ 1.5 mm 127 ~ 16TPI E012	—	—	—	—	—	—
J-SERIES  E048		○	0.5 ~ 1 mm 48 ~ 25TPI E013	0.5 ~ 1 mm 48 ~ 25TPI E016	—	—	—	—	—
TUNGT-CLAMP  E050		○	1.27 ~ 4.23 mm 20 ~ 6TPI E014	—	—	—	—	—	—
TT type  E053		○	~ 3 mm ~ 8TPI E014	~ 3 mm ~ 8TPI E016	—	—	—	—	—

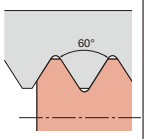
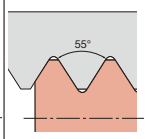
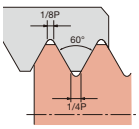
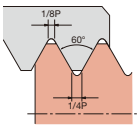
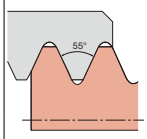
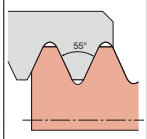
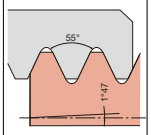
Please see page E*** for the product details.

Applicable tool for each external thread type		For valve and pump parts; pneumatic, hydraulic, oil and gas pipes		Machine parts		Aerospace threads
Thread types		National pipe taper thread	National pipe taper fuel thread	- TR - 30° trapezoidal - ISO trapezoidal	Knuckle thread	Unified inch screw threads
Thread symbols		NPT	NPTF	TR	Rd	UNJ, UNJC, UNJF, UNUEF, UNJS
Thread form						
Tool type	Full profile: With					
	Full profile: Without					
ST type  E036	○	27 ~ 8TPI E025	27 ~ 8TPI E026	1.5 ~ 6 mm (0.059" - 0.236") E027	8TPI, 6TPI E027	32 ~ 8TPI E028
Chaser  E053	○	11.5TPI, 8TPI E026	—	—	—	—

Applicable tool for each external thread type		Oil and gas fields and OCTG drill pipes							Machine parts, Pipe	
Thread types		- API round - API casing - Short casing - API tubing	API buttress casing	- API rotary shoulder connection for drill pipe and collar connections					- ACME - 29° trapezoidal thread	- STUB ACME - 29° trapezoidal thread
				V-0.038R 2TPF	V-0.038R 3TPF	V-0.040R 3TPF	V-0.050R 2TPF	V-0.050R 3TPF		
Thread symbols		CSG, LCSG, TBG, UPTBG	BCSG	NC	NC	REG	REG, FH	REG	—	—
Thread form										
Tool type	Full profile: With									
	Full profile: Without									
ST type  E036	○	10TPI, 8TPI E030	5TPI (0.75TPF) E032	—	—	—	—	—	12 ~ 5TPI E029	—
Chaser  E053	○	10TPI, 8TPI E031	5TPI (0.75TPF) E033	—	—	—	—	—	—	—
Other  E051	○	10TPI, 8TPI E031	5TPI (0.75TPF) 5TPI (1TPF) E032	4TPI (2TPF) 4TPI (3TPF) 5TPI (3TPF) E035					16 ~ 3TPI E029	16 ~ 3TPI E030

Please see page E*** for the product details.

Applicable tool for each internal thread type

Applicable tool for each external thread type			General purpose, Machine parts for machine and automotive parts				For valve and pump parts; pneumatic, hydraulic, oil and gas pipes		
Thread types			60°	55°	ISO metric threads, coarse and fine	Unified national threads series, 60° inch threads	- British standard whitworth - British standard fine	- British standard parallel pipe - British standard pipe - Parallel pipe thread (JIS B 9912) - 55° inch thread	- JIS tapered pipe thread - British standard pipe taper
Thread symbols			M, UN, UNC, UNF, UNEF, UNS	G, BSP, PF, BSPP	M	UN, UNR, UNC, UNRC, UNF, UNRF, UNEF, UNREF, UNS, UNRS	BSW, BSF, W	G, BSP, PF, BSPP	R, PT, BSPT
Thread form									
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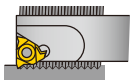
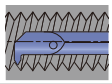
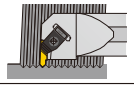
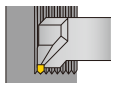
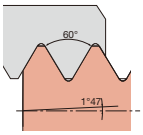
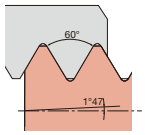
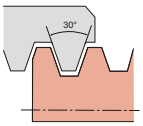
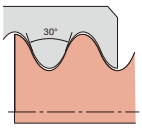
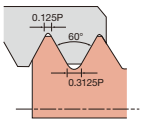
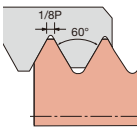
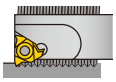
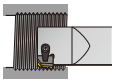
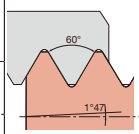
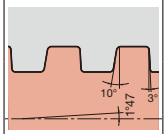
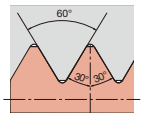
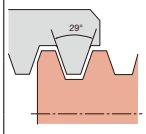
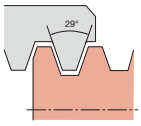
		Without							
ST type  E054	○		—	—	0.5 ~ 6 mm E017	32 ~ 5TPI E021	28 ~ 5TPI E023	28 ~ 5TPI E023	19 ~ 11TPI E024
		○	0.5 ~ 6 mm (0.020" - 0.250") 48 ~ 4TPI E010	0.020" - 0.200" 48 ~ 5TPI E015	—	—	—	—	—
TINYMTURN  E060		○	0.5 ~ 1.5 mm (0.021" - 0.0625") 48 ~ 16TPI E060	—	—	—	—	—	—
TUNGT-CLAMP  E064		○	1.27 ~ 4.23 mm 12 ~ 5TPI E014	—	—	—	—	—	—
TT type  E066		○	~ 3 mm (~ 0.125") ~ 8TPI E014	~ 0.125" ~ 8TPI E016	—	—	—	—	—

Please see page E*** for the product details.

Applicable tool for each external thread type		For valve and pump parts; pneumatic, hydraulic, oil and gas pipes		Machine parts		Aerospace threads	
Thread types		National pipe taper thread	National pipe taper fuel thread	- TR - 30° trapezoidal - ISO trapezoidal	Knuckle thread	Aerospace standard MJ threads	Unified inch screw threads
Thread symbols		NPT	NPTF	TR	Rd	MJ	UNJ, UNJC, UNJF, UNUEF, UNJS
Thread form							
Tool type	Full profile With / Without						
ST type  E054	○	27 ~ 8TPI E025	14 ~ 8TPI E026	1.5 ~ 5 mm (0.059" - 0.197") E027	6TPI E027	0.039" E028	—
Chaser  E066	○	11.5TPI, 8TPI E026	—	—	—	—	—

Applicable tool for each external thread type		Oil and gas fields and OCTG drill pipes							Machine parts, Pipe	
Thread types		- API round - API casing - API tubing - Short casing	API buttress casing	- API rotary shoulder connection for drill pipe and collar connections					ACME 29° trapezoidal thread	STUB ACME 29° trapezoidal thread
				V-0.038R 2TPF	V-0.038R 3TPF	V-0.040R 3TPF	V-0.050R 2TPF	V-0.050R 3TPF		
Thread symbols		CSG, LCSG, TBG, UPTBG	BCSG	NC	NC	REG	REG, FH	REG	—	—
Thread form										
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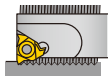
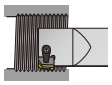
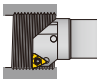
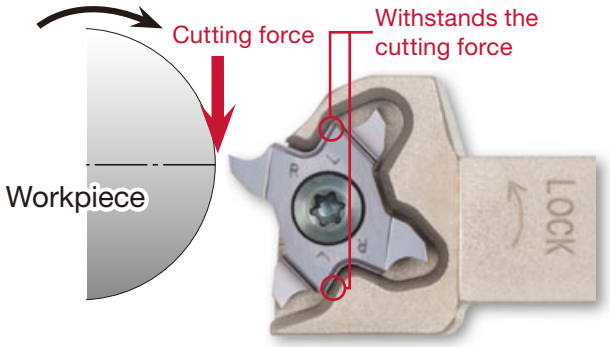
ST type  E054	○	10TPI, 8TPI E030	5TPI (0.75TPF) E032	—	—	—	—	—	12 ~ 5TPI E029	—
Chaser  E066	○	10TPI, 8TPI E031	5TPI (0.75TPF) E033	—	—	—	—	—	—	—
Other  E065	○	10TPI, 8TPI E031	5TPI (0.75TPF) 5TPI (1TPF) E032	4TPI (2TPF) 4TPI (3TPF) 5TPI (3TPF) E035					—	—

Please see page E*** for the product details.



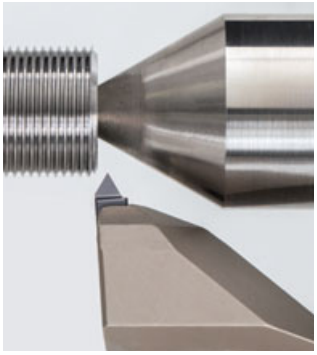
Unique clamping system

The unique pocket design provides accurate indexing repeatability of the cutting edge height.



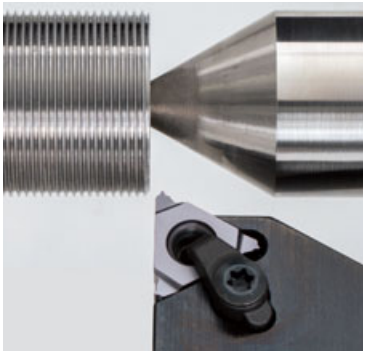
No tool interference with the lathe center when machining small parts

TETRAMINI CUT
M16x1



Insert: TCT18R-60N-020

Conventional
M24x1



Insert: 16ER10ISO

Reference pages: Inserts → E012, External toolholders → E041 - E044, Standard cutting conditions → E068

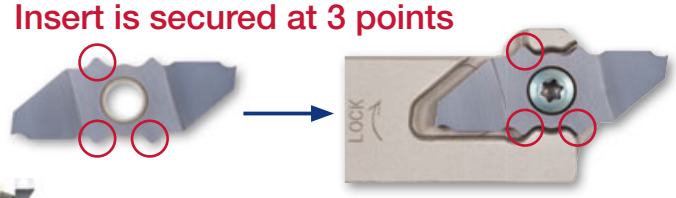
DUOJCUT UST



Unique highly rigid clamping system

The unused cutting edge is always protected due to the innovative clamping system.
Even if the first cutting edge is chipped, the other unused cutting edge can be used because the insert is clamped in the center.

Insert is secured at 3 points



Excellent accessibility to the workpiece face

Utilizing various tools minimizes the incomplete thread part.



	Type A	Type B	Type N
Right hand	a b a > b	a b a < b	a b a = b
Left hand	a b a > b	a b a < b	a b a = b



DUOJCUT UST

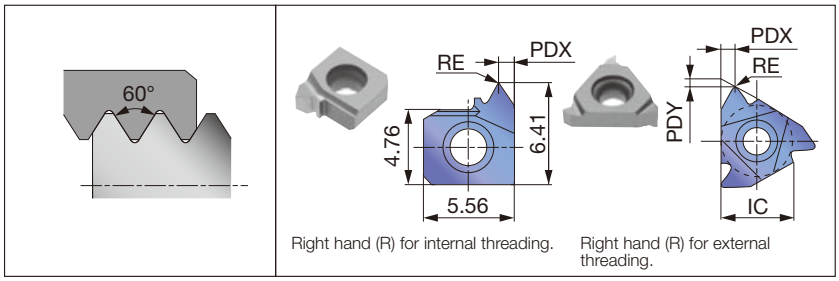
Insert designation	Cutting edge geometry (mm)	PDX mm (in)	Pitch: mm (in) 0.2 (0.008) / 0.25 (0.010) / 0.35 (0.014) / 0.4 (0.016) / 0.5 (0.020) / 0.6 (0.024) / 0.8 (0.031) / 1 (0.039) / 1.25 (0.049) / 1.5 (0.059)
JXTG12FR-60A-000	0.05 (flat)	0.25 (0.010)	Applicable area
JXTG12FL-60A-000			
JXTG12FR-60B-000	0.05 (flat)	2.25 (0.089)	
JXTG12FL-60B-000			
JXTG12FR-60A-005	R0.05	0.6 (0.024)	Applicable area
JXTG12FL-60A-005			
JXTG12FR-60B-005	R0.05	1.9 (0.075)	
JXTG12FL-60B-005			
JXTG12FR-60N-010	R0.1	1.25 (0.049)	Applicable area
JXTG12FL-60N-010			

127 / 72 / 52 / 32 / 16

Threads per inch (TPI)

Reference pages: Inserts → E012, External toolholders → E047 - E048,
Standard cutting conditions → E068

60° thread angle (General purpose)



Right hand (R) for internal threading.

Right hand (R) for external threading.

Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
06		SIR0005...
08		SIR0007...
11	SER**11	SNR/L**11...
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22... SER**22-CHP	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...
27	CER/L**27...	CNR/L**27...

Partial-profile insert

Insert size	Pitch (Reference) (mm)	TPI	Hand of cut	External insert (in)									Internal insert (in)								
				Designation	Grade				IC	PDX	PDY	RE	Designation	Grade					IC	PDX	PDY	RE
					Coated			Uncoated						Coated				Uncoated				
					AH8015	AH725	T313V	TH10						AH8015	AH725	GH330	T313V	TH10				
6	0.5 - 1.5	48 - 16	R										6IRA60	●	●			●	-	0.035	-	0.0016
06	0.5 - 1.25	48 - 20	R										06IRA60			●**			0.157	0.024	0.024	0.0020
08	0.5 - 1.5	48 - 16	R										08IRA60		●**				0.197	0.028	0.024	0.0020
11	0.5 - 1.5	48 - 16	R	11ERA60		●			0.250	0.035	0.031	0.0024	11IRA60	●	●		●	●	0.250	0.035	0.028	0.0016
11	0.5 - 1.5	48 - 16	L										11ILA60		●		●	●	0.250	0.035	0.028	0.0016
16	0.5 - 1.5	48 - 16	R	16ERA60	●	●	●	●	0.375	0.035	0.028	0.0024	16IRA60	●	●		●	●	0.375	0.035	0.028	0.0016
16	0.5 - 1.5	48 - 16	L	16ELA60		●	●	●	0.375	0.035	0.028	0.0024	16ILA60		●		●	●	0.375	0.035	0.028	0.0016
16	0.5 - 3	48 - 8	R	16ERAG60	●	●	●		0.375	0.063	0.047	0.0024	16IRAG60	●	●		●		0.375	0.063	0.047	0.0016
16	1.75 - 3	14 - 8	R	16ERG60	●	●	●	●	0.375	0.063	0.047	0.009	16IRG60	●	●		●	●	0.375	0.063	0.047	0.005
16	1.75 - 3	14 - 8	L	16ELG60		●	●		0.375	0.063	0.047	0.009	16ILG60		●		●	●	0.375	0.063	0.047	0.005
22	3.5 - 5	7 - 5	R	22ERN60	●	●	●	●	0.500	0.098	0.067	0.017	22IRN60	●	●		●	●	0.500	0.098	0.067	0.010
22	3.5 - 5	7 - 5	L	22ELN60		●	●		0.500	0.098	0.067	0.017	22ILN60		●		●		0.500	0.098	0.067	0.010
27	4 - 6	6 - 4	R	27ERZ60		●	●		0.625	0.126	0.087	0.020	27IRZ60		●		●		0.625	0.126	0.087	0.011

●** : Both ..06IR... and ..08IR... inserts have 3 cutting edges.

● : Line up / 5 pieces per package

Partial-profile insert

Insert size	Pitch (mm)	TPI	Hand of cut	External insert (in)						
				Designation	Grade	IC	PDX	PDY	RE
					CBN				
					BX330				
16	1 - 2	20 - 13	R	1QP-16ER60-014-SP	●	0.375	0.037	0.028	0.006
16	1.5 - 3	16 - 8	R	1QP-16ER60-020-SP	●	0.375	0.061	0.047	0.008

● : Line up / 1 piece per package

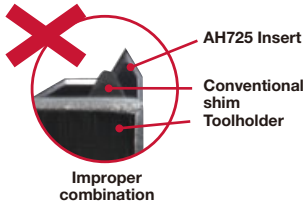
Reference pages: External toolholders → E036 - E040
Inernal toolholders → E054 - E056

Partial-profile insert with chipbreaker

Insert size	Pitch (Reference) (mm)	TPI	Hand of cut	External insert (in)								Internal insert (in)							
				Designation	Grade			IC	PDX	PDY	RE	Designation	Grade			IC	PDX	PDY	RE
					Coated		Cermet						Coated		Cermet				
					AH8015	AH725	NS9530						AH8015	AH725	NS9530				
11	0.5 - 1.5	48 - 16	R									11IRA60-B		●		0.250	0.035	0.028	0.0016
11	0.5 - 1.5	48 - 16	R									11IRA60-M	●		●	0.250	0.035	0.028	0.0016
16	0.5 - 1.5	48 - 16	R	16ERA60-B		●*		0.375	0.035	0.031	0.0020	16IRA60-B		●*		0.375	0.035	0.031	0.0020
16	0.5 - 1.5	48 - 16	R	16ERA60-M	●		●	0.375	0.035	0.028	0.0024	16IRA60-M	●		●	0.375	0.035	0.028	0.0016
16	0.5 - 3	48 - 8	R	16ERAG60-B		●*		0.375	0.067	0.047	0.0031	16IRAG60-B		●*		0.375	0.067	0.047	0.0020
16	0.5 - 3	48 - 8	R	16ERAG60-M	●	●	●	0.375	0.063	0.047	0.0024	16IRAG60-M	●	●	●	0.375	0.063	0.047	0.0016
16	1.75 - 3	14 - 8	R	16ERG60-B		●*		0.375	0.067	0.047	0.010	16IRG60-B		●*		0.375	0.067	0.047	0.004
16	1.75 - 3	14 - 8	R	16ERG60-M	●		●	0.375	0.063	0.047	0.009	16IRG60-M	●		●	0.375	0.063	0.047	0.006
22	3.5 - 5	7 - 5	R	22ERN60-B		●		0.500	0.098	0.067	0.013	22IRN60-B		●		0.500	0.098	0.067	0.007

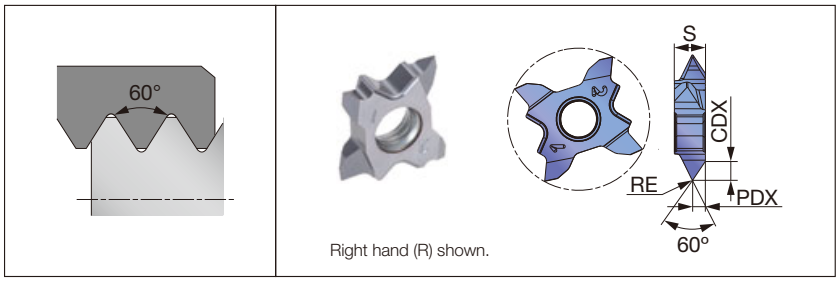
● : Line up / 5 pieces per package

- ●* : The cutting edge position needs adjusting for these inserts have different PDY and PDX dimensions (Note: for size 16 inserts only).
- requires the use of dedicated shim.
  When using a new AH725 with chipbreaker, the conventional shim may need to be replaced with a new standard shim.
  Please refer to the page E070.



Reference pages: External toolholders → E036 - E040
Inernal toolholders → E054 - E056

60° thread angle (General purpose)



Applicable toolholder

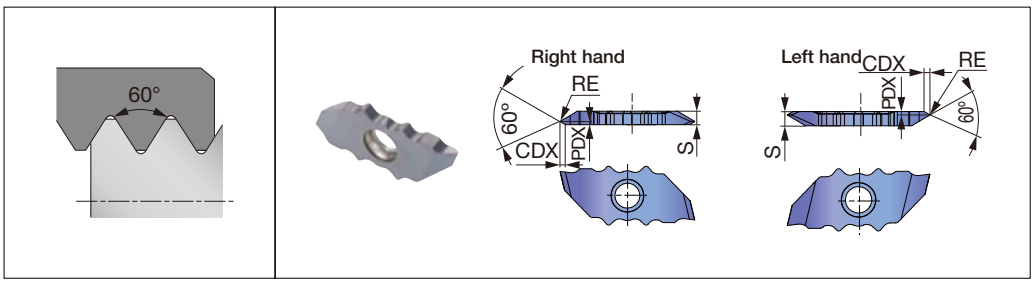
External
STCR/L**-18
STCR/L**18-CHP
JS**-STCL18
C*STCFL**18-CHP
C*STCR/L**18-CHP
QC**STCR/L18 (-Y)
QC**STCR/L18 (-Y)-CHP

Partial-profile insert

Pitch (mm)	TPI	Hand of cut	External insert (in) Designation	Grade Coated SH725	Grade Coated AH725	PDX	CDX	RE	S
0.4 - 1	25 - 64	R	**TCT18FR-60A-005**	●		0.024	0.039	0.0020	0.157
1 - 2	25 - 12	R	**TCT18FR-60A-010**	●		0.039	0.064	0.004	0.157
0.8 - 3	8 - 32	R/L	**TCT18R/L-60N-010**		●	0.063	0.105	0.004	0.157
1.5 - 3	8 - 16	R/L	**TCT18R/L-60N-020**		●	0.063	0.101	0.008	0.157

● : Line up / 5 pieces per package

60° thread angle (General purpose)



Applicable toolholder

External
JSXXR/L**09
JSXXR/L**09-CHP
JS**-SXXL09

Partial-profile insert

Insert size	Pitch (mm)	TPI	Hand of cut	External insert (in) Designation	Grade Coated SH725 R	Grade Coated SH725 L	PDX	CDX	RE	S
12	0.2 - 0.4	64 - 127	R/L	**JXTG12FR/L-60A-000**	●	●	0.010	0.016	0.0020 max flat	0.098
12	0.2 - 0.4	64 - 127	R/L	**JXTG12FR/L-60B-000**	●	●	0.089	0.016	0.0020 max flat	0.098
12	0.4 - 1	25 - 64	R/L	**JXTG12FR/L-60A-005**	●	●	0.024	0.039	0.0020	0.098
12	0.4 - 1	25 - 64	R/L	**JXTG12FR/L-60B-005**	●	●	0.075	0.039	0.0020	0.098
12	1 - 1.5	16 - 25	R/L	**JXTG12FR/L-60N-010**	●	●	0.049	0.081	0.004	0.098

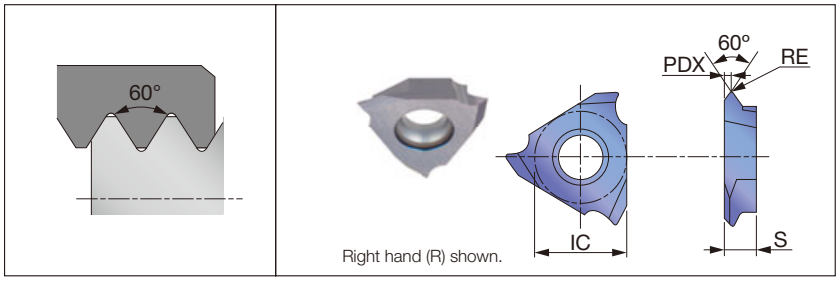
● : Line up / 5 pieces per package

	Type A	Type B	Type N
Right hand	a > b	a < b	a = b
Left hand	a > b	a < b	a = b

Thread form
60°
55°
M (Metric)
UN (Unified)
W (Whitworth)
BSPT (R, PT)
NPT
NPTF
TR (Metric, 30° Trapezoidal)
Round (DIN405)
UNJ
MJ
ACME (29° Trapezoidal)
STUB ACME (29° Trapezoidal)
API Round
API Buttress
API Rotary Shoulder Connection

Reference pages: TetraMini-Cut : External toolholders → E041 - E044
DuoJust-cut : External toolholders → E047 - E048

60° thread angle (General purpose)



Applicable toolholder

External
JSTTR/L**3
JS**-TTL3

Partial-profile insert

Pitch (mm)	TPI	Hand of cut	Designation	External insert (in)								IC	PDX	S	RE
				Grade											
				Coated						Cermet		Uncoated			
				SH725		J740				NS9530		TH10			
				R	L	R	L			R	L	R	L				
0.5 - 1	25 - 48	R/L	**JTTR3005F**	●	●	●				●		●		0.375	0.024	0.125	0.0020
0.5 - 1	25 - 48	R/L	**JTTL3010F**	●	●	●				●		●		0.375	0.043	0.125	0.004

● : Line up / 10 pieces per package

J-SERIES
INSERT

60° thread angle (General purpose)



Applicable toolholder

External
JSXBR**K8
JSXBR**K8-C

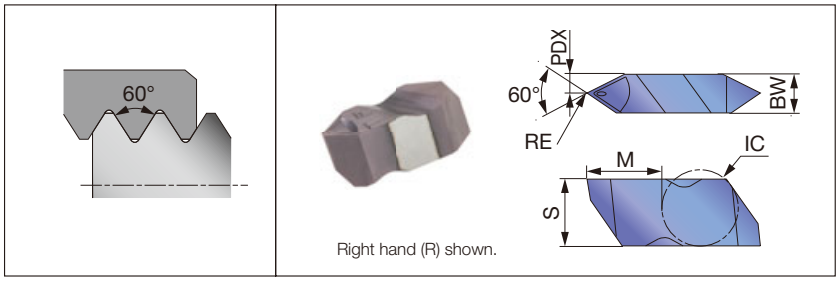
Partial-profile insert

Pitch (mm)	TPI	Hand of cut	Designation	External insert (in)					
				Grade					
				Coated	Uncoated				
				J740	TH10				
0.5 - 1	25 - 48	R	**JXT1R6000F**	●	●	0.315	0.156	0.0012	
0.5 - 1	25 - 48	R	**JXT2R6000F**	●	●	0.315	0.156	0.0012	

● : Line up / 10 pieces per package

Reference pages: J-Series : External toolholders → E048 - E049

60° thread angle (General purpose)



Applicable toolholder

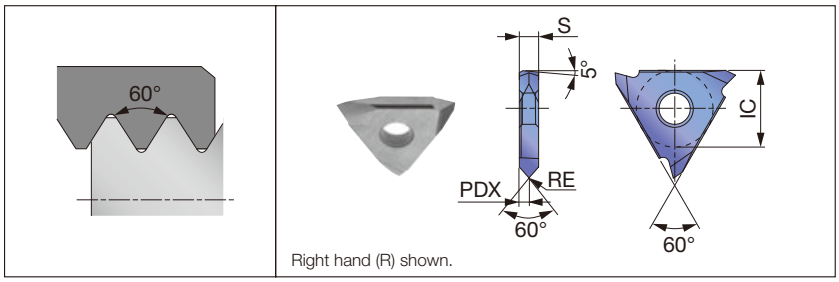
External	Internal
FLASR/L-1616M3	A**M-FLER/L3
FLSR/L-**M3	HS**-FLER3W

Partial-profile insert for external and internal threads

TPI	Hand of cut	External Pitch (mm)	Internal Pitch (mm)	Designation	Grade Coated AH725	IC (in)	PDX (in)	BW (in)	RE (in)	S (in)	M (in)
6 - 20	R/L	1.27 - 4.23	2.11 - 5.08	**FLT-3R/L-HCB**	●	0.375	0.098	0.195	0.007	0.344	0.400
11 - 20	R/L	2.31 - 4.23	3.175 - 5.08	**FLT-3R/LC-HCB**	●	0.375	0.098	0.195	0.014	0.344	0.400
6 - 20	R/L	1.27 - 4.23	2.11 - 5.08	**FLT-3R/L-CB**	●	0.375	0.098	0.195	0.007	0.344	0.400

● : Line up / 10 pieces per package

TT type / 60° thread angle (General purpose)



Applicable toolholder

External	Internal
TT-****RE/LI	TT-2525RI

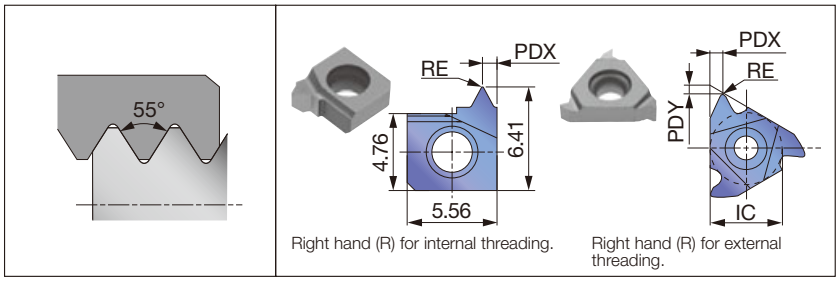
Partial-profile insert for external and internal threads

Pitch (mm)	TPI	Hand of cut	Designation	Grade Cermet NS9530	Grade Uncoated TH10	IC (in)	PDX (in)	S (in)	RE (in)
≤ 3	≥ 8	R	**TTR42M-005**	●	●	0.500	0.063	0.126	0.0020
≤ 3	≥ 8	L	**TTL42M-005**	●	●	0.500	0.063	0.126	0.0020

● : Line up / 5 pieces per package

Reference pages: TungT-Clamp : External toolholders → E050,
Internal toolholders → E064 - E065
TT type : External toolholders → E053
Internal toolholders → E067

55° thread angle (General purpose)



Right hand (R) for internal threading.

Right hand (R) for external threading.

Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
06		SIR0005...
08		SIR0007...
11	SER**11	SNR/L**11...
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22... SER**22-CHP	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...

Partial-profile insert

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in) Designation	Grade: Coated AH8015	Coated AH725	Coated T313V	Uncoated TH10	IC	PDX	PDY	RE	Internal insert (in) Designation	Grade: Coated AH8015	Coated AH725	Coated GH330	Coated T313V	Uncoated TH10	IC	PDX	PDY	RE
6	0.020 - 0.059	48 - 16	R										6IRA55		●			●	-	0.035	-	0.0028
06	0.020 - 0.049	48 - 20	R										06IRA55			●**			0.157	0.020	0.020	0.0031
08	0.020 - 0.059	48 - 16	R										08IRA55		●**				0.197	0.028	0.024	0.0031
11	0.020 - 0.059	48 - 16	R	11ERA55		●			0.250	0.035	0.031	0.0020	11IRA55	●	●		●	●	0.250	0.035	0.028	0.0028
16	0.020 - 0.059	48 - 16	R	16ERA55		●	●	●	0.375	0.035	0.028	0.0028	16IRA55		●		●	●	0.375	0.035	0.028	0.0028
16	0.020 - 0.118	48 - 8	R	16ERAG55		●			0.375	0.067	0.047	0.0028	16IRAG55		●				0.375	0.067	0.047	0.0028
16	0.069 - 0.118	14 - 8	R	16ERG55	●	●	●	●	0.375	0.063	0.047	0.010	16IRG55	●	●		●	●	0.375	0.067	0.047	0.010
22	0.138 - 0.197	7 - 5	R	22ERN55		●	●	●	0.500	0.098	0.067	0.020	22IRN55		●		●	●	0.500	0.098	0.067	0.020

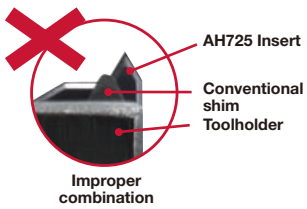
● : Line up / 5 pieces per package

Partial-profile insert with chipbreaker

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in) Designation	Grade: Coated AH725	IC	PDX	PDY	RE	Internal insert (in) Designation	Grade: Coated AH725	IC	PDX	PDY	RE
16	0.020 - 0.118	48 - 16	R	16ERAG55-B	●*	0.375	0.067	0.047	0.0028	16IRAG55-B	●*	0.375	0.067	0.047	0.0020
16	0.069 - 0.118	14 - 8	R	16ERG55-B	●*	0.375	0.067	0.047	0.009	16IRG55-B	●*	0.375	0.067	0.047	0.008

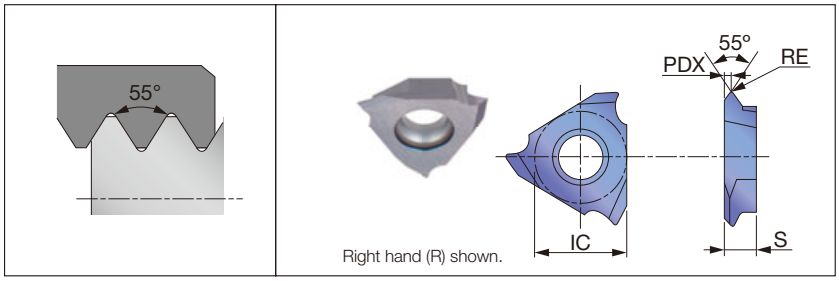
● : Line up / 5 pieces per package

- ●* : The cutting edge position needs re-adjusting for these inserts have different PDY and PDX dimensions (Note: for size 16 inserts only).
- ●** : Both ..06IR... and ..08IR... inserts have 3 cutting edges.
- requires the use of dedicated shim.
When using a new AH725 with chipbreaker, the conventional shim may need to be replaced with a new standard shim.
Please refer to the page E070.



Reference pages: External toolholders → E036 - E040
Inernal toolholders → E054 - E056

55° thread angle (General purpose)



Applicable toolholder

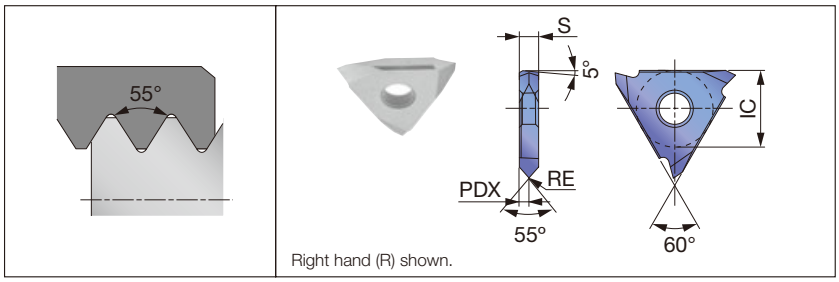
External
JSTTR/L**3
JS**-TTL3

Partial-profile insert

Pitch (in)	TPI	Hand of cut	Designation	External insert (in)							
				Grade							
				Coated							
				SH725		J740		IC	PDX	S	RE
				R	L	R	L				
0.020 - 0.039	25 - 48	R/L	**JTTR/L3005F-55**	●		●		0.375	0.024	0.125	0.0020

● : Line up / 5 pieces per package

TT type / 55° thread angle (General purpose)



Applicable toolholder

External	Internal
TT-****RE/LI	TT-2525RI

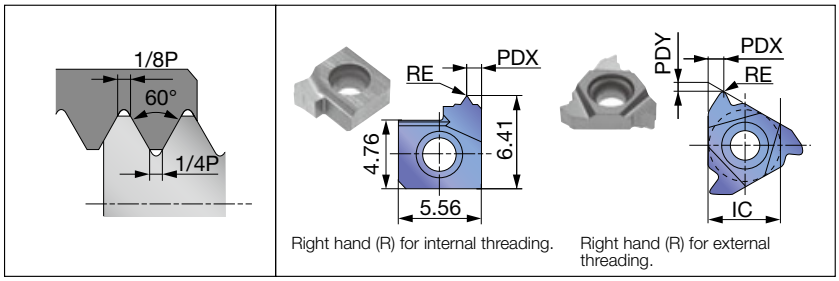
Partial-profile insert for external and internal threads

Pitch (mm)	TPI	Hand of cut	Designation	Grade		IC (in)	PDX (in)	S (in)	RE (in)
				Cermet	Uncoated				
				NS9530	TH10				
≤ 3	≥ 8	R	**TTR42W-005**	●	●	0.500	0.063	0.126	0.0020
≤ 3	≥ 8	L	**TTL42W-005**	●	●	0.500	0.063	0.126	0.0020

● : Line up / 5 pieces per package

Reference pages: J-Series: External toolholders → E048 - E049
TT type: External toolholders → E053
Inernal toolholders → E067

ISO metric (General purpose)



Right hand (R) for internal threading.

Right hand (R) for external threading.

Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
06		SIR0005...
08		SIR0007...
11	SER**11	SNR/L**11...
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22... SER**22-CHP	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...
27	CER/L**27...	CNR/L**27...

Full-profile insert

Insert size	Pitch (Reference) (mm)	Hand of cut	External insert (in)									Internal insert (in)								
			Designation	Grade				IC	PDX	PDY	RE	Designation	Grade				IC	PDX	PDY	RE
				Coated			Uncoated						Coated			Uncoated				
				AH8015	AH725	T313V	TH10						AH8015	AH725	T313V	TH10				
6	0.75	R										6IR075ISO		●		●	-	0.020	-	0.0020
6	1	R										6IR10ISO	●	●		●	-	0.035	-	0.0028
6	1.25	R										6IR125ISO	●	●		●	-	0.035	-	0.0035
6	1.5	R										6IR15ISO	●	●		●	-	0.035	-	0.004
6	1.75	R										6IR175ISO	●	●		●	-	0.035	-	0.005
6	2	R										6IR20ISO	●	●		●	-	0.035	-	0.006
06	0.5	R										06IR05ISO		●**			0.157	0.016	0.024	0.0016
06	0.75	R										06IR075ISO		●**			0.157	0.020	0.024	0.0024
06	1	R										06IR10ISO		●**			0.157	0.024	0.024	0.0020
06	1.25	R										06IR125ISO		●**			0.157	0.024	0.024	0.0028
08	1	R										08IR10ISO		●**			0.197	0.024	0.024	0.0028
08	1.25	R										08IR125ISO		●**			0.197	0.028	0.028	0.0035
08	1.5	R										08IR15ISO		●**			0.197	0.028	0.028	0.004
08	1.75	R										08IR175ISO		●**			0.197	0.031	0.024	0.006
11	0.35	R	11ER035ISO		●			0.250	0.016	0.024	0.0016									
11	0.5	R	11ER05ISO		●			0.250	0.024	0.024	0.0028	11IR05ISO		●		●	0.250	0.020	0.047	0.0016
11	0.7	R	11ER07ISO		●			0.250	0.024	0.024	0.004									
11	0.75	R	11ER075ISO		●			0.250	0.024	0.024	0.004	11IR075ISO	●	●			0.250	0.020	0.047	0.0020
11	0.8	R	11ER080ISO		●			0.250	0.024	0.024	0.005									
11	1	R	11ER10ISO		●			0.250	0.028	0.028	0.006	11IR10ISO	●	●	●	●	0.250	0.035	0.028	0.0028
11	1	L										11IL10ISO	●	●			0.250	0.035	0.028	0.0028
11	1.25	R	11ER125ISO		●			0.250	0.035	0.031	0.006	11IR125ISO		●			0.250	0.035	0.028	0.0035
11	1.25	L										11IL125ISO		●			0.250	0.035	0.028	0.0035
11	1.5	R	11ER15ISO		●			0.250	0.031	0.039	0.007	11IR15ISO	●	●	●	●	0.250	0.035	0.028	0.004
11	1.5	L										11IL15ISO	●	●			0.250	0.035	0.028	0.004
11	1.75	R										11IR175ISO		●	●		0.250	0.035	0.028	0.005
11	1.75	L										11IL175ISO		●			0.250	0.035	0.028	0.005
11	2	R										11IR20ISO	●	●	●		0.250	0.035	0.028	0.006
11	2	L										11IL20ISO	●	●			0.250	0.035	0.028	0.006

●** : Both ..06IR... and ..08IR... inserts have 3 cutting edges.

● : Line up / 5 pieces per package

Reference pages: External toolholders → E036 - E040
Inernal toolholders → E054 - E056

Insert size	Pitch (Reference) (mm)	Hand of cut	External insert (in)									Internal insert (in)								
			Designation	Grade				IC	PDX	PDY	RE	Designation	Grade				IC	PDX	PDY	RE
				Coated			Uncoated						Coated			Uncoated				
				AH8015	AH725	T313V	TH10						AH8015	AH725	T313V	TH10				
16	0.5	R	**16ER05ISO**	●	●		●	0.375	0.020	0.047	0.0024	**16IR05ISO**		●			0.375	0.020	0.047	0.0016
16	0.75	R	**16ER075ISO**	●	●	●	●	0.375	0.020	0.047	0.0035	**16IR075ISO**		●			0.375	0.020	0.047	0.0020
16	1	R	**16ER10ISO**	●	●	●	●	0.375	0.035	0.028	0.005	**16IR10ISO**	●	●	●	●	0.375	0.035	0.028	0.0028
16	1	L						0.000	0.000	0.000	0.000	**16IL10ISO**	●	●			0.375	0.035	0.028	0.0028
16	1.25	R	**16ER125ISO**	●	●	●		0.375	0.035	0.028	0.006	**16IR125ISO**		●			0.375	0.035	0.028	0.0035
16	1.25	L						0.000	0.000	0.000	0.000	**16IL125ISO**		●			0.375	0.035	0.028	0.0035
16	1.5	R	**16ER15ISO**	●	●	●	●	0.375	0.035	0.028	0.007	**16IR15ISO**	●	●	●	●	0.375	0.035	0.028	0.004
16	1.5	L	**16EL15ISO**	●				0.375	0.035	0.028	0.007	**16IL15ISO**	●	●			0.375	0.035	0.028	0.004
16	1.75	R	**16ER175ISO**	●	●	●		0.375	0.063	0.047	0.009	**16IR175ISO**		●	●		0.375	0.063	0.047	0.005
16	2	R	**16ER20ISO**	●	●	●	●	0.375	0.063	0.047	0.010	**16IR20ISO**	●	●	●	●	0.375	0.063	0.047	0.006
16	2	L	**16EL20ISO**	●	●			0.375	0.063	0.047	0.010	**16IL20ISO**		●			0.375	0.063	0.047	0.006
16	2.5	R	**16ER25ISO**	●	●	●	●	0.375	0.063	0.047	0.012	**16IR25ISO**	●	●	●	●	0.375	0.063	0.047	0.007
16	3	R	**16ER30ISO**	●	●	●	●	0.375	0.063	0.047	0.015	**16IR30ISO**	●	●	●	●	0.375	0.063	0.047	0.008
16	3	L						0.000	0.000	0.000	0.000	**16IL30ISO**		●			0.375	0.063	0.047	0.008
22	3.5	R	**22ER35ISO**	●	●	●		0.500	0.098	0.067	0.017	**22IR35ISO**	●	●	●		0.500	0.098	0.067	0.010
22	4	R	**22ER40ISO**	●	●	●		0.500	0.098	0.067	0.020	**22IR40ISO**	●	●	●		0.500	0.098	0.067	0.011
22	4.5	R	**22ER45ISO**	●	●			0.500	0.098	0.067	0.022	**22IR45ISO**	●	●			0.500	0.098	0.067	0.013
22	5	R	**22ER50ISO**		●	●		0.500	0.098	0.067	0.025	**22IR50ISO**		●	●		0.500	0.098	0.067	0.014
27	6	R	**27ER60ISO**		●	●		0.625	0.126	0.087	0.030	**27IR60ISO**		●	●		0.625	0.126	0.087	0.017

● : Line up / 5 pieces per package

Thread form
60°
55°
M (Metric)
UN (Unified)
W (Whitworth)
BSPT (R, PT)
NPT
NPTF
TR (Metric, 30° Trapezoidal)
Round (DIN405)
UNJ
MJ
ACME (29° Trapezoidal)
STUB ACME (29° Trapezoidal)
API Round
API Buttress
API Rotary Shoulder Connection

Reference pages: External toolholders → E036 - E040, Inernal toolholders → E054 - E056

Full-profile insert with chipbreaker

Insert size	Pitch (Reference) (mm)	Hand of cut	External insert (in)									Internal insert (in)								
			Designation	Grade			IC	PDX	PDY	RE		Designation	Grade			IC	PDX	PDY	RE	
				Coated		Cermet							Coated		Cermet					
				AH8015	AH725	NS9530							AH8015	AH725	NS9530					
11	0.5	R										11IR05ISO-B		●		0.250	0.020	0.047	0.0016	
11	0.5	R										11IR05ISO-M			●	0.250	0.020	0.047	0.0016	
11	0.75	R										11IR075ISO-B		●		0.250	0.020	0.047	0.0020	
11	0.75	R										11IR075ISO-M			●	0.250	0.020	0.047	0.0020	
11	1	R										11IR10ISO-B		●		0.250	0.035	0.028	0.0031	
11	1	R										11IR10ISO-M	●		●	0.250	0.035	0.028	0.0031	
11	1.25	R										11IR125ISO-B		●		0.250	0.035	0.028	0.004	
11	1.25	R										11IR125ISO-M	●		●	0.250	0.035	0.028	0.004	
11	1.5	R										11IR15ISO-B		●		0.250	0.035	0.028	0.005	
11	1.5	R										11IR15ISO-M	●		●	0.250	0.035	0.028	0.005	
11	1.75	R										11IR175ISO-B		●		0.250	0.035	0.028	0.005	
11	1.75	R										11IR175ISO-M			●	0.250	0.035	0.028	0.005	
11	2	R										11IR20ISO-B		●		0.250	0.035	0.028	0.006	
11	2	R										11IR20ISO-M	●		●	0.250	0.035	0.028	0.006	
16	0.5	R	16ER05ISO-M			●	0.375	0.020	0.047	0.0024										
16	0.75	R	16ER075ISO-B		●*		0.375	0.024	0.024	0.0031										
16	0.75	R	16ER075ISO-M	●		●	0.375	0.020	0.047	0.0035										
16	1	R	16ER10ISO-B		●*		0.375	0.028	0.028	0.004		16IR10ISO-B		●*		0.375	0.028	0.024	0.0020	
16	1	R	16ER10ISO-M	●	●	●	0.375	0.035	0.028	0.005		16IR10ISO-M	●		●	0.375	0.035	0.028	0.0031	
16	1.25	R	16ER125ISO-B		●*		0.375	0.035	0.031	0.006		16IR125ISO-B		●*		0.375	0.035	0.031	0.0024	
16	1.25	R	16ER125ISO-M	●		●	0.375	0.035	0.028	0.006		16IR125ISO-M			●	0.375	0.035	0.028	0.004	
16	1.5	R	16ER15ISO-B		●*		0.375	0.039	0.031	0.007		16IR15ISO-B		●*		0.375	0.039	0.031	0.0031	
16	1.5	R	16ER15ISO-M	●	●	●	0.375	0.035	0.028	0.007		16IR15ISO-M	●	●	●	0.375	0.035	0.028	0.005	
16	1.75	R	16ER175ISO-B		●*		0.375	0.047	0.035	0.010		16IR175ISO-B		●*		0.375	0.047	0.035	0.004	
16	1.75	R	16ER175ISO-M	●		●	0.375	0.063	0.047	0.009		16IR175ISO-M			●	0.375	0.063	0.047	0.006	
16	2	R	16ER20ISO-B		●*		0.375	0.051	0.039	0.011		16IR20ISO-B		●*		0.375	0.051	0.039	0.004	
16	2	R	16ER20ISO-M	●	●	●	0.375	0.063	0.047	0.010		16IR20ISO-M	●		●	0.375	0.063	0.047	0.006	
16	2.5	R	16ER25ISO-B		●*		0.375	0.059	0.043	0.012		16IR25ISO-B		●*		0.375	0.059	0.043	0.006	
16	2.5	R	16ER25ISO-M	●		●	0.375	0.063	0.047	0.012		16IR25ISO-M			●	0.375	0.063	0.047	0.007	
16	3	R	16ER30ISO-B		●*		0.375	0.063	0.047	0.015		16IR30ISO-B		●*		0.375	0.059	0.043	0.009	
16	3	R	16ER30ISO-M	●		●	0.375	0.063	0.047	0.015		16IR30ISO-M	●		●	0.375	0.063	0.047	0.008	
22	3.5	R	22ER35ISO-B		●		0.500	0.091	0.063	0.019										
22	4	R	22ER40ISO-B		●		0.500	0.091	0.063	0.020										

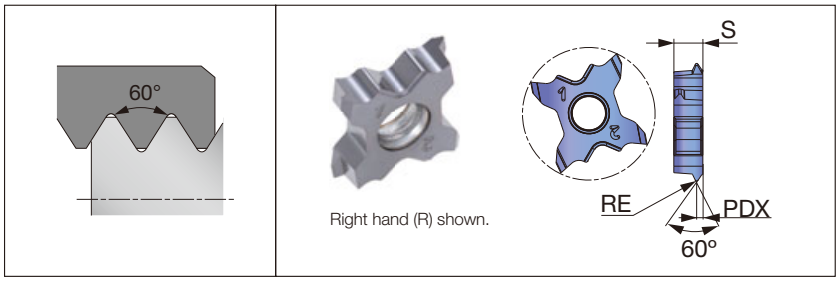
- ●* : The cutting edge position needs re-adjusting for these inserts have different PDY and PDX dimensions (Note: for size 16 inserts only).
- requires the use of dedicated shim.
When using a new AH725 with chipbreaker, the conventional shim may need to be replaced with a new standard shim. Please refer to the page E070.

● : Line up / 5 pieces per package



Reference pages: External toolholders → E036 - E040, Inernal toolholders → E054 - E056

ISO metric (General purpose)



Applicable toolholder

External
STCR/L**-18
STCR/L**18-CHP
JS**-STCL18
C*STCFL**18-CHP
C*STCR/L**18-CHP
QC**STCR/L18 (-Y)
QC**STCR/L18 (-Y)-CHP

Partial-profile insert

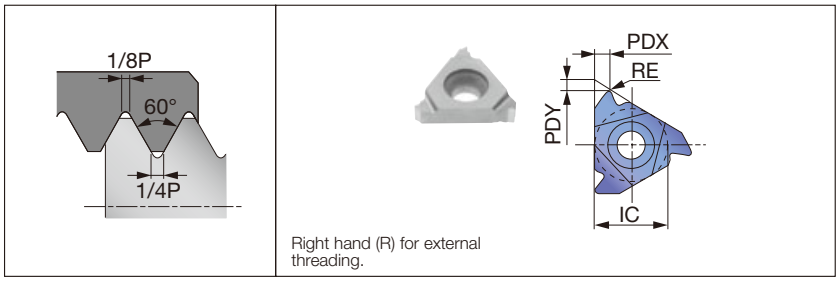
Pitch (mm)	Hand of cut	External insert (in) Designation	Grade: Coated SH725	Grade: Coated AH725	PDX	RE	S
0.5	R	**TCT18FR-05ISO**	●		0.014	0.0024	0.157
0.7	R	**TCT18FR-07ISO**	●		0.018	0.0035	0.157
0.75	R	**TCT18FR-075ISO**	●		0.020	0.0035	0.157
0.8	R	**TCT18FR-08ISO**	●		0.020	0.004	0.157
1	R	**TCT18R-10ISO**		●	0.024	0.005	0.157
1.25	R	**TCT18R-125ISO**		●	0.028	0.007	0.157
1.5	R	**TCT18R-15ISO**		●	0.031	0.008	0.157

● : Line up / 5 pieces per package

Thread form
60°
55°
M (Metric)
UN (Unified)
W (Whitworth)
BSPT (R, PT)
NPT
NPTF
TR (Metric, 30° Trapezoidal)
Round (DIN405)
UNJ
MJ
ACME (29° Trapezoidal)
STUB ACME (29° Trapezoidal)
API Round
API Buttress
API Rotary Shoulder Connection

Reference pages: External toolholders → E041 - E044

Unified (General purpose)



Right hand (R) for external threading.

Applicable toolholder

Insert size	External	Internal
11	SER**11	SNR/L**11...
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22... SER**22-CHP	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...

Full-profile insert

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in)								Internal insert (in)							
				Designation	Grade			IC	PDX	PDY	RE	Designation	Grade			IC	PDX	PDY	RE
					Coated								Coated						
					AH8015	AH725	T313V						AH8015	AH725	T313V				
11	(0.031)	32	R									11IR32UN		●		0.250	0.020	0.047	0.0024
11	(0.036)	28	R									11IR28UN		●		0.250	0.020	0.047	0.0024
11	(0.042)	24	R									11IR24UN		●		0.250	0.035	0.028	0.0028
11	(0.050)	20	R									11IR20UN		●		0.250	0.035	0.028	0.0035
11	(0.056)	18	R									11IR18UN		●		0.250	0.035	0.028	0.004
11	(0.063)	16	R									11IR16UN	●	●		0.250	0.035	0.028	0.004
11	(0.071)	14	R									11IR14UN		●		0.250	0.035	0.028	0.005
16	(0.031)	32	R	16ER32UN	●	●		0.375	0.020	0.047	0.004	16IR32UN		●		0.375	0.020	0.047	0.0024
16	(0.036)	28	R	16ER28UN	●	●		0.375	0.020	0.047	0.004	16IR28UN		●		0.375	0.020	0.047	0.0024
16	(0.042)	24	R	16ER24UN	●	●		0.375	0.035	0.028	0.005	16IR24UN		●		0.375	0.035	0.028	0.0028
16	(0.050)	20	R	16ER20UN	●	●		0.375	0.035	0.028	0.006	16IR20UN		●		0.375	0.035	0.028	0.0035
16	(0.056)	18	R	16ER18UN	●	●		0.375	0.035	0.028	0.007	16IR18UN		●		0.375	0.035	0.028	0.004
16	(0.063)	16	R	16ER16UN	●	●	●	0.375	0.035	0.028	0.008	16IR16UN		●	●	0.375	0.035	0.028	0.004
16	(0.071)	14	R	16ER14UN	●	●	●	0.375	0.063	0.047	0.009	16IR14UN		●	●	0.375	0.063	0.047	0.005
16	(0.077)	13	R	16ER13UN		●		0.375	0.063	0.047	0.009	16IR13UN		●		0.375	0.063	0.047	0.006
16	(0.083)	12	R	16ER12UN	●	●	●	0.375	0.063	0.047	0.011	16IR12UN		●	●	0.375	0.063	0.047	0.006
16	(0.091)	11	R	16ER11UN		●		0.375	0.063	0.047	0.011	16IR11UN		●		0.375	0.063	0.047	0.006
16	(0.100)	10	R	16ER10UN	●	●		0.375	0.063	0.047	0.013	16IR10UN		●		0.375	0.063	0.047	0.007
16	(0.111)	9	R	16ER9UN		●		0.375	0.063	0.047	0.014	16IR9UN		●		0.375	0.063	0.047	0.008
16	(0.125)	8	R	16ER8UN	●	●	●	0.375	0.063	0.047	0.016	16IR8UN		●	●	0.375	0.063	0.047	0.009
22	(0.143)	7	R	22ER7UN		●		0.500	0.098	0.067	0.018	22IR7UN		●		0.500	0.098	0.067	0.010
22	(0.167)	6	R	22ER6UN		●		0.500	0.098	0.067	0.021	22IR6UN		●		0.500	0.098	0.067	0.012
22	(0.200)	5	R	22ER5UN		●		0.500	0.098	0.067	0.025	22IR5UN		●		0.500	0.098	0.067	0.014

● : Line up / 5 pieces per package

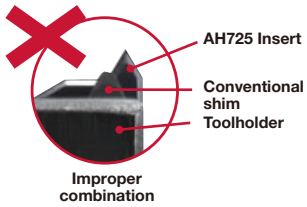
Reference pages: External toolholders → E036 - E040, Inernal toolholders → E054 - E056

Full-profile insert with chipbreaker

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in) Designation	Grade: Coated AH8015	Grade: Coated AH725	Grade: Cermet NS9530	IC	PDX	PDY	RE	Internal insert (in) Designation	Grade: Coated AH8015	Grade: Coated AH725	Grade: Cermet NS9530	IC	PDX	PDY	RE
16	(0.042)	24	R	**16ER24UN-B**		●*		0.375	0.031	0.028	0.004								
16	(0.042)	24	R	**16ER24UN-M**			●	0.375	0.035	0.028	0.005								
16	(0.050)	20	R	**16ER20UN-B**		●*		0.375	0.035	0.031	0.006	**16IR20UN-B**		●*		0.375	0.035	0.031	0.0024
16	(0.050)	20	R	**16ER20UN-M**	●		●	0.375	0.035	0.028	0.006	**16IR20UN-M**			●	0.375	0.035	0.028	0.0035
16	(0.056)	18	R	**16ER18UN-B**		●*		0.375	0.039	0.031	0.006	**16IR18UN-B**		●*		0.375	0.039	0.031	0.0031
16	(0.056)	18	R	**16ER18UN-M**	●		●	0.375	0.035	0.028	0.007	**16IR18UN-M**	●		●	0.375	0.035	0.028	0.004
16	(0.063)	16	R	**16ER16UN-B**		●*		0.375	0.043	0.035	0.007	**16IR16UN-B**		●*		0.375	0.043	0.035	0.0035
16	(0.063)	16	R	**16ER16UN-M**	●		●	0.375	0.035	0.028	0.008	**16IR16UN-M**			●	0.375	0.035	0.028	0.004
16	(0.071)	14	R	**16ER14UN-B**		●*		0.375	0.047	0.039	0.009	**16IR14UN-B**		●*		0.375	0.047	0.035	0.004
16	(0.071)	14	R	**16ER14UN-M**	●		●	0.375	0.063	0.047	0.009	**16IR14UN-M**			●	0.375	0.063	0.047	0.005
16	(0.077)	13	R	**16ER13UN-B**		●*		0.375	0.051	0.039	0.009								
16	(0.083)	12	R	**16ER12UN-B**		●*		0.375	0.055	0.043	0.010	**16IR12UN-B**		●*		0.375	0.055	0.043	0.005
16	(0.083)	12	R	**16ER12UN-M**	●		●	0.375	0.063	0.047	0.011	**16IR12UN-M**	●		●	0.375	0.063	0.047	0.006
16	(0.125)	8	R	**16ER8UN-B**		●*		0.375	0.063	0.047	0.016	**16IR8UN-B**		●*		0.375	0.059	0.043	0.008
16	(0.125)	8	R	**16ER8UN-M**			●	0.375	0.063	0.047	0.016	**16IR8UN-M**			●	0.375	0.063	0.047	0.009

● : Line up / 5 pieces per package

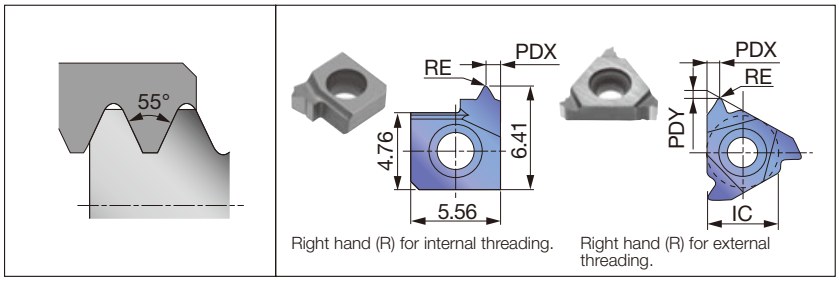
- ●* : The cutting edge position needs re-adjusting for these inserts have different PDY and PDX dimensions (Note: for size 16 inserts only).
- requires the use of dedicated shim.
When using a new AH725 with chipbreaker, the conventional shim may need to be replaced with a new standard shim.
Please refer to the page E070.



Thread form
60°
55°
M (Metric)
UN (Unified)
W (Whitworth)
BSPT (R, PT)
NPT
NPTF
TR (Metric, 30° Trapezoidal)
Round (DIN405)
UNJ
MJ
ACME (29° Trapezoidal)
STUB ACME (29° Trapezoidal)
API Round
API Buttress
API Rotary Shoulder Connection

Reference pages: External toolholders → E036 - E040, Inernal toolholders → E054 - E056

Whitworth, Parallel pipe thread



Right hand (R) for internal threading.

Right hand (R) for external threading.

Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
11	SER**11	SNR/L**11...
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22... SER**22-CHP	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...

Full-profile insert

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in) Designation	Grade: Coated AH8015	Coated AH725	Coated T313V	Uncoated TH10	IC	PDX	PDY	RE	Internal insert (in) Designation	Grade: Coated AH8015	Coated AH725	Coated T313V	Uncoated TH10	IC	PDX	PDY	RE
6	(0.053)	19	R										6IR19W	●	●		●	-	0.035	-	0.007
11	(0.053)	19	R										11IR19W	●	●	●	●	0.250	0.035	0.028	0.007
11	(0.071)	14	R										11IR14W	●	●	●	●	0.250	0.035	0.028	0.009
16	(0.036)	28	R	16ER28W		●	●		0.375	0.035	0.028	0.004	16IR28W		●			0.375	0.035	0.028	0.004
16	(0.038)	26	R	16ER26W		●			0.375	0.035	0.028	0.005	16IR26W		●			0.375	0.035	0.028	0.005
16	(0.050)	20	R	16ER20W		●			0.375	0.035	0.028	0.006	16IR20W		●			0.375	0.035	0.028	0.006
16	(0.053)	19	R	16ER19W	●	●	●		0.375	0.035	0.028	0.007	16IR19W		●			0.375	0.035	0.028	0.007
16	(0.056)	18	R	16ER18W		●			0.375	0.035	0.028	0.007	16IR18W		●			0.375	0.035	0.028	0.007
16	(0.063)	16	R	16ER16W		●	●		0.375	0.035	0.028	0.008	16IR16W		●	●		0.375	0.035	0.028	0.008
16	(0.071)	14	R	16ER14W	●	●	●	●	0.375	0.063	0.047	0.009	16IR14W	●	●	●	●	0.375	0.063	0.047	0.009
16	(0.071)	14	L	16EL14W		●			0.375	0.063	0.047	0.009									
16	(0.083)	12	R	16ER12W		●	●		0.375	0.063	0.047	0.011	16IR12W		●	●		0.375	0.063	0.047	0.011
16	(0.091)	11	R	16ER11W	●	●	●	●	0.375	0.063	0.047	0.011	16IR11W	●	●	●	●	0.375	0.063	0.047	0.011
16	(0.100)	10	R	16ER10W		●	●		0.375	0.063	0.047	0.013	16IR10W		●	●		0.375	0.063	0.047	0.013
16	(0.111)	9	R	16ER9W		●			0.375	0.063	0.047	0.014	16IR9W		●			0.375	0.063	0.047	0.014
16	(0.125)	8	R	16ER8W		●	●		0.375	0.063	0.047	0.016	16IR8W		●	●		0.375	0.063	0.047	0.016
22	(0.143)	7	R	22ER7W		●			0.500	0.098	0.067	0.018	22IR7W		●			0.500	0.098	0.067	0.018
22	(0.167)	6	R	22ER6W		●			0.500	0.098	0.067	0.021	22IR6W		●			0.500	0.098	0.067	0.021
22	(0.200)	5	R	22ER5W		●			0.500	0.098	0.067	0.025	22IR5W		●			0.500	0.098	0.067	0.025

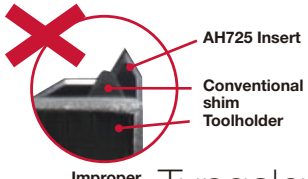
Full-profile insert with chipbreaker

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in) Designation	Grade: Coated AH8015	Coated AH725	Cermet NS9530	IC	PDX	PDY	RE	Internal insert (in) Designation	Grade: Coated AH8015	Coated AH725	Cermet NS9530	IC	PDX	PDY	RE
16	(0.053)	19	R	16ER19W-B		●*		0.375	0.039	0.031	0.006								
16	(0.053)	19	R	16ER19W-M	●		●	0.375	0.035	0.028	0.007	16IR19W-M			●	0.375	0.035	0.028	0.007
16	(0.063)	16	R	16ER16W-B		●*		0.375	0.043	0.035	0.008	16IR16W-B		●*		0.375	0.043	0.035	0.007
16	(0.071)	14	R	16ER14W-B		●*		0.375	0.047	0.039	0.009	16IR14W-B		●*		0.375	0.047	0.039	0.008
16	(0.071)	14	R	16ER14W-M	●		●	0.375	0.063	0.047	0.009	16IR14W-M	●		●	0.375	0.063	0.047	0.009
16	(0.091)	11	R	16ER11W-B		●*		0.375	0.059	0.043	0.011	16IR11W-B		●*		0.375	0.059	0.043	0.011
16	(0.091)	11	R	16ER11W-M	●		●	0.375	0.063	0.047	0.011	16IR11W-M	●		●	0.375	0.063	0.047	0.011

- ●* : The cutting edge position needs re-adjusting for these inserts have different PDY and PDX dimensions (Note: for size 16 inserts only).
- requires the use of dedicated shim.

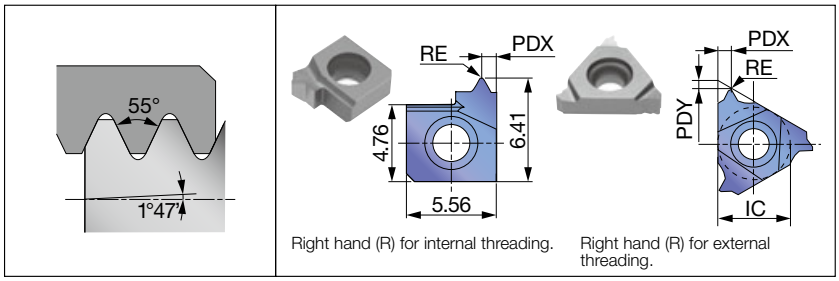
When using a new AH725 with chipbreaker, the conventional shim may need to be replaced with a new standard shim. Please refer to the page E070.

● : Line up / 5 pieces per package



Reference pages: External toolholders → E036 - E040
Inernal toolholders → E054 - E056

BSPT (for Pipe)



Right hand (R) for internal threading.

Right hand (R) for external threading.

Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
11	SER**11	SNR/L**11...
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...

Thread form

60°
55°
M (Metric)
UN (Unified)
W (Whitworth)
BSPT (R, PT)
NPT
NPTF
TR (Metric, 30° Trapezoidal)
Round (DIN405)
UNJ
MJ
ACME (29° Trapezoidal)
STUB ACME (29° Trapezoidal)
API Round
API Buttress
API Rotary Shoulder Connection

Full-profile insert

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in)									Internal insert (in)								
				Designation	Grade				IC	PDX	PDY	RE	Designation	Grade				IC	PDX	PDY	RE
					Coated			Uncoated						Coated			Uncoated				
					AH8015	AH725	T313V	TH10						AH8015	AH725	T313V	TH10				
6	(0.053)	19	R										6IR19PT	●	●		●	-	0.035	-	0.006
11	(0.053)	19	R										11IR19PT	●	●	●	●	0.250	0.035	0.028	0.006
11	(0.071)	14	R										11IR14PT	●	●	●	●	0.250	0.035	0.028	0.006
16	(0.036)	28	R	16ER28PT		●	●		0.375	0.035	0.028	0.0035									
16	(0.053)	19	R	16ER19PT	●	●	●		0.375	0.035	0.028	0.006	16IR19PT		●			0.375	0.035	0.028	0.006
16	(0.071)	14	R	16ER14PT	●	●	●		0.375	0.063	0.047	0.006	16IR14PT	●	●	●	●	0.375	0.063	0.047	0.006
16	(0.091)	11	R	16ER11PT	●	●	●		0.375	0.063	0.047	0.010	16IR11PT	●	●	●	●	0.375	0.063	0.047	0.010

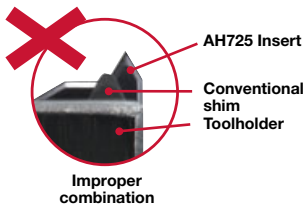
● : Line up / 5 pieces per package

Full-profile insert with chipbreaker

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in)								Internal insert (in)							
				Designation	Grade			IC	PDX	PDY	RE	Designation	Grade			IC	PDX	PDY	RE
					Coated		Cermet						Coated		Cermet				
					AH8015	AH725	NS9530						AH8015	AH725	NS9530				
16	(0.053)	19	R	16ER19PT-M			●	0.375	0.035	0.028	0.007	16IR19PT-M			●	0.375	0.035	0.028	0.007
16	(0.071)	14	R	16ER14PT-B		●*		0.375	0.047	0.039	0.009	16IR14PT-B		●*		0.375	0.047	0.039	0.008
16	(0.071)	14	R	16ER14PT-M	●		●	0.375	0.063	0.047	0.010	16IR14PT-M	●		●	0.375	0.063	0.047	0.010
16	(0.091)	11	R	16ER11PT-B		●*		0.375	0.059	0.043	0.012	16IR11PT-B		●*		0.375	0.059	0.043	0.012
16	(0.091)	11	R	16ER11PT-M	●		●	0.375	0.063	0.047	0.013	16IR11PT-M	●		●	0.375	0.063	0.047	0.013

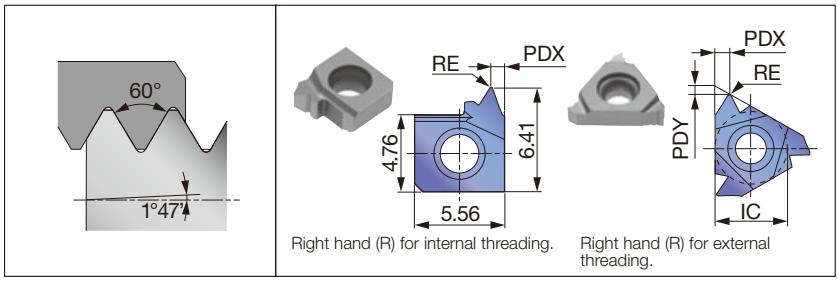
- ●* : The cutting edge position needs re-adjusting for these inserts have different PDY and PDX dimensions (Note: for size 16 inserts only).
- requires the use of dedicated shim.
When using a new AH725 with chipbreaker, the conventional shim may need to be replaced with a new standard shim.
Please refer to the page E070.

● : Line up / 5 pieces per package



Reference pages: External toolholders → E036 - E040, Inernal toolholders → E054 - E056

NPT (for Pipe)



Right hand (R) for internal threading.

Right hand (R) for external threading.

Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...

Full-profile insert

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in)									Internal insert (in)								
				Designation	Grade				IC	PDX	PDY	RE	Designation	Grade				IC	PDX	PDY	RE
					Coated			Uncoated						Coated			Uncoated				
					AH8015	AH725	T313V	TH10						AH8015	AH725	T313V	TH10				
6	(0.056)	18	R										6IR18NPT		●		●	-	0.035	-	0.0012
16	(0.037)	27	R	16ER27NPT		●			0.375	0.020	0.047	0.0008	16IR27NPT		●			0.375	0.020	0.047	0.0008
16	(0.056)	18	R	16ER18NPT		●	●		0.375	0.035	0.028	0.0012	16IR18NPT		●			0.375	0.035	0.028	0.0012
16	(0.071)	14	R	16ER14NPT		●			0.375	0.063	0.047	0.0016	16IR14NPT	●	●		●	0.375	0.063	0.047	0.0016
16	(0.087)	11.5	R	16ER115NPT		●			0.375	0.063	0.047	0.0020	16IR115NPT		●		●	0.375	0.063	0.047	0.0020
16	(0.125)	8	R	16ER8NPT		●			0.375	0.063	0.047	0.0028	16IR8NPT		●		●	0.375	0.063	0.047	0.0028

● : Line up / 5 pieces per package

Full-profile insert with chipbreaker

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in)								Internal insert (in)							
				Designation	Grade			IC	PDX	PDY	RE	Designation	Grade			IC	PDX	PDY	RE
					Coated		Cermet						Coated		Cermet				
					AH8015	AH725	NS9530						AH8015	AH725	NS9530				
16	(0.056)	18	R	16ER18NPT-B		●*		0.375	0.039	0.031	0.0020								
16	(0.056)	18	R	16ER18NPT-M	●		●	0.375	0.035	0.028	0.0028	16IR18NPT-M			●	0.375	0.035	0.028	0.0028
16	(0.071)	14	R	16ER14NPT-B		●*		0.375	0.047	0.035	0.0020	16IR14NPT-B		●*		0.375	0.047	0.035	0.0020
16	(0.071)	14	R	16ER14NPT-M	●		●	0.375	0.063	0.047	0.0031	16IR14NPT-M	●		●	0.375	0.063	0.047	0.0031
16	(0.087)	11.5	R	16ER115NPT-B		●*		0.375	0.059	0.043	0.0035	16IR115NPT-B		●*		0.375	0.059	0.043	0.0035
16	(0.087)	11.5	R	16ER115NPT-M			●	0.375	0.063	0.047	0.0035	16IR115NPT-M	●		●	0.375	0.063	0.047	0.0035
16	(0.125)	8	R	16ER8NPT-B		●*		0.375	0.071	0.051	0.005	16IR8NPT-B		●*		0.375	0.071	0.051	0.005

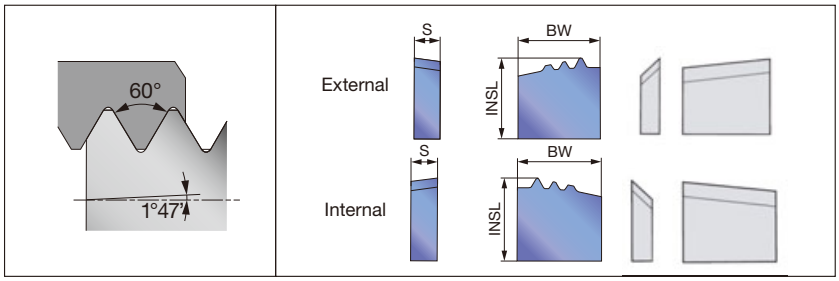
- ●* : The cutting edge position needs re-adjusting for these inserts have different PDY and PDX dimensions (Note: for size 16 inserts only).
- requires the use of dedicated shim.
When using a new AH725 with chipbreaker, the conventional shim may need to be replaced with a new standard shim.
Please refer to the page E070.

● : Line up / 5 pieces per package



Reference pages: External toolholders → E036 - E040, Inernal toolholders → E054 - E056

NPT (for Pipe)



Applicable toolholder

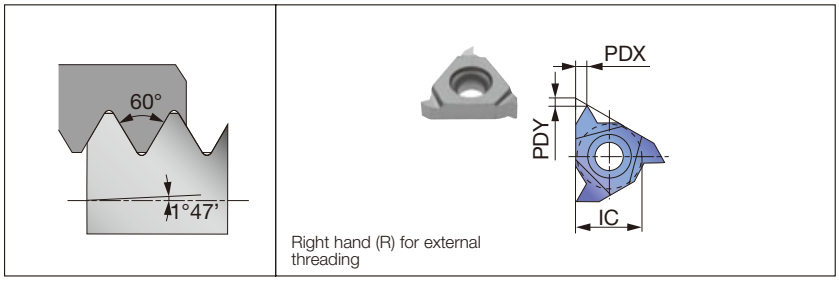
External	Internal
CLVOR-**M...	SI-CLHOR...

Full-profile insert (chaser)

Pitch (Reference) (mm)	TPI	Taper		External insert (in)						Internal insert (in)					
		mm/mm	TPF	Designation	Grade Coated AH725	BW	INSL	S	Chip breaking attachment	Designation	Grade Coated AH725	BW	INSL	S	Chip breaking attachment
(2.209)	11.5	1/16	0.75	**CR-11.5NPT-4E**	●	0.630	0.618	0.205	CR-8R / 10R-3E / 4E-CB	**CR-11.5NPT-4I**	●	0.630	0.618	0.205	CR-8R / 10R-3I / 4I-CB
(3.175)	8	1/16	0.75	**CR-8NPT-4E**	●	0.630	0.618	0.205	CR-8R / 10R-3E / 4E-CB	**CR-8NPT-4I**	●	0.630	0.618	0.205	CR-8R / 10R-3I / 4I-CB

● : Line up / 5 pieces per package

NPTF (for Pipe)



Applicable toolholder

Insert size	External	Internal
16	CER/L**16... (C*CER/L...)	TSNR/L**16
	JSER**16...	SNR/L**16...
	JS**SEL16	TCNR/L**16...
	SER**16-CHP	CNR/L**16...
	B-SER/L**16	
	B-CER/L**16	
	BC-SER/L**16	

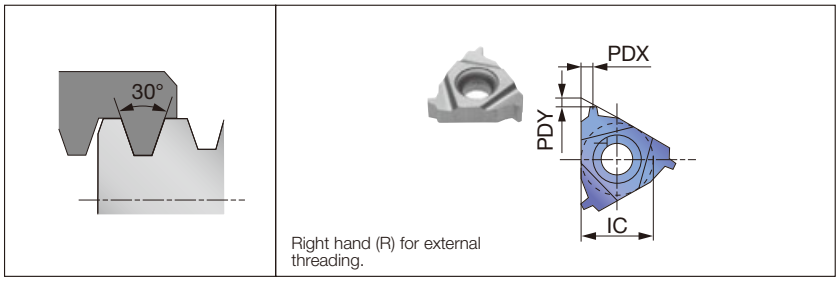
Full-profile insert

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in)						Internal insert (in)					
				Designation	Grade Coated AH725	IC	PDX	PDY	RE	Designation	Grade Coated AH725	IC	PDX	PDY	RE
16	(0.037)	27	R	**16ER27NPTF**	●	0.375	0.020	0.047	-						
16	(0.056)	18	R	**16ER18NPTF**	●	0.375	0.035	0.028	-						
16	(0.071)	14	R	**16ER14NPTF**	●	0.375	0.063	0.047	-	**16IR14NPTF**	●	0.375	0.063	0.047	-
16	(0.087)	11.5	R	**16ER115NPTF**	●	0.375	0.063	0.047	-	**16IR115NPTF**	●	0.375	0.063	0.047	-
16	(0.125)	8	R	**16ER8NPTF**	●	0.375	0.063	0.047	-	**16IR8NPTF**	●	0.375	0.063	0.047	-

● : Line up / 5 pieces per package

Reference pages: NPT: External toolholders → E053, Internal toolholders → E067
NPTF: External toolholders → E036 - E040, Inernal toolholders → E055 - E056

30° Trapezoidal / DIN103 (for Machine parts)



Right hand (R) for external threading.

Applicable toolholder

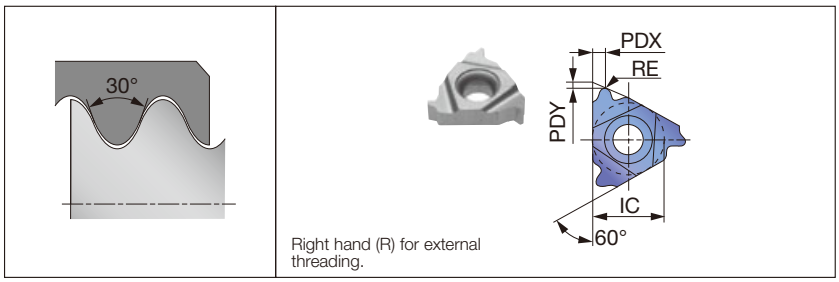
Insert size	External	Internal
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22... SER**22-CHP	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...
27	CER/L**27...	CNR/L**27...

With the special full-profile insert

Insert size	Pitch (Reference) (mm)	Hand of cut	External insert (in)						Internal insert (in)					
			Designation	Grade Coated AH725	Grade Coated T313V	IC	PDX	PDY	Designation	Grade Coated AH725	Grade Coated T313V	IC	PDX	PDY
16	1.5	R	**16ER15TR**	●		0.375	0.035	0.028	**16IR15TR**	●		0.375	0.035	0.028
16	2	R	**16ER20TR**	●	●	0.375	0.063	0.051	**16IR20TR**	●	●	0.375	0.063	0.051
16	3	R	**16ER30TR**	●	●	0.375	0.063	0.051	**16IR30TR**	●	●	0.375	0.063	0.051
22	4	R	**22ER40TR**	●	●	0.500	0.098	0.079	**22IR40TR**	●	●	0.500	0.098	0.079
22	5	R	**22ER50TR**	●	●	0.500	0.098	0.079	**22IR50TR**	●	●	0.500	0.098	0.079
27	6	R	**27ER60TR**	●	●	0.625	0.126	0.098						

● : Line up / 5 pieces per package

Round / DIN405 (for Machine parts)



Right hand (R) for external threading.

Applicable toolholder

Insert size	External	Internal
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...

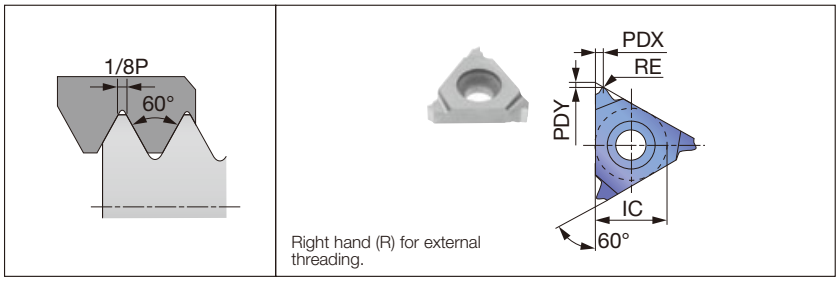
Full-profile insert

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in)						Internal insert (in)					
				Designation	Grade Coated AH725	IC	PDX	PDY	RE	Designation	Grade Coated AH725	IC	PDX	PDY	RE
16	(0.125)	8	R	**16ER8RD-B**	●	0.375	0.051	0.055	0.030						
16	(0.167)	6	R	**16ER6RD-B**	●	0.375	0.067	0.059	0.040	**16IR6RD-B**	●	0.375	0.059	0.055	0.037

● : Line up / 5 pieces per package

Reference pages: External toolholders → E036 - E040, Inernal toolholders → E055 - E056

UNJ (for Aerospace industry)



Right hand (R) for external threading.

Applicable toolholder

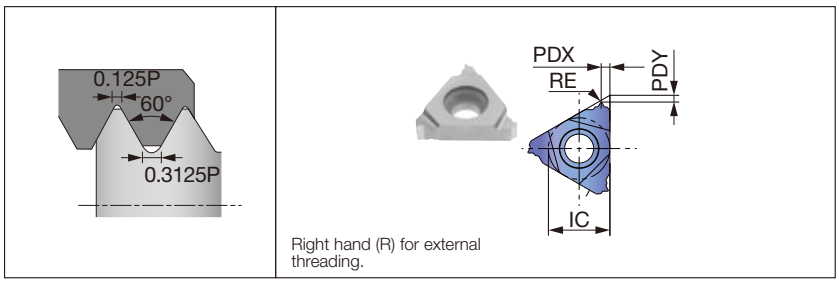
Insert size	External
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16

Full-profile insert

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in) Designation	Grade Coated AH8015	Grade Coated AH725	IC	PDX	PDY	RE
16	(0.031)	32	R	**16ER32UNJ**	●	●	0.375	0.020	0.047	0.005
16	(0.036)	28	R	**16ER28UNJ**	●	●	0.375	0.020	0.047	0.006
16	(0.042)	24	R	**16ER24UNJ**	●	●	0.375	0.035	0.028	0.007
16	(0.050)	20	R	**16ER20UNJ**	●	●	0.375	0.035	0.028	0.008
16	(0.056)	18	R	**16ER18UNJ**	●	●	0.375	0.035	0.028	0.009
16	(0.063)	16	R	**16ER16UNJ**	●	●	0.375	0.035	0.028	0.010
16	(0.071)	14	R	**16ER14UNJ**	●	●	0.375	0.063	0.047	0.012
16	(0.083)	12	R	**16ER12UNJ**	●	●	0.375	0.063	0.047	0.014
16	(0.100)	10	R	**16ER10UNJ**	●	●	0.375	0.063	0.047	0.017
16	(0.125)	8	R	**16ER8UNJ**	●	●	0.375	0.063	0.047	0.021

● : Line up / 5 pieces per package

MJ (for Aerospace industry)



Right hand (R) for external threading.

Applicable toolholder

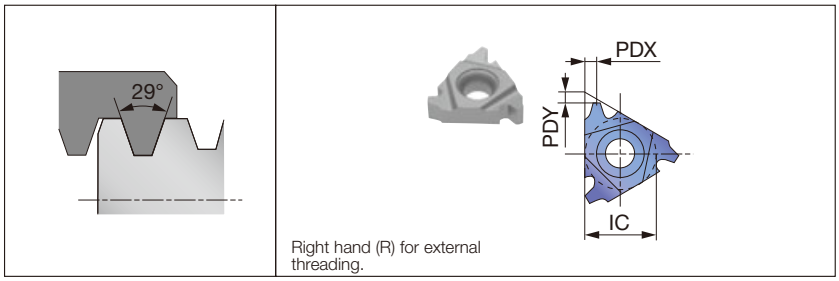
Insert size	Internal
11	SNR/L**11...

Insert size	Pitch (Reference) (in)	Hand of cut	Internal insert (in) Designation	Grade Coated AH8015	IC	PDX	PDY	RE
11	0.039	R	**11IR10MJ**	●	0.250	0.035	0.028	0.0020

● : Line up / 5 pieces per package

Reference pages: UNJ : External toolholders → E036 - E040
MJ : Internal toolholders → E055

29° Trapezoidal / ACME (for Machine parts, Pipe)



Right hand (R) for external threading.

Applicable toolholder

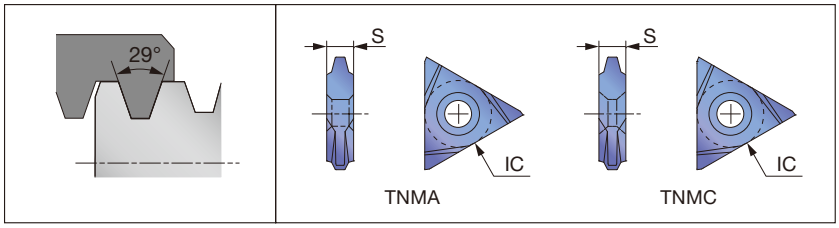
Insert size	External	Internal
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22... SER**22-CHP	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...

With the special full-profile insert

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in)						Internal insert (in)					
				Designation	Grade Coated AH725	Grade Coated T313V	IC	PDX	PDY	Designation	Grade Coated AH725	Grade Coated T313V	IC	PDX	PDY
16	(0.083)	12	R	**16ER12ACME**	●		0.375	0.063	0.051	**16IR12ACME**	●		0.375	0.063	0.051
16	(0.100)	10	R	**16ER10ACME**	●		0.375	0.063	0.051	**16IR10ACME**	●		0.375	0.063	0.051
16	(0.125)	8	R	**16ER8ACME**	●	●	0.375	0.063	0.051	**16IR8ACME**	●	●	0.375	0.063	0.051
22	(0.167)	6	R	**22ER6ACME**	●	●	0.500	0.098	0.079	**22IR6ACME**	●	●	0.500	0.098	0.079
22	(0.200)	5	R	**22ER5ACME**	●	●	0.500	0.098	0.079	**22IR5ACME**	●	●	0.500	0.098	0.079

● : Line up / 5 pieces per package

29° Trapezoidal / ACME (for Machine parts, Pipe)



Applicable toolholder

External
MTVOR-**M..
STVOR-**M...

On edge

Pitch	TPI	Taper mm/mm	Taper TPF	External insert (in) Designation	Grade Coated AH725	IC	S
(1.588)	16	-	-	**TNMA43NT16PEXT-PT**	●	0.500	0.189
(1.814)	14	-	-	**TNMA43NT14PEXT-PT**	●	0.500	0.189
(2.117)	12	-	-	**TNMA43NT12PEXT-PT**	●	0.500	0.189
(2.54)	10	-	-	**TNMA43NT10PEXT-PT**	●	0.500	0.189
(3.175)	8	-	-	**TNMA43NT8PEXT-PT**	●	0.500	0.189
(4.233)	6	-	-	**TNMA43NT6PEXT-PT**	●	0.500	0.189
(5.08)	5	-	-	**TNMA54NT5PEXT-PT**	●	0.625	0.252
(6.35)	4	-	-	**TNMA54NT4PEXT-PT**	●	0.625	0.252
(8.47)	3	-	-	**TNMA54NT3PEXT-PT**	●	0.625	0.252
(1.588)	16	-	-	**TNMC43NT16PEXT-PT**	●	0.500	0.189
(1.814)	14	-	-	**TNMC43NT14PEXT-PT**	●	0.500	0.189
(2.117)	12	-	-	**TNMC43NT12PEXT-PT**	●	0.500	0.189
(2.54)	10	-	-	**TNMC43NT10PEXT-PT**	●	0.500	0.189
(3.175)	8	-	-	**TNMC43NT8PEXT-PT**	●	0.500	0.189
(4.233)	6	-	-	**TNMC43NT6PEXT-PT**	●	0.500	0.189
(5.08)	5	-	-	**TNMC54NT5PEXT-PT**	●	0.625	0.252
(6.35)	4	-	-	**TNMC54NT4PEXT-PT**	●	0.625	0.252
(8.47)	3	-	-	**TNMC54NT3PEXT-PT**	●	0.625	0.252

● : Line up / 10 pieces per package

Reference pages: 29° Trapezoidal With the special full-profile insert : External toolholders → E036 - E040, Internal toolholders → E055 - E056
29° Trapezoidal On edge : External toolholders → E052

29° Trapezoidal/ STUB ACME (for Machine parts, Pipe)

On edge

Pitch (Reference) (in)	TPI	Taper mm/mm	Taper TPF	External insert (in) Designation	Grade Coated AH725	IC	S
(0.063)	16	-	-	**TNMA43NT16PSTUBE-PT**	●	0.500	0.189
(0.071)	14	-	-	**TNMA43NT14PSTUBE-PT**	●	0.500	0.189
(0.083)	12	-	-	**TNMA43NT12PSTUBE-PT**	●	0.500	0.189
(0.100)	10	-	-	**TNMA43NT10PSTUBE-PT**	●	0.500	0.189
(0.125)	8	-	-	**TNMA43NT8PSTUBE-PT**	●	0.500	0.189
(0.167)	6	-	-	**TNMA43NT6PSTUBE-PT**	●	0.500	0.189
(0.200)	5	-	-	**TNMA54NT5PSTUBE-PT**	●	0.625	0.252
(0.250)	4	-	-	**TNMA54NT4PSTUBE-PT**	●	0.625	0.252
(0.333)	3	-	-	**TNMA54NT3PSTUBE-PT**	●	0.625	0.252
(0.063)	16	-	-	**TNMC43NT16PSTUBE-PT**	●	0.500	0.189
(0.071)	14	-	-	**TNMC43NT14PSTUBE-PT**	●	0.500	0.189
(0.083)	12	-	-	**TNMC43NT12PSTUBE-PT**	●	0.500	0.189
(0.100)	10	-	-	**TNMC43NT10PSTUBE-PT**	●	0.500	0.189
(0.125)	8	-	-	**TNMC43NT8PSTUBE-PT**	●	0.500	0.189
(0.167)	6	-	-	**TNMC43NT6PSTUBE-PT**	●	0.500	0.189
(0.200)	5	-	-	**TNMC54NT5PSTUBE-PT**	●	0.625	0.252
(0.250)	4	-	-	**TNMC54NT4PSTUBE-PT**	●	0.625	0.252
(0.333)	3	-	-	**TNMC54NT3PSTUBE-PT**	●	0.625	0.252

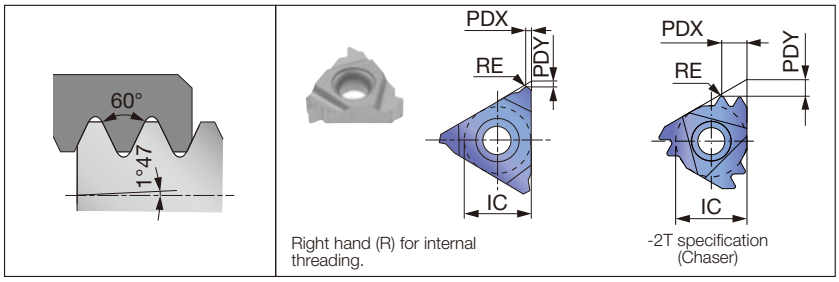
Note: ACME and STUB ACME can cut crest radius. Crest flat of ACME and STUB ACME need to be cut by another tool.

● : Line up / 10 pieces per package

Applicable toolholder

External
MTVOR-**M..
STVOR-**M...

API Round (for Energy industry)



Applicable toolholder

Insert size	External	Internal
16	CER/L**16... (C*CER/L...)	TSNR/L**16
	JSER**16...	SNR/L**16...
	JS**SEL16	TCNR/L**16...
	SER**16-CHP	CNR/L**16...
	B-SER/L**16	
	B-CER/L**16	
	BC-SER/L**16	
22	CER/L**22...	TSNR/L**22
	SER**22-CHP	SNR/L**22...
		TCNR/L**22...
		CNR/L**22...

Full-profile insert

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in) Designation	Grade Coated AH725	T313V	IC	PDX	PDY	RE	Internal insert (in) Designation	Grade Coated AH8015	AH725	T313V	IC	PDX	PDY	RE
16	(0.100)	10	R	**16ER10RAPI**	●		0.375	0.063	0.047	0.014	**16IR10RAPI**		●	●	0.375	0.063	0.047	0.014
16	(0.125)	8	R	**16ER8RAPI**	●		0.375	0.063	0.047	0.017	**16IR8RAPI**	●	●	●	0.375	0.063	0.047	0.017
22	(0.125)	8	R								**22IR8RAPI-2T**		●		0.500	0.177	0.118	0.017

● : Line up / 5 pieces per package

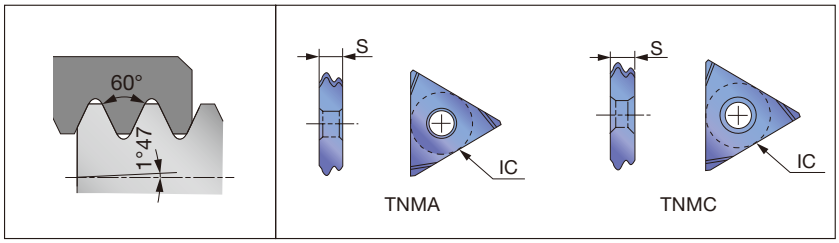
Full-profile insert with chipbreaker

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in) Designation	Grade Coated AH725	IC	PDX	PDY	RE	Internal insert (in) Designation	Grade Coated AH725	IC	PDX	PDY	RE
16	(0.100)	10	R	**16ER10RD-CB**	●	0.375	0.047	0.059	0.014	**16IR10RD-CB**	●	0.375	0.047	0.059	0.014
16	(0.125)	8	R	**16ER8RD-CB**	●	0.375	0.051	0.059	0.017	**16IR8RD-CB**	●	0.375	0.051	0.059	0.017

● : Line up / 10 pieces per package

Reference pages: 29° Trapezoidal : External toolholders → E052
API Round : External toolholders → E036 - E040, Internal toolholders → E055 - E056

API Round (for Energy)



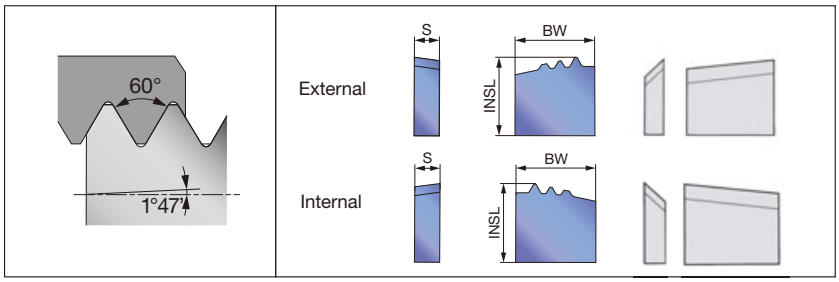
Applicable toolholder

External	Internal
MTVOR-**M.. STVOR-**M...	HS**-MTHOR...

On edge

Pitch (Reference) (in)	TPI	Taper		External insert (in)				Internal insert (in)			
		mm/mm	TPF	Designation	Grade Coated AH725	IC	S	Designation	Grade Coated AH725	IC	S
(0.100)	10	1/16	0.75	**TNMA4310RDEXT**	●	0.500	0.189	**TNMA4310RDINT**	●	0.500	0.189
(0.125)	8	1/16	0.75	**TNMA438RDEXT**	●	0.500	0.189	**TNMA438RDINT**	●	0.500	0.189
(0.100)	10	1/16	0.75	**TNMC4310RDEXT**	●	0.500	0.189	**TNMC4310RDINT**	●	0.500	0.189
(0.125)	8	1/16	0.75	**TNMC438RDEXT**	●	0.500	0.189	**TNMC438RDINT**	●	0.500	0.189

● : Line up / 10 pieces per package



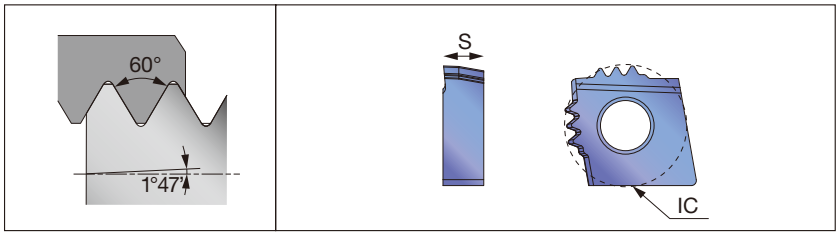
Applicable toolholder

External	Internal
CLVOR-**M...	SI-CLHOR...

Full-profile insert (chaser)

Pitch (Reference) (mm)	TPI	Taper		External insert (mm)						Internal insert (mm)					
		mm/mm	TPF	Designation	Grade Coated AH725	BW	INSL	S	Chip breaking attachment	Designation	Grade Coated AH725	BW	INSL	S	Chip breaking attachment
(3.175)	8	1/16	0.75	**CR-8R-3E**	●	16	15	5.2	CR-8R / 10R-3E / 4E-CB	**CR-8R-3I**	●	16	15	5.2	CR-8R / 10R-3I / 4I-CB
(2.54)	10	1/16	0.75	**CR-10R-3E**	●	16	15.9	5.2	CR-8R / 10R-3E / 4E-CB	**CR-10R-3I**	●	16	15.9	5.2	CR-8R / 10R-3I / 4I-CB

● : Line up / 10 pieces per package



Full-profile insert (chaser)

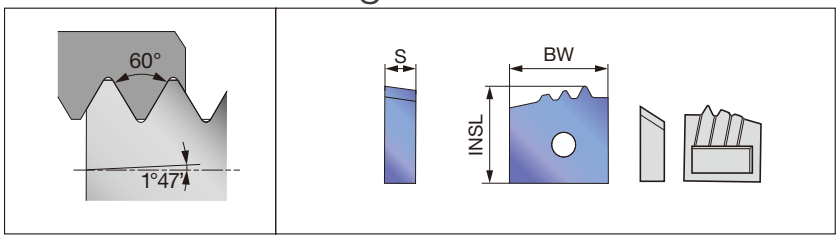
Pitch (Reference) (mm)	TPI	Taper		External insert (mm)			
		mm/mm	TPF	Designation	Grade Coated AH725	IC	S
(2.54)	10	1/16	0.75	**CNGA-10R-3E**	●	19.05	6.4
(3.175)	8	1/16	0.75	**CNGA-8R-3E**	●	19.05	6.4

Note: Toolholders need to be customized for these types of inserts.

● : Line up / 10 pieces per package

Reference pages: API Round On edge : External toolholders → E052, Internal toolholders → E066
API Round Full-profile insert : External toolholders → E053, Internal toolholders → E067

API Round (for Energy industry)
For tool-rotating machines



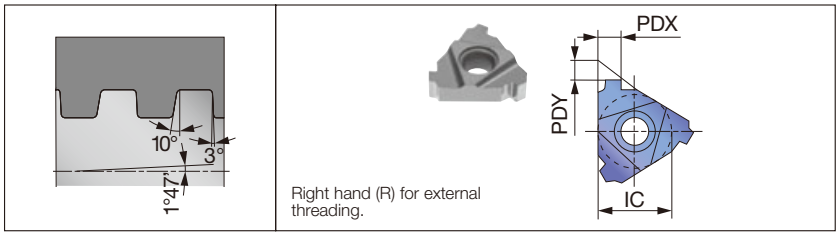
Full-profile insert (chaser)

Pitch (Reference) (mm)	TPI	Taper		External insert (mm)					
		mm/mm	TPF	Designation	Grade Coated AH725	BW	INSL	S	Chip breaking attachment
(3.175)	8	1/16	0.75	**CR-8R-3E#1**	●	16	14.7	5.2	TD39318R-1-CBW/CAVITY
(3.175)	8	1/16	0.75	**CR-8R-3E#2**	●	16	14.9	5.2	TD39328R-2-CBW/CAVITY
(3.175)	8	1/16	0.75	**CR-8R-3E#3**	●	16	15	5.2	TD39338R-3-CBW/CAVITY

Note: Toolholders need to be customized for these types of inserts.

● : Line up / 10 pieces per package

API Buttress (for Energy industry)



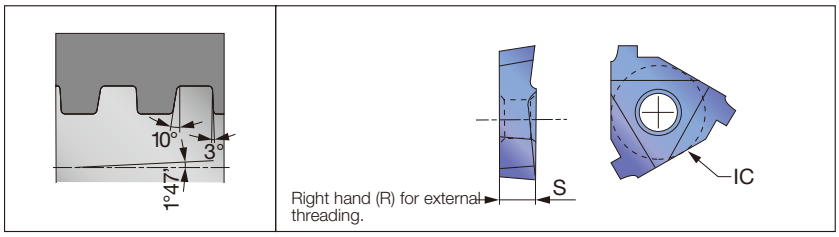
Applicable toolholder

Insert size	External	Internal
22	CER/L**22... SER**22-CHP	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...

Full-profile insert

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in)					Internal insert (in)				
				Designation	Grade Coated AH725	IC	PDX	PDY	Designation	Grade Coated AH725	IC	PDX	PDY
22	(0.200)	5	R	**22ER5BAPI**	●	0.500	0.146	0.087	**22IR5BAPI**	●	0.500	0.136	0.087

● : Line up / 5 pieces per package



Applicable toolholder

External	Internal
MTVNR**M5	HS**-LNFR...

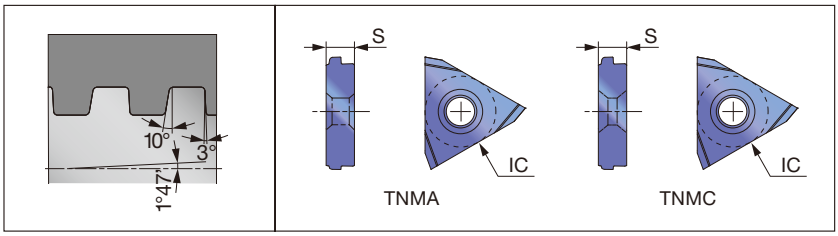
Full-profile insert (single side)

Pitch (Reference) (mm)	TPI	Taper		External insert (mm)				Internal insert (mm)			
		mm/mm	TPF	Designation	Grade Coated AH725	IC	S	Designation	Grade Coated AH725	IC	S
(5.08)	5	1/16	0.75	**L535B75EXT-FC**	●	15.875	4.8	**L535B75INT-FC**	●	15.875	4.8
(5.08)	5	1/12	1	**L535B1EXT-FC**	●	15.875	4.8	**L535B1INT-FC**	●	15.875	4.8

● : Line up / 10 pieces per package

Reference pages: API Buttress Full-profile insert : External toolholders → E036, E039, Internal toolholders → E055 - E056
API Buttress Full-profile insert (single side) : External toolholders → E051, Internal toolholders → E065

API Buttress (for Energy industry)



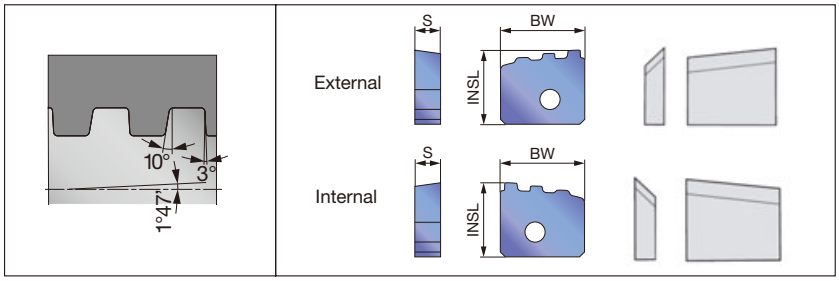
Applicable toolholder

External	Internal
MTVOR-**M.. STVOR-**M...	HS**-MTHOR...

On edge

Pitch (Reference) (in)	TPI	Taper		External insert (in)				Internal insert (in)				
		mm/mm	TPF	Designation	Grade Coated AH725	IC	S	Designation	Grade Coated AH725	IC	S	
(0.200)	5	1/12	1	**TNMA545B1EXT-FC**	●	0.625	0.252	**TNMA545B1INT-FC**	●	0.625	0.252	
(0.200)	5	1/16	0.75	**TNMA545B75EXT-FC**	●	0.625	0.252	**TNMA545B75INT-FC**	●	0.625	0.252	
(0.200)	5	1/12	1	**TNMC545B1EXT-FC**	●	0.625	0.252	**TNMC545B1INT-FC**	●	0.625	0.252	
(0.200)	5	1/16	0.75	**TNMC545B75EXT-FC**	●	0.625	0.252	**TNMC545B75INT-FC**	●	0.625	0.252	

● : Line up / 10 pieces per package



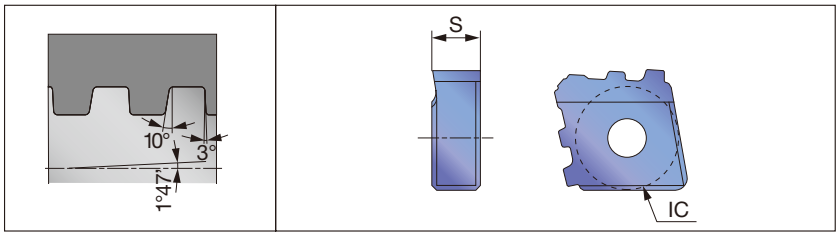
Applicable toolholder

External	Internal
CLVOR-**M...	SI-CLHOR...

Full-profile insert (chaser)

Pitch (Reference) (mm)	TPI	Taper		External insert (mm)						Internal insert (mm)					
		mm/mm	TPF	Designation	Grade Coated AH725	BW	INSL	S	Chip breaking attachment	Designation	Grade Coated AH725	BW	INSL	S	Chip breaking attachment
(5.08)	5	1/16	0.75	**CR-5B75-4E**	●	20.4	15.9	5.1	CR-5B75 / 5B1-4E-CB	**CR-5B75-3I**	●	16	15.8	5.2	CR-8R / 10R-3I / 4I-CB

● : Line up / 10 pieces per package



Full-profile insert (chaser)

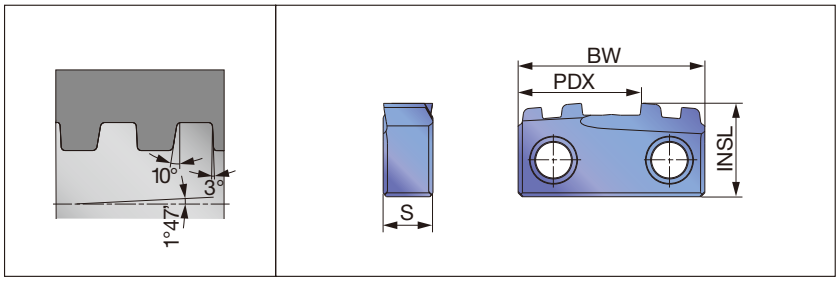
Pitch (Reference) (mm)	TPI	Taper		External insert (mm)			
		mm/mm	TPF	Designation	Grade Coated AH725	IC	S
(5.08)	5	1/16	0.75	**CNGA-5B75-3E**	●	19.05	6.4

Note: Toolholders need to be customized for these types of inserts.

● : Line up / 10 pieces per package

Reference pages: API Buttress On edge : External toolholders → E052, Internal toolholders → E066
API Buttress Full-profile insert : External toolholders → E053, Internal toolholders → E067

API Buttress (for Energy industry)



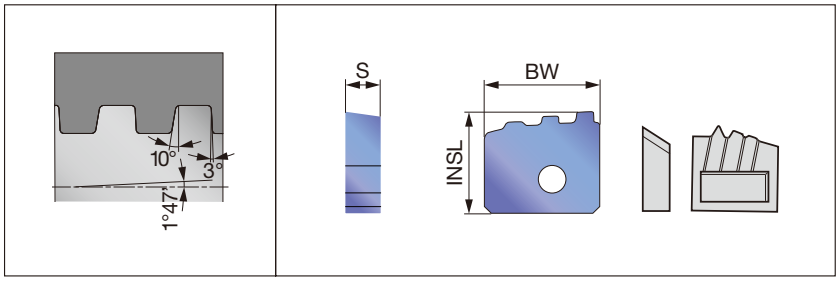
Full-profile insert

Insert size	Pitch (Reference) (mm)	TPI	Hand of cut	Internal insert (mm)					
				Designation	Grade / Coated T05HP	BW	INSL	PDX	S
22	(5.08)	5	R	**CR-5B75-2I-W24**	●	24	12	15.85	6.4

Note: Toolholders need to be customized for these types of inserts.

● : Line up / 10 pieces per package

API Buttress (for Energy industry) For tool-rotating machines



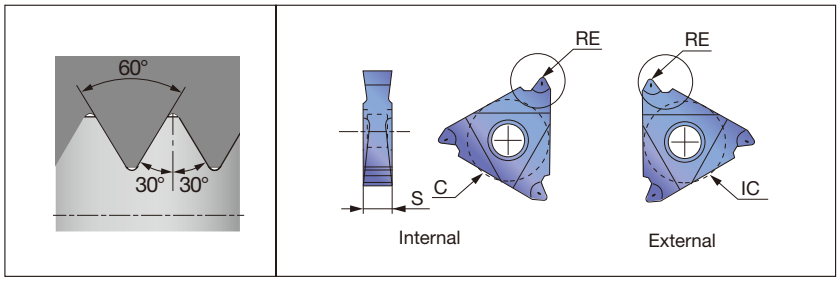
Full-profile insert (chaser)

Pitch (Reference) (mm)	TPI	Taper		External insert (mm)						
		mm/mm	TPF	Designation	Grade / Coated AH725	BW	INSL	S	RE	Chip breaking attachment
(5.08)	5	1/16	0.75	**CR-5B75-3E#1**	●	17	14.6	5.2		TD46015B75-1-CBW/CAVITY
(5.08)	5	1/16	0.75	**CR-5B75-3E#2**	●	17	14.8	5.2		TD46025B75-2-CBW/CAVITY
(5.08)	5	1/16	0.75	**CR-5B75-3E#3**	●	17	15	5.2		TD46035B75-3-CBW/CAVITY

Note: Toolholders need to be customized for these types of inserts.

● : Line up / 10 pieces per package

API Rotary shoulder connection (for Energy industry)



Applicable toolholder

External	Internal
MTVNR-3232M54	HS**-LNFR-54API

Full-profile insert (Double side)

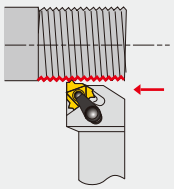
Pitch (Reference) (in)	TPI	Connection	Taper		Designation	Grade	IC (in)	S (in)	RE (in)
			mm/mm	TPF		Coated AH725			
(0.250)	4	V-0.038R	1/6	2	**LDS54428FT-CB#1**	●	0.625	0.252	0.038
(0.250)	4	V-0.038R	1/4	3	**LDS54438FT-CB#2**	●	0.625	0.252	0.038
(0.250)	4	V-0.050	1/6	2	**LDS54425FT-CB#3**	●	0.625	0.252	0.025
(0.250)	4	V-0.050	1/4	3	**LDS54435FT-CB#4**	●	0.625	0.252	0.025
(0.200)	5	V-0.040	1/4	3	**LDS54530FT-CB#5**	●	0.625	0.252	0.020

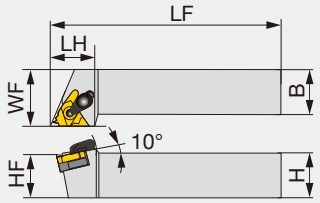
● : Line up / 10 pieces per package

Reference pages: External toolholders → E051, Inernal toolholders → E066

CER/L

External threading toolholder, alternative clamping of screw-on or clamp-on only for DT type





Right hand (R) shown.

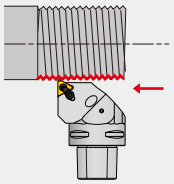
Inch	H	B	LF	LH	HF	WF	Insert
CER/L123DT	0.750	0.750	5.000	0.870	0.750	1.000	16ER/L...
CER/L163DT	1.000	1.000	6.000	1.000	1.000	1.250	16ER/L...
CER203DT	1.250	1.250	6.000	1.250	1.250	1.500	16ER...
CER164DT	1.000	1.000	6.000	1.000	1.000	1.250	22ER...
CER204DT	1.250	1.250	6.000	1.250	1.250	1.500	22ER...

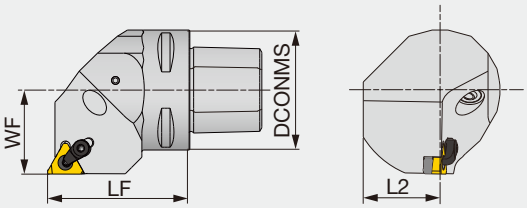
Metric	H	B	LF	LH	HF	WF	Insert
CER/L1212H16DT	12	12	100	24	12	16	16ER/L...
CER/L1616H16DT	16	16	100	24	16	20	16ER/L...
CER/L2020K16DT	20	20	125	24	20	25	16ER/L...
CER/L2525M16DT	25	25	150	28	25	32	16ER/L...
CER/L2525M22DT	25	25	150	31.3	25	32	22ER/L...
CER3232P16T	32	32	170	32	32	40	16ER...
CER3232P22T	32	32	170	32	32	40	22ER...
CER2525M27T	25	25	150	34	25	32	27ER...
CER3232P27T	32	32	170	34	32	40	27ER...

Note: A clamp set consists of a clamp and a clamping screw. A shim set consists of a shim and a shim screw to secure the shim to the shank.
Standard shims can be used on both right- and left-hand toolholders. Please use either of the sides depending on the tool hand.
When using DT type, please remove either the clamp set or the insert clamping screw.

C-CER/L

External threading toolholder, alternative clamping of screw-on or clamp-on





Right hand (R) shown.

Metric	DCONMS	LF	L2	WF	Insert
C3CER/L22040-16ERN(2)	32	40	20	22	16ER/L...
C4CER/L27050-16ERN(2)	40	50	25	27	16ER/L...
C5CER/L35060-16ER(1)	50	60	32	35	16ER/L...
C5CER/L35060-16ERN(2)	50	60	32	35	16ER/L...
C6CER/L45065-16ER(1)	63	65	41	45	16ER/L...
C6CER/L45065-16ERN(2)	63	65	41	45	16ER/L...

(1) Applicable for 3 MPa coolant (2) Applicable for 7 MPa coolant

Reference pages: Inserts → E010 - E011, E015, E017 - E030, E032

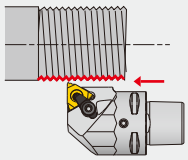
SPARE PARTS

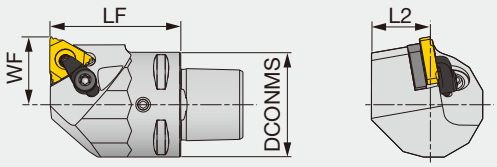
Designation	Clamp set	Clamping screw	Coolant parts	Shim screw	Shim	Shim set	Wrench 1	Wrench 2	Wrench 3
CER/L123-DT, CER/L163-DT	CSP16	CSTB-3.5ST	DTS5 - 3.5	A16 - 1DT	-	P-3.5	T-15F	-	-
CER203-DT	CSP22	CSTB-4ST	DTS6-4	GX22-1DT	-	P-3.5	T-15F	-	-
CER164-DT, CER204-DT	CSP22	CSTB-4ST	DTS6-4	GX22-1DT	-	P-4	T-20F	-	-
CER/L**16DT	CSP16	CSTB-3.5ST	-	DTS5-3.5	A16-1DT	-	P-3.5	T-15F	-
CER/L2525M22DT	CSP22	CSTB-4ST	-	DTS6-4	GX22-1DT	-	P-4	T-15F	T-20F
CER3232P16T	CSP16	-	-	-	-	A16-1	-	T-15F	-
CER3232P22T	CSP22	-	-	-	-	NXE22-1	-	T-20F	-
CER**27T	CSP27	-	-	-	-	NXE27-1	P-4	-	-
C3CE*22040-16ERN, C4CE*27050-16ERN	CSP16	CSTB-3.5ST	SATZ-M8X1-M3	DTS5-3.5	A16-1DT	-	P-3.5	T-15F	-
C5CE*35060-16ER, C6CE*45065-16ER	CSP16	CSTB-3.5ST	EZ104	DTS5-3.5	A16-1DT	-	P-3.5	T-15F	-
C5CE*35060-16ERN, C6CE*45065-16ERN	CSP16	CSTB-3.5ST	SATZ-M10X1-M5	DTS5-3.5	A16-1DT	-	P-3.5	T-15F	-

TUNGCAP

C-CEL-ERN-B

External threading toolholder, alternative clamping of screw-on or clamp-on





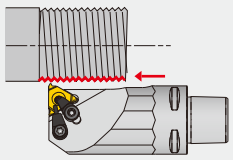
Metric	DCONMS	LF	L2	WF	Insert
C3CEL22040-16ERN-B	32	40	18	22	16ER...

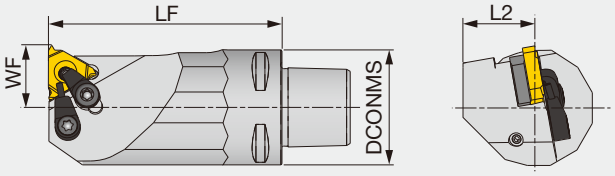
Applicable for 7 MPa coolant
Cannot be used for boring

C-CEL-ERB-CHP

Tube connection

External threading toolholder, alternative clamping of screw-on or clamp-on, with high pressure coolant capability





Metric	DCONMS	LF	L2	WF	Insert
C3CEL18065-16ERB-CHP	32	65	20	18	16ER...

Applicable for 14 MPa coolant
Cannot be used for boring

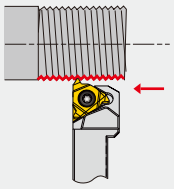
SPARE PARTS

Designation	Shim	Shim screw	Clamping screw	Clamping screw	Wrench 1	Wrench 2	Coolant parts	Coolant unit
C3CEL22040-16ERN-B	A16-1DT	DTS5-3.5	CSTB-3.5ST	CSP16	T-15F	P-3.5	SATZ-M8X1-M3	-
C3CEL18065-16ERB-CHP	A16-1DT	DTS5-3.5	CSTB-3.5ST	CSP16	T-15F	P-3.5	-	S-CU-CHP

Reference pages: Inserts → E010 - E011, E015, E017 - E030

JSE2R16-CHP

Screw-on external threading toolholders-High-pressure coolant capability with tube and direct connection



Tube connection

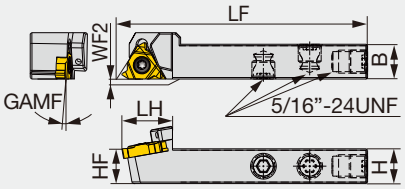


Fig. 1

Direct connection

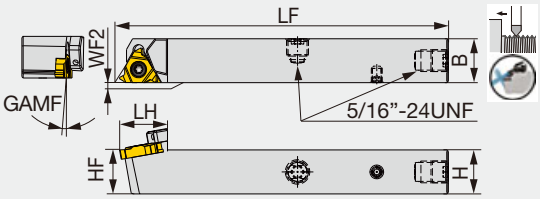


Fig. 2

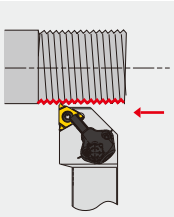
Inch	H	B	LF	LH	HF	WF	GAMF	Type	Insert
JSE2R08F16-CHP	0.500	0.500	3.344	0.748	0.500	0.000	1°	1	16ER...
JSE2R08X16-CHP	0.500	0.500	4.750	0.748	0.500	0.000	1°	2	16ER...
JSE2R10X16-CHP	0.625	0.625	4.750	0.748	0.625	0.000	1°	2	16ER...

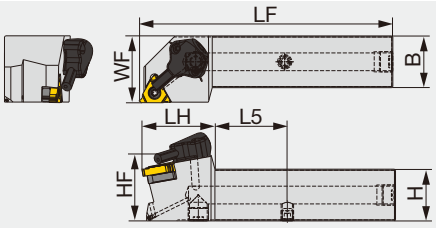
Metric	H	B	LF	LH	HF	WF2	GAMF	Fig.	Insert
JSE2R1212F16-CHP	12	12	85	19	12	0	1°	1	16ER...
JSE2R1212X16-CHP	12	12	120	19	12	0	1°	2	16ER...
JSE2R1616X16-CHP	16	16	120	19	16	0	1°	2	16ER...

SER-X-CHP-MC

Direct connection

Screw-on external threading toolholders-High-pressure coolant capability with tube and direct connection





Metric	H	B	LF	LH	HF	WF	L5	Insert
SER2020X16-CHP-MC	20	20	107	36	20	25	27.9	16ER...
SER2525X16-CHP-MC	25	25	122	36	25	32	33.75	16ER...
SER2525X22-CHP-MC	25	25	122	36	25	32	33.75	22ER...

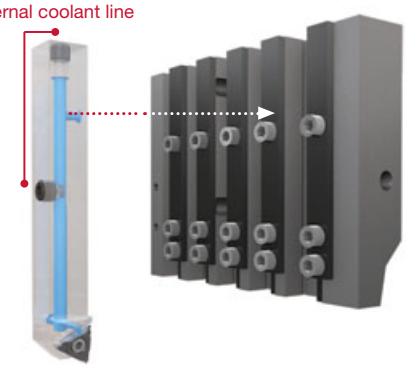
SPARE PARTS

Designation	Clamping screw	Wrench	Shim screw	Shim	Coolant unit	Coolant plug	Wrench
JSE2R**16-CHP	CSTB-3.5	T-15F	-	-	-	SR5/16UNFTL360	P-4
SER**X16-CHP-MC	CSTB-3.5ST	T-15F	DTS5-3.5	A16-1DT	CU-V-CHP	PLUGG1/8-6.5TL360	P-3.5
SER**X22-CHP-MC	CSTB-4ST	T-15F	DTS6-4	GX22-1DT	CU-CW-CHP	PLUGG1/8-6.5TL360	P-4

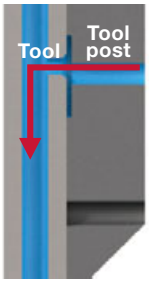
No need for coolant tube setup.
Eliminates chip entanglement on tubes and streamlines tool replacement.

Coolant is supplied from the tool post directly to the tools

Internal thread
Optional connection with external coolant line



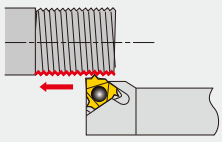
Detailed view of the coolant flow after connection

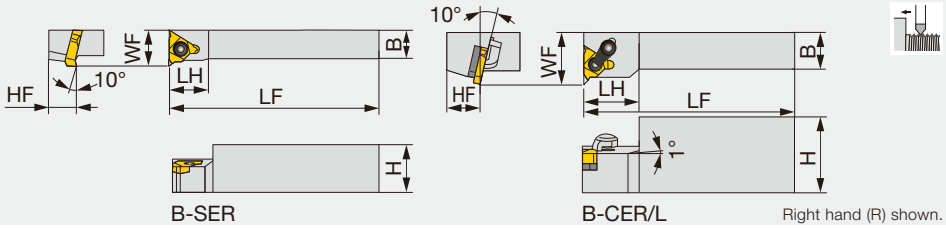


Reference pages: Inserts → E010 - E011, E015, E017 - E030, E032

B-S/CER/L

External threading toolholder for Swiss lathes

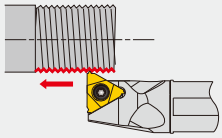


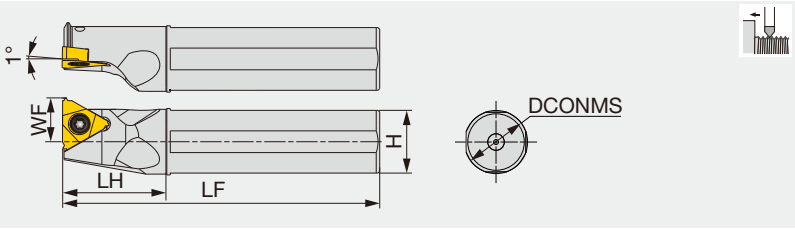


Metric	H	B	LF	LH	HF	WF	Insert
B-SER10H16	20	10	100	15	10	16	16ER...
B-SER12K16	24	12	125	18	12	18	16ER...
B-CER/L16M16	32	16	150	24	16	22	16ER/L...

JS-SEL16

External threading toolholder for Swiss lathes





Metric	DCONMS	H	LF	LH	WF	Insert
JS16F-SEL16	16	15	85	25	11	16ER...
JS19G-SEL16	19.05	18	90	30	12.5	16ER...
JS19X-SEL16	19.05	18	120	30	12.5	16ER...
JS20G-SEL16	20	19	90	30	13	16ER...
JS20X-SEL16	20	19	120	30	13	16ER...
JS25H-SEL16	25	24	100	30	15.5	16ER...
JS254X-SEL16	25.4	24	120	30	15.7	16ER...

Note: Use the right-hand insert (16ER...) for a left-hand holder (JS***-SEL...).

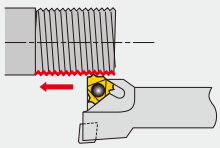
SPARE PARTS

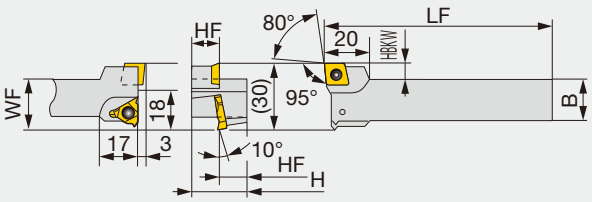
Designation	Clamp set	Shim set	Clamping screw	Wrench
B-SER**16	-	-	CSTB-3.5	T-15F
B-CER/L16M16	CSP16	A16-1	-	T-15F
JS***-SEL16	-	-	CSTB-3.5	T-15F

Reference pages: Inserts → E010 - E011, E015, E017 - E030

BC-SER

External threading toolholder for multi-functional Swiss lathes

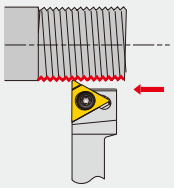


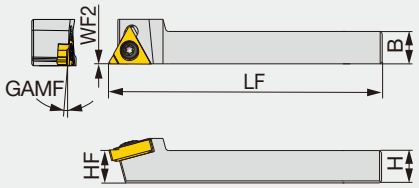


Metric	H	B	LF	HF	WF	HBKW	Insert
BC-SER12K16	24	16	125	12	23	7	16ER..., CC*T09T3...

SER

Screw-on external threading toolholders





Metric	H	B	LF	HF	WF2	GAMF	Insert
SER0808H11	8	8	100	8	0	1.5°	11ER...
SER1010H11	10	10	100	10	0	1.5°	11ER...

SPARE PARTS



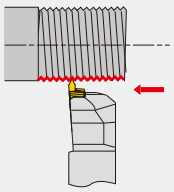


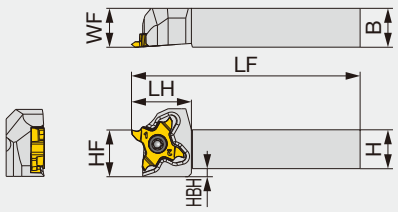
Designation	Clamping screw	Wrench
BC-SER12K16	CSTB-3.5	T-15F
SER**H11	SR M2.6-L6.7-S11	T-8/5

Reference pages: Inserts → E010 - E011, E015, E017 - E030

STCR/L-18

External grooving and threading toolholder





Right hand (R) shown.

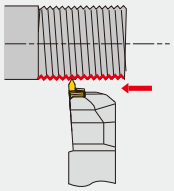
Inch	H	B	LF	LH	HF	WF	HBH	Insert	Torque
STCR/L06-18	0.375	0.375	4.750	0.730	0.375	0.375	0.177	TC*18...	0.89
STCR/L08-18	0.500	0.500	4.750	0.730	0.500	0.500	0.098	TC*18...	0.89
STCR/L10-18	0.625	0.625	4.750	0.730	0.625	0.625	-	TC*18...	0.89
STCR/L12-18	0.750	0.750	4.750	0.900	0.750	1.000	-	TC*18...	0.89
STCR/L16-18	1.000	1.000	5.500	0.900	1.000	1.250	-	TC*18...	0.89

Metric	H	B	LF	LH	HF	WF	HBH	Insert	Torque*
STCR/L1010X18	10	10	120	18.5	10	10	4.5	TCT18...	1.2
STCR/L1212F18	12	12	85	18.5	12	12	2.5	TCT18...	1.2
STCR/L1212X18	12	12	120	18.5	12	12	2.5	TCT18...	1.2
STCR/L1616X18	16	16	120	18.5	16	16	-	TCT18...	1.2
STCR/L2020H18	20	20	100	18.5	20	20	-	TCT18...	1.2
STCR/L2020X18	20	20	120	23	20	25	-	TCT18...	1.2
STCR/L2525Z18	25	25	135	23	25	30	-	TCT18...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
Note: Use the right-hand insert (TC*18R...) for a right-hand holder (STCR...); the left-hand insert (TC*18L...) for a left-hand holder (STCL...).

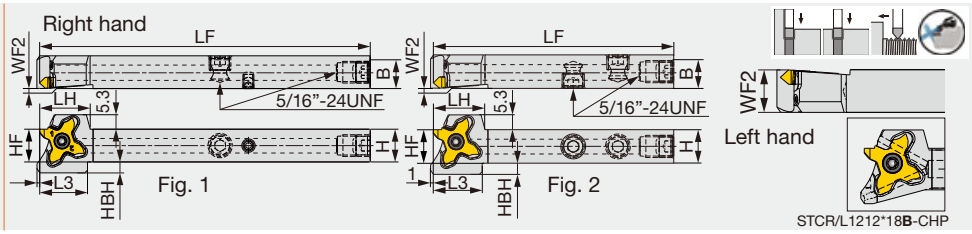
STCR/L-18-CHP

External grooving and threading toolholder, with high pressure coolant capability



Direct connection

Tube connection



Inch	H	B	LF	LH	*L3*	HF	WF2**	HBH	Fig.	Insert	Torque
STCR/L08F18-CHP	0.500	0.500	3.344	0.728	0.689	0.500	0/0.500	0.130	2	TC*18...	0.89
STCR/L08X18-CHP (1)	0.500	0.500	4.750	0.728	0.689	0.500	0/0.500	0.130	1	TC*18...	0.89
STCR/L10X18-CHP (1)	0.625	0.625	4.750	0.728	-	0.625	0/0.625	-	1	TC*18...	0.89
STCR/L12-18-CHP	0.750	0.750	4.750	0.900	-	0.750	-	-	2	TC*18...	0.89
STCR/L16-18-CHP	1.000	1.000	5.500	0.900	-	1.000	-	-	2	TC*18...	0.89

Metric	H	B	LF	LH	HBL	HF	WF2**	HBH	Fig.	Insert	Torque*
STCR/L1012H18-CHP(1)	10	12	100	17.1	10	17.1	0/12	4	1	TCT18...	1.2
STCR/L1212F18B-CHP	12	12	120	18.5	17.5	12	0/12	4	2	TCT18...	1.2
STCR/L1212X18B-CHP(1)	12	12	120	18.5	17.5	12	0/12	4	1	TCT18...	1.2
STCR/L1616X18-CHP(1)	16	16	120	18.5	-	16	0/16	-	1	TCT18...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
WF2** : The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
(1) Compatible to the direct internal coolant supply system without the use of external coolant hose.
Note: This toolholder can be used with threading and grooving inserts.
Use the right-hand insert (TC*18R...) for a right-hand holder (STCR...); the left-hand insert (TC*18L...) for a left-hand holder (STCL...).

SPARE PARTS





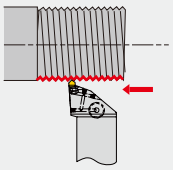
Designation	Clamping screw	Wrench
STCL..., STCL**18-CHP	CSTC-4L100DR	T-1008/5
STCR..., STCR**18-CHP	CSTC-4L100DL	T-1008/5

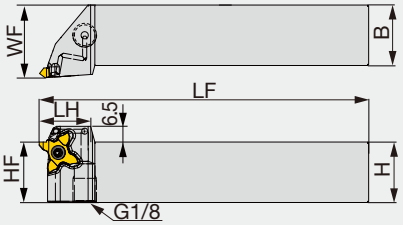
Reference pages: Inserts → E012

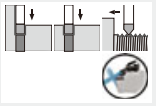
STCR/L-18-CHP

Tube connection

External theading with high pressure coolant capability







Right hand (R) shown.

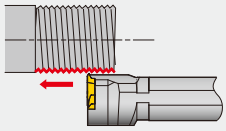
Inch	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque
STCR/L12-18-CHP	0.750	0.750	4.750	0.900	-	0.750	1.000	-	TC*18...	0.89
STCR/L16-18-CHP	1.000	1.000	5.500	0.900	-	1.000	1.250	-	TC*18...	0.89

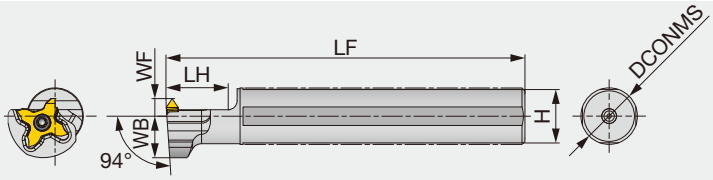
Metric	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque*
STCR/L2020X18-CHP	20	20	120	23	-	20	25	-	TC*18...	1.2
STCR/L2525Z18-CHP	25	25	135	23	-	25	30	-	TC*18...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
Note: Use the right-hand insert (TC*18R...) for a right-hand toolholders (STCR...); the left-hand insert (TC*18L...) for a left-hand holder (STCL...).

JS-STCL18

External grooving and threading toolholder with round shank







Metric	DCONMS	LF	LH	H	WB	WF	Insert	Torque*
JS14H-STCL18	14	100	20	13	14	6	TCT18R...	1.2
JS159F-STCL18	15.875	85	20	15	14	6	TCT18R...	1.2
JS16F-STCL18	16	85	20	15	14	6	TCT18R...	1.2
JS19G-STCL18	19.05	90	20	18	14	6	TCT18R...	1.2
JS19X-STCL18	19.05	120	20	18	14	6	TCT18R...	1.2
JS20G-STCL18	20	90	20	19	14	6	TCT18R...	1.2
JS20X-STCL18	20	120	20	19	14	6	TCT18R...	1.2
JS22X-STCL18	22	120	20	21	12.25	10	TCT18R...	1.2
JS25H-STCL18	25	100	20	24	12.25	10	TCT18R...	1.2
JS254X-STCL18	25.4	120	20	24	12.25	10	TCT18R...	1.2

Torque* : Recommended clamping torque (N·m)
Note: Use the right-hand insert (TC*18R...) for a left-hand holder (STCL...).

SPARE PARTS



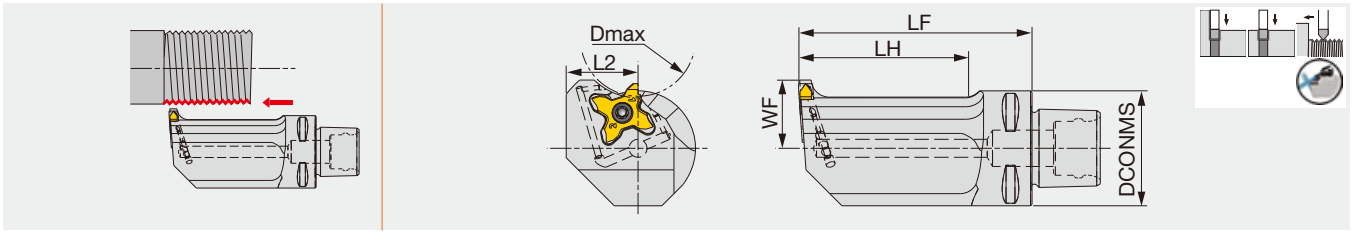


Designation	Clamping screw	Wrench
STCL**18-CHP	CSTC-4L100DR	T-1008/5
STCR**18-CHP, JS**STCL18	CSTC-4L100DL	T-1008/5

Reference pages: Inserts → E012

C-STCFL-18-CHP

External grooving and threading toolholder, with high pressure coolant capability

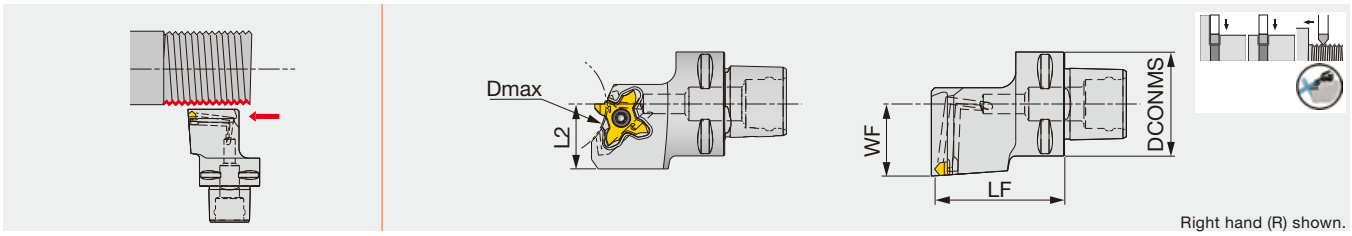


Metric	DCONMS	LF	LH	L2	WF	Dmax	Insert	Torque*
C3STCFL18040-18-CHP	32	40	21.5	20	18	32	TC*18R...	1.2
C3STCFL18065-18-CHP	32	65	46.5	20	18	32	TC*18R...	1.2

Torque* : Recommended clamping torque (N·m)
Applicable for 14 MPa coolant
Note: Use the right-hand insert (TC*18R...) for a left-hand holder (STCFL...).

C-STCR/L-18-CHP

External grooving and threading toolholder, with high pressure coolant capability



Right hand (R) shown.

Metric	DCONMS	LF	L2	WF	Dmax	Insert	Torque*
C3STCR/L22040-18-CHP	32	40	20	22	32	TC*18...	1.2
C4STCR/L27050-18-CHP	40	50	25	27	75 (1)	TC*18...	1.2

Torque* : Recommended clamping torque (N·m)
Applicable for 14 MPa coolant
(1) The value for 3.5 mm groove depth. Dmax varies according to the grooving depth required. For further information, see Tungaloy Report #416 TetraMini-Cut/TetraForce-Cut.
Note: Use the right-hand insert (TC*18R...) for a right-hand holder (STCR...); the left-hand insert (TC*18L...) for a left-hand holder (STCL...).

SPARE PARTS

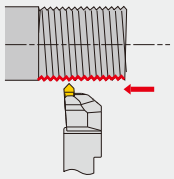



Designation	Clamping screw	Wrench
C*STCL**-18-CHP	CSTC-4L100DR	T-1008/5
C3STCFL**-18-CHP, C*STCR**-18-CHP	CSTC-4L100DL	T-1008/5

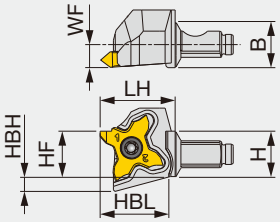
Reference pages: Inserts → E012

QC12-STCR/L

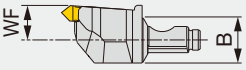
External grooving and threading head

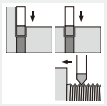


Right hand



Left hand



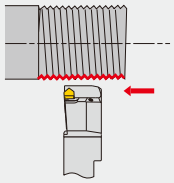


Metric	H	B	LH	HF	HBH	HBL	WF	Insert	Torque*
QC12-STCR18	12 (0.472")	12 (0.472")	19.5 (0.768")	12 (0.472")	3.9 (0.154")	17.9 (0.705")	6 (0.236")	TC*18R...	1.2 (0.89)
QC12-STCL18	12 (0.472")	12 (0.472")	21 (0.827")	12 (0.472")	3.9 (0.154")	18.3 (0.720")	9 (0.354")	TC*18L...	1.2 (0.89)

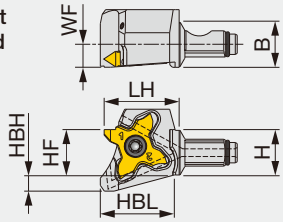
Torque* : Recommended clamping torque: N·m (lbs·ft)
Note: Use the right-hand insert (TC*18R...) for a right-hand holder (QC12-STCR...); the left-hand insert (TC*18L...) for a left-hand holder (QC12-STCL...).

QC12-STCR/L-CHP

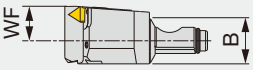
External grooving and threading head, with high pressure coolant capability

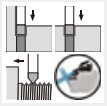


Right hand



Left hand





Metric	H	B	LH	HF	HBH	HBL	WF	Insert	Torque*
QC12-STCR18-CHP	12 (0.472")	12 (0.472")	19.5 (0.768")	12 (0.472")	4.2 (0.165")	19.3 (0.760")	6 (0.236")	TC*18R...	1.2 (0.89)
QC12-STCL18-CHP	12 (0.472")	12 (0.472")	21 (0.827")	12 (0.472")	4.2 (0.165")	19.3 (0.760")	9 (0.354")	TC*18L...	1.2 (0.89)

Torque* : Recommended clamping torque: N·m (lbs·ft)
Through-coolant head
Note: Use the right-hand insert (TC*18R...) for a right-hand holder (QC12-STCR...); the left-hand insert (TC*18L...) for a left-hand holder (QC12-STCL...).

SPARE PARTS



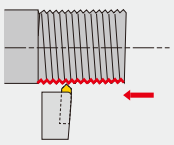


Designation	Clamping screw	Wrench	O-ring
QC12-STCR18	CSTC-4L100DL	T-1008/5	-
QC12-STCL18	CSTC-4L100DR	T-1008/5	-
QC12-STCR18-CHP	CSTC-4L100DL	T-1008/5	ORSS-0454.5X1.0NBR70
QC12-STCL18-CHP	CSTC-4L100DR	T-1008/5	ORSS-0454.5X1.0NBR70

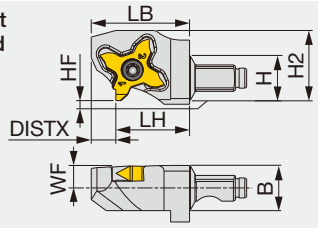
Reference pages: Inserts → E012

QC12-STCR/L-Y

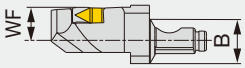
Y-axis turning modular head for external grooving and threading



Right hand



Left hand



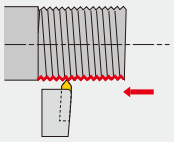


Metric	H	B	LH	HF	WF**	LB	H2	DISTX	Insert	Torque*
QC12-STCR/L18-Y	12 (0.472")	12 (0.472")	19.5 (0.768")	0 (0")	6/9 (0.236" / 0.354")	26 (1.024")	18.6 (0.732")	6.5 (0.256")	TC*18...	1.2 (0.89)

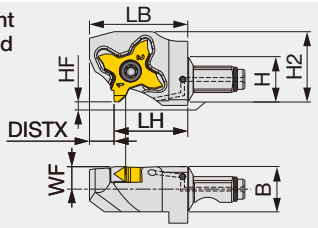
Torque* : Recommended clamping torque: N·m (lbs·ft)
WF** : The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.
Note: Use the right-hand insert (TC*18R...) for a right-hand holder (QC12-STCR...); the left-hand insert (TC*18L...) for a left-hand holder (QC12-STCL...).

QC12-STCR/L-Y-CHP

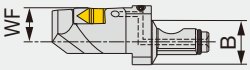
Y-axis turning modular head for external grooving and threading, with high pressure coolant capability

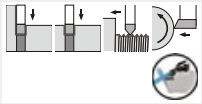


Right hand



Left hand





Metric	H	B	LH	HF	WF**	LB	H2	DISTX	Insert	Torque*
QC12-STCR/L18-Y-CHP	12 (0.472")	12 (0.472")	19.5 (0.768")	0 (0")	6 (0.236")	26 (1.024")	18.6 (0.732")	6.5 (0.256")	TC*18...	1.2 (0.89)

Torque* : Recommended clamping torque: N·m (lbs·ft)
WF** : The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.
Through-coolant head
Note: Use the right-hand insert (TC*18R...) for a right-hand holder (QC12-STCR...); the left-hand insert (TC*18L...) for a left-hand holder (QC12-STCL...).

SPARE PARTS



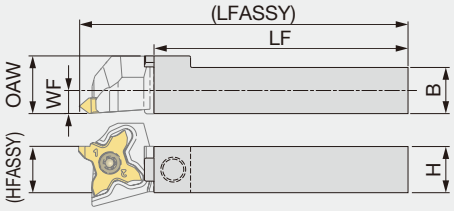


Designation	Clamping screw	Wrench	O-ring
QC12-STCR18-Y	CSTC-4L100DL	T-1008/5	-
QC12-STCL18-Y	CSTC-4L100DR	T-1008/5	-
QC12-STCR18-Y-CHP	CSTC-4L100DL	T-1008/5	ORSS-0454.5X1.0NBR70
QC12-STCL18-Y-CHP	CSTC-4L100DR	T-1008/5	ORSS-0454.5X1.0NBR70

Reference pages: Inserts → E012

QC-1212

Shank for modular heads



Inch	H	B	WF	LF	OAW	HFASSY	LFASSY(1)	Torque
QC-08F	0.500	0.500	0.236	2.559	0.591	0.500	3.346	2.21
QC-08X	0.500	0.500	0.236	3.937	0.591	0.500	4.724	2.21

Metric	H	B	WF	LF	OAW	HFASSY	LFASSY(1)	Torque*
QC-1212F	12	12	6	65	15	12	85	3
QC-1212X	12	12	6	100	15	12	120	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) The size is true when the modular head with LH = 19.5 mm is mounted.

QC-1212-CHP

Shank for modular heads, with high pressure coolant capability

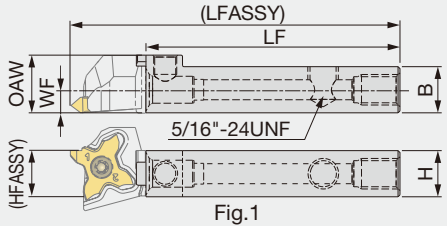


Fig.1

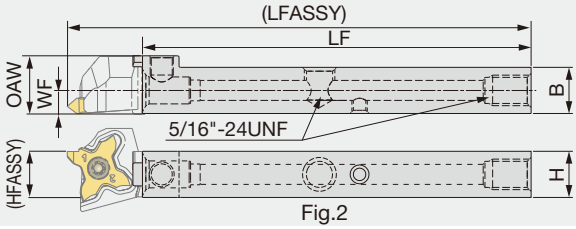


Fig.2

Inch	H	B	LF	WF	OAW	HFASSY	LFASSY(1)	Torque	Fig.
QC-08F-CHP	0.500	0.500	2.559	0.236	0.591	0.500	3.346	2.21	1
QC-06H-CHP (*)	0.375	0.500	3.268	0.197	0.512	0.375	3.937	1.84	2
QC-08X-CHP (*)	0.500	0.500	3.937	0.236	0.591	0.500	4.724	2.21	2
QC-10X-CHP (*)	0.625	0.625	3.897	0.315	0.787	0.625	4.724	6.27	2

Metric	H	B	LF	WF	OAW	HFASSY	LFASSY(1)	Torque*	Fig.
QC-1212F-CHP	12	12	65	6	15	12	85	3	1
QC-1212X-CHP (*)	12	12	100	6	15	12	120	3	2

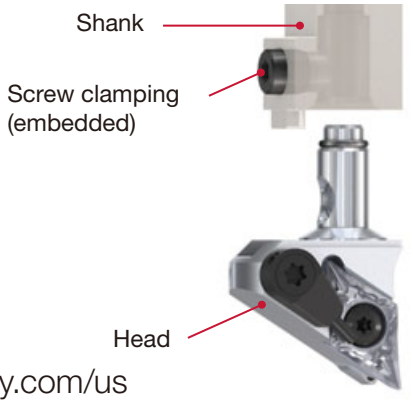
Torque: Recommended clamping torque: lbs·ft (*N·m)
Through-coolant shank
(*) : Compatible to the direct internal coolant supply system without the use of external coolant hose.
(1) The size is true when the modular head with LH = 19.5 mm is mounted.

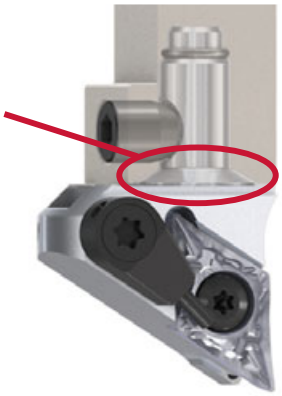
SPARE PARTS

Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
QC-08F/X, QC-1212*	SRM6X0.5-26977	P-3	-	-	-	-
QC-06H-CHP	SRM5X0.5	P-2.5	SR 5/16UNF TL360	P-4	SSHM4-4-TB	P-2
QC-08F-CHP, QC-1212F-CHP	SRM6X0.5-26977	P-3	SR5/16UNFTL360	P-4	-	-
QC-08X-CHP, QC-1212X-CHP	SRM6X0.5-26977	P-3	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
QC-10X-CHP	SRM8X0.5	P-5	SR 5/16UNF TL360	P-4	SSHM4-6-TB	P-2

Unique coupling design

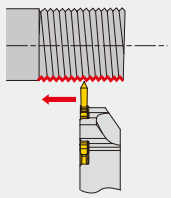
Simply loosen the clamping screw for easy tool exchanges.
Unique coupling design allows extremely high repeatability.





JSXXR/L

Threading and parting toolholder, for Swiss lathes



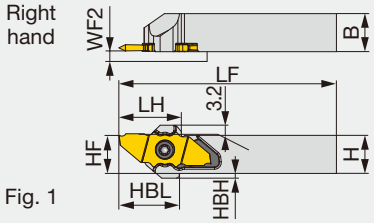


Fig. 1

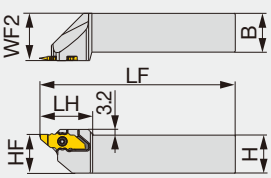
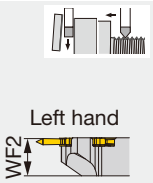


Fig. 2



Right hand (R) shown.

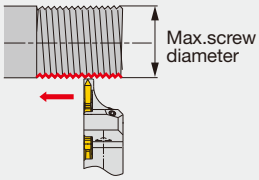
Inch	H	B	LF*	LH	HF	WF2(1)	HBL	HBH	Insert	Torque	Fig.
JSXXR/L063	0.375	0.375	4.646	0.774	0.375	0.008 / 0.386	0.748	0.12	JX...	0.89	1
JSXXR/L083	0.500	0.500	3.268	0.774	0.500	0.008 / 0.386	0.748	0.06	JX...	0.89	1
JSXXR/L103	0.625	0.625	4.646	0.774	0.625	0.008 / 0.386	-	0.06	JX...	0.89	1
JSXXR/L123	0.750	0.750	3.950	0.886	0.750	0.008 / 0.742	-	-	JX...	0.89	1
JSXXR/L163	1.000	1.000	5.350	1.339	1.000	1.250 / 1.250	-	-	JX...	0.89	2

Metric	H	B	LF	LH	HF	WF2(1)	HBL	HBH	Insert	Torque*	Fig.
JSXXR/L1010X09	10	10	118	17.65	10	0.2/9.8	17	3	JX**12...	1.2	1
JSXXR/L1212F09	12	12	83	17.65	12	0.2/11.8	17	1.5	JX**12...	1.2	1
JSXXR/L1212X09	12	12	118	17.65	12	0.2/11.8	17	1.5	JX**12...	1.2	1
JSXXR/L1616X09	16	16	118	17.65	16	0.2/15.8	-	-	JX**12...	1.2	1
JSXXR/L2020H09	20	20	98	20.5	20	0.2/19.8	-	-	JX**12...	1.2	1
JSXXR/L2525Z09	25	25	133	32	25	30	-	-	JX**12...	1.2	2

Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

JSXXR/L-F/H/X-CHP

Parting and threading toolholder, with high pressure coolant capability



Direct connection

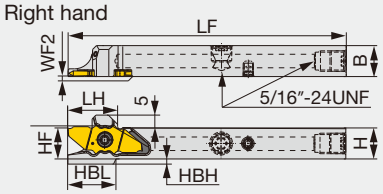


Fig. 1

Tube connection

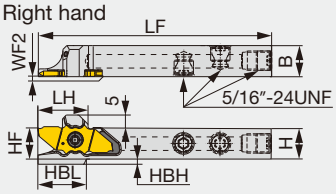
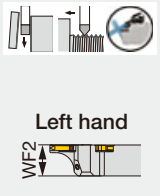


Fig. 2



Inch	H	B	LF	LH	HF	WF2(1)	HBL	HBH	Insert	Torque	Fig.
JSXXR/L083X-CHP	0.500	0.500	4.750	≤ 0.764	0.500	0.008/0.492	0.736	0.051	JX**06...,12...,16...	0.89	1
JSXXR/L103X-CHP	0.625	0.625	4.750	≤ 0.764	0.625	0.008/0.617	0.736	0	JX**06...,12...,16...	0.89	1
JSXXR/L083F-CHP	0.500	0.500	3.344	≤ 0.764	0.5	0.008/0.492	0.736	0.051	JX*G06...,12...,16..., 20...	0.89	1

Metric	H	B	LF	LH	HF	WF2(1)	HBL	HBH	Insert	Torque*	Fig.
JSXXR/L1012H09-CHP(2)	10	12	100	17.2	10	0.2/11.8	16.7	3	JX**12...	1.2	1
JSXXR/L1212F09-CHP	12	12	83	17.4	12	0.2/11.8	16.8	2	JX**12...	1.2	2
JSXXR/L1212X09-CHP(2)	12	12	118	17.4	12	0.2/11.8	16.8	2	JX**12...	1.2	1
JSXXR1616X09-CHP(2),(3)	16	16	118	17.4	16	0.2	16.7	2.5	JX**12...	1.2	1
JSXXR/L1616X09B-CHP(2)	16	16	118	17.4	16	0.2/15.8	16.7	-	JX**12...	1.2	1

Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
(2) Compatible to the direct internal coolant supply system without the use of external coolant hose.
(3) To be replaced with the new design
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

SPARE PARTS

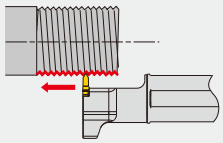
Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JSXXR...	CSTC-4L100DL	T-1008/5	-	-	-	-
JSXXL...	CSTC-4L100DR	T-1008/5	-	-	-	-
JSXXR**F...	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXL**F...	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXR**H/X...	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSXXL**H/X...	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

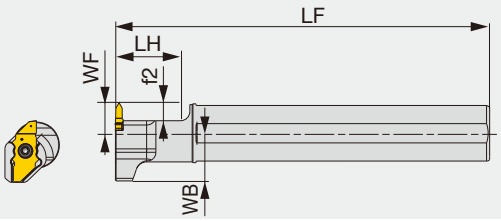
Reference pages: Inserts → E012

DUOJUST CUT

JS-SXXL09

External threading toolholder, for 2 corner inserts





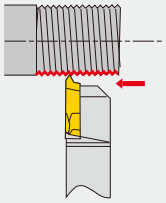
Metric	DCONMS	H	B	LF	LH	WB	WF	f2	Insert	Torque*
JS19G-SXXL09	19.05	18	18	90	21	15.43	8	4	JX**12...	1.2
JS19X-SXXL09	19.05	18	18	120	21	15.43	8	4	JX**12...	1.2
JS20G-SXXL09	20	19	19	90	21	15.4	8	4	JX**12...	1.2
JS20X-SXXL09	20	19	19	120	21	15.4	8	4	JX**12...	1.2
JS22X-SXXL09	22	21	21	120	21	15.4	8	4	JX**12...	1.2
JS25H-SXXL09	25	24	24	100	21	15.4	8	4	JX**12...	1.2
JS254X-SXXL09	25.4	24	24	120	21	15.4	8	4	JX**12...	1.2

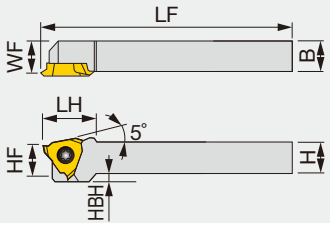
Torque* : Recommended clamping torque (N·m)

J-SERIES

JSTTR/L

External toolholder for Swiss lathes





Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	HBH	Insert
JSTTR/L063	0.375	0.375	5.000	0.6875	0.375	0.375	0.100	JTTR/L30...
JSTTR/L083	0.500	0.500	5.000	0.6875	0.500	0.500	-	JTTR/L30...
JSTTR/L103	0.625	0.625	5.000	0.6875	0.625	0.625	-	JTTR/L30...

Metric	H	B	LF	LH	HF	WF	HBH	Insert
JSTTR/L1010X3	10	10	120	18.5	10	9.5	2	JTTR/L30...
JSTTR/L1212F3	12	12	85	18.5	12	11.5	-	JTTR/L30...
JSTTR/L1212X3	12	12	120	18.5	12	11.5	-	JTTR/L30...
JSTTR/L1616X3	16	16	120	16.5	16	15.5	-	JTTR/L30...

Recommended clamping torque: 0.89 lbs·ft (1.2 N·m)

SPARE PARTS





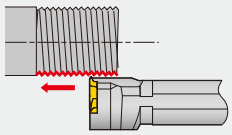


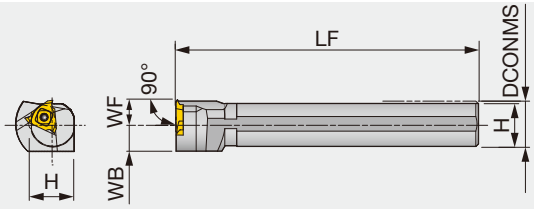
Designation	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Wrench 2 (Optional)
JSTTR/L...	-	CSTB-4SD	-	T-8F	(T-8L)
JS***-SXXL09	CSTC-4L055L	-	T-1008/5	-	-

Reference pages: DuoJust-Cut : Inserts → E012
J-Series : Inserts → E013

JS-TTL3

External toolholder for Swiss lathes



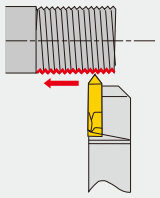


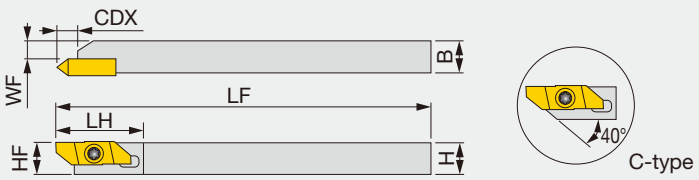
Metric	DCONMS	WF	LF	H	WB	Insert
JS19K-TTL3	19.05	10	125	18	11.5	JTTR30...
JS20K-TTL3	20	10	125	19	11.5	JTTR30...
JS22K-TTL3	22	10	125	21	11.5	JTTR30...
JS25K-TTL3	25.4	10	125	24	12.7	JTTR30...

Recommended clamping torque: 3.5 N·m

JSXBR

External threading toolholder for Swiss lathes





Metric	H	B	LF	LH	CDX	HF	WF	Insert
JSXBR1010K8-C	10	10	125	29	6.4	10	5.7	JXT*R...
JSXBR1212K8-C	12	12	125	29	6.4	12	7.7	JXT*R...
JSXBR1616K8	16	16	125	29	6.4	16	11.7	JXT*R...
JSXBR2020K8	20	20	125	29	6.4	20	15.7	JXT*R...
JSXBR2525K8	25	25	125	29	6.4	25	20.7	JXT*R...

Note: Can be wrenched also from the back with a double-head screw.
This toolholder can be used for JXB back-turning insert and JXT threading insert.

SPARE PARTS





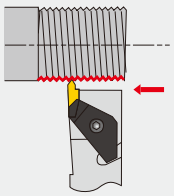
Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JS**-TTL3	CSTB-4S	T-15F	-
JSXBR...	CSTB-4SD	T-8F	(T-8L)

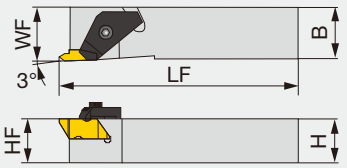
Reference pages: Inserts → E013, E016

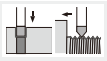
TUNGT-CLAMP

FLASR/L

External grooving and threading toolholder, for Swiss lathes







Right hand (R) shown.

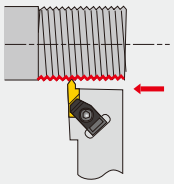
Inch	HF	H	B	LF	WF	Insert	Torque
FLASR/L-082B	0.500	0.500	0.500	6.000	0.500	FL*-3**R/L...	2.21
FLASR-102B	0.625	0.625	0.625	4.500	0.625	FL*-3**R...	2.21
FLASR/L-103B	0.625	0.625	0.625	4.500	0.625	FL*-3**R/L...	2.21

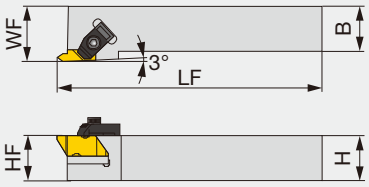
Metric	H	B	LF	HF	WF	Insert	Torque*
FLASR/L-1616M3	16	16	125	16	16	FLT-3...	3

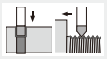
Torque* : Recommended clamping torque: lbs·ft (N·m)
Note: Use the right-hand insert (FLT-3R...) for a right-hand holder (FLASR...); the left-hand insert (FLT-3L...) for a left-hand holder (FLASL...).

FLSR/L

External grooving and threading toolholder







Right hand (R) shown.

Inch	H	B	LF	HF	WF	Insert	Torque
FLSR/L-122B	0.750	0.750	4.500	0.750	1.000	FL*-3**R/L...	2.21
FLSR/L-162C	1.000	1.000	5.000	1.000	1.250	FL*-3**R/L...	2.21
FLSR/L-123B	0.750	0.750	4.500	0.750	1.000	FL*-3**R/L...	2.21
FLSR/L-163C	1.000	1.000	5.000	1.000	1.250	FL*-3**R/L...	2.21
FLSR/L-164D	1.000	1.000	6.000	1.000	1.250	FL*-3**R/L...	2.21
FLSR/L-203D	1.250	1.250	6.000	1.250	1.500	FL*-4**R/L...	2.21
FLSR/L-204D	1.250	1.250	6.000	1.250	1.500	FL*-4**R/L...	2.21
FLSR/L-206D	1.250	1.250	6.000	1.250	1.500	FL*-4**R/L...	2.21
FLSR/L-82V	0.500	0.500	3.500	0.750	0.750	FL*-4**R/L...	2.21

Metric	H	B	LF	HF	WF	Insert	Torque*
FLSR/L-2020M3	20	20	125	20	32	FLT-3...	3
FLSR/L-2525M3	25	25	150	25	32	FLT-3...	3

Torque* : Recommended clamping torque: lbs·ft (N·m)
Note: Use the right-hand insert (FLT-3R...) for a right-hand holder (FLSR...); the left-hand insert (FLT-3L...) for a left-hand holder (FLSL...).

Inch SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
FLASR-102B, FLASR-103B	TF-184	S-412	5/32HEX
FLASL-103B	TF-185	S-412	5/32HEX
FLSR-122B, FLSR-162C, FLSR-82V	TF-74	S-310	7/64HEX
FLSL-122B, FLSL-162C, FLSL-82V	TF-75	S-310	7/64HEX
FLSR-123B, FLSR-163C, FLSR-164D, FLSR-204D	TF-72	S-412	5/32HEX
FLSL-123B, FLSL-163C, FLSR-203D	TF-73	S-412	5/32HEX

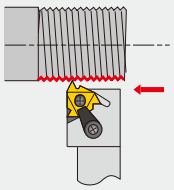
Metric SPARE PARTS

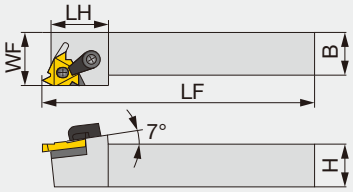
Designation	Clamp	Clamping screw	Wrench
FLASR-1616M3	TF-184	S-412	5/32HEX
FLASL-1616M3	TF-185	S-412	5/32HEX
FLSR-****M3	TF-72	S-412	5/32HEX
FLSL-****M3	TF-73	S-412	5/32HEX

Reference pages: Inserts → E014

MTVNR-5

External threading toolholder, for single-sided lay down inserts



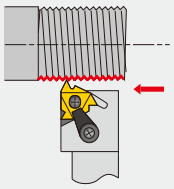


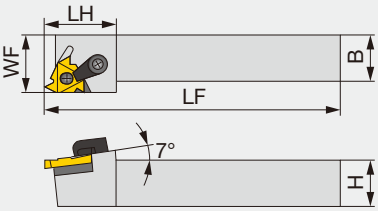
Inch	B	H	LF	LH	WF	Insert
MTVNR-2054	1.250	1.250	7.000	1.530	1.500	L535B**EXT-FC
MTVNR-2454	1.500	1.500	7.084	1.429	1.750	L535B**EXT-FC

Metric	H	B	LF	LH	WF	Insert
MTVNR-2525M5	25	25	152	39	31.8	L535B**EXT-FC
MTVNR-3232M5	32	32	178	39	38.1	L535B**EXT-FC

MTVNR-54

External threading toolholder, for double-sided lay down inserts





Metric	H	B	LF	LH	WF	Insert
MTVNR-3232M54	32	32	178	39	38.1	LDS54**FT-CB#...

SPARE PARTS

Designation	Shim	Lock pin	Clamp	Clamping screw	Wrench
MTVNR..., MTVNR-3232M54	LS53NOFORMEXT	NL-58	TC-250	STC-11	1/8HEX



External, right hand

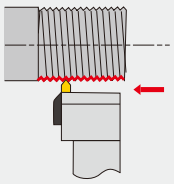
Both external and internal

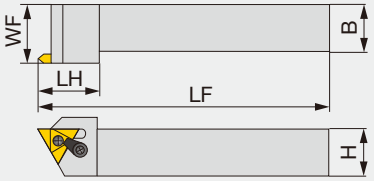
Internal, right hand

Reference pages: MTVNR-5 : Inserts → E032
MTVNR-54 : Inserts → E035

MTVOR

Multi-clamp external threading toolholder, for on edge inserts





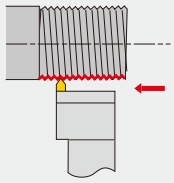
Inch	H	B	LF	LH	WF	Insert
MTVOR-164	1.000	1.000	6.000	1.230	1.250	TNM*43...
MTVOR-204	1.250	1.250	7.000	1.230	1.500	TNM*43...
MTVOR-205	1.250	1.250	7.000	1.430	1.500	TNM*54...
MTVOR-206	1.250	1.250	7.000	1.620	1.500	TNM*66...
MTVOR-2069	1.250	1.250	7.000	1.620	1.500	TNM*69...

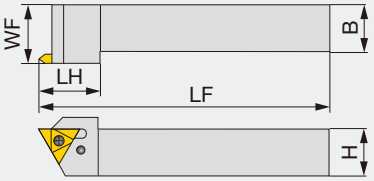
Metric	H	B	LF	LH	WF	Insert
MTVOR-2525M4	25	25	150	31	31.7	TNM*43...
MTVOR-3232M4	32	32	170	32	38.1	TNM*43...
MTVOR-2525M5	25	25	150	36	31.7	TNM*54...
MTVOR-3232M5	32	32	178	36	38.1	TNM*54...

Note: STVOR is recommended for TNMC insert although the insert can be used on multi-clamp (M type) toolholder.

STVOR

Screw-on external threading toolholder, for on edge inserts





Inch	H	B	LF	LH	WF	Insert
STVOR-165	1.000	1.000	6.000	1.430	1.250	TNMC54...
STVOR-206	1.250	1.250	7.000	1.620	1.500	TNMC66...

Metric	H	B	LF	LH	WF	Insert
STVOR-2525M4	25	25	150	31	31.7	TNMC43...
STVOR-3232M4	32	32	178	31	38.1	TNMC43...
STVOR-2525M5	25	25	150	36	31.7	TNMC54...
STVOR-3232M5	32	32	178	36	38.1	TNMC54...

SPARE PARTS





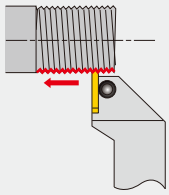


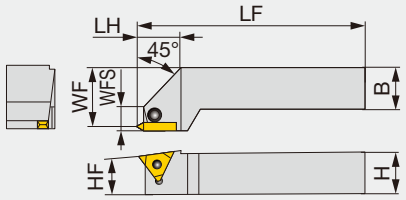

Designation	Clamping screw	Lock pin	Wrench 1	Wrench 2	Clamp (Optional)	Clamping screw (Optional)
MTVOR-164/204, MTVOR-**M4	-	NL-44	-	3/32HEX	TC-190	STC-5
MTVOR-205, MTVOR-**M5	-	NL-56	-	1/8HEX	TC-250	STC-11
STVOR-**M4	SD2	-	T-20TORX	3/32HEX	TC-190	STC-9
STVOR-165 STVOR-**M5	SD3	-	T-20TORX	1/8HEX	TC-250	STC-11
STVOR-206	SD4	-	-	1/8HEX, 5/32HEX	TC-310	STC-8

Reference pages: Inserts → E029 - E031, E033

TT-R/LE

TT-type pin-lock external threading toolholder



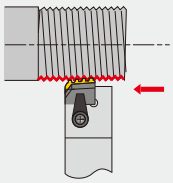


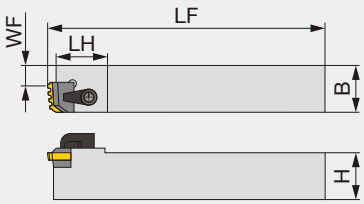
Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	WFS	Insert
TT-2525R/LE	25	25	150	25	25	32	15	TTR/L42...

CLVOR

External threading toolholder, for chaser inserts





Inch	WF	LF	LH	H	B	Insert
CLVOR-208	0.800	7.000	1.250	1.250	1.250	CR***

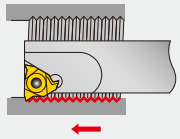
Metric	WF	LF	LH	H	B	Insert
CLVOR-25M6	16.1	177	32	25	25	CR...
CLVOR-32M6	16.1	177	32	32	32	CR...
CLVOR-40M8	21	170	38.1	40	40	CR-5B75-4E

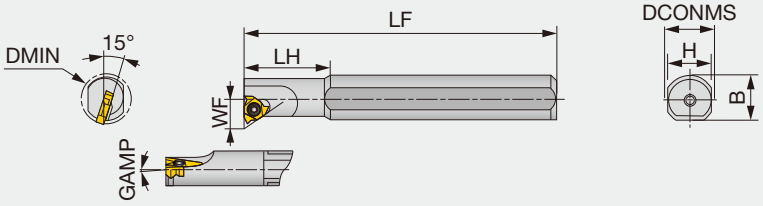
SPARE PARTS

Designation	Shim	Shim screw	Clamp 1	Clamp 2	Clamping screw	Wrench 1	Wrench 2
TT-2525R/LE	-	-	CP91	-	DS-6	-	P-3
CLVOR-25M6	TF1207	SF80	-	TC-311	STC-4	T-25TORX	5/32HEX
CLVOR-32M6	TF1207	SF85	-	TC-311	STC-4	T-25TORX	5/32HEX
CLVOR-208, CLVOR-40M8	TF8132-E	SF60	-	TC-311	STC-4	T-20TORX	5/32HEX

Reference pages: TT-R/LE : Inserts → E014, E016
CLVOR : Inserts → E026, E031 - E034

Internal threading bars, Screw-on clamp





Inch	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMP	Coolant hole	Insert
SIR0375K11	Steel	0.470	0.620	0.260	5.000	1.000	0.574	-	1.5°	Without	11IR...
SIR0375K11B	Steel	0.470	0.625	0.280	5.000	0.980	0.574	-	1.5°	With	11IR...
SIR0500M16B	Steel	0.640	0.625	0.390	6.000	1.260	0.472	-	1.5°	With	16IR...
SIR0625P16B	Steel	0.750	0.750	0.450	7.000	1.570	0.709	-	1.5°	With	16IR...
SIR0750P16	Steel	1.000	0.750	0.510	7.000	-	0.984	-	1.5°	Without	16IR...
SIR0750P16B	Steel	0.900	0.750	0.900	7.000	-	1.181	-	1.5°	With	16IR...
SIR0750P22	Steel	0.950	0.750	0.510	7.000	-	1.260	-	1.5°	Without	22IR...
SIR1000R16B	Steel	1.160	1.000	0.650	8.000	-	1.570	-	1.5°	With	16IR...
SIR1000R22	Steel	1.200	1.000	0.710	8.000	-	-	-	1.5°	Without	22IR...
SIR1250S16	Steel	1.420	1.250	0.770	10.00	-	-	-	1.5°	Without	16IR...
SIR1250S22	Steel	1.500	1.250	0.850	10.00	-	-	-	1.5°	Without	22IR...
SIR 1500 T27	Steel	1.800	1.500	1.000	12.00	-	-	-	1.5°	Without	27IR...

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMP	Coolant hole	Insert
SIR0005H06	STEEL	6.4	12	4.3	100	12	11	-	1.5°	Without	06IR...
SIR0007K08	STEEL	8	16	5.3	125	18	15	-	1.5°	Without	08IR...
SIR0005H06CB	CARBIDE	6.4	6	4.3	100	25	5	-	1.5°	With	06IR...
SIR0007K08CB	CARBIDE	7.8	8	5.3	125	30	7	-	1.5°	With	08IR...

Note: Use the right-hand insert (**IR...) for a right-hand holder (SIR...).
Recommend over 1 mm clearance between internal diameter of thread and each tools DMIN.

Applicable thread size

Description	ISO metric	Unified IRA60 Insert	Parallel pipe IRA55 Insert
SIR0005H06...	≥ M9	≥ 3/8-24 UNF	≥ G1/8
SIR0007K08...	≥ M11	≥ 7/16-20 UNF	≥ G1/4

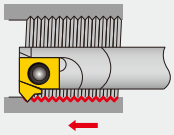
SPARE PARTS

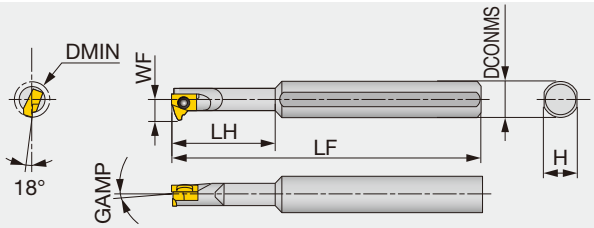
Designation	Clamping screw	Shim	Shim screw	Wrench	Seal cap
SIR0500M16B	SR5-40-L9.7-S16S	-	-	T-10/5	PL062
SIR0625P16B	SR 5-40-L9.7-S16S	-	-	T-10/5	PL 075
SIR0750P16	SR5-40-L12.2S16	AI16	SR5-40-L6.8-A16	T-10/5	-
SIR0750P16B	SR 5-40-L12.2-S16	AI16	SR 5-40-L6.8-A16	T-10/5	PL 075
SIR0750P22	SR8-32-L12-S22S	-	-	T-20/5	-
SIR1000R16B	SR 5-40-L12.2-S16	AI16	SR 5-40-L6.8-A16	T-10/5	PL 100
SIR1000R22	SR8-32-L15-S22	AI22	SR8-32-L5.8-A22	T-20/5	-
SIR1250S16	SR 5-40-L12.2-S16	AI16	SR 5-40-L6.8-A16, SR 8-32-L5.8-A22	T-10/5	-
SIR1250S22	SR8-32-L15-S22	AI22	SR8-32-L5.8-A22	T-20/5	-
SIR 1500 T27	SRM5-L22-S40	AI27	SRM5-L5.8-A27	T-25/3	-
SIR0005H06...	SR 14-552	-	-	T-6F-S	-
SIR0007K08...	SR 14-558	-	-	T-6F-S	-

Reference pages: SIR : Inserts → E010, E015, E017

SNR-2/3

Screw-on internal threading toolholder





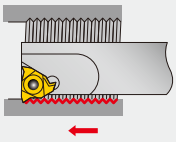
Carbide shank

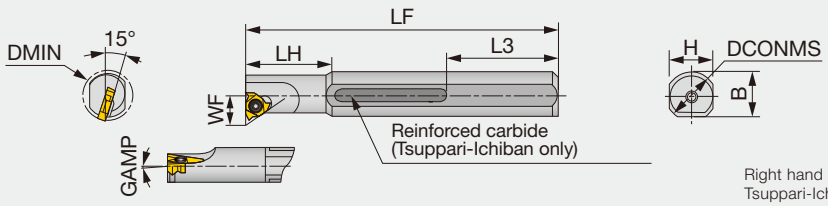
Metric	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	Insert
SNR0006H06-2	Steel	8	8	4.7	100	18	7	2°	6IR...
SNR0006H06-3	Steel	8	8	4.7	100	18	7	3°	6IR...
SNR0008H06-2	Steel	10	8	5.7	100	18	7	2°	6IR...
SNR0008H06-3	Steel	10	8	5.7	100	18	7	3°	6IR...
SNR0006K06SC-2	Carbide	8	8	4.7	125	30	7	2°	6IR...
SNR0006K06SC-3	Carbide	8	8	4.7	125	30	7	3°	6IR...
SNR0008K06SC-2	Carbide	10	8	5.7	125	18	7	2°	6IR...
SNR0008K06SC-3	Carbide	10	8	5.7	125	18	7	3°	6IR...

Note: Use the right-hand insert (6IR...) for a right-hand holder (SNR...).

SNR/L

Screw-on internal threading toolholder





Right hand (R) shown.
Tsuppari-Ichiban shank.

Metric	Material	DMIN	DCONMS	WF	LF	LH	L3	H	B	GAMP	Insert
TSNR0016Q16	Reinforced	19	16	10.6	180	40	59	15	-	1°	16IR...
TSNR0020R22	Reinforced	24	20	13.9	200	50	49	18	-	1°	22IR...
SNR/L0010K11	Steel	12	16	6.6	125	25	-	15	15.5	1°	11IR/L...
SNR0010K11-2	Steel	12	16	6.6	125	25	-	15	15.5	2°	11IR...
SNR0010K11-3	Steel	12	16	6.6	125	25	-	15	15.5	3°	11IR...
SNR/L0013L11	Steel	15	16	8.2	140	32.5	-	15	15.5	1°	11IR/L...
SNR0013L11-2	Steel	15	16	8.2	140	32.5	-	15	15.5	2°	11IR...
SNR0013L11-3	Steel	15	16	8.2	140	32.5	-	15	15.5	3°	11IR...
SNR/L0016M16	Steel	19	16	10.6	150	40	-	15	15.5	1°	16IR/L...
SNR0016M16-2	Steel	19	16	10.6	150	40	-	15	15.5	2°	16IR...
SNR0016M16-3	Steel	19	16	10.6	150	40	-	15	15.5	3°	16IR...
SNR/L0020Q22	Steel	24	20	13.9	180	50	-	18	19	1°	22IR/L...
SNR0020Q22-2	Steel	24	20	13.9	180	50	-	18	19	2°	22IR...
SNR0020Q22-3	Steel	24	20	13.9	180	50	-	18	19	3°	22IR...
SNR0010M11SC	Carbide	13	10	7.4	150	24	-	9	-	1°	11IR...
SNR0010M11SC-2	Carbide	13	10	7.4	150	24	-	9	-	2°	11IR...
SNR0010M11SC-3	Carbide	13	10	7.4	150	24	-	9	-	3°	11IR...
SNR0012P11SC	Carbide	15	12	8.5	170	28	-	11	-	1°	11IR...
SNR0012P11SC-2	Carbide	15	12	8.5	170	28	-	11	-	2°	11IR...
SNR0012P11SC-3	Carbide	15	12	8.5	170	28	-	11	-	3°	11IR...
SNR/L0016R16SC	Carbide	20	16	11.9	200	35	-	15	-	1°	16IR/L...
SNR0016R16SC-2	Carbide	20	16	11.9	200	35	-	15	-	2°	16IR...

Note: Use the right-hand insert (**IR...) for a right-hand holder (SNR...); the left-hand insert (**IL...) for a left-hand holder (SNL...).

SPARE PARTS

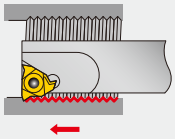
Designation	Clamping screw	Wrench
SNR0006H06..., SNR0006K06SC...	CSTB-2L040	T-6F
SNR0008H06..., SNR0008K06SC...	CSTB-2L	T-6F
TSNR0016Q16, SNR/L0016M16..., SNR/L0016R16SC...	CSTB-3.5	T-15F
TSNR0020R22, SNR/L0020Q22...	CSTB-4	T-15F
SNR/L00**11..., SNR00**11SC...	CSTB-2.5	T-8F

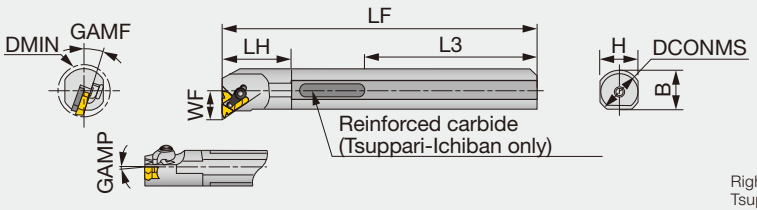
Reference pages: SNR-2/3 : Inserts → E010, E015, E017, E023 - E025
SNR/L : Inserts → E010 - E011, E015, E017 - E019, E021 - E032

TUNGTHREAD

CNR/L

Clamp-on internal threading toolholder (alternative clamping of screw-on or clamp-on only for DT type)





Right hand (R) shown.
Tsuppari-Ichiban shank.

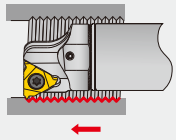
Metric	Material	DMIN	DCONMS	WF	LF	LH	L3	H	B	GAMF	GAMP	Insert
TCNR0020R16DT	Reinforced	24	20	14	200	30	49	18	-	15°	1°	16IR...
TCNR0025S16DT	Reinforced	29	25	16.5	250	38	64	23	-	15°	1°	16IR...
TCNR0025S22DT	Reinforced	30	25	18.2	250	38	64	23	-	15°	1°	22IR...
CNR/L0020P16	Steel	24	20	14	170	30	-	18	19	15°	1°	16IR/L...
CNR/L0025R16	Steel	29	25	16.5	200	38	-	23	24	15°	1°	16IR/L...
CNR/L0032S16	Steel	37	32	20.1	250	48	-	30	31	15°	1°	16IR/L...
CNR/L0025R22	Steel	30	25	18.2	200	38	-	23	24	15°	1°	22IR/L...
CNR/L0032S22	Steel	38	32	21.9	250	48	-	30	31	15°	1°	22IR/L...
CNR0040T27	Steel	46	40	26.9	300	60	-	37	38.5	10°	1°	27IR...

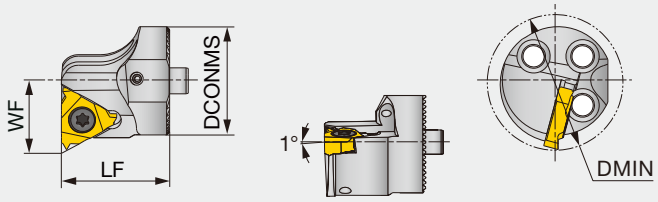
Note: A clamp set consists of a clamp and a clamping screw.
A shim set consists of a shim and a shim screw to secure the shim to the shank.
Standard shims can be used on both right- and left-hand toolholders. Please use either of the sides depending on the tool hand.
Use the right-hand insert (**IR...) for a right-hand holder (CNR...); the left-hand insert (**IL....) for a left-hand holder (CNL...).
When using DT type, please remove either the clamp set or the insert clamping screw.

BOREMEISTER

S-SNR-H

Screw-on clamp exchangeable boring head, for threading inserts





Right hand (R) shown.

Metric	DMIN	DCONMS	WF	LF	Shank	Insert
S20-SNR16-H	25	20	14	25	D20	16IR...
S25-SNR16-H	32	25	17	25	D25	16IR...
S32-SNR16-H	40	32	22	32	D32	16IR...
S40-SNR16-H	50	40	27	32	D40, D50, D60	16IR...

SPARE PARTS

Designation	Clamp set	Clamping screw	Shim screw	Shim	Shim set R	Shim set L	Wrench 1	Wrench 2	Wrench 3
TCNR002**16DT	CSP16	CSTB-3.5ST	DTS5-3.5	A16-1DT	-	-	P-3.5	T-15F	-
TCNR0025S22DT	CSP22	CSTB-4ST	DTS6-4	GX22-1DT	-	-	P-4	T-15F	T-20F
CNR/L**16	CSP16	-	-	-	A16-1	A16-1	-	T-15F	-
CNR/L**22	CSP22	-	-	-	NXN22-1	NXE22-1	-	T-20F	-
CNR0040T27	CSP27	-	-	-	NXN27-1	NXE27-1	P-4	-	-
S**-SNR16-H	-	CSTB-3.5	-	-	-	-	-	T-15F	-

Reference pages: CNR/L : Inserts → E010 - E011, E015, E017 - E019, E021 - E030
S-SNR-H : Inserts → E010 - E011, E015, E018 - E019, E021 - E030

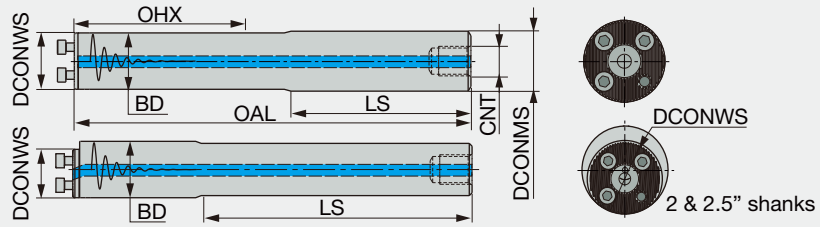
BOREMEISTER

Straight Shank

Anti-vibration bars with through coolant for interchangeable turning heads

Fig. 1

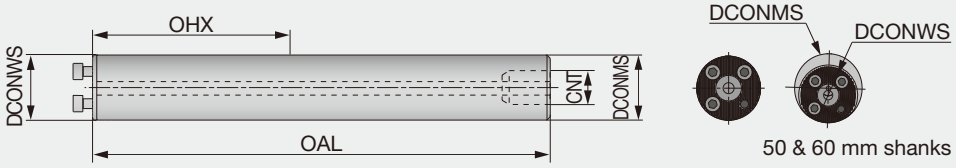
Fig. 2



Inch	Material	DCONWS	DCONMS	BD	OAL	LS	OHX	CNT	Fig.
D.625-L6.14-7D-C	Steel	0.630	0.625	0.630	6.140	3.600	3.500	G1/8	1
G.625-L8.03-10D-E	Carbide	0.630	0.625	0.630	8.030	5.220	5.500	-	1
D.750-L7.87-7D-C	Steel	0.787	0.750	0.787	7.870	4.940	4.400	G1/4	1
G.750-L10.24-10D-E	Carbide	0.787	0.750	0.787	10.240	6.770	7.000	-	1
D1.00-L10.2-7D-C	Steel	0.984	1.000	0.984	10.200	6.830	6.200	G1/4	1
D1.00-L13.21-10D-C	Steel	0.984	1.000	0.984	13.210	8.650	9.200	G1/4	1
D1.25-L12.48-7D-C	Steel	1.260	1.250	1.260	12.480	7.370	7.500	G3/8	1
D1.25-L16.24-10D-C	Steel	1.260	1.250	1.260	16.240	9.670	11.200	G3/8	1
D1.50-L15.26-7D-C	Steel	1.575	1.500	1.575	15.260	9.130	9.200	G1/2	1
D1.50-L19.8-10D-C	Steel	1.575	1.500	1.575	19.800	13.350	13.700	G1/2	1
D2.00-L20.74-7D-C	Steel	1.575	2.000	2.000	20.740	-	12.700	G1/2	2
D2.00-L26.73-10D-C	Steel	1.575	2.000	2.000	26.730	-	18.700	G1/2	2
D2.50-L26.2-7D-C	Steel	1.575	2.500	2.500	26.200	-	16.200	G3/4	2
D2.50-L33.72-10D-C	Steel	1.575	2.500	2.500	33.720	-	23.700	G3/4	2

Straight Shank

Anti-vibration bars with through coolant for interchangeable turning heads



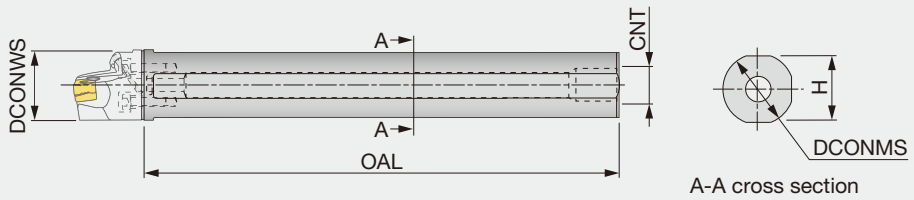
Metric	Material	DCONWS	DCONMS	OAL	OHX	CNT
D16-L156-7D-C	Steel	16	16	156.3	92	G1/8
G16-L204-10D-E	Carbide	16	16	204.3	140	-
D20-L200-7D-C	Steel	20	20	200.3	120	G1/4
G20-L260-10D-E	Carbide	20	20	260.3	180	-
D25-L255-7D-C	Steel	25	25	257.5	155	G1/4
D25-L330-10D-C	Steel	25	25	332.5	230	G1/4
D32-L320-7D-C	Steel	32	32	323	192	G3/8
D32-L416-10D-C	Steel	32	32	419	288	G3/8
D40-L408-7D-C	Steel	40	40	411	248	G1/2
D40-L528-10D-C	Steel	40	40	531	368	G1/2
D50-L518-7D-C	Steel	40	50	523	318	G1/2
D50-L668-10D-C	Steel	40	50	673	468	G1/2
D60-L628-7D-C	Steel	40	60	633	388	G3/4
D60-L808-10D-C	Steel	40	60	813	568	G3/4

SPARE PARTS

Designation	Clamping screw	Wrench
D16-L..., G16-L..., D.625..., G.625...	SRM3X10DIN912	HW2.5
D20-L..., G20-L..., D.750..., G.750...	SR55-2M3.5X10	HW2.5
D25-L..., D1.00...	SRM4X12DIN912	HW3.0
D32-L..., D1.25...	SRM5X12DIN912	HW4.0
D40-L..., D50-L... D60-L..., D1.50..., D2.00..., D2.50...	SRM6X16DIN912-12.9	HW5.0

D#4D-SH

Steel shank for internal turning, with through coolant



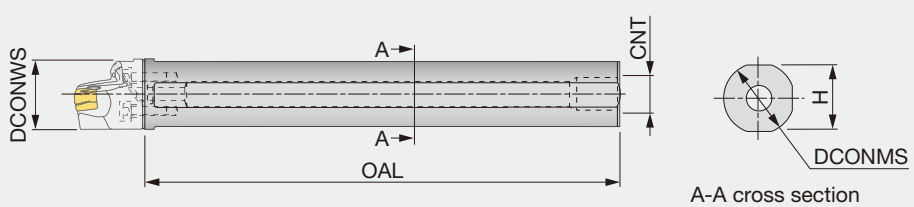
Inch	Material	DCONWS	DCONMS	OAL	CNT	H
D1.00-L7.2-4D-SH	Steel	1.000	1.000	7.200	UNF-2B 1/2"-20	0.921
D1.25-L8.74-4D-SH	Steel	1.250	1.250	8.740	UNF-2B 1/2"-20	1.142
D1.50-L10.75-4D-SH	Steel	1.575	1.500	10.75	UNF-2B 1/2"-20	1.339
D2.00-L14.72-4D-SH	Steel	1.575	2.000	14.72	UNF-2B 1/2"-20	1.811
D2.50-L18.74-4D-SH	Steel	1.575	2.500	18.74	UNF-2B 1/2"-20	2.283

SPARE PARTS

Designation	Clamping screw	Wrench
D1.00-L7.2-4D-SH	SR M4X12DIN912	HW 3.0
D1.25-L8.74-4D-SH	SR M5X12 DIN912	HW 4.0
D1.50-L10.75-4D-SH	SRM6X16DIN912-12.9	HW 5.0
D2.00-L14.72-4D-SH	SRM6X16DIN912-12.9	HW 5.0
D2.50-L18.74-4D-SH	SRM6X16DIN912-12.9	HW 5.0

D#4D-SH

Steel shank for internal turning, with through coolant



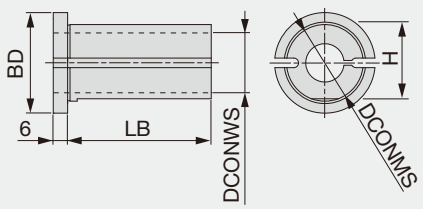
Metric	Material	DCONWS	DCONMS	OAL	CNT	H
D16-L105-4D-SH	Steel	16	16	105	UNC-2B 3/8"-16	15
D20-L140-4D-SH	Steel	20	20	140	UNFC-2B 3/8"-24	18
D25-L200-4D-SH	Steel	25	25	200	UNF-2B 1/2"-20	23
D32-L218-4D-SH	Steel	32	32	218	UNF-2B 1/2"-20	29
D40-L283-4D-SH	Steel	40	40	283	UNF-2B 1/2"-20	36

SPARE PARTS

Designation	Clamping screw	Wrench
D16**4D-SH	SRM3X10DIN912	HW2.5
D20**4D-SH	SR55-2M3.5X10	HW2.5
D25**4D-SH	SRM4X12DIN912	HW3.0
D32**4D-SH	SRM5X12DIN912	HW4.0
D40**4D-SH	SRM6X16DIN912-12.9	HW5.0

RSL sleeve

Split sleeve for anti-vibration bar



Inch	DCONWS	DCONMS	BD	LB	H
RSL-31.8-15.9-L66	0.625	1.250	1.654	2.362	1.210
RSL-31.8-19-L66	0.750	1.250	1.654	2.362	1.210
RSL-31.8-25.4-L66	1.000	1.250	1.654	2.362	1.210
RSL-38.1-15.9-L106	0.625	1.500	1.969	3.937	1.461
RSL-38.1-19-L106	0.750	1.500	1.969	3.937	1.461
RSL-38.1-25.4-L106	1.000	1.500	1.969	3.937	1.461
RSL-38.1-31.8-L106	1.250	1.500	1.969	3.937	1.461
RSL-50.8-19-L126	0.750	2.000	2.362	4.724	1.941
RSL-50.8-25.4-L126	1.000	2.000	2.362	4.724	1.941
RSL-50.8-31.8-L126	1.250	2.000	2.362	4.724	1.941
RSL-50.8-38.1-L126	1.500	2.000	2.362	4.724	1.941
RSL-63.5-31.8-L156	1.250	2.500	2.756	5.906	2.441
RSL-63.5-38.1-L156	1.500	2.500	2.756	5.906	2.441
RSL-63.5-50.8-L156	2.000	2.500	2.756	5.906	2.441
Metric	**DCONWS**	**DCONMS**	**BD**	**LB**	**H**
RSL-32-16-L66	16	32	42	60	31
RSL-32-20-L66	20	32	42	60	31
RSL-32-25-L66	25	32	42	60	31
RSL-40-16-L76	16	40	50	70	38.5
RSL-40-20-L76	20	40	50	70	38.5
RSL-40-25-L76	25	40	50	70	38.5

C#-SH-CHP / C#-SH-E-CHP

PSC compatible adapter with steel or carbide core

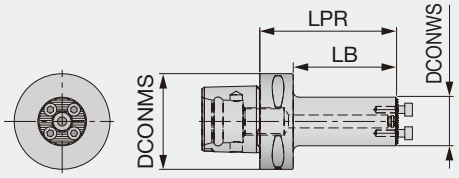


Fig. 1

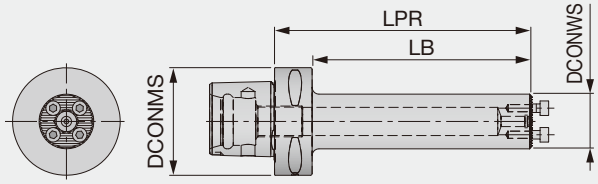


Fig. 2

Metric	Material	DCONWS	DCONMS	LPR	LB	Fig
C4-SH-D16-2.5D-CHP	Steel	16	40	40	20	1
C4-SH-D20-2.5D-CHP	Steel	20	40	50	30	1
C4-SH-D25-2.5D-CHP	Steel	25	40	55	35	1
C4-SH-D32-2.5D-CHP	Steel	32	40	75	55	1
C4-SH-D40-3D-CHP	Steel	40	40	80	80	1
C6-SH-D20-5D-E-CHP	Carbide	20	63	100	78	2
C6-SH-D25-5D-E-CHP	Carbide	25	63	115	93	2
C6-SH-D32-5D-E-CHP	Carbide	32	63	150	128	2
C6-SH-D40-5D-E-CHP	Carbide	40	63	185	163	2

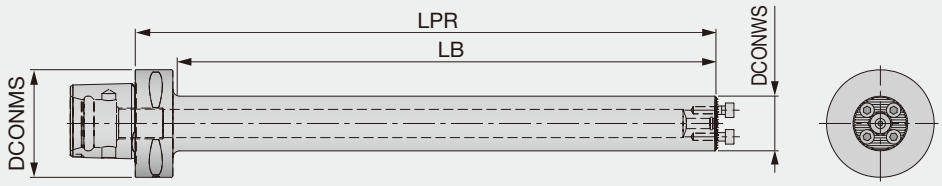
SPARE PARTS

Designation	Clamping screw	Wrench
C4**D16...	SRM3X10DIN912	HW2.5
C4/C6**D20...	SR55-2M3.5X10	HW2.5
C4/C6**D25...	SRM4X12DIN912	HW3.0
C4/C6**D32...	SRM5X12DIN912	HW4.0
C4/C6**D40...	SRM6X16DIN912-12.9	HW5.0

BOREMEISTER

C6-9D-C

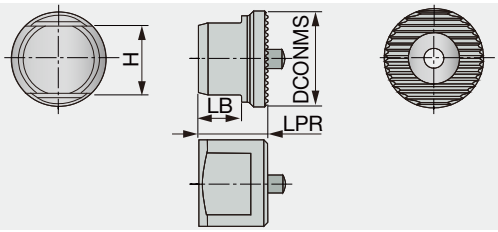
PSC adapter with anti vibration, L/D = 9



Metric	Material	DCONWS	DCONMS	LPR	LB	WT (kg)
C6-D25-L230-9D-C	Steel	25	63	230.5	200.1	1.65
C6-D32-L288-9D-C	Steel	32	63	288.5	259.5	2.73
C6-D40-L368-9D-C	Steel	40	63	368.5	339	4.45

AVC-SET

Center height set up device



Metric	DCONMS	H	LPR	LB	Applicable shank
AVC-SET 16-25	20	15	14.5	8.9	16, 20, 25
AVC-SET 32-60	29	16	17.5	11.43	32, 40, 50, 60

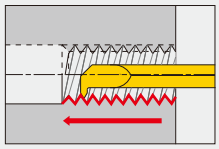
SPARE PARTS

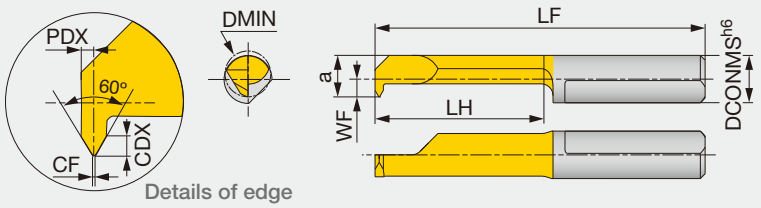
Designation	Clamping screw	Wrench
C6-D25...	SRM4X12DIN912	HW3.0
C6-D32...	SRM5X12DIN912	HW4.0
C6-D40...	SRM6X16DIN912-12.9	HW5.0

TINYMINI TURN

TBIR

Solid boring bar for internal threading



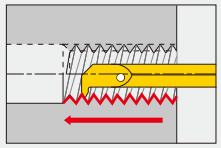


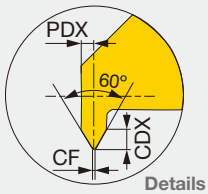
Metric	SH725	Pitch	DMIN	CF- $^{0}_{0.02}$	DCONMS	WF	a	LF	LH	CDX	PDX
TBIR04140050-D040	●	0.5	4	0.06	4	1.5	3.5	30	14	0.3	0.35
TBIR07140050-D050	●	0.5	5	0.06	7	0.9	4.4	30	14	0.3	0.35
TBIR07140075-D050	●	0.75	5	0.09	7	0.9	4.4	30	14	0.4	0.45
TBIR07140100-D048	●	1	4.8	0.12	7	0.9	4.4	30	14	0.6	0.55
TBIR07140100-D060	●	1	6	0.12	7	1.8	5.3	30	14	0.6	0.55
TBIR07140150-D060	●	1.5	6	0.18	7	1.8	5.3	30	14	0.8	0.75

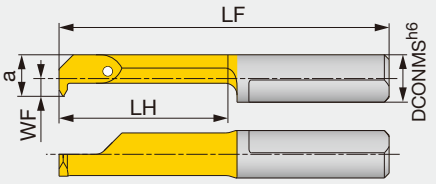
● : Line up

JBIR

Solid boring bars for threading (metric)







Right hand (R) shown.

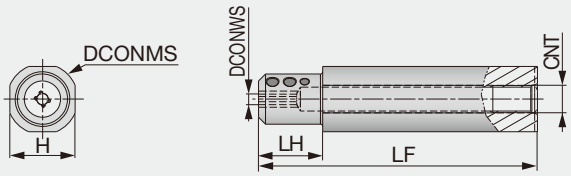
Metric	SH725	Pitch	DMIN	CF $^{0}_{-0.02}$	DCONMS	WF	a	LF	LH	CDX	PDX
JBIR04140050-D040	●	0.5	4	0.06	4	1.5	3.5	30	14	0.3	0.35
JBIR07140050-D050	●	0.5	5	0.06	7	0.9	4.4	30	14	0.3	0.35
JBIR07140075-D050	●	0.75	5	0.09	7	0.9	4.4	30	14	0.4	0.45
JBIR07140100-D048	●	1	4.8	0.12	7	0.9	4.4	30	14	0.6	0.55
JBIR07140100-D060	●	1	6	0.12	7	1.8	5.3	30	14	0.6	0.55
JBIR07140125-D060	●	1.25	6	0.15	7	1.8	5.3	30	14	0.7	0.65
JBIR07140150-D060	●	1.5	6	0.18	7	1.8	5.3	30	14	0.8	0.75
JBIR07140150-D070	●	1.5	7	0.18	7	2.8	6.3	30	14	0.8	0.75

● : Line up

JBBS-4N

Sleeve for internal coolant supply with 4 coolant holes





Metric	DCONMS	DCONWS	LF	LH	H	CNT
JBBS12-4-L80C-4N	12	4	80	10	10.3	Rc1/16
JBBS127-4-L80C-4N	12.7	4	80	10	11.6	Rc1/16
JBBS14-4-L80C-4N	14	4	80	10	12	Rc1/8
JBBS159-4-L100C-4N	15.875	4	100	10	14.58	Rc1/8
JBBS159-7-L100C-4N	15.875	7	100	10	14.58	Rc1/8
JBBS16-4-L100C-4N	16	4	100	10	15	Rc1/8
JBBS16-7-L100C-4N	16	7	100	10	15	Rc1/8
JBBS19-4-L100C-4N	19.05	4	100	20	17.2	Rc1/8
JBBS19-7-L100C-4N	19.05	7	100	20	17.2	Rc1/8
JBBS20-4-L100C-4N	20	4	100	20	18	Rc1/8
JBBS20-7-L100C-4N	20	7	100	20	18	Rc1/8
JBBS22-4-L100C-4N	22	4	100	20	20	Rc1/8
JBBS22-7-L100C-4N	22	7	100	20	20	Rc1/8
JBBS25-4-L100C-4N	25	4	100	23	23	Rc1/8
JBBS25-7-L100C-4N	25	7	100	23	23	Rc1/8
JBBS254-4-L100C-4N	25.4	4	100	23	23.4	Rc1/8
JBBS254-7-L100C-4N	25.4	7	100	23	23.4	Rc1/8

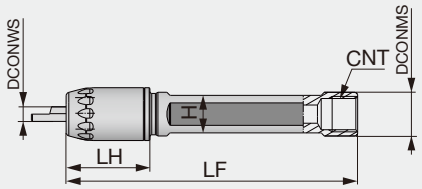
SPARE PARTS

Designation	Clamping screw	Wrench
JBBS**-4-L***C-4N	SSHM5-6PF-S	P-2.5
JBBS**-7-L***C-4N	SSHM5-4PF-S	P-2.5

JBBSA-C

Collet chuck sleeve with internal coolant supply





Metric	DCONMS	DCONWS	LF	LH	H	CNT
JBBSA12-4-L80C	12	4	80	23	10.3	Rc1/8
JBBSA127-4-L80C	12.7	4	80	23	11.6	Rc1/8
JBBSA14-4-L80C	14	4	80	23	12	Rc1/8
JBBSA159-4-L100C	15.875	4	100	23	14	Rc1/8
JBBSA159-7-L100C	15.875	7	100	23	14	Rc1/8
JBBSA16-4-L100C	16	4	100	23	14	Rc1/8
JBBSA16-7-L100C	16	7	100	23	14	Rc1/8
JBBSA19-4-L120C	19.05	4	120	23	17.2	Rc1/8
JBBSA19-7-L120C	19.05	7	120	23	17.2	Rc1/8
JBBSA20-4-L120C	20	4	120	23	18	Rc1/8
JBBSA20-7-L120C	20	7	120	23	18	Rc1/8
JBBSA22-4-L135C	22	4	135	23	20	Rc1/8
JBBSA22-7-L135C	22	7	135	23	20	Rc1/8
JBBSA25-4-L135C	25	4	120	23	23	Rc1/8
JBBSA25-7-L135C	25	7	120	23	23	Rc1/8
JBBSA254-4-L120C	25.4	4	120	23	23.4	Rc1/8
JBBSA254-7-L120C	25.4	7	120	23	23.4	Rc1/8

SPARE PARTS

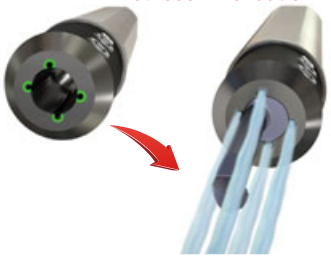
Designation	Cap	Wrench
JBBSA**-4-L...	CAP-A-4	WRENCH-A-4
JBBSA**-7-L...	CAP-A-7	WRENCH-A-7

New sleeve with four coolant holes for optimal performance

- Optimum sleeve option for all boring operations. Sleeves with four coolant holes can be used with all TinyMini-Turn tools
- 4 streams of coolant jets are directed to the cutting point, improving chip evacuation
- Sufficient coolant supply eliminates chip bird-nesting on the tools or workpiece, enabling trouble-free, unattended operation over an extended time
- Significantly prolongs tool life

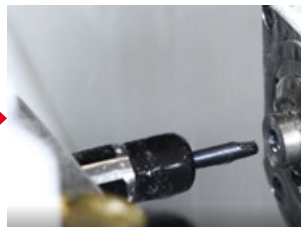
Internal coolant sleeve

First recommendation!





Excellent chip evacuation



- No chip jamming
- No machine stoppage
- No downtime

Conventional (External coolant)





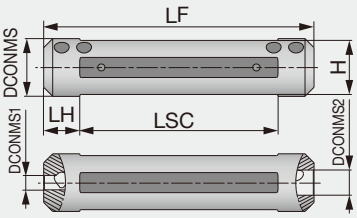


- Chip jamming
- Increased machine downtime

JBBS

Sleeve for external coolant supply





Metric	DCONMS	DCONWS1	DCONWS2	LF	LH	LSC	H
JBBS12-4-4	12	4	4	75	10	55	10.3
JBBS127-4-4	12.7	4	4	76.2	10	56.2	11.6
JBBS14-4-4	14	4	4	75	10	55	12
JBBS159-4-7	15.875	4	7	76.2	10	56.2	14
JBBS16-4-7	16	4	7	75	10	55	15
JBBS19-4-7	19.05	4	7	89	10	69	17.2
JBBS20-4-7	20	4	7	90	10	70	18
JBBS22-4-7	22	4	7	90	10	70	20
JBBS25-4-7	25	4	7	100	10	80	23
JBBS254-4-7	25.4	4	7	90	10	70	23.4

JBBS-C

Sleeve for internal coolant supply



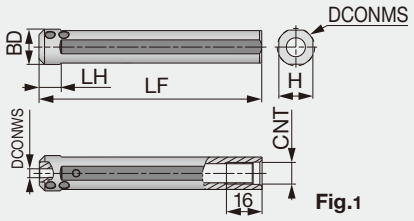


Fig.1

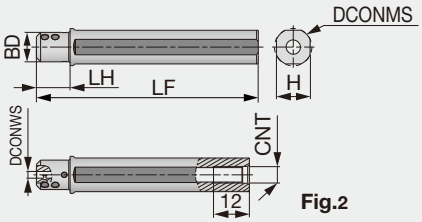


Fig.2

Metric	DCONMS	BD	DCONWS	LF	LH	H	CNT	Fig
JBBS159-4-L100C	15.875	15.875	4	100	10	14.58	Rc1/8	1
JBBS159-7-L100C	15.875	15.875	7	100	10	14.58	Rc1/8	1
JBBS16-4-L100C	16	16	4	100	10	15	Rc1/8	1
JBBS16-7-L100C	16	16	7	100	10	15	Rc1/8	1
JBBS19-4-L100C	19.05	17.5	4	100	20	17.2	Rc1/8	2
JBBS19-7-L100C	19.05	17.5	7	100	20	17.2	Rc1/8	2
JBBS20-4-L100C	20	17.5	4	100	20	18	Rc1/8	2
JBBS20-7-L100C	20	17.5	7	100	20	18	Rc1/8	2
JBBS22-4-L100C	22	17.5	4	100	20	20	Rc1/8	2
JBBS22-7-L100C	22	17.5	7	100	20	20	Rc1/8	2
JBBS25-4-L100C	25	18	4	100	23	23	Rc1/8	2
JBBS25-7-L100C	25	18	7	100	23	23	Rc1/8	2
JBBS254-4-L100C	25.4	18	4	100	23	23.4	Rc1/8	2
JBBS254-7-L100C	25.4	18	7	100	23	23.4	Rc1/8	2

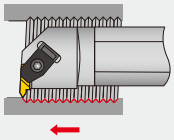
SPARE PARTS

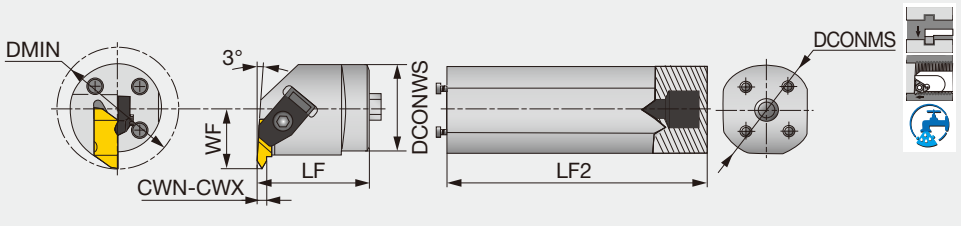


Designation	Clamping screw	Wrench
JBBS12-4-4, JBBS14-4-4 JBBS**-7-L100C	SSHM5-4PF-S	P-2.5
JBBS127-4-4, JBBS**-4-7 JBBS**-4-L100C	SSHM5-6PF-S	P-2.5

HS-FLER

Head exchangeable internal grooving and threading toolholder





Metric	DMIN	DCONWS	LF	WF	Insert	Torque*
HS40-FLER3W**	56.1	40	41.3	25.4	FLT-3L...	3
HS50-FLER3W	70.1	50	41.9	35	FLT-3L...	3

** Compatilble with the BoreMeister system.
Torque* : Recommended clamping torque (N·m)
Note: Use the left-hand insert (FLT-3L...) for a right-hand holder (HS**-FLER...).

SPARE PARTS

Designation	Clamp	Clamping screw 2	Wrench
HS40-FLER3W	TF-73	S-412	5/32HEX
HS50-FLER3W	TF-73	S-412	5/32HEX

Shank

Designation	DCONMS	LF2
S-570-40M-40	40	273
S-570-50M-50	50	366

Spare parts

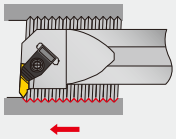
Designation	Clamping screw	Wrench
S-570-40M-40	SS100	5/32HEX
S-570-50M-50	SS94	1/4EX

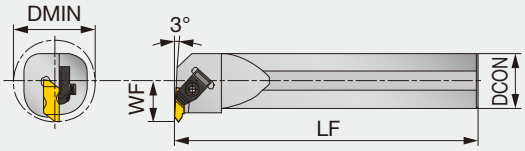
Reference pages: HS-FLER : Inserts → E014

TUNGT-CLAMP

A_M-FLER/L

Internal grooving and threading toolholder





Right hand (R) shown.

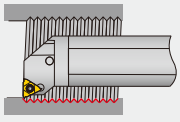
Inch	Pitch	DMIN	DCON	LF	WF	Insert
A08-FLER/L2	0.031 - 0.125	0.730	0.500	8.000	0.437	FL*-2**L/R...
A10-FLER2	0.031 - 0.125	1.000	0.625	10.000	0.500	FL*-2**L...
A12-FLER/L2	0.031 - 0.128	1.125	0.750	10.000	0.562	FL*-2**L/R...
A16-FLER/L2	0.031 - 0.128	1.375	1.000	12.000	0.688	FL*-2**L/R...
A16-FLER/L3	0.031 - 0.250	1.375	1.000	12.000	0.688	FL*-3**L/R...

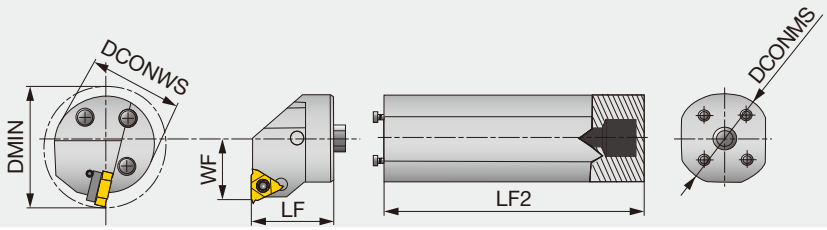
Metric	Pitch	DMIN	DCON	LF	WF	Insert
A25M-FLER/L3	2.11 - 5.08	34.9	25	300	17.7	FLT-3...
A32M-FLER/L3	2.11 - 5.08	44.5	32	350	22.1	FLT-3...
A40M-FLER3	2.11 - 5.08	50.8	40	350	24.5	FLT-3L...

TUNGTHREAD

HS-LNFR-53

Head exchangeable internal threading, for single-sided lay down inserts





Metric	DMIN	DCONWS	WF	LF	Insert
HS40-LNFR-53*	50	40	28.7	41.3	L535B**INT-FC
HS50-LNFR-53	63	50	32.7	41.3	L535B**INT-FC

* Compatilble with the BoreMeister system.

Inch SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
A08-FLER2	TF-146	S-310	7/64HEX
A08-FLEL2	TF-147	S-310	7/64HEX
A10-FLER2, A12-FLER2, A16-FLER2	TF-75	S-310	7/64HEX
A12-FLEL2, A16-FLEL2	TF-74	S-310	7/64HEX
A16-FLER3	TF-73	S-412	5/32HEX
A16-FLEL3	TF-72	S-412	5/32HEX

Metric SPARE PARTS

Designation	Lock pin	Clamp 1	Clamp 2	Clamping screw 1	Clamping screw 2	Wrench
A**M-FLER3	-	TF-73	-	S-412	-	5/32HEX
A**M-FLEL3	-	TF-72	-	S-412	-	5/32HEX
HS**-LNFR-53	NL-56	-	TC-250	-	STC-11	1/8HEX

Shank

Inch	DCONMS	LF2
S-570-32-50	2.000	14.410

Metric	DCONMS	LF2
S-570-40M-40	40	273
S-570-50M-50	50	366

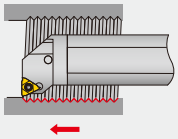
SPARE PARTS

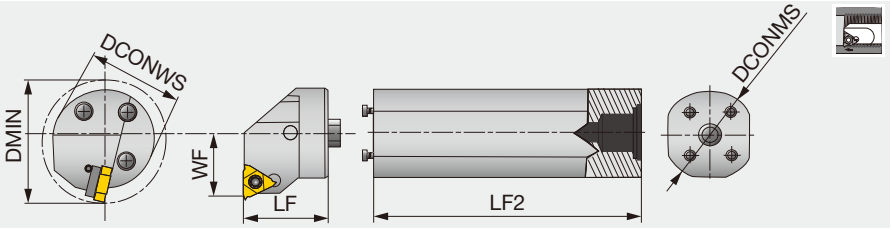
Designation	Clamping screw	Wrench
S-570-40M-40	SS100	5/32HEX
S-570-50M-50	SS94	1/4EX

Reference pages: A_M-FLER/L : Inserts → E014
HS-LNFR-53 : Inserts → E032

HS-LNFR-54API

Head exchangeable internal threading toolholder, for double-sided lay down inserts





Metric	DMIN	DCONWS	WF	LF	Insert
HS40-LNFR-54API*	50	40	27	32	LDS54**FT-CB#...
HS50-LNFR-54API	63	50	35	40	LDS54**FT-CB#...

* Compatilble with the BoreMeister system.

Shank

Designation	DCONMS	LF2
S-570-40M-40	40	273
S-570-50M-50	50	366

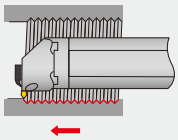
SPARE PARTS

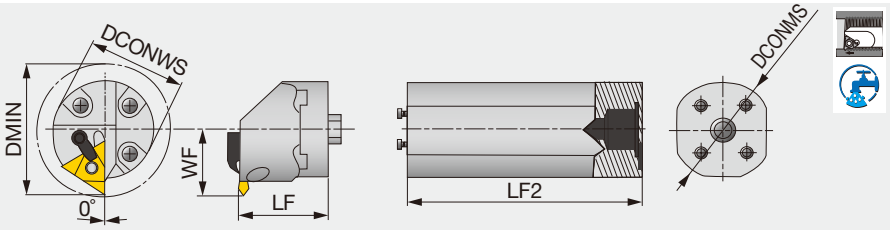



Designation	Clamping screw	Wrench
S-570-40M-40	SS100	5/32HEX
S-570-50M-50	SS94	1/4EX

HS-MTHOR

Multi-clamp internal threading toolholder, for on edge inserts





Metric	DMIN	DCONWS	WF	LF	Insert
HS40-MTHOR-4*	66.7	40	25.9	32	TNM*43...
HS50-MTHOR-4	73	50	35.9	40	TNM*43...
HS40-MTHOR-5*	81.3	40	30.6	32	TNM*54...
HS50-MTHOR-5	82.6	50	35.9	40	TNM*54...

* Compatilble with the BoreMeister system.

Shank

Designation	DCONMS	LF2
S-570-40M-40	40	273
S-570-50M-50	50	366

SPARE PARTS




Designation	Clamping screw	Wrench
S-570-40M-40	SS100	5/32HEX
S-570-50M-50	SS94	1/4EX

SPARE PARTS



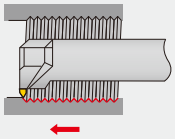


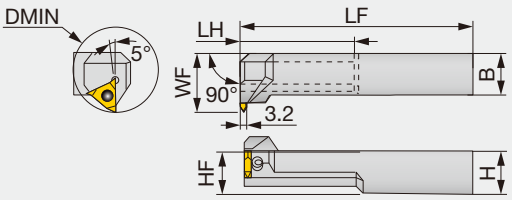

Designation	Lock pin	Clamp	Clamping screw	Wrench
HS40-LNFR-54API	H410-1	TC-250	STC-11	1/8HEX
HS50-LNFR-54API	NL-56	TC-250	STC-11	1/8HEX
HS**-MTHOR-4	NL-44	TC-190	STC-5	3/32HEX
HS**-MTHOR-5	NL-56	TC-250	STC-11	1/8HEX

Reference pages: HS-LNFR-54API : Inserts → E035
HS-MTHOR : Inserts → E029 - E031, E033

TT-RI

TT-type pin-lock internal threading toolholder



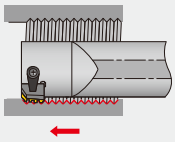


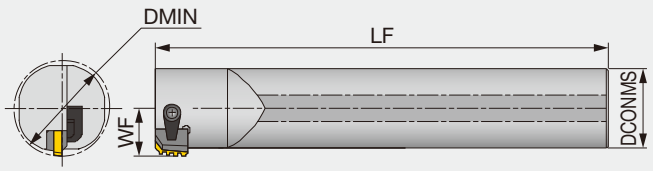
Metric	DMIN	H	B	LF	LH	HF	WF	Insert
TT-2525RI	50	25	25	200	70	25	35	TTL42...

Note: Use the left-hand insert (TTL42...) for a right-hand holder (TT-2525RI).

SI-CLHOR

Internal threading toolholder, for chaser inserts





Metric	DMIN	DCONMS	WF	LF	Insert
SI-CLHOR-40M6	50.8	40	23.16	400	CR...

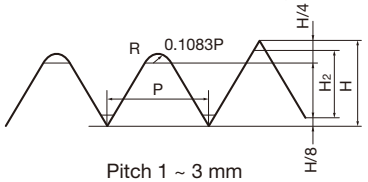
SPARE PARTS

Designation	Clamp	Clamp	Right-left screw	Wrench
TT-2525RI	CP91	-	DS-6	P-3
SI-CLHOR-40M6	-	TC-311	STC-8	5/32HEX

Reference pages: TT-RI : Inserts → E014, E016
SI-CLHOR : Inserts → E026, E031

Technical Guide

• Relationship between pitch, depth of cut and number of passes for external metric threading

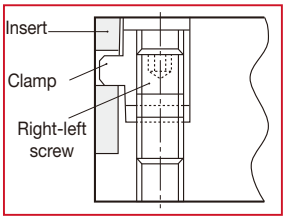


Pitch 1 ~ 3 mm

Note: Maximum machinable pitch is 3 mm.

	P	1	1.25	1.5	1.75	2	2.5	3
	H_2	0.6	0.76	0.92	1.09	1.25	1.57	1.9
	H	0.866	1.083	1.299	1.516	1.732	2.165	2.598
Number of passes	1	0.25	0.3	0.3	0.3	0.35	0.4	0.4
	2	0.15	0.2	0.25	0.25	0.25	0.3	0.35
	3	0.1	0.1	0.15	0.2	0.2	0.25	0.28
	4	0.05	0.06	0.1	0.1	0.16	0.2	0.2
	5	0.05	0.06	0.05	0.1	0.1	0.15	0.2
	6		0.06	0.05	0.07	0.07	0.1	0.13
	7			0.02	0.05	0.05	0.07	0.1
	8				0.02	0.02	0.05	0.1
	9					0.02	0.03	0.05
	10						0.02	0.05
	11							0.02
	12							0.02

Part assembly



STANDARD CUTTING CONDITIONS

TUNGTHREAD

ISO	Workpiece material	Hardness	Cutting speed: *Vc* (sfm)						
			AH8015	T05HP	AH725	T313V	NS9530	TH10	BX330
P	Steel / Alloy steel 1045, 4140, etc.	< 200HB	262 - 591	328 - 656	262 - 591	328 - 656	492 - 656	-	-
		> 200HB	197 - 525	328 - 492	197 - 525	328 - 492	328 - 558	-	-
M	Stainless steel 304SS, etc.	-	164 - 427	230 - 427	164 - 427	230 - 427	-	-	-
K	Cast iron Class 25, Class 30, etc.	-	197 - 492	230 - 492	164 - 328	230 - 492	-	230 - 295	-
N	Non-ferrous metal	-	-	-	-	-	-	328 - 1640	-
S	Superalloys Ti-6Al-4V, Inconel718, etc.	-	66 - 262	-	-	-	-	33 - 131	-
H	Hardened steel	50 - 60HRC	-	-	-	-	-	33 - 98	164 - 656

TETRAMINICUT

TCT18R/L / TCT18FR

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed *Vc* (sfm)	Pitch (in)	Threads per inch (TPI)
P	Steel / Alloy steel 1045, 4140, etc.	< 200HB	First choice	SH725	197 - 492	0.016 - 0.079	64 - 12
			Fracture resistance	AH725	197 - 492	0.031 - 0.118	32 - 8
		> 200HB	First choice	SH725	197 - 492	0.016 - 0.079	64 - 12
			Fracture resistance	AH725	197 - 492	0.031 - 0.118	32 - 8
M	Stainless steel 304SS, etc.	-	First choice	SH725	164 - 262	0.016 - 0.079	64 - 12
		-	Fracture resistance	AH725	164 - 262	0.031 - 0.118	32 - 8
K	Cast iron Class 25, Class 30, etc.	-	First choice	AH725	164 - 328	0.031 - 0.118	32 - 8
		-	Sharpness	SH725	164 - 328	0.016 - 0.079	64 - 12
S	Superalloys Ti-6Al-4V, Inconel718, etc.	-	First choice	SH725	98 - 328	0.016 - 0.079	64 - 12
		-	Fracture resistance	AH725	98 - 328	0.031 - 0.118	32 - 8

DUOJUSTCUT

ISO	Workpiece material	Hardness	Grade	Cutting speed *Vc* (sfm)	Pitch (in)	Threads per inch (TPI)
P	Steel / Alloy steel 1045, 4140, etc.	< 200HB	SH725	164 - 656	0.008 - 0.059	127 - 16
		> 200HB	SH725	164 - 656	0.008 - 0.059	127 - 16
M	Stainless steel 304SS, etc.	-	SH725	164 - 656	0.008 - 0.059	127 - 16
N	Aluminum alloys 5056, 6061, etc.	-	SH725	492 - 656	0.008 - 0.059	127 - 16
	Copper alloy C2600, C280C, etc.	-	SH725	328 - 656	0.008 - 0.059	127 - 16
S	Superalloys Ti-6Al-4V, Inconel718, etc.	-	SH725	98 - 262	0.008 - 0.059	127 - 16

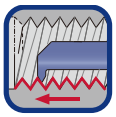
Reference pages: TungThread : Inserts → E010 - E011, E014 - E019, E021 - E035
External toolholders → E036 - E040, E051 - E053
Internal toolholders → E054 - E056, E065 - E067
TetraMini-Cut: Inserts → E012, External toolholders → E041 - E044
DuoJust-Cut : Inserts → E012, External toolholders → E047 - E048

STANDARD CUTTING CONDITIONS

TUNGT-CLAMP

ISO	Workpiece material	Hardness	Grade	Application	Cutting speed *Vc* (sfm)	Pitch (in)	Threads per inch (TPI)
P	Steel / Alloy steel 1045, 4140, etc.	< 200HB	AH725	Threading	262 - 591	Internal 0.083 - 0.200 External 0.050 - 0.167	Internal 5 - 12 External 6- 20
		> 200HB	AH725	Threading	197 - 525	Internal 0.083 - 0.200 External 0.050 - 0.167	Internal 5 - 12 External 6- 20
M	Stainless steel 304SS, etc.	-	AH725	Threading	164 - 427	Internal 0.083 - 0.200 External 0.050 - 0.167	Internal 5 - 12 External 6- 20

TINYMINI TURN



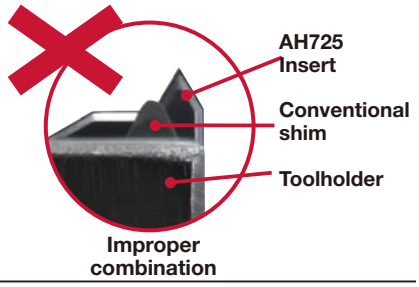
Internal threading

ISO	Workpiece material	Hardness	Grade	Cutting speed *Vc* (m/min)	Cutting speed *Vc* (sfm)	Number of passes Pitch (mm) / (in) 0.5 (0.020)	0.75 (0.029)	1 (0.039)	1.25 (0.049)	1.5 (0.059)
P	Steel / Alloy steel 1045, 4140, etc.	< 200HB	SH730, SH725	40 - 140	131 - 459	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
		> 200HB	SH730, SH725	40 - 140	131 - 459	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
M	Stainless steel 304SS, etc.	-	SH730, SH725	40 - 140	131 - 459	8	10	12	15	18
K	Cast iron Class 25, Class 30, etc.	-	SH730, SH725	30 - 100	98 - 328	7	9	12	14	17
N	Aluminum alloys, Copper alloy Si < 12%	-	SH730, SH725	90 - 200	295 - 656	6	8	10	12	15

Reference pages: TungT-Clamp : Inserts → E014, External toolholders → E050
Internal toolholders → E064 - E065
TinyMini-Turn: Solid carbide boring bars → E060

IMPORTANT - Replacement of shim

AH725 insert has 2 types of shims according to the chipbreaker geometry. Please find an appropriate shim in the table below. When using a wrong shim, the insert seating may become unstable or the tool life may be shortened.



Improper combination

Interchangeable shim (Insert size: 16)

Toolholder screw type	Lead angle	External		Internal	
		① Conventional shim	❶ Standard (New)	② Conventional shim	❷ Standard (New)
Dual clamping methods of screw-on and clamp-on	4°	GXE16-4DT	AE16-4DT	GXN16-4DT	AN16-4DT
	3°	GXE16-3DT	AE16-3DT	GXN16-3DT	AN16-3DT
	2°	GXE16-2DT	AE16-2DT	GXN16-2DT	AN16-2DT
	1° (Standard)	GX16-1DT	A16-1DT	GX16-1DT	A16-1DT
	0°	GXE16-0DT	AE16-0DT	GXN16-0DT	AN16-0DT
	-1°	GXE16-99DT	AE16-99DT	GXN16-99DT	AN16-99DT
	-2°	GXE16-98DT	AE16-98DT	GXN16-98DT	AN16-98DT
Clamp-on	4°	GXE16-4	AE16-4	GXN16-4	AN16-4
	3°	GXE16-3	AE16-3	GXN16-3	AN16-3
	2°	GXE16-2	AE16-2	GXN16-2	AN16-2
	1° (Standard)	GXE16-1	A16-1	GXN16-1	A16-1
	0°	GXE16-0	AE16-0	GXN16-0	AN16-0
	-1°	GXE16-99	AE16-99	GXN16-99	AN16-99
	-2°	GXE16-98	AE16-98	GXN16-98	AN16-98

Shim to be replaced (Insert size: 16)

Thread	External			Internal		
	Designation	Grade	Replacement	Designation	Grade	Replacement
ISO			① Conventional shim → ❶ Standard (New)	16IR15ISO-B	AH725	② Conventional shim → ❷ Standard (New)
				16IR175ISO-B	AH725	
				16IR20ISO-B	AH725	
55°	16ERAG55-B	AH725		16IRAG55-B	AH725	
				16IRG55-B	AH725	
60°	16ERA60-B	AH725		16IRAG60-B	AH725	
				16IRA60-B	AH725	
				16IRG60-B	AH725	
UN				16IR18UN-B	AH725	
				16IR16UN-B	AH725	
				16IR14UN-B	AH725	
W				16IR16W-B	AH725	
				16IR14W-B	AH725	
PT				16IR14PT-B	AH725	
NPT	16ER8NPT-B	AH725		16IR14NPT-B	AH725	
				16IR115NPT-B	AH725	

Want to learn more about threads and thread machining?

Visit this special website for the latest information on thread machining.

The website provides information on:

- Basic knowledge on threads and thread machining
- Threading tool selection guide and the latest machining techniques
- F.A.Q. and troubleshooting guide



Scan this QR code to access the website

Reference pages: E011, E015, E019, E022 - E025

Parting, Grooving



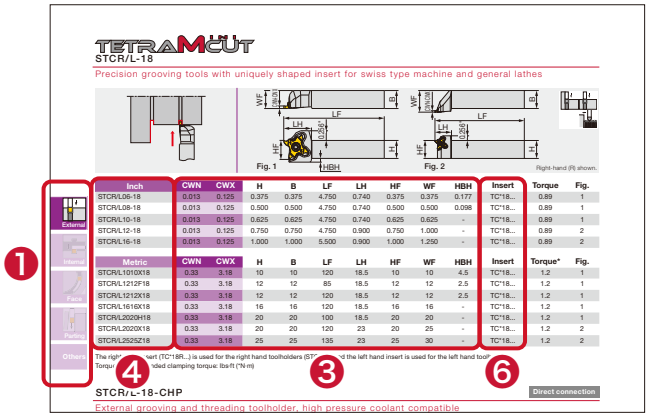
Parting, Grooving - Content structure

- Products are listed by application.
- Each item is listed by product series.
- Internal grooving tools are listed according to the order of the minimum machining diameter (from small to larger).

How to use the page

Method ①

Select the application (❶) at the left end of each page and choose a designation you need (❹) in the dimension table (❸). Applicable inserts are shown in (❻).



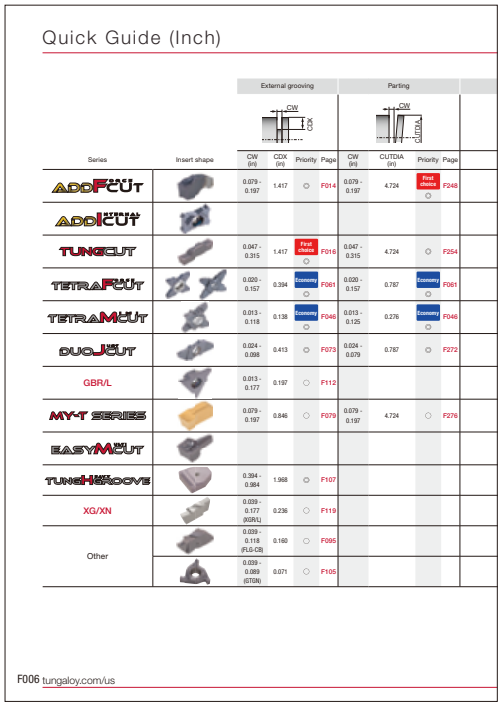
Method ②

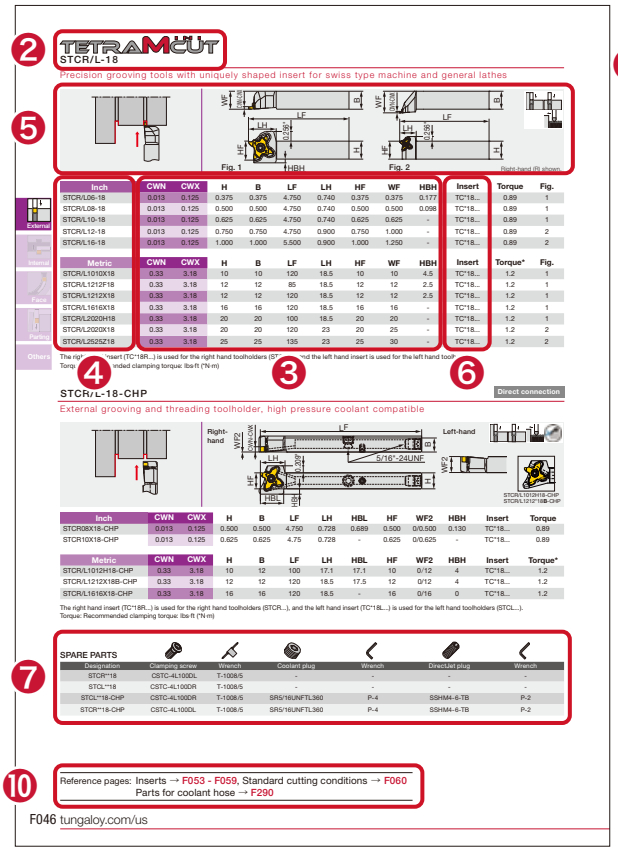
Select the tool series name on F004 - F005 and check the details on the product page.



Method ③

Select the tool series or the tool specification from Quick Guide on F006 - F009 and see the details on each page.





❷ TETRAMICUT
STCR/L-18
Precision grooving tools with uniquely shaped insert for swiss type machine and general lathes

❺ Fig. 1 Fig. 2 Right-hand (R) shown.

Inch	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque	Fig.
STCR/L06-18	0.013	0.125	0.375	0.375	4.750	0.740	0.375	0.375	0.177	TC*18...	0.89	1
STCR/L08-18	0.013	0.125	0.500	0.500	4.750	0.740	0.500	0.500	0.098	TC*18...	0.89	1
STCR/L10-18	0.013	0.125	0.625	0.625	4.750	0.740	0.625	0.625	-	TC*18...	0.89	1
STCR/L12-18	0.013	0.125	0.750	0.750	4.750	0.900	0.750	1.000	-	TC*18...	0.89	2
STCR/L16-18	0.013	0.125	1.000	1.000	5.500	0.900	1.000	1.250	-	TC*18...	0.89	2
Metric	**CWN**	**CWX**	**H**	**B**	**LF**	**LH**	**HF**	**WF**	**HBH**	**Insert**	**Torque***	**Fig.**
STCR/L1010X18	0.33	3.18	10	10	120	18.5	10	10	4.5	TC*18...	1.2	1
STCR/L1212F18	0.33	3.18	12	12	85	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1212X18	0.33	3.18	12	12	120	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1616X18	0.33	3.18	16	16	120	18.5	16	16	-	TC*18...	1.2	1
STCR/L2020H18	0.33	3.18	20	20	100	18.5	20	20	-	TC*18...	1.2	1
STCR/L2020X18	0.33	3.18	20	20	120	23	20	25	-	TC*18...	1.2	2
STCR/L2525Z18	0.33	3.18	25	25	135	23	25	30	-	TC*18...	1.2	2

The right-hand insert (TC*18R...) is used for the right hand toolholders (ST... and the left hand insert is used for the left hand toolh...
Torq... ended clamping torque: lbs·ft (*N·m)

❹ ❸ ❻

STCR/L-18-CHP
Direct connection
External grooving and threading toolholder, high pressure coolant compatible

Right-hand Left-hand Fig. 3 Fig. 4 STCR/L1012H18-CHP STCR/L1212F18B-CHP

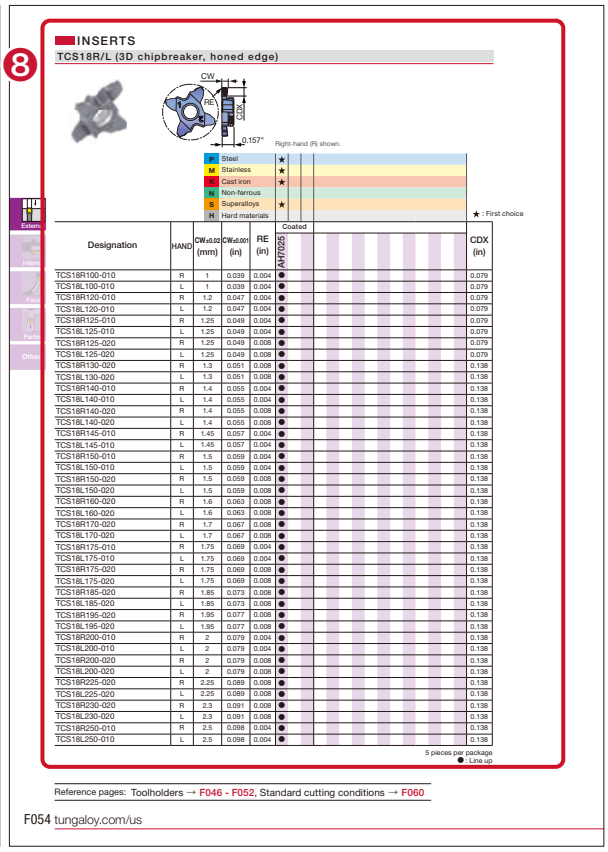
Inch	CWN	CWX	H	B	LF	LH	HBL	HF	WF2	HBH	Insert	Torque
STCR08X18-CHP	0.013	0.125	0.500	0.500	4.750	0.728	0.689	0.500	0/0.500	0.130	TC*18...	0.89
STCR10X18-CHP	0.013	0.125	0.625	0.625	4.75	0.728	-	0.625	0/0.625	-	TC*18...	0.89
Metric	**CWN**	**CWX**	**H**	**B**	**LF**	**LH**	**HBL**	**HF**	**WF2**	**HBH**	**Insert**	**Torque***
STCR/L1012H18-CHP	0.33	3.18	10	12	100	17.1	17.1	10	0/12	4	TC*18...	1.2
STCR/L1212X18B-CHP	0.33	3.18	12	12	120	18.5	17.5	12	0/12	4	TC*18...	1.2
STCR/L1616X18-CHP	0.33	3.18	16	16	120	18.5	-	16	0/16	0	TC*18...	1.2

The right hand insert (TC*18R...) is used for the right hand toolholders (STCR...), and the left hand insert (TC*18L...) is used for the left hand toolholders (STCL...).
Torque: Recommended clamping torque: lbs·ft (*N·m)

❼ SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
STCR*18	CSTC-4L100DL	T-1008/5	-	-	-	-
STCL*18	CSTC-4L100DR	T-1008/5	-	-	-	-
STCL*18-CHP	CSTC-4L100DR	T-1008/5	SRS/16UNFTL360	P-4	SSHM4-6-TB	P-2
STCR*18-CHP	CSTC-4L100DL	T-1008/5	SRS/16UNFTL360	P-4	SSHM4-6-TB	P-2

❿ Reference pages: Inserts → F053 - F059, Standard cutting conditions → F060
Parts for coolant hose → F290



❽ INSERTS
TCS18R/L (3D chipbreaker, honed edge)

CW RE CDX 0.157" Right-hand (R) shown.

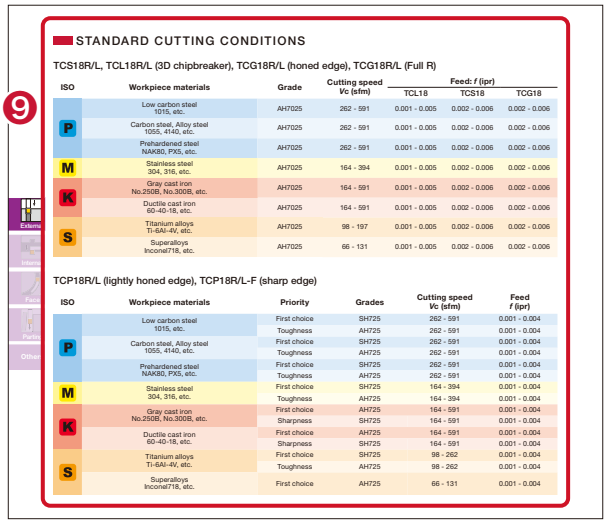
P	Steel ★
M	Stainless ★
K	Cast iron ★
N	Non-ferrous
S	Superalloys ★
H	Hard materials

★ : First choice

Designation	HAND	CW=0.02 (mm)	CW=0.004 (in)	RE (in)	Coated AH7025	CDX (in)
TCS18R100-010	R	1	0.039	0.004	●	0.079
TCS18L100-010	L	1	0.039	0.004	●	0.079
TCS18R120-010	R	1.2	0.047	0.004	●	0.079
TCS18L120-010	L	1.2	0.047	0.004	●	0.079
TCS18R125-010	R	1.25	0.049	0.004	●	0.079
TCS18L125-010	L	1.25	0.049	0.004	●	0.079
TCS18R125-020	R	1.25	0.049	0.008	●	0.079
TCS18L125-020	L	1.25	0.049	0.008	●	0.079
TCS18R130-020	R	1.3	0.051	0.008	●	0.138
TCS18L130-020	L	1.3	0.051	0.008	●	0.138
TCS18R140-010	R	1.4	0.055	0.004	●	0.138
TCS18L140-010	L	1.4	0.055	0.004	●	0.138
TCS18R140-020	R	1.4	0.055	0.008	●	0.138
TCS18L140-020	L	1.4	0.055	0.008	●	0.138
TCS18R145-010	R	1.45	0.057	0.004	●	0.138
TCS18L145-010	L	1.45	0.057	0.004	●	0.138
TCS18R150-010	R	1.5	0.059	0.004	●	0.138
TCS18L150-010	L	1.5	0.059	0.004	●	0.138
TCS18R150-020	R	1.5	0.059	0.008	●	0.138
TCS18L150-020	L	1.5	0.059	0.008	●	0.138
TCS18R160-020	R	1.6	0.063	0.008	●	0.138
TCS18L160-020	L	1.6	0.063	0.008	●	0.138
TCS18R170-020	R	1.7	0.067	0.008	●	0.138
TCS18L170-020	L	1.7	0.067	0.008	●	0.138
TCS18R175-010	R	1.75	0.069	0.004	●	0.138
TCS18L175-010	L	1.75	0.069	0.004	●	0.138
TCS18R175-020	R	1.75	0.069	0.008	●	0.138
TCS18L175-020	L	1.75	0.069	0.008	●	0.138
TCS18R185-020	R	1.85	0.073	0.008	●	0.138
TCS18L185-020	L	1.85	0.073	0.008	●	0.138
TCS18R195-020	R	1.95	0.077	0.008	●	0.138
TCS18L195-020	L	1.95	0.077	0.008	●	0.138
TCS18R200-010	R	2	0.079	0.004	●	0.138
TCS18L200-010	L	2	0.079	0.004	●	0.138
TCS18R200-020	R	2	0.079	0.008	●	0.138
TCS18L200-020	L	2	0.079	0.008	●	0.138
TCS18R225-020	R	2.25	0.089	0.008	●	0.138
TCS18L225-020	L	2.25	0.089	0.008	●	0.138
TCS18R230-020	R	2.3	0.091	0.008	●	0.138
TCS18L230-020	L	2.3	0.091	0.008	●	0.138
TCS18R250-010	R	2.5	0.098	0.004	●	0.138
TCS18L250-010	L	2.5	0.098	0.004	●	0.138

5 pieces per package
● : Line up

Reference pages: Toolholders → F046 - F052, Standard cutting conditions → F060



❾ STANDARD CUTTING CONDITIONS

TCS18R/L, TCL18R/L (3D chipbreaker), TCG18R/L (honed edge), TCG18R/L (Full R)

ISO	Workpiece materials	Grade	Cutting speed Vc (sfm)	Feed: f (ipr) TCL18	TCS18	TCG18
P	Low carbon steel 1015, etc.	AH7025	262 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
P	Carbon steel, Alloy steel 1055, 4140, etc.	AH7025	262 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
P	Prehardened steel NAK80, PX5, etc.	AH7025	262 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
M	Stainless steel 304, 316, etc.	AH7025	164 - 394	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
K	Gray cast iron No.25Cb, No.300B, etc.	AH7025	164 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
K	Ductile cast iron 60-40-18, etc.	AH7025	164 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
S	Titanium alloys Ti-6Al-4V, etc.	AH7025	98 - 197	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
S	Superalloys Inconel718, etc.	AH7025	66 - 131	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006

TCP18R/L (lightly honed edge), TCP18R/L-F (sharp edge)

ISO	Workpiece materials	Priority	Grades	Cutting speed Vc (sfm)	Feed f (ipr)
P	Low carbon steel 1015, etc.	First choice	SH725	262 - 591	0.001 - 0.004
		Toughness	AH725	262 - 591	0.001 - 0.004
P	Carbon steel, Alloy steel 1055, 4140, etc.	First choice	SH725	262 - 591	0.001 - 0.004
		Toughness	AH725	262 - 591	0.001 - 0.004
P	Prehardened steel NAK80, PX5, etc.	First choice	SH725	262 - 591	0.001 - 0.004
		Toughness	AH725	262 - 591	0.001 - 0.004
M	Stainless steel 304, 316, etc.	First choice	SH725	164 - 394	0.001 - 0.004
		Toughness	AH725	164 - 394	0.001 - 0.004
K	Gray cast iron No.25Cb, No.300B, etc.	First choice	AH725	164 - 591	0.001 - 0.004
		Sharpness	SH725	164 - 591	0.001 - 0.004
K	Ductile cast iron 60-40-18, etc.	First choice	AH725	164 - 591	0.001 - 0.004
		Sharpness	SH725	164 - 591	0.001 - 0.004
S	Titanium alloys Ti-6Al-4V, etc.	First choice	SH725	98 - 262	0.001 - 0.004
		Toughness	AH725	98 - 262	0.001 - 0.004
S	Superalloys Inconel718, etc.	First choice	AH725	66 - 131	0.001 - 0.004

❶ : Application
❷ : Tool series name
❸ : Dimension table
❹ : Toolholder designation
e.g. right-hand, 08 square shank

→ STC**R** **08** **-18**

R/L in the designation means the stock either right or left hand respectively.

❺ : Dimension (conforming to ISO13399)
❻ : Applicable insert
❼ : Spare parts
❽ : Insert
❾ : Standard cutting conditions
❿ : Reference pages

When ordering
- Please specify the designation and quantity for toolholders.
  e.g. **CTER10-2T08 ...** 1
- Please specify the designation and quantity for shank and adapter set when ordering both.
  e.g. **CHSR12-CHP ...** 1, **CAER-2T20-CHP...** 1 (one shank per package, one adapter per package)
  * Clamp screw for adapter is included.
- Please specify the designation, grade, and quantity for inserts.
  e.g. **DGS3-020 AH7025 ...** 10 (10 inserts per package)
  * You will find a note if the number per package is not 10.

External grooving

F014 page

Max. groove depth: 0.252" (6.4 mm)

Economy TETRAMINICUT F046 page

Economy TETRAFORCECUT F061 page

GBR/L F112 page



Max. groove depth: 1.969" (50 mm)

First choice TUNGCUT F016 page

ADDFORCECUT F014 page

DUOJUSTCUT F073 page

TUNGHEAVYGROOVE F107 page

MY-T SERIES F079 page



Internal grooving

F134 page

General internal grooving and turning

First choice ADDINTERNALCUT F134 page

TUNGCUT F140 page

ADDFORCECUT F136 page

MY-T SERIES F161 page

GBR/L F179 page

SNG / CNG F182 page



Face grooving

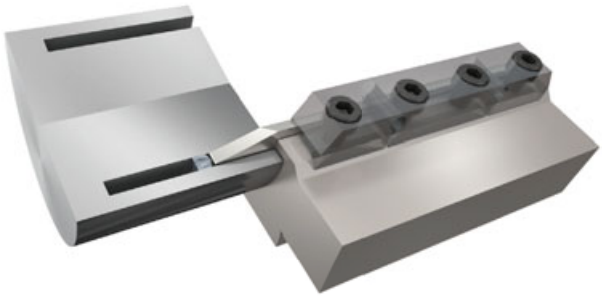
F190 page

First choice TUNGCUT F196 page

EASYMCUT F190 page

Economy TETRAMINICUT F223 page

MY-T SERIES F238 page



Parting

F248 page

General parting

First choice ADDFORCECUT F248 page

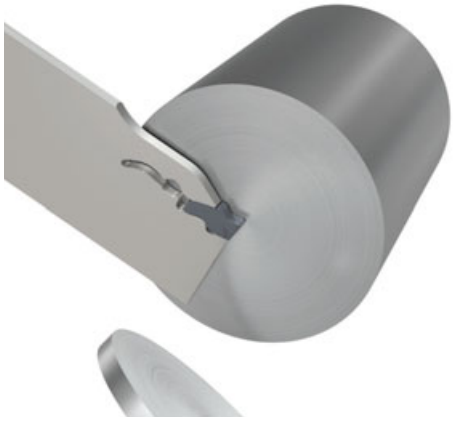
TUNGCUT F254 page

Economy TETRAFORCECUT F061 page

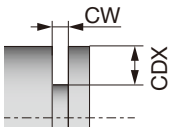
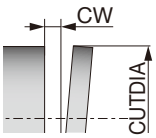
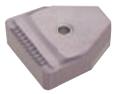
Economy TETRAMINICUT F046 page

DUOJUSTCUT F272 page

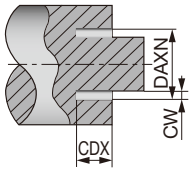
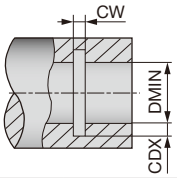
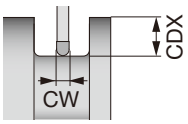
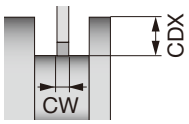
MY-T SERIES F276 page



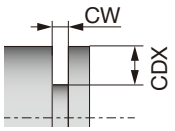
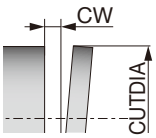
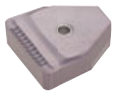
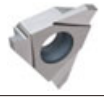
Quick Guide (Inch)

Series	Insert shape	External grooving				Parting			
									
		CW (in)	CDX (in)	Priority	Page	CW (in)	CUTDIA (in)	Priority	Page
ADDFORCECUT		0.079 - 0.197	1.417	◎	F014	0.079 - 0.197	4.724	First choice ◎	F248
ADDINTERNALCUT									
TUNGCUT		0.047 - 0.315	1.417	First choice ◎	F016	0.047 - 0.315	4.724	◎	F254
TETRAFORCECUT		0.020 - 0.157	0.394	Economy ◎	F061	0.020 - 0.157	0.787	Economy ◎	F061
TETRAMINICUT		0.013 - 0.118	0.138	Economy ◎	F046	0.013 - 0.125	0.276	Economy ◎	F046
DUOJUSTCUT		0.024 - 0.098	0.413	◎	F073	0.024 - 0.079	0.787	◎	F272
GBR/L		0.013 - 0.177	0.197	○	F112				
MY-T SERIES		0.079 - 0.197	0.846	○	F079	0.079 - 0.197	4.724	○	F276
EASYMULTICUT									
TUNGHEAVYGROOVE		0.394 - 0.984	1.968	◎	F107				
XG/XN		0.039 - 0.177 (XGR/L)	0.236	○	F119				
Other		0.039 - 0.118 (FLG-CB)	0.160	○	F095				
		0.039 - 0.089 (GTGN)	0.071	○	F105				

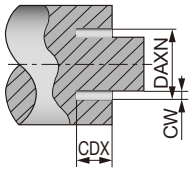
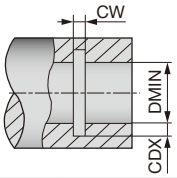
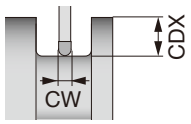
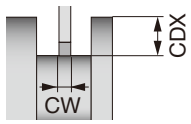
◎ : First choice
○ : Usable

	Face grooving					Internal grooving					Profiling (Full-R)				Turning			
																		
	CW (in)	CDX (in)	DAXN (in)	Priority	Page	CW (in)	CDX (in)	DMIN (in)	Priority	Page	CW (in)	CDX (in)	Priority	Page	CW (in)	CDX (in)	Priority	Page
						0.079 - 0.157	1.260	2.165	◎	F136								
						0.020 - 0.118	0.118	0.438	First choice ◎	F134								
	0.079 - 0.250	0.984	1.023	First choice ◎	F196	0.079 - 0.315	0.394	1.000	◎	F140	0.079 - 0.315	1.417	First choice ◎	F016 F286	0.079 - 0.315	1.417	First choice ◎	F016
											0.062 - 0.118	0.252	Economy ◎	F061				
	0.020 - 0.098	0.118	0.236	Economy ◎	F223						0.039 - 0.125	0.138	Economy ◎	F046				
															0.079 - 0.098 (JXDX)	0.276	◎	F073
						0.013 - 0.098 (GBR/L32)	0.098	1.38	○	F179	0.039 - 0.157	0.197	○	F112				
	0.118 - 0.197	0.866	1.181	○	F238	0.118 - 0.197	0.197	1.000	○	F161	0.118 - 0.197	0.846	○	F079	0.118 - 0.197	0.846	○	F079
	0.157 - 0.236	2.559	1.181	◎	F190													
						0.039 - 0.177 (XGR/L)	0.236	2.165	○	F188								
						0.039 - 0.118 (FLG-CB)	0.160	0.730	○	F167								
						0.039 - 0.089 (GTGN)	0.071	0.950	○	F177								

Quick Guide (Metric)

Series	Insert shape	External grooving				Parting			
									
		CW (mm)	CDX (mm)	Priority	Page	CW (mm)	CUTDIA (mm)	Priority	Page
ADDFORCECUT		2 - 5	33	◎	F014	2 - 5	120	First choice ◎	F248
ADDINTERNALCUT									
TUNGCUT		1.2 - 8	35	First choice ◎	F016	1.2 - 8	120	◎	F254
TETRAFORCECUT		0.5 - 4	10	Economy ◎	F061	0.5 - 4	20	Economy ◎	F061
TETRAMINICUT		0.33 - 3	3.5	Economy ◎	F046	0.33 - 3	7	Economy ◎	F046
DUOJUSTCUT		0.6 - 2.5	10.5	◎	F073	0.6 - 2	20	◎	F272
GBR/L		0.33 - 4.5	5	○	F112				
MY-T SERIES		2 - 5	25	○	F079	2 - 5	120	○	F276
EASYMULTICUT									
TUNGHEAVYGROOVE		10 - 25	50	◎	F107				
SNG / CNG									
XG/XN		1 - 4.5 (XGR/L)	6	○	F119				
Other		1 - 3 (FLG-CB)	4.07	○	F095				
		1 - 2.25 (GTGN)	1.8	○	F105				
		1.15 - 4.2 (GLR/L)	4	○	F117				

◎ : First choice
○ : Usable

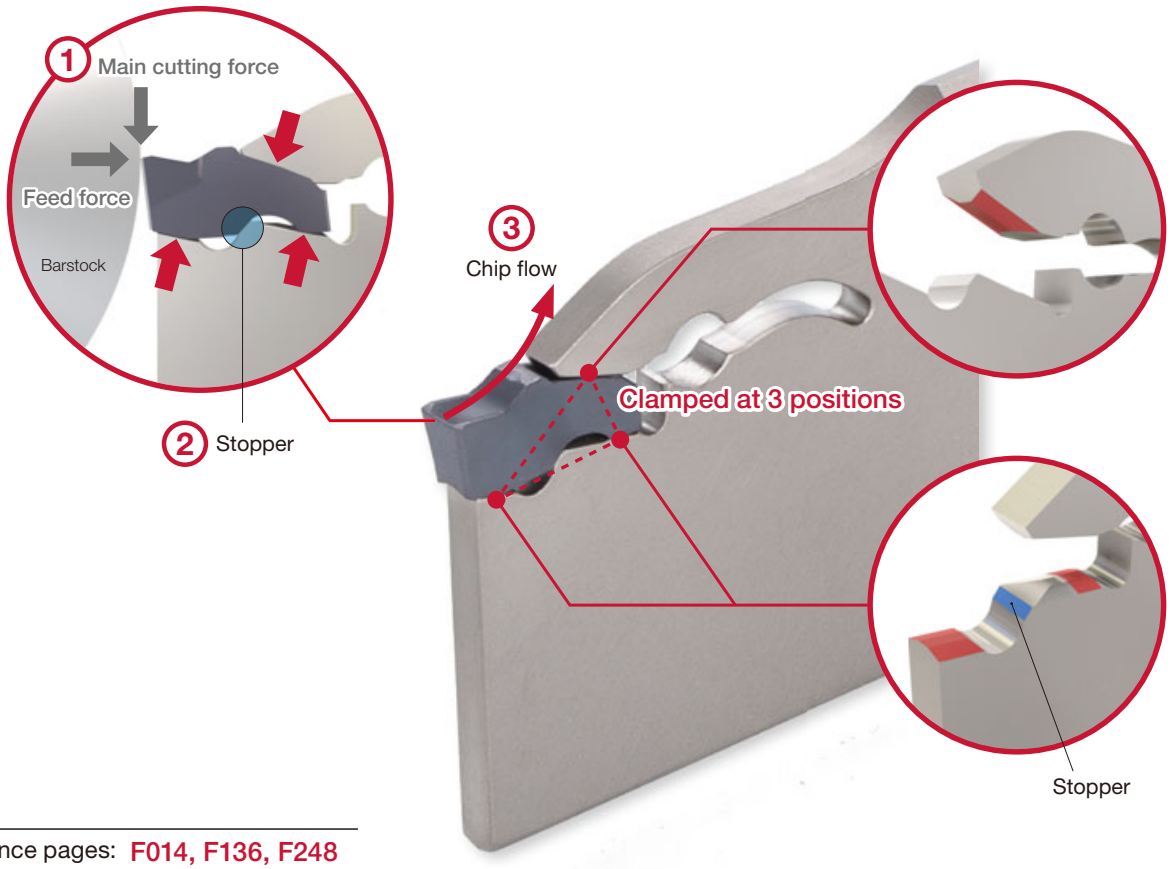
	Face grooving					Internal grooving					Profiling (Full-R)				Turning			
																		
	CW (mm)	CDX (mm)	DAXN (mm)	Priority	Page	CW (mm)	CDX (mm)	DMIN (mm)	Priority	Page	CW (mm)	CDX (mm)	Priority	Page	CW (mm)	CDX (mm)	Priority	Page
						0.5 - 3	3	10.5	First choice ◎	F134								
	2 - 6	25	25	First choice ◎	F196	2 - 8	10	25	◎	F140	2 - 8	35	First choice ◎	F016 F286	2 - 8	35	First choice ◎	F016
											1.57 - 3	6.4	Economy ◎	F061				
	0.33 - 3	3	6	Economy ◎	F223						1 - 3.18	3.5	Economy ◎	F046				
															2 - 2.5 (JXDX)	6	◎	F073
						0.33 - 4.5	2.5	35	○	F179	1 - 4	5	○	F112				
	3 - 5	22	30	○	F238	3 - 5	6	25	○	F161	3 - 5	25	○	F079	3 - 5	25	○	F079
	4 - 6	65	30	◎	F190													
						1 - 3.5	3	8	○	F182								
	1 - 4.5 (XNR/L)	6	55	○	F246	1 - 4.5 (XGR/L)	6	55	○	F188								
						1 - 3 (FLG-CB)	4.07	34.9	○	F167								
						1 - 2.25 (GTGN)	1.8	24	○	F177								

ADDFORCE CUT



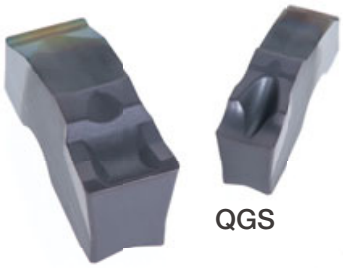
Highly rigid self-clamping system improves productivity for deep grooving and parting-off operations

1. The stopper supporting the insert bottom ensures secure edge position for excellent repeatability
2. The pocket is designed to securely spring-clamp the insert with three contact faces for stability
3. Smooth uninterrupted chip flow is possible thanks to two variations of effective 3D chipbreakers



Reference pages: F014, F136, F248





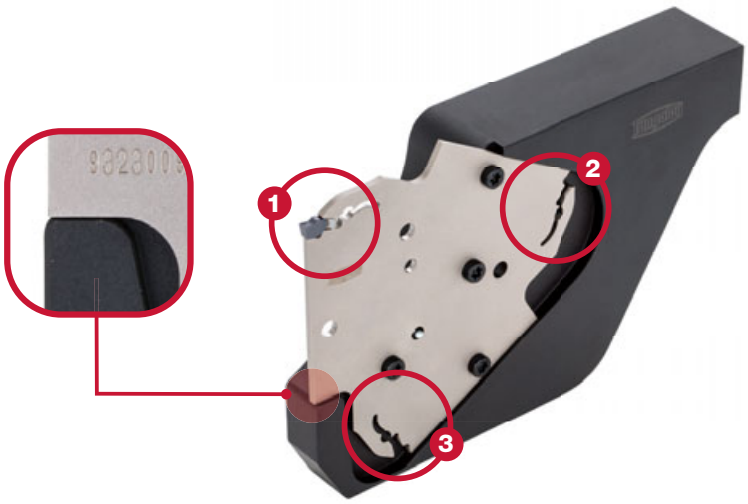
Strong holder design ensures tool stability and productivity gains during demanding cutting conditions

The blade provides reduced tooling cost with three insert pockets, while its strong backing beneath the insert withstands heavy cutting loads during machining.

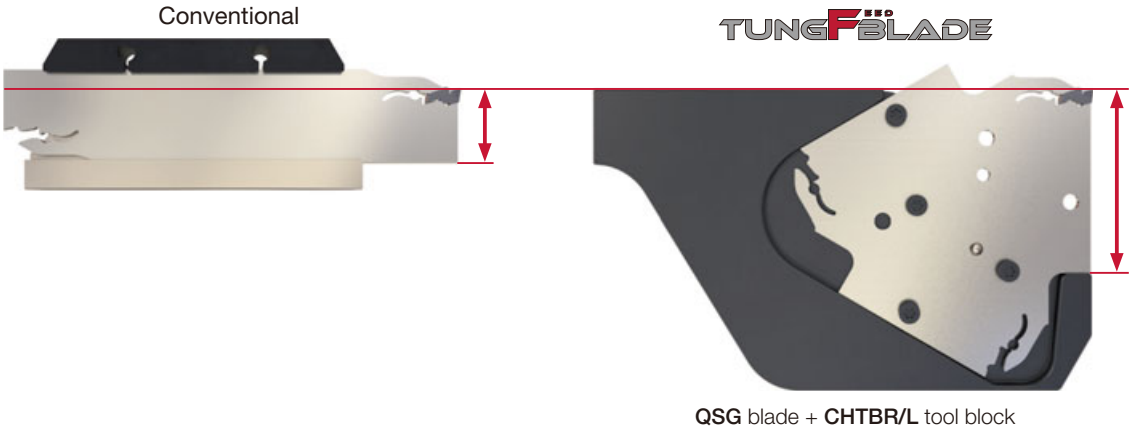
Economical blade with three insert pockets.

Specially designed tool block has two contact faces to provide enhanced tool rigidity.





With much thicker support than existing grooving blades, tool deflection and chatter are minimized even at higher feed rates.



QSG blade + **CHTBR/L** tool block

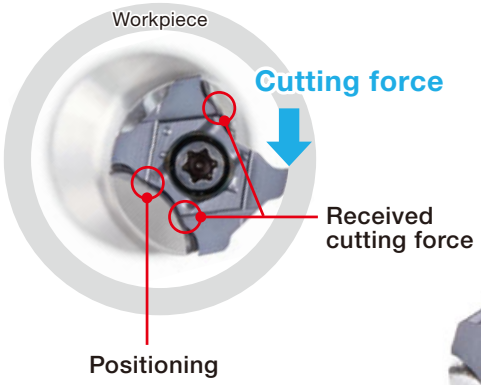
Reference pages: F250 - F251, F259 - F260

INTERNAL ADDICUT

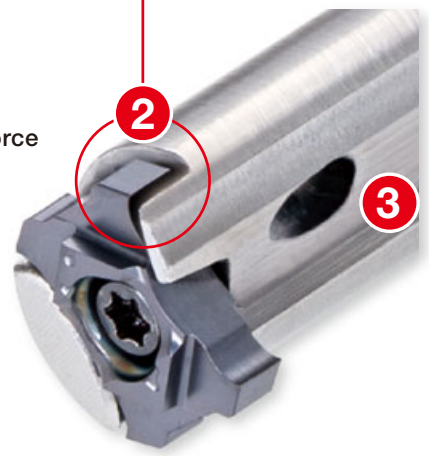


Unique insert clamping system ensures high indexing repeatability and clamping rigidity

1 The insert is supported at three optimized positions for rigid clamping and superior repeatability

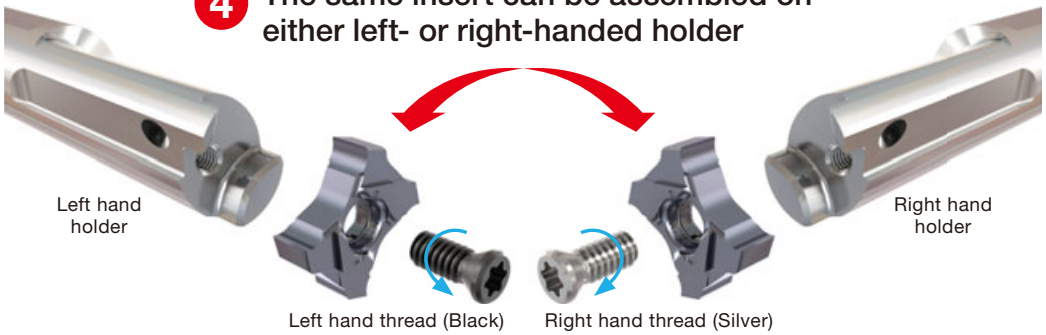


Protective pocket design for un-used cutting edges



Through coolant

4 The same insert can be assembled on either left- or right-handed holder



Prevents the screw from loosening while machining

Reference pages: F134

TUNGCUT

Multi-functional grooving tool series with excellent versatility



New modular holder system enhances versatility of existing monoblock holder and TungCap (PSC) lines.

High-pressure coolant system improves chip flow and tool life.

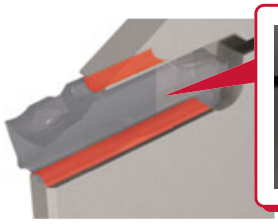
High clamping rigidity

For stable tool life and accuracy

Clamping system



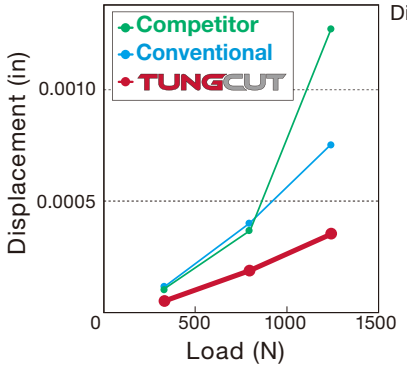
Stable and safe contact areas

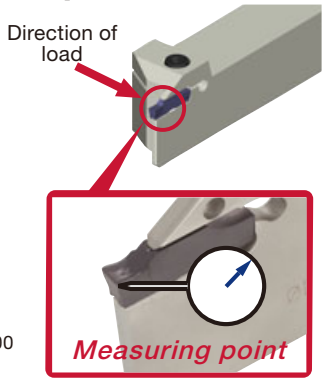




High repeatability and durability due to long pocket!

Minimizes cutting edge displacement





Excellent chip control at low feed rates

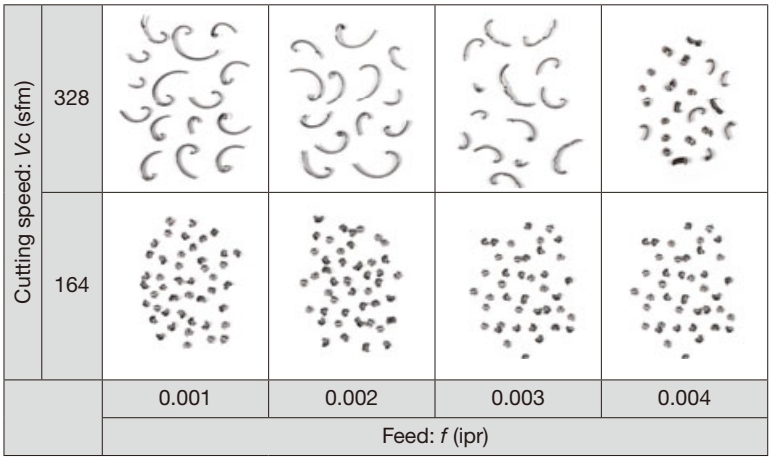
P **Bearing steel (52100)**

First choice chipbreaker for bearing steel.
Excellent chip control at low feed rates.



DGL

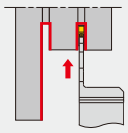
Workpiece material : SUJ2
Toolholder : CTER2525-3T09
Insert : DGL3-025
Cutting speed : *Vc* = 164, 328 sfm
Groove width : 0.118"

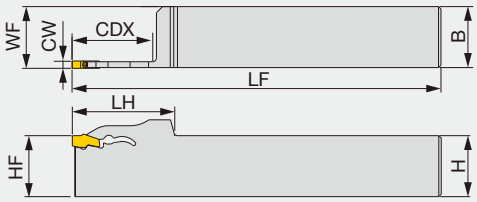


Reference pages: F016, F140, F196, F254, F286

QSER/L

External toolholders for grooving and parting







Right hand (R) shown.

Inch	CW	CDX	Seat size	H	B	LF	LH	HF	WF
QSER/L12-2T26	0.079	1.024	2	0.750	0.750	5.000	1.417	0.750	0.756
QSER/L12-2T33	0.079	1.299	2	0.750	0.750	5.000	1.654	0.750	0.756
QSER/L16-2T26	0.079	1.024	2	1.000	1.000	6.000	1.417	1.000	1.004
QSER/L16-2T33	0.079	1.299	2	1.000	1.000	6.000	1.654	1.000	1.004
QSER/L12-3T26	0.118	1.024	3	0.750	0.750	5.000	1.417	0.750	0.764
QSER/L12-3T33	0.118	1.299	3	0.750	0.750	5.000	1.654	0.750	0.764
QSER/L16-3T26	0.118	1.024	3	1.000	1.000	6.000	1.417	1.000	1.012
QSER/L16-3T33	0.118	1.299	3	1.000	1.000	6.000	1.654	1.000	1.012
QSER/L12-4T33	0.157	1.299	4	0.750	0.750	5.000	1.654	0.750	0.768
QSER/L16-4T33	0.157	1.299	4	1.000	1.000	6.000	1.654	1.000	1.016
QSER/L16-5T33	0.197	1.299	5	1.000	1.000	6.000	1.654	1.000	1.020
QSER/L16-6T36	0.236	1.417	6	1.000	1.000	6.000	1.890	1.000	1.016

Metric	CW	CDX	Seat size	H	B	LF	LH	HF	WF
QSER/L2020-2T26	2	26	2	20	20	125	36	20	20.1
QSER/L2020-2T33	2	33	2	20	20	125	42	20	20.1
QSER/L2525-2T26	2	26	2	25	25	150	36	25	25.1
QSER/L2525-2T33	2	33	2	25	25	150	42	25	25.1
QSER/L2020-3T26	3	26	3	20	20	125	36	20	20.3
QSER/L2020-3T33	3	33	3	20	20	125	42	20	20.3
QSER/L2525-3T26	3	26	3	25	25	150	36	25	25.3
QSER/L2525-3T33	3	33	3	25	25	150	42	25	25.3
QSER/L2020-4T33	4	33	4	20	20	125	42	20	20.4
QSER/L2525-4T33	4	33	4	25	25	150	42	25	25.4
QSER/L2525-5T33	5	33	5	25	25	150	42	25	25.5

SPARE PARTS



Designation	Wrench
QSER/L...	QL-39

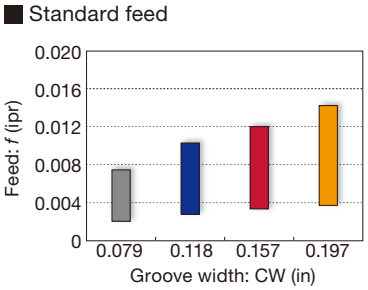
CHIPBREAKER GUIDE

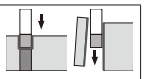
QGM



First choice for grooving and parting

Smooth chip evacuation
Well-designed edge with high strength
CW = 0.079" - 0.197"



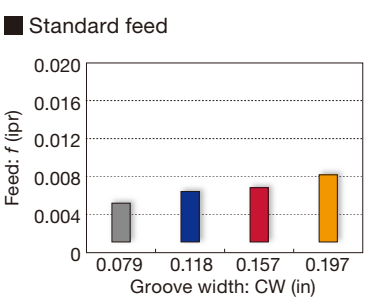


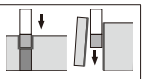
QGS



Lower cutting force and superior sharpness

Uniquely designed edge and chipbreaker
CW = 0.079" - 0.197"



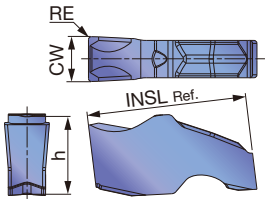


INSERTS

QGM

External deep grooving and parting





P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	★	
H	Hard materials		

★ : First choice

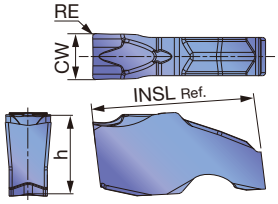
Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	INSL (in)	h (in)
QGM2-020	2	2	0.079	0.008	●	0.433	0.209
QGM3-020	3	3	0.118	0.008	●	0.433	0.209
QGM4-030	4	4	0.157	0.012	●	0.512	0.287
QGM5-030	5	5	0.197	0.012	●	0.512	0.287

●: Line up

QGS

External deep grooving and parting





P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	★	
H	Hard materials		

★ : First choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	INSL (in)	h (in)
QGS2-020	2	2	0.079	0.008	●	0.433	0.209
QGS3-020	3	3	0.118	0.008	●	0.433	0.209
QGS4-030	4	4	0.157	0.012	●	0.512	0.287
QGS5-030	5	5	0.197	0.012	●	0.512	0.287

●: Line up

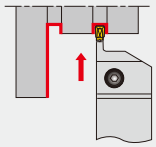
STANDARD CUTTING CONDITIONS

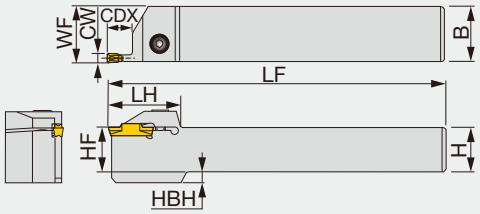
ISO	Workpiece material	Hardness	Grade	Cutting speed *Vc* (sfm)
P	Steel 1045, 4140, etc.	< 300 HB	AH7025	164 - 591
M	Stainless steel 304, etc.	< 200 HB	AH7025	164 - 394
K	Gray cast iron No.250B, etc.	-	AH7025	164 - 591
	Ductile cast iron 65-45-12, etc.	-	AH7025	164 - 394
S	Superalloys Inconel718, etc.	< HRC 40	AH7025	66 - 197
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	AH7025	66 - 262

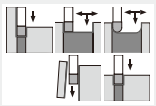
Please see page **F014** for feed: *f* (ipr).

CTER/L

External grooving, parting and turning toolholder







Right hand (R) shown.

Inch	CW	Seat size	CDX	H	B	LF	LH	HF	WF (1)	HBH	Torque
CTER/L10-2T08	0.079	2	0.315	0.625	0.625	4.500	1.299	0.625	0.629	0.157	3.69
CTER/L12-2T08	0.079	2	0.315	0.750	0.750	5.000	1.299	0.750	0.754	-	3.69
CTER/L16-2T08	0.079	2	0.315	1.000	1.000	6.000	1.299	1.000	1.004	-	3.69
CTER/L10-2T12	0.079	2	0.472	0.625	0.625	4.500	1.260	0.625	0.629	0.157	3.69
CTER/L12-2T12	0.079	2	0.472	0.750	0.750	5.000	1.260	0.750	0.754	-	3.69
CTER/L16-2T12	0.079	2	0.472	1.000	1.000	6.000	1.260	1.000	1.004	-	3.69
CTER/L10-2T17	0.079	2	0.669	0.625	0.625	4.500	1.457	0.625	0.629	0.157	3.69
CTER/L12-2T17	0.079	2	0.669	0.750	0.750	5.000	1.457	0.750	0.754	-	3.69
CTER/L16-2T17	0.079	2	0.669	1.000	1.000	6.000	1.457	1.000	1.004	-	3.69
CTER/L10-3T09	0.118	3	0.354	0.625	0.625	4.500	1.260	0.625	0.637	0.157	3.69
CTER/L12-3T09	0.118	3	0.354	0.750	0.750	5.000	1.260	0.750	0.762	-	3.69
CTER/L16-3T09	0.118	3	0.354	1.000	1.000	6.000	1.260	1.000	1.012	-	3.69
CTER/L12-3T12	0.118	3	0.472	0.750	0.750	5.000	1.260	0.750	0.763	-	3.69
CTER/L16-3T12	0.118	3	0.472	1.000	1.000	6.000	1.260	1.000	1.011	-	3.69
CTER/L10-3T20	0.118	3	0.787	0.625	0.625	4.500	1.516	0.625	0.637	0.157	3.69
CTER/L12-3T20	0.118	3	0.787	0.750	0.750	5.000	1.516	0.750	0.762	-	3.69
CTER/L16-3T20	0.118	3	0.787	1.000	1.000	6.000	1.516	1.000	1.012	-	3.69
CTER/L16-3T25	0.118	3	0.984	1.000	1.000	6.000	1.752	1.000	1.012	-	3.69
CTER/L10-4T10	0.157	4	0.394	0.625	0.625	4.500	1.260	0.625	0.645	0.157	6.27
CTER/L12-4T10	0.157	4	0.394	0.750	0.750	5.000	1.260	0.750	0.770	-	6.27
CTER/L16-4T10	0.157	4	0.394	1.000	1.000	6.000	1.260	1.000	1.020	-	6.27
CTER/L12-4T15	0.157	4	0.590	0.750	0.750	5.000	1.299	0.750	0.771	-	6.27
CTER/L16-4T15	0.157	4	0.590	1.000	1.000	6.000	1.299	1.000	1.019	-	6.27
CTER/L10-4T25	0.157	4	0.984	0.625	0.625	4.500	1.772	0.625	0.645	0.157	6.27
CTER/L12-4T25	0.157	4	0.984	0.750	0.750	5.000	1.772	0.750	0.770	-	6.27
CTER/L16-4T25	0.157	4	0.984	1.000	1.000	6.000	1.772	1.000	1.020	-	6.27
CTER/L20-4T25	0.157	4	0.984	1.250	1.250	7.000	1.772	1.250	1.270	-	6.27
CTER/L12-5T12	0.197	5	0.472	0.750	0.750	5.000	1.457	0.750	0.769	-	6.27
CTER/L16-5T12	0.197	5	0.472	1.000	1.000	6.000	1.457	1.000	1.019	-	6.27
CTER/L16-5T20	0.197	5	0.787	1.000	1.000	6.000	1.457	1.000	1.023	-	6.27
CTER/L16-5T32	0.197	5	1.260	1.000	1.000	6.000	2.205	1.000	1.019	-	6.27
CTER/L20-5T32	0.197	5	1.260	1.250	1.250	7.000	2.205	1.250	1.269	-	6.27
CTER/L12-6T12	0.236	6	0.472	0.750	0.750	5.000	1.457	0.750	0.770	-	8.85
CTER/L16-6T12	0.236	6	0.472	1.000	1.000	6.000	1.457	1.000	1.020	0.276	8.85
CTER/L16-6T20	0.236	6	0.787	1.000	1.000	6.000	1.614	1.000	1.023	0.276	8.85
CTER/L16-6T32	0.236	6	1.260	1.000	1.000	6.000	2.205	1.000	1.020	0.276	8.85
CTER/L20-6T32	0.236	6	1.260	1.250	1.250	7.000	2.205	1.250	1.270	-	8.85
CTER/L16-8T16	0.315	8	0.630	1.000	1.000	6.000	1.850	1.000	1.039	0.276	8.85
CTER/L16-8T25	0.315	8	0.984	1.000	1.000	6.000	1.850	1.000	1.039	0.276	8.85
CTER/L20-8T25	0.315	8	0.984	1.250	1.250	7.000	1.850	1.250	1.289	-	8.85
CTER/L16-8T36	0.315	8	1.417	1.000	1.000	6.000	2.362	1.000	1.039	0.276	8.85
CTER/L20-8T36	0.315	8	1.417	1.250	1.250	7.000	2.362	1.250	1.289	-	8.85

Metric	CW	Seat size	CDX	H	B	LF	LH	HF	WF (1)	HBH	Torque*
CTER/L1616-2T08	2	2	8	16	16	110	33	16	16.1	4	5
CTER/L2020-2T08	2	2	8	20	20	125	33	20	20.1	-	5
CTER/L2525-2T08	2	2	8	25	25	150	33	25	25.1	-	5
CTER/L1616-2T12	2	2	12	16	16	110	32	16	16.1	4	5
CTER/L2020-2T12	2	2	12	20	20	125	32	20	20.1	-	5
CTER/L2525-2T12	2	2	12	25	25	150	32	25	25.1	-	5
CTER/L1616-2T17	2	2	17	16	16	110	37	16	16.1	4	5
CTER/L2020-2T17	2	2	17	20	20	125	37	20	20.1	-	5
CTER/L2525-2T17	2	2	17	25	25	150	37	25	25.1	-	5
CTER/L2525-2T20	2	2	20	25	25	150	38.5	25	25.1	-	5
CTER/L1616-3T09	3	3	9	16	16	110	32	16	16.3	4	5
CTER/L2020-3T09	3	3	9	20	20	125	32	20	20.3	-	5
CTER/L2525-3T09	3	3	9	25	25	150	32	25	25.3	-	5
CTER/L1616-3T12	3	3	12	16	16	110	32	16	16.3	4	5
CTER/L2020-3T12	3	3	12	20	20	125	32	20	20.3	-	5
CTER/L2525-3T12	3	3	12	25	25	150	32	25	25.3	-	5
CTER/L1616-3T20	3	3	20	16	16	110	38.5	16	16.3	4	5

Metric	CW	Seat size	CDX	H	B	LF	LH	HF	WF (1)	HBH	Torque*
CTER/L2020-3T20	3	3	20	20	20	125	38.5	20	20.3	-	5
CTER/L2525-3T20	3	3	20	25	25	150	38.5	25	25.3	-	5
CTER/L2525-3T25	3	3	25	25	25	150	44.5	25	25.3	-	5
CTER/L1616-4T10	4	4	10	16	16	110	32	16	16.5	4	8.5
CTER/L2020-4T10	4	4	10	20	20	125	32	20	20.5	-	8.5
CTER/L2525-4T10	4	4	10	25	25	150	32	25	25.5	-	8.5
CTER/L2020-4T15	4	4	15	20	20	125	33	20	20.5	-	8.5
CTER/L2525-4T15	4	4	15	25	25	150	33	25	25.5	-	8.5
CTER/L1616-4T25	4	4	25	16	16	110	45	16	16.5	4	8.5
CTER/L2020-4T25	4	4	25	20	20	125	45	20	20.5	-	8.5
CTER/L2525-4T25	4	4	25	25	25	150	45	25	25.5	-	8.5
CTER/L3232-4T25	4	4	25	32	32	170	45	32	32.5	-	8.5
CTER/L2020-5T12	5	5	12	20	20	125	37	20	20.6	-	8.5
CTER/L2525-5T12	5	5	12	25	25	150	37	25	25.6	-	8.5
CTER/L2525-5T17	5	5	17	25	25	150	37	25	25.6	-	8.5
CTER/L2525-5T20	5	5	20	25	25	150	37	25	25.6	-	8.5
CTER/L2525-5T32	5	5	32	25	25	150	56	25	25.6	-	8.5
CTER/L3232-5T32	5	5	32	32	32	170	56	32	32.6	-	8.5
CTER/L2020-6T12	6	6	12	20	20	125	37	20	20.6	-	12
CTER/L2525-6T12	6	6	12	25	25	150	37	25	25.6	7	12
CTER/L2525-6T16	6	6	16	25	25	150	39	25	25.6	7	12
CTER/L2525-6T20	6	6	20	25	25	150	41	25	25.6	7	12
CTER/L2525-6T25	6	6	25	25	25	150	47	25	25.6	7	12
CTER/L2525-6T32	6	6	32	25	25	150	56	25	25.6	7	12
CTER/L3232-6T32	6	6	32	32	32	170	56	32	32.6	-	12
CTER/L2525-8T16	8	8	16	25	25	150	47	25	26.1	7	12
CTER/L2525-8T25	8	8	25	25	25	150	47	25	26.1	7	12
CTER/L3232-8T25	8	8	25	32	32	170	47	32	33.1	-	12
CTER/L3232-8T32	8	8	32	32	32	170	56	32	33.1	-	12
CTER/L2525-8T36	8	8	36	25	25	150	60	25	26.1	7	12
CTER/L3232-8T36	8	8	36	32	32	170	60	32	33.1	-	12

When groove depth is larger than (insert length - 0.059" [1.5 mm]), please use 1-cornered insert.
(1) "WF" value is calculated with groove width "CW" shown in the table.
Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
CTER/L10-2T08, CTER/L1616-2T08	CM5X0.8X16-A	P-4
CTER/L12-2T08, CTER/L2020-2T08	CM5X0.8X20-A	P-4
CTER/L16-2T08, CTER/L2525-2T08	CM5X0.8X25-A	P-4
CTER/L10-2T12, CTER/L1616-2T12	CM5X0.8X16-A	P-4
CTER/L12-2T12, CTER/L2020-2T12	CM5X0.8X20-A	P-4
CTER/L16-2T12, CTER/L2525-2T12	CM5X0.8X25-A	P-4
CTER/L10-2T17, CTER/L1616-2T17	CM5X0.8X16-A	P-4
CTER/L12-2T17, CTER/L2020-2T17	CM5X0.8X20-A	P-4
CTER/L16-2T17, CTER/L2525-2T17	CM5X0.8X25-A	P-4
CTER/L2525-2T20	CM5X0.8X25-A	P-4
CTER/L10-3T09, CTER/L1616-3T09	CM5X0.8X16-A	P-4
CTER/L12-3T09, CTER/L2020-3T09	CM5X0.8X20-A	P-4
CTER/L16-3T09, CTER/L2525-3T09	CM5X0.8X25-A	P-4
CTER/L1616-3T12	CM5X0.8X16-A	P-4
CTER/L12-3T12, CTER/L2020-3T12	CM5X0.8X20-A	P-4
CTER/L16-3T12, CTER/L2525-3T12	CM5X0.8X25-A	P-4
CTER/L10-3T20, CTER/L1616-3T20	CM5X0.8X16-A	P-4
CTER/L12-3T20, CTER/L2020-3T20	CM5X0.8X20-A	P-4
CTER/L16-3T20, CTER/L2525-3T20	CM5X0.8X25-A	P-4
CTER/L16-3T25, CTER/L2525-3T25	CM5X0.8X25-A	P-4
CTER/L10-4T10, CTER/L1616-4T10	CM6X1X16-A	P-5
CTER/L12-4T10, CTER/L2020-4T10	CM6X1X20-A	P-5
CTER/L16-4T10, CTER/L2525-4T10	CM6X1X25-A	P-5
CTER/L12-4T15, CTER/L2020-4T15	CM6X1X20-A	P-5

SPARE PARTS

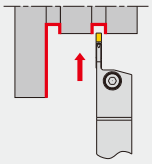
Designation	Clamping screw	Wrench
CTER/L16-4T15, CTER/L2525-4T15	CM6X1X25-A	P-5
CTER/L10-4T25, CTER/L1616-4T25	CM6X1X16-A	P-5
CTER/L12-4T25, CTER/L2020-4T25	CM6X1X20-A	P-5
CTER/L16-4T25, CTER/L2525-4T25	CM6X1X25-A	P-5
CTER/L20-4T25, CTER/L3232-4T25	CM6X1X25-A	P-5
CTER/L12-5T12, CTER/L2020-5T12	CM6X1X20-A	P-5
CTER/L16-5T12, CTER/L2525-5T12	CM6X1X25-A	P-5
CTER/L2525-5T17	CM6X1X25-A	P-5
CTER/L16-5T20, CTER/L2525-5T20	CM6X1X25-A	P-5
CTER/L16-5T32, CTER/L2525-5T32	CM6X1X25-A	P-5
CTER/L20-5T32, CTER/L3232-5T32	CM6X1X25-A	P-5
CTER/L12-6T12, CTER/L2020-6T12	CM8X1.25X20-A	P-6
CTER/L16-6T12, CTER/L2525-6T12	CM8X1.25X25-A	P-6
CTER/L2525-6T16	CM8X1.25X25-A	P-6
CTER/L16-6T20, CTER/L2525-6T20	CM8X1.25X25-A	P-6
CTER/L2525-6T25	CM8X1.25X25-A	P-6
CTER/L16-6T32, CTER/L2525-6T32	CM8X1.25X25-A	P-6
CTER/L20-6T32, CTER/L3232-6T32	CM8X1.25X25-A	P-6
CTER/L16-8T16, CTER/L2525-8T16	CM8X1.25X25-A	P-6
CTER/L16-8T25, CTER/L2525-8T25	CM8X1.25X25-A	P-6
CTER/L20-8T25, CTER/L3232-8T25	CM8X1.25X25-A	P-6
CTER/L3232-8T32	CM8X1.25X25-A	P-6
CTER/L16-8T36, CTER/L2525-8T36	CM8X1.25X25-A	P-6
CTER/L20-8T36, CTER/L3232-8T36	CM8X1.25X25-A	P-6

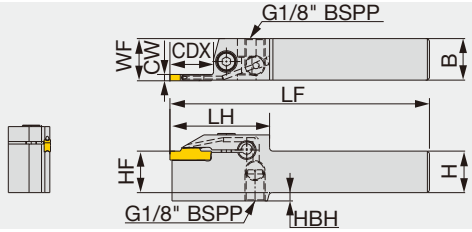
Reference pages: Inserts → F030 - F044, Standard cutting conditions → F045

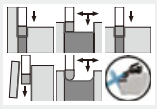
CTER/L-CHP

Tube connection

External grooving and parting toolholder, with high pressure coolant capability







Right hand (R) shown.

Inch	CW	Seat size	CDX	H	B	LF	LH	HF	WF (1)	HBH	Torque
CTER/L12-2T17-CHP	0.079	2	0.669	0.750	0.750	5.000	1.772	0.750	0.754	0.157	4.06
CTER/L16-2T17-CHP	0.079	2	0.669	1.000	1.000	6.000	1.772	1.000	1.004	-	4.06
CTER/L12-3T25-CHP	0.118	3	0.984	0.750	0.750	5.000	2.008	0.750	0.762	0.157	4.06
CTER/L16-3T25-CHP	0.118	3	0.984	1.000	1.000	6.000	2.008	1.000	1.012	-	4.06
CTER/L16-4T25-CHP	0.157	4	0.984	1.000	1.000	6.000	2.170	1.000	1.020	-	5.9
CTER/L16-5T32-CHP	0.197	5	1.260	1.000	1.000	6.000	2.323	1.000	1.022	-	5.9
CTER/L16-6T32-CHP	0.236	6	1.260	1.000	1.000	6.000	2.441	1.000	1.023	0.276	8.85

Metric	CW	Seat size	CDX	H	B	LF	LH	HF	WF (1)	HBH	Torque*
CTER/L2020-2T17-CHP	2	2	17	20	20	125	45	20	20.1	4	5.5
CTER/L2525-2T17-CHP	2	2	17	25	25	150	45	25	25.1	-	5.5
CTER/L2020-3T20-CHP	3	3	20	20	20	125	48	20	20.3	4	5.5
CTER/L2525-3T20-CHP	3	3	20	25	25	150	48	25	25.3	-	5.5
CTER/L2525-3T25-CHP	3	3	25	25	25	150	51	25	25.3	-	5.5
CTER/L2525-4T25-CHP	4	4	25	25	25	150	55	25	25.5	-	8
CTER/L2525-5T20-CHP	5	5	20	25	25	150	49	25	25.58	-	8
CTER/L2525-6T20-CHP	6	6	20	25	25	150	52	25	25.58	7	12

When groove depth is larger than (insert length - 0.059" [1.5 mm]), please use 1-cornered insert.
(1) "WF" value is calculated with groove width "CW" shown in the table.
Torque: Recommended clamping torque: lbs·ft (*N·m)

INCH SPARE PARTS




Designation	Clamping screw	Wrench
CTER/L12-2T17-CHP	CM5X0.8X20-A	P-4
CTER/L16-2T17-CHP	CM5X0.8X20-A	P-4
CTER/L12-3T25-CHP	CM5X0.8X25-A	P-4
CTER/L16-3T25-CHP	CM5X0.8X25-A	P-4
CTER/L16-4T25-CHP	CM6X1X16-A	P-5
CTER/L16-5T32-CHP	CM6X1X16-A	P-5
CTER/L16-6T32-CHP	CM8X1.25X20-A	P-6

METRIC SPARE PARTS

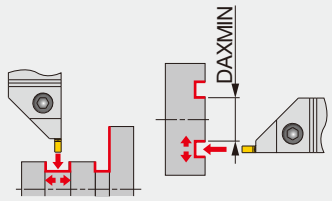


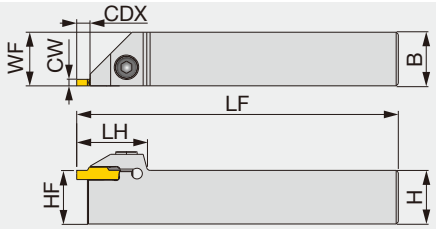

Designation	Clamping screw	Wrench
CTER/L2020-2T17-CHP	CM5x0.8x20-A	P-4
CTER/L2525-2T17-CHP	CM5x0.8x25-A	P-4
CTER/L2020-3T20-CHP	CM5x0.8x20-A	P-4
CTER/L2525-3T20-CHP	CM5x0.8x25-A	P-4
CTER/L2525-3T25-CHP	CM5x0.8x25-A	P-4
CTER/L2525-4T25-CHP	CM6x1x16-A	P-5
CTER/L2525-5T20-CHP	CM6x1x16-A	P-5
CTER/L2525-6T20-CHP	CM8x1.25x20-A	P-6

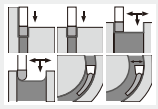
Reference pages: Inserts → F030 - F044, Standard cutting conditions → F045
Parts for coolant hose → F290

CTEFR/L

External face grooving and turning toolholder







Right hand (R) shown.

Inch	CW	Seat size	CDX	H	B	LF	LH	HF	WF (1)	Torque
CTEFR/L12-4T04	0.157	2, 3, 4	0.189	0.750	0.750	5.000	1.300	0.750	0.770	6.27
CTEFR/L16-4T04	0.157	2, 3, 4	0.189	1.000	1.000	6.000	1.300	1.000	1.020	6.27
CTEFR/L12-6T04	0.236	5, 6	0.189	0.750	0.750	5.000	1.460	0.750	0.770	6.27
CTEFR/L16-6T04	0.236	5, 6	0.189	1.000	1.000	6.000	1.460	1.000	1.020	6.27

Metric	CW	Seat size	CDX	H	B	LF	LH	HF	WF (1)	Torque*
CTEFR/L2020-4T04	4	2, 3, 4	4.8	20	20	125	33	20	20.5	8.5
CTEFR/L2525-4T04	4	2, 3, 4	4.8	25	25	150	33	25	25.5	8.5
CTEFR/L2020-6T04	6	5, 6	4.8	20	20	125	37	20	20.6	8.5
CTEFR/L2525-6T04	6	5, 6	4.8	25	25	150	37	25	25.6	8.5

Use the right-hand insert for the right-hand holder with DTF insert.
(1) "WF" value is calculated with groove width "CW" shown in the table.
Torque: Recommended clamping torque: lbs·ft (*N·m)

INCH SPARE PARTS

Designation	Clamping screw	Wrench
CTEFR/L12-4T04	CM6X1X20-A	P-5
CTEFR/L16-4T04	CM6X1X25-A	P-5
CTEFR/L12-6T04	CM6X1X20-A	P-5
CTEFR/L16-6T04	CM6X1X25-A	P-5

METRIC SPARE PARTS

Designation	Clamping screw	Wrench
CTEFR/L2020-4T04	CM6X1X20-A	P-5
CTEFR/L2525-4T04	CM6X1X25-A	P-5
CTEFR/L2020-6T04	CM6X1X20-A	P-5
CTEFR/L2525-6T04	CM6X1X25-A	P-5

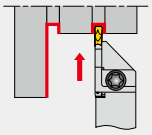
Insert	Groove width CW (in)	Face grooving Min. machining dia. DAXMIN (in)
DGM / DGS / SGN / DGL	0.079	11.614
DGM / DGS / SGN / DGL	0.118	3.622
DGM / DGS / SGN / DGL	0.157	1.457
DGM / DGS / SGN / DGL	0.197	2.362
DGM / DGS / DGL	0.236	2.244
DTX / DTM / DTR	0.079	11.614
DTE / DGG / DTM	0.118	2.441
DTE / DGG / DTM	0.157	1.654
DTE / DGG / DTM	0.197	2.520
DTE / DGG / DTM	0.236	2.402
DTR	0.118	1.732
DTR	0.157	1.260
DTR	0.197	1.890
DTR	0.236	1.890
DTX	0.118	0.866
DTX	0.157	0.787
DTX	0.197	0.787
DTX	0.236	0.906
DTF	0.118	0.787
DTF	0.157	0.787

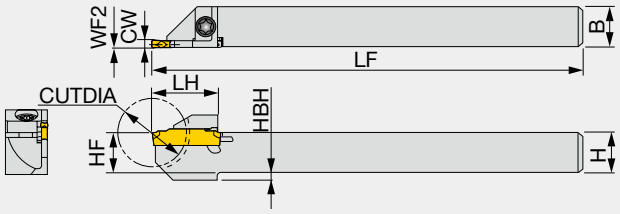
Insert	Groove width CW (mm)	Face grooving Min. machining dia. DAXMIN (mm)
DGM / DGS / SGN / DGL	2	295
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTX / DTM / DTR	2	295
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

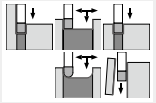
Reference pages: Inserts → F030 - F044, Standard cutting conditions → F045

JCTER/L

External grooving and parting toolholder, for Swiss lathes







Right hand (R) shown.

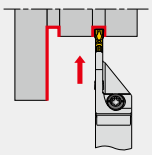
Inch	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	Torque
JCTER/L08-2T12	0.079	2	0.945	0.500	0.500	4.750	0.748	0.500	0.005/0.505	0.051	2.21
JCTER/L08-3T12	0.118	3	0.945	0.500	0.500	4.750	0.748	0.500	0.012/0.512	0.051	2.21
JCTER/L10-2T16	0.079	2	1.260	0.625	0.625	4.750	0.945	0.625	0.005/0.630	-	2.21
JCTER/L10-3T16	0.118	3	1.260	0.625	0.625	4.750	0.945	0.625	0.012/0.637	-	2.21

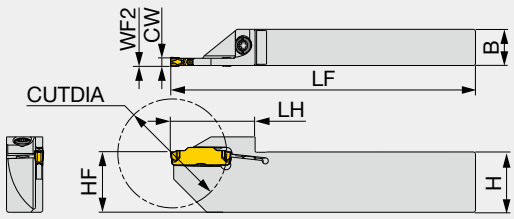
Metric	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	Torque*
JCTER/L1010X1.4T10	1.4	1	20	10	10	120	18	10	0.2/10.2	-	3
JCTER/L1212F1.4T12	1.4	1	24	12	12	85	19.5	12	0.2/12.2	-	3
JCTER/L1212X1.4T12	1.4	1	24	12	12	120	19.5	12	0.2/12.2	-	3
JCTER/L1414-1.4T12	1.4	1	24	14	14	125	19.5	14	0.2/14.2	-	3
JCTER/L1616X1.4T16	1.4	1	32	16	16	120	24	16	0.2/16.2	-	3
JCTER/L1010X2T10	2	2	20	10	10	120	19	10	0.1/10.1	2	3
JCTER/L1212F2T12	2	2	24	12	12	85	19	12	0.1/12.1	2	3
JCTER/L1212X2T12	2	2	24	12	12	120	19	12	0.1/12.1	2	3
JCTER/L1414-2T12	2	2	24	14	14	125	19	14	0.1/14.1	-	3
JCTER/L1616X2T16	2	2	32	16	16	120	24	16	0.1/16.1	-	3
JCTER/L1212F3T12	3	3	24	12	12	85	19	12	0.3/12.3	2	3
JCTER/L1212X3T12	3	3	24	12	12	120	19	12	0.3/12.3	2	3
JCTER/L1616X3T16	3	3	32	16	16	120	24	16	0.3/16.3	-	3
JCTER/L2020H3T16	3	3	32	20	20	100	24	20	0.3/20.3	-	3

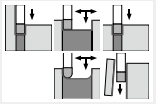
(1) "WF2" value is calculated with groove width "CW" shown in the table.
Torque: Recommended clamping torque: lbs·ft (*N·m)

JCTER/L2012

External grooving and parting toolholder, for Swiss lathes, with 20 mm shank height







Right hand (R) shown.

Metric	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	Torque
JCTER/L2012H2T18	2	2	36	20	12	100	25	20	0.1/12.1	3
JCTER/L2012H3T21	3	3	42	20	12	100	28	20	0.3/12.3	3

(1) "WF2" value is calculated with groove width "CW" shown in the table.
Torque: Recommended clamping torque: N·m

SPARE PARTS





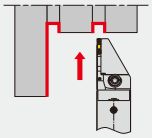
Designation	Clamping screw	Wrench
JCTER/L...	CSHB-4-A	T-15F

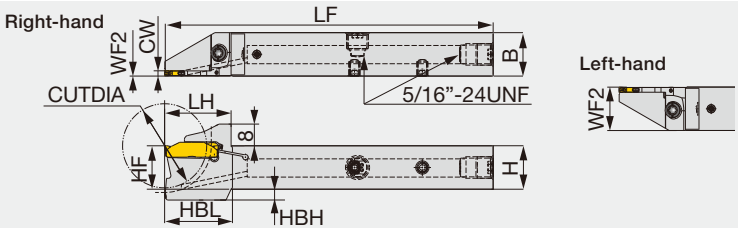
Reference pages: Inserts → F030 - F044, Standard cutting conditions → F045

JCTER/L-CHP

Direct connection

External grooving and parting toolholder, with high pressure coolant capability





Inch	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	HBL	Torque
JCTER/L08X2T12-CHP	0.079	2	0.980	0.500	0.500	4.750	0.972	0.500	0 / 0.500	0.169	0.965	2.21
JCTER/L10X2T12-CHP	0.079	2	0.980	0.625	0.625	4.750	0.972	0.625	0 / 0.625	0.039	0.965	2.21
JCTER/L10X2T16-CHP	0.079	2	1.260	0.625	0.625	4.750	0.972	0.625	0 / 0.625	0.157	0.965	2.21
JCTER/L12X2T16-CHP	0.079	2	1.260	0.750	0.750	4.750	0.972	0.750	0 / 0.750	0.037	0.965	2.21

Metric	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	HBL	Torque*
JCTER/L1212X2T12-CHP	2	2	25	12	12	120	24.7	12	0/12	5	24.7	3
JCTER/L1616X2T12-CHP	2	2	25	16	16	120	24.7	16	0/16	1	24.5	3
JCTER/L1616X2T16-CHP	2	2	32	16	16	120	24.7	16	0/16	4	24.7	3
JCTER/L2020X2T16-CHP	2	2	32	20	20	120	24.7	20	0/20	-	-	3

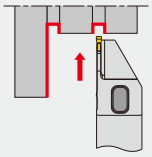
(1) "WF2" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
Torque: Recommended clamping torque: lbs·ft (*N·m)

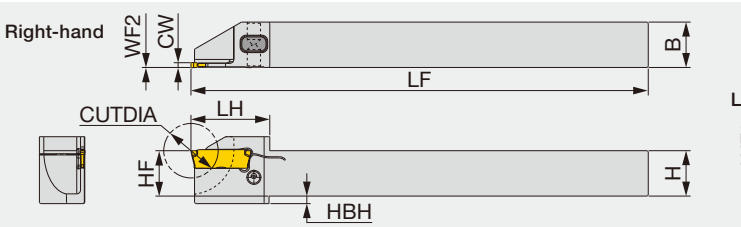
SPARE PARTS

Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JCTER/L...	CSHB-4-A	T-15F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

JTTER/L

External grooving and parting toolholder, for Swiss lathes





Metric	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	Torque
JTTER/L1010H1.2D12	1.2	0.9	12	10	10	100	17	10	0/10	-	1.5
JTTER/L1212F1.2D16	1.2	0.9	16	12	12	85	19	12	0/12	-	1.5
JTTER/L1212X1.2D16	1.2	0.9	16	12	12	120	19	12	0/12	-	1.5
JTTER/L1212X1.2D20	1.2	0.9	20	12	12	120	21	12	0/12	2	1.5
JTTER/L1616X1.2D20	1.2	0.9	20	16	16	120	21	16	0/16	-	2

(1) "WF2" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
Torque: Recommended clamping torque: N·m

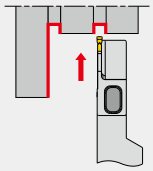
SPARE PARTS

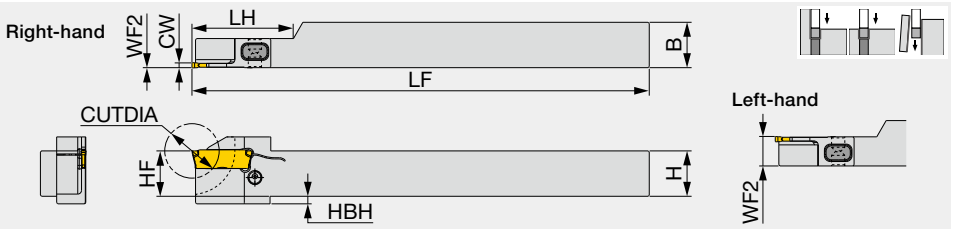
Designation	Clamping screw	Clamping pin	Wrench
JTTER/L1010...	SSM3.5x0.35	PIN-SL-TC	P-2F
JTTER/L1212...	SSM3.5x0.35	PIN-SL-TC	P-2F
JTTER/L1616...	SRM5-24145-RL	PIN-32121	P-2.5F

Reference pages: Inserts → F030 - F044, Standard cutting conditions → F045
Parts for coolant hose → F290

JTTER/L-S

External grooving and parting toolholder, for Swiss lathes (for sub spindle)





Metric	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	Torque
JTTER/L1010H1.2D12-S	1.2	0.9	12	10	10	100	22.8	10	0/7.7	-	1.5
JTTER1212F1.2D16-S (2)	1.2	0.9	16	12	12	85	22.8	12	0	-	1.5
JTTER/L1212X1.2D16-S	1.2	0.9	16	12	12	120	26.8	12	0/7.7	-	1.5
JTTER/L1212X1.2D20-S	1.2	0.9	20	12	12	120	26.8	12	0/7.7	2	1.5
JTTER/L1616X1.2D20-S	1.2	0.9	20	16	16	120	26.8	16	0/7.7	-	1.5

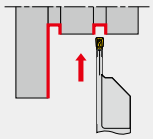
(1) "WF2" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
(2) No clamping screw from the insert side.
Torque: Recommended clamping torque: N·m

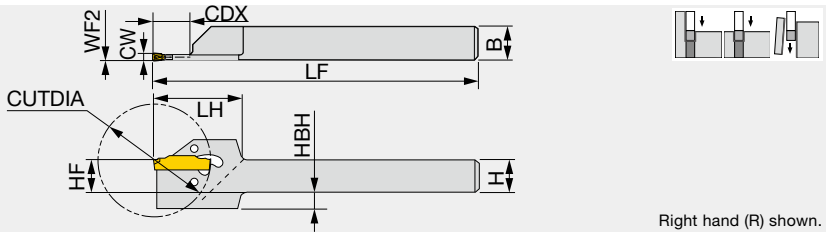
SPARE PARTS

Designation	Clamping screw	Clamping pin	Wrench
JTTER/L**-S	SSM3.5x0.35	PIN-SL-TC	P-2F

CGER/L

External deep grooving and parting toolholder, for Swiss lathes





Right hand (R) shown.

Metric	CW	Seat size	CUTDIA(1)	CDX	H	B	LF	LH	HF	WF2(2)	HBH
CGER/L2020-1.4T14	1.4	1	29/29	9.7	20	20	125	31	20	0.2/20.2	-
CGER/L1212-2T17	2	2	35/35	11.8	12	12	150	31	12	0.1/12.1	6
CGER/L1616-2T17	2	2	35/35	11.8	16	16	150	31	16	0.1/16.1	2
CGER/L2020-2T17	2	2	35/35	9.8	20	20	125	31	20	0.1/20.1	-
CGER/L1212-3T19	3	3	38/40	12	12	12	150	31	12	0.3/12.3	6
CGER/L1616-3T19	3	3	38/45	14.9	16	16	150	31	16	0.3/16.3	2
CGER/L2020-3T19	3	3	38/45	13.2	20	20	125	31	20	0.3/20.3	-
CGER/L2020-4T19	4	4	38/55	20.3	20	20	125	33	20	0.4/20.4	-

Wrench (CRW**) is not included. Please order it separately. Insert is clamped by the elastic deformation of the upper jaw.
(1) DG*/SG* maximum parting diameter will depend on the insert.
(2) "WF2" value is calculated with groove width "CW" shown in the table.

SPARE PARTS

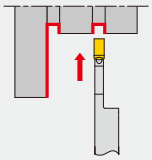
Designation	Wrench (Option)
CGER/L2020-1.4T14	CRW23
CGER/L****-2T17 - 4T19	CRW33

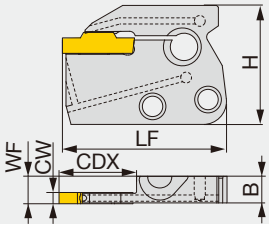
External
Internal
Face
Parting
Others

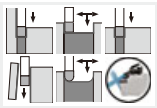
Reference pages: Inserts → F030 - F044, Standard cutting conditions → F045

CAER/L-CHP

External grooving and parting adapter, with high pressure coolant capability







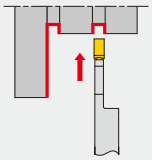
Right hand (R) shown.

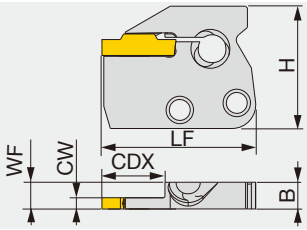
Metric	CW	Seat size	CDX	H	B	LF	WF (1)
CAER/L-2T16-CHP	2	2	16	33	7.2	41.5	7.3
CAER/L-2T20-CHP	2	2	20	33	7.2	45.5	7.3
CAER/L-3T16-CHP	3	3	16	33	7.2	41.5	7.4
CAER/L-3T20-CHP	3	3	20	33	7.2	45.5	7.5
CAER/L-4T16-CHP	4	4	16	33	7.2	41.5	7.7
CAER/L-4T20-CHP	4	4	20	33	7.2	45.5	7.7
CAER/L-5T20-CHP	5	5	20	33	7.2	46.3	7.8
CAER/L-6T20-CHP	6	6	20	33	7.2	46.3	7.8
CAER/L-8T25-CHP	8	8	25	33	7.2	51.1	8.3

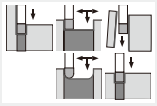
When groove depth is larger than (insert length - 1.5 mm), please use 1-cornered insert.
(1) WF is calculated with the groove width (CW) in the above table.

CAER/L-MD

External grooving and parting adapter







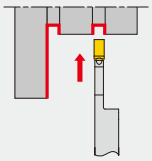
Right hand (R) shown.

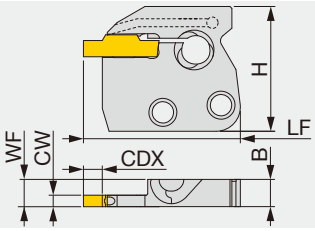
Metric	CW	Seat size	CDX	H	B	LF	WF (1)
CAER/L-2T16-MD	2	2	16	33	7.2	41.5	7.3
CAER/L-3T16-MD	3	3	16	33	7.2	41.5	7.4
CAER/L-4T16-MD	4	4	16	33	7.2	41.5	7.7
CAER/L-5T20-MD	5	5	20	33	7.2	46.3	7.8
CAER/L-6T20-MD	6	6	20	33	7.2	46.3	7.8
CAER/L-8T25-MD	8	8	25	33	7.2	51.1	8.3

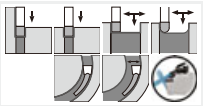
(1) WF is calculated with the groove width (CW) in the above table.

CAEFR/L-CHP

Face and external grooving adapter, with high pressure coolant capability







Right hand (R) shown.

Metric	CW	Seat size	CDX	H	B	LF	WF (1)
CAEFR/L-4T04-CHP	4	2,3,4	4.8	33	7.2	41.5	7.7
CAEFR/L-6T04-CHP	6	5,6	4.8	33	7.2	46.3	7.8

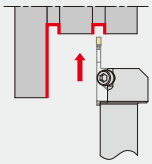
Use the right-hand insert for the right-hand holder with DTF insert.
(1) "WF" value is calculated with groove width "CW" shown in the table.

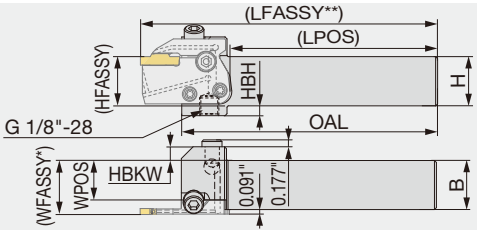
Reference pages: Inserts → F030 - F044, Shanks and toolholders → F024 - F026
Standard cutting conditions → F045, Technical Reference → L059

CHSR/L-CHP

Tube connection

Shank for adapter, with high pressure coolant capability





Right hand (R)
with right-hand adapter shown.

Inch	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque
CHSR/L12-CHP	0.750	0.750	5.000	4.035	0.560	0.510	0.750	0.190	CAE*R/L**-CHP, -MD	3.69
CHSR/L16-CHP	1.000	1.000	5.000	4.035	0.810	0.260	1.000	0.200	CAE*R/L**-CHP, -MD	3.69

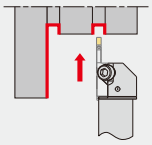
Metric	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP	20	20	130	105.5	15.1	12	20	10	CAE*R/L**-CHP, -MD	6.5
CHSR/L2525-CHP	25	25	130	105.5	20.1	7	25	5	CAE*R/L**-CHP, -MD	6.5

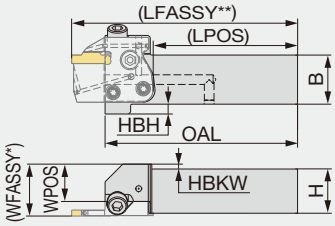
WFASSY* : Shank (WPOS) + adapter (WF)
LFASSY** : Shank (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: lbs·ft (*N·m)
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

CHSR/L-CHP-MC

Direct connection

Shank for adapter, with high pressure coolant capability





Right hand (R)
with right-hand adapter shown.

Metric	H	B	OAL	LPOS	WPOS	HBKW	HBH	Adapter (Option)	Torque
CHSR/L2020-CHP-MC	20	20	98	73.5	14	6	10	CAE*R/L**-CHP, -MD	6.5
CHSR/L2525-CHP-MC	25	25	98	73.5	19	-	5	CAE*R/L**-CHP, -MD	6.5

WFASSY* : Shank (WPOS) + adapter (WF)
LFASSY** : Shank (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: N·m
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHSR/L**-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179
CHSR/L**-CHP-MC	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	-

Recommended clamping torque (lbs·ft, N·m)

Clamping screw	Torque (lbs·ft)	Torque (N·m)
SR M5-04451	1.84	2.5
SR M6X12DIN6912	4.79	6.5
SR M6X20-XT	4.79	6.5

Combination of adapter and shank

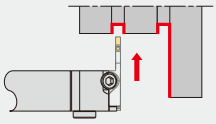
Shank	External grooving adapter		Face grooving adapter		External and face grooving adapter	
	CAER**-CHP, -MD	CAEL**-CHP, -MD	CAFR**-CHP	CAFL**-CHP	CAEFR**-CHP	CAEFL**-CHP
CHSR**-CHP (-MC)	●			●	●	
CHSL**-CHP (-MC)		●	●			●

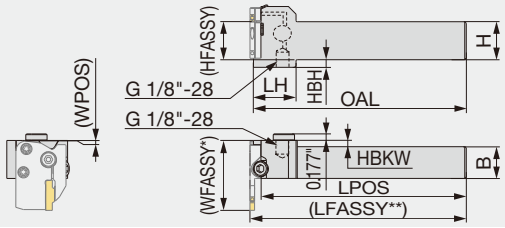
● : Corresponding

Reference pages: Inserts → F030 - F044, Adapters → F023, Standard cutting conditions → F045
Parts for coolant hose → F290, Technical Reference → L059

CHFVR/L-CHP

Shank for perpendicularly-mounted adapter, with high pressure coolant capability





Right hand (R)
with left-hand adapter shown.

Inch	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque
CHFVR/L12-CHP	0.750	0.750	5.500	1.100	5.307	0.020	0.234	0.750	0.431	CAE*L/R**-CHP, -MD	3.69
CHFVR/L16-CHP	1.000	1.000	5.500	1.100	5.307	0.020	-	1.000	0.200	CAE*L/R**-CHP, -MD	3.69

Metric	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHFVR/L2020-CHP	20	20	140	28	135.1	0.5	5	20	10	CAE*L/R**-CHP, -MD	6.5
CHFVR/L2525-CHP	25	25	140	28	135.1	0.5	0	25	5	CAE*L/R**-CHP, -MD	6.5

WFASSY* : Shank (WPOS) + adapter (LF)
LFASSY** : Shank (LPOS) + adapter (WF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: lbs·ft (*N·m)
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHFVR/L...	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179

Recommended clamping torque (lbs·ft, N·m)

Clamping screw	Torque (lbs·ft)	Torque (N·m)
SR M5-04451	1.84	2.5
SR M6X12DIN6912	4.79	6.5
SR M6X20-XT	4.79	6.5

Combination of adapter and shank

Shank	External grooving adapter		Face grooving adapter		External and face grooving adapter	
	CAER**-CHP, -MD	CAEL**-CHP, -MD	CAFR**-CHP	CAFL**-CHP	CAEFR**-CHP	CAEFL**-CHP
CHFVR**-CHP		●	●			●
CHFVL**-CHP	●			●	●	

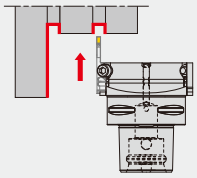
● : Corresponding

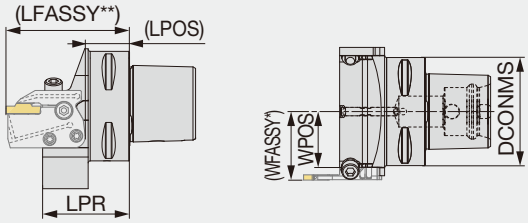
Reference pages: Inserts → F030 - F044, Adapters → F023, Standard cutting conditions → F045
Parts for coolant hose → F290, Technical Reference → L059

C*CHSN-CHP

Direct connection

Toolholder with TungCap connection, for adapter, with high pressure coolant capability





Right-hand (R) adapter shown.

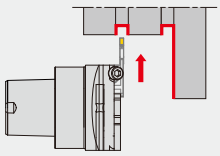
Metric	DCONMS	LPR	LPOS	WPOS	Adapter (Option)	Torque
C3CHSN19045-CHP	32	45	17.5	18.5	CAE*R/L**-CHP, -MD	6.5
C4CHSN21047-CHP	40	46.5	21.5	21	CAE*R/L**-CHP, -MD	6.5
C5CHSN26047-CHP	50	47	22.5	26	CAE*R/L**-CHP, -MD	6.5
C6CHSN33050-CHP	63	50	24.5	32.5	CAE*R/L**-CHP, -MD	6.5

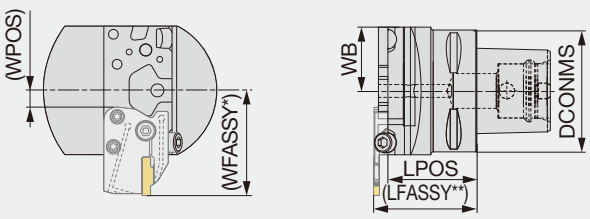
WFASSY* : Toolholder (WPOS) + adapter (WF)
LFASSY** : Toolholder (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: N·m
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

C*CHFVN-CHP

Direct connection

Toolholder with TungCap connection, for perpendicularly-mounted adapter, with high pressure coolant capability





Left-hand (L) adapter shown.

Metric	DCONMS	LPOS	WB	WPOS	Adapter (Option)	Torque
C3CHFVN26040-CHP	32	40	26	1.5	CAE*R/L**-CHP, -MD	6.5
C4CHFVN26046-CHP	40	46	26	1.5	CAE*R/L**-CHP, -MD	6.5
C5CHFVN26046-CHP	50	46	26	1.5	CAE*R/L**-CHP, -MD	6.5
C6CHFVN33046-CHP	63	46	33	8.5	CAE*R/L**-CHP, -MD	6.5

WFASSY* : Toolholder (WPOS) + adapter (LF)
LFASSY** : Toolholder (LPOS) + adapter (WF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: N·m
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

SPARE PARTS



Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring
C*CH**N**-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N

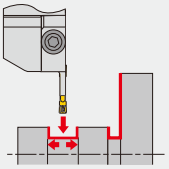
Recommended clamping torque (N·m)

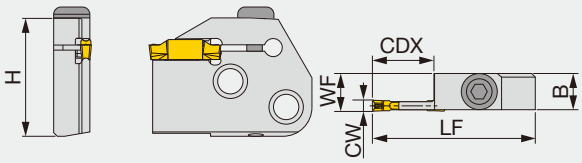
Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

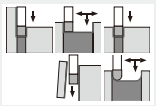
Reference pages: Inserts → F030 - F044, Adapters → F023, Standard cutting conditions → F045
Technical Reference → L059

CAER/L

External grooving, parting and turning adapter







Right hand (R) shown.

Metric	CW	Seat size	CDX	H	B	LF	WF	Torque
CAER/L-3T16	3	3	16	32.7	10	45	10.4	5
CAER/L-4T16	4	4	16	32.7	10	45	10.5	5
CAER/L-5T20	5	5	20	32.7	10	49	10.5	5
CAER/L-6T20	6	6	20	32.7	10	49	10.5	5

Torque: Recommended clamping torque: N·m
Not compatible with TungModularSystem
When groove depth is larger than insert length - 1.5 mm, please use 1-cornered insert.

SPARE PARTS



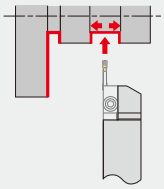


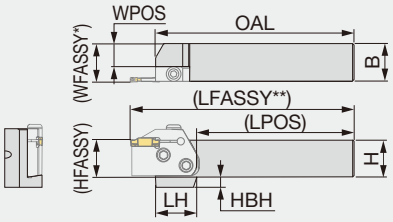
Designation	Clamping screw	Wrench
CAER/L...	BHM6-20-A	P-4

Reference pages: Inserts → F030 - F044, Shanks and toolholders → F028, F029
Standard cutting conditions → F045

CHSR/L

Shank for adapter





Right hand (R)
with right-hand adapter shown.

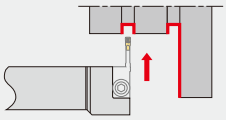
Inch	H	B	OAL	LPOS	LH	WPOS	HFASSY	HBH	Adapter (Option)
CHSR/L12-U	0.750	0.750	5.330	4.227	1.380	0.356	0.750	0.502	CAER/L...
CHSR/L16-U	1.000	1.000	5.330	4.227	1.100	0.606	1.000	0.280	CAER/L...
CHSR/L20-U	1.250	1.250	6.330	5.227	-	0.856	1.250	-	CAER/L...

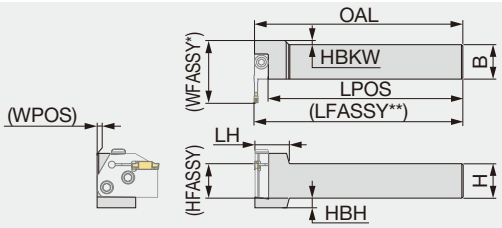
Metric	H	B	OAL	LPOS	LH	WPOS	HFASSY	HBH	Adapter (Option)
CHSR/L2020	20	20	133	105	35	10	20	12	CAER/L...
CHSR/L2525	25	25	133	105	28	15	25	7	CAER/L...
CHSR/L3232	32	32	153	125	-	22	32	-	CAER/L...

WFASSY* : Shank (WPOS) + adapter (WF)
LFASSY** : Shank (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Not compatible with TungModularSystem

CHFVR/L

Shank for adapter, perpendicularly mounted





Right hand (R)
with left-hand adapter shown.

Inch	H	B	OAL	LPOS	LH	WPOS	HBKW	HFASSY	HBH	Adapter (Option)
CHFVR/L12-U	0.750	0.750	6.000	5.606	0.984	-0.001	0.352	0.750	0.502	CAEL/R...
CHFVR/L16-U	1.000	1.000	6.000	5.606	0.984	-0.001	0.102	1.000	0.276	CAEL/R...
CHFVR/L20-U	1.250	1.250	7.000	6.606	0.984	0.147	-	1.250	-	CAEL/R...

Metric	H	B	OAL	LPOS	LH	WPOS	HBKW	HFASSY	HBH	Adapter (Option)
CHFVR/L2020	20	20	150	140	25	0	8	20	12	CAEL/R...
CHFVR/L2525	25	25	150	140	25	0	3	25	7	CAEL/R...
CHFVR/L3232	32	32	170	160	25	4	-	32	-	CAEL/R...

WFASSY* : Shank (WPOS) + adapter (LF)
LFASSY** : Shank (LPOS) + adapter (WF)
The LFASSY or WFASSY value may change depending on the adapter type.
Not compatible with TungModularSystem

SPARE PARTS





Designation	Clamping screw	Wrench
CH**R/L...	CSHB-6-A	P-4

Combination of adapter and shank

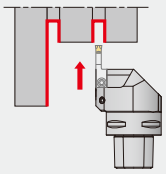
Shank	External grooving adapter		Face grooving adapter	
	CAER...	CAEL...	CAFR...	CAFL...
CHSR...	●			●
CHSL...		●	●	
CHFVR...		●	●	
CHFVL...	●			●

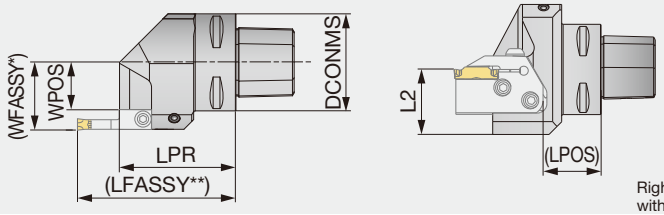
● : Corresponding

Reference pages: Inserts → F030 - F044, Adapters → F027, Standard cutting conditions → F045

C-CHSR/L

Toolholder with TungCap connection for adapter





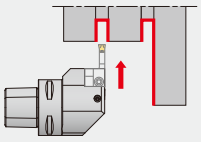
Right hand (R)
with right-hand adapter shown.

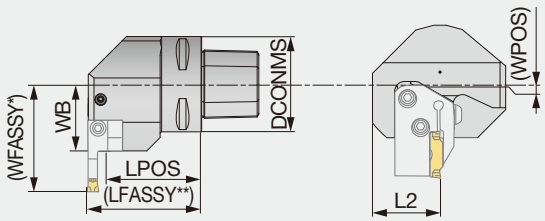
Metric	DCONMS	LPR	LPOS	L2	WPOS	Adapter (Option)
C3CHSR/L22050N	32	50	22.1	35	11.5	CAER/L...
C4CHSR/L27050N	40	50	22.1	36	16.5	CAER/L...
C5CHSR/L35060N	50	60	32.1	36	24.5	CAER/L...
C6CHSR/L45065N	63	65	32.1	41	34.5	CAER/L...

WFASSY* : Toolholder (WPOS) + adapter (WF)
LFASSY** : Toolholder (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type. If needed, the coolant direction can be adjusted by the nozzle.
Applicable for 7 MPa coolant. Not compatible with TungModularSystem.

C-CHFVR/L

Toolholder with TungCap connection for adapter, perpendicularly mounted





Right hand (R)
with left-hand adapter shown.

Metric	DCONMS	LPOS	L2	WB	WPOS	Adapter (Option)
C3CHFVR/L22040N	32	32.5	35	22	-5.9	CAEL/R...
C4CHFVR/L27050N	40	42.5	36	27	-0.9	CAEL/R...
C5CHFVR/L35060N	50	49.5	36	35	7.1	CAEL/R...
C6CHFVR/L45065N	63	54.5	41	45	17.1	CAEL/R...

WFASSY* : Toolholder (WPOS) + adapter (LF)
LFASSY** : Toolholder (LPOS) + adapter (WF)
The LFASSY or WFASSY value may change depending on the adapter type. If needed, the coolant direction can be adjusted by the nozzle.
Applicable for 7 MPa coolant. Not compatible with TungModularSystem.

SPARE PARTS

Designation	Coolant parts	Clamping screw	Wrench
C3CH**R/L...	SATZ-M8X1-M3	CSHB-6-A	P-4
C4CH**R/L...	SATZ-M8X1-M3	CSHB-6-A	P-4
C5CH**R/L...	SATZ-M10X1-M5	CSHB-6-A	P-4
C6CH**R/L...	SATZ-M10X1-M5	CSHB-6-A	P-4

Combination of adapter and toolholder

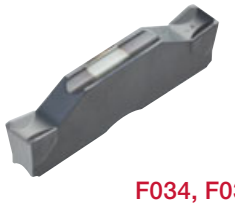
Toolholder	External grooving adapter		Face grooving adapter	
	CAER...	CAEL...	CAFR...	CAFL...
C*CHSR...	●			●
C*CHSL...		●	●	
C*CHFVR...		●	●	
C*CHFVL...	●			●

● : Corresponding

Reference pages: Inserts → F030 - F044, Adapters → F027, Standard cutting conditions → F045

External grooving and parting

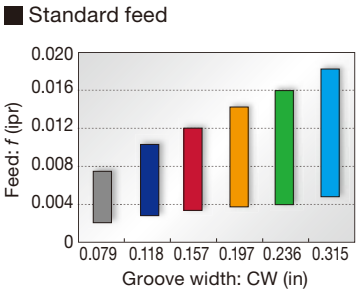
DGM type (2 corners) SGM type (1 corner)

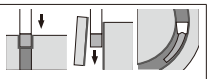


F034, F035

1st choice for grooving and parting

Smooth chip evacuation
Well-designed edge with high strength
Handed insert available
CW = 0.079" - 0.315"





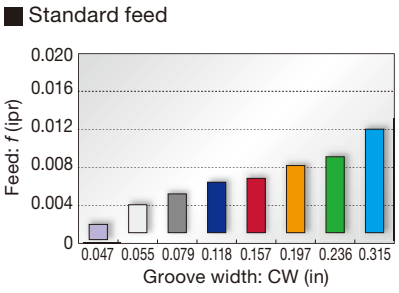
DGS type (2 corners) SGS type (1 corner)

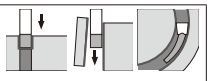


F036, F037

Lower cutting force and superior sharpness

Unique-designed edge and chipbreaker
Handed insert available
CW = 0.047" - 0.315"





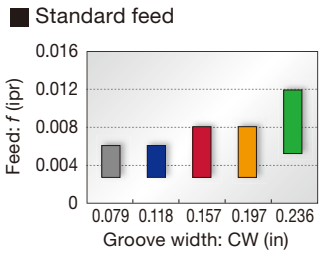
DGL type (2 corners)

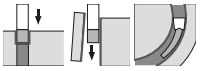


F037

1st choice for mild steel

Chipbreaker with excellent chip control at low feed
Suitable for mild steel which often presents challenges in chip control
CW = 0.079" - 0.236"





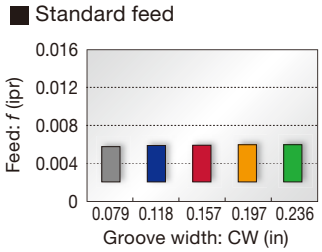
DGG type (2 corners)

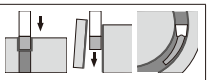


F038

For non-ferrous materials and titanium

Chipbreaker with low cutting force
Sharp cutting edge that prevents vibration and delivers fine surface finish
CW = 0.079" - 0.236"





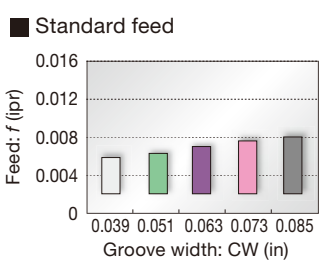
DGE type (2 corners)



F038

For high accurate and shallow groove

Excellent chip control
CW = 0.039" - 0.085"





External
Internal
Face
Parting
Others

Please see page F*** for the product details.

External and face grooving, and turning

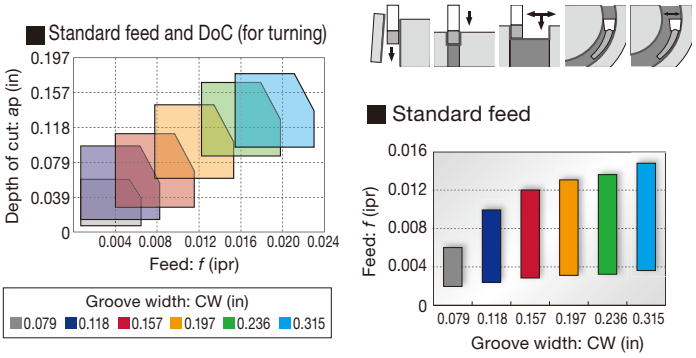
DTM type (2 corners)



F039

General purpose

1st choice for grooving and turning
Suitable for light to medium cutting
Excellent chip control in machining steel, alloy steel, stainless steel, and heat-resistant alloy
CW = 0.079" - 0.315"



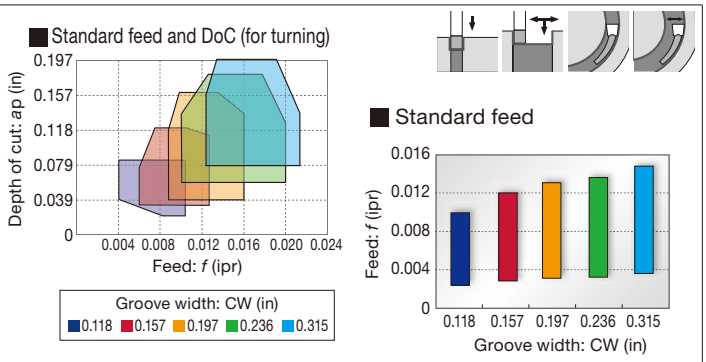
DTE type (2 corners)



F039, F040

General purpose

Unique chipbreaker makes chips shorter
Molded and ground insert available
CW = 0.104" - 0.315"



External, internal and face grooving, and turning

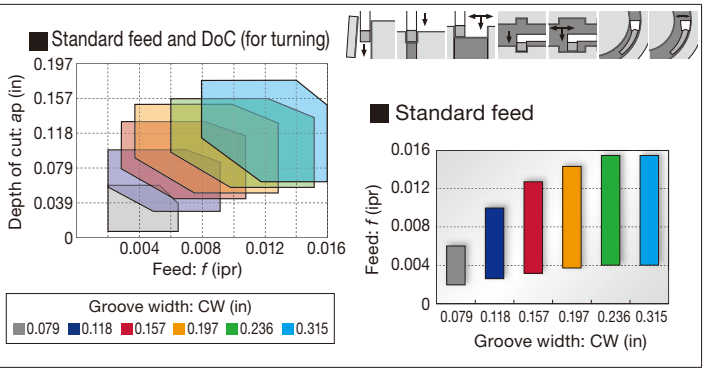
DTX type (2 corners)



F040

Multi-functional type

Well balanced sharpness and strength
Multi-functional insert
CW = 0.079" - 0.315"



Please see page F*** for the product details.

Profiling and undercutting

DTR type (2 corners)
STR type (1 corner)

Molded
DTR, STR



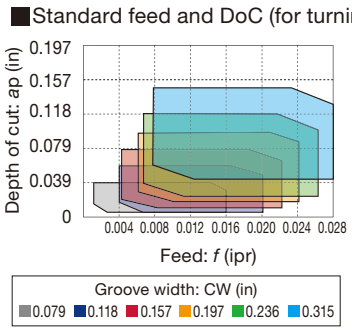
Ground
DTR

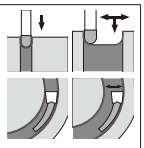


F041, F042

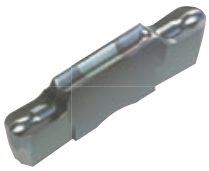
Full radius type

Excellent chip control
Molded and ground inserts available
CW = 0.079" - 0.315"





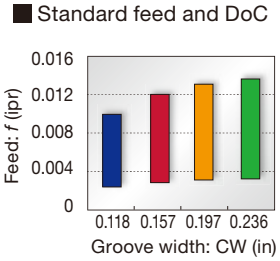
DTIU type
(2 corners)

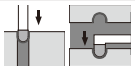


F042

Full radius type

Excellent chip control for undercutting
CW = 0.118" - 0.236"





Aluminum wheel machining

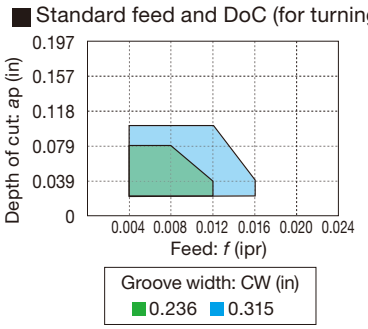
DTA type
(2 corners)

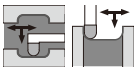


F043

Full radius type

Excellent chip control
For aluminum wheel profiling
Ground insert
CW = 0.236" - 0.315"





For high feed external and face turning of hardened steel parts

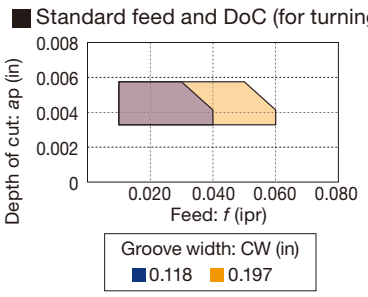
STH type
(1 corner)

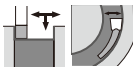


F043

External and face turning of hardened steel parts

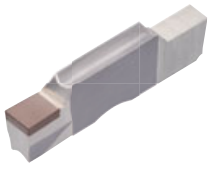
High efficiency machining using light D.O.C. and increased feeds
CW = 0.118", 0.197"





External grooving of hardened steel

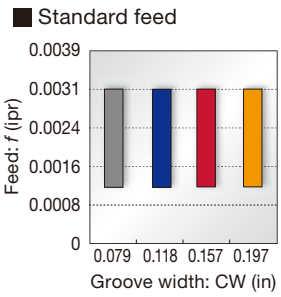
SGN-CBN type
(1 corner)

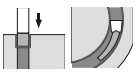


F044

For hardened steel cutting

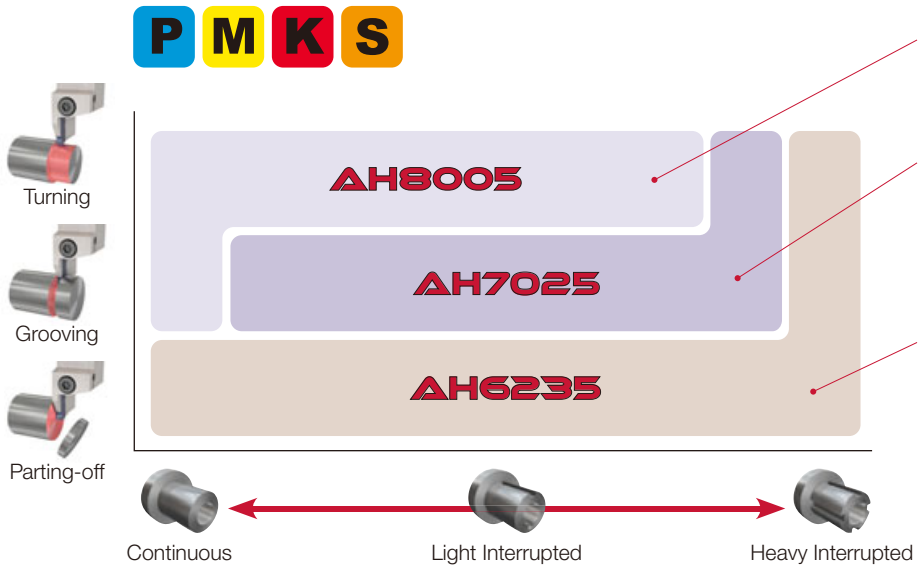
Optimum cutting edge shape for grooving of hardened steels
High tolerance width for finishing
CW = 0.079" - 0.197"
(Tol. ±0.001")





Please see page F*** for the product details.

GRADE SELECTION



GRADES

AH8005 P M K S
- First choice for external, internal, and side-turning, continuous cuts

AH7025 P M K S
- First choice for light interrupted cuts or a mix of continuous and interrupted cuts
- New PVD coating with high Al content provides excellent adhesion strength
- Improved wear and chipping resistance

AH6235 P M K
- First choice for heavy interrupted cuts, as well as parting and facing applications

AH725 P M S
- General purpose PVD grade for high fracture resistance

T515 K
- First recommended grade for cast iron
- Excellent wear resistance in high speed machining

T9225 P
- Suitable for steel machining at high speeds
- New CVD coating and substrate deliver an outstanding balance of wear and chipping resistance

NS9530 P
- Advanced cermet for finish cutting of steel
- Innovative grade with incredible fracture and high wear resistance

GH130 P M K
- Recommended for interrupted machining
- TiCNO PVD coating layer with high wear resistance
- High hardness wear resistance

AH905 S
- Remarkable for machining of heat resistant alloys
- Exclusive coating layer improves adhesion strength and wear resistance

KS05F N S
- Recommended for non-ferrous materials and titanium

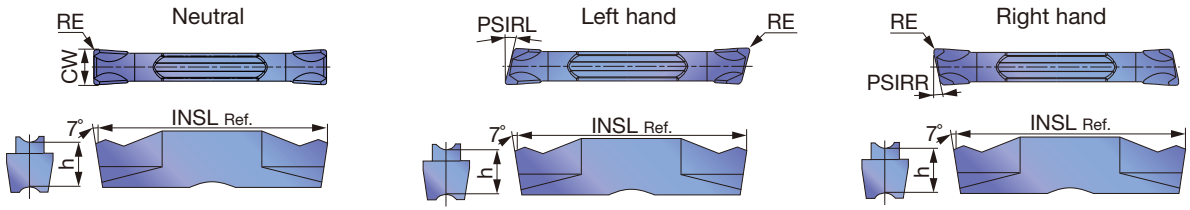
TH10 N
- Recommended for non-ferrous materials

BXA10 H
- Coated CBN grade designed for turning hardened steel parts

BX360 H
- Developed for grooving applications of hardened steel parts

DGM

External grooving and parting



P	Steel	★	★	☆	★		☆	★		★				
M	Stainless		★	☆	★		★	★						
K	Cast iron		★		★	☆	☆	★		☆			☆	
N	Non-ferrous												☆	
S	Superalloys		★	☆	★	★							★	
H	Hard materials													

★ : First choice
☆ : Second choice

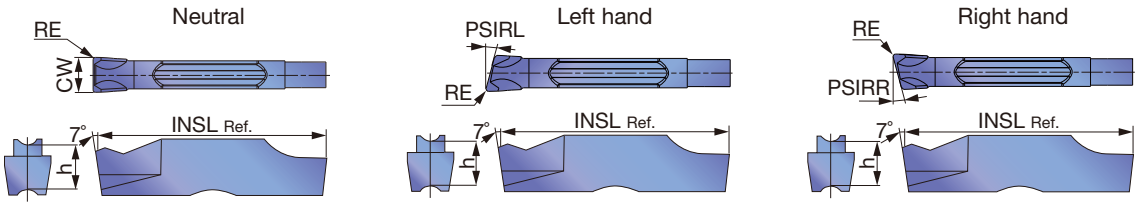
Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated							Cermet			Un-coated		INSL (in)	h (in)	PSIRL	PSIRR
						T9225	AH7025	AH725	AH8005	AH905	GH130	AH6235	NS9530			KS05F					
DGM2-020	2	N	2	0.079	0.008	●	●	●	●		●	●	●			●		0.787	0.197	0°	0°
DGM2-020-6R	2	R	2	0.079	0.008		●	●			●							0.787	0.197	0°	6°
DGM2-020-6L	2	L	2	0.079	0.008		●	●			●							0.787	0.197	6°	0°
DGM2-020-8R	2	R	2	0.079	0.008		●	●			●							0.787	0.197	0°	8°
DGM2-020-8L	2	L	2	0.079	0.008		●	●			●							0.787	0.197	8°	0°
DGM2-020-15R	2	R	2	0.079	0.008		●	●			●							0.787	0.197	0°	15°
DGM2-020-15L	2	L	2	0.079	0.008		●	●			●							0.787	0.197	15°	0°
DGM2-002-15R	2	R	2	0.079	0.0008			●			●							0.762	0.197	0°	15°
DGM2-002-15L	2	L	2	0.079	0.0008			●			●							0.762	0.197	15°	0°
DGM2.39-020	2	N	2.39	0.094	0.008		●		●			●						0.787	0.197	0°	0°
DGM3-020	3	N	3	0.118	0.008	●	●	●	●	●	●	●	●			●		0.787	0.197	0°	0°
DGM3-020-6R	3	R	3	0.118	0.008		●	●			●							0.787	0.197	0°	6°
DGM3-020-6L	3	L	3	0.118	0.008		●	●			●							0.787	0.197	6°	0°
DGM3-002-6R	3	R	3	0.118	0.008			●			●							0.766	0.197	0°	6°
DGM3-002-6L	3	L	3	0.118	0.008			●			●							0.766	0.197	6°	0°
DGM3-020-15R	3	R	3	0.118	0.008		●	●			●							0.787	0.197	0°	15°
DGM3-020-15L	3	L	3	0.118	0.008		●	●			●							0.787	0.197	15°	0°
DGM3.18-020	3	N	3.18	0.125	0.008		●		●			●						0.787	0.197	0°	0°
DGM4-030	4	N	4	0.157	0.012	●	●	●	●	●	●	●	●			●		0.787	0.197	0°	0°
DGM4-030-4R	4	R	4	0.157	0.012		●	●			●							0.787	0.197	0°	4°
DGM4-030-4L	4	L	4	0.157	0.012		●	●			●							0.787	0.197	4°	0°
DGM4-030-15R	4	R	4	0.157	0.012		●	●			●							0.787	0.197	0°	15°
DGM4-030-15L	4	L	4	0.157	0.012		●	●			●							0.787	0.197	15°	0°
DGM4.76-040	5	N	4.76	0.187	0.016		●		●			●						0.984	0.217	0°	0°
DGM5-030	5	N	5	0.197	0.012	●	●	●	●	●	●	●	●			●		0.984	0.217	0°	0°
DGM5-030-4R	5	R	5	0.197	0.012		●	●			●							0.984	0.217	0°	4°
DGM6-030	6	N	6	0.236	0.012	●	●	●	●	●	●	●				●		0.984	0.217	0°	0°
DGM6.35-040	6	N	6.35	0.250	0.016		●		●			●						0.984	0.217	0°	0°
DGM8-040	8	N	8	0.315	0.016	●	●	●	●		●	●				●		1.181	0.264	0°	0°

● : Line up

Reference pages: Toolholders → F016 - F029, Standard cutting conditions → F045

SGM

External deep grooving and parting



P	Steel	★	☆	★	☆	★							
M	Stainless	★	☆	★	★	★							
K	Cast iron	★		★	☆	★		☆					
N	Non-ferrous							☆					
S	Superalloys	★	☆	★				★					
H	Hard materials												

★ : First choice
☆ : Second choice

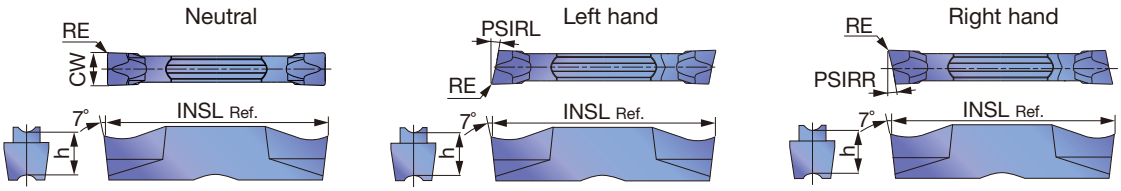
Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated					Uncoated					INSL (in)	h (in)	PSIRL	PSIRR
						AH7025	AH725	AH8005	GH130	AH6235	KS05F								
SGM2-020	2	N	2	0.079	0.008	●	●	●	●	●	●					0.787	0.197	0°	0°
SGM2-020-6R	2	R	2	0.079	0.008	●	●		●							0.787	0.197	0°	6°
SGM2-020-6L	2	L	2	0.079	0.008	●	●		●							0.787	0.197	6°	0°
SGM3-020	3	N	3	0.118	0.008	●	●	●	●	●	●					0.787	0.197	0°	0°
SGM3-020-6R	3	R	3	0.118	0.008	●	●		●							0.787	0.197	0°	6°
SGM3-020-6L	3	L	3	0.118	0.008	●	●		●							0.787	0.197	6°	0°
SGM3-020-15R	3	R	3	0.118	0.008	●	●		●							0.787	0.197	0°	15°
SGM3-020-15L	3	L	3	0.118	0.008	●	●		●							0.787	0.197	15°	0°
SGM4-030	4	N	4	0.157	0.012	●	●	●	●	●	●					0.787	0.197	0°	0°
SGM4-030-4R	4	R	4	0.157	0.012	●	●		●							0.787	0.197	0°	4°
SGM4-030-4L	4	L	4	0.157	0.012	●	●		●							0.787	0.197	4°	0°
SGM5-030	5	N	5	0.197	0.012	●	●	●	●	●	●					0.984	0.217	0°	0°
SGM6-030	6	N	6	0.236	0.012	●	●	●	●	●	●					0.984	0.217	0°	0°
SGM8-040	8	N	8	0.315	0.016	●		●		●	●					1.181	0.264	0°	0°

● : Line up

Reference pages: Toolholders → F016 - F029, Standard cutting conditions → F045

DGS

External grooving and parting



		T9225	AH7025	AH725	AH8005	GH130	AH6235	NS9530	KS05F
P	Steel	★	★	☆	★	☆	★	★	
M	Stainless		★	☆	★	★	★		
K	Cast iron		★		★	☆	★	☆	☆
N	Non-ferrous								☆
S	Superalloys		★	☆	★				★
H	Hard materials								

★ : First choice
☆ : Second choice

Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated						Cermet			Uncoated			INSL (in)	h (in)	PSIRL	PSIRR
						T9225	AH7025	AH725	AH8005	GH130	AH6235	NS9530			KS05F						
DGS1.2-003	0.9	N	1.2	0.047	0.0012			●										0.630	0.185	0°	0°
DGS1.4-005	1	N	1.4	0.055	0.002			●										0.630	0.169	0°	0°
DGS1.4-010	1	N	1.4	0.055	0.004			●										0.630	0.169	0°	0°
DGS1.4-016	1	N	1.4	0.055	0.006		●	●		●								0.630	0.169	0°	0°
DGS2-005	2	N	2	0.079	0.002			●										0.787	0.197	0°	0°
DGS2-010	2	N	2	0.079	0.004			●										0.787	0.197	0°	0°
DGS2-020	2	N	2	0.079	0.008	●	●	●	●	●	●	●			●			0.787	0.197	0°	0°
DGS2-020-6R	2	R	2	0.079	0.008		●	●		●								0.787	0.197	0°	6°
DGS2-020-6L	2	L	2	0.079	0.008		●	●		●								0.787	0.197	6°	0°
DGS2-002-6R	2	R	2	0.079	0.0008			●		●								0.768	0.197	0°	6°
DGS2-002-6L	2	L	2	0.079	0.0008			●		●								0.768	0.197	6°	0°
DGS2-020-15R	2	R	2	0.079	0.008		●	●		●								0.787	0.197	0°	15°
DGS2-020-15L	2	L	2	0.079	0.008		●	●		●								0.787	0.197	15°	0°
DGS2-002-15R	2	R	2	0.079	0.0008			●		●								0.768	0.197	0°	15°
DGS2-002-15L	2	L	2	0.079	0.0008			●		●								0.768	0.197	15°	0°
DGS2.39-020	2	N	2.39	0.094	0.008		●		●		●							0.787	0.197	0°	0°
DGS3-020	3	N	3	0.118	0.008	●	●	●	●	●	●	●			●			0.787	0.197	0°	0°
DGS3-020-6R	3	R	3	0.118	0.008		●	●		●								0.787	0.197	0°	6°
DGS3-020-6L	3	L	3	0.118	0.008		●	●		●								0.787	0.197	6°	0°
DGS3-002-6R	3	R	3	0.118	0.0008			●		●								0.766	0.197	0°	6°
DGS3-002-6L	3	L	3	0.118	0.0008			●		●								0.766	0.197	6°	0°
DGS3-020-15R	3	R	3	0.118	0.008		●	●		●								0.787	0.197	0°	15°
DGS3-020-15L	3	L	3	0.118	0.008		●	●		●								0.787	0.197	15°	0°
DGS3-002-15R	3	R	3	0.118	0.0008			●		●								0.766	0.197	0°	15°
DGS3-002-15L	3	L	3	0.118	0.0008			●		●								0.766	0.197	15°	0°
DGS3.18-020	3	N	3.18	0.125	0.008		●		●		●							0.787	0.197	0°	0°
DGS4-030	4	N	4	0.157	0.012	●	●	●	●	●	●	●			●			0.787	0.197	0°	0°
DGS4-030-4R	4	R	4	0.157	0.012		●	●		●								0.787	0.197	0°	4°
DGS4-030-4L	4	L	4	0.157	0.012		●	●		●								0.787	0.197	4°	0°
DGS4.76-040	5	N	4.76	0.187	0.016		●		●		●							0.984	0.217	0°	0°
DGS5-030	5	N	5	0.197	0.012	●	●	●	●	●	●	●			●			0.984	0.217	0°	0°
DGS6-030	6	N	6	0.236	0.012	●	●	●	●	●	●				●			0.984	0.217	0°	0°
DGS6.35-040	6	N	6.35	0.250	0.016		●		●		●							0.984	0.217	0°	0°
DGS8-040	8	N	8	0.315	0.016		●		●		●				●			1.181	0.264	0°	0°

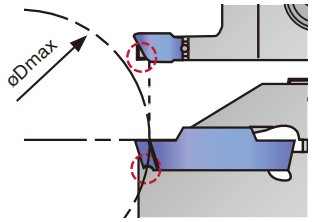
● : Line up

Caution

The tool will interfere with the workpiece when grooving larger diameters than øDmax.

Designation	øDmax (in)
DGM2-002-15R/L	1.102
DGM3-002-15R/L	1.141
DGM4-030-15R/L	1.181
SGM3-020-15R/L	4.055

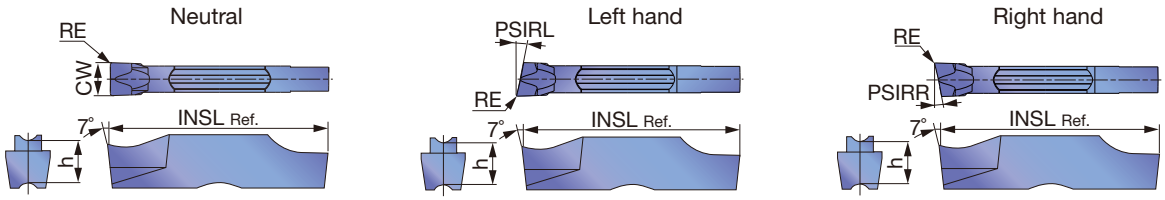
Designation	øDmax (in)
DGS2-002-15R/L	1.102
DGS3-002-15R/L	1.141
SGS3-020-15R/L	4.055
SGS3-002-15R/L	1.338



Reference pages: Toolholders → F016 - F029, Standard cutting conditions → F045

SGS

External deep grooving and parting



		AH7025	AH725	AH8005	GH130	AH6235	KS05F
P	Steel	★	☆	★	☆	★	
M	Stainless	★	☆	★	★	★	
K	Cast iron	★		★	☆	★	☆
N	Non-ferrous						☆
S	Superalloys	★	☆	★			★
H	Hard materials						

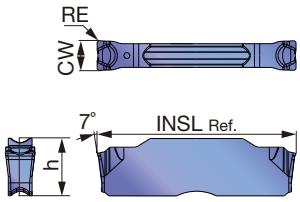
★ : First choice
☆ : Second choice

Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	Coated AH725	Coated AH8005	Coated GH130	Coated AH6235	Uncoated KS05F	INSL (in)	h (in)	PSIRL	PSIRR
SGS2-020	2	N	2	0.079	0.008	●	●	●	●	●	●	0.787	0.197	0°	0°
SGS2-020-6R	2	R	2	0.079	0.008	●	●		●			0.787	0.197	0°	6°
SGS2-020-6L	2	L	2	0.079	0.008	●	●		●			0.787	0.197	6°	0°
SGS2-020-15R	2	R	2	0.079	0.008	●	●		●			0.787	0.197	0°	15°
SGS2-020-15L	2	L	2	0.079	0.008	●	●		●			0.787	0.197	15°	0°
SGS3-020	3	N	3	0.118	0.008	●	●	●	●	●	●	0.787	0.197	0°	0°
SGS3-020-6R	3	R	3	0.118	0.008	●	●		●			0.787	0.197	0°	6°
SGS3-020-6L	3	L	3	0.118	0.008	●	●		●			0.787	0.197	6°	0°
SGS3-002-6R	3	R	3	0.118	0.0008		●		●			0.780	0.197	0°	6°
SGS3-002-6L	3	L	3	0.118	0.0008		●		●			0.780	0.197	6°	0°
SGS3-020-15R	3	R	3	0.118	0.008	●	●		●			0.787	0.197	0°	15°
SGS3-020-15L	3	L	3	0.118	0.008	●	●		●			0.787	0.197	15°	0°
SGS3-002-15R	3	R	3	0.118	0.0008		●		●			0.780	0.197	0°	15°
SGS3-002-15L	3	L	3	0.118	0.0008		●		●			0.780	0.197	15°	0°
SGS4-030	4	N	4	0.157	0.012	●	●	●	●	●	●	0.787	0.197	0°	0°
SGS5-030	5	N	5	0.197	0.012	●	●	●	●	●	●	0.984	0.217	0°	0°
SGS6-030	6	N	6	0.236	0.012	●	●	●	●	●	●	0.984	0.217	0°	0°
SGS8-040	8	N	8	0.315	0.016	●		●		●		1.181	0.264	0°	0°

● : Line up

DGL

External grooving and parting



		AH7025	AH8005	AH6235
P	Steel	★	★	★
M	Stainless	★	★	★
K	Cast iron	★	★	★
N	Non-ferrous			
S	Superalloys	★	★	
H	Hard materials			

★ : First choice
☆ : Second choice

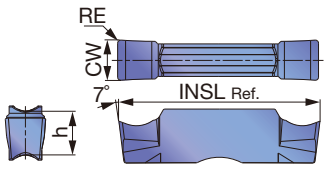
Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	Coated AH8005	Coated AH6235	INSL (in)	h (in)
DGL2-020	2	2	0.079	0.008	●	●	●	0.787	0.197
DGL3-025	3	3	0.118	0.010	●	●	●	0.787	0.197
DGL4-030	4	4	0.157	0.012	●	●	●	0.787	0.197
DGL5-030	5	5	0.197	0.012	●	●	●	0.984	0.217
DGL6-080	6	6	0.236	0.031	●	●	●	0.984	0.217

● : Line up

Reference pages: Toolholders → F016 - F029, Standard cutting conditions → F045

DGG

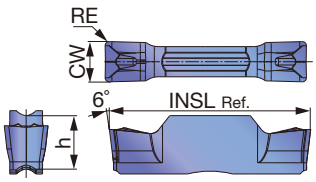
External grooving (for high precision)



| | | |

DTM

External face grooving and turning



P	Steel	★	★	★	
M	Stainless	★	★	★	
K	Cast iron	★	★	★	
N	Non-ferrous				
S	Superalloys	★	★		
H	Hard materials				

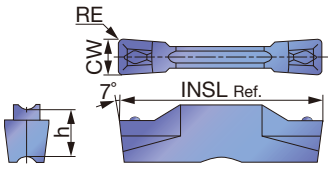
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	Coated AH8005	Coated AH6235	INSL (in)	h (in)
DTM2-020	2	2	0.079	0.008	●	●	●	0.787	0.197
DTM3-030	3	3	0.118	0.012	●	●	●	0.787	0.197
DTM4-040	4	4	0.157	0.016	●	●	●	0.787	0.197
DTM4-080	4	4	0.157	0.031	●	●	●	0.787	0.197
DTM5-080	5	5	0.197	0.031	●	●	●	0.984	0.217
DTM6-080	6	6	0.236	0.031	●	●	●	0.984	0.217
DTM8-080	8	8	0.315	0.031	●	●	●	1.181	0.264

●: Line up

DTE

External face grooving and turning (for high precision)



P	Steel	★	★	☆	☆				★		
M	Stainless		★	☆	★						
K	Cast iron		★		☆						
N	Non-ferrous										
S	Superalloys		★	☆							
H	Hard materials										

★ : First choice
☆ : Second choice

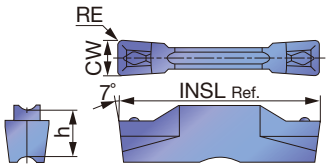
Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Coated T9225	Coated AH7025	Coated AH725	Coated GH130	Cermet NS9530	INSL (in)	h (in)
DTE265-015	3	2.65	0.104	0.006	●	●	●	●	●	0.787	0.197
DTE300-020	3	3	0.118	0.008	●	●	●	●	●	0.787	0.197
DTE300-040	3	3	0.118	0.016	●	●	●	●	●	0.787	0.197
DTE315-015	3	3.15	0.124	0.006	●	●	●	●	●	0.787	0.197
DTE400-040	4	4	0.157	0.016	●	●	●	●	●	0.787	0.197
DTE400-080	4	4	0.157	0.031	●	●	●	●	●	0.787	0.197
DTE415-015	4	4.15	0.163	0.006	●	●	●	●	●	0.787	0.197
DTE478-055	5	4.78	0.188	0.022	●	●	●	●	●	0.984	0.217
DTE500-040	5	5	0.197	0.016	●	●	●	●	●	0.984	0.217
DTE500-080	5	5	0.197	0.031	●	●	●	●	●	0.984	0.217
DTE515-015	5	5.15	0.203	0.006	●	●	●	●		0.984	0.217
DTE600-080	6	6	0.236	0.031	●	●	●	●		0.984	0.217
DTE600-120	6	6	0.236	0.047	●	●	●	●		0.984	0.217
DTE800-080	8	8	0.315	0.031	●	●	●	●		1.181	0.264
DTE800-120	8	8	0.315	0.047	●	●	●	●		1.181	0.264

●: Line up

Reference pages: Toolholders → F016 - F029, Standard cutting conditions → F045

DTE

External face grooving and turning



P	Steel	★		★	☆	★	☆	★		★			
M	Stainless			★	☆	★	★	★					
K	Cast iron		★	★		★	☆	★					
N	Non-ferrous												
S	Superalloys			★	☆	★							
H	Hard materials												

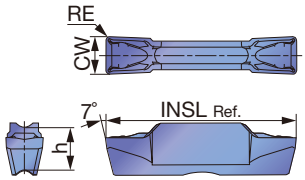
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated							Cermet				INSL (in)	h (in)
					T9225	T515	AH7025	AH725	AH8005	GH130	AH6235	NS9530					
DTE3-020	3	3	0.118	0.008			●		●		●					0.787	0.197
DTE3-040	3	3	0.118	0.016	●	●	●	●	●	●	●	●				0.787	0.197
DTE4-040	4	4	0.157	0.016	●	●	●	●	●	●	●	●				0.787	0.197
DTE4-080	4	4	0.157	0.031			●		●		●					0.787	0.197
DTE5-040	5	5	0.197	0.016		●	●		●		●					0.984	0.217
DTE5-080	5	5	0.197	0.031			●		●		●					0.984	0.217
DTE6-080	6	6	0.236	0.031		●	●		●		●					0.984	0.217

● : Line up

DTX

External, internal and face grooving, and turning



P	Steel	★	★	☆	★	☆	★		★				
M	Stainless		★	☆	★	★	★						
K	Cast iron		★		★	☆	★		☆			☆	
N	Non-ferrous											☆	
S	Superalloys		★	☆	★							★	
H	Hard materials												

★ : First choice
☆ : Second choice

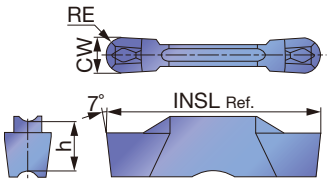
Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated						Cermet				Uncoated			INSL (in)	h (in)
					T9225	AH7025	AH725	AH8005	GH130	AH6235	NS9530				KS05F				
DTX2-020	2	2	0.079	0.008		●		●		●					●			0.787	0.197
DTX3-030	3	3	0.118	0.012	●	●	●	●	●	●	●				●			0.787	0.197
DTX4-040	4	4	0.157	0.016	●	●	●	●	●	●	●				●			0.787	0.197
DTX5-040	5	5	0.197	0.016	●	●	●	●	●	●	●				●			0.984	0.217
DTX6-080	6	6	0.236	0.031		●	●	●	●	●					●			0.984	0.217
DTX8-080	8	8	0.315	0.031		●		●		●					●			1.181	0.264

● : Line up

Reference pages: Toolholders → F016 - F029, Standard cutting conditions → F045

DTR

Profiling and undercutting (for high precision)



P	Steel	★	★	☆	☆				★			
M	Stainless		★	☆	★							
K	Cast iron		★		☆				☆			
N	Non-ferrous											
S	Superalloys		★	☆								
H	Hard materials											

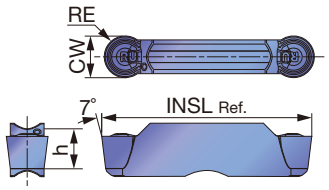
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Coated							Cermet					INSL (in)	h (in)
					T9225	AH7025	AH725	GH130				NS9530						
DTR300-150	3	3	0.118	0.059	●	●	●	●				●					0.787	0.197
DTR400-200	4	4	0.157	0.079	●	●	●	●				●					0.787	0.197
DTR478-239	5	4.78	0.188	0.094	●	●	●	●				●					0.984	0.217
DTR500-250	5	5	0.197	0.098	●	●	●	●				●					0.984	0.217
DTR600-300	6	6	0.236	0.118	●	●	●	●									0.984	0.217

●: Line up

DTR

Profiling and undercutting



P	Steel	★	★	☆	★		☆	★		★						
M	Stainless		★	☆	★		★	★								
K	Cast iron		★		★	☆	☆	★		☆			☆			
N	Non-ferrous												☆			
S	Superalloys		★	☆	★	★							★			
H	Hard materials															

★ : First choice
☆ : Second choice

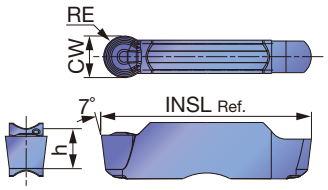
Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated							Cermet			Uncoated			INSL (in)	h (in)
					T9225	AH7025	AH725	AH8005	AH905	GH130	AH6235	NS9530			KS05F				
DTR2-100	2	2	0.079	0.039		●		●			●				●			0.787	0.197
DTR3-150	3	3	0.118	0.059	●	●	●	●	●	●	●	●			●			0.787	0.197
DTR4-200	4	4	0.157	0.079	●	●	●	●	●	●	●	●			●			0.787	0.197
DTR5-250	5	5	0.197	0.098	●	●	●	●	●	●	●	●			●			0.984	0.217
DTR6-300	6	6	0.236	0.118	●	●	●	●		●	●				●			0.984	0.217
DTR8-400	8	8	0.315	0.157	●	●	●	●		●	●				●			1.181	0.264

● : Line up

Reference pages: Toolholders → F016 - F029, Standard cutting conditions → F045

STR

Profiling and undercutting



		AH7025	AH8005	KS05F
P	Steel	★	★	
M	Stainless	★	★	
K	Cast iron	★	★	☆
N	Non-ferrous			☆
S	Superalloys	★	★	★
H	Hard materials			

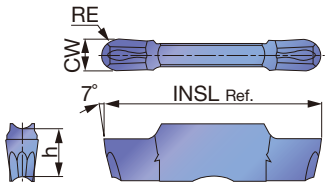
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	Coated AH8005	Uncoated KS05F	INSL (in)	h (in)
STR2-100	2	2	0.079	0.039	●	●	●	0.787	0.197
STR3-150	3	3	0.118	0.059	●	●	●	0.787	0.197
STR4-200	4	4	0.157	0.079	●	●	●	0.787	0.197
STR5-250	5	5	0.197	0.098	●	●	●	0.984	0.217
STR6-300	6	6	0.236	0.118	●	●	●	0.984	0.217
STR8-400	8	8	0.315	0.157	●	●	●	1.181	0.264

●: Line up

DTIU

Profiling and undercutting (for high precision)



		AH7025	AH725	GH130
P	Steel	★	☆	☆
M	Stainless	★	☆	★
K	Cast iron	★		☆
N	Non-ferrous			
S	Superalloys	★	☆	
H	Hard materials			

★ : First choice
☆ : Second choice

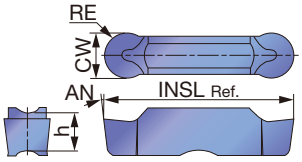
Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Coated AH7025	Coated AH725	Coated GH130	INSL (in)	h (in)
DTIU300-150	3	3	0.118	0.059	●	●	●	0.787	0.197
DTIU400-200	4	4	0.157	0.079	●	●	●	0.787	0.197
DTIU500-250	5	5	0.197	0.098	●	●	●	0.984	0.217
DTIU600-300	6	6	0.236	0.118	●	●	●	0.984	0.217

●: Line up

Reference pages: Toolholders → F016 - F029, Standard cutting conditions → F045

DTA

Aluminum wheel machining (for high precision)



P	Steel	
M	Stainless	
K	Cast iron	
N	Non-ferrous	★
S	Superalloys	
H	Hard materials	

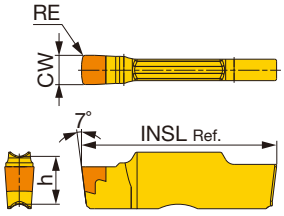
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Uncoated TH10	INSL (in)	h (in)	AN
DTA600-300	6	6	0.236	0.118	●	0.984	0.217	7°
DTA800-400	8	8	0.315	0.157	●	1.181	0.264	10°

●: Line up

STH

External and face turning



P	Steel	
M	Stainless	
K	Cast iron	
N	Non-ferrous	
S	Superalloys	
H	Hard materials	★

★ : First choice

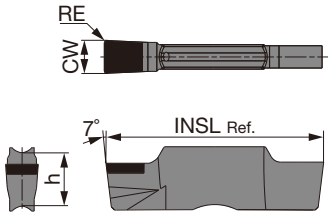
Designation	Seat size	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	CBN BXA10	INSL (in)	h (in)
STH300-SR	3	3	0.118	0.012	●	0.787	0.197
STH500-SR	5	5	0.197	0.012	●	0.984	0.217

●: Line up

Reference pages: Toolholders → F016 - F029, Standard cutting conditions → F045

SGN

External grooving



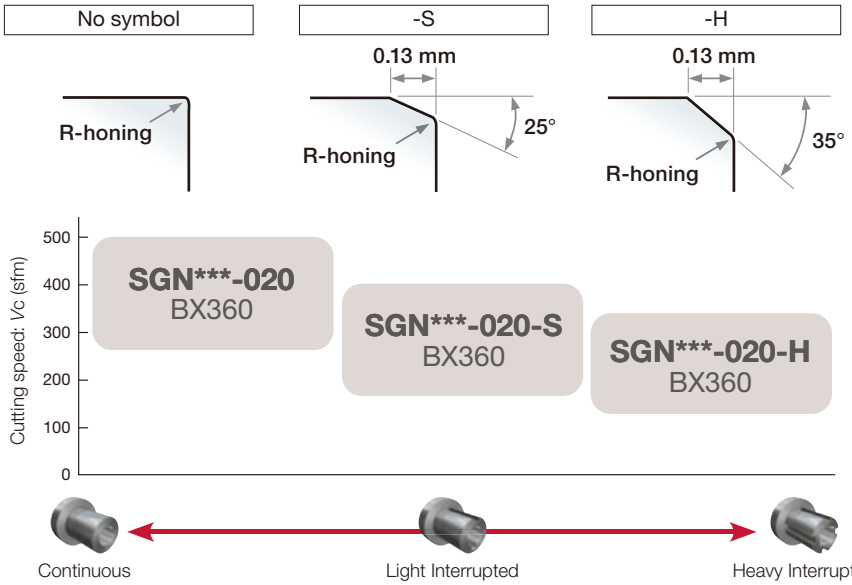
P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	CBN	INSL (in)	h (in)	Condition		
					BX360			Continuous	Light interrupted	Heavy interrupted
SGN200-020	2	2	0.079	0.008	●	0.787	0.197	○		
SGN200-020-S	2	2	0.079	0.008	●	0.787	0.197		○	
SGN200-020-H	2	2	0.079	0.008	●	0.787	0.197			○
SGN300-020	3	3	0.118	0.008	●	0.787	0.197	○		
SGN300-020-S	3	3	0.118	0.008	●	0.787	0.197		○	
SGN300-020-H	3	3	0.118	0.008	●	0.787	0.197			○
SGN400-020	4	4	0.157	0.008	●	0.787	0.197	○		
SGN400-020-S	4	4	0.157	0.008	●	0.787	0.197		○	
SGN400-020-H	4	4	0.157	0.008	●	0.787	0.197			○
SGN500-020-S	5	5	0.197	0.008	●	0.984	0.217		○	
SGN500-020-H	5	5	0.197	0.008	●	0.984	0.217			○

●: Line up

Edge preparations



Reference pages: Toolholders → F016 - F029, Standard cutting conditions → F045

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed *Vc* (sfm)
P	Steel 1045, 4135, etc.	< 300 HB	First choice	AH7025, AH725	164 - 591
		< 300 HB	Wear resistance	T9225, AH8005	262 - 984
		< 300 HB	Impact resistance	AH6235, GH130	164 - 394
		< 300 HB	Surface quality	NS9530	262 - 722
M	Stainless steel 303, 304, etc.	< 200 HB	First choice	AH7025, AH725	164 - 394
		< 200 HB	Wear resistance	AH8005	164 - 394
		< 200 HB	Impact resistance	AH6235, GH130	164 - 394
K	Gray cast iron No.250B, etc.	-	First choice	T515	492 - 2297
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	164 - 591
	Ductile cast iron 65-45-12, etc.	-	First choice	T515	492 - 984
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	164 - 394
N	Aluminum alloys Si < 12%	-	First choice	TH10	328 - 1640
		-	First choice	KS05F	328 - 1969
S	Superalloys Inconel718, etc.	< HRC 40	First choice	AH8005	66 - 197
		< HRC 40	Impact resistance	AH7025, AH725, AH6235	66 - 131
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	First choice	KS05F	66 - 328
		< HRC 40	Impact resistance	AH7025, AH725	66 - 262

Please see page F030 - F032 for feed: *f* (ipr).

STH

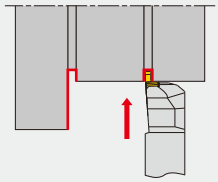
ISO	Grade	CW	Application	Cutting speed *Vc* (sfm)	Depth of cut *ap* (in)	Feed *f* (ipr)
H	BXA10	0.118"	External turning	328 - 755	0.003 - 0.005	0.016 - 0.039
			Face turning	328 - 755	0.003 - 0.005	0.016 - 0.031
		0.197"	External turning	328 - 755	0.003 - 0.005	0.020 - 0.059
			Face turning	328 - 755	0.003 - 0.005	0.020 - 0.031

SGN

ISO	Grade	Edge preparation	Workpiece condition	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
H	BX360	No symbol	Continuous	262 - 492	0.0012 - 0.0031
		-S	Light interrupted	164 - 394	0.0012 - 0.0031
		-H	Heavy interrupted	131 - 328	0.0012 - 0.0024

STCR/L-18

Precision grooving tools with uniquely shaped insert for swiss type machine and general lathes



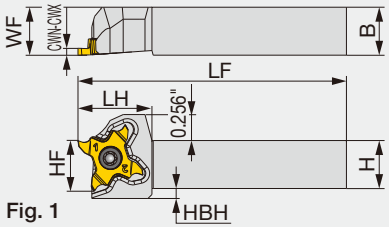


Fig. 1

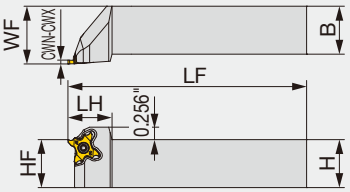
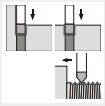


Fig. 2



Right-hand (R) shown.

Inch	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque	Fig.
STCR/L06-18	0.013	0.125	0.375	0.375	4.750	0.740	0.375	0.375	0.177	TC*18...	0.89	1
STCR/L08-18	0.013	0.125	0.500	0.500	4.750	0.740	0.500	0.500	0.098	TC*18...	0.89	1
STCR/L10-18	0.013	0.125	0.625	0.625	4.750	0.740	0.625	0.625	-	TC*18...	0.89	1
STCR/L12-18	0.013	0.125	0.750	0.750	4.750	0.900	0.750	1.000	-	TC*18...	0.89	2
STCR/L16-18	0.013	0.125	1.000	1.000	5.500	0.900	1.000	1.250	-	TC*18...	0.89	2

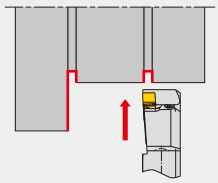
Metric	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque*	Fig.
STCR/L1010X18	0.33	3.18	10	10	120	18.5	10	10	4.5	TC*18...	1.2	1
STCR/L1212F18	0.33	3.18	12	12	85	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1212X18	0.33	3.18	12	12	120	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1616X18	0.33	3.18	16	16	120	18.5	16	16	-	TC*18...	1.2	1
STCR/L2020H18	0.33	3.18	20	20	100	18.5	20	20	-	TC*18...	1.2	1
STCR/L2020X18	0.33	3.18	20	20	120	23	20	25	-	TC*18...	1.2	2
STCR/L2525Z18	0.33	3.18	25	25	135	23	25	30	-	TC*18...	1.2	2

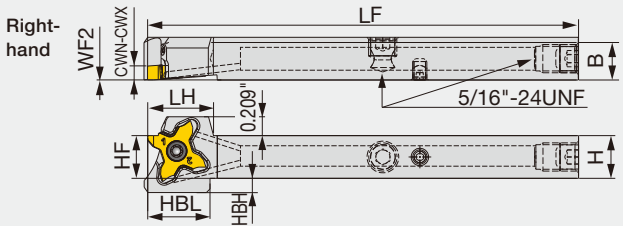
The right hand insert (TC*18R...) is used for the right hand toolholders (STCR...), and the left hand insert is used for the left hand toolholders (STCL...).
Torque: Recommended clamping torque: lbs·ft (*N·m)

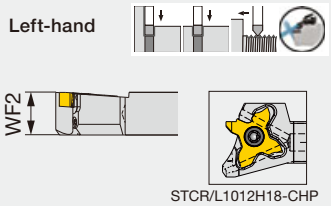
STCR/L-18-CHP

Direct connection

External grooving and threading toolholder, high pressure coolant compatible







STCR/L1012H18-CHP
STCR/L1212*18**B**-CHP

Inch	CWN	CWX	H	B	LF	LH	HBL	HF	WF2	HBH	Insert	Torque
STCR08X18-CHP	0.013	0.125	0.500	0.500	4.750	0.728	0.689	0.500	0/0.500	0.130	TC*18...	0.89
STCR10X18-CHP	0.013	0.125	0.625	0.625	4.75	0.728	-	0.625	0/0.625	-	TC*18...	0.89

Metric	CWN	CWX	H	B	LF	LH	HBL	HF	WF2	HBH	Insert	Torque*
STCR/L1012H18-CHP	0.33	3.18	10	12	100	17.1	17.1	10	0/12	4	TC*18...	1.2
STCR/L1212X18B-CHP	0.33	3.18	12	12	120	18.5	17.5	12	0/12	4	TC*18...	1.2
STCR/L1616X18-CHP	0.33	3.18	16	16	120	18.5	-	16	0/16	0	TC*18...	1.2

The right hand insert (TC*18R...) is used for the right hand toolholders (STCR...), and the left hand insert (TC*18L...) is used for the left hand toolholders (STCL...).
Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS

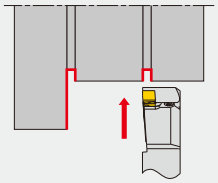
Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
STCR**18	CSTC-4L100DL	T-1008/5	-	-	-	-
STCL**18	CSTC-4L100DR	T-1008/5	-	-	-	-
STCL**18-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
STCR**18-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

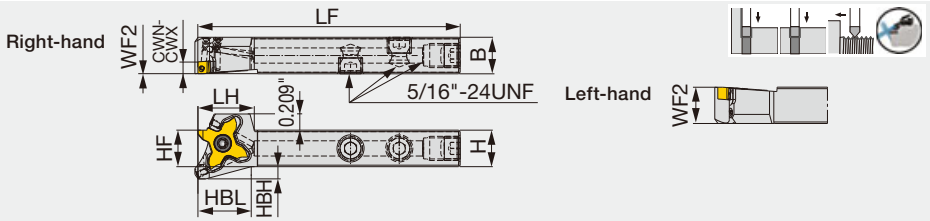
Reference pages: Inserts → F053 - F059, Standard cutting conditions → F060
Parts for coolant hose → F290

STCR/L-18-CHP

Tube connection

External grooving and threading toolholder. High pressure coolant capability.





Inch	CWN	CWX	H	B	LF	LH	HBL	HF	WF2(1)	HBH	Insert	Torque
STCR/L08F18-CHP	0.013	0.125	0.500	0.500	3.344	0.728	0.689	0.500	0/0.500	0.130	TC*18...	0.89

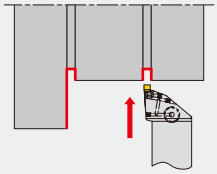
Metric	CWN	CWX	H	B	LF	LH	HBL	HF	WF2(1)	HBH	Insert	Torque*
STCR/L1212F18B-CHP	0.33	3.18	12	12	85	18.5	17.5	12	0/12	4	TC*18...	1.2

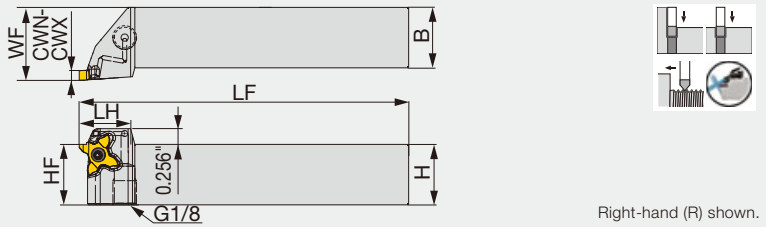
The right hand insert (TC*18R***) is used for the right hand toolholders (STCR***), and the left hand insert (TC*18L***) is used for the left hand toolholders (STCL***).
(1) "0/0.500" for the WF2 dimension indicates WF2 = 0 for the right handed tool, WF2 = 0.500 for the left handed tool.
Torque: Recommended clamping torque: lbs·ft (*N·m)

STCR/L-18-CHP

Tube connection

Threading tool - for external theading with high pressure coolant capability





Inch	CWN	CWX	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque
STCR/L12-18-CHP	0.013	0.125	0.750	0.750	4.750	0.900	-	0.750	1.000	-	TC*18...	0.89
STCR/L16-18-CHP	0.013	0.125	1.000	1.000	5.500	0.900	-	1.000	1.250	-	TC*18...	0.89

Metric	CWN	CWX	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque*
STCR/L2020X18-CHP	0.33	3.18	20	20	120	23	-	20	25	-	TC*18...	1.2
STCR/L2525Z18-CHP	0.33	3.18	25	25	135	23	-	25	30	-	TC*18...	1.2

Use the right hand insert (TC*18R...) with the right hand toolholders (STCR...). Use the left hand insert (TC*18L...) with the left hand holder (STCL...).
Torque: Recommended clamping torque: lbs·ft (*N·m)

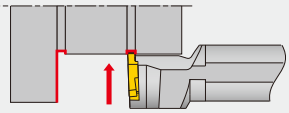
SPARE PARTS

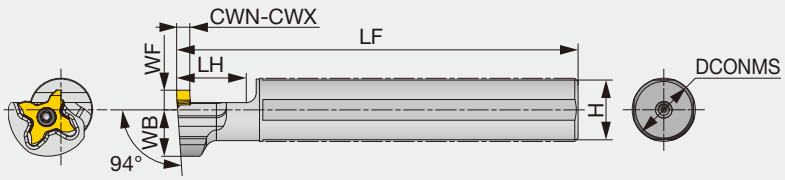
Designation	Clamping screw	Wrench	Coolant plug	Wrench
STCL08F18-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	-
STCR08F18-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	-
STCL1212F18B-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4
STCR1212F18B-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4
STCL**18-CHP	CSTC-4L100DR	T-1008/5	-	-
STCR**18-CHP	CSTC-4L100DL	T-1008/5	-	-

Reference pages: Inserts → F053 - F059, Standard cutting conditions → F060
Parts for coolant hose → F290

JS-STCL18

External grooving and threading toolholder with round shank, for Swiss lathes





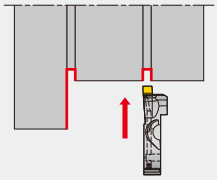
Left-hand (L) shown.

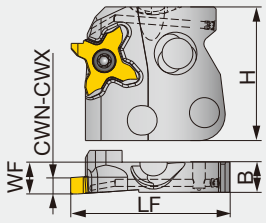
Metric	CWN	CWX	DCONMS	LF	LH	H	WB	WF	Insert	Torque
JS14H-STCL18	0.33	3.18	14	100	20	13	14	6	TC*18R...	1.2
JS159F-STCL18	0.33	3.18	15.875	85	20	15	14	6	TC*18R...	1.2
JS16F-STCL18	0.33	3.18	16	85	20	15	14	6	TC*18R...	1.2
JS19G-STCL18	0.33	3.18	19.05	90	20	18	14	6	TC*18R...	1.2
JS19X-STCL18	0.33	3.18	19.05	120	20	18	14	6	TC*18R...	1.2
JS20G-STCL18	0.33	3.18	20	90	20	19	14	6	TC*18R...	1.2
JS20X-STCL18	0.33	3.18	20	120	20	19	14	6	TC*18R...	1.2
JS22X-STCL18	0.33	3.18	22	120	20	21	12.25	10	TC*18R...	1.2
JS25H-STCL18	0.33	3.18	25	100	20	24	12.25	10	TC*18R...	1.2
JS254X-STCL18	0.33	3.18	25.4	120	20	24	12.25	10	TC*18R...	1.2

The left hand toolholder (STCL...) is used with the right hand inserts (TC*18R...)
Torque: Recommended clamping torque: N·m

STCAR/L18-CHP

External grooving and threading adapter, with high pressure coolant capability





Right-hand (R) shown.

Metric	CWN	CWX	WF	H	LF	B	Insert	Torque
STCAR/L18-CHP	0.33	3.18	7.5	33	38	7.2	TC*18...	1.2

Use the right hand insert (TC*18R...) with the right hand adapter (STCAR...). Use the left hand insert (TC*18L...) with the left hand adapter (STCAL...).
Torque: Recommended clamping torque: N·m

SPARE PARTS





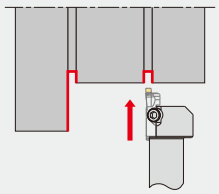
Designation	Clamping screw	Wrench
JS**STCL18	CSTC-4L100DL	T-1008/5
STCAL18-CHP	CSTC-4L100DR	T-1008/5
STCAR18-CHP	CSTC-4L100DL	T-1008/5

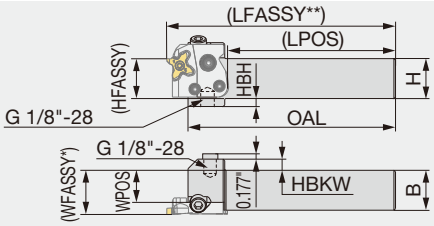
Reference pages: JS-STCL18: Inserts → F053 - F059, Standard cutting conditions → F060
STCAR/L18-CHP: Inserts → F053 - F059, Shanks and toolholders → F049 - F051
Standard cutting conditions → F060, Technical Reference → L059

CHSR/L-CHP

Tube connection

Shank for adapter, with high pressure coolant capability





Right hand (R)
with right-hand adapter shown.

Inch	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque
CHSR/L12-CHP	0.750	0.750	5.000	4.035	0.560	0.510	0.750	0.190	STCAR/L18-CHP	3.69
CHSR/L16-CHP	1.000	1.000	5.000	4.035	0.810	0.260	1.000	0.200	STCAR/L18-CHP	3.69

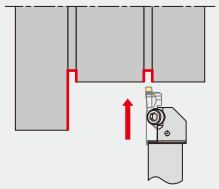
Metric	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP	20	20	130	105.5	15.1	12	20	10	STCAR/L18-CHP	6.5
CHSR/L2525-CHP	25	25	130	105.5	20.1	7	25	5	STCAR/L18-CHP	6.5

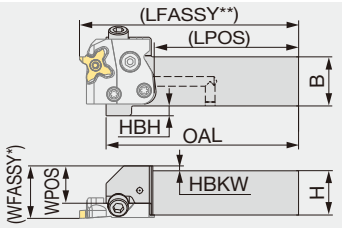
WFASSY* : Shank (WPOS) + adapter (WF)
LFASSY** : Shank (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: lbs·ft (*N·m)
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

CHSR/L-CHP-MC

Direct connection

Shank for adapter, with high pressure coolant capability





Right hand (R)
with right-hand adapter shown.

Metric	H	B	OAL	LPOS	WPOS	HBKW	HBH	Adapter (Option)	Torque
CHSR/L2020-CHP-MC	20	20	98	73.5	14	6	10	STCAR/L18-CHP	6.5
CHSR/L2525-CHP-MC	25	25	98	73.5	19	-	5	STCAR/L18-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)
LFASSY** : Shank (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: N·m
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

SPARE PARTS



Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHSR/L**-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179
CHSR/L**-CHP-MC	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	-

Recommended clamping torque (lbs·ft, N·m)

Clamping screw	Torque (lbs·ft)	Torque (N·m)
SR M5-04451	1.84	2.5
SR M6X12DIN6912	4.79	6.5
SR M6X20-XT	4.79	6.5

Combination of adapter and shank

Shank	Adapter	
	STCAR18-CHP	STCAL18-CHP
CHSR**-CHP (-MC)	●	
CHSL**-CHP (-MC)		●
CHFVR**-CHP		●
CHFVL**-CHP	●	

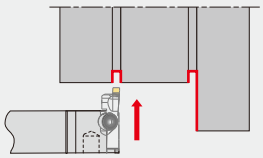
● : Corresponding

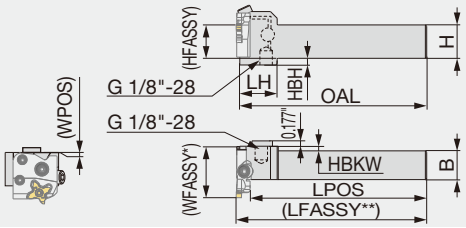
Reference pages: Inserts → F053 - F059, Adapters → F048, Standard cutting conditions → F060
Parts for coolant hose → F290, Technical Reference → L059

CHFVR/L-CHP

Tube connection

Shank for perpendicularly-mounted adapter, with high pressure coolant capability





Right hand (R)
with left-hand adapter shown.

Inch	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque
CHFVR/L12-CHP	0.750	0.750	5.500	1.100	5.307	0.020	0.234	0.750	0.431	STCAL/R18-CHP	3.69
CHFVR/L16-CHP	1.000	1.000	5.500	1.100	5.307	0.020	-	1.000	0.200	STCAL/R18-CHP	3.69

Metric	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHFVR/L2020-CHP	20	20	140	28	135.1	0.5	5	20	10	STCAL/R18-CHP	6.5
CHFVR/L2525-CHP	25	25	140	28	135.1	0.5	0	25	5	STCAL/R18-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (LF)
LFASSY** : Shank (LPOS) + adapter (WF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: lbs·ft (*N·m)
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

SPARE PARTS



Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHFVR/L...	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179

Recommended clamping torque (lbs·ft, N·m)

Clamping screw	Torque (lbs·ft)	Torque (N·m)
SR M5-04451	1.84	2.5
SR M6X12DIN6912	4.79	6.5
SR M6X20-XT	4.79	6.5

Combination of adapter and shank

Shank	Adapter	
	STCAR18-CHP	STCAL18-CHP
CHSR**-CHP (-MC)	●	
CHSL**-CHP (-MC)		●
CHFVR**-CHP		●
CHFVL**-CHP	●	

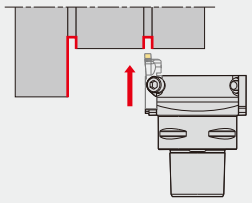
● : Corresponding

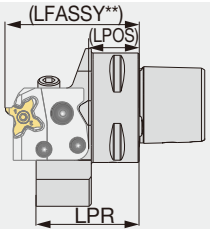
Reference pages: Inserts → F053 - F059, Adapters → F048, Standard cutting conditions → F060
Parts for coolant hose → F290, Technical Reference → L059

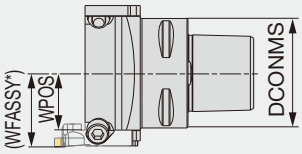
C*CHSN-CHP

Direct connection

Toolholder with TungCap connection, for adapter, with high pressure coolant capability







Right-hand (R) adapter shown.

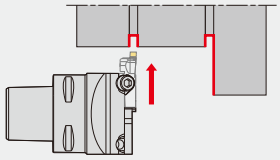
Metric	DCONMS	LPR	LPOS	WPOS	Adapter (Option)	Torque
C3CHSN19045-CHP	32	45	17.5	18.5	STCAR/L18-CHP	6.5
C4CHSN21047-CHP	40	46.5	21.5	21	STCAR/L18-CHP	6.5
C5CHSN26047-CHP	50	47	22.5	26	STCAR/L18-CHP	6.5
C6CHSN33050-CHP	63	50	24.5	32.5	STCAR/L18-CHP	6.5

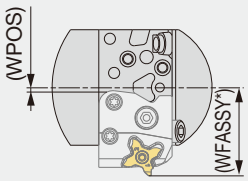
WFASSY* : Toolholder (WPOS) + adapter (WF)
LFASSY** : Toolholder (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: N·m
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

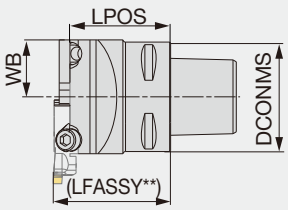
C*CHFVN-CHP

Direct connection

Toolholder with TungCap connection, for perpendicularly-mounted adapter, with high pressure coolant capability







Left-hand (L) adapter shown.

Metric	DCONMS	LPOS	WB	WPOS	Adapter (Option)	Torque
C3CHFVN26040-CHP	32	40	26	1.5	STCAR/L18-CHP	6.5
C4CHFVN26046-CHP	40	46	26	1.5	STCAR/L18-CHP	6.5
C5CHFVN26046-CHP	50	46	26	1.5	STCAR/L18-CHP	6.5
C6CHFVN33046-CHP	63	46	33	8.5	STCAR/L18-CHP	6.5

WFASSY* : Toolholder (WPOS) + adapter (LF)
LFASSY** : Toolholder (LPOS) + adapter (WF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: N·m
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring
C*CH**N**-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N

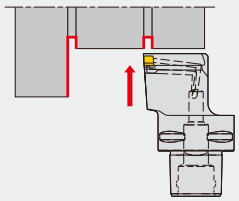
Recommended clamping torque (N·m)

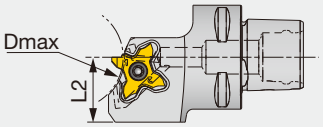
Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

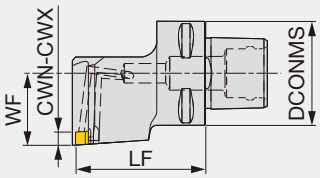
Reference pages: Inserts → F053 - F059, Adapters → F048, Standard cutting conditions → F060
Technical Reference → L059

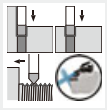
C-STCR/L-18-CHP

External grooving and threading toolholder, with high pressure coolant capability









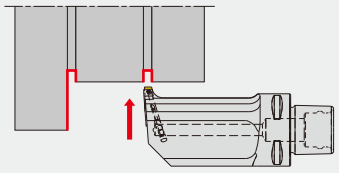
Right hand (R) shown.

Metric	CWN	CWX	DCONMS	LF	L2	WF	Dmax	Insert	Torque
C3STCR/L22040-18-CHP	0.33	3.18	32	40	20	22	32	TC*18...	1.2
C4STCR/L27050-18-CHP	0.33	3.18	40	50	25	27	75 (1)	TC*18...	1.2

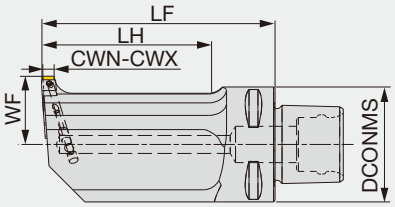
Applicable for 14 MPa coolant
Use the right hand insert (TC*18R...) with the right hand holder (STCR...). Use the left hand insert (TC*18L...) with the left hand holder (STCL...).
(1) The value for 3.5 mm groove depth. *Dmax* varies according to the grooving depth required.
Torque: Recommended clamping torque: N·m

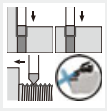
C-STCFL-18-CHP

External grooving and threading toolholder, with high pressure coolant capability









Left hand (L) shown.

Metric	CWN	CWX	DCONMS	LF	LH	L2	WF	Dmax	Insert	Torque
C3STCFL18040-18-CHP	0.33	3.18	32	40	21.5	20	18	32	TC*18R...	1.2
C3STCFL18065-18-CHP	0.33	3.18	32	65	46.5	20	18	32	TC*18R...	1.2

Applicable for 14 MPa coolant
Use the right hand insert (TC*18R...) with the left hand holder (STCFL...).
Torque: Recommended clamping torque: N·m

SPARE PARTS





Designation	Clamping screw	Wrench
C*STCL**-18-CHP	CSTC-4L100DR	T-1008/5
C*STCR**-18-CHP	CSTC-4L100DL	T-1008/5
C3STCFL**-18-CHP	CSTC-4L100DL	T-1008/5

Reference pages: Inserts → F053 - F059, Standard cutting conditions → F060

External grooving

TCS18 (4 corners)



F054, F055

First choice for O.D. grooving

General-purpose pressed-in 3D chipbreaker for smooth chip control

CW = 0.039" - 0.118"
CDX = 0.138"



TCL18 (4 corners)



F055

For lighter cutting action

Features pressed-in 3D chipbreaker with sharp cutting edge for light cutting action. Provides excellent chip control at low feed rates.

CW = 0.059" - 0.118"
CDX = 0.138"



TCG18 (4 corners)



F056, F057

For better chipping resistance

Features an optimum rake angle and edge preparation for a good balance of light cutting action and fracture resistance.

CW = 0.039" - 0.125"
CDX = 0.138"



TCP18 (4 corners)



F058, F059

For higher surface quality

Featuring a large rake angle, providing light cutting action and better surface finish. TCP-F style insert is also available for sharp cutting edge.

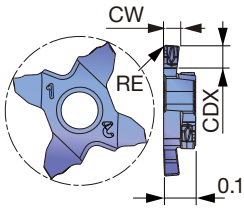
CW = 0.013" - 0.118"
CDX = 0.138"



Please see page F*** for the product details.

TCS18R/L (3D chipbreaker, honed edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)
TCS18R100-010	R	1	0.039	0.004	●	0.079
TCS18L100-010	L	1	0.039	0.004	●	0.079
TCS18R120-010	R	1.2	0.047	0.004	●	0.079
TCS18L120-010	L	1.2	0.047	0.004	●	0.079
TCS18R125-010	R	1.25	0.049	0.004	●	0.079
TCS18L125-010	L	1.25	0.049	0.004	●	0.079
TCS18R125-020	R	1.25	0.049	0.008	●	0.079
TCS18L125-020	L	1.25	0.049	0.008	●	0.079
TCS18R130-020	R	1.3	0.051	0.008	●	0.138
TCS18L130-020	L	1.3	0.051	0.008	●	0.138
TCS18R140-010	R	1.4	0.055	0.004	●	0.138
TCS18L140-010	L	1.4	0.055	0.004	●	0.138
TCS18R140-020	R	1.4	0.055	0.008	●	0.138
TCS18L140-020	L	1.4	0.055	0.008	●	0.138
TCS18R145-010	R	1.45	0.057	0.004	●	0.138
TCS18L145-010	L	1.45	0.057	0.004	●	0.138
TCS18R150-010	R	1.5	0.059	0.004	●	0.138
TCS18L150-010	L	1.5	0.059	0.004	●	0.138
TCS18R150-020	R	1.5	0.059	0.008	●	0.138
TCS18L150-020	L	1.5	0.059	0.008	●	0.138
TCS18R160-020	R	1.6	0.063	0.008	●	0.138
TCS18L160-020	L	1.6	0.063	0.008	●	0.138
TCS18R170-020	R	1.7	0.067	0.008	●	0.138
TCS18L170-020	L	1.7	0.067	0.008	●	0.138
TCS18R175-010	R	1.75	0.069	0.004	●	0.138
TCS18L175-010	L	1.75	0.069	0.004	●	0.138
TCS18R175-020	R	1.75	0.069	0.008	●	0.138
TCS18L175-020	L	1.75	0.069	0.008	●	0.138
TCS18R185-020	R	1.85	0.073	0.008	●	0.138
TCS18L185-020	L	1.85	0.073	0.008	●	0.138
TCS18R195-020	R	1.95	0.077	0.008	●	0.138
TCS18L195-020	L	1.95	0.077	0.008	●	0.138
TCS18R200-010	R	2	0.079	0.004	●	0.138
TCS18L200-010	L	2	0.079	0.004	●	0.138
TCS18R200-020	R	2	0.079	0.008	●	0.138
TCS18L200-020	L	2	0.079	0.008	●	0.138
TCS18R225-020	R	2.25	0.089	0.008	●	0.138
TCS18L225-020	L	2.25	0.089	0.008	●	0.138
TCS18R230-020	R	2.3	0.091	0.008	●	0.138
TCS18L230-020	L	2.3	0.091	0.008	●	0.138
TCS18R250-010	R	2.5	0.098	0.004	●	0.138
TCS18L250-010	L	2.5	0.098	0.004	●	0.138

5 pieces per package
● : Line up

Reference pages: Toolholders → F046 - F052, Standard cutting conditions → F060

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

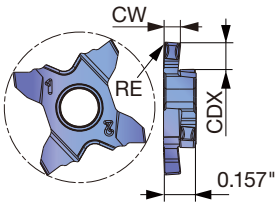
★ : First choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)
TCS18R250-020	R	2.5	0.098	0.008	●	0.138
TCS18L250-020	L	2.5	0.098	0.008	●	0.138
TCS18R250-030	R	2.5	0.098	0.012	●	0.138
TCS18L250-030	L	2.5	0.098	0.012	●	0.138
TCS18R265-030	R	2.65	0.104	0.012	●	0.138
TCS18L265-030	L	2.65	0.104	0.012	●	0.138
TCS18R280-030	R	2.8	0.110	0.012	●	0.138
TCS18L280-030	L	2.8	0.110	0.012	●	0.138
TCS18R300-010	R	3	0.118	0.004	●	0.138
TCS18L300-010	L	3	0.118	0.004	●	0.138
TCS18R300-020	R	3	0.118	0.008	●	0.138
TCS18L300-020	L	3	0.118	0.008	●	0.138
TCS18R300-030	R	3	0.118	0.012	●	0.138
TCS18L300-030	L	3	0.118	0.012	●	0.138

5 pieces per package
● : Line up

TCL18R/L (3D chipbreaker, honed edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

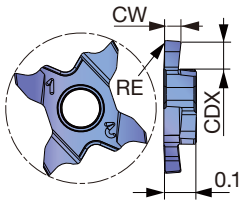
Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)
TCL18R150-010	R	1.5	0.059	0.004	●	0.138
TCL18L150-010	L	1.5	0.059	0.004	●	0.138
TCL18R150-020	R	1.5	0.059	0.008	●	0.138
TCL18L150-020	L	1.5	0.059	0.008	●	0.138
TCL18R175-020	R	1.75	0.069	0.008	●	0.138
TCL18L175-020	L	1.75	0.069	0.008	●	0.138
TCL18R200-010	R	2	0.079	0.004	●	0.138
TCL18L200-010	L	2	0.079	0.004	●	0.138
TCL18R200-020	R	2	0.079	0.008	●	0.138
TCL18L200-020	L	2	0.079	0.008	●	0.138
TCL18R250-030	R	2.5	0.098	0.012	●	0.138
TCL18L250-030	L	2.5	0.098	0.012	●	0.138
TCL18R300-010	R	3	0.118	0.004	●	0.138
TCL18L300-010	L	3	0.118	0.004	●	0.138
TCL18R300-020	R	3	0.118	0.008	●	0.138
TCL18L300-020	L	3	0.118	0.008	●	0.138
TCL18R300-030	R	3	0.118	0.012	●	0.138
TCL18L300-030	L	3	0.118	0.012	●	0.138

5 pieces per package
● : Line up

Reference pages: Toolholders → F046 - F052, Standard cutting conditions → F060

TCG18R/L (honed edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated	CDX (in)
					AH7025	
TCG18R100-010	R	1	0.039	0.004	●	0.079
TCG18L100-010	L	1	0.039	0.004	●	0.079
TCG18R120-010	R	1.2	0.047	0.004	●	0.079
TCG18L120-010	L	1.2	0.047	0.004	●	0.079
TCG18R125-010	R	1.25	0.049	0.004	●	0.079
TCG18L125-010	L	1.25	0.049	0.004	●	0.079
TCG18R125-020	R	1.25	0.049	0.008	●	0.079
TCG18L125-020	L	1.25	0.049	0.008	●	0.079
TCG18R130-020	R	1.3	0.051	0.008	●	0.079
TCG18L130-020	L	1.3	0.051	0.008	●	0.079
TCG18R140-010	R	1.4	0.055	0.004	●	0.138
TCG18L140-010	L	1.4	0.055	0.004	●	0.138
TCG18R140-020	R	1.4	0.055	0.008	●	0.138
TCG18L140-020	L	1.4	0.055	0.008	●	0.138
TCG18R145-010	R	1.45	0.057	0.004	●	0.138
TCG18L145-010	L	1.45	0.057	0.004	●	0.138
TCG18R145-020	R	1.45	0.057	0.008	●	0.138
TCG18L145-020	L	1.45	0.057	0.008	●	0.138
TCG18R150-010	R	1.5	0.059	0.004	●	0.138
TCG18L150-010	L	1.5	0.059	0.004	●	0.138
TCG18R150-020	R	1.5	0.059	0.008	●	0.138
TCG18L150-020	L	1.5	0.059	0.008	●	0.138
TCG18R160-020	R	1.6	0.063	0.008	●	0.138
TCG18L160-020	L	1.6	0.063	0.008	●	0.138
TCG18R170-020	R	1.7	0.067	0.008	●	0.138
TCG18L170-020	L	1.7	0.067	0.008	●	0.138
TCG18R175-010	R	1.75	0.069	0.004	●	0.138
TCG18L175-010	L	1.75	0.069	0.004	●	0.138
TCG18R175-020	R	1.75	0.069	0.008	●	0.138
TCG18L175-020	L	1.75	0.069	0.008	●	0.138
TCG18R185-020	R	1.85	0.073	0.008	●	0.138
TCG18L185-020	L	1.85	0.073	0.008	●	0.138
TCG18R195-020	R	1.95	0.077	0.008	●	0.138
TCG18L195-020	L	1.95	0.077	0.008	●	0.138
TCG18R200-010	R	2	0.079	0.004	●	0.138
TCG18L200-010	L	2	0.079	0.004	●	0.138
TCG18R200-020	R	2	0.079	0.008	●	0.138
TCG18L200-020	L	2	0.079	0.008	●	0.138
TCG18R225-020	R	2.25	0.089	0.008	●	0.138
TCG18L225-020	L	2.25	0.089	0.008	●	0.138
TCG18R230-020	R	2.3	0.091	0.008	●	0.138
TCG18L230-020	L	2.3	0.091	0.008	●	0.138
TCG18R250-010	R	2.5	0.098	0.004	●	0.138
TCG18L250-010	L	2.5	0.098	0.004	●	0.138

5 pieces per package
● : Line up

Reference pages: Toolholders → F046 - F052, Standard cutting conditions → F060

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

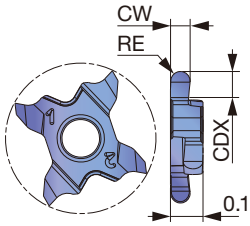
★ : First choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)
TCG18R250-020	R	2.5	0.098	0.008	●	0.138
TCG18L250-020	L	2.5	0.098	0.008	●	0.138
TCG18R250-030	R	2.5	0.098	0.012	●	0.138
TCG18L250-030	L	2.5	0.098	0.012	●	0.138
TCG18R265-030	R	2.65	0.104	0.012	●	0.138
TCG18L265-030	L	2.65	0.104	0.012	●	0.138
TCG18R280-030	R	2.8	0.110	0.012	●	0.138
TCG18L280-030	L	2.8	0.110	0.012	●	0.138
TCG18R300-010	R	3	0.118	0.004	●	0.138
TCG18L300-010	L	3	0.118	0.004	●	0.138
TCG18R300-020	R	3	0.118	0.008	●	0.138
TCG18L300-020	L	3	0.118	0.008	●	0.138
TCG18R300-030	R	3	0.118	0.012	●	0.138
TCG18L300-030	L	3	0.118	0.012	●	0.138

5 pieces per package
● : Line up

TCG18R/L (Full R, honed edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

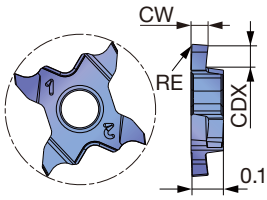
Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)
TCG18R100-050	R	1	0.039	0.020	●	0.079
TCG18L100-050	L	1	0.039	0.020	●	0.079
TCG18R158-079	R	1.58	0.062	0.031	●	0.138
TCG18L158-079	L	1.58	0.062	0.031	●	0.138
TCG18R200-100	R	2	0.079	0.039	●	0.138
TCG18L200-100	L	2	0.079	0.039	●	0.138
TCG18R239-120	R	2.39	0.094	0.047	●	0.138
TCG18L239-120	L	2.39	0.094	0.047	●	0.138
TCG18R300-150	R	3	0.118	0.059	●	0.138
TCG18L300-150	L	3	0.118	0.059	●	0.138
TCG18R318-159	R	3.18	0.125	0.063	●	0.138
TCG18L318-159	L	3.18	0.125	0.063	●	0.138

5 pieces per package
● : Line up

Reference pages: Toolholders → F046 - F052, Standard cutting conditions → F060

TCP18R/L (lightly honed edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

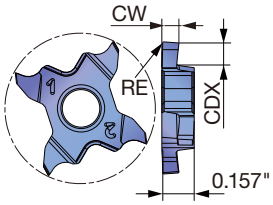
Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated	CDX (in)
					AH725	
TCP18R033-005	R	0.33	0.013	0.002	●	0.031
TCP18L033-005	L	0.33	0.013	0.002	●	0.031
TCP18R043-005	R	0.43	0.017	0.002	●	0.047
TCP18L043-005	L	0.43	0.017	0.002	●	0.047
TCP18R050-005	R	0.5	0.020	0.002	●	0.047
TCP18L050-005	L	0.5	0.020	0.002	●	0.047
TCP18R075-005	R	0.75	0.030	0.002	●	0.079
TCP18L075-005	L	0.75	0.030	0.002	●	0.079
TCP18R095-005	R	0.95	0.037	0.002	●	0.079
TCP18L095-005	L	0.95	0.037	0.002	●	0.079
TCP18R100-010	R	1	0.039	0.004	●	0.079
TCP18L100-010	L	1	0.039	0.004	●	0.079
TCP18R120-010	R	1.2	0.047	0.004	●	0.079
TCP18L120-010	L	1.2	0.047	0.004	●	0.079
TCP18R125-010	R	1.25	0.049	0.004	●	0.079
TCP18L125-010	L	1.25	0.049	0.004	●	0.079
TCP18R140-010-35	R	1.4	0.055	0.004	●	0.138
TCP18L140-010-35	L	1.4	0.055	0.004	●	0.138
TCP18R145-010	R	1.45	0.057	0.004	●	0.079
TCP18L145-010	L	1.45	0.057	0.004	●	0.079
TCP18R145-010-35	R	1.45	0.057	0.004	●	0.138
TCP18L145-010-35	L	1.45	0.057	0.004	●	0.138
TCP18R150-010	R	1.5	0.059	0.004	●	0.079
TCP18L150-010	L	1.5	0.059	0.004	●	0.079
TCP18R150-010-35	R	1.5	0.059	0.004	●	0.138
TCP18L150-010-35	L	1.5	0.059	0.004	●	0.138
TCP18R175-010	R	1.75	0.069	0.004	●	0.079
TCP18L175-010	L	1.75	0.069	0.004	●	0.079
TCP18R175-010-35	R	1.75	0.069	0.004	●	0.138
TCP18L175-010-35	L	1.75	0.069	0.004	●	0.138
TCP18R200-010	R	2	0.079	0.004	●	0.098
TCP18L200-010	L	2	0.079	0.004	●	0.098
TCP18R200-010-35	R	2	0.079	0.004	●	0.138
TCP18L200-010-35	L	2	0.079	0.004	●	0.138
TCP18R250-010	R	2.5	0.098	0.004	●	0.098
TCP18L250-010	L	2.5	0.098	0.004	●	0.098
TCP18R250-010-35	R	2.5	0.098	0.004	●	0.138
TCP18L250-010-35	L	2.5	0.098	0.004	●	0.138
TCP18R300-010	R	3	0.118	0.004	●	0.098
TCP18L300-010	L	3	0.118	0.004	●	0.098
TCP18R300-010-35	R	3	0.118	0.004	●	0.138
TCP18L300-010-35	L	3	0.118	0.004	●	0.138

5 pieces per package
● : Line up

Reference pages: Toolholders → F046 - F052, Standard cutting conditions → F060

TCP18R/L-F (sharp edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated SH725	CDX (in)
TCP18R033F-005	R	0.33	0.013	0.002	●	0.031
TCP18L033F-005	L	0.33	0.013	0.002	●	0.031
TCP18R043F-005	R	0.43	0.017	0.002	●	0.047
TCP18L043F-005	L	0.43	0.017	0.002	●	0.047
TCP18R050F-005	R	0.5	0.020	0.002	●	0.047
TCP18L050F-005	L	0.5	0.020	0.002	●	0.047
TCP18R075F-005	R	0.75	0.030	0.002	●	0.079
TCP18L075F-005	L	0.75	0.030	0.002	●	0.079
TCP18R095F-005	R	0.95	0.037	0.002	●	0.079
TCP18L095F-005	L	0.95	0.037	0.002	●	0.079
TCP18R100F-005	R	1	0.039	0.002	●	0.079
TCP18R100F-010	R	1	0.039	0.004	●	0.079
TCP18L100F-010	L	1	0.039	0.004	●	0.079
TCP18R120F-005	R	1.2	0.047	0.002	●	0.079
TCP18R120F-010	R	1.2	0.047	0.004	●	0.079
TCP18L120F-010	L	1.2	0.047	0.004	●	0.079
TCP18R125F-005	R	1.25	0.049	0.002	●	0.079
TCP18R125F-010	R	1.25	0.049	0.004	●	0.079
TCP18L125F-010	L	1.25	0.049	0.004	●	0.079
TCP18R140F-010-35	R	1.4	0.055	0.004	●	0.138
TCP18R145F-005-35	R	1.45	0.057	0.002	●	0.138
TCP18R145F-010	R	1.45	0.057	0.004	●	0.079
TCP18L145F-010	L	1.45	0.057	0.004	●	0.079
TCP18R145F-010-35	R	1.45	0.057	0.004	●	0.138
TCP18L145F-010-35	L	1.45	0.057	0.004	●	0.138
TCP18R150F-005-35	R	1.5	0.059	0.002	●	0.138
TCP18R150F-010	R	1.5	0.059	0.004	●	0.079
TCP18L150F-010	L	1.5	0.059	0.004	●	0.079
TCP18R150F-010-35	R	1.5	0.059	0.004	●	0.138
TCP18L150F-010-35	L	1.5	0.059	0.004	●	0.138
TCP18R175F-005-35	R	1.75	0.069	0.002	●	0.138
TCP18R175F-010	R	1.75	0.069	0.004	●	0.079
TCP18L175F-010	L	1.75	0.069	0.004	●	0.079
TCP18R175F-010-35	R	1.75	0.069	0.004	●	0.138
TCP18L175F-010-35	L	1.75	0.069	0.004	●	0.138
TCP18R200F-005-35	R	2	0.079	0.002	●	0.138
TCP18R200F-010	R	2	0.079	0.004	●	0.098
TCP18L200F-010	L	2	0.079	0.004	●	0.098
TCP18R200F-010-35	R	2	0.079	0.004	●	0.138
TCP18L200F-010-35	L	2	0.079	0.004	●	0.138
TCP18R250F-010	R	2.5	0.098	0.004	●	0.098
TCP18L250F-010	L	2.5	0.098	0.004	●	0.098
TCP18R250F-010-35	R	2.5	0.098	0.004	●	0.138
TCP18L250F-010-35	L	2.5	0.098	0.004	●	0.138
TCP18R300F-010	R	3	0.118	0.004	●	0.098
TCP18L300F-010	L	3	0.118	0.004	●	0.098
TCP18R300F-010-35	R	3	0.118	0.004	●	0.138
TCP18L300F-010-35	L	3	0.118	0.004	●	0.138

5 pieces per package
● : Line up

Reference pages: Toolholders → F046 - F052, Standard cutting conditions → F060

STANDARD CUTTING CONDITIONS

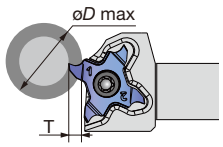
TCS18R/L, TCL18R/L (3D chipbreaker), TCG18R/L (honed edge), TCG18R/L (Full R)

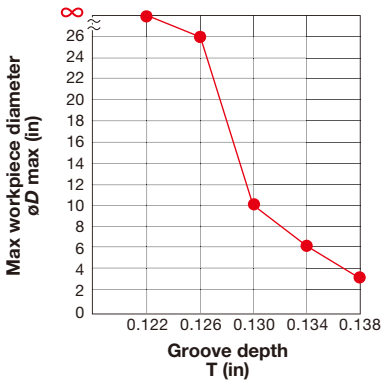
ISO	Workpiece materials	Grade	Cutting speed *Vc* (sfm)	Feed: *f* (ipr)		
				TCL18	TCS18	TCG18
P	Low carbon steel 1015, etc.	AH7025	262 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
P	Carbon steel, Alloy steel 1055, 4140, etc.	AH7025	262 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
P	Prehardened steel NAK80, PX5, etc.	AH7025	262 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
M	Stainless steel 304, 316, etc.	AH7025	164 - 394	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
K	Gray cast iron No.250B, No.300B, etc.	AH7025	164 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
K	Ductile cast iron 60-40-18, etc.	AH7025	164 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
S	Titanium alloys Ti-6Al-4V, etc.	AH7025	98 - 197	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
S	Superalloys Inconel718, etc.	AH7025	66 - 131	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006

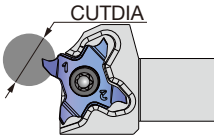
TCP18R/L (lightly honed edge), TCP18R/L-F (sharp edge)

ISO	Workpiece materials	Priority	Grades	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Low carbon steel 1015, etc.	First choice	SH725	262 - 591	0.001 - 0.004
P	Low carbon steel 1015, etc.	Toughness	AH725	262 - 591	0.001 - 0.004
P	Carbon steel, Alloy steel 1055, 4140, etc.	First choice	SH725	262 - 591	0.001 - 0.004
P	Carbon steel, Alloy steel 1055, 4140, etc.	Toughness	AH725	262 - 591	0.001 - 0.004
P	Prehardened steel NAK80, PX5, etc.	First choice	SH725	262 - 591	0.001 - 0.004
P	Prehardened steel NAK80, PX5, etc.	Toughness	AH725	262 - 591	0.001 - 0.004
M	Stainless steel 304, 316, etc.	First choice	SH725	164 - 394	0.001 - 0.004
M	Stainless steel 304, 316, etc.	Toughness	AH725	164 - 394	0.001 - 0.004
K	Gray cast iron No.250B, No.300B, etc.	First choice	AH725	164 - 591	0.001 - 0.004
K	Gray cast iron No.250B, No.300B, etc.	Sharpness	SH725	164 - 591	0.001 - 0.004
K	Ductile cast iron 60-40-18, etc.	First choice	AH725	164 - 591	0.001 - 0.004
K	Ductile cast iron 60-40-18, etc.	Sharpness	SH725	164 - 591	0.001 - 0.004
S	Titanium alloys Ti-6Al-4V, etc.	First choice	SH725	98 - 262	0.001 - 0.004
S	Titanium alloys Ti-6Al-4V, etc.	Toughness	AH725	98 - 262	0.001 - 0.004
S	Superalloys Inconel718, etc.	First choice	AH725	66 - 131	0.001 - 0.004

Precautions of processing







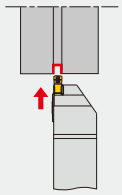
Max workpiece diameter CUTDIA (in)
0.276

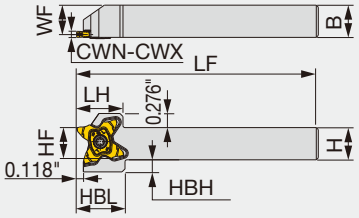
***Groove depth and max workpiece diameter (øDmax)**

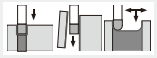
Maximum workpiece diameter is limited relative to depth of cut in order to avoid collision between insert and workpiece.

STCR/L-27

External toolholders for grooving, parting







Right-hand (R) shown.

Inch	CWN	CWX	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque
STCR/L06-27	0.020	0.125	0.375	0.375	5.000	0.906	0.945	0.375	0.315	0.374	TC*27...	1.84
STCR/L08-27	0.020	0.125	0.500	0.500	5.000	0.906	0.945	0.500	0.440	0.287	TC*27...	1.84
STCR/L10-27	0.020	0.125	0.625	0.625	5.000	0.906	0.945	0.625	0.570	0.236	TC*27...	1.84
STCR/L12-27	0.020	0.125	0.750	0.750	5.000	0.906	0.945	0.750	0.690	0.118	TC*27...	1.84
STCR/L16-27	0.020	0.125	1.000	1.000	5.500	0.906	-	1.000	0.940	-	TC*27...	1.84

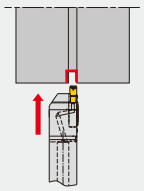
Metric	CWN	CWX	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque*
STCR/L1010-27	0.5	3.18	10	10	120	23	24	10	8.5	9.5	TC*27...	2.5
STCR/L1212-27	0.5	3.18	12	12	120	23	24	12	10.5	8	TC*27...	2.5
STCR/L1616-27	0.5	3.18	16	16	120	23	24	16	14.5	6	TC*27...	2.5
STCR/L2020-27	0.5	3.18	20	20	120	23	24	20	18.5	2	TC*27...	2.5
STCR/L2525-27	0.5	3.18	25	25	135	23	-	25	23.5	-	TC*27...	2.5

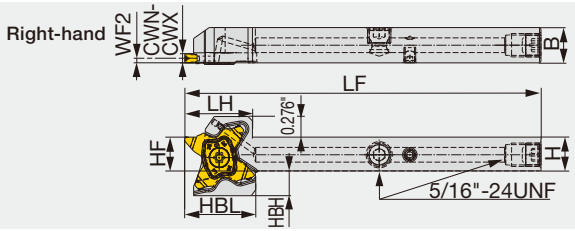
Torque: Recommended clamping torque: lbs·ft (*N·m)

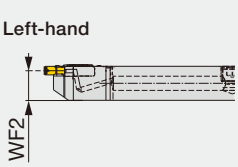
STCR/L-27-CHP

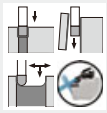
Direct connection

Grooving and parting-off toolholder. High pressure coolant capability.









Inch	CWN	CWX	H	B	LF	LH	HF	WF2(1)	HBH	HBL	Insert	Torque
STCR/L08-27-CHP	0.020	0.125	0.500	0.500	4.750	0.906	0.500	0.059/0.441	0.287	0.945	TC*27...	1.84

Metric	CWN	CWX	H	B	LF	LH	HF	WF2(1)	HBH	HBL	Insert	Torque*
STCR/L1212-27-CHP	0.5	3.18	12	12	120	23	12	1.5/10.5	8	24	TC*27...	2.5

- Make sure to avoid tool interferences when used on Swiss machines
(1) The above WF2 value is valid when an insert width of CW = 0.118" (3 mm) is mounted.
Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS

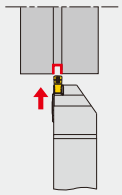
Designation	Screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
STCR**-27	SR16-212-01397L	T-2010/5	-	-	-	-
STCL**-27	SR16-212-01397	T-2010/5	-	-	-	-
STCR**-27-CHP	SR16-212-01397L	T-2010/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
STCL**-27-CHP	SR16-212-01397	T-2010/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

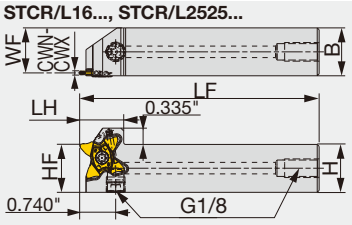
Reference pages: Inserts → F067 - F071, Standard cutting conditions → F072
Parts for coolant hose → F290

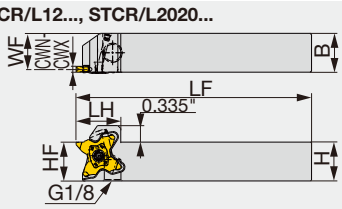
STCR/L-27-CHP

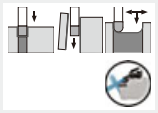
Tube connection

External grooving and parting toolholder, with high pressure coolant capability









Right-hand (R) shown.

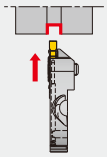
Inch	CWN	CWX	H	B	LF	LH	HF	WF	Insert	Torque
STCR/L12-27-CHP	0.020	0.125	0.750	0.750	5.000	0.906	0.750	0.690	TC*27...	1.84
STCR/L16-27-CHP	0.020	0.125	1.000	1.000	4.920	0.906	1.000	0.940	TC*27...	1.84

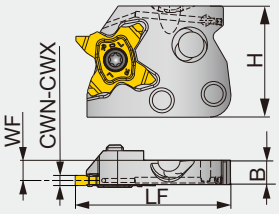
Metric	CWN	CWX	H	B	LF	LH	HF	WF	Insert	Torque*
STCR/L2020-27-CHP	0.5	3.18	20	20	120	23	20	18.5	TC*27...	2.5
STCR/L2525-27-CHP	0.5	3.18	25	25	125	23	25	23.5	TC*27...	2.5

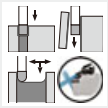
Torque: Recommended clamping torque: lbs·ft (*N·m)

STCAR/L27-CHP

External grooving and parting adapter, with high pressure coolant capability







Right-hand (R) shown.

Metric	CWN	CWX	WF	H	LF	B	Insert	Torque
STCAR/L27-CHP	0.5	3.18	6	33	46	7.2	TC*27...	2.5

Torque: Recommended clamping torque: N·m

SPARE PARTS





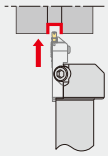
Designation	Screw	Wrench
STCR**-27-CHP	SR16-212-01397L	T-2010/5
STCL**-27-CHP	SR16-212-01397	T-2010/5
STCAR27-CHP	SR16-212-01397L	T-2010/5
STCAL27-CHP	SR16-212-01397	T-2010/5

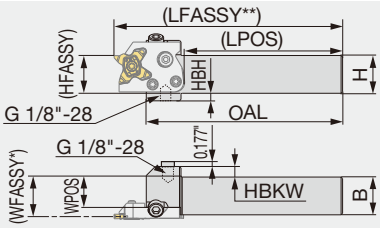
Reference pages: STCR/L-27-CHP: Inserts → F067 - F071, Standard cutting conditions → F072
Parts for coolant hose → F290
STCAR/L27-CHP: Inserts → F067 - F071, Shanks and toolholders → F063 - F065
Standard cutting conditions → F072, Technical Reference → L059

CHSR/L-CHP

Tube connection

Shank for adapter, with high pressure coolant capability





Right hand (R)
with right-hand adapter shown.

Inch	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque
CHSR/L12-CHP	0.750	0.750	5.000	4.035	0.560	0.510	0.750	0.190	STCAR/L27-CHP	3.69
CHSR/L16-CHP	1.000	1.000	5.000	4.035	0.810	0.260	1.000	0.200	STCAR/L27-CHP	3.69

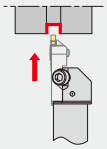
Metric	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP	20	20	130	105.5	15.1	12	20	10	STCAR/L27-CHP	6.5
CHSR/L2525-CHP	25	25	130	105.5	20.1	7	25	5	STCAR/L27-CHP	6.5

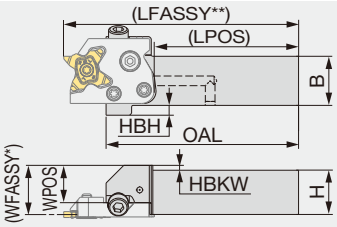
WFASSY* : Shank (WPOS) + adapter (WF)
LFASSY** : Shank (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: lbs·ft (*N·m)
Applicable for 30 MPa coolant
Please see page **L059** for instructions on installing and removing the adapter or the insert.

CHSR/L-CHP-MC

Direct connection

Shank for adapter, with high pressure coolant capability





Right hand (R)
with right-hand adapter shown.

Metric	H	B	OAL	LPOS	WPOS	HBKW	HBH	Adapter (Option)	Torque
CHSR/L2020-CHP-MC	20	20	98	73.5	14	6	10	STCAR/L27-CHP	6.5
CHSR/L2525-CHP-MC	25	25	98	73.5	19	-	5	STCAR/L27-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)
LFASSY** : Shank (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: N·m
Applicable for 30 MPa coolant
Please see page **L059** for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHSR/L**-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179
CHSR/L**-CHP-MC	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	-

Recommended clamping torque (lbs·ft, N·m)

Clamping screw	Torque (lbs·ft)	Torque (N·m)
SR M5-04451	1.84	2.5
SR M6X12DIN6912	4.79	6.5
SR M6X20-XT	4.79	6.5

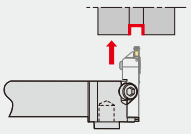
Combination of adapter and shank

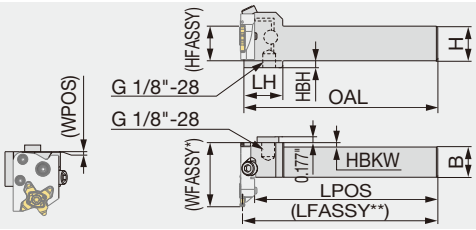
Shank	Adapter	
	STCAR27-CHP	STCAL27-CHP
CHSR**-CHP (-MC)	●	
CHSL**-CHP (-MC)		●
CHFVR**-CHP		●
CHFVL**-CHP	●	

● : Corresponding

Reference pages: Inserts → F067 - F071, Adapters → F062, Standard cutting conditions → F072
Parts for coolant hose → F290, Technical Reference → L059

Shank for perpendicularly-mounted adapter, with high pressure coolant capability





Right hand (R)
with left-hand adapter shown.

Inch	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque
CHFVR/L12-CHP	0.750	0.750	5.500	1.100	5.307	0.020	0.234	0.750	0.431	STCAL/R27-CHP	3.69
CHFVR/L16-CHP	1.000	1.000	5.500	1.100	5.307	0.020	-	1.000	0.200	STCAL/R27-CHP	3.69

Metric	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHFVR/L2020-CHP	20	20	140	28	135.1	0.5	5	20	10	STCAL/R27-CHP	6.5
CHFVR/L2525-CHP	25	25	140	28	135.1	0.5	0	25	5	STCAL/R27-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (LF)
LFASSY** : Shank (LPOS) + adapter (WF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: lbs·ft (*N·m)
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHFVR/L...	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179

Recommended clamping torque (lbs·ft, N·m)

Clamping screw	Torque (lbs·ft)	Torque (N·m)
SR M5-04451	1.84	2.5
SR M6X12DIN6912	4.79	6.5
SR M6X20-XT	4.79	6.5

Combination of adapter and shank

Shank	Adapter	
	STCAR27-CHP	STCAL27-CHP
CHSR**-CHP (-MC)	●	
CHSL**-CHP (-MC)		●
CHFVR**-CHP		●
CHFVL**-CHP	●	

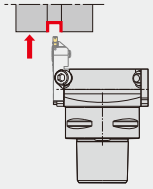
● : Corresponding

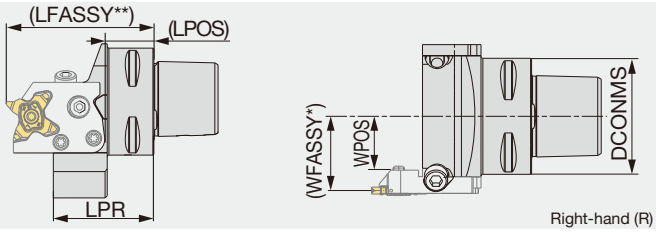
Reference pages: Inserts → F067 - F071, Adapters → F062, Standard cutting conditions → F072
Parts for coolant hose → F290, Technical Reference → L059

C*CHSN-CHP

Direct connection

Toolholder with TungCap connection, for adapter, with high pressure coolant capability





Right-hand (R) adapter shown.

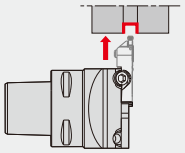
Metric	DCONMS	LPR	LPOS	WPOS	Adapter (Option)	Torque
C3CHSN19045-CHP	32	45	17.5	18.5	STCAR/L27-CHP	6.5
C4CHSN21047-CHP	40	46.5	21.5	21	STCAR/L27-CHP	6.5
C5CHSN26047-CHP	50	47	22.5	26	STCAR/L27-CHP	6.5
C6CHSN33050-CHP	63	50	24.5	32.5	STCAR/L27-CHP	6.5

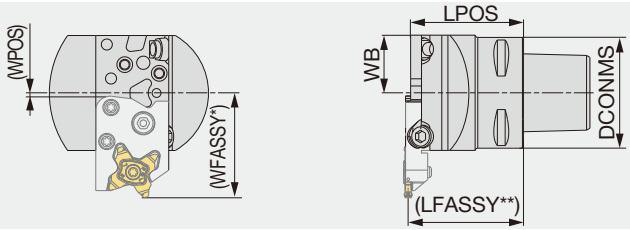
WFASSY* : Toolholder (WPOS) + adapter (WF)
LFASSY** : Toolholder (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: N·m
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

C*CHFVN-CHP

Direct connection

Toolholder with TungCap connection, for perpendicularly-mounted adapter, with high pressure coolant capability





Left-hand (L) adapter shown.

Metric	DCONMS	LPOS	WB	WPOS	Adapter (Option)	Torque
C3CHFVN26040-CHP	32	40	26	1.5	STCAR/L27-CHP	6.5
C4CHFVN26046-CHP	40	46	26	1.5	STCAR/L27-CHP	6.5
C5CHFVN26046-CHP	50	46	26	1.5	STCAR/L27-CHP	6.5
C6CHFVN33046-CHP	63	46	33	8.5	STCAR/L27-CHP	6.5

WFASSY* : Toolholder (WPOS) + adapter (LF)
LFASSY** : Toolholder (LPOS) + adapter (WF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: N·m
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

SPARE PARTS








Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring
C*CH**N**-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N

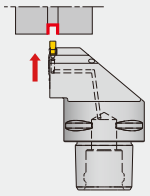
Recommended clamping torque (N·m)

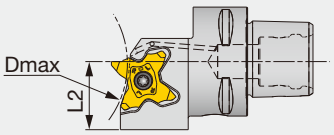
Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

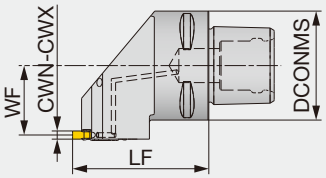
Reference pages: Inserts → F067 - F071, Adapters → F062, Standard cutting conditions → F072
Technical Reference → L059

C-STCR/L-27-CHP

External grooving toolholder, with high pressure coolant capability







Right hand (R) shown.

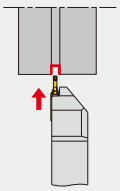
Metric	CWN	CWX	DCONMS	LF	L2	WF	Dmax	Insert	Torque
C4STCR/L27050-27-CHP	0.5	3.18	40	50	25	25.5	68 (1)	TC*27R/L...	2.5

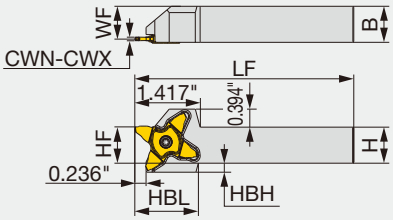
Applicable for 14 MPa coolant
(1) The value for 6.4 mm groove depth. *Dmax* varies according to the grooving depth required.
Torque: Recommended clamping torque: N·m

External
Internal
Face
Parting
Others

STCR/L-38

External grooving and parting toolholder





Right hand (R) shown.

Inch	CWN	CWX	H	B	LF	HF	WF	HBH	HBL	Insert	Torque
STCR/L12-38	0.059	0.157	0.750	0.750	5.000	0.750	0.670	0.234	1.378	TCL38...	1.84
STCR/L16-38	0.059	0.157	1.000	1.000	5.500	1.000	0.920	-	-	TCL38...	1.84
STCR/L20-38	0.059	0.157	1.250	1.250	5.500	1.250	1.170	-	-	TCL38...	1.84

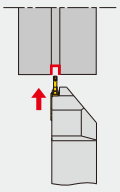
Metric	CWN	CWX	H	B	LF	HF	WF	HBH	HBL	Insert	Torque*
STCR/L2020-38	1.5	4	20	20	120	20	18.1	5	35	TCL38...	2.5
STCR/L2525-38	1.5	4	25	25	135	25	23.1	-	-	TCL38...	2.5
STCR/L3232-38	1.5	4	32	32	135	32	30.1	-	-	TCL38...	2.5

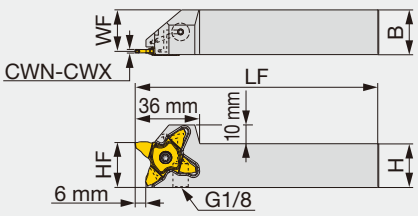
Torque: Recommended clamping torque: lbs·ft (*N·m)

STCR/L-38-CHP

Tube connection

External grooving and parting toolholder, with high pressure coolant capability





Right hand (R) shown.

Metric	CWN	CWX	H	B	LF	HF	WF	Insert	Torque
STCR/L2525-38-CHP	1.5	4	25	25	135	25	23.1	TCL38...	2.5

Torque: Recommended clamping torque: N·m

SPARE PARTS

Designation	Screw	Wrench
C4STCR27050-27-CHP	SR16-212-01397L	T-2010/5
C4STCL27050-27-CHP	SR16-212-01397	T-2010/5
STCR...	SR16-212-01397L	T-2010/5
STCL...	SR16-212-01397	T-2010/5

Reference pages: Inserts → F067 - F071, Standard cutting conditions → F072
Parts for coolant hose → F290

External grooving and parting

TCS27 (4 corners)



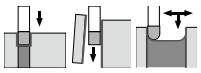
F068, F069

First choice for grooving

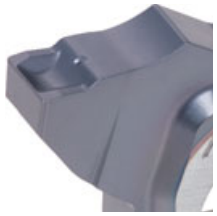
For general machining

Lower cutting force and superior sharpness

CW = 0.020" - 0.125"
CDX = 0.252"



TCM27 (4 corners)



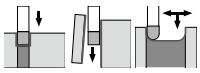
F070, F071

For higher efficiency

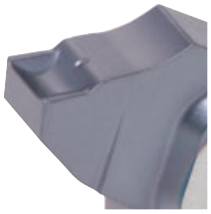
For high feed machining

Well-designed edge with high strength and fracture resistance

CW = 0.059" - 0.125"
CDX = 0.252"



TCL27 (4 corners)

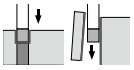


F067

For lighter cutting action

Extremely sharp cutting edge
A large dimple geometry eliminates chip jamming

CW = 0.059" - 0.118"
CDX = 0.252"



TCL38 (4 corners)

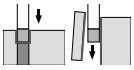


F071

For lighter cutting action

Sharp edge for light cutting action
Excellent chip control at low feeds

CW = 0.059" - 0.157"
CDX = 0.394"

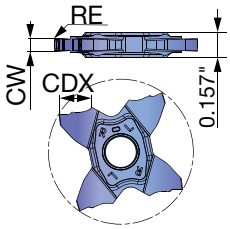


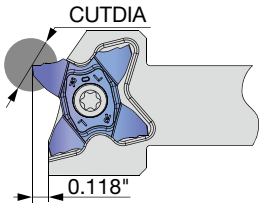
Please see page F*** for the product details.

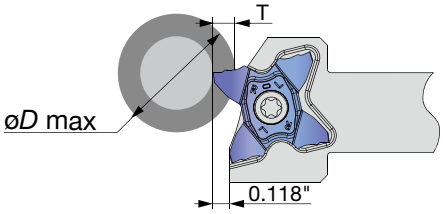
INSERTS

TCL27 (for grooving and parting off)









P	Steel	★	★	★	★
M	Stainless	★	★	★	★
K	Cast iron	★	★	★	★
N	Non-ferrous				
S	Superalloys	★	★	★	
H	Hard materials				

★ : First choice

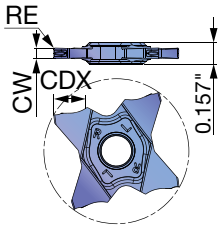
Designation	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated				CDX (in)	CUTDIA (in)	Relation of groove depth (T) and Max. diameter (øD max) (in)									
				AH725	AH7025	AH8005	AH6235			T≤0.118	T≤0.138	T≤0.157	T≤0.177	T≤0.197	T≤0.217	T≤0.224	T≤0.236	T≤0.244	T≤0.252
TCL27-150-015	1.5	0.059	0.006	▲	●	●	●	0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCL27-200-020	2	0.079	0.008	▲	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.118	4.134	3.346	2.362	1.969	1.181
TCL27-250-020	2.5	0.098	0.008	▲	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.118	4.134	3.346	2.362	1.969	1.181
TCL27-300-020	3	0.118	0.008	▲	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165

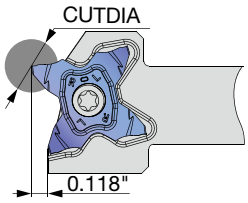
5 pieces per package
●: Line up
▲: To be discontinued

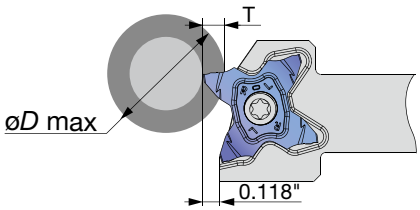
Reference pages: Toolholders → F061 - F066, Standard cutting conditions → F072

TCS27 (for grooving and parting off)









P	Steel	★	★	★	★
M	Stainless	★	★	★	★
K	Cast iron	★	★	★	★
N	Non-ferrous				
S	Superalloys	★	★	★	
H	Hard materials				

★ : First choice

Designation	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH725	Coated AH7025	Coated AH8005	Coated AH6235	CDX (in)	CUTDIA (in)	Relation of groove depth (T) and Max. diameter (øD max) (in) T≤0.118	T≤0.138	T≤0.157	T≤0.177	T≤0.197	T≤0.217	T≤0.224	T≤0.236	T≤0.244	T≤0.252
TCS27-050-000	0.5	0.020	0	▲	★	★	★	0.039	0.079	∞	-	-	-	-	-	-	-	-	-
TCS27-050-004	0.5	0.020	0.002	▲	★	★	★	0.098	0.197	∞	-	-	-	-	-	-	-	-	-
TCS27-075-010	0.75	0.030	0.004	▲	●	●	●	0.098	0.197	∞	-	-	-	-	-	-	-	-	-
TCS27-080-000	0.8	0.031	0	▲	★	★	★	0.063	0.126	∞	-	-	-	-	-	-	-	-	-
TCS27-100-006	1	0.039	0.002	▲	●	●	●	0.138	0.276	∞	23.622	-	-	-	-	-	-	-	-
TCS27-100-010	1	0.039	0.004	▲	●	●	●	0.138	0.276	∞	23.622	-	-	-	-	-	-	-	-
TCS27-104-000	1.04	0.041	0	▲	★	★	★	0.079	0.157	∞	-	-	-	-	-	-	-	-	-
TCS27-120-000	1.2	0.047	0	▲	★	★	★	0.079	0.157	∞	-	-	-	-	-	-	-	-	-
TCS27-125-010	1.25	0.049	0.004	▲	●	●	●	0.138	0.276	∞	23.622	-	-	-	-	-	-	-	-
TCS27-125-020	1.25	0.049	0.008	▲	●	●	●	0.138	0.276	∞	23.622	-	-	-	-	-	-	-	-
TCS27-140-000	1.4	0.055	0	▲	★	★	★	0.079	0.157	∞	-	-	-	-	-	-	-	-	-
TCS27-147-000	1.47	0.058	0	▲	★	★	★	0.098	0.197	∞	-	-	-	-	-	-	-	-	-
TCS27-150-010	1.5	0.059	0.004	▲	●	●	●	0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCS27-150-020	1.5	0.059	0.008	▲	●	●	●	0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCS27-157-015	1.57	0.062	0.006	▲	●	●	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCS27-170-010	1.7	0.067	0.004	▲	●	●	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCS27-175-010	1.75	0.069	0.004	▲	●	●	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCS27-175-020	1.75	0.069	0.008	▲	●	●	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCS27-178-018	1.78	0.070	0.007	▲	●	●	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCS27-185-020	1.85	0.073	0.008	▲	●	●	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCS27-196-015	1.96	0.077	0.006	▲	●	●	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCS27-200-010	2	0.079	0.004	▲	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.118	4.134	3.346	2.362	1.969	1.181
TCS27-200-020	2	0.079	0.008	▲	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.118	4.134	3.346	2.362	1.969	1.181
TCS27-222-015	2.22	0.087	0.006	▲	●	●	●	0.138	0.276	∞	23.622	-	-	-	-	-	-	-	-
TCS27-230-020	2.3	0.091	0.008	▲	●	●	●	0.138	0.276	∞	23.622	-	-	-	-	-	-	-	-
TCS27-239-015	2.39	0.094	0.006	▲	●	●	●	0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCS27-247-020	2.47	0.097	0.008	▲	●	●	●	0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCS27-250-010	2.5	0.098	0.004	▲	●	●	●	0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCS27-250-030	2.5	0.098	0.012	▲	●	●	●	0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCS27-270-010	2.7	0.106	0.004	▲	●	●	●	0.244	0.488	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	-
TCS27-287-020	2.87	0.113	0.008	▲	●	●	●	0.244	0.488	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	-
TCS27-300-000	3	0.118	0	▲	★	★	★	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCS27-300-020	3	0.118	0.008	▲	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCS27-300-030	3	0.118	0.012	▲	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCS27-300-040	3	0.118	0.016	▲	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCS27-315-015	3.15	0.124	0.006	▲	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.677
TCS27-318-020	3.18	0.125	0.008	▲	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.677

5 pieces per package

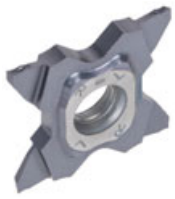
★: Will be released in January 2025

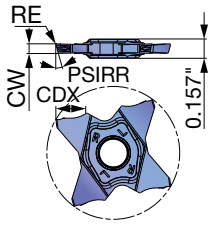
●: Line up

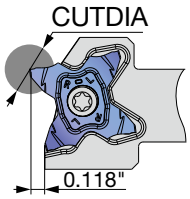
▲: To be discontinued

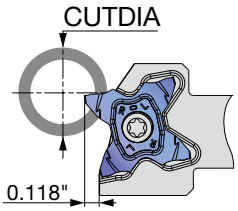
Reference pages: Toolholders → F061 - F066, Standard cutting conditions → F072

TCS27-R/L (for parting off)









Right hand (R) shown.

P	Steel	★	★	★	★
M	Stainless	★	★	★	★
K	Cast iron	★	★	★	★
N	Non-ferrous				
S	Superalloys	★	★	★	
H	Hard materials				

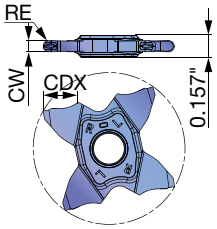
★ : First choice

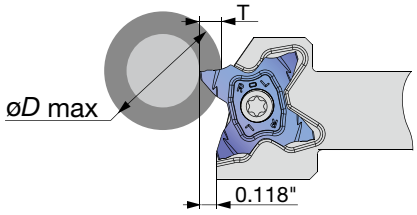
Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated				CDX (in)	PSIRL	PSIRR	Max. parting off dia. (CUTDIA) (in)	
					AH725	AH7025	AH8005	AH6235				Solid bar	Tube
TCS27-100-15R	R	1	0.039	0.002	▲	●	●	●	0.138	0°	15°	0.276	23.622
TCS27-100-15L	L	1	0.039	0.002	▲	●	●	●	0.138	15°	0°	0.276	23.622
TCS27-150-6R	R	1.5	0.059	0.002	▲	●	●	●	0.224	0°	6°	0.449	1.378
TCS27-150-6L	L	1.5	0.059	0.002	▲	●	●	●	0.224	6°	0°	0.449	1.378
TCS27-150-15R	R	1.5	0.059	0.002	▲	●	●	●	0.224	0°	15°	0.449	1.378
TCS27-150-15L	L	1.5	0.059	0.002	▲	●	●	●	0.224	15°	0°	0.449	1.378
TCS27-200-6R	R	2	0.079	0.004	▲	●	●	●	0.252	0°	6°	0.504	1.181
TCS27-200-6L	L	2	0.079	0.004	▲	●	●	●	0.252	6°	0°	0.504	1.181
TCS27-200-15R	R	2	0.079	0.004	▲	●	●	●	0.252	0°	15°	0.504	1.181
TCS27-200-15L	L	2	0.079	0.004	▲	●	●	●	0.252	15°	0°	0.504	1.181

5 pieces per package
●: Line up
▲: To be discontinued

TCS27 (for grooving and profiling, full R)







P	Steel	★	★	★	★
M	Stainless	★	★	★	★
K	Cast iron	★	★	★	★
N	Non-ferrous				
S	Superalloys	★	★	★	
H	Hard materials				

★ : First choice

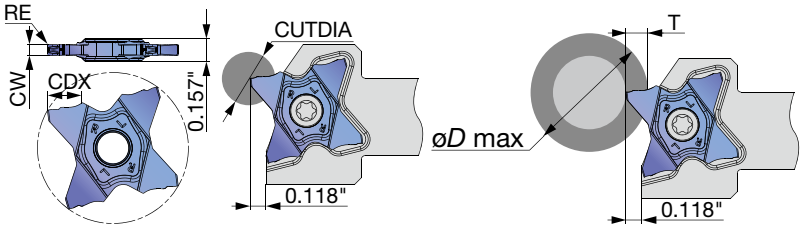
Designation	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated				CDX (in)	Relation of groove depth (T) and Max. diameter (øD max) (in)									
				AH725	AH7025	AH8005	AH6235		T≤0.118	T≤0.138	T≤0.157	T≤0.177	T≤0.197	T≤0.217	T≤0.224	T≤0.236	T≤0.244	T≤0.252
TCS27-157-079	1.57	0.062	0.031	▲	●	●	●	0.118	∞	-	-	-	-	-	-	-	-	-
TCS27-200-100	2	0.079	0.039	▲	●	●	●	0.118	∞	-	-	-	-	-	-	-	-	-
TCS27-239-120	2.39	0.094	0.047	▲	●	●	●	0.224	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCS27-300-150	3	0.118	0.059	▲	●	●	●	0.252	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165

5 pieces per package
●: Line up
▲: To be discontinued

Reference pages: Toolholders → F061 - F066, Standard cutting conditions → F072

TCM27 (for grooving and parting off)





P	Steel	★	★	★	★
M	Stainless	★	★	★	★
K	Cast iron	★	★	★	★
N	Non-ferrous				
S	Superalloys	★	★	★	
H	Hard materials				

★ : First choice

Designation	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated				CDX (in)	CUTDIA (in)	Relation of groove depth (T) and Max. diameter (øD max) (in)									
				AH725	AH7025	AH8005	AH6235			T≤0.118	T≤0.138	T≤0.157	T≤0.177	T≤0.197	T≤0.217	T≤0.224	T≤0.236	T≤0.244	T≤0.252
TCM27-150-010	1.5	0.059	0.004	▲	●	●	●	0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCM27-150-020	1.5	0.059	0.008	▲	●	●	●	0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCM27-157-015	1.57	0.062	0.006	▲	●	●	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-170-010	1.7	0.067	0.004	▲	●	●	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-175-010	1.75	0.069	0.004	▲	●	●	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-175-020	1.75	0.069	0.008	▲	●	●	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-178-018	1.78	0.070	0.007	▲	●	●	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-185-020	1.85	0.073	0.008	▲	●	●	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-196-015	1.96	0.077	0.006	▲	●	●	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-200-010	2	0.079	0.004	▲	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.118	4.134	3.346	2.362	1.969	1.181
TCM27-200-020	2	0.079	0.008	▲	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.118	4.134	3.346	2.362	1.969	1.181
TCM27-222-015	2.22	0.087	0.006	▲	●	●	●	0.138	0.276	∞	23.622	-	-	-	-	-	-	-	-
TCM27-230-020	2.3	0.091	0.008	▲	●	●	●	0.138	0.276	∞	23.622	-	-	-	-	-	-	-	-
TCM27-239-015	2.39	0.094	0.006	▲	●	●	●	0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCM27-247-020	2.47	0.097	0.008	▲	●	●	●	0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCM27-250-010	2.5	0.098	0.004	▲	●	●	●	0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCM27-250-030	2.5	0.098	0.012	▲	●	●	●	0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCM27-270-010	2.7	0.106	0.004	▲	●	●	●	0.244	0.488	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	-
TCM27-287-020	2.87	0.113	0.008	▲	●	●	●	0.244	0.488	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	-
TCM27-300-000	3	0.118	0	▲	★	★	★	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCM27-300-020	3	0.118	0.008	▲	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCM27-300-030	3	0.118	0.012	▲	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCM27-300-040	3	0.118	0.016	●	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCM27-315-015	3.15	0.124	0.006	●	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.677
TCM27-318-020	3.18	0.125	0.008	●	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.677

5 pieces per package

★: Will be released in January 2025

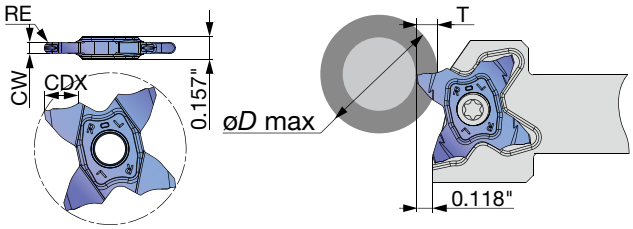
●: Line up

▲: To be discontinued

Reference pages: Toolholders → F061 - F066, Standard cutting conditions → F072

TCM27 (for grooving and profiling, full R)





P	Steel	★	★	★
M	Stainless	★	★	★
K	Cast iron	★	★	★
N	Non-ferrous			
S	Superalloys	★	★	
H	Hard materials			

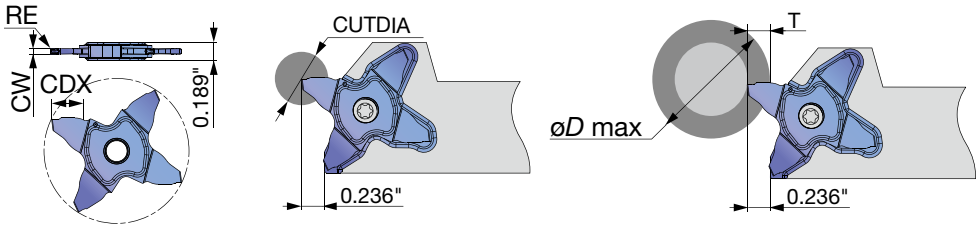
★ : First choice

Designation	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	Coated AH8005	Coated AH6235	CDX (in)	CUTDIA (in)	Relation of groove depth (T) and Max. diameter (øD max) (in) T≤0.118	T≤0.138	T≤0.157	T≤0.177	T≤0.197	T≤0.217	T≤0.224	T≤0.236	T≤0.244	T≤0.252
TCM27-157-079	1.57	0.062	0.031	●	●	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-200-100	2	0.079	0.039	●	●	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-239-120	2.39	0.094	0.047	●	●	●	0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCM27-300-150	3	0.118	0.059	●	●	●	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165

5 pieces per package
●: Line up

TCL38 (for grooving and parting off)





P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous			
S	Superalloys	★		
H	Hard materials			

★ : First choice

Designation	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)	CUTDIA (in)	Relation of groove depth (T) and Max. diameter (øD max) (in) T ≤ 0.197	T ≤ 0.236	T ≤ 0.276	T ≤ 0.315	T ≤ 0.354	T ≤ 0.394
TCL38-150-020	1.5	0.059	0.008	●	0.354	0.709	∞	37.402	12.402	7.480	1.772	-
TCL38-200-020	2	0.079	0.008	●	0.354	0.709	∞	37.402	12.402	7.480	1.772	-
TCL38-300-020	3	0.118	0.008	●	0.394	0.787	∞	37.402	12.402	7.480	5.118	1.969
TCL38-400-030	4	0.157	0.012	●	0.394	0.787	∞	37.402	12.402	7.480	5.118	1.969

5 pieces per package
● : Line up

Reference pages: Toolholders → F061 - F066, Standard cutting conditions → F072

STANDARD CUTTING CONDITIONS

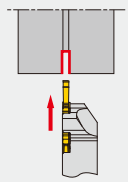
TCL27, TCS27, TCM27

ISO	Workpiece materials	Grades	Cutting speed *Vc* (sfm)	Feed: *f* (ipr)						Depth of cut for profiling (with full radius insert)
				Grooving, Parting-off			Parting-off (with hand)	Profiling (with full radius insert)		
				TCL27	TCS27	TCM27	TCS27	TCS27	TCM27	
P	Carbon steel 1045 etc.	AH725	328 - 656	0.001 - 0.005	0.002 - 0.006	0.002 - 0.010	0.002 - 0.005	0.002 - 0.004	0.002 - 0.006	0.020
	Alloy steel 4140, etc.	AH725	164 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.010	0.002 - 0.005	0.002 - 0.004	0.002 - 0.006	0.020
M	Stainless steel 304, etc.	AH725	328 - 492	0.001 - 0.005	0.002 - 0.006	0.002 - 0.008	0.002 - 0.005	0.002 - 0.004	0.002 - 0.006	0.020
K	Gray cast iron No.250B, etc.	AH725	164 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.010	0.002 - 0.005	0.002 - 0.004	0.002 - 0.006	0.020
	Ductile cast iron 60-40-18, etc.	AH725	164 - 394	0.001 - 0.005	0.002 - 0.006	0.002 - 0.008	0.002 - 0.005	0.002 - 0.004	0.002 - 0.006	0.020
S	Titanium alloys Ti-6Al-4V, etc.	AH725	98 - 197	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006	0.002 - 0.005	0.002 - 0.004	0.002 - 0.004	0.020
	Superalloys Inconel718, etc.	AH725	66 - 164	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006	0.002 - 0.005	0.002 - 0.004	0.002 - 0.004	0.020

TCL38

ISO	Workpiece materials	Grades	Cutting speed *Vc* (sfm)	Feed: *f* (ipr)
				Grooving, Parting-off
				TCL38
P	Carbon steel 1045 etc.	AH7025	262 - 591	0.001 - 0.007
	Alloy steel 4140, etc.	AH7025	164 - 591	0.001 - 0.007
M	Stainless steel 304, etc.	AH7025	164 - 492	0.001 - 0.006
K	Gray cast iron No.250B, etc.	AH7025	164 - 591	0.001 - 0.006
	Ductile cast iron 60-40-18, etc.	AH7025	164 - 394	0.001 - 0.006
S	Titanium alloys Ti-6Al-4V, etc.	AH7025	98 - 197	0.001 - 0.006
	Superalloys Inconel718, etc.	AH7025	66 - 164	0.001 - 0.006

Parting-off and grooving toolholders



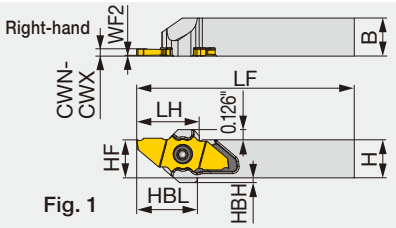


Fig. 1

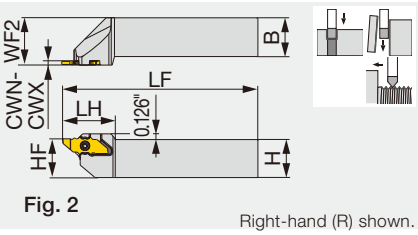


Fig. 2

Right-hand (R) shown.

Inch	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBL(1)	HBH	Insert	Torque	Fig.
JSXXR/L063	0.024	0.098	0.375	0.375	4.750	0.774	0.375	0.008/0.367	0.748	0.120	JX**06...,12...,16..., 20...	0.89	1
JSXXR/L083	0.024	0.098	0.500	0.500	4.750	0.774	0.500	0.008/0.492	0.748	0.060	JX**06...,12...,16..., 20...	0.89	1
JSXXR/L103	0.024	0.098	0.625	0.625	4.750	0.774	0.625	0.008/0.617	-	-	JX**06...,12...,16..., 20...	0.89	1
JSXXR/L123	0.024	0.098	0.750	0.750	3.950	0.886	0.750	0.008/0.742	-	-	JX**06...,12...,16..., 20...	0.89	1
JSXXR/L163	0.024	0.098	1.000	1.000	5.350	1.339	1.000	1.250	-	-	JX**06...,12...,16..., 20...	0.89	2

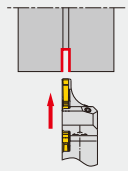
Metric	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBL(1)	HBH	Insert	Torque*	Fig.
JSXXR/L1010X09	0.6	2.5	10	10	120	19.65	10	0.2/9.8	19	3	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212F09	0.6	2.5	12	12	85	19.65	12	0.2/11.8	19	1.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212X09	0.6	2.5	12	12	120	19.65	12	0.2/11.8	19	1.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09	0.6	2.5	16	16	120	19.65	16	0.2/15.8	-	-	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L2020H09	0.6	2.5	20	20	100	22.5	20	0.2/19.8	-	-	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L2525Z09	0.6	2.5	25	25	135	34	25	30	-	-	JX**06...,12...,16..., 20...	1.2	2

Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JX**16... insert. LF, LH, and HBL will all be 0.079" (2 mm) shorter than the above values with JX**12... and JX**20...inserts, and 0.157" (4 mm) shorter for JX**06... insert.
(2) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

JSXXR/L-F/H/X-CHP

Parting-off toolholders with high pressure coolant capability, for swiss lathes

Direct connection **Tube connection**



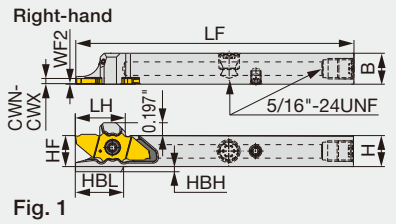


Fig. 1

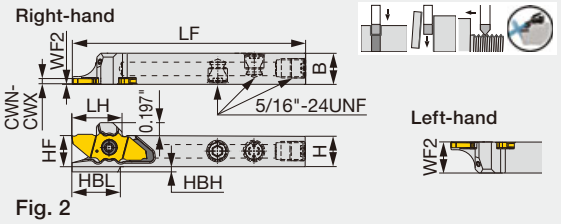


Fig. 2

Inch	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBL(1)	HBH	Insert	Torque	Fig.
JSXXR/L083F-CHP	0.024	0.098	0.500	0.500	3.344	0.764	0.500	0.008/0.492	0.736	0.051	JX**06...,12...,16..., 20...	0.89	2
JSXXR/L083X-CHP(3)	0.024	0.098	0.500	0.500	4.750	0.764	0.500	0.008/0.492	0.736	0.051	JX**06...,12...,16..., 20...	0.89	1
JSXXR/L103X-CHP(3)	0.024	0.098	0.625	0.625	4.750	0.764	0.625	0.008/0.617	-	-	JX**06...,12...,16..., 20...	0.89	1

Metric	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBL(1)	HBH	Insert	Torque*	Fig.
JSXXR/L1012H09-CHP(3)	0.6	2.5	10	12	102	19.2	10	0.2/11.8	18.7	3	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212F09-CHP	0.6	2.5	12	12	85	19.4	12	0.2/11.8	18.8	2	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212X09-CHP(3)	0.6	2.5	12	12	120	19.4	12	0.2/11.8	18.8	2	JX**06...,12...,16..., 20...	1.2	1
JSXXR1616X09-CHP(3),(4)	0.6	2.5	16	16	120	19.4	16	0.2	18.7	2.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09B-CHP(3)	0.6	2.5	16	16	120	19.4	16	0.2/15.8	18.7	-	JX**06...,12...,16..., 20...	1.2	1

Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JX**16... insert. LF, LH, and HBL will all be 0.079" (2 mm) shorter than the above values with JX**12... and JX**20... inserts, and 0.157" (4 mm) shorter for JX**06... insert.
(2) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
(3) Compatible to the direct internal coolant supply system without the use of external coolant hose.
(4) To be replaced with the new design
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

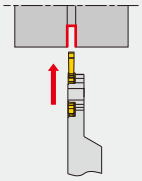
SPARE PARTS

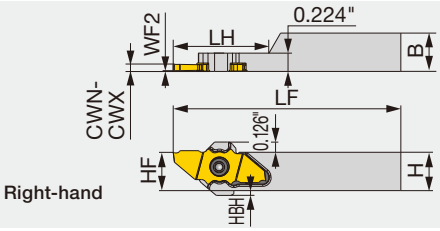
Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JSXXR**09	CSTC-4L100DL	T-1008/5	-	-	-	-
JSXXL**09	CSTC-4L100DR	T-1008/5	-	-	-	-
JSXXR**F**-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXL**F**-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXR**H/X**-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSXXL**H/X**-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

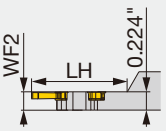
Reference pages: Inserts → F076, F077, Standard cutting conditions → F078
Parts for coolant hose → F290

JSXXR/L-S

Parting-off toolholders, for swiss lathes (for sub spindle)







Inch	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBH	Insert	Torque
JSXXR/L063-S	0.024	0.098	0.375	0.375	4.750	1.030	0.383	0.008/0.217	0.120	JX**06...,12...,16...(3)	0.89
JSXXR/L083-S	0.024	0.098	0.500	0.500	4.750	1.030	0.500	0.008/0.217	0.060	JX**06...,12...,16...(3)	0.89

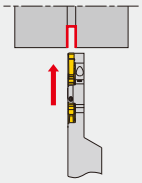
Metric	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBH	Insert	Torque*
JSXXR/L1010X09-S	0.6	2.5	10	10	120	26	10	0.2/5.5	3	JX**06...,12...,16...(3)	1.2
JSXXR/L1212F09-S	0.6	2.5	12	12	85	26	12	0.2/5.5	1.5	JX**06...,12...,16...(3)	1.2
JSXXR/L1212X09-S	0.6	2.5	12	12	120	30	12	0.2/5.5	1.5	JX**06...,12...,16...(3)	1.2
JSXXR/L1616X09-S	0.6	2.5	16	16	120	30	16	0.2/5.5	-	JX**06...,12...,16..., 20...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) LF (Functional Length) and LH (Head Length) values shown above are true with JX**16... insert. Both LF and LH will be 0.079" (2 mm) shorter than the above value with JX**12... and JX**20... inserts; 0.157" (4 mm) shorter with JX**06... insert.
(2) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
(3) JX**20... insert will not fit.
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

JSXXR/L-F/X-S-CHP

Parting-off toolholders with high pressure coolant capability, for swiss lathes (for sub spindle)

Direct connection **Tube connection**



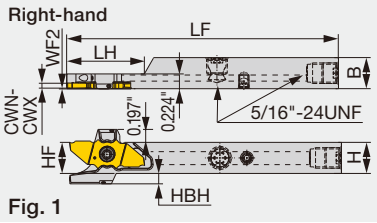


Fig. 1

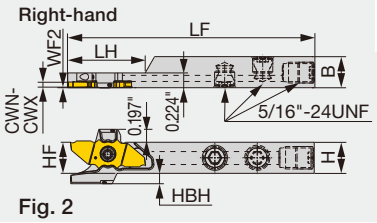
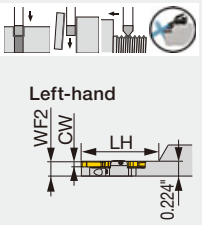


Fig. 2



Inch	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBH	Insert	Torque	Fig.
JSXXR/L083F-S-CHP	0.024	0.098	0.500	0.500	3.344	1.024	0.500	0.008/0.217	0.051	JX**06...,12...,16..., 20...	0.89	2
JSXXR/L083X-S-CHP	0.024	0.098	0.500	0.500	4.750	1.181	0.500	0.008/0.217	0.051	JX**06...,12...,16..., 20...	0.89	1
JSXXR/L103X-S-CHP	0.024	0.098	0.625	0.625	4.750	1.181	0.625	0.008/0.217	-	JX**06...,12...,16..., 20...	0.89	1

Metric	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBH	Insert	Torque*	Fig.
JSXXR1212F09-S-CHP(4)	0.6	2.5	12	12	85	26	12	0.2	4	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212F09B-S-CHP	0.6	2.5	12	12	85	30	12	0.2/5.5	2	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212X09-S-CHP(3),(4)	0.6	2.5	12	12	120	30	12	0.2/5.5	4	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212X09B-S-CHP(3)	0.6	2.5	12	12	120	30	12	0.2/5.5	2	JX**06...,12...,16..., 20...	1.2	1
JSXXR1616X09-S-CHP(3),(4)	0.6	2.5	16	16	120	30	16	0.2	1.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09B-S-CHP(3)	0.6	2.5	16	16	120	30	16	0.2/5.5	-	JX**06...,12...,16..., 20...	1.2	1

Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) LF (Functional Length) and LH (Head Length) values shown above are true with JX**16... insert. Both LF and LH will be 0.079" (2 mm) shorter than the above value with JX**12... and JX**20... inserts; 0.157" (4 mm) shorter with JX**06... insert.
(2) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
(3) Compatible to the direct internal coolant supply system without the use of external coolant hose.
(4) To be replaced with the new design
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

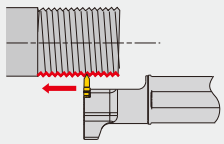
SPARE PARTS

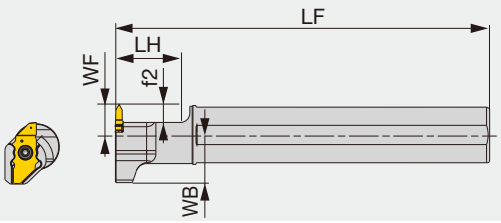
Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JSXXR**-S	CSTC-4L055DL	T-1008/5	-	-	-	-
JSXXL**-S	CSTC-4L055DR	T-1008/5	-	-	-	-
JSXXR**F**-S-CHP	CSTC-4L055DL	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXL**F**-S-CHP	CSTC-4L055DR	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXR**X**-S-CHP	CSTC-4L055DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSXXL**X**-S-CHP	CSTC-4L055DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

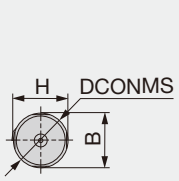
Reference pages: Inserts → F076, F077, Standard cutting conditions → F078
Parts for coolant hose → F290

JS-SXXL09

External grooving and threading toolholder with round shank, for Swiss lathes







Metric	DCONMS	H	B	LF	LH	WB	WF(1)	f2(1)	Insert	Torque
JS19G-SXXL09	19.05	18	18	90	21	15.43	10	6	JX**06,12*R	1.2
JS19X-SXXL09	19.05	18	18	120	21	15.43	10	6	JX**06,12*R	1.2
JS20G-SXXL09	20	19	19	90	21	15.4	10	6	JX**06,12*R	1.2
JS20X-SXXL09	20	19	19	120	21	15.4	10	6	JX**06,12*R	1.2
JS22X-SXXL09	22	21	21	120	21	15.4	10	6	JX**06,12*R	1.2
JS25H-SXXL09	25	24	24	100	21	15.4	10	6	JX**06,12*R	1.2
JS254X-SXXL09	25.4	24	24	120	21	15.4	10	6	JX**06,12*R	1.2

Torque: Recommended clamping torque: N·m
(1) When using JX..06... insert, both WF and f2 sizes will be 2 mm shorter than the values provided above.

SPARE PARTS



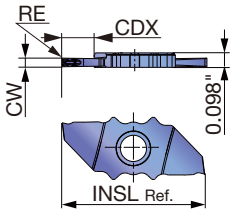

Designation	Clamping screw	Wrench
JS***-SXXL09	CSTC-4L100DL	T-1008/5

Reference pages: Inserts → F076, F077, Standard cutting conditions → F078

INSERTS

JXPS**R/L-F (with 3D chipbreaker, sharp edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

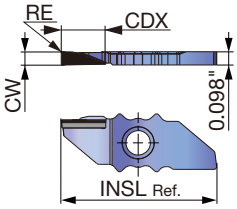
Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated SH725	CUTDIA (in)	CDX* (in)	INSL (in)
JXPS06R06F	R	0.6	0.024	0.002	●	0.236	0.138	0.827
JXPS06L06F	L	0.6	0.024	0.002	●	0.236	0.138	0.827
JXPS12R08F	R	0.8	0.031	0.002	●	0.472	0.256	0.984
JXPS12L08F	L	0.8	0.031	0.002	●	0.472	0.256	0.984
JXPS12R10F	R	1	0.039	0.002	●	0.472	0.256	0.984
JXPS12L10F	L	1	0.039	0.002	●	0.472	0.256	0.984
JXPS12R15F	R	1.5	0.059	0.002	●	0.472	0.256	0.984
JXPS12L15F	L	1.5	0.059	0.002	●	0.472	0.256	0.984
JXPS16R15F	R	1.5	0.059	0.002	●	0.630	0.335	1.142
JXPS16L15F	L	1.5	0.059	0.002	●	0.630	0.335	1.142
JXPS20R20F	R	2	0.079	0.002	●	0.787	0.413	1.299
JXPS20L20F	L	2	0.079	0.002	●	0.787	0.413	1.299

*Max grooving depth (CDX) varies depending on workpiece diameters.

● : Line up

JXDX**R-F (PCD insert)





P	Steel	
M	Stainless	
K	Cast iron	
N	Non-ferrous	★
S	Superalloys	
H	Hard materials	

★ : First choice

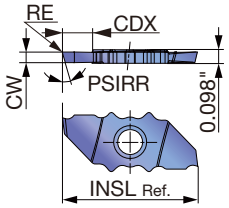
Designation	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	PCD DX110	CDX (in)	INSL (in)
JXDX12R20F	R	2	0.079	< 0.0039	●	0.236	0.984
JXDX12R25F	R	2.5	0.098	< 0.0039	●	0.256	0.984
JXDX16R25F	R	2.5	0.098	< 0.0039	●	0.276	1.142

● : Line up

Reference pages: Toolholders → F073 - F075, Standard cutting conditions → F078

JXPG**R/L-F (Sharp edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated SH725	CUTDIA (in)	CDX* (in)	INSL (in)	PSIRR
JXPG06R10F	R	1	0.039	0.002	●	0.236	0.138	0.827	0°
JXPG06L10F	L	1	0.039	0.002	●	0.236	0.138	0.827	0°
JXPG06R15F	R	1.5	0.059	0.002	●	0.236	0.138	0.827	0°
JXPG06L15F	L	1.5	0.059	0.002	●	0.236	0.138	0.827	0°
JXPG06R10F-15	R	1	0.039	0.002	●	0.236	0.138	0.827	15°
JXPG06L10F-15	L	1	0.039	0.002	●	0.236	0.138	0.827	15°
JXPG06R15F-15	R	1.5	0.059	0.002	●	0.236	0.138	0.827	15°
JXPG06L15F-15	L	1.5	0.059	0.002	●	0.236	0.138	0.827	15°
JXPG12R15F	R	1.5	0.059	0.002	●	0.472	0.256	0.984	0°
JXPG12L15F	L	1.5	0.059	0.002	●	0.472	0.256	0.984	0°
JXPG12R20F	R	2	0.079	0.002	●	0.472	0.256	0.984	0°
JXPG12L20F	L	2	0.079	0.002	●	0.472	0.256	0.984	0°
JXPG12R15F-15	R	1.5	0.059	0.002	●	0.472	0.256	0.984	15°
JXPG12L15F-15	L	1.5	0.059	0.002	●	0.472	0.256	0.984	15°
JXPG12R20F-15	R	2	0.079	0.002	●	0.472	0.256	0.984	15°
JXPG12L20F-15	L	2	0.079	0.002	●	0.472	0.256	0.984	15°
JXPG16R15F	R	1.5	0.059	0.002	●	0.630	0.335	1.142	0°
JXPG16L15F	L	1.5	0.059	0.002	●	0.630	0.335	1.142	0°
JXPG16R20F	R	2	0.079	0.002	●	0.630	0.335	1.142	0°
JXPG16L20F	L	2	0.079	0.002	●	0.630	0.335	1.142	0°
JXPG16R15F-15	R	1.5	0.059	0.002	●	0.630	0.335	1.142	15°
JXPG16L15F-15	L	1.5	0.059	0.002	●	0.630	0.335	1.142	15°
JXPG16R20F-15	R	2	0.079	0.002	●	0.630	0.335	1.142	15°
JXPG16L20F-15	L	2	0.079	0.002	●	0.630	0.335	1.142	15°
JXPG20R15F	R	1.5	0.059	0.002	●	0.787	0.413	1.299	0°
JXPG20L15F	L	1.5	0.059	0.002	●	0.787	0.413	1.299	0°
JXPG20R20F	R	2	0.079	0.002	●	0.787	0.413	1.299	0°
JXPG20L20F	L	2	0.079	0.002	●	0.787	0.413	1.299	0°
JXPG20R15F-15	R	1.5	0.059	0.002	●	0.787	0.413	1.299	15°
JXPG20L15F-15	L	1.5	0.059	0.002	●	0.787	0.413	1.299	15°
JXPG20R20F-15	R	2	0.079	0.002	●	0.787	0.413	1.299	15°
JXPG20L20F-15	L	2	0.079	0.002	●	0.787	0.413	1.299	15°

*Max grooving depth (CDX) varies depending on workpiece diameters.

● : Line up

Reference pages: Toolholders → F073 - F075, Standard cutting conditions → F078

STANDARD CUTTING CONDITIONS

Parting, Grooving

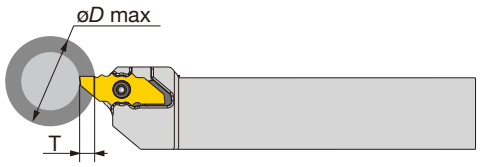
ISO	Workpiece materials	Grades	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Low carbon steels 1015, etc.	SH725	164 - 656	0.00039 - 0.0020
P	Carbon steels, Alloy steels 1055, etc., 4140, etc.	SH725	164 - 656	0.00039 - 0.0020
P	Free cutting steels SUH22, SUH23, etc.	SH725	164 - 656	0.00039 - 0.0020
M	Stainless steels 304, etc.	SH725	164 - 656	0.00039 - 0.0020
N	Aluminum alloys 5056, 6061, etc.	SH725	492 - 656	0.00039 - 0.0020
N	Copper alloy C2600, C280C, etc.	SH725	328 - 656	0.00039 - 0.0020
S	Titanium alloys Ti-6Al-4V, etc.	SH725	98 - 262	0.00039 - 0.0020
S	Superalloys Inconel718, etc.	SH725	98 - 262	0.00039 - 0.0020

For aluminum and non-ferrous metal PCD insert

ISO	Workpiece materials	Grades	Operation	Cutting speed *Vc* (sfm)	Feed *f* (ipr)	Depth of cut *ap* (in)
N	Aluminum alloys 5056, 6061, etc.	DX110	Grooving	328 - 984	0.0012 - 0.0059	-
N		DX110	Turning	328 - 984	0.0012 - 0.0059	< 0.236

Maximum grooving depths (T) in relation to workpiece diameters (ø*D* max) without interference

Maximum grooving depth (T) is limited relative to workpiece diameter (ø*D* max) to avoid interference between workpiece and insert.



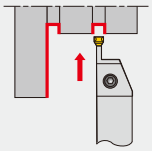
Grooving depths (T) and workpiece diameters (ø*D* max) for each insert

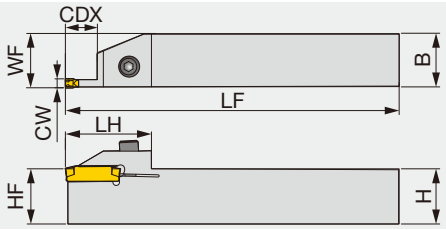
Designation	T≤0.039	T≤0.079	T≤0.098	T≤0.118	T≤0.138	T≤0.157	T≤0.197	T≤0.217	T≤0.236	T≤0.256	T≤0.276	T≤0.295	T≤0.315	T≤0.335	T≤0.354	T≤0.374	T≤0.394	T≤0.413
JXP*06...	∞	∞	7.874	2.362	1.181	-	-	-	-	-	-	-	-	-	-	-	-	-
JXP*12...	∞	∞	∞	∞	∞	∞	∞	3.937	2.362	1.378	-	-	-	-	-	-	-	-
JXP*16...	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	7.874	3.543	1.969	0.984	-	-	-	-
JXP*20...	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	7.874	3.150	1.969	0.984

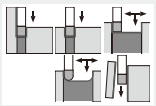
(Unit: inch)

CGWSR/L-W

External grooving, parting and turning toolholder, for 2 corner inserts







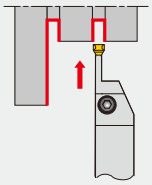
Right hand (R) shown.

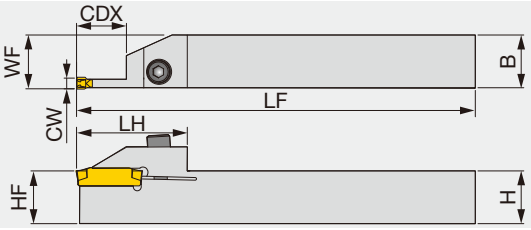
Metric	CW	CDX	H	B	LF	LH	HF	WF	Insert	Torque
CGWSR/L1616-W30	3	12	16	16	125	34	16	16.4	WG*30, WGE30R/L	5
CGWSR/L2020-W30	3	12	20	20	150	34	20	20.4	WG*30, WGE30R/L	5
CGWSR/L2525-W30	3	12	25	25	150	34	25	25.4	WG*30, WGE30R/L	5
CGWSR/L2020-W40	4	13	20	20	150	39	20	20.4	WG*40, WGE40R/L	5
CGWSR/L2525-W40	4	13	25	25	150	39	25	25.4	WG*40, WGE40R/L	5
CGWSR/L2020-W50	5	13	20	20	150	39	20	20.4	WG*50, WGE50R/L	5
CGWSR/L2525-W50	5	13	25	25	150	39	25	25.4	WG*50, WGE50R/L	5

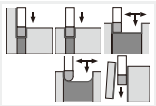
Torque: Recommended clamping torque: N·m

CGWSR/L-W-L

External deep grooving, parting and turning toolholder, for 2 corner inserts







Right hand (R) shown.

Metric	CW	CDX	H	B	LF	LH	HF	WF	Insert	Torque
CGWSR/L1616-W20-L	2	15	16	16	125	37	16	16.2	WGE20, WGE20R/L	5
CGWSR/L2020-W20-L	2	15	20	20	150	37	20	20.2	WGE20, WGE20R/L	5
CGWSR/L2525-W20-L	2	15	25	25	150	37	25	25.2	WGE20, WGE20R/L	5
CGWSR/L1616-W30-L	3	16.5, 17.5(1)	16	16	125	37	16	16.4	WG*30, WGE30R/L	5
CGWSR/L2020-W30-L	3	16.5, 17.5(1)	20	20	150	37	20	20.4	WG*30, WGE30R/L	5
CGWSR/L2525-W30-L	3	16.5, 17.5(1)	25	25	150	37	25	25.4	WG*30, WGE30R/L	5
CGWSR/L2020-W40-L	4	21, 21.5(1)	20	20	150	42	20	20.4	WG*40, WGE40R/L	5
CGWSR/L2525-W40-L	4	21, 21.5(1)	25	25	150	42	25	25.4	WG*40, WGE40R/L	5
CGWSR/L2020-W50-L	5	21	20	20	150	42	20	20.4	WG*50, WGE50R/L	5
CGWSR/L2525-W50-L	5	21	25	25	150	42	25	25.4	WG*50, WGE50R/L	5

Torque: Recommended clamping torque: N·m
(1) The value is true when using the WGR insert.

SPARE PARTS



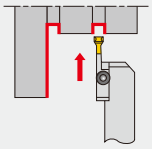


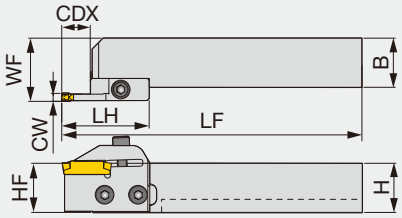
Designation	Clamping screw	Wrench
CGWSR/L****-W...	CHHM5-18	P-4

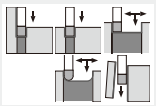
Reference pages: Inserts → F086 - F088, Standard cutting conditions → F088

CGWSR/L-WG

External grooving, parting and turning toolholder, for 2 corner inserts







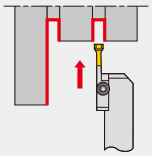
Right hand (R) shown.
Dashed line: 20mm square shank.

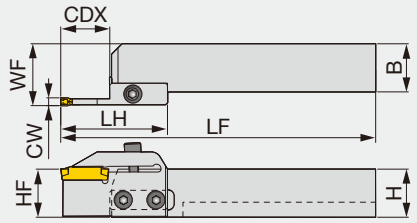
Metric	CW	CDX	H	B	LF	LH	HF	WF	Insert	Shank	Adapter	Torque
CGWSR/L2020-W30GR/L	3	12	20	20	150.5	43.5	20	26.9	WG*30, WGE30R/L	CGWSR/L2020	W30GR/L	5
CGWSR/L2525-W30GR/L	3	12	25	25	150.5	43.5	25	31.9	WG*30, WGE30R/L	CGWSR/L2525	W30GR/L	5
CGWSR/L2020-W40GR/L	4	13	20	20	151.5	44.5	20	26.9	WG*40, WGE40R/L	CGWSR/L2020	W40GR/L	5
CGWSR/L2525-W40GR/L	4	13	25	25	151.5	44.5	25	31.9	WG*40, WGE40R/L	CGWSR/L2525	W40GR/L	5
CGWSR/L2020-W50GR/L	5	13	20	20	151.5	44.5	20	26.9	WG*50, WGE50R/L	CGWSR/L2020	W50GR/L	5
CGWSR/L2525-W50GR/L	5	13	25	25	151.5	44.5	25	31.9	WG*50, WGE50R/L	CGWSR/L2525	W50GR/L	5

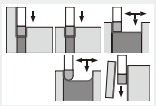
Note: Use right-hand adapters (R) with right-hand shanks (R); and left-hand adapters (L) with left-hand shanks (L).
Torque: Recommended clamping torque: N·m

CGWSR/L-WG-L

External deep grooving, parting and turning toolholder, for 2 corner inserts







Right hand (R) shown.
Dashed line: 20mm square shank.

Metric	CW	CDX	H	B	LF	LH	HF	WF	Insert	Shank	Adapter	Torque
CGWSR/L2020-W20GR/L-L	2	15	20	20	153.5	46.5	20	26.7	WGE20, WGE20R/L	CGWSR/L2020	W20GR/L-L	5
CGWSR/L2525-W20GR/L-L	2	15	25	25	153.5	46.5	25	31.7	WGE20, WGE20R/L	CGWSR/L2525	W20GR/L-L	5
CGWSR/L2020-W30GR/L-L	3	16.5, 17.5(1)	20	20	157.5	50.5	20	26.9	WG*30, WGE30R/L	CGWSR/L2020	W30GR/L-L	5
CGWSR/L2525-W30GR/L-L	3	16.5, 17.5(1)	25	25	157.5	50.5	25	31.9	WG*30, WGE30R/L	CGWSR/L2525	W30GR/L-L	5
CGWSR/L2020-W40GR/L-L	4	21, 21.5(1)	20	20	162.5	55.5	20	26.9	WG*40, WGE40R/L	CGWSR/L2020	W40GR/L-L	5
CGWSR/L2525-W40GR/L-L	4	21, 21.5(1)	25	25	162.5	55.5	25	31.9	WG*40, WGE40R/L	CGWSR/L2525	W40GR/L-L	5
CGWSR/L2020-W50GR/L-L	5	21	20	20	162.5	55.5	20	26.9	WG*50, WGE50R/L	CGWSR/L2020	W50GR/L-L	5
CGWSR/L2525-W50GR/L-L	5	21	25	25	162.5	55.5	25	31.9	WG*50, WGE50R/L	CGWSR/L2525	W50GR/L-L	5

Note: Use right-hand adapters (R) with right-hand shanks (R); and left-hand adapters (L) with left-hand shanks (L).
Torque: Recommended clamping torque: N·m
(1) The value is true when using the WGR insert.

SPARE PARTS





Designation	Clamping screw	Adapter screw	Wrench
CGWSR/L****-W**G...	CHHM5-18	CSHB-6	P-4

Combination of adapter and shank

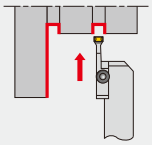
Shank	Adapter	
	**GR, **GR-L	**GL, **GL-L
CGWSR...	●	
CGWSL...		●
CGWTR...		●
CGWTL...	●	

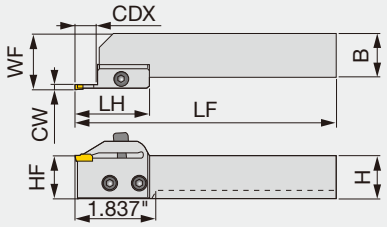
● : Corresponding

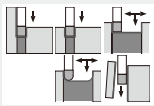
Reference pages: Inserts → F086 - F088, Shanks → F085, Standard cutting conditions → F088

CGWSR/L-G

External grooving, parting and turning toolholder, for 1 corner inserts







Right hand (R) shown.
The dashed line shows
20 mm-square shank tools.

Inch	CW	CDX	H	B	LF	LH	HF	WF	Insert	Shank	Adapter	Torque
CGWSR/L12-20GR/L	0.079	0.472	0.750	0.750	5.913	1.699	0.787	1.055	GE20, GE20-AL	CGWSR/L12	20GR/L	3.69
CGWSR/L16-20GR/L	0.079	0.472	1.000	1.000	5.913	1.699	0.984	1.252	GE20, GE20-AL	CGWSR/L16	20GR/L	3.69
CGWSR/L12-30GR/L	0.118	0.472	0.750	0.750	5.913	1.699	0.787	1.063	G*30,GE30R/L,GE30-AL	CGWSR/L12	30GR/L	3.69
CGWSR/L16-30GR/L	0.118	0.472	1.000	1.000	5.913	1.699	0.984	1.260	G*30,GE30R/L,GE30-AL	CGWSR/L16	30GR/L	3.69
CGWSR/L12-40GR/L	0.157	0.472	0.750	0.750	5.913	1.699	0.787	1.067	G*40,GE40R/L,GE40-AL	CGWSR/L12	40GR/L	3.69
CGWSR/L16-40GR/L	0.157	0.472	1.000	1.000	5.913	1.699	0.984	1.264	G*40,GE40R/L,GE40-AL	CGWSR/L16	40GR/L	3.69
CGWSR/L12-50GR/L	0.197	0.472	0.750	0.750	5.913	1.699	0.787	1.071	G*50,GE50R	CGWSR/L12	50GR	3.69

Metric	CW	CDX	H	B	LF	LH	HF	WF	Insert	Shank	Adapter	Torque*
CGWSR/L2020-20GR/L	2	12	20	20	150.2	43.15	20	26.8	GE20, GE20-AL	CGWSR/L2020	20GR/L	5
CGWSR/L2525-20GR/L	2	12	25	25	150.2	43.15	25	31.8	GE20, GE20-AL	CGWSR/L2525	20GR/L	5
CGWSR/L2020-30GR/L	3	12	20	20	150.2	43.15	20	27	G*30,GE30R/L,GE30-AL	CGWSR/L2020	30GR/L	5
CGWSR/L2525-30GR/L	3	12	25	25	150.2	43.15	25	32	G*30,GE30R/L,GE30-AL	CGWSR/L2525	30GR/L	5
CGWSR/L2020-40GR/L	4	12	20	20	150.2	43.15	20	27.1	G*40,GE40R/L,GE40-AL	CGWSR/L2020	40GR/L	5
CGWSR/L2525-40GR/L	4	12	25	25	150.2	43.15	25	32.1	G*40,GE40R/L,GE40-AL	CGWSR/L2525	40GR/L	5
CGWSR/L2020-50GR/L	5	12	20	20	150.2	43.15	20	27.2	G*50,GE50R	CGWSR/L2020	50GR	5

Note: For diameter compensation values in traversing, see page F129.
Use right-hand adapters (R) with right-hand shanks (R); and left-hand adapters (L) with left-hand shanks (L).
Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS





Designation	Clamping screw	Adapter screw	Wrench
CGW*R/L****-**G...	CHHM5-18	CSHB-6	P-4

Combination of adapter and shank

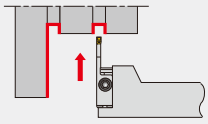
Shank	Adapter	
	**GR, **GR-L	**GL, **GL-L
CGWSR...	●	
CGWSL...		●
CGWTR...		●
CGWTL...	●	

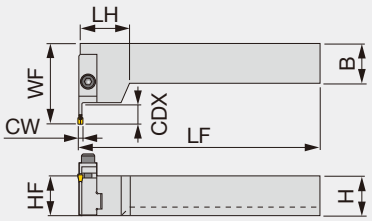
● : Corresponding

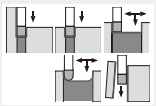
Reference pages: Inserts → F089 - F094, Shanks → F085, Standard cutting conditions → F094

CGWTR/L-G

External grooving, parting and turning toolholder, for 1 corner inserts







Right hand (R) shown.
The dashed line shows
20 mm-square shank tools.

Inch	CW	CDX	H	B	LF	LH	HF	WF	Insert	Shank	Adapter	Torque
CGWTR/L12-30GL/R	0.118	0.472	0.750	0.750	5.911	0.508	0.750	1.960	G*30,GE30R/L,GE30-AL	CGWTR/L12	30GL/R	3.69
CGWTR/L16-30GL/R	0.118	0.472	1.000	1.000	5.911	0.508	1.000	1.960	G*30,GE30R/L,GE30-AL	CGWTR/L16	30GL/R	3.69
CGWTR/L12-40GL/R	0.157	0.472	0.750	0.750	5.911	0.508	0.750	1.960	G*40,GE40R/L,GE40-AL	CGWTR/L12	40GL/R	3.69
CGWTR/L16-40GL/R	0.157	0.472	1.000	1.000	5.911	0.508	1.000	1.960	G*40,GE40R/L,GE40-AL	CGWTR/L16	40GL/R	3.69
CGWTR/L12-50GL/R	0.197	0.472	0.750	0.750	5.911	0.508	0.750	1.960	G*50,GE50R/L	CGWTR/L12	50GL/R	3.69
CGWTR/L16-50GL/R	0.197	0.472	1.000	1.000	5.911	0.508	1.000	1.960	G*50,GE50R/L	CGWTR/L16	50GL/R	3.69

Metric	CW	CDX	H	B	LF	LH	HF	WF	Insert	Shank	Adapter	Torque*
CGWTR/L2020-30GL/R	3	12	20	20	150	12.9	20	49.9	G*30,GE30R/L,GE30-AL	CGWTR/L2020	30GL/R	5
CGWTR/L2525-30GL/R	3	12	25	25	150	12.9	25	49.9	G*30,GE30R/L,GE30-AL	CGWTR/L2525	30GL/R	5
CGWTR/L2020-40GL/R	4	12	20	20	150.1	12.9	20	49.9	G*40,GE40R/L,GE40-AL	CGWTR/L2020	40GL/R	5
CGWTR/L2525-40GL/R	4	12	25	25	150.1	12.9	25	49.9	G*40,GE40R/L,GE40-AL	CGWTR/L2525	40GL/R	5
CGWTR/L2020-50GL/R	5	12	20	20	150.2	12.9	20	49.9	G*50,GE50R/L	CGWTR/L2020	50GL/R	5
CGWTR/L2525-50GL/R	5	12	25	25	150.2	12.9	25	49.9	G*50,GE50R/L	CGWTR/L2525	50GL/R	5

Note: For diameter compensation values in traversing, see page F129.
Use left-hand adapters (L) with right-hand shanks (R); and right-hand adapters (R) with left-hand shanks (L).
Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS





Designation	Clamping screw	Adapter screw	Wrench
CGW*R/L****-**G...	CHHM5-18	CSHB-6	P-4

Combination of adapter and shank

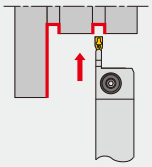
Shank	Adapter	
	**GR, **GR-L	**GL, **GL-L
CGWSR...	●	
CGWSL...		●
CGWTR...		●
CGWTL...	●	

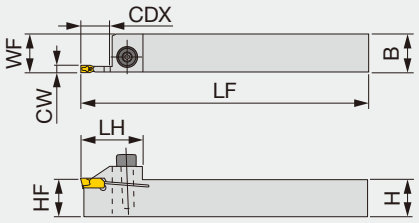
● : Corresponding

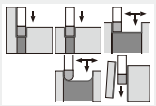
Reference pages: Inserts → F089 - F094, Shanks → F085, Standard cutting conditions → F094

CGSSR/L

External grooving, parting and turning toolholder, for 1 corner inserts







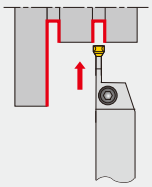
Right hand (R) shown.

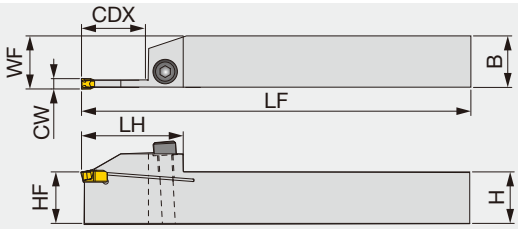
Metric	CW	CDX	H	B	LF	LH	HF	WF	Insert	Torque
CGSSR/L1616-20	2	16	16	16	125	27	16	16.2	GE20, GE20-AL	5
CGSSR/L2020-20	2	16	20	20	150	27	20	20.2	GE20, GE20-AL	5
CGSSR/L2525-20	2	16	25	25	150	27	25	25.2	GE20, GE20-AL	5
CGSSR/L1616-30	3	12	16	16	125	27	16	16.5	G*30,GE30R/L,GE30-AL	5
CGSSR/L2020-30	3	12	20	20	150	27	20	20.5	G*30,GE30R/L,GE30-AL	5
CGSSR/L2525-30	3	12	25	25	150	27	25	25.5	G*30,GE30R/L,GE30-AL	5
CGSSR/L2020-40	4	12	20	20	150	27	20	20.6	G*40,GE40R/L,GE40-AL	5
CGSSR/L2525-40	4	12	25	25	150	27	25	25.6	G*40,GE40R/L,GE40-AL	5
CGSSR/L2020-50	5	12	20	20	150	27	20	20.7	G*50,GE50R/L	5
CGSSR/L2525-50	5	12	25	25	150	27	25	25.7	G*50,GE50R/L	5

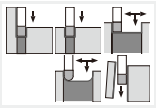
Torque: Recommended clamping torque: N·m

CGSSR/L-D

External grooving, parting and turning toolholder, for 1 corner inserts







Right hand (R) shown.

Metric	CW	CDX	H	B	LF	LH	HF	WF	Insert	Torque
CGSSR/L1616-30D	3	22	16	16	125	36.2	16	16.5	G*30,GE30R/L,GE30-AL	5
CGSSR/L2020-30D	3	22	20	20	150	36.2	20	20.5	G*30,GE30R/L,GE30-AL	5
CGSSR/L2525-30D	3	22	25	25	150	36.2	25	25.5	G*30,GE30R/L,GE30-AL	5
CGSSR/L2020-40D	4	25	20	20	150	39.5	20	20.6	G*40,GE40R/L,GE40-AL	5
CGSSR/L2525-40D	4	25	25	25	150	39.5	25	25.6	G*40,GE40R/L,GE40-AL	5
CGSSR/L2020-50D	5	25	20	20	150	39.5	20	20.7	G*50,GE50R/L	5
CGSSR/L2525-50D	5	25	25	25	150	39.5	25	25.7	G*50,GE50R/L	5

Torque: Recommended clamping torque: N·m

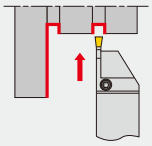
SPARE PARTS

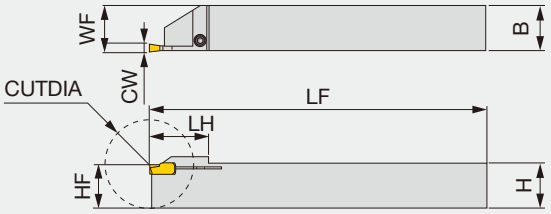
Designation	Clamping screw	Wrench
CGSSR/L...	CHHM5-18	P-4

Reference pages: Inserts → F089 - F094, Standard cutting conditions → F094

JCGSSR/L

External grooving and parting toolholder, for Swiss lathes





Right hand (R) shown.

Metric	CW	CUTDIA	H	B	LF	LH	HF	WF	Insert	Torque
JCGSSR/L1010-20	2	20	10	10	125	15	10	10.2	GE20, GE20-AL	2.3
JCGSSR/L1212-20	2	25	12	12	125	19	12	12.2	GE20, GE20-AL	2.3
JCGSSR/L1616-20	2	32	16	16	125	22.5	16	16.2	GE20, GE20-AL	2.3

Torque: Recommended clamping torque: N·m

SPARE PARTS



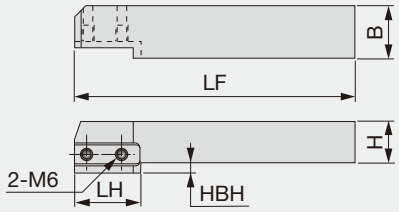


Designation	Clamping screw	Wrench
JCGSSR/L...	CSTB-3	T-9F

Reference pages: Inserts → F089 - F094, Standard cutting conditions → F094

CGWSR/L

Shank for CGWSR/L-WG, -WG-L, -G, -CGD, -FL-G/TP, and -#S/D toolholders



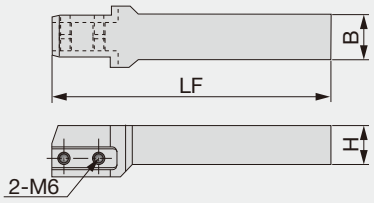
Right hand (R) shown.

Inch	H	B	LF	LH	HBH
CGWSR/L12	0.750	0.750	5.400	1.310	0.250
CGWSR/L16	1.000	1.000	5.400	-	-

Metric	H	B	LF	LH	HBH
CGWSR/L2020	20	20	137	32.5	5
CGWSR/L2525	25	25	137	-	-

CGWSRL

Shank of toolholders. Vertical type with offset

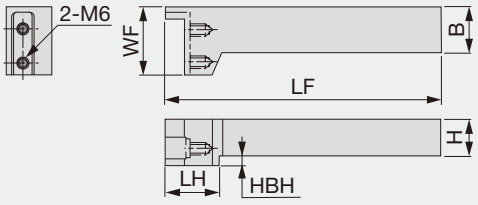


Inch	H	B	LF
CGWSRL12	0.75	0.75	5.40
CGWSRL16	1.00	1.00	5.40

Right (R) or Left (L) hand cartridges can be used in this toolholder

CGWTR/L

Shank for CGWSR/L-WG, -WG-L, -G, -CGD, -FL-G/TP, and -#S/D toolholders, for tangentially clamped adapter



Right hand (R) shown.

Inch	H	B	LF	LH	WF	HBH
CGWTR/L12	0.75	0.75	6.00	1.20	1.50	0.234
CGWTR/L16	1.00	1.00	6.00	-	1.50	-

Metric	H	B	LF	LH	WF	HBH
CGWTR/L2020	20	20	150	30.5	37	5
CGWTR/L2525	25	25	150	-	37	-

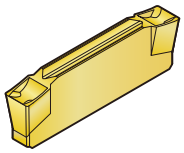
SPARE PARTS



Designation	Adapter screw
CGW...	CSHB-6

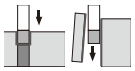
External grooving and parting

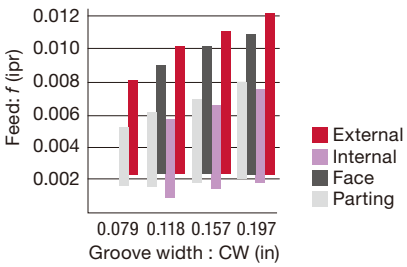
WGE



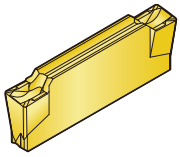
F087

1st choice for external grooving and parting
Excellent chip control for grooving
CW = 0.079" - 0.197"





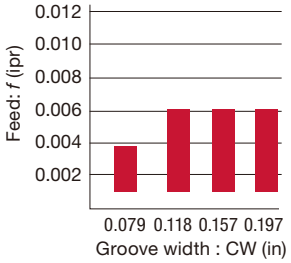
WGE R/L



F087

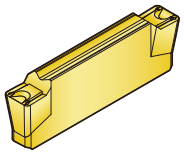
Handed insert
Minimize burr generation when workpiece is cut off
CW = 0.079" - 0.197"





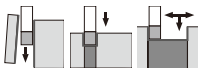
External grooving and turning

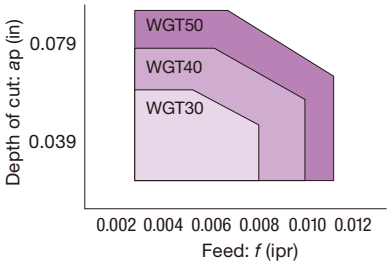
WGT



F088

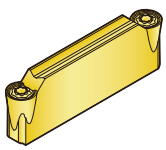
1st choice for turning
Low cutting force and good chip control for traversing
CW = 0.118" - 0.197"





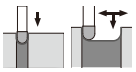
Profiling

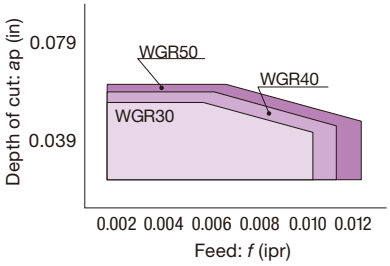
WGR



F088

Low cutting force and good chip control for profiling
CW = 0.118" - 0.197"



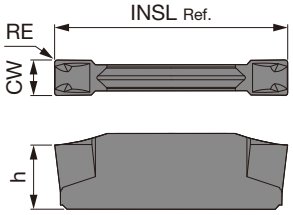


Please see page F*** for the product details.

INSERTS (2 corners)

WGE

For external grooving and parting



P	Steel	★	★	★				★			
M	Stainless		★	★							
K	Cast iron		★	☆				☆			
N	Non-ferrous										
S	Superalloys		☆								
H	Hard materials										

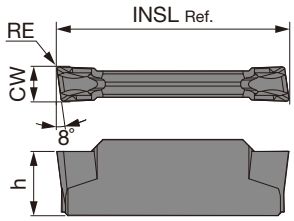
★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated T9225	Coated AH120	Coated GH730	Cermet NS9530	INSL (in)	h (in)
WGE20	2	0.079	0.008	●	●	●	●	0.787	0.185
WGE30	3	0.118	0.008	●	●	●	●	0.787	0.217
WGE40	4	0.157	0.008	●	●	●	●	0.984	0.224
WGE50	5	0.197	0.008	●	●	●	●	0.984	0.232

● : Line up

WGE(R/L)

For parting off (handed inserts)



Right hand (R) shown.

P	Steel	★	★								
M	Stainless	★	★								
K	Cast iron	★	☆								
N	Non-ferrous										
S	Superalloys	☆									
H	Hard materials										

★ : First choice
☆ : Second choice

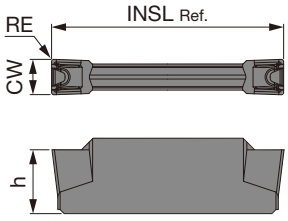
Designation	HAND	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated AH120	Coated GH730	INSL (in)	h (in)
WGE20R	R	2	0.079	0.008		●	0.787	0.185
WGE20L	L	2	0.079	0.008		●	0.787	0.185
WGE30R	R	3	0.118	0.008	●	●	0.787	0.217
WGE30L	L	3	0.118	0.008		●	0.787	0.217
WGE40R	R	4	0.157	0.008		●	0.984	0.224
WGE40L	L	4	0.157	0.008		●	0.984	0.224
WGE50R	R	5	0.197	0.008		●	0.984	0.232
WGE50L	L	5	0.197	0.008		●	0.984	0.232

● : Line up

Reference pages: Toolholders → F079, F080, Standard cutting conditions → F088

WGT

For external grooving, parting, and turning



		Coated			Cermet	
		T9225	AH120	GH730	NS9530	
P	Steel	★	★	★	★	
M	Stainless		★	★		
K	Cast iron		★	☆	☆	
N	Non-ferrous					
S	Superalloys		☆			
H	Hard materials					

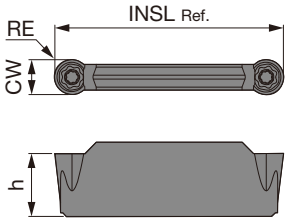
★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated T9225	Coated AH120	Coated GH730	Cermet NS9530	INSL (in)	h (in)
WGT30	3	0.118	0.016	●		●	●	0.787	0.217
WGT40	4	0.157	0.016	●		●	●	0.984	0.224
WGT50	5	0.197	0.016	●	●	●	●	0.984	0.232

● : Line up

WGR

For profiling (full radius)



		Coated			Cermet	
		T9225	AH120	GH730	NS9530	
P	Steel	★	★	★	★	
M	Stainless		★	★		
K	Cast iron		★	☆	☆	
N	Non-ferrous					
S	Superalloys		☆			
H	Hard materials					

★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated T9225	Coated AH120	Coated GH730	Cermet NS9530	INSL (in)	h (in)
WGR30	3	0.118	0.059	●	●	●	●	0.787	0.217
WGR40	4	0.157	0.079	●	●	●	●	0.984	0.224
WGR50	5	0.197	0.098		●	●	●	0.984	0.232

● : Line up

STANDARD CUTTING CONDITIONS (for 2 corner inserts)

ISO	Workpiece material	Recommended grade	Cutting speed *Vc* (sfm)
P	Low carbon steels Alloy steels (~ HB150)	T9225	262 - 984
		NS9530	328 - 656
		GH730, AH120	164 - 591
	Medium carbon steels Alloy steels (HB150 ~ 250)	T9225	262 - 722
		NS9530	262 - 591
		GH730, AH120	164 - 492
	High carbon steels Alloy steels (HB250 ~)	T9225	262 - 722
		NS9530	262 - 492
		GH730, AH120	164 - 492
M	Stainless steels	GH730, AH120	164 - 394
K	Gray and ductile cast irons	GH730, AH120	164 - 591

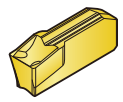
Operation	Feed: *f* (ipr) Groove width: CW 2 mm (0.079")	3 mm (0.118")	4 mm (0.157")	5 mm (0.197")
Grooving (WGE□□)	0.0024 - 0.008	0.0024 - 0.010	0.0028 - 0.011	0.0028 - 0.012
Parting (WGE□□R/L)	0.0016 - 0.004	0.0016 - 0.006	0.0016 - 0.006	0.0016 - 0.006
Turning (WGT□□)	-	*ap* = 0.020 - 0.059 *f* = 0.0024 - 0.008	*ap* = 0.020 - 0.079 *f* = 0.0024 - 0.010	*ap* = 0.020 - 0.098 *f* = 0.0024 - 0.011
Profiling (WGR□□)	-	*ap* = 0.020 - 0.055 *f* = 0.002 - 0.010	*ap* = 0.020 - 0.059 *f* = 0.002 - 0.010	*ap* = 0.020 - 0.063 *f* = 0.002 - 0.012

Note: For diameter compensation values in traversing, see page F129.

Reference pages: Toolholders → F079, F080

External grooving and parting

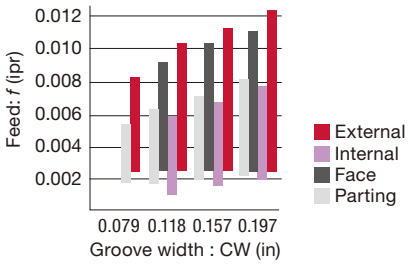
GE

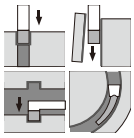


F091

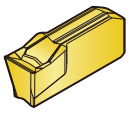
1st choice for external grooving and parting
Excellent chip control

CW = 0.079" - 0.197"





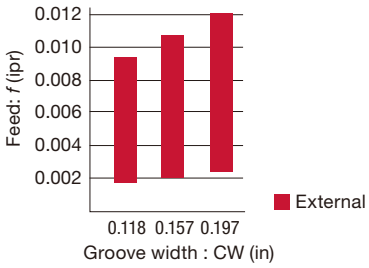
GF

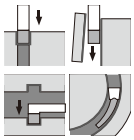


F092

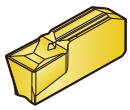
1st choice for face grooving
Low cutting force and good chip control for face grooving

CW = 0.118" - 0.197"





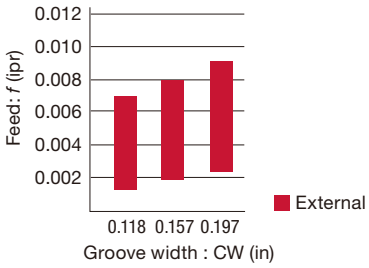
GN

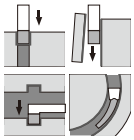


F093

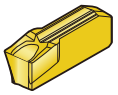
1st choice for internal grooving
Low cutting force and good chip control for internal grooving

CW = 0.118" - 0.197"





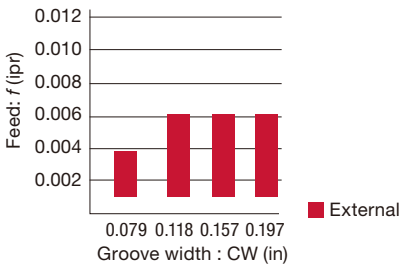
GE R/L



F093

Handed insert
Minimize burr generation when workpiece is cut off

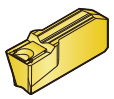
CW = 0.118" - 0.197"





External grooving and turning

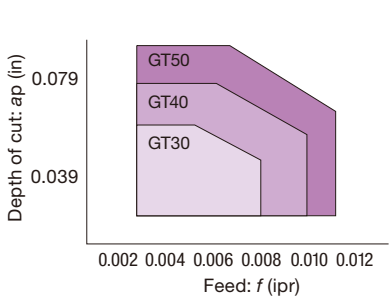
GT

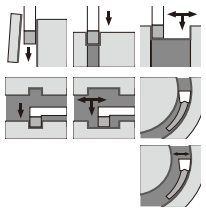


F091

1st choice for turning
Low cutting force and good chip control for traversing

CW = 0.118" - 0.197"

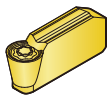




Please see page F*** for the product details.

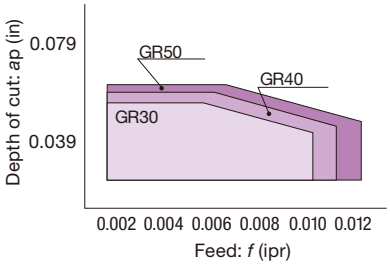
Profiling

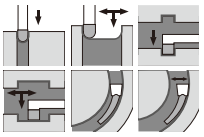
GR



F092

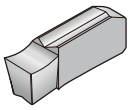
Full radius type
Low cutting force and good chip control for profiling
CW = 0.118" - 0.197"





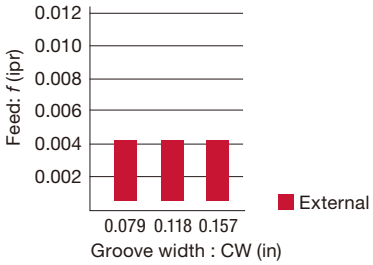
For aluminum and non-ferrous metal

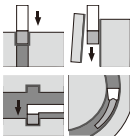
GE-AL



F094

Reduce cutting force and welding due to sharp chipbreaker
CW = 0.079" - 0.157"





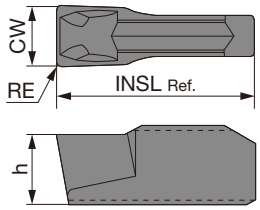
External
Internal
Face
Parting
Others

Please see page F*** for the product details.

INSERTS (1 corner)

GE

For external grooving and parting



		Coated			Cermet	
		T9225	AH120	GH730	NS9530	
P	Steel	★	★	★	★	
M	Stainless		★	★		
K	Cast iron		★	☆	☆	
N	Non-ferrous					
S	Superalloys		☆			
H	Hard materials					

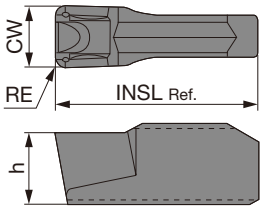
★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated T9225	Coated AH120	Coated GH730	Cermet NS9530	INSL (in)	h (in)
GE20	2	0.079	0.008		●	●	●	0.394	0.138
GE30	3	0.118	0.008	●	●	●	●	0.394	0.138
GE40	4	0.157	0.008	●	●	●	●	0.394	0.157
GE50	5	0.197	0.008	●	●	●	●	0.472	0.177

● : Line up

GT

For external grooving and turning



		Coated			Cermet	
		T9225	AH120	GH730	NS9530	
P	Steel	★	★	★	★	
M	Stainless		★	★		
K	Cast iron		★	☆	☆	
N	Non-ferrous					
S	Superalloys		☆			
H	Hard materials					

★ : First choice
☆ : Second choice

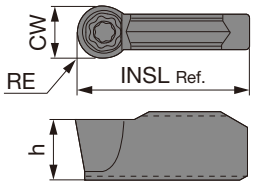
Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated T9225	Coated AH120	Coated GH730	Cermet NS9530	INSL (in)	h (in)
GT30	3	0.118	0.016		●	●	●	0.394	0.138
GT40	4	0.157	0.016		●	●	●	0.394	0.157
GT50	5	0.197	0.016	●	●	●	●	0.472	0.177

● : Line up

Reference pages: Toolholders → F081 - F084, Standard cutting conditions → F094

GR

For profiling (full radius)



P	Steel	★	★	★				★			
M	Stainless		★	★							
K	Cast iron		★	☆				☆			
N	Non-ferrous										
S	Superalloys		☆								
H	Hard materials										

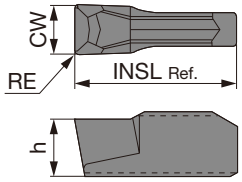
★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated						Cermet						INSL (in)	h (in)
				T9225	AH120	GH730				NS9530							
GR30	3	0.118	0.059		●	●				●						0.394	0.138
GR40	4	0.157	0.079	●	●	●				●						0.394	0.157
GR50	5	0.197	0.098	●	●	●				●						0.472	0.177

● : Line up

GF

For face grooving



P	Steel	★			★						
M	Stainless	★									
K	Cast iron	☆			☆						
N	Non-ferrous										
S	Superalloys										
H	Hard materials										

★ : First choice
☆ : Second choice

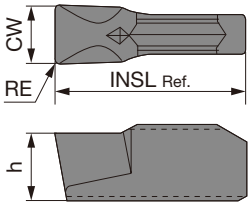
Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated			Cermet									INSL (in)	h (in)
				GH730			NS9530										
GF30	3	0.118	0.008	●			●									0.394	0.138
GF40	4	0.157	0.008	●			●									0.394	0.157
GF50	5	0.197	0.008	●			●									0.472	0.177

● : Line up

Reference pages: Toolholders → F081 - F084, Standard cutting conditions → F094

GN

For internal grooving



P	Steel	★
M	Stainless	★
K	Cast iron	☆
N	Non-ferrous	
S	Superalloys	
H	Hard materials	

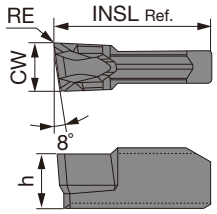
★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated GH730	INSL (in)	h (in)
GN30	3	0.118	0.008	●	0.394	0.138
GN40	4	0.157	0.008	●	0.394	0.157
GN50	5	0.197	0.008	●	0.472	0.177

● : Line up

GE-R/L

For parting off (handed inserts)



Right hand (R) shown.

P	Steel	★	★
M	Stainless	★	★
K	Cast iron	★	☆
N	Non-ferrous		
S	Superalloys	☆	
H	Hard materials		

★ : First choice
☆ : Second choice

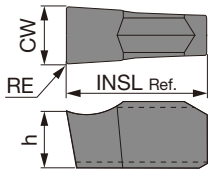
Designation	HAND	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated AH120	Coated GH730	INSL (in)	h (in)
GE30R	R	3	0.118	0.008	●	●	0.394	0.138
GE30L	L	3	0.118	0.008		●	0.394	0.138
GE40R	R	4	0.157	0.008	●	●	0.394	0.157
GE40L	L	4	0.157	0.008		●	0.394	0.157
GE50R	R	5	0.197	0.008		●	0.472	0.177
GE50L	L	5	0.197	0.008	●	●	0.472	0.177

● : Line up

Reference pages: Toolholders → F081 - F084, Standard cutting conditions → F094

GE-AL

For aluminum and non-ferrous metal



P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

★ : First choice
☆ : Second choice

Designation	CW$^{+0.1}_{0}$ (mm)	CW$^{+0.004}_{0}$ (in)	RE (in)	Uncoated KS05F	INSL (in)	h (in)
GE20-AL	2	0.079	0.008	●	0.394	0.138
GE30-AL	3	0.118	0.008	●	0.394	0.138
GE40-AL	4	0.157	0.008	●	0.394	0.157

● : Line up

STANDARD CUTTING CONDITIONS (for 1 corner inserts)

ISO	Workpiece material	Grades	Cutting speed *Vc* (sfm)
P	Low carbon steel, Alloy steel (~ HB150)	T9225	262 - 984
		NS9530	328 - 656
		GH730, AH120	164 - 591
	Medium carbon steel, Alloy steel (HB150 ~ 250)	T9225	262 - 722
		NS9530	262 - 591
		GH730, AH120	164 - 492
	High carbon steel, Alloy steel (HB250 ~)	T9225	262 - 722
		NS9530	262 - 492
		GH730, AH120	164 - 394
M	Stainless steel	GH730, AH120	164 - 394
K	Gray iron, Ductile cast iron	GH730, AH120	164 - 591
N	Aluminum alloy, Non-ferrous metal	KS05F	656 - 984

For External

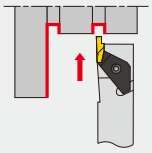
Operation	Feed: *f* (ipr) Groove width: CW 2 mm (0.079")	3 mm (0.118")	4 mm (0.157")	5 mm (0.197")
Grooving (GE**)	0.0024 - 0.008	0.0024 - 0.010	0.0028 - 0.011	0.0028 - 0.012
Parting off (GE**R/L)	0.0016 - 0.004	0.0016 - 0.006	0.0016 - 0.006	0.0016 - 0.006
Traversing (GT**)	-	*ap* = 0.020 - 0.059 *f* = 0.0024 - 0.008	*ap* = 0.020 - 0.079 *f* = 0.0024 - 0.010	*ap* = 0.020 - 0.098 *f* = 0.0024 - 0.011
Profiling (GR**)	-	*ap* = 0.020 - 0.055 *f* = 0.002 - 0.010	*ap* = 0.020 - 0.059 *f* = 0.002 - 0.010	*ap* = 0.020 - 0.063 *f* = 0.002 - 0.012
Grooving for Aluminum alloys (GE**-AL)	0.0012 - 0.004	0.0012 - 0.004	0.0012 - 0.004	-

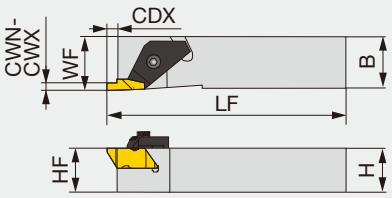
For diameter compensation values in traversing, see page F129.

Reference pages: Toolholders → F081 - F084

FLASR/L

External grooving and threading toolholder, for Swiss lathes







Right hand (R) shown.

Inch	CWN	CWX	CDX	HF	H	B	LF	WF	Insert	Torque
FLASR/L-082D	0.031	0.128	0.138	0.500	0.500	0.500	6.000	0.500	FL*-2**R/L...	2.21
FLASR-102B	0.031	0.128	0.138	0.625	0.625	0.625	4.500	0.625	FL*-2**R...	2.21
FLASR/L-103B	0.031	0.250	0.210	0.625	0.625	0.625	4.500	0.625	FL*-3**R/L...	2.21

Metric	CWN	CWX	CDX	HF	H	B	LF	WF	Insert	Torque*
FLASR/L-1616M3	1	3	5.31	16	16	16	125	16	FL*-3**R/L...	3

Note: Use right-hand toolholders (R) with right-hand inserts (R); and left-hand toolholders (L) with left-hand inserts (L).
Torque: Recommended clamping torque: lbs·ft (*N·m)

INCH SPARE PARTS

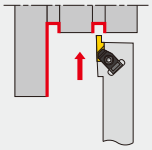
Designation	Clamp	Clamping screw	Wrench
FLASR-082D	TF-182	S-310	7/64HEX
FLASL-082D	TF-183	S-310	7/64HEX
FLASR-102B, FLASR-103B	TF-184	S-412	5/32HEX
FLASL-103B	TF-185	S-412	5/32HEX

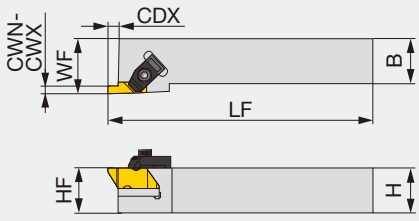
METRIC SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
FLASR-1616M3	TF-184	S-412	5/32HEX
FLASL-1616M3	TF-185	S-412	5/32HEX

FLSR/L

External grooving and threading toolholder, for Swiss lathes







Right hand (R) shown.

Inch	CWN	CWX	CDX	HF	H	B	LF	WF	Insert	Torque
FLSR/L-122B	0.031	0.128	0.140	0.750	0.750	0.750	4.500	1.000	FL*-2**R/L...	2.21
FLSR/L-162C	0.031	0.128	0.140	1.000	1.000	1.000	5.000	1.250	FL*-2**R/L...	2.21
FLSR/L-123B	0.031	0.250	0.210	0.750	0.750	0.750	4.500	1.000	FL*-3**R/L...	2.21
FLSR/L-163C	0.031	0.250	0.210	1.000	1.000	1.000	5.000	1.250	FL*-3**R/L...	2.21

Metric	CWN	CWX	CDX	HF	H	B	LF	WF	Insert	Torque*
FLSR/L-2020M3	1	3	4.5	20	20	20	125	32	FL*-3**R/L...	3
FLSR/L-2525M3	1	3	4.5	25	25	25	150	32	FL*-3**R/L...	3

Note: Use right-hand toolholders (R) with right-hand inserts (R); and left-hand toolholders (L) with left-hand inserts (L).
Torque: Recommended clamping torque: lbs·ft (*N·m)

INCH SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
FLSR-122B, FLSR-162C	TF-74	S-310	7/64HEX
FLSL-122B, FLSL-162C	TF-75	S-310	7/64HEX
FLSR-123B, FLSR-163C	TF-72	S-412	5/32HEX
FLSL-123B, FLSL-163C	TF-73	S-412	5/32HEX

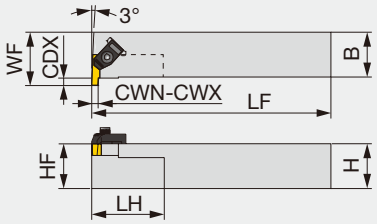
METRIC SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
FLSR-****M3	TF-72	S-412	5/32HEX
FLSL-****M3	TF-73	S-412	5/32HEX

Reference pages: Inserts → F097 - F104, Standard cutting conditions → F104

FLER/L

External toolholders for grooving & threading



Right hand (R) shown.

Inch	CWN	CWX	CDX	HF	H	B	LF	LH	WF	Insert	Torque
FLER/L-122B	0.031	0.128	0.140	0.750	0.750	0.750	4.500	1.000	1.000	FL*-2**L/R...	2.21
FLER/L-162C	0.031	0.128	0.140	1.000	1.000	1.000	5.000	1.000	1.250	FL*-2**L/R...	2.21
FLER/L-123B	0.031	0.250	0.210	0.750	0.750	0.750	4.500	2.000	1.125	FL*-3**L/R...	2.21
FLER/L-163D	0.031	0.250	0.210	1.000	1.000	1.000	6.000	2.000	1.250	FL*-3**L/R...	2.21

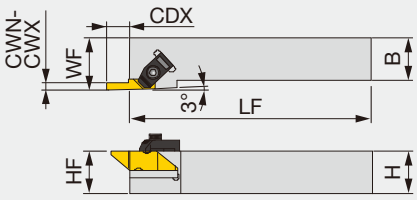
The right hand toolholders use right hand inserts, and the left hand toolholders use left hand inserts.
Torque: Recommended clamping torque: lbs·ft

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
FLER-122B, FLER-162C	TF-75	S-310	7/64HEX
FLEL-122B, FLEL-162C	TF-74	S-310	7/64HEX
FLER-123B, FLER-163D	TF-73	S-412	5/32HEX
FLEL-123B, FLEL-163D	TF-72	S-412	5/32HEX

FLSR/LT

External toolholders for grooving & threading



Right hand (R) shown.

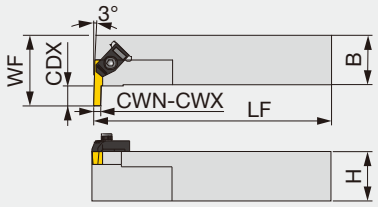
Inch	CWN	CWX	CDX	HF	H	B	LF	WF	Insert	Torque
FLSR/LT-163D	0.094	0.189	0.440	1.000	1.000	1.000	6.000	1.250	FLGT-3R/L...	2.21
FLSR/LT-203D	0.094	0.189	0.440	1.250	1.250	1.250	6.000	1.500	FLGT-3R/L...	2.21

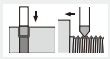
The right hand toolholders use right hand inserts, and the left hand toolholders use left hand inserts.
Torque: Recommended clamping torque: lbs·ft

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
FLSRT-163D, FLSRT-203D	TF-72	S-412	5/32HEX
FLSLT-163D, FLSLT-203D	TF-73	S-412	5/32HEX

Reference pages: Inserts → F097 - F104, Standard cutting conditions → F104





Right hand (R) shown.

Inch	CWN	CWX	CDX	HF	H	B	LF	WF	Insert	Torque
FLER/LT-163D	0.094	0.189	0.440	1.000	1.000	1.000	6.000	1.250	FLGT-3R/L...	2.21
FLER/LT-203D	0.094	0.189	0.440	1.250	1.250	1.250	6.000	1.500	FLGT-3R/L...	2.21

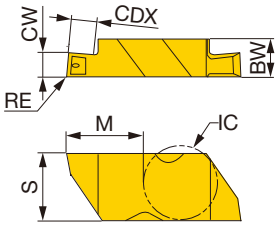
The right hand toolholders use right hand inserts, and the left hand toolholders use left hand inserts.
Torque: Recommended clamping torque: lbs·ft

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
FLERT-163D, FLERT-203D	TF-72	S-412	5/32HEX
FLELT-163D, FLELT-203D	TF-73	S-412	5/32HEX

INSERTS

FLG-CB (With chipbreaker, metric width)



P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	☆
H	Hard materials	

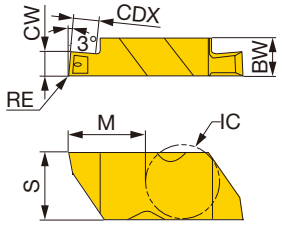
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLG-3M100R-CB	R	1	0.039	0.005 - 0.010	●	0.055	0.3750	0.195	0.344	0.4050
FLG-3M100L-CB	L	1	0.039	0.005 - 0.010	●	0.055	0.3750	0.195	0.344	0.4050
FLG-3M150R-CB	R	1.5	0.059	0.005 - 0.010	●	0.100	0.3750	0.195	0.344	0.4050
FLG-3M150L-CB	L	1.5	0.059	0.005 - 0.010	●	0.100	0.3750	0.195	0.344	0.4050
FLG-3M200R-CB	R	2	0.079	0.005 - 0.010	●	0.100	0.3750	0.195	0.344	0.4050
FLG-3M200L-CB	L	2	0.079	0.005 - 0.010	●	0.100	0.3750	0.195	0.344	0.4050
FLG-3M250R-CB	R	2.5	0.098	0.005 - 0.010	●	0.160	0.3750	0.195	0.344	0.4050
FLG-3M250L-CB	L	2.5	0.098	0.005 - 0.010	●	0.160	0.3750	0.195	0.344	0.4050
FLG-3M300R-CB	R	3	0.118	0.005 - 0.010	●	0.160	0.3750	0.195	0.344	0.4050
FLG-3M300L-CB	L	3	0.118	0.005 - 0.010	●	0.160	0.3750	0.195	0.344	0.4050

● : Line up

Reference pages: Inserts → F097 - F104, Standard cutting conditions → F104

FLG-CB (With chipbreaker)



P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	☆
H	Hard materials	

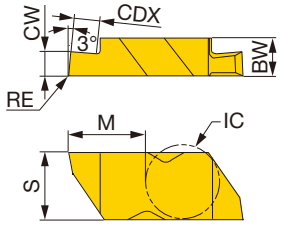
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLG-2047R-CB	R	1.2	0.047	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2047L-CB	L	1.2	0.047	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2062R-CB	R	1.57	0.062	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2062L-CB	L	1.57	0.062	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2078R-CB	R	1.98	0.078	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2078L-CB	L	1.98	0.078	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2094R-CB	R	2.39	0.094	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2094L-CB	L	2.39	0.094	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2125R-CB	R	3.18	0.125	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2125L-CB	L	3.18	0.125	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-3031R-CB	R	0.79	0.031	0.002 - 0.005	●	0.050	0.3750	0.195	0.344	0.4050
FLG-3031L-CB	L	0.79	0.031	0.002 - 0.005	●	0.050	0.3750	0.195	0.344	0.4050
FLG-3047R-CB	R	1.19	0.047	0.005 - 0.010	●	0.075	0.3750	0.195	0.344	0.4050
FLG-3047L-CB	L	1.19	0.047	0.005 - 0.010	●	0.075	0.3750	0.195	0.344	0.4050
FLG-3062R-CB	R	1.57	0.062	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3062L-CB	L	1.57	0.062	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3072R-CB	R	1.83	0.072	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3072L-CB	L	1.83	0.072	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3078R-CB	R	1.98	0.078	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3078L-CB	L	1.98	0.078	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3088R-CB	R	2.24	0.088	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3088L-CB	L	2.24	0.088	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3094R-CB	R	2.39	0.094	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3094L-CB	L	2.39	0.094	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3097R-CB	R	2.46	0.097	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3097L-CB	L	2.46	0.097	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3125R-CB	R	3.18	0.125	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3125L-CB	L	3.18	0.125	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3189R-CB	R	4.8	0.189	0.020 - 0.025	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3189L-CB	L	4.8	0.189	0.020 - 0.025	●	0.180	0.3750	0.195	0.344	0.4050

● : Line up

Reference pages: Toolholders → F095 - F097, Standard cutting conditions → F104

FLG



P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	☆	
H	Hard materials		

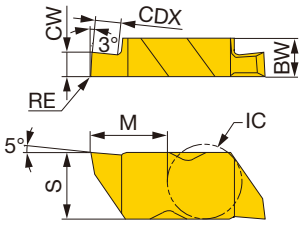
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLG-2031R	R	0.79	0.031	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2031L	L	0.79	0.031	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2041R	R	1.04	0.041	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2041L	L	1.04	0.041	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2047R	R	1.19	0.047	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2047L	L	1.19	0.047	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2058R	R	1.47	0.058	0.005 - 0.010	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2058L	L	1.47	0.058	0.005 - 0.010	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2062R	R	1.57	0.062	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2062L	L	1.57	0.062	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2094R	R	2.39	0.094	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2094L	L	2.39	0.094	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2125R	R	3.18	0.125	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2125L	L	3.18	0.125	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-3031R	R	0.79	0.031	0.002 - 0.005	●	0.050	0.3750	0.195	0.344	0.4050
FLG-3031L	L	0.79	0.031	0.002 - 0.005	●	0.050	0.3750	0.195	0.344	0.4050
FLG-3047R	R	1.19	0.047	0.005 - 0.010	●	0.075	0.3750	0.195	0.344	0.4050
FLG-3047L	L	1.19	0.047	0.005 - 0.010	●	0.075	0.3750	0.195	0.344	0.4050
FLG-3062R	R	1.57	0.062	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3062L	L	1.57	0.062	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3072R	R	1.83	0.072	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3072L	L	1.83	0.072	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3078R	R	1.98	0.078	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3078L	L	1.98	0.078	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3088R	R	2.24	0.088	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3088L	L	2.24	0.088	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3094R	R	2.39	0.094	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3094L	L	2.39	0.094	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3097R	R	2.46	0.097	0.010 - 0.015	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3097L	L	2.46	0.097	0.010 - 0.015	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3105R	R	2.67	0.105	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3105L	L	2.67	0.105	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3110R	R	2.79	0.110	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3110L	L	2.79	0.110	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3122R	R	3.1	0.122	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3122L	L	3.1	0.122	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3125R	R	3.18	0.125	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3125L	L	3.18	0.125	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3142R	R	3.61	0.142	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3142L	L	3.61	0.142	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3156R	R	3.96	0.156	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3156L	L	3.96	0.156	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3178R	R	4.52	0.178	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3178L	L	4.52	0.178	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3185R	R	4.7	0.185	0.020 - 0.025	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3185L	L	4.7	0.185	0.020 - 0.025	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3189R	R	4.8	0.189	0.020 - 0.025	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3189L	L	4.8	0.189	0.020 - 0.025	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3250R	R	6.35	0.250	0.020 - 0.025	●	0.180	0.3750	0.250	0.344	0.4050
FLG-3250L	L	6.35	0.250	0.020 - 0.025	●	0.180	0.3750	0.250	0.344	0.4050

● : Line up

Reference pages: Toolholders → F095 - F097, Standard cutting conditions → F104

FLGP (Positive rake)



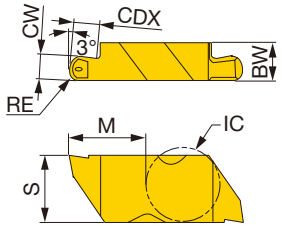
P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	☆	
H	Hard materials		

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLGP-2031R	R	0.79	0.031	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLGP-2031L	L	0.79	0.031	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLGP-2062R	R	1.57	0.062	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLGP-2062L	L	1.57	0.062	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLGP-2125R	R	3.18	0.125	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLGP-2125L	L	3.18	0.125	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLGP-3047R	R	1.19	0.047	0.005 - 0.010	●	0.075	0.3750	0.195	0.344	0.4050
FLGP-3047L	L	1.19	0.047	0.005 - 0.010	●	0.075	0.3750	0.195	0.344	0.4050
FLGP-3062R	R	1.57	0.062	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLGP-3062L	L	1.57	0.062	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLGP-3088R	R	2.24	0.088	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3088L	L	2.24	0.088	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3094R	R	2.39	0.094	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3094L	L	2.39	0.094	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3125R	R	3.18	0.125	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3125L	L	3.18	0.125	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3156R	R	3.96	0.156	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3156L	L	3.96	0.156	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3189R	R	4.8	0.189	0.020 - 0.025	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3189L	L	4.8	0.189	0.020 - 0.025	●	0.180	0.3750	0.195	0.344	0.4050

● : Line up

FLR-CB (Full nose radius, with chipbreaker)



P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	☆	
H	Hard materials		

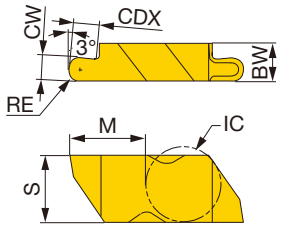
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLR-3031R-CB	R	1.57	0.062	0.031	●	0.125	0.3750	0.195	0.344	0.4033
FLR-3031L-CB	L	1.57	0.062	0.031	●	0.125	0.3750	0.195	0.344	0.4033
FLR-3047R-CB	R	2.39	0.094	0.047	●	0.180	0.3750	0.195	0.344	0.4025
FLR-3047L-CB	L	2.39	0.094	0.047	●	0.180	0.3750	0.195	0.344	0.4025
FLR-3062R-CB	R	3.18	0.125	0.062	●	0.180	0.3750	0.195	0.344	0.4017
FLR-3062L-CB	L	3.18	0.125	0.062	●	0.180	0.3750	0.195	0.344	0.4017

● : Line up

Reference pages: Toolholders → F095 - F097, Standard cutting conditions → F104

FLR (Full nose radius)



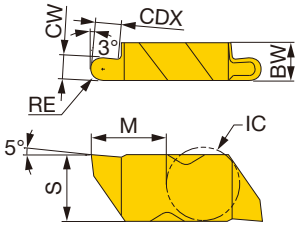
P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous			
S	Superalloys	☆		
H	Hard materials			

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLR-2031R	R	1.57	0.062	0.031	●	0.110	0.1875	0.150	0.219	0.2683
FLR-2031L	L	1.57	0.062	0.031	●	0.110	0.1875	0.150	0.219	0.2683
FLR-2047R	R	2.39	0.094	0.047	●	0.110	0.1875	0.150	0.219	0.2675
FLR-2047L	L	2.39	0.094	0.047	●	0.110	0.1875	0.150	0.219	0.2675
FLR-2062R	R	3.18	0.125	0.062	●	0.110	0.1875	0.150	0.219	0.2667
FLR-2062L	L	3.18	0.125	0.062	●	0.110	0.1875	0.150	0.219	0.2667
FLR-3031R	R	1.57	0.062	0.031	●	0.125	0.3750	0.195	0.344	0.4033
FLR-3031L	L	1.57	0.062	0.031	●	0.125	0.3750	0.195	0.344	0.4033
FLR-3047R	R	2.39	0.094	0.047	●	0.180	0.3750	0.195	0.344	0.4025
FLR-3047L	L	2.39	0.094	0.047	●	0.180	0.3750	0.195	0.344	0.4025
FLR-3062R	R	3.18	0.125	0.062	●	0.180	0.3750	0.195	0.344	0.4017
FLR-3062L	L	3.18	0.125	0.062	●	0.180	0.3750	0.195	0.344	0.4017
FLR-3078R	R	3.96	0.156	0.078	●	0.180	0.3750	0.195	0.344	0.4008
FLR-3078L	L	3.96	0.156	0.078	●	0.180	0.3750	0.195	0.344	0.4008
FLR-3094R	R	4.8	0.189	0.094	●	0.180	0.3750	0.195	0.344	0.4000
FLR-3094L	L	4.8	0.189	0.094	●	0.180	0.3750	0.195	0.344	0.4000

● : Line up

FLRP (Full nose radius and positive rake)



P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous			
S	Superalloys	☆		
H	Hard materials			

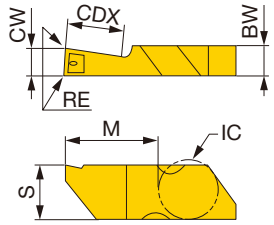
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLRP-3031R	R	1.57	0.062	0.031	●	0.125	0.3750	0.195	0.344	0.4033
FLRP-3031L	L	1.57	0.062	0.031	●	0.125	0.3750	0.195	0.344	0.4033
FLRP-3047R	R	2.39	0.094	0.047	●	0.180	0.3750	0.195	0.344	0.4025
FLRP-3047L	L	2.39	0.094	0.047	●	0.180	0.3750	0.195	0.344	0.4025
FLRP-3062R	R	3.18	0.125	0.062	●	0.180	0.3750	0.195	0.344	0.4017
FLRP-3062L	L	3.18	0.125	0.062	●	0.180	0.3750	0.195	0.344	0.4017
FLRP-3078R	R	3.96	0.156	0.078	●	0.180	0.3750	0.195	0.344	0.4008
FLRP-3078L	L	3.96	0.156	0.078	●	0.180	0.3750	0.195	0.344	0.4008
FLRP-3094R	R	4.8	0.189	0.094	●	0.180	0.3750	0.195	0.344	0.4000
FLRP-3094L	L	4.8	0.189	0.094	●	0.180	0.3750	0.195	0.344	0.4000

● : Line up

Reference pages: Toolholders → F095 - F097, Standard cutting conditions → F104

FLGD-CB (Single edge deep, with chipbreaker)



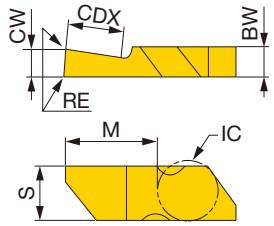
P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	☆	
H	Hard materials		

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLGD-3094R-CB	R	2.39	0.094	0.005 - 0.010	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3094L-CB	L	2.39	0.094	0.005 - 0.010	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3125R-CB	R	3.18	0.125	0.005 - 0.010	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3125L-CB	L	3.18	0.125	0.005 - 0.010	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3189R-CB	R	4.8	0.189	0.020 - 0.025	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3189L-CB	L	4.8	0.189	0.020 - 0.025	●	0.250	0.3750	0.195	0.344	0.5050

● : Line up

FLGD (Single edge deep)



P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	☆	
H	Hard materials		

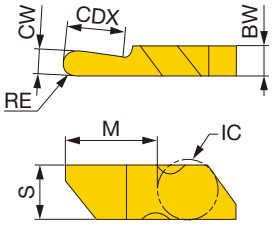
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLGD-3062R	R	1.57	0.062	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.5050
FLGD-3062L	L	1.57	0.062	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.5050
FLGD-3094R	R	2.39	0.094	0.005 - 0.010	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3094L	L	2.39	0.094	0.005 - 0.010	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3125R	R	3.18	0.125	0.005 - 0.010	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3125L	L	3.18	0.125	0.005 - 0.010	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3189R	R	4.8	0.189	0.020 - 0.025	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3189L	L	4.8	0.189	0.020 - 0.025	●	0.250	0.3750	0.195	0.344	0.5050

● : Line up

Reference pages: Toolholders → F095 - F097, Standard cutting conditions → F104

FLRD (Full nose radius, single edge deep)



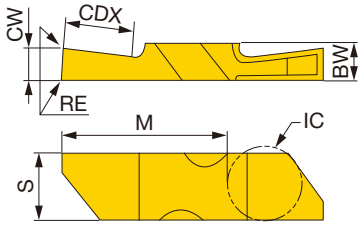
P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	☆	
H	Hard materials		

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLRD-3062R	R	3.19	0.125	0.062	●	0.250	0.3750	0.195	0.344	0.5016
FLRD-3062L	L	3.19	0.125	0.062	●	0.250	0.3750	0.195	0.344	0.5016
FLRD-3094R	R	4.8	0.189	0.094	●	0.250	0.3750	0.195	0.344	0.5016
FLRD-3094L	L	4.8	0.189	0.094	●	0.250	0.3750	0.195	0.344	0.5016

● : Line up

FLGT (Double end deep)



P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	☆	
H	Hard materials		

★ : First choice
☆ : Second choice

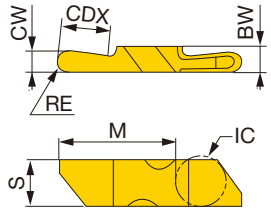
Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLGT-3094R	R	2.39	0.094	0.005 - 0.010	●	0.275	0.3750	0.195	0.344	0.8550
FLGT-3094L	L	2.39	0.094	0.005 - 0.010	●	0.275	0.3750	0.195	0.344	0.8550
FLGT-3125R	R	3.18	0.125	0.005 - 0.010	●	0.437	0.3750	0.195	0.344	0.8550
FLGT-3125L	L	3.18	0.125	0.005 - 0.010	●	0.437	0.3750	0.195	0.344	0.8550
FLGT-3189R	R	4.8	0.189	0.020 - 0.025	●	0.437	0.3750	0.195	0.344	0.8550
FLGT-3189L	L	4.8	0.189	0.020 - 0.025	●	0.437	0.3750	0.195	0.344	0.8550

*Fits FLSLT/RT toolholders

● : Line up

Reference pages: Toolholders → F095 - F097, Standard cutting conditions → F104

FLRT (Double end deep FNR)



P	Steel	★			
M	Stainless	★			
K	Cast iron	★			
N	Non-ferrous				
S	Superalloys	☆			
H	Hard materials				

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLRT-3062R	R	3.18	0.125	0.062	●	0.437	0.3750	0.195	0.344	0.8550
FLRT-3062L	L	3.18	0.125	0.062	●	0.437	0.3750	0.195	0.344	0.8550
FLRT-3094R	R	4.8	0.189	0.094	●	0.437	0.3750	0.195	0.344	0.8550
FLRT-3094L	L	4.8	0.189	0.094	●	0.437	0.3750	0.195	0.344	0.8550

*Fits FLSLT/RT toolholders

● : Line up

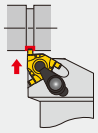
STANDARD CUTTING CONDITIONS

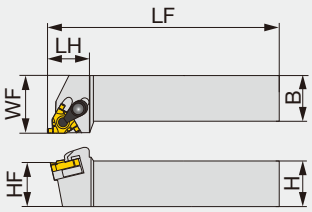
ISO	Workpiece material	Grade	Application	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	High carbon steel 1045, etc.	AH110	Grooving	328 - 656	0.005 - 0.014
	Alloy steel 4137, etc.	AH110	Grooving	164 - 262	0.005 - 0.012
M	Stainless steel 304, etc.	AH110	Grooving	164 - 492	0.004 - 0.008
K	Gray cast iron No.250B, etc.	AH110	Grooving	164 - 591	0.004 - 0.010
	Ductile cast iron 60-40-18, etc.	AH110	Grooving	164 - 394	0.004 - 0.010

Reference pages: Toolholders → F095 - F097

CER/L

External grooving and threading toolholder (The -DT holders can be used either with the insert screw or top-clamp)





Right hand (R) shown.

Inch	CWN	CWX	H	B	LF	LH	HF	WF	Insert	Torque
CER/L123DT	0.039	0.089	0.750	0.750	5.000	0.870	0.750	1.000	GTGN-16...	2.58
CER/L163DT	0.039	0.089	1.000	1.000	6.000	1.000	1.000	1.250	GTGN-16...	2.58
CER203DT	0.039	0.089	1.250	1.250	6.000	1.250	1.250	1.500	GTGN-16...	2.58

Metric	CWN	CWX	H	B	LF	LH	HF	WF	Insert	Torque*
CER/L1212H16DT	1	2.25	12	12	100	24	12	16	GTGN-16...	3.5
CER/L1616H16DT	1	2.25	16	16	100	24	16	20	GTGN-16...	3.5
CER/L2020K16DT	1	2.25	20	20	125	24	20	25	GTGN-16...	3.5
CER/L2525M16DT	1	2.25	25	25	150	28	25	32	GTGN-16...	3.5
CER3232P16T	1	2.25	32	32	170	32	32	40	GTGN-16...	3.5

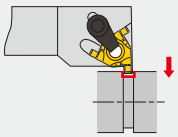
Note: A clamp set consists of a clamp and a clamping screw. A shim set consists of a shim and a shim screw to secure the shim to the toolholder.
Standard shims can be used on both right- and left-hand toolholders. Please use either of the sides depending on the tool hand.
When using grooving inserts, please use shims for grooving. Shims for grooving inserts are sold separately.
Use right-hand toolholders (R) with right-hand inserts (R); and left-hand toolholders (L) with left-hand inserts (L).
Torque: Recommended clamping torque: lbs·ft (*N·m)

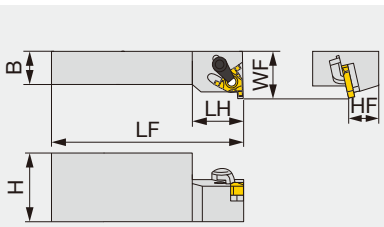
SPARE PARTS

Designation	Clamp set	Clamp screw	Shim screw	*Optional: Shim for grooving	Wrench 1	Wrench 2
CER*****16DT	CSP16	CSTB-3.5ST	DTS5-3.5	G16ER/IL-DT	P-3.5	T-15F
CEL*****16DT	CSP16	CSTB-3.5ST	DTS5-3.5	G16EL/IR-DT	P-3.5	T-15F
CER3232P16T	CSP16	-	-	G16ER/IR-S	-	T-15F

B-CER/L

External threading and grooving toolholder, for Swiss lathes





Right hand (R) shown.

Metric	CWN	CWX	H	B	LF	LH	HF	WF	Insert	Torque
B-CER/L16M16	1	2.25	32	16	150	24	16	22	GTGN-16...	3.5

Note: When using grooving inserts, please use shims for grooving. Shims for grooving inserts are sold separately.
Use right-hand toolholders (R) with right-hand inserts (R); and left-hand toolholders (L) with left-hand inserts (L).
Torque: Recommended clamping torque: N·m

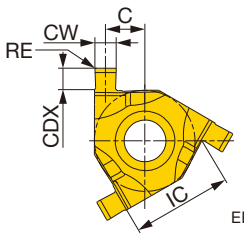
SPARE PARTS

Designation	Clamp set	Clamp screw	Wrench	*Optional: Shim for grooving
B-CER16M16	CSP16	-	T-15F	G16ER/IL-S
B-CEL16M16	CSP16	-	T-15F	G16EL/IR-S

Reference pages: Inserts, Standard cutting conditions → F106

INSERT

GTGN16



ER/IL shown.

P	Steel	★		
M	Stainless	★		
K	Cast iron			
N	Non-ferrous			
S	Superalloys	★		
H	Hard materials			

★ : First choice
☆ : Second choice

Designation	HAND (External)	CW±0.03 (mm)	CW±0.001 (in)	RE (in)	Coated SH730	Insert size	CDX (in)	IC (in)	C (in)	Shim: Dual-clamp toolholder: screw-on and clamp-on	Shim: Clamp-on toolholder
GTGN-16ER/IL100	R	1	0.039	0.004	●	16	0.049	0.375	0.166	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR100	L	1	0.039	0.004	●	16	0.049	0.375	0.166	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL120	R	1.2	0.047	0.004	●	16	0.051	0.375	0.162	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR120	L	1.2	0.047	0.004	●	16	0.051	0.375	0.162	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL140	R	1.4	0.055	0.004	●	16	0.059	0.375	0.158	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR140	L	1.4	0.055	0.004	●	16	0.059	0.375	0.158	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL170	R	1.7	0.067	0.004	●	16	0.067	0.375	0.144	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR170	L	1.7	0.067	0.004	●	16	0.067	0.375	0.144	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL195	R	1.95	0.077	0.004	●	16	0.067	0.375	0.148	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR195	L	1.95	0.077	0.004	●	16	0.067	0.375	0.148	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL225	R	2.25	0.089	0.004	●	16	0.071	0.375	0.142	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR225	L	2.25	0.089	0.004	●	16	0.071	0.375	0.142	G16EL/IR-DT	G16EL/IR-S

Note: GTGN insert can be used for both external and internal machining, but the tool hand is reversed.
Shim for GTGN depends on the toolholder type.

● : Line up

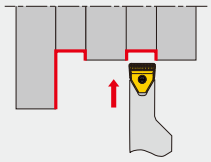
STANDARD CUTTING CONDITIONS

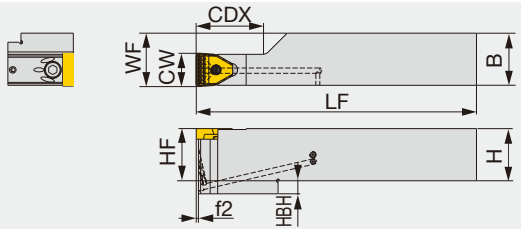
ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Steel 1045, 4140, etc.	SH730	164 - 492	0.002 - 0.004
M	Stainless steel 304, 316, etc.	SH730	98 - 394	0.002 - 0.004
S	Heat-resistant alloys, Titanium alloys, etc. Ti-6Al-4V, etc.	SH730	98 - 131	0.002 - 0.004

Reference pages: Toolholders → F105

FPGR

External grooving toolholder





Inch	CW	CDX	H	B	LF	HF	WF	HBH	f2	Insert (1)	Torque
FPGR16-10T20	0.394	0.787	1.000	1.000	7.000	1.000	1.020	-	0.019	PSG*10...	1.62
FPGR20-10T36	0.394	1.417	1.250	1.250	8.000	1.250	1.270	-	0.019	PSG*10...	1.62
FPGR16-15T20	0.590	0.787	1.000	1.000	7.000	1.000	1.020	-	0.019	PSG*15...	1.62
FPGR20-15T40	0.590	1.574	1.250	1.250	8.000	1.250	1.270	-	0.015	PSG*15...	1.62
FPGR20-20T40	0.787	1.574	1.250	1.250	8.000	1.250	1.270	0.314	0.015	PSG*20...	6.27
FPGR24-20T50	0.787	1.968	1.500	1.500	10.000	1.500	1.520	0.314	0.015	PSG*20...	6.27
FPGR20-25T40	0.984	1.574	1.250	1.250	8.000	1.250	1.270	0.314	0.015	PSG*25...	6.27
FPGR24-25T50	0.984	1.968	1.500	1.500	10.000	1.500	1.520	0.314	0.015	PSG*25...	6.27

Metric	CW	CDX	H	B	LF	HF	WF	HBH	f2	Insert (1)	Torque*
FPGR2525M-10T20	10	20	25	25	150	25	25.5	-	0.5	PSG*10...	2.2
FPGR3232P-10T36	10	36	32	32	170	32	32.5	-	0.5	PSG*10...	2.2
FPGR2525M-15T20	15	20	25	25	150	25	25.5	-	0.5	PSG*15...	2.2
FPGR3232P-15T40	15	40	32	32	170	32	32.5	-	0.4	PSG*15...	2.2
FPGR3232P-20T40	20	40	32	32	170	32	32.5	8	0.4	PSG*20...	8.5
FPGR4040R-20T50	20	50	40	40	200	40	40.5	8	0.4	PSG*20...	8.5
FPGR3232P-25T40	25	40	32	32	170	32	32.5	8	0.4	PSG*25...	8.5
FPGR4040R-25T50	25	50	40	40	200	40	40.5	8	0.4	PSG*25...	8.5

(1) Can be used for both wide grooving and wide profile grooving
Torque: Recommended clamping torque: lbs·ft (*N·m)
CDX, LF, f2 are dimensions when PSGM insert is attached. When mounting PSGB insert, the dimensions will be 0.197" (5 mm) longer.

SPARE PARTS



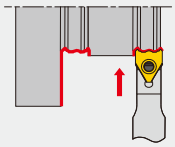


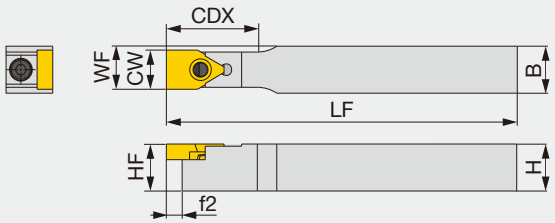

Designation	Lever	Clamping screw	Spring	Wrench
FPGR**-10T..., 15T...	FCL4	FCS3	BP-5	P-2.5
FPGR**-20T..., 25T...	FCL8	FCS6	BP-9	P-5

Reference pages: Inserts → F110, F111, Standard cutting conditions → F111

FPGN

External profile grooving toolholder





Inch	CW	CDX	H	B	LF	HF	WF	f2	Insert (1)	Torque
FPGN08-10T20	0.394	0.984	0.500	0.500	4.946	0.500	0.450	0.216	PSG*10...	1.62
FPGN10-10T20	0.394	0.984	0.625	0.625	4.946	0.625	0.510	0.216	PSG*10...	1.62
FPGN12-10T20	0.394	0.984	0.750	0.750	5.196	0.750	0.570	0.216	PSG*10...	1.62
FPGN10-15T25	0.590	1.181	0.625	0.625	4.946	0.625	0.610	0.216	PSG*15...	1.62
FPGN12-15T25	0.590	1.181	0.750	0.750	5.196	0.750	0.670	0.216	PSG*15...	1.62
FPGN12-20T32	0.787	1.456	0.750	0.750	5.196	0.750	0.770	0.216	PSG*20...	6.27
FPGN16-20T32	0.787	1.456	1.000	1.000	6.196	1.000	0.890	0.216	PSG*20...	6.27
FPGN16-25T36	0.984	1.614	1.000	1.000	6.196	1.000	0.990	0.216	PSG*25...	6.27

Metric	CW	CDX	H	B	LF	HF	WF	f2	Insert (1)	Torque*
FPGN1212X-10T20	10	25	12	12	125	12	11	5.5	PSG*10...	2.2
FPGN1616X-10T20	10	25	16	16	125	16	13	5.5	PSG*10...	2.2
FPGN2020K-10T20	10	25	20	20	130	20	15	5.5	PSG*10...	2.2
FPGN1616X-15T25	15	30	16	16	125	16	15.5	5.5	PSG*15...	2.2
FPGN2020K-15T25	15	30	20	20	130	20	17.5	5.5	PSG*15...	2.2
FPGN2020K-20T32	20	37	20	20	130	20	20	5.5	PSG*20...	8.5
FPGN2525M-20T32	20	37	25	25	155	25	22.5	5.5	PSG*20...	8.5
FPGN2525M-25T36	25	41	25	25	155	25	25	5.5	PSG*25...	8.5

PSGB insert blank is available for tailored inserts.
(1) Can be used for both wide grooving and wide profile grooving
Torque: Recommended clamping torque: lbs·ft (*N·m)
CDX, LF, f2 are dimensions when PSGB insert is attached. When mounting PSGM insert, the dimensions will be 0.197" (5 mm) shorter.

SPARE PARTS



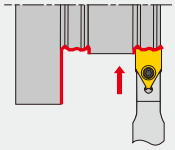


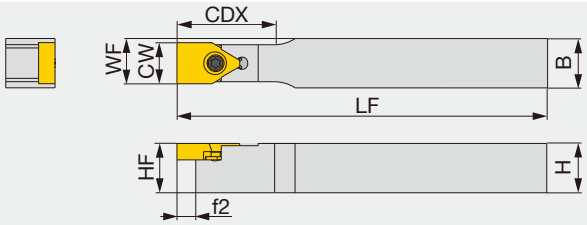

Designation	Lever	Clamping screw	Spring	Wrench
FPGN**-10T..., 15T...	FCL4	FCS3	BP-5	P-2.5
FPGN**-20T..., 25T...	FCL8	FCS6	BP-9	P-5

Reference pages: Inserts → F110, F111, Standard cutting conditions → F111

SPGN

External profile grooving toolholder





Inch	CW	CDX	H	B	LF	HF	WF	f2	Insert (1)	Torque
SPGN08-10T20	0.394	0.984	0.500	0.500	4.946	0.500	0.450	0.216	PSGB10	0.96
SPGN10-10T20	0.394	0.984	0.625	0.625	4.946	0.625	0.510	0.216	PSGB10	0.96
SPGN12-10T20	0.394	0.984	0.750	0.750	5.196	0.750	0.570	0.216	PSGB10	0.96
SPGN10-15T25	0.590	1.181	0.625	0.625	4.946	0.625	0.610	0.216	PSGB15	2.58
SPGN12-15T25	0.590	1.181	0.750	0.750	5.196	0.750	0.670	0.216	PSGB15	2.58
SPGN12-20T32	0.787	1.456	0.750	0.750	5.196	0.750	0.770	0.216	PSGB20	3.69
SPGN16-20T32	0.787	1.456	1.000	1.000	6.196	1.000	0.890	0.216	PSGB20	3.69
SPGN16-25T36	0.984	1.614	1.000	1.000	6.196	1.000	0.990	0.216	PSGB25	3.69

Metric	CW	CDX	H	B	LF	HF	WF	f2	Insert (1)	Torque*
SPGN1212X-10T20	10	25	12	12	125	12	11	5.5	PSGB10	2.3
SPGN1616X-10T20	10	25	16	16	125	16	13	5.5	PSGB10	2.3
SPGN2020K-10T20	10	25	20	20	130	20	15	5.5	PSGB10	2.3
SPGN1616X-15T25	15	30	16	16	125	16	15.5	5.5	PSGB15	3.5
SPGN2020K-15T25	15	30	20	20	130	20	17.5	5.5	PSGB15	3.5
SPGN2020K-20T32	20	37	20	20	130	20	20	5.5	PSGB20	5
SPGN2525M-20T32	20	37	25	25	155	25	22.5	5.5	PSGB20	5
SPGN2525M-25T36	25	41	25	25	155	25	25	5.5	PSGB25	5

PSGB insert blank is available for tailored inserts.
Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
SPGN**-10T20	CSTB-3L081	T-8F
SPGN**-15T25	CSTB-4	T-15F
SPGN**-20T..., 25T...	CSTB-5	T-20F

Reference pages: Inserts → F110, F111, Standard cutting conditions → F111

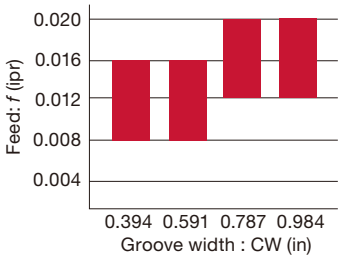
CHIPBREAKER GUIDE

PSGM



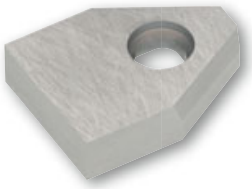
For wide grooving
Improved productivity with excellent chip control and the chipbreaker designed for high feed

CW = 0.394" - 0.984"





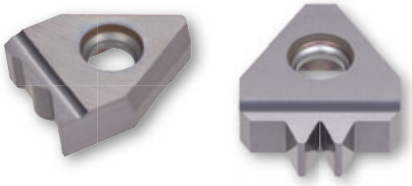
PSGB



Blank for wide profile grooving inserts
Can be prepared for various insert shapes Shortened cutting time and improved productivity with one-pass operations

CW = 0.394" - 0.984"

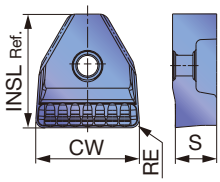
Specially tailored inserts (example)





INSERTS

PSGM



P	Steel	★	
M	Stainless	★	
K	Cast iron	☆	
N	Non-ferrous		
S	Superalloys		
H	Hard materials		

★ : First choice
☆ : Second choice

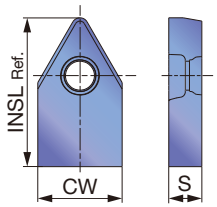
Designation	CW* (mm)	CW** (in)	RE (in)	Coated AH725	INSL (in)	S (in)
PSGM10-08	10	0.394	0.031	●	0.433	0.157
PSGM15-15	15	0.591	0.059	●	0.591	0.197
PSGM20-20	20	0.787	0.079	●	0.866	0.256
PSGM25-20	25	0.984	0.079	●	0.866	0.256

*Tolerance: CW ± 0.08 mm (CW = 10 mm), ± 0.1 mm (CW ≥ 15 mm)
**Tolerance: CW ± 0.003" (CW = 0.394"), ± 0.004" (CW ≥ 0.591")

● : Line up

Reference pages: Toolholders → F107 - F109

PSGB



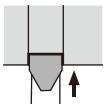
P	Steel	☆	★
M	Stainless		★
K	Cast iron	★	
N	Non-ferrous	★	
S	Superalloys	☆	
H	Hard materials		

★ : First choice
☆ : Second choice

Designation	CW±0.025 (mm)	CW±0.001 (in)	Uncoated TH10	Uncoated UX30	INSL (in)	S (in)
PSGB10	10.2	0.402	●	●	0.709	0.157
PSGB15	15.2	0.598	●	●	0.787	0.197
PSGB20	20.2	0.795	●	●	1.063	0.256
PSGB25	25.2	0.992	●	●	1.063	0.256

● : Line up

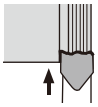
STANDARD CUTTING CONDITIONS



Wide grooving (PSGM insert)

ISO	Workpiece material	Hardness (HB)	Grade	Cutting speed *Vc* (sfm)
P	Alloy steel 4140, etc.	< 300	AH725	164 - 591

	Groove width: CW (in) 0.394	0.591	0.787	0.984
Feed: *f* (ipr)	0.008 - 0.016	0.008 - 0.016	0.012 - 0.020	0.012 - 0.020

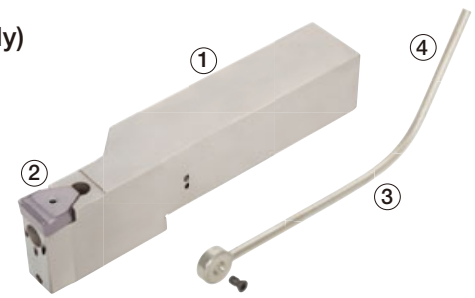


Wide profile grooving (PSGB insert)

ISO	Workpiece material	Hardness (HB)	Grade	Cutting speed *Vc* (sfm)
P	Carbon steel 1045, etc.	< 200	UX30	164 - 492
	Alloy steel 4140, etc.	< 300	UX30	164 - 394
M	Stainless steel 303, etc.	< 200	UX30	164 - 394
K	Gray cast iron No.250B, etc.	-	TH10	164 - 492
	Ductile cast irons 65-45-12, etc.	-	TH10	164 - 394
N	Aluminum alloy Si < 12%, etc.	-	TH10	328 - 1640

Spare parts for internal coolant supply attachment (Order separately)

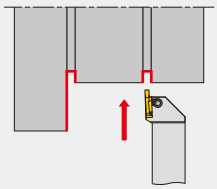
No.	Parts name	Designation	Note
①	Body	FPGR...	-
②	Insert	PSGM...	-
③	Coolant supply attachment	SGCU-341	-
④	Connector	Commercial items can be used	G 1/8 thread
			NPT 1/8 thread

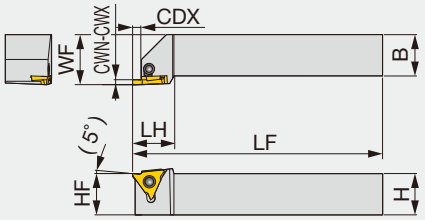


Reference pages: Toolholders → F107 - F109

TGTSR/L

External grooving toolholder, for 3 corner insert







Right hand (R) shown.

Inch	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Torque
TGTSR16-3	0.013	0.100	0.110	1.00	1.00	6	0.98	1.00	1.00	2.21
TGTSR16-4-1	0.040	0.057	0.100	1.00	1.00	6	1.00	1.00	1.00	2.21
TGTSR16-4-2	0.060	0.090	0.160	1.00	1.00	6	1.00	1.00	1.00	2.21
TGTSR16-4-3	0.100	0.180	0.210	1.00	1.00	6	1.00	1.00	1.00	2.21

Metric	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Torque*
TGTSR/L2020K16	0.33	2.5	2.5	20	20	125	25	20	25	3
TGTSR/L2525M16	0.33	2.5	2.5	25	25	150	25	25	30	3
TGTSR/L2020K22-1	1	1.45	2	20	20	125	25	20	25	3
TGTSR/L2020K22-2	1.5	2.3	3.5	20	20	125	25	20	25	3
TGTSR/L2020K22-3	2.5	4.5	5	20	20	125	25	20	25	3
TGTSR/L2525M22-1	1	1.45	2	25	25	150	25	25	30	3
TGTSR/L2525M22-2	1.5	2.3	3.5	25	25	150	25	25	30	3
TGTSR/L2525M22-3	2.5	4.5	5	25	25	150	25	25	30	3

Use right-hand toolholders (TGTSR) with right-hand inserts (GBR); and left-hand toolholders (TGTSL) with left-hand inserts (GBL).
Torque: Recommended clamping torque: lbs·ft (*N·m)
See below insert table.

Designation	Insert
TGTSR16-3	GBR/L32...
TGTSR16-4-1	GBR43050R ~ 145
TGTSR16-4-2	GBR43150 ~ 230
TGTSR16-4-3	GBR43250 ~ 450
TGTSR/L2020K16	GBR/L32...
TGTSR/L2525M16	GBR/L32...
TGTSR/L2020K22-1	GBR/L43125 ~ 145 GBR/L43050R
TGTSR/L2020K22-2	GBR/L43150 ~ 230 GBR/L43075R ~ 100R
TGTSR/L2020K22-3	GBR/L43250 ~ 450 GBR/L43125R ~ 200R
TGTSR/L2525M22-1	GBR/L43125 ~ 145 GBR/L43050R
TGTSR/L2525M22-2	GBR/L43150 ~ 230 GBR/L43075R ~ 100R
TGTSR/L2525M22-3	GBR/L43250 ~ 450 GBR/L43125R ~ 200R

SPARE PARTS



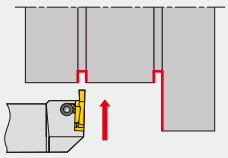


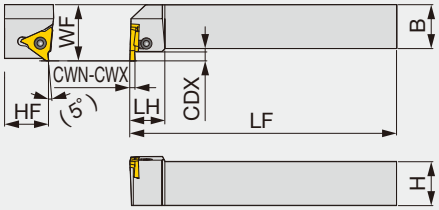
Designation	Clamp	Clamping screw	Wrench
TGTSR16-3	CP900	MCS520-2.5	P-2.5
TGTSR16-4...	CP910	MCS520-2.5	P-2.5
TGTSR/L*****16	CP900	MCS520-2.5	P-2.5
TGTSR/L*****22...	CP910	MCS520-2.5	P-2.5

Reference pages: Inserts → F114 - F116, Standard cutting conditions → F116

TGTTR/L

External grooving with tangential pocket, for 3 corner insert







Right hand (R) shown.

Metric	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Torque
TGTTR/L2020K16	0.33	2.5	2.5	20	20	125	20	20	27	3
TGTTR/L2525M16	0.33	2.5	2.5	25	25	150	20	25	32	3
TGTTR/L2020K22-1	1	1.45	2	20	20	125	20	20	27	3
TGTTR/L2020K22-2	1.5	2.3	3.5	20	20	125	20	20	27	3
TGTTR/L2020K22-3	2.5	4.5	5	20	20	125	20	20	27	3
TGTTR/L2525M22-1	1	2.3	2	25	25	150	20	25	32	3
TGTTR/L2525M22-2	1.5	2.3	3.5	25	25	150	20	25	32	3
TGTTR/L2525M22-3	2.5	4.5	5	25	25	150	20	25	32	3

Use right-hand toolholders (TGTTR) with left-hand inserts (GBL); and left-hand toolholders (TGTTL) with right-hand inserts (GBR).
Torque: Recommended clamping torque: N·m
See below insert table.

Designation	Insert
TGTTR/L2020K16	GBL/R32...
TGTTR/L2525M16	GBL/R32...
TGTTR/L2020K22-1	GBL/R43125 ~ 145 GBL/R43050R
TGTTR/L2020K22-2	GBL/R43150 ~ 230 GBL/R43075R ~ 100R
TGTTR/L2020K22-3	GBL/R43250 ~ 450 GBL/R43125R ~ 200R
TGTTR/L2525M22-1	GBL/R43125 ~ 145 GBL/R43050R
TGTTR/L2525M22-2	GBL/R43150 ~ 230 GBL/R43075R ~ 100R
TGTTR/L2525M22-3	GBL/R43250 ~ 450 GBL/R43125R ~ 200R

SPARE PARTS

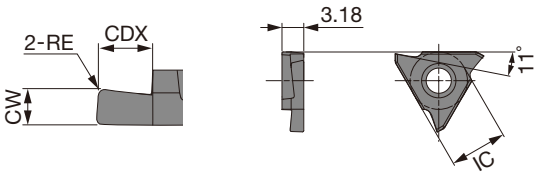




Designation	Clamp	Clamping screw	Wrench
TGTTR/L*****16	CP900	MCS520-2.5	P-2.5
TGTTR/L*****22...	CP910	MCS520-2.5	P-2.5

Reference pages: Inserts → F114 - F116, Standard cutting conditions → F116

GBR/L32



Right hand (R) shown.
Unit: mm

		Coated		Cermet		Uncoated
P	Steel	★		★		
M	Stainless	★				
K	Cast iron	★		☆		
N	Non-ferrous					★
S	Superalloys	☆				☆
H	Hard materials					

★ : First choice
☆ : Second choice

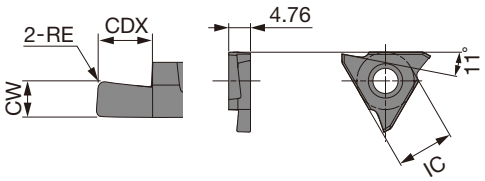
Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	AH710	NS9530	KS05F	CDX (in)	IC (mm)
GBR32033	R	0.33	0.013	0.0012	●	●	●	0.031	9.53
GBL32033	L	0.33	0.013	0.0012	●			0.031	9.53
GBR32050	R	0.5	0.020	0.002	●	●	●	0.047	9.53
GBL32050	L	0.5	0.020	0.002	●			0.047	9.53
GBR32075	R	0.75	0.030	0.002	●	●	●	0.079	9.53
GBL32075	L	0.75	0.030	0.002	●	●		0.079	9.53
GBR32095	R	0.95	0.037	0.002	●	●	●	0.079	9.53
GBL32095	L	0.95	0.037	0.002	●	●		0.079	9.53
GBR32100	R	1	0.039	0.002	●	●	●	0.079	9.53
GBL32100	L	1	0.039	0.002	●	●		0.079	9.53
GBR32125	R	1.25	0.049	0.008	●	●	●	0.079	9.53
GBL32125	L	1.25	0.049	0.008	●	●		0.079	9.53
GBR32145	R	1.45	0.057	0.008	●	●	●	0.079	9.53
GBL32145	L	1.45	0.057	0.008	●			0.079	9.53
GBR32150	R	1.5	0.059	0.008	●	●	●	0.079	9.53
GBL32150	L	1.5	0.059	0.008	●			0.079	9.53
GBR32200	R	2	0.079	0.008	●	●	●	0.098	9.53
GBL32200	L	2	0.079	0.008	●			0.098	9.53
GBR32250	R	2.5	0.098	0.008	●	●	●	0.098	9.53
GBL32250	L	2.5	0.098	0.008	●			0.098	9.53

● : Line up

External
Internal
Face
Parting
Others

Reference pages: Toolholders → F112, F113, Standard cutting conditions → F116

GBR/L43



Right hand (R) shown.
Unit: mm

		Coated		Cermet		Uncoated	
P	Steel	★		★			
M	Stainless	★					
K	Cast iron	★		☆			
N	Non-ferrous					★	
S	Superalloys	☆				☆	
H	Hard materials						

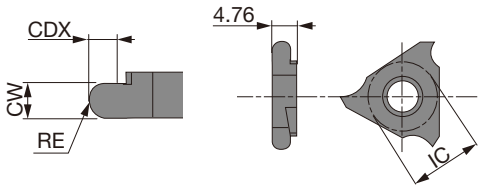
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	AH710	NS9530	KS05F	CDX (in)	IC (mm)
GBR43125	R	1.25	0.049	0.008	●	●	●	0.079	12.7
GBL43125	L	1.25	0.049	0.008	●			0.079	12.7
GBR43145	R	1.45	0.057	0.008	●	●	●	0.079	12.7
GBL43145	L	1.45	0.057	0.008	●			0.079	12.7
GBR43150	R	1.50	0.059	0.008	●	●	●	0.138	12.7
GBL43150	L	1.50	0.059	0.008	●	●		0.138	12.7
GBR43175	R	1.75	0.069	0.008	●	●	●	0.138	12.7
GBL43175	L	1.75	0.069	0.008	●	●		0.138	12.7
GBR43185	R	1.85	0.073	0.008	●	●	●	0.138	12.7
GBL43185	L	1.85	0.073	0.008	●	●		0.138	12.7
GBR43200	R	2	0.079	0.008	●	●	●	0.138	12.7
GBL43200	L	2	0.079	0.008	●	●		0.138	12.7
GBR43230	R	2.3	0.091	0.008	●	●	●	0.138	12.7
GBL43230	L	2.3	0.091	0.008	●	●		0.138	12.7
GBR43250	R	2.5	0.098	0.012	●	●	●	0.197	12.7
GBL43250	L	2.5	0.098	0.012	●			0.197	12.7
GBR43265	R	2.65	0.104	0.012	●	●	●	0.197	12.7
GBL43265	L	2.65	0.104	0.012	●			0.197	12.7
GBR43280	R	2.8	0.110	0.012	●	●	●	0.197	12.7
GBL43280	L	2.8	0.110	0.012	●			0.197	12.7
GBR43300	R	3	0.118	0.012	●	●	●	0.197	12.7
GBL43300	L	3	0.118	0.012	●			0.197	12.7
GBR43330	R	3.3	0.130	0.012	●	●	●	0.197	12.7
GBL43330	L	3.3	0.130	0.012	●			0.197	12.7
GBR43350	R	3.5	0.138	0.012	●	●	●	0.197	12.7
GBL43350	L	3.5	0.138	0.012	●			0.197	12.7
GBR43400	R	4	0.157	0.016	●	●	●	0.197	12.7
GBL43400	L	4	0.157	0.016	●			0.197	12.7
GBR43430	R	4.3	0.169	0.016	●	●	●	0.197	12.7
GBL43430	L	4.3	0.169	0.016	●			0.197	12.7
GBR43450	R	4.5	0.177	0.016	●	●	●	0.197	12.7
GBL43450	L	4.5	0.177	0.016	●			0.197	12.7

● : Line up

Reference pages: Toolholders → F112, F113, Standard cutting conditions → F116

GBR/L43-R(full radius)



Right hand (R) shown.
Unit: mm

		AH710	NS9530	KS05F
P	Steel	★	★	
M	Stainless	★		
K	Cast iron	★	☆	
N	Non-ferrous			★
S	Superalloys	☆		☆
H	Hard materials			

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH710	Cermet NS9530	Uncoated KS05F	CDX (in)	IC (mm)
GBR43050R	R	1	0.039	0.020	●	●	●	0.079	12.7
GBL43050R	L	1	0.039	0.020	●		●	0.079	12.7
GBR43075R	R	1.5	0.059	0.030	●	●	●	0.138	12.7
GBL43075R	L	1.5	0.059	0.030	●		●	0.138	12.7
GBR43100R	R	2	0.079	0.039	●	●	●	0.138	12.7
GBL43100R	L	2	0.079	0.039	●		●	0.138	12.7
GBR43125R	R	2.5	0.098	0.049	●	●	●	0.197	12.7
GBL43125R	L	2.5	0.098	0.049	●		●	0.197	12.7
GBR43150R	R	3	0.118	0.059	●	●	●	0.197	12.7
GBL43150R	L	3	0.118	0.059	●		●	0.197	12.7
GBR43200R	R	4	0.157	0.079	●	●	●	0.197	12.7
GBL43200R	L	4	0.157	0.079	●		●	0.197	12.7

● : Line up

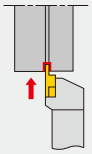
STANDARD CUTTING CONDITIONS

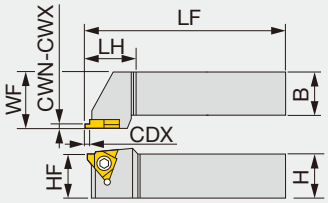
ISO	Workpiece material	Hardness	Grade	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Carbon steels, Alloy steels 1045, etc. 4140, etc.	150 - 240HB	NS9530	328 - 656	0.001 - 0.010
		150 - 240HB	AH710	197 - 492	0.002 - 0.010
M	Stainless steel 304, etc.	≤ 240HB	AH710	197 - 492	0.002 - 0.006
K	Cast irons No.250B, etc.	Tensile strength ≤ 350 N/mm^2	AH710	197 - 492	0.002 - 0.006
N	Non-ferrous metal Aluminum, etc.	-	KS05F	656 - 984	0.002 - 0.006

Reference pages: Toolholders → F112, F113

SGTR/L

External grooving toolholder, for 3 corner inserts





Right hand (R) shown.

Metric	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Insert	Torque
SGTR1616-3	1.15	2.7	1.5 - 3	16	16	100	20	16	20	GLR/L3...	3.5
SGTR/L2020-3	1.15	2.7	1.5 - 3	20	20	125	20	20	25	GLR/L3...	3.5
SGTR/L2525-3	1.15	2.7	1.5 - 3	25	25	150	20	25	32	GLR/L3...	3.5
SGTR/L2020-4	1.15	4.2	1.5 - 4	20	20	125	30	20	25	GLR/L4...,GOR/L4...	5
SGTR/L2525-4	1.15	4.2	1.5 - 4	25	25	150	30	25	32	GLR/L4...,GOR/L4...	5

Torque: Recommended clamping torque: N·m

SPARE PARTS

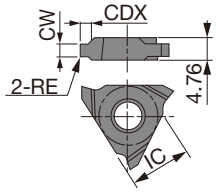




Designation	Clamping screw	Wrench
SGTR/L****-3	CSTB-4	T-15F
SGTR/L****-4	CSTB-5	T-20F

INSERTS

GOR/L (For O-ring)



Right hand (R) shown.
Unit: mm

P	Steel	★				★				
M	Stainless					★				
K	Cast iron	☆								
N	Non-ferrous									
S	Superalloys									
H	Hard materials									

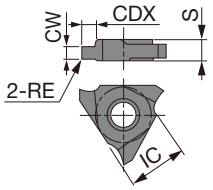
★ : First choice
☆ : Second choice

Designation	HAND	$CW^{+0.004}_{+0.002}$ (in)	$CW^{+0.1}_{+0.05}$ (mm)	RE (mm)	Cermet	Uncoated							CDX (mm)	IC (mm)
					NS9530			UX30						
GOR4190	R	0.098	2.5	0.4	●			●					1.5	12.7
GOR4240	R	0.126	3.2	0.4	●			●					2	12.7
GOR4310	R	0.161	4.1	0.7	●			●					2.5	12.7

● : Line up

Reference pages: Inserts → F117, F118, Standard cutting conditions → F118

GLR/L (For lock ring)



Right hand (R) shown.

		Cermet	Uncoated
P	Steel	★	★
M	Stainless		★
K	Cast iron	☆	
N	Non-ferrous		
S	Superalloys		
H	Hard materials		

★ : First choice
☆ : Second choice

Designation	HAND	CW$^{+0.004}_{+0.002}$ (in)	CW$^{+0.1}_{+0.05}$ (mm)	RE (mm)	NS9530	UX30	CDX (mm)	IC (mm)	S (mm)
GLR3115	R	0.045	1.15	0.1	●	●	1.5	9.53	3.18
GLL3115	L	0.045	1.15	0.1	●	●	1.5	9.53	3.18
GLR3135	R	0.053	1.35	0.1	●	●	1.5	9.53	3.18
GLL3135	L	0.053	1.35	0.1	●		1.5	9.53	3.18
GLR3165	R	0.065	1.65	0.1	●	●	2	9.53	3.18
GLR3175	R	0.069	1.75	0.1	●	●	2	9.53	3.18
GLL3175	L	0.069	1.75	0.1	●	●	2	9.53	3.18
GLR3195	R	0.077	1.95	0.1	●	●	2.5	9.53	3.18
GLL3195	L	0.077	1.95	0.1	●	●	2.5	9.53	3.18
GLR3220	R	0.087	2.2	0.1	●	●	3	9.53	3.18
GLL3220	L	0.087	2.2	0.1		●	3	9.53	3.18
GLR3270	R	0.106	2.7	0.1	●	●	3	9.53	3.18
GLL3270	L	0.106	2.7	0.1		●	3	9.53	3.18
GLR4115	R	0.045	1.15	0.1	●	●	1.5	12.7	4.76
GLR4135	R	0.053	1.35	0.1	●	●	1.5	12.7	4.76
GLR4165	R	0.065	1.65	0.1	●	●	2	12.7	4.76
GLR4175	R	0.069	1.75	0.1	●	●	2	12.7	4.76
GLR4190	R	0.075	1.9	0.1	●		2.5	12.7	4.76
GLR4195	R	0.077	1.95	0.1	●	●	2.5	12.7	4.76
GLR4220	R	0.087	2.2	0.1	●	●	3.5	12.7	4.76
GLL4220	L	0.087	2.2	0.1		●	3.5	12.7	4.76
GLR4270	R	0.106	2.7	0.1	●	●	3.5	12.7	4.76
GLR4320	R	0.126	3.2	0.1	●	●	4	12.7	4.76
GLL4320	L	0.126	3.2	0.1		●	4	12.7	4.76
GLR4420	R	0.165	4.2	0.1	●	●	4	12.7	4.76
GLL4420	L	0.165	4.2	0.1		●	4	12.7	4.76

● : Line up

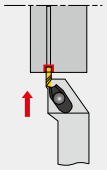
STANDARD CUTTING CONDITIONS

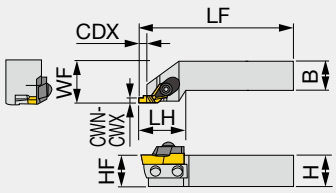
ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed: *f* (ipr)		
				CW < 0.079"	CW = 0.079" - 0.157"	CW > 0.157"
P	Carbon steel	NS9530	262 - 656	0.002 - 0.004	0.003 - 0.008	0.003 - 0.010
		UX30	197 - 492	0.002 - 0.004	0.003 - 0.008	0.003 - 0.010

Reference pages: Toolholders → F117

GX-R/LE

External grooving toolholder, for 2 corner inserts







Right hand (R) shown.

Inch	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Insert	Torque
GX-1212REU	0.039	0.177	0.059 - 0.236	0.75	0.75	5.00	1.38	0.75	1.00	XGR63...	3.69
GX-1616REU	0.039	0.177	0.059 - 0.236	1.00	1.00	5.90	1.38	1.00	1.25	XGR63...	3.69

Metric	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Insert	Torque*
GX-2020R/LE	1	4.5	1.5 - 6	20	20	125	40	20	25	XGR/L63...	5
GX-2525R/LE	1	4.5	1.5 - 6	25	25	150	38	25	32	XGR/L63...	5

Use right-hand toolholders (GX-****RE) with right-hand inserts (XGR...); and left-hand toolholders (GX-****LE) with left-hand inserts (XGL...).
Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS





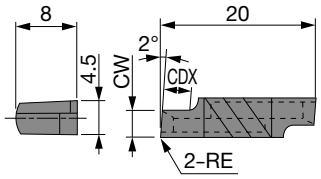


Designation	Clamp set	Clamp screw	Shim	Shim screw	Wrench
GX-1212REU, GX-2020RE	CP81A	RT-1	SL-6R	BHM4-8	P-4
GX-2020LE	CP81A	RT-1	SL-6L	BHM4-8	P-4
GX-1616REU, GX-2525RE	CP81A	RT-1	SL-1R	BHM4-8	P-4
GX-2525LE	CP81A	RT-1	SL-1L	BHM4-8	P-4

Note: Max. groove width and max. groove depth will depend on the insert type.

INSERTS

XGR/L



Right hand (R) shown.
Unit: mm

P	Steel	★			☆	★			
M	Stainless					★			
K	Cast iron	☆			★				
N	Non-ferrous				★				
S	Superalloys				☆				
H	Hard materials								

★ : First choice
☆ : Second choice

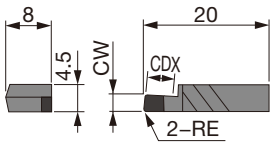
Designation	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Cermet NS9530	Uncoated TH10	Uncoated UX30	CDX (in)
XGR6310-02	R	1	0.039	0.008	●	●	●	0.059
XGL6310-02	L	1	0.039	0.008	●	●	●	0.059
XGR6315-02	R	1.5	0.059	0.008	●	●	●	0.091
XGL6315-02	L	1.5	0.059	0.008	●	●	●	0.091
XGR6320-02	R	2	0.079	0.008	●	●	●	0.118
XGL6320-02	L	2	0.079	0.008	●	●	●	0.118
XGR6325-02	R	2.5	0.098	0.008	●	●	●	0.150
XGL6325-02	L	2.5	0.098	0.008	●	●	●	0.150
XGR6330-02	R	3	0.118	0.008	●	●	●	0.177
XGL6330-02	L	3	0.118	0.008	●	●	●	0.177
XGR6335-02	R	3.5	0.138	0.008	●	●	●	0.209
XGL6335-02	L	3.5	0.138	0.008	●	●	●	0.209
XGR6340-02	R	4	0.157	0.008	●	●	●	0.236
XGL6340-02	L	4	0.157	0.008	●	●	●	0.236
XGR6345-02	R	4.5	0.177	0.008	●	●	●	0.236
XGL6345-02	L	4.5	0.177	0.008	●	●	●	0.236

Use right-hand toolholders (GX-****RE) with right-hand inserts (XGR...)
left-hand toolholders (GX-****LE) with left-hand inserts (XGL...).

● : Line up

Reference pages: Inserts → F119, F120, Standard cutting conditions → F120

XGR/L-QBN



Right hand (R) shown.
Unit: mm

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	CBN	CDX (in)
					BX360	
XGL6310S-QBN	L	1	0.039	0.008	●	0.059
XGR6315S-QBN	R	1.5	0.059	0.008	●	0.091
XGL6315S-QBN	L	1.5	0.059	0.008	●	0.091
XGR6320S-QBN	R	2	0.079	0.008	●	0.118
XGL6320S-QBN	L	2	0.079	0.008	●	0.118
XGR6325S-QBN	R	2.5	0.098	0.008	●	0.150
XGL6325S-QBN	L	2.5	0.098	0.008	●	0.150
XGR6330S-QBN	R	3	0.118	0.008	●	0.177
XGL6330S-QBN	L	3	0.118	0.008	●	0.177
XGR6335S-QBN	R	3.5	0.138	0.008	●	0.209
XGL6335S-QBN	L	3.5	0.138	0.008	●	0.209
XGR6340S-QBN	R	4	0.157	0.008	●	0.236
XGL6340S-QBN	L	4	0.157	0.008	●	0.236
XGR6345S-QBN	R	4.5	0.177	0.008	●	0.236
XGL6345S-QBN	L	4.5	0.177	0.008	●	0.236

● : Line up

Use right-hand toolholders (GX-****RE) with right-hand inserts (XGR...)
left-hand toolholders (GX-****LE) with left-hand inserts (XGL...).

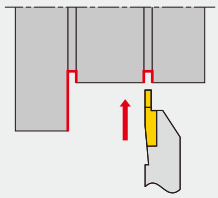
STANDARD CUTTING CONDITIONS

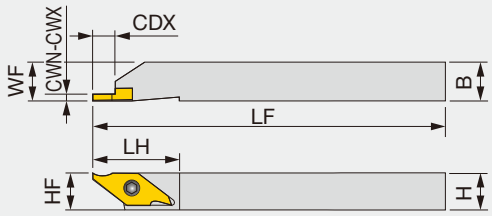
ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed: *f* (ipr)		
				CW < 0.079"	CW = 0.079" - 0.157"	CW > 0.157"
P	Carbon steel	NS9530	262 - 656	0.002 - 0.004	0.003 - 0.008	0.003 - 0.010
		UX30	197 - 492	0.002 - 0.004	0.003 - 0.008	0.003 - 0.010
K	Cast irons , Light alloys	TH10	197 - 492	0.002 - 0.004	0.003 - 0.008	0.003 - 0.010
H	Hardened steels	BX360	164 - 591	0.002 - 0.006	0.002 - 0.006	0.002 - 0.006

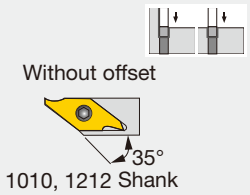
Reference pages: Toolholders → F119

JSVGR/L

External grooving toolholder, for Swiss lathes







Right hand (R) shown.

Inch	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Insert	Torque
JSVGR/L062.5	0.013	0.079	0.028 - 0.217	0.375	0.375	5	0.875	0.375	0.375	JVGR/L...	1.70
JSVGR/L082.5	0.013	0.079	0.028 - 0.217	0.500	0.500	5	0.875	0.500	0.500	JVGR/L...	1.70
JSVGR/L102.5	0.013	0.079	0.028 - 0.217	0.625	0.625	5	0.875	0.625	0.625	JVGR/L...	1.70

Metric	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Insert	Torque*
JSVGR/L1010K-C	0.33	2	0.7 - 5.5	10	10	125	23	10	10	JVGR/L...	2.3
JSVGR/L1212K-C	0.33	2	0.7 - 5.5	12	12	125	23	12	12	JVGR/L...	2.3
JSVGR/L1616K	0.33	2	0.7 - 5.5	16	16	125	23	16	16	JVGR/L...	2.3

Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS

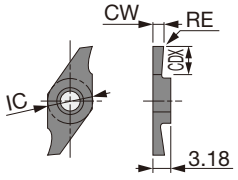




Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSVGR/L...	CSTB-3S	T-9F	(T-9L)

INSERT

JVG (with hand, sharp edge)

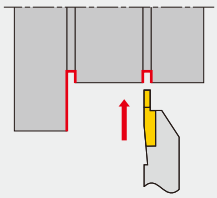


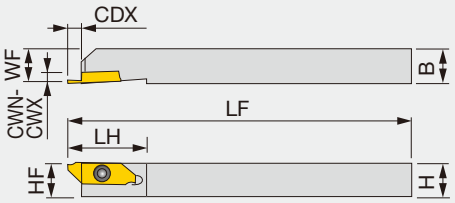
Right hand (R) shown.
Unit: mm

| | | Coated | | | Cermet | | Uncoated | | |

JSXGR/L

Screw-on toolholder for front turning, reverse turning, and external grooving, for Swiss lathes







Without offset



1010, 1212 Shank

Right hand (R) shown.

Metric	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Insert	Torque
JSXGR/L1010K8-C	0.7	2	4.5 - 6	10	10	125	29	10	9.9	JXG...	1.3
JSXGR/L1212K8-C	0.7	2	4.5 - 6	12	12	125	29	12	11.9	JXG...	1.3
JSXGR/L1616K8	0.7	2	4.5 - 6	16	16	125	29	16	15.9	JXG...	1.3
JSXGR/L2020K8	0.7	2	4.5 - 6	20	20	125	29	20	19.9	JXG...	1.3
JSXGR/L2525K8	0.7	2	4.5 - 6	25	25	125	29	25	24.9	JXG...	1.3

Can be wrenched also from the back with a double-head screw.
This toolholder can be used for JXF front-turning insert, JXR reverse-turning insert, and JXG parting and grooving insert.
Torque: Recommended clamping torque: N·m

SPARE PARTS

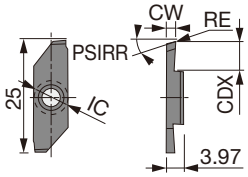




Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSXGR/L...	CSTB-4SD	T-8F	(T-8L)

INSERT

JXG (with hand, sharp edge)



Right hand (R) shown.
Unit: mm

		Coated	Uncoated
P	Steel	★	☆
M	Stainless	★	
K	Cast iron		☆
N	Non-ferrous		★
S	Superalloys		★
H	Hard materials		

★ : First choice
☆ : Second choice

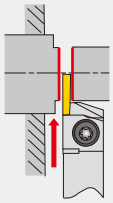
Designation	HAND	CW±0.001 (in)	CW±0.025 (mm)	RE (mm)	Coated J740	Uncoated TH10	CDX (mm)	IC (mm)	PSIRR
JXGR8070FA	R	0.028	0.7	0	●	●	4.5	8	15°
JXGL8070FA	L	0.028	0.7	0	●	●	4.5	8	15°
JXGR8070FA-005	R	0.028	0.7	0.05	●		4.5	8	15°
JXGR8100FA	R	0.039	1	0	●	●	6	8	15°
JXGL8100FA	L	0.039	1	0	●	●	6	8	15°
JXGR8100FA-005	R	0.039	1	0.05	●		6	8	15°
JXGR8100FA45	R	0.039	1	0	●	●	4.5	8	15°
JXGR8100FA45-005	R	0.039	1	0.05	●		4.5	8	15°
JXGR8150FA	R	0.059	1.5	0	●	●	6	8	15°
JXGL8150FA	L	0.059	1.5	0	●	●	6	8	15°
JXGR8150FA-005	R	0.059	1.5	0.05	●		6	8	15°
JXGR8150FA50	R	0.059	1.5	0	●	●	5	8	15°
JXGR8150FA50-005	R	0.059	1.5	0.05	●		5	8	15°
JXGR8180FA	R	0.071	1.8	0	●	●	6	8	15°
JXGR8180FA-005	R	0.071	1.8	0.05	●		6	8	15°
JXGR8200FA	R	0.079	2	0	●	●	6	8	15°
JXGL8200FA	L	0.079	2	0	●	●	6	8	15°
JXGR8200FA-005	R	0.079	2	0.05	●		6	8	15°
JXGR8200FN	R	0.079	2	0	●	●	6	8	0°
JXGL8200FN	L	0.079	2	0	●	●	6	8	0°
JXGR8200FN-005	R	0.079	2	0.05	●		6	8	0°

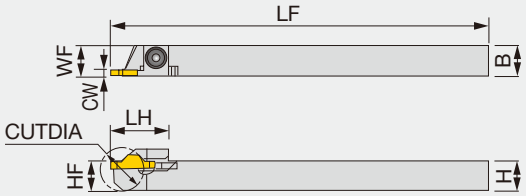
● : Line up

Reference pages: Standard cutting conditions → F128

JCCWSR/L

External grooving and parting toolholder, for Swiss lathes





Right hand (R) shown.

Inch	CW	CUTDIA	H	B	LF	LH	HF	WF	Insert	Torque
JCCWSR/L062	0.079	0.787	0.375	0.375	5	0.748	0.375	0.1875	JCC*200...	2.58
JCCWSR/L082	0.079	0.787	0.500	0.500	5	0.748	0.500	0.250	JCC*200...	2.58
JCCWSR/L102	0.079	0.787	0.625	0.625	5	0.748	0.625	0.3125	JCC*200...	2.58

Metric	CW	CUTDIA	H	B	LF	LH	HF	WF	Insert	Torque*
JCCWSR/L1010K2	2	20	10	10	125	19	10	10	JCC*200...	3.5
JCCWSR/L1212K2	2	20	12	12	125	19	12	12	JCC*200...	3.5
JCCWSR/L1616K2	2	20	16	16	125	19	16	16	JCC*200...	3.5
JCCWSR/L2020K2	2	20	20	20	125	19	20	20	JCC*200...	3.5
JCCWSR/L2525K2	2	20	25	25	125	19	25	25	JCC*200...	3.5

Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS

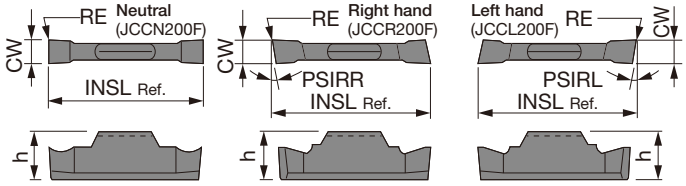




Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JCCWSR/L...	CSTB-4S	T-15F	(T-15L)

INSERT

JCC (Sharp edge)



P	Steel	★	☆
M	Stainless	★	
K	Cast iron		☆
N	Non-ferrous		★
S	Superalloys		★
H	Hard materials		

★ : First choice
☆ : Second choice

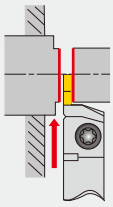
Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated J740	Uncoated TH10	INSL (mm)	h (mm)	PSIRL	PSIRR
JCCN200F	N	2	0.079	0	●	●	15	4.8	0°	0°
JCCN200F-005	N	2	0.079	0.002	●		15	4.8	0°	0°
JCCR200F	R	2	0.079	0	●	●	15	4.8	0°	15°
JCCL200F	L	2	0.079	0	●	●	15	4.8	15°	0°
JCCR200F-005	R	2	0.079	0.002	●		15	4.8	0°	15°
JCCL200F-005	L	2	0.079	0.002	●		15	4.8	15°	0°

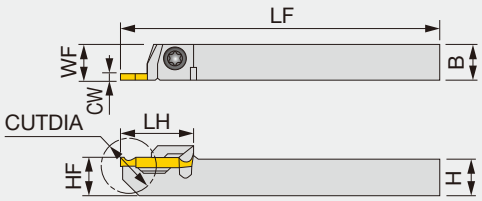
● : Line up

Reference pages: Standard cutting conditions → F128

JCGWSR/L

External grooving and parting toolholder, for Swiss lathes







Right hand (R) shown.

Metric	CW	CUTDIA	H	B	LF	LH	HF	WF	Insert	Torque
JCGWSR/L1010K2	2	20	10	10	125	20	10	10	JCGN200F...	3.5
JCGWSR/L1212K2	2	20	12	12	125	20	12	12	JCGN200F...	3.5
JCGWSR/L1616K2	2	20	16	16	125	20	16	16	JCGN200F...	3.5

Torque: Recommended clamping torque: N·m

SPARE PARTS

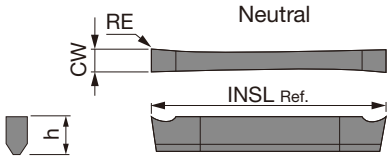


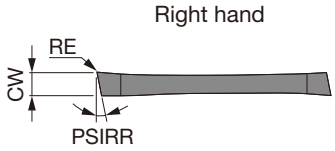


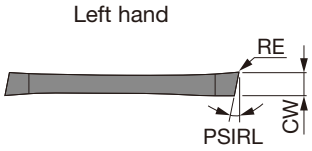
Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JCGWSR/L...	CSTB-4S	T-15F	(T-15L)

INSERT

JCGN (Sharp edge)







		Coated	Uncoated
P	Steel	★	☆
M	Stainless	★	
K	Cast iron		☆
N	Non-ferrous		★
S	Superalloys		★
H	Hard materials		

★ : First choice
☆ : Second choice

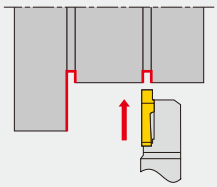
Designation	HAND	CW±0.001 (in)	CW±0.025 (mm)	RE (mm)	Coated J740	Uncoated TH10	INSL (mm)	h (mm)	PSIRL	PSIRR
JCGN200F	N	0.079	2	0.05	●	●	20	3	0°	0°
JCGN200FR	R	0.079	2	0.05	●	●	20	3	0°	8°
JCGN200FL	L	0.079	2	0.05	●	●	20	3	8°	0°

● : Line up

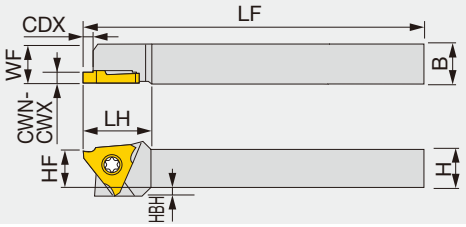
Reference pages: Standard cutting conditions → F128

JSTGR/L

External grooving toolholder, for Swiss lathes



Can be wrenched also from the back with a double-head screw



Right hand (R) shown.

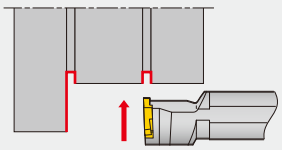
Inch	CWN	CWX	CDX	H	B	LF	LH	HF	WF	HBH	Insert	Torque
JSTGR/L063	0.013	0.118	0.028 - 0.102	0.375	0.375	5	0.75	0.375	0.375	0.100	JTGR/L3...	0.89
JSTGR/L083	0.013	0.118	0.028 - 0.102	0.500	0.500	5	0.75	0.500	0.500	-	JTGR/L3...	0.89
JSTGR/L103	0.013	0.118	0.028 - 0.102	0.625	0.625	5	0.75	0.625	0.625	-	JTGR/L3...	0.89

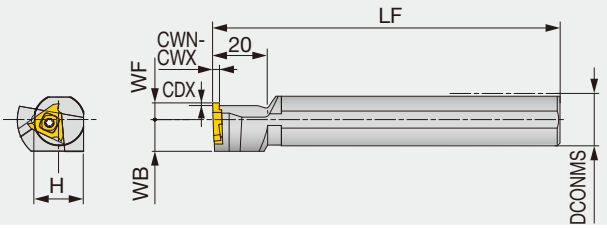
Metric	CWN	CWX	CDX	H	B	LF	LH	HF	WF	HBH	Insert	Torque*
JSTGR/L1010X3	0.33	3	0.7 - 2.6	10	10	120	18.5	10	10	2	JTGR/L3...	1.2
JSTGR/L1212F3	0.33	3	0.7 - 2.6	12	12	85	18.5	12	12	-	JTGR/L3...	1.2
JSTGR/L1212X3	0.33	3	0.7 - 2.6	12	12	120	18.5	12	12	-	JTGR/L3...	1.2
JSTGR/L1616X3	0.33	3	0.7 - 2.6	16	16	120	18.5	16	16	-	JTGR/L3...	1.2
JSTGL1616K3	0.33	3	0.7 - 2.6	16	16	125	18.5	16	16	-	JTGR/L3...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)

JS-TGL3

External grooving toolholder, for Swiss lathes





Left hand (L) shown.
Unit: mm

Metric	CWN	CWX	CDX	DCONMS	H	B	LF	WF	WB	Insert	Torque
JS19K-TGL3	0.33	3	0.7 - 2.6	19.05	18	18	125	6	11.5	JTGR3...	3
JS20K-TGL3	0.33	3	0.7 - 2.6	20	19	19	125	6	11.5	JTGR3...	3
JS22K-TGL3	0.33	3	0.7 - 2.6	22	21	21	125	6	11.5	JTGR3...	3
JS25K-TGL3	0.33	3	0.7 - 2.6	25.4	24	24	125	10	12.7	JTGR3...	3

Note: Use left-hand toolholders (L) with right-hand inserts (R).
Torque: Recommended clamping torque: N·m

SPARE PARTS

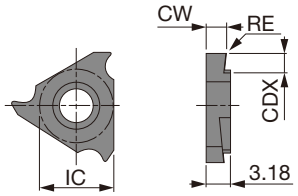




Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSTGR/L...	CSTB-4SD	T-8F	(T-8L)
JS***-TGL3	CSTB-4S	T-15F	-

Reference pages: Inserts → F126, F127, Standard cutting conditions → F128

JTG (Sharp edge)



Right hand (R) shown.
Unit: mm

P	Steel	★	★			★			☆										
M	Stainless	★	★																
K	Cast iron					☆			★										
N	Non-ferrous								★										
S	Superalloys								★										
H	Hard materials																		

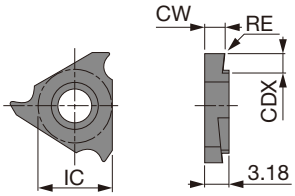
★ : First choice
☆ : Second choice

Designation	HAND	$CW^{+0.05}_{0}$ (mm)	$CW^{+0.002}_{0}$ (in)	RE (in)	Coated				Cermet				Uncoated				CDX (in)	IC (mm)
					SH725	J740			NS9530				TH10					
JTGR3033F	R	0.33	0.013	0.0012	●	●							●				0.028	9.53
JTGL3033F	L	0.33	0.013	0.0012		●							●				0.028	9.53
JTGR3033F-005	R	0.33	0.013	0.002	●												0.028	9.53
JTGR3043F	R	0.43	0.017	0.0012		●											0.043	9.53
JTGR3050F	R	0.5	0.020	0.0012	●	●			●				●				0.043	9.53
JTGL3050F	L	0.5	0.020	0.0012	●	●							●				0.043	9.53
JTGR3050F-005	R	0.5	0.020	0.002	●												0.043	9.53
JTGL3050F-005	L	0.5	0.020	0.002	●												0.043	9.53
JTGR3065F	R	0.65	0.026	0.0012	●	●											0.075	9.53
JTGR3065F-010	R	0.65	0.026	0.004	●												0.075	9.53
JTGR3075F	R	0.75	0.030	0.0012	●	●			●				●				0.075	9.53
JTGL3075F	L	0.75	0.030	0.0012	●	●			●				●				0.075	9.53
JTGR3075F-010	R	0.75	0.030	0.004	●												0.075	9.53
JTGL3075F-010	L	0.75	0.030	0.004	●												0.075	9.53
JTGR3080F	R	0.8	0.031	0.0012	●	●											0.075	9.53
JTGR3080F-010	R	0.8	0.031	0.004	●												0.075	9.53
JTGR3085F	R	0.85	0.033	0.0012	●	●											0.075	9.53
JTGR3095F	R	0.95	0.037	0.0012	●	●			●				●				0.075	9.53
JTGL3095F	L	0.95	0.037	0.0012	●	●							●				0.075	9.53
JTGR3095F-010	R	0.95	0.037	0.004	●												0.075	9.53
JTGL3095F-010	L	0.95	0.037	0.004	●												0.075	9.53
JTGR3100F	R	1	0.039	0.002	●	●			●				●				0.083	9.53
JTGL3100F	L	1	0.039	0.002	●	●							●				0.083	9.53
JTGR3100F-010	R	1	0.039	0.004	●												0.083	9.53
JTGL3100F-010	L	1	0.039	0.004	●												0.083	9.53
JTGR3110F	R	1.1	0.043	0.002	●	●											0.083	9.53
JTGR3120F	R	1.2	0.047	0.002	●	●											0.083	9.53
JTGR3120F-010	R	1.2	0.047	0.004	●												0.083	9.53
JTGR3125F	R	1.25	0.049	0.002	●	●			●				●				0.083	9.53
JTGL3125F	L	1.25	0.049	0.002	●	●							●				0.083	9.53
JTGR3125F-010	R	1.25	0.049	0.004	●												0.083	9.53
JTGL3125F-010	L	1.25	0.049	0.004	●												0.083	9.53
JTGR3130F	R	1.3	0.051	0.002	●	●											0.083	9.53
JTGR3140F	R	1.4	0.055	0.002	●	●											0.083	9.53
JTGR3140F-010	R	1.4	0.055	0.004	●												0.083	9.53
JTGR3145F	R	1.45	0.057	0.002	●	●			●				●				0.083	9.53
JTGL3145F	L	1.45	0.057	0.002		●							●				0.083	9.53
JTGR3145F-010	R	1.45	0.057	0.004	●												0.083	9.53
JTGR3150F	R	1.5	0.059	0.002	●	●			●				●				0.083	9.53
JTGL3150F	L	1.5	0.059	0.002	●	●							●				0.083	9.53
JTGR3150F-010	R	1.5	0.059	0.004	●												0.083	9.53
JTGL3150F-010	L	1.5	0.059	0.004	●												0.083	9.53

● : Line up

Reference pages: Toolholders → F125, Standard cutting conditions → F128

JTG (Sharp edge)



Right hand (R) shown.
Unit: mm

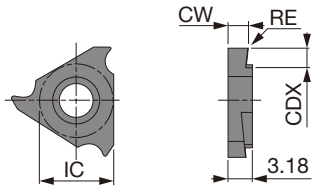
P	Steel	★	★			★			☆						
M	Stainless	★	★												
K	Cast iron					☆			★						
N	Non-ferrous								★						
S	Superalloys								★						
H	Hard materials														

★ : First choice
☆ : Second choice

Designation	HAND	$CW^{+0.05}_{0}$ (mm)	$CW^{+0.002}_{0}$ (in)	RE (in)	Coated SH725	Coated J740	Cermet NS9530	Uncoated TH10	CDX (in)	IC (mm)
JTGR3175F	R	1.75	0.069	0.002	●	●	●	●	0.083	9.53
JTGL3175F	L	1.75	0.069	0.002		●	●	●	0.083	9.53
JTGR3175F-010	R	1.75	0.069	0.004	●				0.083	9.53
JTGR3180F	R	1.8	0.071	0.002	●	●			0.083	9.53
JTGR3200F	R	2	0.079	0.002	●	●	●	●	0.102	9.53
JTGL3200F	L	2	0.079	0.002	●	●		●	0.102	9.53
JTGR3200F-010	R	2	0.079	0.004	●				0.102	9.53
JTGL3200F-010	L	2	0.079	0.004	●				0.102	9.53
JTGR3225F	R	2.25	0.089	0.002	●	●			0.102	9.53
JTGR3250F	R	2.5	0.098	0.002	●	●	●	●	0.102	9.53
JTGL3250F	L	2.5	0.098	0.002	●	●		●	0.102	9.53
JTGR3250F-010	R	2.5	0.098	0.004	●				0.102	9.53
JTGL3250F-010	L	2.5	0.098	0.004	●				0.102	9.53
JTGR3275F	R	2.75	0.108	0.002		●			0.102	9.53
JTGR3300F	R	3	0.118	0.002	●	●			0.102	9.53
JTGR3300F-010	R	3	0.118	0.004	●				0.102	9.53

● : Line up

JTG (honed edge)



Right hand (R) shown.
Unit: mm

P	Steel	★													
M	Stainless														
K	Cast iron	☆													
N	Non-ferrous														
S	Superalloys														
H	Hard materials														

★ : First choice
☆ : Second choice

Designation	HAND	$CW^{+0.05}_{0}$ (mm)	$CW^{+0.002}_{0}$ (in)	RE (in)	Coated cermet J9530	CDX (in)	IC (mm)
JTGR3100	R	1	0.039	0.002	●	0.083	9.53
JTGR3125	R	1.25	0.049	0.002	●	0.083	9.53
JTGR3150	R	1.5	0.059	0.002	●	0.083	9.53
JTGR3200	R	2	0.079	0.002	●	0.102	9.53

● : Line up

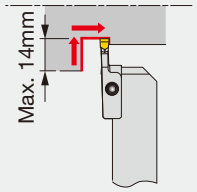
Reference pages: Toolholders → F125, Standard cutting conditions → F128

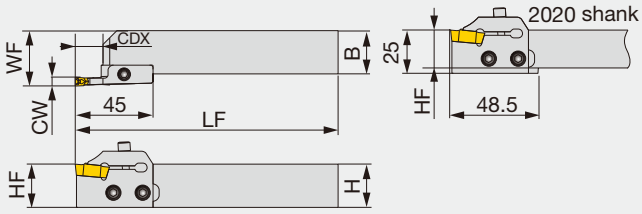
STANDARD CUTTING CONDITIONS (J-Series grooving tool)

ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	General steels, Free-cutting steels, etc.	J740	33 - 328	0.0004 - 0.004
		SH725	164 - 492	0.0004 - 0.004
		NS9530	164 - 492	0.0004 - 0.004
		J9530	164 - 492	0.0004 - 0.004
M	Stainless steels, etc.	J740	33 - 328	0.0004 - 0.004
		SH725	164 - 492	0.0004 - 0.004
N	Aluminum alloys, copper alloys, etc.	TH10	33 - 656	0.0004 - 0.004
S	Difficult-to-cut materials, titanium alloys, etc.	TH10	33 - 98	0.0004 - 0.004

CGWSR/L-FLR/L#GP

External grooving and turning toolholder





Right hand (R) shown.
Unit: mm

Metric	CW	CDX	H	B	LF	HF	WF	Insert	Shank	Adapter	Torque
CGWSR/L2020-FLR/L3GP	3	10	20	20	152	20	27	FLEX30R/L	CGWSR/L2020	FLR/L3GP	5
CGWSR/L2525-FLR/L3GP	3	10	25	25	152	25	32	FLEX30R/L	CGWSR/L2525	FLR/L3GP	5
CGWSR/L2020-FLR/L4GP	4	12	20	20	152	20	27	FLEX40R/L	CGWSR/L2020	FLR/L4GP	5
CGWSR/L2525-FLR/L4GP	4	12	25	25	152	25	32	FLEX40R/L	CGWSR/L2525	FLR/L4GP	5
CGWSR/L2020-FLR/L5GP	5	14	20	20	152	20	27	FLEX50R/L	CGWSR/L2020	FLR/L5GP	5
CGWSR/L2525-FLR/L5GP	5	14	25	25	152	25	32	FLEX50R/L	CGWSR/L2525	FLR/L5GP	5

Toolholders are in stock with the designations of: a set of shank and adapter; a shank; a adapter. Combining the designations of a adapter and a shank will make the designation of a set.
Please check the stock and place an order with the designation of a set or a shank+a adapter.
Use right-hand toolholders (CGWSR...) with right-hand adapter (FLR...); and left-hand toolholders (CGWSL...) with left-hand adapter (FLL...).
Torque: Recommended clamping torque: N·m

SPARE PARTS

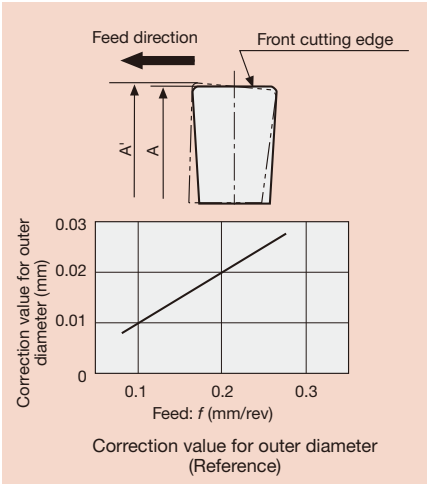




Designation	Clamping screw	Adapter screw	Wrench
CGWSR/L****-FLR/L*GP	CHHM5-18	CSHB-6	P-4

Caution

Toolholders with FLEX insert have mechanism in which the end cutting edge angle is formed by accepting a cutting force. In external grooving, there is a possibility that if the cutting conditions (feed and depth of cut) are set too high, the programmed diameter will not be achieved. To prevent this problem, it is necessary to perform a compensation in the program by an amount that is equal to the amount A'-A that is shown in the drawing on the right. The values of compensation corresponding to the feeds are also shown in the graph.

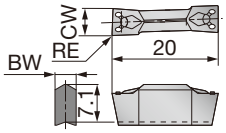


Correction value for outer diameter (Reference)

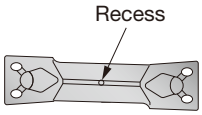
Reference pages: Inserts, Standard cutting conditions → F130

INSERT

FLEX(R/L)



Right hand (R) shown.
Unit: mm



To distinguish the insert hands, the V-shape surface (top surface) of a left-hand insert has a recess. (not of a right-hand insert)

		Coated				Cermet				Uncoated				
		T9225				NS9530				UX30				
P	Steel	★				★				★				
M	Stainless	★								★				
K	Cast iron	☆				☆								
N	Non-ferrous													
S	Superalloys													
H	Hard materials													

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.002 (in)	CW±0.05 (mm)	RE (mm)	Coated T9225	Cermet NS9530	Uncoated UX30	BW (mm)
FLEX30R	R	0.118	3	0.4		●		2.2
FLEX30L	L	0.118	3	0.4		●		2.2
FLEX40R	R	0.157	4	0.4		●		3.1
FLEX40L	L	0.157	4	0.4		●		3.1
FLEX50R	R	0.197	5	0.4	●	●	●	4
FLEX50L	L	0.197	5	0.4	●	●	●	4

● : Line up

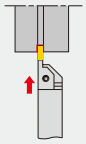
STANDARD CUTTING CONDITIONS

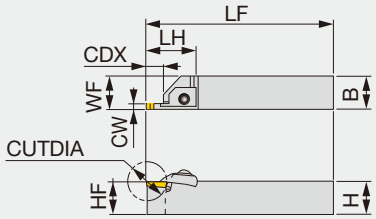
ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed: *f* (ipr) Grooving	Feed: *f* (ipr) Turning
P	Carbon steel	T9225	262 - 984	0.002 - 0.010	0.004 - 0.012
		NS9530	262 - 656	0.002 - 0.010	0.004 - 0.012
		UX30	197 - 492	0.002 - 0.010	0.004 - 0.012

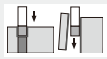
Reference pages: Toolholders → F129

CTWR/L

External grooving and parting toolholder, for 2 corner inserts







Right hand (R) shown.

Metric	CW	CUTDIA	CDX	H	B	LF	LH	HF	WF	Insert	Torque
CTWR/L2020-3	3	32	14	20	20	150	41	20	20.25	CTD3	5
CTWR/L2525-3	3	32	14	25	25	150	41	25	25.25	CTD3	5
CTWR/L2020-4	4	32	14	20	20	150	41	20	20.25	CTD4	5
CTWR/L2525-4	4	32	14	25	25	150	41	25	25.25	CTD4	5
CTWR/L2525-5	5	42	20	25	25	150	46	25	25.25	CTD5	5

Torque: Recommended clamping torque: N·m

SPARE PARTS



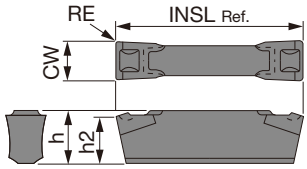




Designation	Clamp	Pin	Clamping screw	Washer	Wrench
CTWR2020-3	CTC-3R	BP-360	CTS-M6	CDW6	P-4
CTWL2020-3	CTC-3L	BP-360	CTS-M6	CDW6	P-4
CTWR2525-3	CTC-3R	BP-360	CTS-M6	CDW6	P-4
CTWL2525-3	CTC-3L	BP-360	CTS-M6	CDW6	P-4
CTWR2020-4	CTC-4R	BP-360	CTS-M6	CDW6	P-4
CTWL2020-4	CTC-4L	BP-360	CTS-M6	CDW6	P-4
CTWR2525-4	CTC-4R	BP-360	CTS-M6	CDW6	P-4
CTWL2525-4	CTC-4L	BP-360	CTS-M6	CDW6	P-4
CTWR2525-5	CTC-5R	BP-360	CTS-M6	CDW6	P-4
CTWL2525-5	CTC-5L	BP-360	CTS-M6	CDW6	P-4

INSERT

CTD



		Coated
		AH725
P	Steel	★
M	Stainless	★
K	Cast iron	☆
N	Non-ferrous	
S	Superalloys	
H	Hard materials	

★ : First choice
☆ : Second choice

Designation	CW±0.004 (in)	CW±0.1 (mm)	RE (mm)	INSL (mm)	h (mm)	h2 (mm)
CTD3	0.118	3	0.2	20	4.3	4
CTD4	0.157	4	0.2	20	5.3	5
CTD5	0.197	5	0.2	25	6.3	6

● : Line up

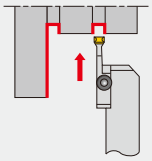
STANDARD CUTTING CONDITIONS

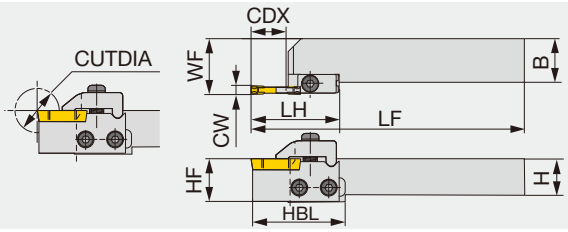
ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed: *f* (ipr) Grooving	Parting off
P	Carbon steel	AH725	262 - 591	0.003 - 0.012	0.003 - 0.006
M	Stainless steel	AH725	164 - 394	0.003 - 0.010	0.003 - 0.004

MY-T SERIES

CGWSR/L-CGD

External grooving and parting toolholder







Right hand (R) shown.

Metric	CW	CUTDIA	CDX	H	B	LF	LH	HBL	HF	WF	Insert	Shank	Adapter	Torque
CGWSR/L2020-CGDR/L2	2	35	16	20	20	152	45	48.5	20	26.45	CGD200	CGWSR/L2020	CGDR/L2	5
CGWSR/L2525-CGDR/L2	2	35	16	25	25	152	45	-	25	31.45	CGD200	CGWSR/L2525	CGDR/L2	5
CGWSR/L2020-CGDR/L3	3	46	21.6	20	20	157.6	50.6	54.1	20	26.45	CGD300	CGWSR/L2020	CGDR/L3	5
CGWSR/L2525-CGDR/L3	3	46	21.6	25	25	157.6	50.6	-	25	31.45	CGD300	CGWSR/L2525	CGDR/L3	5
CGWSR/L2020-CGDR/L4	4	46	21.6	20	20	157.6	50.6	54.1	20	26.65	CGD400	CGWSR/L2020	CGDR/L4	5
CGWSR/L2525-CGDR/L4	4	46	21.6	25	25	157.6	50.6	-	25	31.65	CGD400	CGWSR/L2525	CGDR/L4	5
CGWSR/L2020-CGDR/L5	5	46	21.6	20	20	157.6	50.6	54.1	20	26.95	CGD500	CGWSR/L2020	CGDR/L5	5
CGWSR/L2525-CGDR/L5	5	46	21.6	25	25	157.6	50.6	-	25	31.95	CGD500	CGWSR/L2525	CGDR/L5	5
CGWSR/L2020-CGDR/L6	6	46	21.6	20	20	157.6	50.6	54.1	20	27.1	CGD600	CGWSR/L2020	CGDR/L6	5
CGWSR/L2525-CGDR/L6	6	46	21.6	25	25	157.6	50.6	-	25	32.1	CGD600	CGWSR/L2525	CGDR/L6	5
CGWSR2525-8	7 / 8	50	21.6	25	25	150	-	-	25	26.35	CGD700, CGD800	-	-	8.5
CGWSR3232-8	7 / 8	50	21.6	32	32	170	-	-	32	33.35	CGD700, CGD800	-	-	8.5

When using a right or left hand adapter set, the right hand adapter set is used with right hand shank and the left hand adapter set is used with left hand shank.
Torque: Recommended clamping torque: N·m

SPARE PARTS



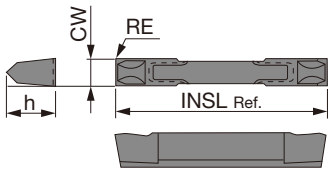





Designation	Adapter	Clamp	Clamping screw	Adapter screw	Spring pin	Spring	Wrench
CGWSR****-CGDR2	TCR2	CCR2	RT-1	CSHB-6	-	BP-9	P-4
CGWSL****-CGDL2	TCL2	CCL2	RT-1	CSHB-6	-	BP-9	P-4
CGWSR****-CGDR3	TCR3	CCR3	RT-1	CSHB-6	-	BP-9	P-4
CGWSL****-CGDL3	TCL3	CCL3	RT-1	CSHB-6	-	BP-9	P-4
CGWSR****-CGDR4	TCR4	CCR4	RT-1	CSHB-6	-	BP-9	P-4
CGWSL****-CGDL4	TCL4	CCL4	RT-1	CSHB-6	-	BP-9	P-4
CGWSR****-CGDR5	TCR5	CCR5	RT-1	CSHB-6	-	BP-9	P-4
CGWSL****-CGDL5	TCL5	CCL5	RT-1	CSHB-6	-	BP-9	P-4
CGWSR****-CGDR6	TCR6	CCR6	RT-1	CSHB-6	-	BP-9	P-4
CGWSR****-CGDL6	TCL6	CCL6	RT-1	CSHB-6	-	BP-9	P-4
CGWSR****-8	-	CCR/L-8	CHHM6-20	-	5X14AW	BP-9	P-5

INSERT

CGD



		GH330 (Coated)	NS9530 (Cermet)	UX30 (Uncoated)
P	Steel	☆	★	★
M	Stainless	★		★
K	Cast iron		☆	
N	Non-ferrous			
S	Superalloys			
H	Hard materials			

★ : First choice
☆ : Second choice

Designation	CW±0.001 (in)	CW±0.025 (mm)	RE (mm)	GH330 (Coated)	NS9530 (Cermet)	UX30 (Uncoated)	INSL (mm)	h (mm)
CGD200	0.079	2	0.2	●	●	●	20	3.25
CGD300	0.118	3	0.2	●	●	●	28.6	6.3
CGD400	0.157	4	0.2	●	●	●	28.6	6.3
CGD500	0.197	5	0.2	●	●	●	28.6	6.3
CGD600	0.236	6	0.2	●	●	●	28.6	8.5
CGD700	0.276	7	0.2	●		●	28.6	8.5
CGD800	0.315	8	0.2	●		●	28.6	8.5

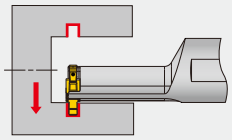
● : Line up

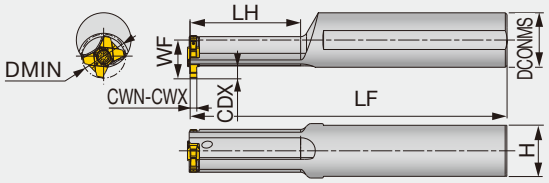
STANDARD CUTTING CONDITIONS

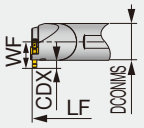
ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed: *f* (ipr) Grooving	Feed: *f* (ipr) Parting off
P	Carbon steel	GH330	230 - 591	0.003 - 0.012	0.003 - 0.006
		NS9530	262 - 656	0.003 - 0.012	0.003 - 0.006
		UX30	197 - 492	0.003 - 0.012	0.003 - 0.006

A/E-STCIR/L

Internal grooving toolholder







Right hand (R) shown.

Inch	Material	CWN	CWX	DMIN	DCONMS	LH	LF	WF	H	Insert	Torque
A08-STCIR/L10-D07U	Steel	0.020	0.118	0.438	0.500	0.984	4.000	0.339	0.475	TCIG10...	0.74
A08-STCIR/L10-D08U	Steel	0.020	0.118	0.500	0.500	1.220	4.000	0.339	0.475	TCIG10...	0.74
E08-STCIR/L10-D10U	Carbide	0.020	0.118	0.625	0.500	-	5.000	0.339	0.475	TCIG10...	0.74
A10-STCIR/L12-D09U	Steel	0.039	0.118	0.563	0.625	1.299	4.500	0.441	0.600	TCIG12...	0.96
A10-STCIR/L12-D11U	Steel	0.039	0.118	0.688	0.625	1.614	4.500	0.441	0.600	TCIG12...	0.96
E10-STCIR/L12-D13U	Carbide	0.039	0.118	0.813	0.625	-	6.000	0.441	0.600	TCIG12...	0.96

Metric	Material	CWN	CWX	DMIN	DCONMS	LH	LF	WF	H	Insert	Torque*
A12H-STCIR/L10-D105	Steel	0.5	3	10.5	12	25	100	8.3	11	TCIG10...	1
A12H-STCIR/L10-D120	Steel	0.5	3	12	12	31	100	8.3	11	TCIG10...	1
E12K-STCIR/L10-D150	Carbide	0.5	3	15	12	-	125	8.3	11	TCIG10...	1
A16J-STCIR/L12-D130	Steel	1	3	13	16	33	110	11.3	15	TCIG12...	1.3
A16J-STCIR/L12-D160	Steel	1	3	16	16	41	110	11.3	15	TCIG12...	1.3
E16M-STCIR/L12-D200	Carbide	1	3	20	16	-	150	11.3	15	TCIG12...	1.3

Torque: Recommended clamping torque: lbs·ft (*N·m)

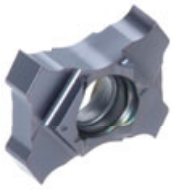
SPARE PARTS

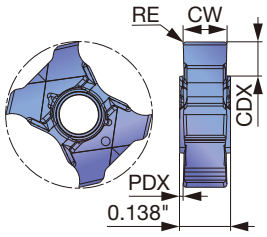


Designation	Clamping screw
A/E-STCIR10-...	CSTB-2.2L053DR
A/E-STCIL10-...	CSTB-2.2L053DL
A/E-STCIR12-...	CSTB-2.5L054DR
A/E-STCIL12-...	CSTB-2.5L054DL

INSERT

TCIG





P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

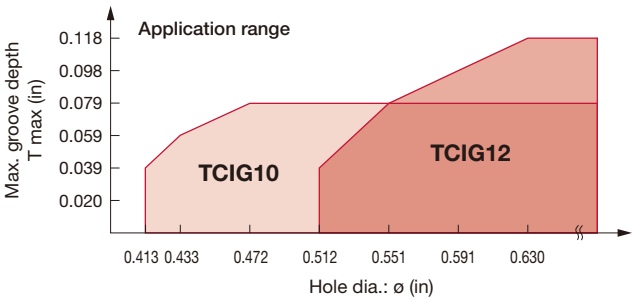
★ : First choice

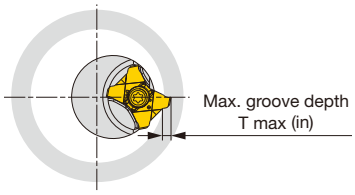
Designation	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH725	CDX (in)	PDX (in)
TCIG10-050-005	0.5	0.020	0.002	●	0.039	0.059
TCIG10-122-008	1.22	0.048	0.003	●	0.079	0.045
TCIG10-142-008	1.42	0.056	0.003	●	0.079	0.041
TCIG10-150-010	1.5	0.059	0.004	●	0.079	0.039
TCIG10-172-008	1.72	0.068	0.003	●	0.079	0.035
TCIG10-200-010	2	0.079	0.004	●	0.079	0.030
TCIG10-250-020	2.5	0.098	0.008	●	0.079	0.020
TCIG10-300-020	3	0.118	0.008	●	0.079	0.010
TCIG12-100-010	1	0.039	0.004	●	0.098	0.049
TCIG12-150-010	1.5	0.059	0.004	●	0.118	0.039
TCIG12-197-008	1.97	0.078	0.003	●	0.118	0.030
TCIG12-200-020	2	0.079	0.008	●	0.118	0.030
TCIG12-224-008	2.24	0.088	0.003	●	0.118	0.025
TCIG12-250-020	2.5	0.098	0.008	●	0.118	0.020
TCIG12-277-015	2.77	0.109	0.006	●	0.118	0.015
TCIG12-300-020	3	0.118	0.008	●	0.118	0.010

● : Line up

Shallower groove depths (T max) for smaller bores

Maximum groove depths (T max) for TCIG10 inserts are smaller than the CDX value shown above when the grooving bore diameter is < 0.472" (12 mm); and for TCIG12, when the bore diameter is < 0.630" (16 mm).
See the chart below for T max values in relation to the given bore diameter.



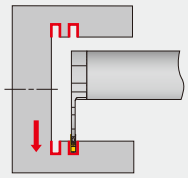


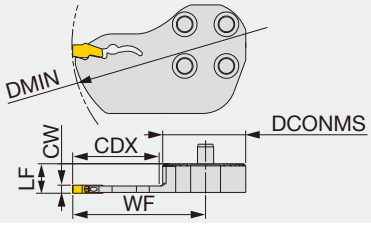
STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Steel 1045, 4140, etc.	< 300 HB	First choice	98 - 262	0.0004 - 0.002
M	Stainless steel 304, 316, etc.	< 200 HB	First choice	98 - 164	0.0004 - 0.002
S	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	First choice	33 - 164	0.0004 - 0.002

S-QSIR/L-H

Internal grooving head





Left hand (L) shown.

Inch	CW	CDX	DMIN	DCONMS*	Seat size	LF	WF	Shank
S25-QSIR/L2T26D550-H	0.079	1.024	2.165	0.984	2	0.335	1.579	D1.00
S25-QSIR/L3T26D550-H	0.118	1.024	2.165	0.984	3	0.354	1.579	D1.00
S32-QSIR/L3T32D700-H	0.118	1.260	2.756	1.260	3	0.433	1.953	D1.25
S32-QSIR/L4T32D700-H	0.157	1.260	2.756	1.260	4	0.453	1.953	D1.25

DCONMS*: Mounting part diameter on the shank

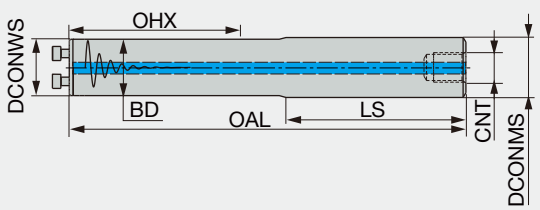
SPARE PARTS



Designation	Wrench
S**-QSIR/L...	QL-39

Straight Shank

Anti-vibration bars with through coolant for interchangeable turning heads, for S-QSIR/L modular heads



Inch	Material	DCONWS*	DCONMS	BD	OAL	LS	OHX	CNT
D1.00-L10.2-7D-C	Steel	0.984	1.000	0.984	10.200	6.830	6.200	G1/4
D1.00-L13.21-10D-C	Steel	0.984	1.000	0.984	13.210	8.650	9.200	G1/4
D1.25-L12.48-7D-C	Steel	1.260	1.250	1.260	12.480	7.370	7.500	G3/8
D1.25-L16.24-10D-C	Steel	1.260	1.250	1.260	16.240	9.670	11.200	G3/8

DCONWS*: Mounting part diameter on the head

SPARE PARTS





Designation	Clamping screw	Wrench
D1.00...	SR M4X12DIN912	HW 3.0
D1.25...	SR M5X12 DIN912	HW 4.0

Reference pages: Inserts → F138, F139, Standard cutting conditions → F139

C#-SH-CHP / C#-SH-E-CHP

Tool adapter with PSC connection (made of steel or carbide), for S-QSIR/L modular heads

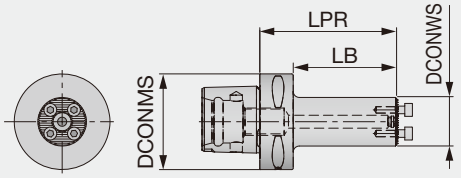


Fig. 1

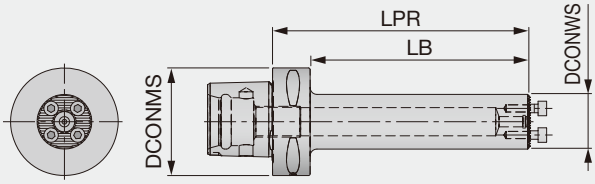


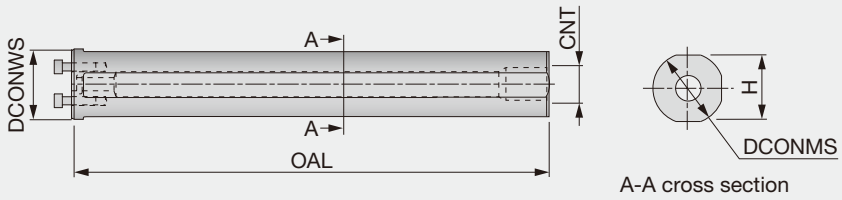
Fig. 2

Metric	Material	DCONWS*	DCONMS	LPR	LB	Fig
C4-SH-D25-2.5D-CHP	Steel	25 (0.984")	40	55	35	1
C4-SH-D32-2.5D-CHP	Steel	32 (1.260")	40	75	55	1
C6-SH-D25-5D-E-CHP	Carbide	25 (0.984")	63	115	93	2
C6-SH-D32-5D-E-CHP	Carbide	32 (1.260")	63	150	128	2

DCONWS*: Mounting part diameter on the head

D#4D-SH

Steel shank for internal turning, with through coolant, for S-QSIR/L modular heads

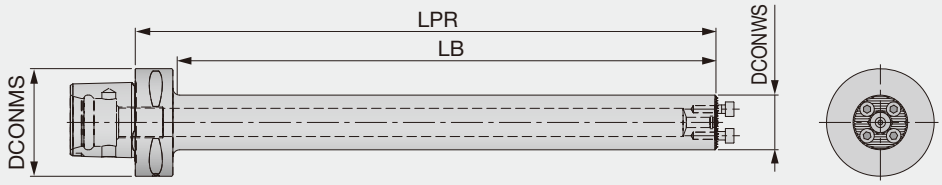


Inch	Material	DCONWS*	DCONMS	OAL	CNT	H
D1.00-L7.2-4D-SH	Steel	1.000	1.000	7.200	UNF-2B 1/2"-20	0.921
D1.25-L8.74-4D-SH	Steel	1.250	1.250	8.740	UNF-2B 1/2"-20	1.142

DCONWS*: Mounting part diameter on the head

C6-9D-C

Vibration-dampening toolholder with PSC connection, 9xD, for S-QSIR/L modular heads



Metric	Material	DCONWS*	DCONMS	LPR	LB	WT (kg)
C6-D25-L230-9D-C	Steel	25 (0.984")	63	230.5	200.1	1.65
C6-D32-L288-9D-C	Steel	32 (1.260")	63	288.5	259.5	2.73

DCONWS*: Mounting part diameter on the head

SPARE PARTS

Designation	Clamping screw	Wrench
C4/C6**D25... D1.00...	SR M4X12DIN912	HW 3.0
C4/C6**D32... D1.25...	SR M5X12 DIN912	HW 4.0

Reference pages: Inserts → F138, F139, Standard cutting conditions → F139

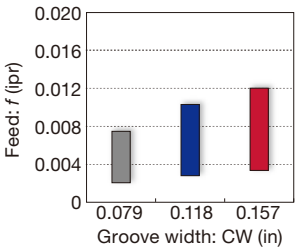
CHIPBREAKER GUIDE

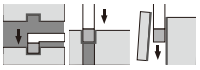
QGM



First choice for grooving and parting

Smooth chip evacuation
Well-designed edge with high strength
CW = 0.079" - 0.157"



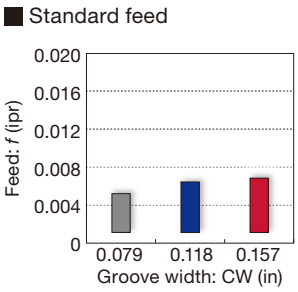


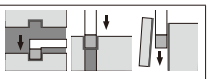
QGS



Lower cutting force and superior sharpness

Uniquely designed edge and chipbreaker
CW = 0.079" - 0.157"



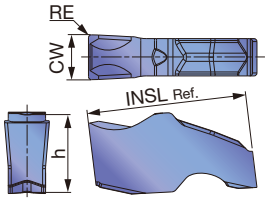


INSERTS

QGM

External/internal deep grooving and parting





P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	INSL (in)	h (in)
QGM2-020	2	2	0.079	0.008	●	0.433	0.209
QGM3-020	3	3	0.118	0.008	●	0.433	0.209
QGM4-030	4	4	0.157	0.012	●	0.512	0.287

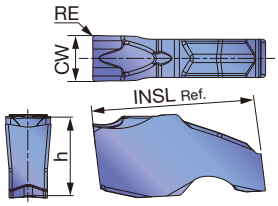
●: Line up

Reference pages: Toolholders → F136, F137

QGS

External/internal deep grooving and parting





P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	INSL (in)	h (in)
QGS2-020	2	2	0.079	0.008	●	0.433	0.209
QGS3-020	3	3	0.118	0.008	●	0.433	0.209
QGS4-030	4	4	0.157	0.012	●	0.512	0.287

●: Line up

STANDARD CUTTING CONDITIONS

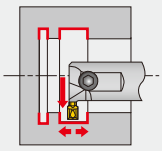
ISO	Workpiece material	Hardness	Grade	Cutting speed *Vc* (sfm)
P	Steel 1045, 4140, etc.	< 300 HB	AH7025	164 - 591
M	Stainless steel 304, etc.	< 200 HB	AH7025	164 - 394
K	Gray cast iron No.250B, etc.	-	AH7025	164 - 591
	Ductile cast iron 65-45-12, etc.	-	AH7025	164 - 394
S	Superalloys Inconel718, etc.	< HRC 40	AH7025	66 - 131
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	AH7025	66 - 197

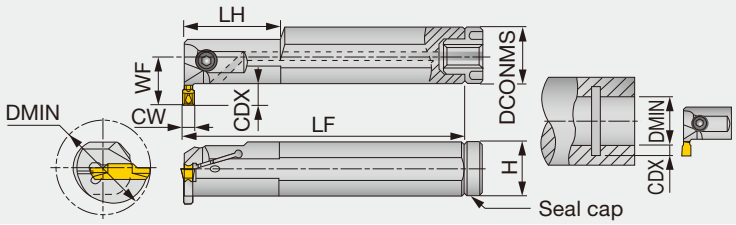
Please see page F138 for feed: *f* (ipr).

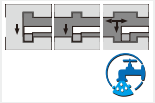
Reference pages: Toolholders → F136, F137

CTIR/L

Internal grooving and turning toolholder







Right hand (R) shown.

Inch	CW	DMIN	Seat size	CDX	DCONMS	H	LF (1)	LH	WF	Insert	Torque
CTIR/L12-3T06-D16	0.118	1.000	3	0.236	0.750	0.551	6.500	1.575	0.609	DTI..., DTX...	3.69
CTIR/L16-3T05-D16	0.118	1.000	3	0.201	1.000	0.709	8.000	1.575	0.689	DTI..., DTX...	3.69
CTIR/L16-3T08-D20	0.118	1.250	3	0.315	1.000	0.709	8.000	1.575	0.846	DTI..., DTX...	3.69
CTIR/L20-3T10-D25	0.118	1.563	3	0.394	1.250	0.906	10.000	2.362	1.063	DTI..., DTX...	3.69
CTIR/L12-4T06-D16	0.157	1.000	4	0.236	0.750	0.906	6.500	1.575	0.609	DTI..., DTX...	3.69
CTIR/L16-4T08-D20	0.157	1.250	4	0.315	1.000	1.181	8.000	1.575	0.846	DTI..., DTX...	3.69
CTIR/L20-4T04-D20	0.157	1.250	4	0.157	1.250	0.709	10.000	2.362	0.819	DTI..., DTX...	3.69
CTIR/L20-4T10-D25	0.157	1.563	4	0.394	1.250	0.906	10.000	2.362	1.063	DTI..., DTX...	3.69
CTIR/L16-5T05-D20	0.197	1.250	5	0.197	1.000	1.181	8.000	2.362	0.681	DTI..., DTX...	6.27
CTIR/L20-5T10-D25	0.197	1.563	5	0.394	1.250	1.181	10.000	2.362	1.063	DTI..., DTX...	6.27
CTIR/L20-6T04-D20	0.236	1.250	6	0.157	1.250	0.906	10.000	2.362	0.820	DTI..., DTX...	6.27
CTIR/L20-6T10-D25	0.236	1.563	6	0.394	1.250	1.181	10.000	2.362	1.063	DTI..., DTX...	6.27
CTIR/L20-8T05-D23	0.315	1.438	8	0.197	1.250	1.181	10.000	2.362	0.839	DTI..., DTX...	6.27
CTIR/L24-8T05-D26	0.315	1.625	8	0.228	1.500	1.181	12.000	2.559	0.982	DTI..., DTX...	6.27

(1) LF is calculated with the groove width CW in the above table.
Torque: Recommended clamping torque: lbs·ft

INCH SPARE PARTS





Designation	Clamping screw	Wrench	Seal cap	Thread type for connection
CTIR/L12-3T06-D16	CM5x0.8x12-A	P-4	CA-20	M6
CTIR/L16-3T05-D16	CM5x0.8x16-A	P-4	CA-25	R1/8"
CTIR/L16-3T08-D20	CM5x0.8x16-A	P-4	CA-25	R1/8"
CTIR/L20-3T10-D25	CM5x0.8x16-A	P-4	CA-32	R1/8"
CTIR/L12-4T06-D16	CM5x0.8x12-A	P-4	CA-20	M6
CTIR/L16-4T08-D20	CM5x0.8x16-A	P-4	CA-25	R1/8"
CTIR/L20-4T04-D20	CM5x0.8x16-A	P-4	CA-32	R1/8"
CTIR/L20-4T10-D25	CM5x0.8x16-A	P-4	CA-32	R1/8"
CTIR/L16-5T05-D20	CM6x1x16-A	P-5	CA-25	R1/8"
CTIR/L20-5T10-D25	CM6x1x20-A	P-5	CA-32	R1/8"
CTIR/L20-6T04-D20	CM6x1x20-A	P-5	CA-32	R1/8"
CTIR/L20-6T10-D25	CM6x1x20-A	P-5	CA-32	R1/8"
CTIR/L20-8T05-D23	CM6x1x20-A	P-5	CA-32	R1/8"
CTIR/L24-8T05-D26	CM6x1x25-A	P-5	CA-40	R1/8"

When using the inserts that are not in the above

Insert	Groove width CW (in)	Min. diameter DMIN (in)
DGM / DGS / SGN / DGL / DTM	0.079	1.969
DGM / DGS / SGN / DGL / DTM	0.118	1.969
DGM / DGS / SGN / DTM / DGL	0.157	1.969
DGM / DGS / DTM / DGL	0.197	2.362
DGM / DGS / DTM / DGL	0.236	2.362
DGM / DGS / DTM	0.315	2.756
DTE / DGG	0.118	1.575
DTE / DGG	0.157	1.575
DTE / DGG	0.197	1.969
DTE / DGG	0.236	1.969
DTE / DGG	0.315	2.441
DTR	0.079	1.772
DTR	0.118	1.496
DTR	0.157	1.496
DTR	0.197	1.693
DTR	0.236	1.811
DTR	0.315	2.205

External
Internal
Face
Parting
Others

Reference pages: Inserts → F142 - F159, Standard cutting conditions → F160

Metric	CW	DMIN	Seat size	CDX	DCONMS	H	LF (1)	LH	WF	Insert	Torque
CTIR/L16-2T08-D250	2	25	2	8	16	14	125	-	16.5	DGIM..., DGIS..., DTX...	5
CTIR/L20-2T06-D250	2	25	2	6	20	18	160	40	15.8	DGIM..., DGIS..., DTX...	5
CTIR/L20-3T06-D250	3	25	3	6	20	18	160	40	15.8	DTI..., DTX...	5
CTIR/L25-3T05-D250	3	25	3	5.1	25	23	200	40	17.5	DTI..., DTX...	5
CTIR/L25-3T08-D320	3	32	3	8	25	23	200	40	21.5	DTI..., DTX...	5
CTIR/L32-3T10-D400	3	40	3	10	32	30	250	60	27	DTI..., DTX...	5
CTIR/L20-4T06-D250	4	25	4	6	20	18	160	40	15.8	DTI..., DTX...	5
CTIR/L25-4T08-D320	4	32	4	8	25	23	200	40	21.5	DTI..., DTX...	5
CTIR/L32-4T04-D310	4	31	4	4	32	30	250	60	20.8	DTI..., DTX...	5
CTIR/L32-4T10-D400	4	40	4	10	32	30	250	60	27	DTI..., DTX...	5
CTIR/L25-5T05-D310	5	31	5	5	25	23	200	60	17.3	DTI..., DTX...	8.5
CTIR/L32-5T10-D400	5	40	5	10	32	30	250	60	27	DTI..., DTX...	8.5
CTIR/L32-6T04-D310	6	31	6	4	32	30	250	60	20.8	DTI..., DTX...	8.5
CTIR/L32-6T10-D400	6	40	6	10	32	30	250	60	27	DTI..., DTX...	8.5
CTIR/L32-8T05-D370	8	37	8	5	32	30	250	60	21.3	DTI..., DTX...	8.5
CTIR/L40-8T05-D420	8	42	8	5.8	40	38	300	65	25.8	DTI..., DTX...	8.5

(1) LF is calculated with the groove width CW in the above table.
Torque: Recommended clamping torque: N·m

METRIC SPARE PARTS



Designation	Clamping screw	Wrench	Seal cap	Thread type for connection
CTIR/L16-2T08-D250	CM5X0.8X10-A	P-4	CA-16	M6
CTIR/L20-2T06-D250	CM5X0.8X12-A	P-4	CA-20	M6
CTIR/L20-3T06-D250	CM5X0.8X12-A	P-4	CA-20	M6
CTIR/L25-3T05-D250	CM5X0.8X16-A	P-4	CA-25	R1/8"
CTIR/L25-3T08-D320	CM5X0.8X16-A	P-4	CA-25	R1/8"
CTIR/L32-3T10-D400	CM5X0.8X16-A	P-4	CA-32	R1/8"
CTIR/L20-4T06-D250	CM5X0.8X12-A	P-4	CA-20	M6
CTIR/L25-4T08-D320	CM5X0.8X16-A	P-4	CA-25	R1/8"
CTIR/L32-4T04-D310	CM5X0.8X16-A	P-4	CA-32	R1/8"
CTIR/L32-4T10-D400	CM5X0.8X16-A	P-4	CA-32	R1/8"
CTIR/L25-5T05-D310	CM6X1X16-A	P-5	CA-25	R1/8"
CTIR/L32-5T10-D400	CM6X1X20-A	P-5	CA-32	R1/8"
CTIR/L32-6T04-D310	CM6X1X20-A	P-5	CA-32	R1/8"
CTIR/L32-6T10-D400	CM6X1X20-A	P-5	CA-32	R1/8"
CTIR/L32-8T05-D370	CM6X1X20-A	P-5	CA-32	R1/8"
CTIR/L40-8T05-D420	CM6X1X25-A	P-5	CA-40	R1/8"

When using the inserts that are not in the above

Insert	Groove width CW (mm)	Min. diameter DMIN (mm)
DGM / DGS / SGN / DGL / DTM	2	50
DGM / DGS / SGN / DGL / DTM	3	50
DGM / DGS / SGN / DTM / DGL	4	50
DGM / DGS / DTM / DGL	5	60
DGM / DGS / DTM / DGL	6	60
DGM / DGS / DTM	8	70
DTE / DGG	3	40
DTE / DGG	4	40
DTE / DGG	5	50
DTE / DGG	6	50
DTE / DGG	8	62
DTR	2	45
DTR	3	38
DTR	4	38
DTR	5	43
DTR	6	46
DTR	8	56

Reference pages: Inserts → F142 - F159, Standard cutting conditions → F160

Internal grooving and turning

DTX type (2 corners)

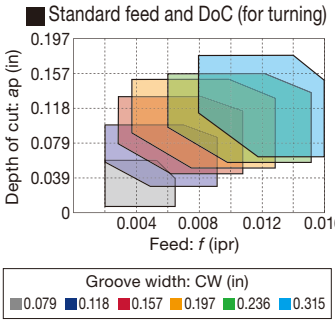
First choice

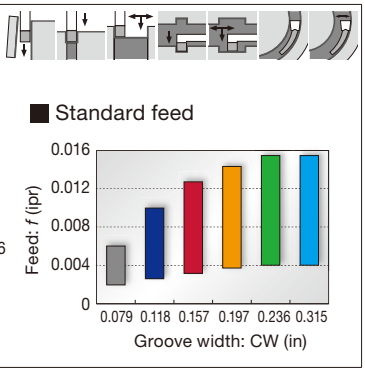


F147

Multi-functional type

Well balanced sharpness and strength
Multi-functional insert
CW = 0.079" - 0.315"





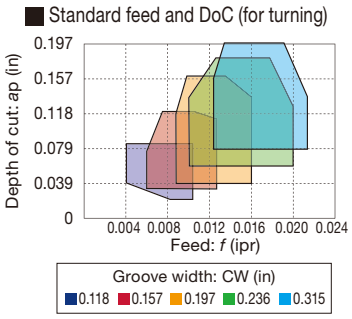
DTI type (2 corners)

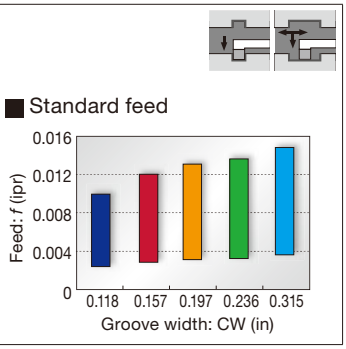


F148, F149

For general purpose I.D. grooving

Unique chipbreaker makes chips shorter
Molded and ground inserts available
CW = 0.118" - 0.315"





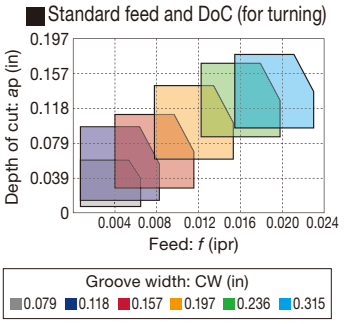
DTM type (2 corners)

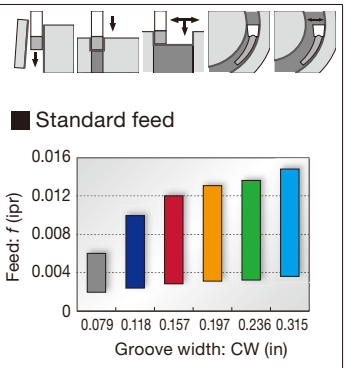


F149

General purpose

1st choice for grooving and turning
Suitable for light to medium cutting
Excellent chip control in machining steel, alloy steel, stainless steel, and heat-resistant alloy
CW = 0.079" - 0.315"





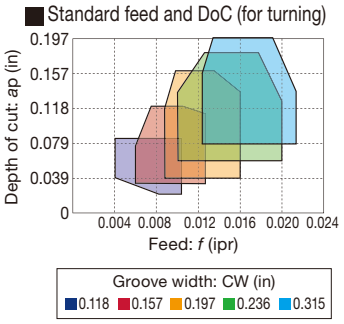
DTE type (2 corners)

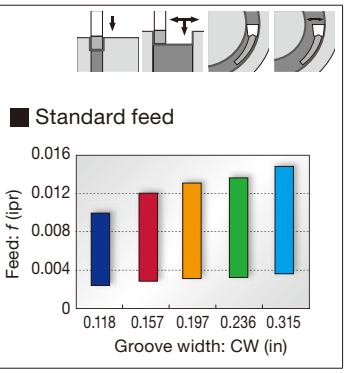


F154, F155

General purpose

Unique chipbreaker makes chips shorter
Molded and ground insert available
CW = 0.104" - 0.315"





Please see page F*** for the product details.

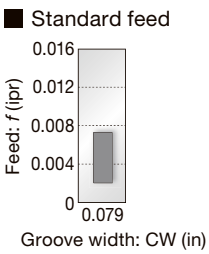
DGIM type (2 corners)



F147

2 mm insert width only (For general purpose)

Unique chipbreaker for excellent chip control
Excellent fracture resistance due to optimum land on the cutting edge
For general applications on steels & stainless steels
CW = 0.079"





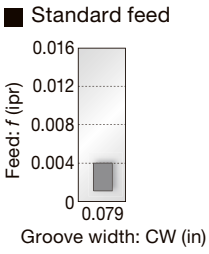
DGIS type (2 corners)



F148

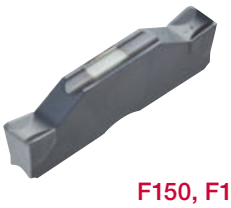
2 mm insert width only (Lower cutting force)

Lower cutting force
Excellent fracture resistance due to optimum land on the cutting edge
Applicable for low carbon steels & stainless steels
CW = 0.079"





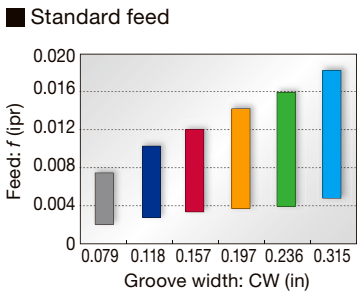
DGM type (2 corners) SGM type (1 corner)

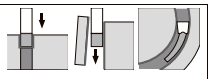


F150, F151

1st choice for grooving and parting

Smooth chip evacuation
Well-designed edge with high strength
Handed insert available
CW = 0.079" - 0.315"





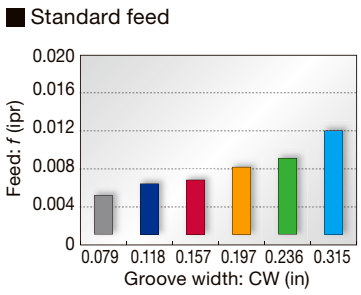
DGS type (2 corners) SGS type (1 corner)

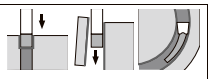


F152, F153

Lower cutting force and superior sharpness

Unique-designed edge and chipbreaker
Handed insert available
CW = 0.079" - 0.315"





Please see page F*** for the product details.

Internal grooving

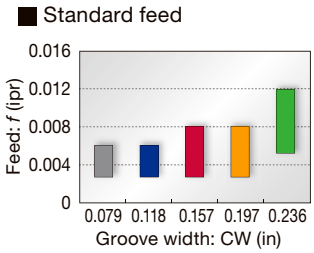
DGL type (2 corners)

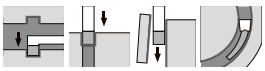


F154

1st choice for mild steel

Chipbreaker with excellent chip control at low feed
Suitable for mild steel which often presents challenges in chip control
CW = 0.079" - 0.236"





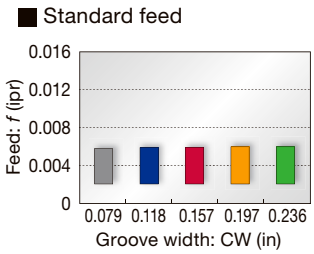
DGG type (2 corners)

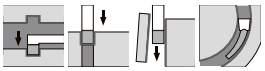


F155

For non-ferrous materials and titanium

Chipbreaker with low cutting force
Sharp cutting edge that prevents vibration and delivers fine surface finish
CW = 0.079" - 0.236"





Profiling and undercutting

DTR type (2 corners)
STR type (1 corner)

Molded
DTR, STR



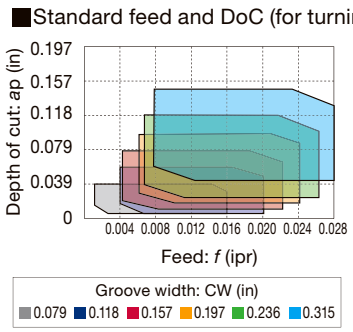
Ground
DTR

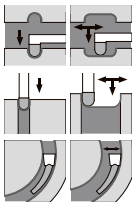


F156, F157

Full radius type

Excellent chip control
Molded and ground inserts available
CW = 0.079" - 0.315"





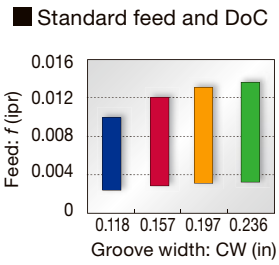
DTIU type (2 corners)

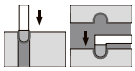


F157

Full radius type

Excellent chip control for undercutting
CW = 0.118" - 0.236"





Please see page F*** for the product details.

Aluminum wheel machining

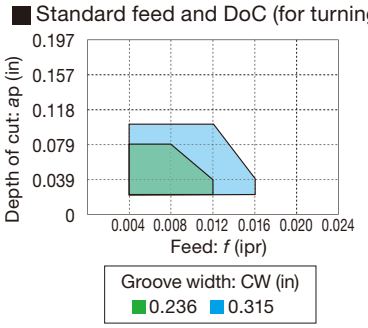
DTA type (2 corners)

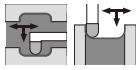


F158

Full radius type

Excellent chip control
For aluminum wheel profiling
Ground insert
CW = 0.236" - 0.315"





For high feed external/internal/face turning of hardened steel parts

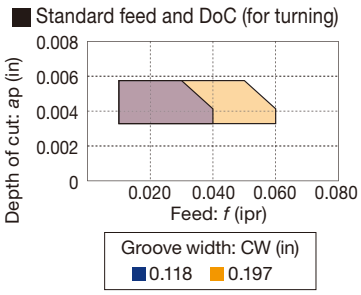
STH type (1 corner)



F158

External and face turning of hardened steel parts

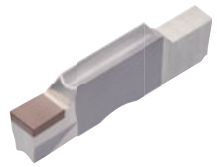
High efficiency machining using light D.O.C. and increased feeds
CW = 0.118", 0.197"





External/internal grooving of hardened steel

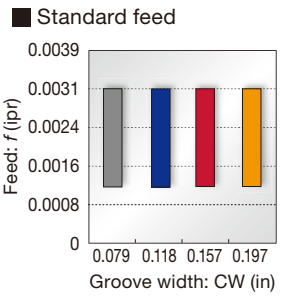
SGN-CBN type (1 corner)

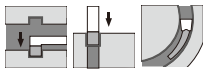


F159

For hardened steel cutting

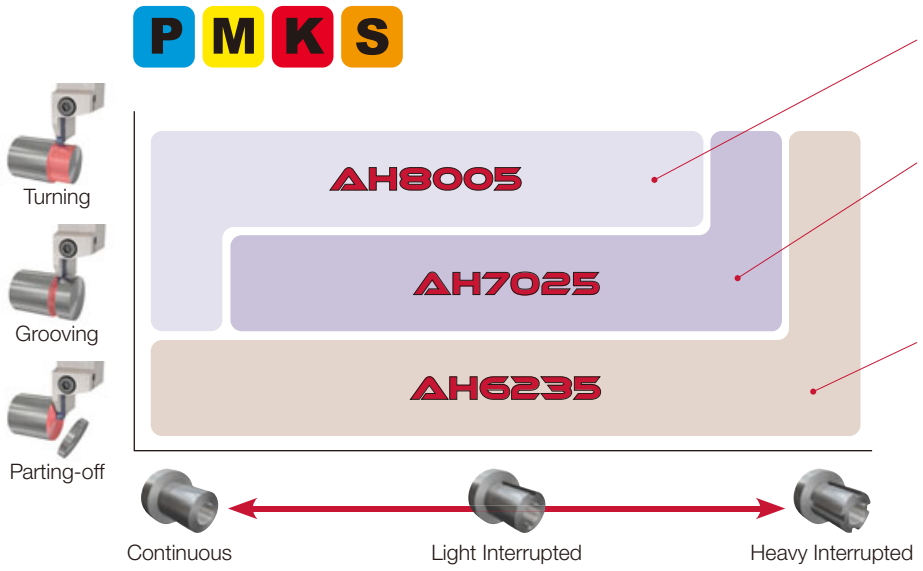
Optimum cutting edge shape for grooving of hardened steels
High tolerance width for finishing
CW = 0.079" - 0.197"
(Tol. ±0.001")





Please see page F*** for the product details.

GRADE SELECTION



AH8005
- Continuous cutting, First choice
- External and Internal, Turning

AH7025
- Light interrupted cutting, First choice
- A mix of continuous and interrupted cuts

AH6235
- Heavy interrupted cutting, First choice
- Facing, Parting

GRADES

AH8005 P M K S
- First choice for external, internal, and side-turning, continuous cuts

AH7025 P M K S
- First choice for light interrupted cuts or a mix of continuous and interrupted cuts
- New PVD coating with high Al content provides excellent adhesion strength
- Improved wear and chipping resistance

AH6235 P M K
- First choice for heavy interrupted cuts, as well as parting and facing applications

AH725 P M S
- General purpose PVD grade for high fracture resistance

T515 K
- First recommended grade for cast iron
- Excellent wear resistance in high speed machining

T9225 P
- Suitable for steel machining at high speeds
- New CVD coating and substrate deliver an outstanding balance of wear and chipping resistance

NS9530 P
- Advanced cermet for finish cutting of steel
- Innovative grade with incredible fracture and high wear resistance

GH130 P M K
- Recommended for interrupted machining
- TiCNO PVD coating layer with high wear resistance
- High hardness wear resistance

AH905 S
- Remarkable for machining of heat resistant alloys
- Exclusive coating layer improves adhesion strength and wear resistance

KS05F N S
- Recommended for non-ferrous materials and titanium

TH10 N
- Recommended for non-ferrous materials

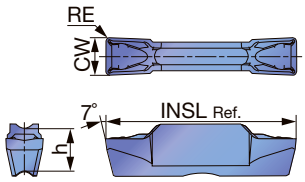
BXA10 H
- Coated CBN grade designed for turning hardened steel parts

BX360 H
- Developed for grooving applications of hardened steel parts

INSERTS

DTX

External/internal/face grooving and turning



P	Steel	★	★	☆	★	☆	★		★						
M	Stainless		★	☆	★	★	★								
K	Cast iron		★		★	☆	★		☆			☆			
N	Non-ferrous											☆			
S	Superalloys		★	☆	★							★			
H	Hard materials														

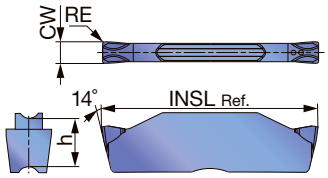
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated							Cermet				Uncoated				INSL (in)	h (in)
					T9225	AH7025	AH725	AH8005	GH130	AH6235		NS9530				KS05F					
DTX2-020	2	2	0.079	0.008		●		●		●						●				0.787	0.197
DTX3-030	3	3	0.118	0.012	●	●	●	●	●	●		●				●				0.787	0.197
DTX4-040	4	4	0.157	0.016	●	●	●	●	●	●		●				●				0.787	0.197
DTX5-040	5	5	0.197	0.016	●	●	●	●	●	●		●				●				0.984	0.217
DTX6-080	6	6	0.236	0.031		●	●	●	●	●						●				0.984	0.217
DTX8-080	8	8	0.315	0.031		●		●		●						●				1.181	0.264

● : Line up

DGIM

Internal grooving



P	Steel	★	★	☆	☆				★						
M	Stainless		★	☆	★										
K	Cast iron		★		☆				☆						
N	Non-ferrous														
S	Superalloys		★	☆											
H	Hard materials														

★ : First choice
☆ : Second choice

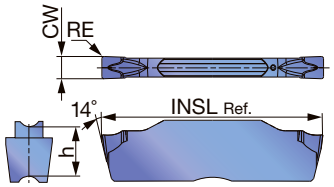
Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated							Cermet								INSL (in)	h (in)
					T9225	AH7025	AH725	GH130				NS9530									
DGIM2-020	2	2	0.079	0.008	●	●	●	●				●								0.787	0.197

●: Line up

Reference pages: Toolholders → F140, F141, Standard cutting conditions → F160

DGIS

Internal grooving



P	Steel	★	★	☆	☆				★					
M	Stainless		★	☆	★									
K	Cast iron		★		☆				☆					
N	Non-ferrous													
S	Superalloys		★	☆										
H	Hard materials													

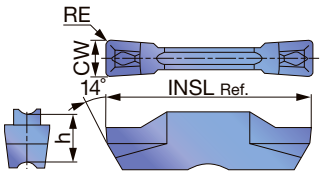
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated							Cermet					INSL (in)	h (in)
					T9225	AH7025	AH725	GH130				NS9530						
DGIS2-020	2	2	0.079	0.008	●	●	●	●				●					0.787	0.197

●: Line up

DTI

Internal grooving and turning (for high precision)



P	Steel	★	★	☆	☆				★					
M	Stainless		★	☆	★									
K	Cast iron		★		☆				☆					
N	Non-ferrous													
S	Superalloys		★	☆										
H	Hard materials													

★ : First choice
☆ : Second choice

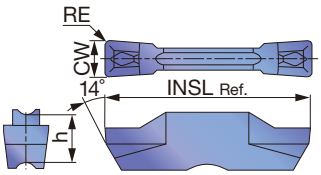
Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Coated							Cermet					INSL (in)	h (in)
					T9225	AH7025	AH725	GH130				NS9530						
DTI300-040	3	3	0.118	0.016	●	●	●	●				●					0.787	0.197
DTI400-040	4	4	0.157	0.016	●	●	●	●				●					0.787	0.197
DTI400-080	4	4	0.157	0.031	●	●	●	●				●					0.787	0.197
DTI500-040	5	5	0.197	0.016	●	●	●	●				●					0.984	0.217
DTI500-080	5	5	0.197	0.031	●	●	●	●				●					0.984	0.217
DTI600-080	6	6	0.236	0.031	●	●	●	●									0.984	0.217
DTI600-120	6	6	0.236	0.047	●	●	●	●									0.984	0.217
DTI800-080	8	8	0.315	0.031	●	●	●	●									1.181	0.264
DTI800-120	8	8	0.315	0.047	●	●	●	●									1.181	0.264

●: Line up

Reference pages: Toolholders → F140, F141, Standard cutting conditions → F160

DTI

Internal grooving and turning



P	Steel	★	★	☆	☆				★			
M	Stainless		★	☆	★							
K	Cast iron		★		☆				☆			
N	Non-ferrous											
S	Superalloys		★	☆								
H	Hard materials											

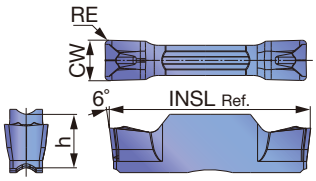
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated							Cermet				INSL (in)	h (in)
					T9225	AH7025	AH725	GH130				NS9530					
DTI3-040	3	3	0.118	0.016	●	●	●	●				●				0.787	0.197
DTI4-040	4	4	0.157	0.016	●	●	●	●				●				0.787	0.197

●: Line up

DTM

External/internal/face grooving and turning



P	Steel	★	★	★								
M	Stainless	★	★	★								
K	Cast iron	★	★	★								
N	Non-ferrous											
S	Superalloys	★	★									
H	Hard materials											

★ : First choice
☆ : Second choice

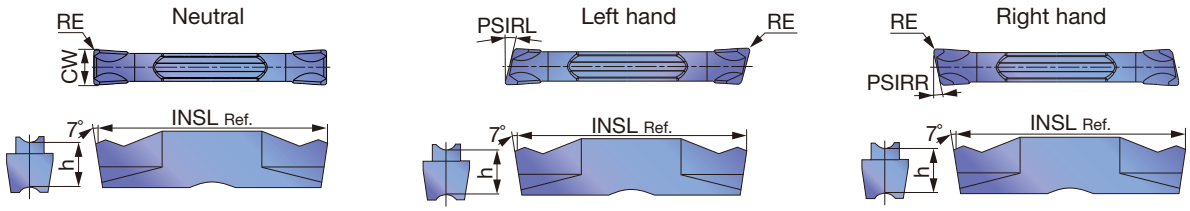
Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated											INSL (in)	h (in)
					AH7025	AH8005	AH6235										
DTM2-020	2	2	0.079	0.008	●	●	●									0.787	0.197
DTM3-030	3	3	0.118	0.012	●	●	●									0.787	0.197
DTM4-040	4	4	0.157	0.016	●	●	●									0.787	0.197
DTM4-080	4	4	0.157	0.031	●	●	●									0.787	0.197
DTM5-080	5	5	0.197	0.031	●	●	●									0.984	0.217
DTM6-080	6	6	0.236	0.031	●	●	●									0.984	0.217
DTM8-080	8	8	0.315	0.031	●	●	●									1.181	0.264

● : Line up

Reference pages: Toolholders → F140, F141, Standard cutting conditions → F160

DGM

External/internal grooving and parting



P	Steel	★	★	☆	★		☆	★		★				
M	Stainless		★	☆	★		★	★						
K	Cast iron		★		★	☆	☆	★		☆			☆	
N	Non-ferrous												☆	
S	Superalloys		★	☆	★	★							★	
H	Hard materials													

★ : First choice
☆ : Second choice

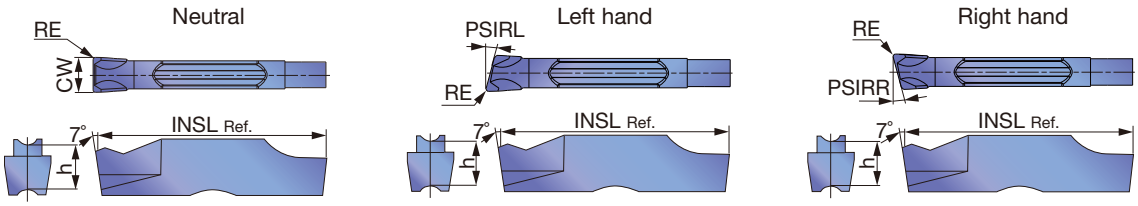
Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated T9225	Coated AH7025	Coated AH725	Coated AH8005	Coated AH905	Coated GH130	Coated AH6235	Cermet NS9530	Uncoated KS05F	INSL (in)	h (in)	PSIRL	PSIRR
DGM2-020	2	N	2	0.079	0.008	●	●	●	●		●	●	●	●	0.787	0.197	0°	0°
DGM2-020-6R	2	R	2	0.079	0.008		●	●			●				0.787	0.197	0°	6°
DGM2-020-6L	2	L	2	0.079	0.008		●	●			●				0.787	0.197	6°	0°
DGM2-020-8R	2	R	2	0.079	0.008		●	●			●				0.787	0.197	0°	8°
DGM2-020-8L	2	L	2	0.079	0.008		●	●			●				0.787	0.197	8°	0°
DGM2-020-15R	2	R	2	0.079	0.008		●	●			●				0.787	0.197	0°	15°
DGM2-020-15L	2	L	2	0.079	0.008		●	●			●				0.787	0.197	15°	0°
DGM2-002-15R	2	R	2	0.079	0.0008			●			●				0.762	0.197	0°	15°
DGM2-002-15L	2	L	2	0.079	0.0008			●			●				0.762	0.197	15°	0°
DGM2.39-020	2	N	2.39	0.094	0.008		●		●			●			0.787	0.197	0°	0°
DGM3-020	3	N	3	0.118	0.008	●	●	●	●	●	●	●	●	●	0.787	0.197	0°	0°
DGM3-020-6R	3	R	3	0.118	0.008		●	●			●				0.787	0.197	0°	6°
DGM3-020-6L	3	L	3	0.118	0.008		●	●			●				0.787	0.197	6°	0°
DGM3-002-6R	3	R	3	0.118	0.008			●			●				0.766	0.197	0°	6°
DGM3-002-6L	3	L	3	0.118	0.008			●			●				0.766	0.197	6°	0°
DGM3-020-15R	3	R	3	0.118	0.008		●	●			●				0.787	0.197	0°	15°
DGM3-020-15L	3	L	3	0.118	0.008		●	●			●				0.787	0.197	15°	0°
DGM3.18-020	3	N	3.18	0.125	0.008		●		●			●			0.787	0.197	0°	0°
DGM4-030	4	N	4	0.157	0.012	●	●	●	●	●	●	●	●	●	0.787	0.197	0°	0°
DGM4-030-4R	4	R	4	0.157	0.012		●	●			●				0.787	0.197	0°	4°
DGM4-030-4L	4	L	4	0.157	0.012		●	●			●				0.787	0.197	4°	0°
DGM4-030-15R	4	R	4	0.157	0.012		●	●			●				0.787	0.197	0°	15°
DGM4-030-15L	4	L	4	0.157	0.012		●	●			●				0.787	0.197	15°	0°
DGM4.76-040	5	N	4.76	0.187	0.016		●		●			●			0.984	0.217	0°	0°
DGM5-030	5	N	5	0.197	0.012	●	●	●	●	●	●	●	●	●	0.984	0.217	0°	0°
DGM5-030-4R	5	R	5	0.197	0.012		●	●			●				0.984	0.217	0°	4°
DGM6-030	6	N	6	0.236	0.012	●	●	●	●	●	●	●		●	0.984	0.217	0°	0°
DGM6.35-040	6	N	6.35	0.250	0.016		●		●			●			0.984	0.217	0°	0°
DGM8-040	8	N	8	0.315	0.016	●	●	●	●		●	●		●	1.181	0.264	0°	0°

● : Line up

Reference pages: Toolholders → F140, F141, Standard cutting conditions → F160

SGM

External/internal deep grooving and parting



		AH7025	AH725	AH8005	GH130	AH6235	KS05F
P	Steel	★	☆	★	☆	★	
M	Stainless	★	☆	★	★	★	
K	Cast iron	★		★	☆	★	☆
N	Non-ferrous						☆
S	Superalloys	★	☆	★			★
H	Hard materials						

★ : First choice
☆ : Second choice

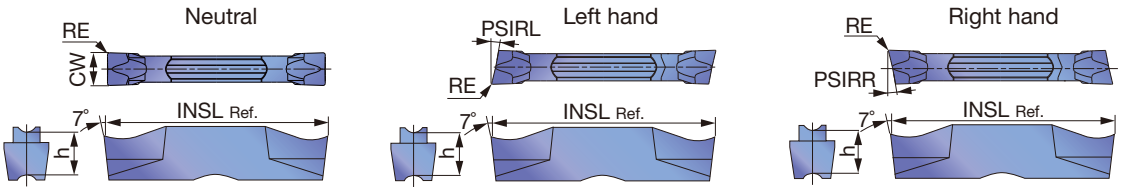
Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	Coated AH725	Coated AH8005	Coated GH130	Coated AH6235	Uncoated KS05F	INSL (in)	h (in)	PSIRL	PSIRR
SGM2-020	2	N	2	0.079	0.008	●	●	●	●	●	●	0.787	0.197	0°	0°
SGM2-020-6R	2	R	2	0.079	0.008	●	●		●			0.787	0.197	0°	6°
SGM2-020-6L	2	L	2	0.079	0.008	●	●		●			0.787	0.197	6°	0°
SGM3-020	3	N	3	0.118	0.008	●	●	●	●	●	●	0.787	0.197	0°	0°
SGM3-020-6R	3	R	3	0.118	0.008	●	●		●			0.787	0.197	0°	6°
SGM3-020-6L	3	L	3	0.118	0.008	●	●		●			0.787	0.197	6°	0°
SGM3-020-15R	3	R	3	0.118	0.008	●	●		●			0.787	0.197	0°	15°
SGM3-020-15L	3	L	3	0.118	0.008	●	●		●			0.787	0.197	15°	0°
SGM4-030	4	N	4	0.157	0.012	●	●	●	●	●	●	0.787	0.197	0°	0°
SGM4-030-4R	4	R	4	0.157	0.012	●	●		●			0.787	0.197	0°	4°
SGM4-030-4L	4	L	4	0.157	0.012	●	●		●			0.787	0.197	4°	0°
SGM5-030	5	N	5	0.197	0.012	●	●	●	●	●	●	0.984	0.217	0°	0°
SGM6-030	6	N	6	0.236	0.012	●	●	●	●	●	●	0.984	0.217	0°	0°
SGM8-040	8	N	8	0.315	0.016	●		●		●	●	1.181	0.264	0°	0°

● : Line up

Reference pages: Toolholders → F140, F141, Standard cutting conditions → F160

DGS

External/internal grooving and parting



		T9225	AH7025	AH725	AH8005	GH130	AH6235	NS9530	KS05F
P	Steel	★	★	☆	★	☆	★	★	
M	Stainless		★	☆	★	★	★		
K	Cast iron		★		★	☆	★	☆	☆
N	Non-ferrous								☆
S	Superalloys		★	☆	★				★
H	Hard materials								

★ : First choice
☆ : Second choice

Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated						Cermet			Uncoated			INSL (in)	h (in)	PSIRL	PSIRR
						T9225	AH7025	AH725	AH8005	GH130	AH6235	NS9530			KS05F						
DGS2-005	2	N	2	0.079	0.002			●										0.787	0.197	0°	0°
DGS2-010	2	N	2	0.079	0.004			●										0.787	0.197	0°	0°
DGS2-020	2	N	2	0.079	0.008	●	●	●	●	●	●	●			●			0.787	0.197	0°	0°
DGS2-020-6R	2	R	2	0.079	0.008		●	●		●								0.787	0.197	0°	6°
DGS2-020-6L	2	L	2	0.079	0.008		●	●		●								0.787	0.197	6°	0°
DGS2-002-6R	2	R	2	0.079	0.0008			●		●								0.768	0.197	0°	6°
DGS2-002-6L	2	L	2	0.079	0.0008			●		●								0.768	0.197	6°	0°
DGS2-020-15R	2	R	2	0.079	0.008		●	●		●								0.787	0.197	0°	15°
DGS2-020-15L	2	L	2	0.079	0.008		●	●		●								0.787	0.197	15°	0°
DGS2-002-15R	2	R	2	0.079	0.0008			●		●								0.768	0.197	0°	15°
DGS2-002-15L	2	L	2	0.079	0.0008			●		●								0.768	0.197	15°	0°
DGS2.39-020	2	N	2.39	0.094	0.008		●		●		●							0.787	0.197	0°	0°
DGS3-020	3	N	3	0.118	0.008	●	●	●	●	●	●	●			●			0.787	0.197	0°	0°
DGS3-020-6R	3	R	3	0.118	0.008		●	●		●								0.787	0.197	0°	6°
DGS3-020-6L	3	L	3	0.118	0.008		●	●		●								0.787	0.197	6°	0°
DGS3-002-6R	3	R	3	0.118	0.0008			●		●								0.766	0.197	0°	6°
DGS3-002-6L	3	L	3	0.118	0.0008			●		●								0.766	0.197	6°	0°
DGS3-020-15R	3	R	3	0.118	0.008		●	●		●								0.787	0.197	0°	15°
DGS3-020-15L	3	L	3	0.118	0.008		●	●		●								0.787	0.197	15°	0°
DGS3-002-15R	3	R	3	0.118	0.0008			●		●								0.766	0.197	0°	15°
DGS3-002-15L	3	L	3	0.118	0.0008			●		●								0.766	0.197	15°	0°
DGS3.18-020	3	N	3.18	0.125	0.008		●		●		●							0.787	0.197	0°	0°
DGS4-030	4	N	4	0.157	0.012	●	●	●	●	●	●	●			●			0.787	0.197	0°	0°
DGS4-030-4R	4	R	4	0.157	0.012		●	●		●								0.787	0.197	0°	4°
DGS4-030-4L	4	L	4	0.157	0.012		●	●		●								0.787	0.197	4°	0°
DGS4.76-040	5	N	4.76	0.187	0.016		●		●		●							0.984	0.217	0°	0°
DGS5-030	5	N	5	0.197	0.012	●	●	●	●	●	●	●			●			0.984	0.217	0°	0°
DGS6-030	6	N	6	0.236	0.012	●	●	●	●	●	●				●			0.984	0.217	0°	0°
DGS6.35-040	6	N	6.35	0.250	0.016		●		●		●							0.984	0.217	0°	0°
DGS8-040	8	N	8	0.315	0.016		●		●		●				●			1.181	0.264	0°	0°

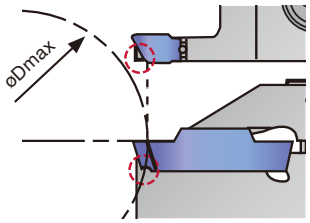
● : Line up

Caution

The tool will interfere with the workpiece when grooving larger diameters than øDmax.

Designation	øDmax (in)
DGM2-002-15R/L	1.102
DGM3-002-15R/L	1.141
DGM4-030-15R/L	1.181
SGM3-020-15R/L	4.055

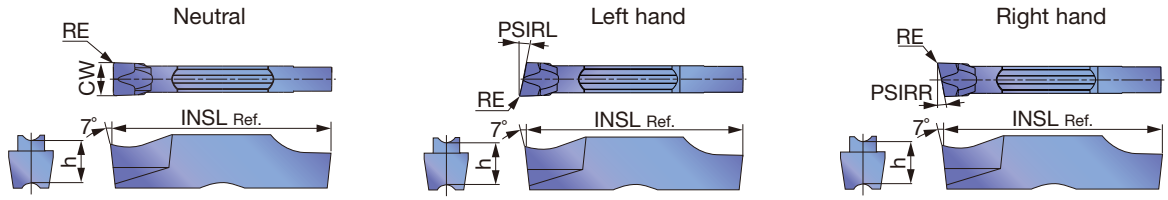
Designation	øDmax (in)
DGS2-002-15R/L	1.102
DGS3-002-15R/L	1.141
SGS3-020-15R/L	4.055
SGS3-002-15R/L	1.338



Reference pages: Toolholders → F140, F141, Standard cutting conditions → F160

SGS

External/internal deep grooving and parting



P	Steel	★	☆	★	☆	★						
M	Stainless	★	☆	★	★	★						
K	Cast iron	★		★	☆	★	☆					
N	Non-ferrous						☆					
S	Superalloys	★	☆	★			★					
H	Hard materials											

★ : First choice
☆ : Second choice

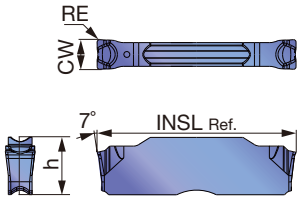
Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated					Uncoated				INSL (in)	h (in)	PSIRL	PSIRR
						AH7025	AH725	AH8005	GH130	AH6235	KS05F							
SGS2-020	2	N	2	0.079	0.008	●	●	●	●	●	●				0.787	0.197	0°	0°
SGS2-020-6R	2	R	2	0.079	0.008	●	●		●						0.787	0.197	0°	6°
SGS2-020-6L	2	L	2	0.079	0.008	●	●		●						0.787	0.197	6°	0°
SGS2-020-15R	2	R	2	0.079	0.008	●	●		●						0.787	0.197	0°	15°
SGS2-020-15L	2	L	2	0.079	0.008	●	●		●						0.787	0.197	15°	0°
SGS3-020	3	N	3	0.118	0.008	●	●	●	●	●	●				0.787	0.197	0°	0°
SGS3-020-6R	3	R	3	0.118	0.008	●	●		●						0.787	0.197	0°	6°
SGS3-020-6L	3	L	3	0.118	0.008	●	●		●						0.787	0.197	6°	0°
SGS3-002-6R	3	R	3	0.118	0.0008		●		●						0.780	0.197	0°	6°
SGS3-002-6L	3	L	3	0.118	0.0008		●		●						0.780	0.197	6°	0°
SGS3-020-15R	3	R	3	0.118	0.008	●	●		●						0.787	0.197	0°	15°
SGS3-020-15L	3	L	3	0.118	0.008	●	●		●						0.787	0.197	15°	0°
SGS3-002-15R	3	R	3	0.118	0.0008		●		●						0.780	0.197	0°	15°
SGS3-002-15L	3	L	3	0.118	0.0008		●		●						0.780	0.197	15°	0°
SGS4-030	4	N	4	0.157	0.012	●	●	●	●	●	●				0.787	0.197	0°	0°
SGS5-030	5	N	5	0.197	0.012	●	●	●	●	●	●				0.984	0.217	0°	0°
SGS6-030	6	N	6	0.236	0.012	●	●	●	●	●	●				0.984	0.217	0°	0°
SGS8-040	8	N	8	0.315	0.016	●		●		●					1.181	0.264	0°	0°

● : Line up

Reference pages: Toolholders → F140, F141, Standard cutting conditions → F160

DGL

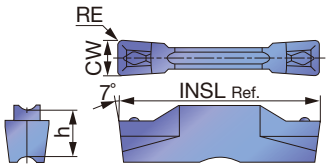
External/internal grooving and parting



| | | |

DTE

External/internal/face grooving and turning



P	Steel	★		★	☆	★	☆	★		★		
M	Stainless			★	☆	★	★	★				
K	Cast iron		★	★		★	☆	★				
N	Non-ferrous											
S	Superalloys			★	☆	★						
H	Hard materials											

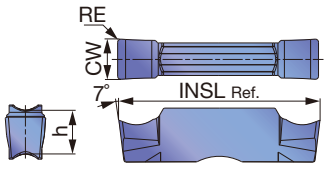
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated							Cermet					INSL (in)	h (in)
					T9225	T515	AH7025	AH725	AH8005	GH130	AH6235	NS9530						
DTE3-020	3	3	0.118	0.008			●		●		●						0.787	0.197
DTE3-040	3	3	0.118	0.016	●	●	●	●	●	●	●	●					0.787	0.197
DTE4-040	4	4	0.157	0.016	●	●	●	●	●	●	●	●					0.787	0.197
DTE4-080	4	4	0.157	0.031			●		●		●						0.787	0.197
DTE5-040	5	5	0.197	0.016		●	●		●		●						0.984	0.217
DTE5-080	5	5	0.197	0.031			●		●		●						0.984	0.217
DTE6-080	6	6	0.236	0.031		●	●		●		●						0.984	0.217

● : Line up

DGG

External/internal grooving (for high precision)



P	Steel	★			★							
M	Stainless	★										
K	Cast iron	★			☆			☆				
N	Non-ferrous							★				
S	Superalloys	★						☆				
H	Hard materials											

★ : First choice
☆ : Second choice

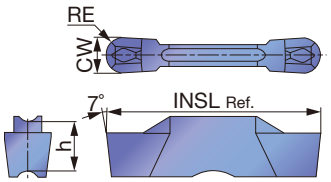
Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Coated			Cermet			Uncoated					INSL (in)	h (in)
					AH7025			NS9530			KS05F						
DGG200-020	2	2	0.079	0.008	●			●			●					0.787	0.197
DGG300-020	3	3	0.118	0.008	●			●			●					0.787	0.197
DGG400-040	4	4	0.157	0.016	●			●			●					0.787	0.197
DGG500-040	5	5	0.197	0.016	●			●			●					0.984	0.217
DGG600-040	6	6	0.236	0.016	●			●			●					0.984	0.217

●: Line up

Reference pages: Toolholders → F140, F141, Standard cutting conditions → F160

DTR

Profiling and undercutting (for high precision)



		T9225	AH7025	AH725	GH130	NS9530
P	Steel	★	★	☆	☆	★
M	Stainless		★	☆	★	
K	Cast iron		★		☆	☆
N	Non-ferrous					
S	Superalloys		★	☆		
H	Hard materials					

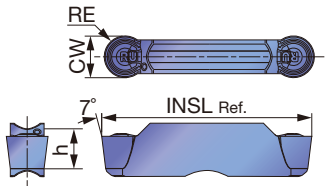
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Coated				Cermet	INSL (in)	h (in)
					T9225	AH7025	AH725	GH130	NS9530		
DTR300-150	3	3	0.118	0.059	●	●	●	●	●	0.787	0.197
DTR400-200	4	4	0.157	0.079	●	●	●	●	●	0.787	0.197
DTR478-239	5	4.78	0.188	0.094	●	●	●	●	●	0.984	0.217
DTR500-250	5	5	0.197	0.098	●	●	●	●	●	0.984	0.217
DTR600-300	6	6	0.236	0.118	●	●	●	●		0.984	0.217

●: Line up

DTR

Profiling and undercutting



		T9225	AH7025	AH725	AH8005	AH905	GH130	AH6235	NS9530	KS05F
P	Steel	★	★	☆	★		☆	★	★	
M	Stainless		★	☆	★		★	★		
K	Cast iron		★		★	☆	☆	★	☆	☆
N	Non-ferrous									☆
S	Superalloys		★	☆	★	★				★
H	Hard materials									

★ : First choice
☆ : Second choice

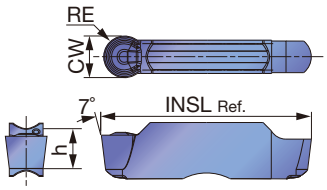
Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated							Cermet	Uncoated	INSL (in)	h (in)
					T9225	AH7025	AH725	AH8005	AH905	GH130	AH6235	NS9530	KS05F		
DTR2-100	2	2	0.079	0.039		●		●			●		●	0.787	0.197
DTR3-150	3	3	0.118	0.059	●	●	●	●	●	●	●	●	●	0.787	0.197
DTR4-200	4	4	0.157	0.079	●	●	●	●	●	●	●	●	●	0.787	0.197
DTR5-250	5	5	0.197	0.098	●	●	●	●	●	●	●	●	●	0.984	0.217
DTR6-300	6	6	0.236	0.118	●	●	●	●		●	●		●	0.984	0.217
DTR8-400	8	8	0.315	0.157	●	●	●	●		●	●		●	1.181	0.264

● : Line up

Reference pages: Toolholders → F140, F141, Standard cutting conditions → F160

STR

Profiling and undercutting



P	Steel	★	★										
M	Stainless	★	★										
K	Cast iron	★	★							☆			
N	Non-ferrous									☆			
S	Superalloys	★	★							★			
H	Hard materials												

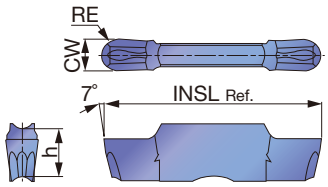
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated						Uncoated				INSL (in)	h (in)
					AH7025	AH8005					KS05F					
STR2-100	2	2	0.079	0.039	●	●					●				0.787	0.197
STR3-150	3	3	0.118	0.059	●	●					●				0.787	0.197
STR4-200	4	4	0.157	0.079	●	●					●				0.787	0.197
STR5-250	5	5	0.197	0.098	●	●					●				0.984	0.217
STR6-300	6	6	0.236	0.118	●	●					●				0.984	0.217
STR8-400	8	8	0.315	0.157	●	●					●				1.181	0.264

●: Line up

DTIU

Profiling and undercutting (for high precision)



P	Steel	★	☆	☆									
M	Stainless	★	☆	★									
K	Cast iron	★		☆									
N	Non-ferrous												
S	Superalloys	★	☆										
H	Hard materials												

★ : First choice
☆ : Second choice

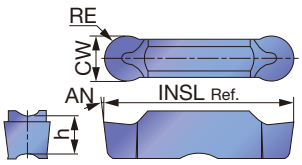
Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Coated										INSL (in)	h (in)
					AH7025	AH725	GH130									
DTIU300-150	3	3	0.118	0.059	●	●	●								0.787	0.197
DTIU400-200	4	4	0.157	0.079	●	●	●								0.787	0.197
DTIU500-250	5	5	0.197	0.098	●	●	●								0.984	0.217
DTIU600-300	6	6	0.236	0.118	●	●	●								0.984	0.217

●: Line up

Reference pages: Toolholders → F140, F141, Standard cutting conditions → F160

DTA

Aluminum wheel machining (for high precision)



P	Steel	
M	Stainless	
K	Cast iron	
N	Non-ferrous	★
S	Superalloys	
H	Hard materials	

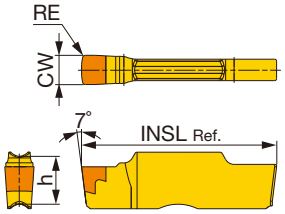
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Uncoated TH10	INSL (in)	h (in)	AN
DTA600-300	6	6	0.236	0.118	●	0.984	0.217	7°
DTA800-400	8	8	0.315	0.157	●	1.181	0.264	10°

●: Line up

STH

External/internal/face turning



P	Steel	
M	Stainless	
K	Cast iron	
N	Non-ferrous	
S	Superalloys	
H	Hard materials	★

★ : First choice

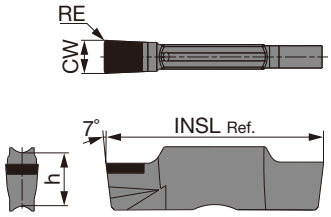
Designation	Seat size	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	CBN BXA10	INSL (in)	h (in)
STH300-SR	3	3	0.118	0.012	●	0.787	0.197
STH500-SR	5	5	0.197	0.012	●	0.984	0.217

●: Line up

Reference pages: Toolholders → F140, F141, Standard cutting conditions → F160

SGN

External/internal grooving



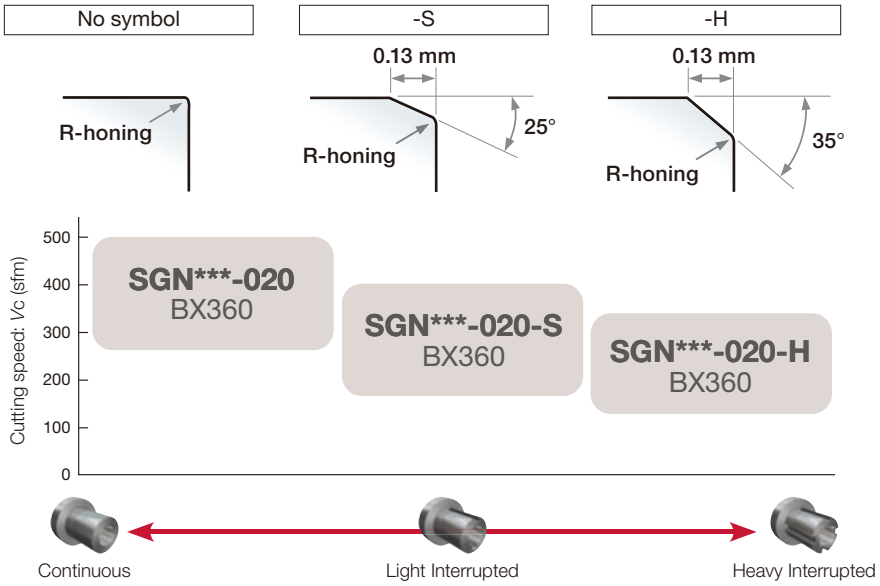
P	Steel	
M	Stainless	
K	Cast iron	
N	Non-ferrous	
S	Superalloys	
H	Hard materials	★

★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	CBN	INSL (in)	h (in)	Condition		
					BX360			Continuous	Light interrupted	Heavy interrupted
SGN200-020	2	2	0.079	0.008	●	0.787	0.197	○		
SGN200-020-S	2	2	0.079	0.008	●	0.787	0.197		○	
SGN200-020-H	2	2	0.079	0.008	●	0.787	0.197			○
SGN300-020	3	3	0.118	0.008	●	0.787	0.197	○		
SGN300-020-S	3	3	0.118	0.008	●	0.787	0.197		○	
SGN300-020-H	3	3	0.118	0.008	●	0.787	0.197			○
SGN400-020	4	4	0.157	0.008	●	0.787	0.197	○		
SGN400-020-S	4	4	0.157	0.008	●	0.787	0.197		○	
SGN400-020-H	4	4	0.157	0.008	●	0.787	0.197			○
SGN500-020-S	5	5	0.197	0.008	●	0.984	0.217		○	
SGN500-020-H	5	5	0.197	0.008	●	0.984	0.217			○

●: Line up

Edge preparations



Reference pages: Toolholders → F140, F141, Standard cutting conditions → F160

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed *Vc* (sfm)
P	Steel 1045, 4135, etc.	< 300 HB	First choice	AH7025, AH725	164 - 591
		< 300 HB	Wear resistance	T9225, AH8005	262 - 984
		< 300 HB	Impact resistance	AH6235, GH130	164 - 394
		< 300 HB	Surface quality	NS9530	262 - 722
M	Stainless steel 303, 304, etc.	< 200 HB	First choice	AH7025, AH725	164 - 394
		< 200 HB	Wear resistance	AH8005	164 - 394
		< 200 HB	Impact resistance	AH6235, GH130	164 - 394
K	Gray cast iron No.250B, etc.	-	First choice	T515	492 - 2297
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	164 - 591
	Ductile cast iron 65-45-12, etc.	-	First choice	T515	492 - 984
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	164 - 394
N	Aluminum alloys Si < 12%	-	First choice	TH10	328 - 1640
		-	First choice	KS05F	328 - 1969
S	Superalloys Inconel718, etc.	< HRC 40	First choice	AH8005	66 - 197
		< HRC 40	Impact resistance	AH7025, AH725, AH6235	66 - 131
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	First choice	KS05F	66 - 328
		< HRC 40	Impact resistance	AH7025, AH725	66 - 262

Please see page F142 - F145 for feed: *f* (ipr).

STH

ISO	Grade	CW	Application	Cutting speed *Vc* (sfm)	Depth of cut *ap* (in)	Feed *f* (ipr)
H	BXA10	0.118"	External turning	328 - 755	0.003 - 0.005	0.016 - 0.039
			Face turning	328 - 755	0.003 - 0.005	0.016 - 0.031
		0.197"	External turning	328 - 755	0.003 - 0.005	0.020 - 0.059
			Face turning	328 - 755	0.003 - 0.005	0.020 - 0.031

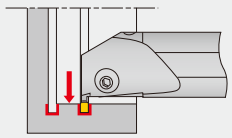
SGN

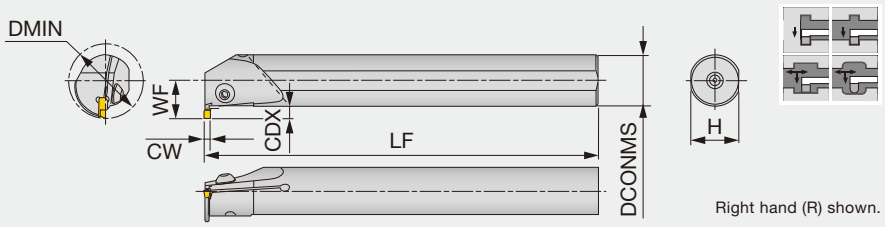
ISO	Grade	Edge preparation	Workpiece condition	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
H	BX360	No symbol	Continuous	262 - 492	0.0012 - 0.0031
		-S	Light interrupted	164 - 394	0.0012 - 0.0031
		-H	Heavy interrupted	131 - 328	0.0012 - 0.0024

MY-T SERIES

CGTR/L

Internal grooving and turning toolholder





Inch	CW	DMIN	CDX	DCONMS	H	LF	WF	Insert	Torque
A12Q-CGTR30U	0.118	1.000	0.138	0.750	0.709	7.090	0.571	G*30, GE30-AL	2.21
A16R-CGTR/L30U	0.118	1.260	0.197	1.000	0.961	7.870	0.728	G*30, GE30-AL	2.21
A16R-CGTR40U	0.157	1.260	0.197	1.000	0.961	7.870	0.728	G*40, GE40-AL	2.21

Metric	CW	DMIN	CDX	DCONMS	H	LF	WF	Insert	Torque*
S20Q-CGTR/L30	3	25	3.5	20	18	180	14.5	G*30, GE30-AL	3
S25R-CGTR/L30	3	32	5	25	23	200	18.5	G*30, GE30-AL	3
S25R-CGTR/L40	4	32	5	25	23	200	18.5	G*40, GE40-AL	3
S32S-CGTR/L40	4	40	6	32	30	250	23	G*40, GE40-AL	3
S25R-CGTR/L50	5	32	5	25	23	200	18.5	G*50	3
S32S-CGTR/L50	5	40	6	32	30	250	23	G*50	3

Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS

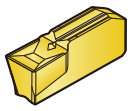



Designation	Clamping screw	Wrench
A/S**-CGTR/L...	BHM5-14	P-3

Reference pages: Inserts → F162 - F165, Standard cutting conditions → F166

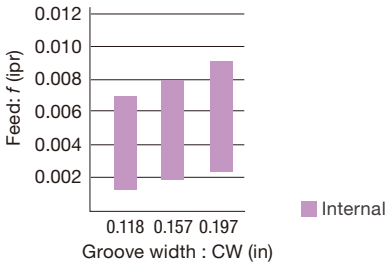
Internal grooving

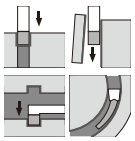
GN



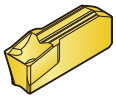
F165

1st choice for internal grooving
Low cutting force and good chip control for internal grooving
CW = 0.118" - 0.197"



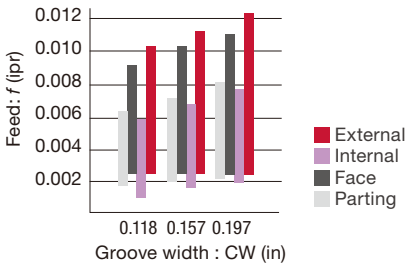


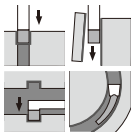
GE



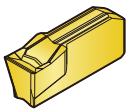
F163

1st choice for external grooving and parting
Excellent chip control
CW = 0.118" - 0.197"



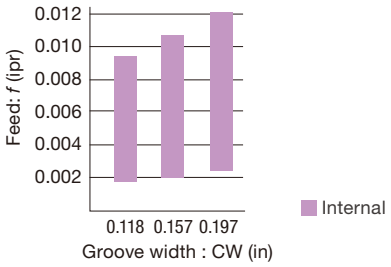


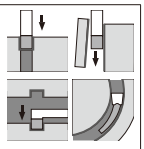
GF



F164

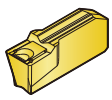
1st choice for face grooving
Low cutting force and good chip control for face grooving
CW = 0.118" - 0.197"





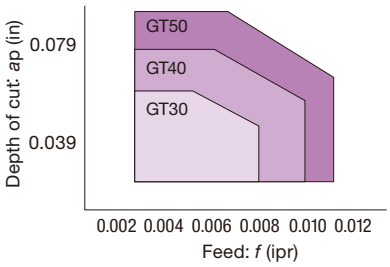
Grooving and turning

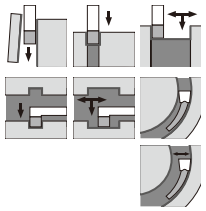
GT



F163

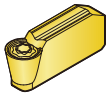
1st choice for turning
Low cutting force and good chip control for traversing
CW = 0.118" - 0.197"





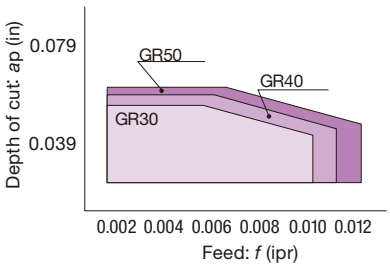
Profiling

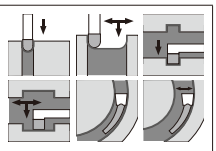
GR



F164

Full radius type
Low cutting force and good chip control for profiling
CW = 0.118" - 0.197"

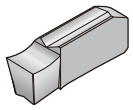




Please see page F*** for the product details.

For aluminum and non-ferrous metal

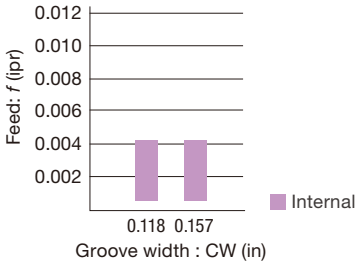
GE-AL

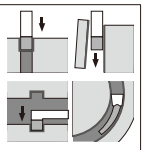


F165

Reduce cutting force and welding due to sharp chipbreaker

CW = 0.118" - 0.157"



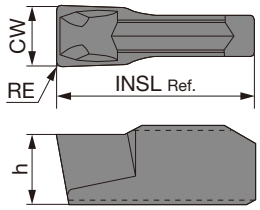


Please see page F*** for the product details.

INSERTS

GE

For external grooving and parting



P	Steel	★	★	★				★					
M	Stainless		★	★									
K	Cast iron		★	☆				☆					
N	Non-ferrous												
S	Superalloys		☆										
H	Hard materials												

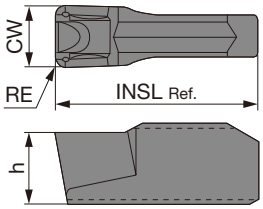
★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated T9225	Coated AH120	Coated GH730	Cermet NS9530	INSL (in)	h (in)
GE30	3	0.118	0.008	●	●	●	●	0.394	0.138
GE40	4	0.157	0.008	●	●	●	●	0.394	0.157
GE50	5	0.197	0.008	●	●	●	●	0.472	0.177

● : Line up

GT

For external grooving and turning



P	Steel	★	★	★				★					
M	Stainless		★	★									
K	Cast iron		★	☆				☆					
N	Non-ferrous												
S	Superalloys		☆										
H	Hard materials												

★ : First choice
☆ : Second choice

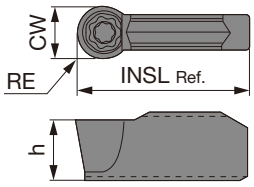
Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated T9225	Coated AH120	Coated GH730	Cermet NS9530	INSL (in)	h (in)
GT30	3	0.118	0.016		●	●	●	0.394	0.138
GT40	4	0.157	0.016		●	●	●	0.394	0.157
GT50	5	0.197	0.016	●	●	●	●	0.472	0.177

● : Line up

Reference pages: Toolholders → F161, Standard cutting conditions → F166

GR

For profiling (full radius)



P	Steel	★	★	★				★		
M	Stainless		★	★						
K	Cast iron		★	☆				☆		
N	Non-ferrous									
S	Superalloys		☆							
H	Hard materials									

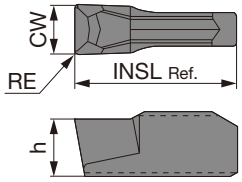
★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated						Cermet				INSL (in)	h (in)
				T9225	AH120	GH730				NS9530					
GR30	3	0.118	0.059		●	●				●				0.394	0.138
GR40	4	0.157	0.079	●	●	●				●				0.394	0.157
GR50	5	0.197	0.098	●	●	●				●				0.472	0.177

● : Line up

GF

For face grooving



P	Steel	★			★					
M	Stainless	★								
K	Cast iron	☆			☆					
N	Non-ferrous									
S	Superalloys									
H	Hard materials									

★ : First choice
☆ : Second choice

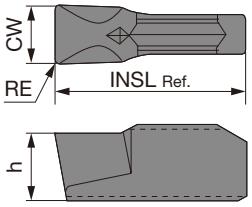
Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated			Cermet							INSL (in)	h (in)
				GH730			NS9530								
GF30	3	0.118	0.008	●			●							0.394	0.138
GF40	4	0.157	0.008	●			●							0.394	0.157
GF50	5	0.197	0.008	●			●							0.472	0.177

● : Line up

Reference pages: Toolholders → F161, Standard cutting conditions → F166

GN

For internal grooving



P	Steel	★
M	Stainless	★
K	Cast iron	☆
N	Non-ferrous	
S	Superalloys	
H	Hard materials	

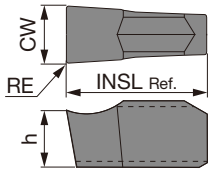
★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated GH730	INSL (in)	h (in)
GN30	3	0.118	0.008	●	0.394	0.138
GN40	4	0.157	0.008	●	0.394	0.157
GN50	5	0.197	0.008	●	0.472	0.177

● : Line up

GE-AL

For aluminum and non-ferrous metal



P	Steel	
M	Stainless	
K	Cast iron	
N	Non-ferrous	★
S	Superalloys	
H	Hard materials	

★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Uncoated KS05F	INSL (in)	h (in)
GE30-AL	3	0.118	0.008	●	0.394	0.138
GE40-AL	4	0.157	0.008	●	0.394	0.157

● : Line up

Reference pages: Toolholders → F161, Standard cutting conditions → F166

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)
P	Low carbon steel, Alloy steel (~ HB150)	T9225	262 - 984
		NS9530	328 - 656
		GH730, AH120	164 - 591
	Medium carbon steel, Alloy steel (HB150 ~ 250)	T9225	262 - 722
		NS9530	262 - 591
		GH730, AH120	164 - 492
	High carbon steel, Alloy steel (HB250 ~)	T9225	262 - 722
		NS9530	262 - 492
		GH730, AH120	164 - 394
M	Stainless steel	GH730, AH120	164 - 394
K	Gray iron, Ductile cast iron	GH730, AH120	164 - 591
N	Aluminum alloy, Non-ferrous metal	KS05F	656 - 984

Internal

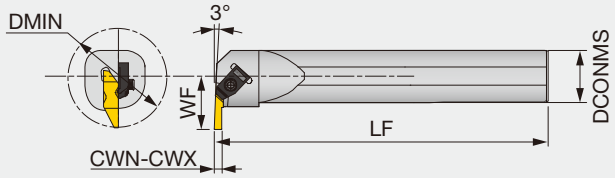
Operation	Feed: *f* (ipr) Groove width: CW		
	3 mm (0.118")	4 mm (0.157")	5 mm (0.197")
Internal grooving (GE**)	0.0016 - 0.006	0.002 - 0.006	0.002 - 0.006
Internal grooving (GN**)	0.0016 - 0.006	0.002 - 0.007	0.002 - 0.008
Internal traversing (GT**)	*ap* = 0.020 - 0.059 *f* = 0.0024 - 0.008	*ap* = 0.020 - 0.079 *f* = 0.0024 - 0.010	*ap* = 0.020 - 0.098 *f* = 0.0024 - 0.011
Internal traversing (GR**)	*ap* = 0.020 - 0.055 *f* = 0.002 - 0.010	*ap* = 0.020 - 0.059 *f* = 0.002 - 0.010	*ap* = 0.020 - 0.063 *f* = 0.002 - 0.012
Aluminum alloys (GE**-AL)	0.0012 - 0.004	0.0012 - 0.004	-

For diameter compensation values in traversing, see page F129.
When vibration occurs in turning, please use the lower limit value in the above table

TUNGT-CLAMP

A-FLER/LT

Internal grooving and threading toolholder



Right hand (R) shown.

Inch	CWN	CWX	DMIN	DCONMS	LF	WF	Insert	Torque
A20-FLER/LT3	0.094	0.189	1.807	1.250	6.000	1.082	FLGT-3R/L...	2.21
A24-FLER/LT3	0.094	0.189	2.057	1.500	6.000	1.207	FLGT-3R/L...	2.21

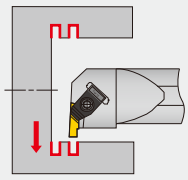
Note: The right hand toolholders use right hand inserts, and the left hand toolholders use left hand inserts.
Torque: Recommended clamping torque: lbs·ft

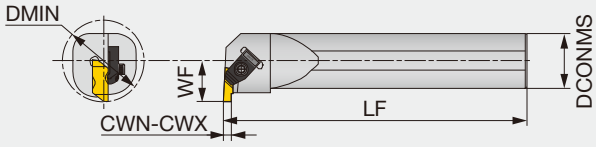
SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
A20-FLERT3, A24-FLERT3	TF-72	S-412	5/32HEX
A20-FLELT3, A24-FLELT3	TF-73	S-412	5/32HEX

A_M-FLER/L

Internal grooving and threading toolholder





Right hand (R) shown.

Inch	CWN	CWX	DMIN	DCONMS	LF	WF	Insert	Torque
A08-FLER/L2	0.031	0.125	0.730	0.500	8.000	0.437	FL*-2**L/R...	2.21
A10-FLER2	0.031	0.125	1.000	0.625	10.000	0.500	FL*-2**L...	2.21
A12-FLER/L2	0.031	0.128	1.125	0.750	10.000	0.562	FL*-2**L/R...	2.21
A16-FLER/L2	0.031	0.128	1.375	1.000	12.000	0.688	FL*-2**L/R...	2.21
A16-FLER/L3	0.031	0.250	1.375	1.000	12.000	0.688	FL*-3**L/R...	2.21

Metric	CWN	CWX	DMIN	DCONMS	LF	WF	Insert	Torque*
A25M-FLER/L3	1	3	34.9	25	300	17.7	FL*-3**L/R...	3
A32M-FLER/L3	1	3	44.45	32	350	22.1	FL*-3**L/R...	3
A40M-FLER3	1	3	50.8	40	350	24.5	FL*-3**L...	3

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).
Torque: Recommended clamping torque: lbs·ft (*N·m)

INCH SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
A08-FLER2	TF-146	S-310	7/64HEX
A08-FLEL2	TF-147	S-310	7/64HEX
A10-FLER2, A12-FLER2, A16-FLER2	TF-75	S-310	7/64HEX
A12-FLEL2, A16-FLEL2	TF-74	S-310	7/64HEX
A16-FLER3	TF-73	S-412	5/32HEX
A16-FLEL3	TF-72	S-412	5/32HEX

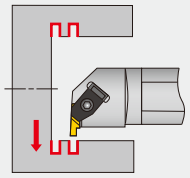
METRIC SPARE PARTS

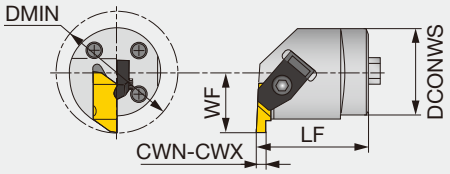
Designation	Clamp	Clamping screw	Wrench
A**M-FLER3	TF-73	S-412	5/32HEX
A**M-FLEL3	TF-72	S-412	5/32HEX

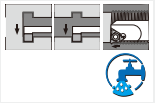
Reference pages: Inserts → F169 - F176, Standard cutting conditions → F176

HS-FLER/L

Internal grooving and threading head, for S-570 shank







Right hand (R) shown.

Metric	CWN	CWX	DMIN	DCONWS	LF	WF	Insert	Torque
HS40-FLER3W	1	3	56.1	40	40.1	28	FL*-3**L...	3
HS50-FLER3W	1	3	70.1	50	41.9	35	FL*-3**L...	3

Note: Use right-hand toolholders (R) with left-hand inserts (L).
Torque: Recommended clamping torque: N·m

SPARE PARTS

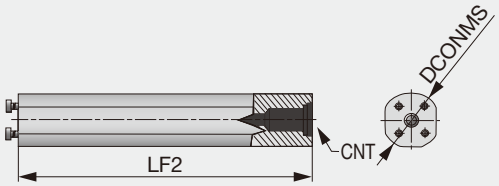




Designation	Clamp	Clamping screw	Wrench
HS**-FLER3W	TF-73	S-412	5/32HEX

S-570

Steel shank for head exchangeable tools



Metric	DCONMS	LF2	CNT
S-570-40M-40	40	273	1/2-14NPT
S-570-50M-50	50	366	1/2-14NPT

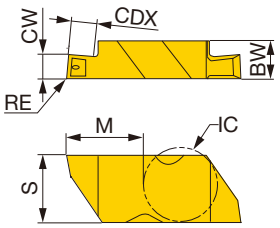
SPARE PARTS




Designation	Clamping screw	Wrench
S-570-40M-40	SS100	5/32HEX
S-570-50M-50	SS94	1/4HEX

Reference pages: Inserts → F169 - F176, Standard cutting conditions → F176

FLG-CB (With chipbreaker, metric width)



P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	☆	
H	Hard materials		

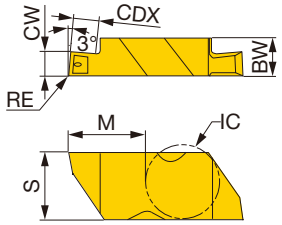
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLG-3M100R-CB	R	1	0.039	0.005 - 0.010	●	0.055	0.3750	0.195	0.344	0.4050
FLG-3M100L-CB	L	1	0.039	0.005 - 0.010	●	0.055	0.3750	0.195	0.344	0.4050
FLG-3M150R-CB	R	1.5	0.059	0.005 - 0.010	●	0.100	0.3750	0.195	0.344	0.4050
FLG-3M150L-CB	L	1.5	0.059	0.005 - 0.010	●	0.100	0.3750	0.195	0.344	0.4050
FLG-3M200R-CB	R	2	0.079	0.005 - 0.010	●	0.100	0.3750	0.195	0.344	0.4050
FLG-3M200L-CB	L	2	0.079	0.005 - 0.010	●	0.100	0.3750	0.195	0.344	0.4050
FLG-3M250R-CB	R	2.5	0.098	0.005 - 0.010	●	0.160	0.3750	0.195	0.344	0.4050
FLG-3M250L-CB	L	2.5	0.098	0.005 - 0.010	●	0.160	0.3750	0.195	0.344	0.4050
FLG-3M300R-CB	R	3	0.118	0.005 - 0.010	●	0.160	0.3750	0.195	0.344	0.4050
FLG-3M300L-CB	L	3	0.118	0.005 - 0.010	●	0.160	0.3750	0.195	0.344	0.4050

● : Line up

Reference pages: Toolholders → F167, F168, Standard cutting conditions → F176

FLG-CB (With chipbreaker)



P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	☆
H	Hard materials	

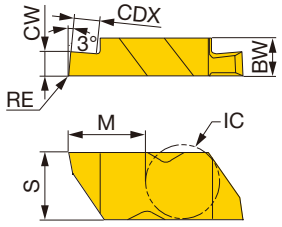
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLG-2047R-CB	R	1.2	0.047	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2047L-CB	L	1.2	0.047	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2062R-CB	R	1.57	0.062	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2062L-CB	L	1.57	0.062	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2078R-CB	R	1.98	0.078	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2078L-CB	L	1.98	0.078	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2094R-CB	R	2.39	0.094	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2094L-CB	L	2.39	0.094	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2125R-CB	R	3.18	0.125	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2125L-CB	L	3.18	0.125	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-3031R-CB	R	0.79	0.031	0.002 - 0.005	●	0.050	0.3750	0.195	0.344	0.4050
FLG-3031L-CB	L	0.79	0.031	0.002 - 0.005	●	0.050	0.3750	0.195	0.344	0.4050
FLG-3047R-CB	R	1.19	0.047	0.005 - 0.010	●	0.075	0.3750	0.195	0.344	0.4050
FLG-3047L-CB	L	1.19	0.047	0.005 - 0.010	●	0.075	0.3750	0.195	0.344	0.4050
FLG-3062R-CB	R	1.57	0.062	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3062L-CB	L	1.57	0.062	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3072R-CB	R	1.83	0.072	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3072L-CB	L	1.83	0.072	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3078R-CB	R	1.98	0.078	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3078L-CB	L	1.98	0.078	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3088R-CB	R	2.24	0.088	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3088L-CB	L	2.24	0.088	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3094R-CB	R	2.39	0.094	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3094L-CB	L	2.39	0.094	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3097R-CB	R	2.46	0.097	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3097L-CB	L	2.46	0.097	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3125R-CB	R	3.18	0.125	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3125L-CB	L	3.18	0.125	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3189R-CB	R	4.8	0.189	0.020 - 0.025	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3189L-CB	L	4.8	0.189	0.020 - 0.025	●	0.180	0.3750	0.195	0.344	0.4050

● : Line up

Reference pages: Toolholders → F167, F168, Standard cutting conditions → F176

FLG



P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	☆	
H	Hard materials		

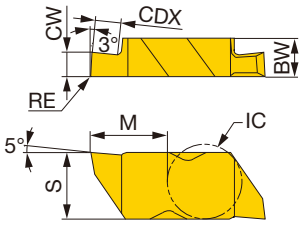
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLG-2031R	R	0.79	0.031	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2031L	L	0.79	0.031	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2041R	R	1.04	0.041	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2041L	L	1.04	0.041	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2047R	R	1.19	0.047	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2047L	L	1.19	0.047	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2058R	R	1.47	0.058	0.005 - 0.010	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2058L	L	1.47	0.058	0.005 - 0.010	●	0.050	0.1875	0.150	0.219	0.2700
FLG-2062R	R	1.57	0.062	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2062L	L	1.57	0.062	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2094R	R	2.39	0.094	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2094L	L	2.39	0.094	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2125R	R	3.18	0.125	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-2125L	L	3.18	0.125	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLG-3031R	R	0.79	0.031	0.002 - 0.005	●	0.050	0.3750	0.195	0.344	0.4050
FLG-3031L	L	0.79	0.031	0.002 - 0.005	●	0.050	0.3750	0.195	0.344	0.4050
FLG-3047R	R	1.19	0.047	0.005 - 0.010	●	0.075	0.3750	0.195	0.344	0.4050
FLG-3047L	L	1.19	0.047	0.005 - 0.010	●	0.075	0.3750	0.195	0.344	0.4050
FLG-3062R	R	1.57	0.062	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3062L	L	1.57	0.062	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3072R	R	1.83	0.072	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3072L	L	1.83	0.072	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3078R	R	1.98	0.078	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3078L	L	1.98	0.078	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLG-3088R	R	2.24	0.088	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3088L	L	2.24	0.088	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3094R	R	2.39	0.094	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3094L	L	2.39	0.094	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3097R	R	2.46	0.097	0.010 - 0.015	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3097L	L	2.46	0.097	0.010 - 0.015	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3105R	R	2.67	0.105	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3105L	L	2.67	0.105	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3110R	R	2.79	0.110	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3110L	L	2.79	0.110	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3122R	R	3.1	0.122	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3122L	L	3.1	0.122	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3125R	R	3.18	0.125	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3125L	L	3.18	0.125	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3142R	R	3.61	0.142	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3142L	L	3.61	0.142	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3156R	R	3.96	0.156	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3156L	L	3.96	0.156	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3178R	R	4.52	0.178	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3178L	L	4.52	0.178	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3185R	R	4.7	0.185	0.020 - 0.025	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3185L	L	4.7	0.185	0.020 - 0.025	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3189R	R	4.8	0.189	0.020 - 0.025	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3189L	L	4.8	0.189	0.020 - 0.025	●	0.180	0.3750	0.195	0.344	0.4050
FLG-3250R	R	6.35	0.250	0.020 - 0.025	●	0.180	0.3750	0.250	0.344	0.4050
FLG-3250L	L	6.35	0.250	0.020 - 0.025	●	0.180	0.3750	0.250	0.344	0.4050

● : Line up

Reference pages: Toolholders → F167, F168, Standard cutting conditions → F176

FLGP (Positive rake)



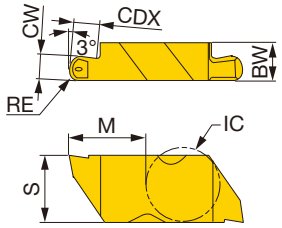
P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	☆	
H	Hard materials		

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLGP-2031R	R	0.79	0.031	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLGP-2031L	L	0.79	0.031	0.002 - 0.005	●	0.050	0.1875	0.150	0.219	0.2700
FLGP-2062R	R	1.57	0.062	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLGP-2062L	L	1.57	0.062	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLGP-2125R	R	3.18	0.125	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLGP-2125L	L	3.18	0.125	0.005 - 0.010	●	0.110	0.1875	0.150	0.219	0.2700
FLGP-3047R	R	1.19	0.047	0.005 - 0.010	●	0.075	0.3750	0.195	0.344	0.4050
FLGP-3047L	L	1.19	0.047	0.005 - 0.010	●	0.075	0.3750	0.195	0.344	0.4050
FLGP-3062R	R	1.57	0.062	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLGP-3062L	L	1.57	0.062	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.4050
FLGP-3088R	R	2.24	0.088	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3088L	L	2.24	0.088	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3094R	R	2.39	0.094	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3094L	L	2.39	0.094	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3125R	R	3.18	0.125	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3125L	L	3.18	0.125	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3156R	R	3.96	0.156	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3156L	L	3.96	0.156	0.005 - 0.010	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3189R	R	4.8	0.189	0.020 - 0.025	●	0.180	0.3750	0.195	0.344	0.4050
FLGP-3189L	L	4.8	0.189	0.020 - 0.025	●	0.180	0.3750	0.195	0.344	0.4050

● : Line up

FLR-CB (Full nose radius, with chipbreaker)



P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	☆	
H	Hard materials		

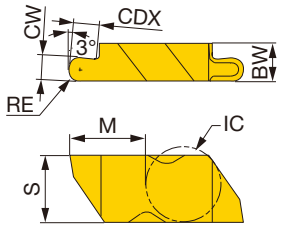
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLR-3031R-CB	R	1.57	0.062	0.031	●	0.125	0.3750	0.195	0.344	0.4033
FLR-3031L-CB	L	1.57	0.062	0.031	●	0.125	0.3750	0.195	0.344	0.4033
FLR-3047R-CB	R	2.39	0.094	0.047	●	0.180	0.3750	0.195	0.344	0.4025
FLR-3047L-CB	L	2.39	0.094	0.047	●	0.180	0.3750	0.195	0.344	0.4025
FLR-3062R-CB	R	3.18	0.125	0.062	●	0.180	0.3750	0.195	0.344	0.4017
FLR-3062L-CB	L	3.18	0.125	0.062	●	0.180	0.3750	0.195	0.344	0.4017

● : Line up

Reference pages: Toolholders → F167, F168, Standard cutting conditions → F176

FLR (Full nose radius)



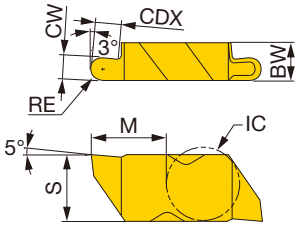
P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous			
S	Superalloys	☆		
H	Hard materials			

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLR-2031R	R	1.57	0.062	0.031	●	0.110	0.1875	0.150	0.219	0.2683
FLR-2031L	L	1.57	0.062	0.031	●	0.110	0.1875	0.150	0.219	0.2683
FLR-2047R	R	2.39	0.094	0.047	●	0.110	0.1875	0.150	0.219	0.2675
FLR-2047L	L	2.39	0.094	0.047	●	0.110	0.1875	0.150	0.219	0.2675
FLR-2062R	R	3.18	0.125	0.062	●	0.110	0.1875	0.150	0.219	0.2667
FLR-2062L	L	3.18	0.125	0.062	●	0.110	0.1875	0.150	0.219	0.2667
FLR-3031R	R	1.57	0.062	0.031	●	0.125	0.3750	0.195	0.344	0.4033
FLR-3031L	L	1.57	0.062	0.031	●	0.125	0.3750	0.195	0.344	0.4033
FLR-3047R	R	2.39	0.094	0.047	●	0.180	0.3750	0.195	0.344	0.4025
FLR-3047L	L	2.39	0.094	0.047	●	0.180	0.3750	0.195	0.344	0.4025
FLR-3062R	R	3.18	0.125	0.062	●	0.180	0.3750	0.195	0.344	0.4017
FLR-3062L	L	3.18	0.125	0.062	●	0.180	0.3750	0.195	0.344	0.4017
FLR-3078R	R	3.96	0.156	0.078	●	0.180	0.3750	0.195	0.344	0.4008
FLR-3078L	L	3.96	0.156	0.078	●	0.180	0.3750	0.195	0.344	0.4008
FLR-3094R	R	4.8	0.189	0.094	●	0.180	0.3750	0.195	0.344	0.4000
FLR-3094L	L	4.8	0.189	0.094	●	0.180	0.3750	0.195	0.344	0.4000

● : Line up

FLRP (Full nose radius and positive rake)



P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous			
S	Superalloys	☆		
H	Hard materials			

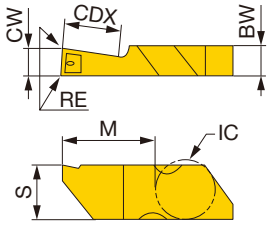
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLRP-3031R	R	1.57	0.062	0.031	●	0.125	0.3750	0.195	0.344	0.4033
FLRP-3031L	L	1.57	0.062	0.031	●	0.125	0.3750	0.195	0.344	0.4033
FLRP-3047R	R	2.39	0.094	0.047	●	0.180	0.3750	0.195	0.344	0.4025
FLRP-3047L	L	2.39	0.094	0.047	●	0.180	0.3750	0.195	0.344	0.4025
FLRP-3062R	R	3.18	0.125	0.062	●	0.180	0.3750	0.195	0.344	0.4017
FLRP-3062L	L	3.18	0.125	0.062	●	0.180	0.3750	0.195	0.344	0.4017
FLRP-3078R	R	3.96	0.156	0.078	●	0.180	0.3750	0.195	0.344	0.4008
FLRP-3078L	L	3.96	0.156	0.078	●	0.180	0.3750	0.195	0.344	0.4008
FLRP-3094R	R	4.8	0.189	0.094	●	0.180	0.3750	0.195	0.344	0.4000
FLRP-3094L	L	4.8	0.189	0.094	●	0.180	0.3750	0.195	0.344	0.4000

● : Line up

Reference pages: Toolholders → F167, F168, Standard cutting conditions → F176

FLGD-CB (Single edge deep, with chipbreaker)



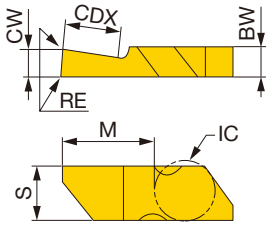
P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	☆
H	Hard materials	

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLGD-3094R-CB	R	2.39	0.094	0.005 - 0.010	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3094L-CB	L	2.39	0.094	0.005 - 0.010	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3125R-CB	R	3.18	0.125	0.005 - 0.010	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3125L-CB	L	3.18	0.125	0.005 - 0.010	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3189R-CB	R	4.8	0.189	0.020 - 0.025	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3189L-CB	L	4.8	0.189	0.020 - 0.025	●	0.250	0.3750	0.195	0.344	0.5050

● : Line up

FLGD (Single edge deep)



P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	☆
H	Hard materials	

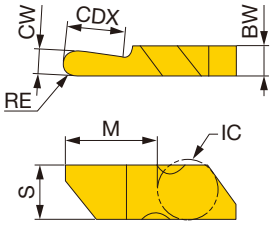
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLGD-3062R	R	1.57	0.062	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.5050
FLGD-3062L	L	1.57	0.062	0.005 - 0.010	●	0.120	0.3750	0.195	0.344	0.5050
FLGD-3094R	R	2.39	0.094	0.005 - 0.010	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3094L	L	2.39	0.094	0.005 - 0.010	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3125R	R	3.18	0.125	0.005 - 0.010	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3125L	L	3.18	0.125	0.005 - 0.010	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3189R	R	4.8	0.189	0.020 - 0.025	●	0.250	0.3750	0.195	0.344	0.5050
FLGD-3189L	L	4.8	0.189	0.020 - 0.025	●	0.250	0.3750	0.195	0.344	0.5050

● : Line up

Reference pages: Toolholders → F167, F168, Standard cutting conditions → F176

FLRD (Full nose radius, single edge deep)



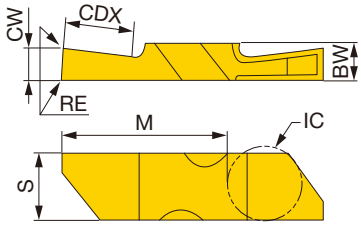
P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous			
S	Superalloys	☆		
H	Hard materials			

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLRD-3062R	R	3.19	0.125	0.062	●	0.250	0.3750	0.195	0.344	0.5016
FLRD-3062L	L	3.19	0.125	0.062	●	0.250	0.3750	0.195	0.344	0.5016
FLRD-3094R	R	4.8	0.189	0.094	●	0.250	0.3750	0.195	0.344	0.5016
FLRD-3094L	L	4.8	0.189	0.094	●	0.250	0.3750	0.195	0.344	0.5016

● : Line up

FLGT (Double end deep)



P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous			
S	Superalloys	☆		
H	Hard materials			

★ : First choice
☆ : Second choice

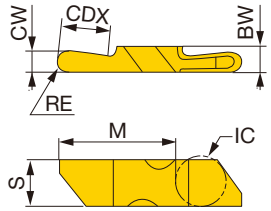
Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLGT-3094R	R	2.39	0.094	0.005 - 0.010	●	0.275	0.3750	0.195	0.344	0.8550
FLGT-3094L	L	2.39	0.094	0.005 - 0.010	●	0.275	0.3750	0.195	0.344	0.8550
FLGT-3125R	R	3.18	0.125	0.005 - 0.010	●	0.437	0.3750	0.195	0.344	0.8550
FLGT-3125L	L	3.18	0.125	0.005 - 0.010	●	0.437	0.3750	0.195	0.344	0.8550
FLGT-3189R	R	4.8	0.189	0.020 - 0.025	●	0.437	0.3750	0.195	0.344	0.8550
FLGT-3189L	L	4.8	0.189	0.020 - 0.025	●	0.437	0.3750	0.195	0.344	0.8550

*Fits FLSLT/RT toolholders

● : Line up

Reference pages: Toolholders → F167, F168, Standard cutting conditions → F176

FLRT (Double end deep FNR)



P	Steel	★			
M	Stainless	★			
K	Cast iron	★			
N	Non-ferrous				
S	Superalloys	☆			
H	Hard materials				

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH110	CDX (in)	IC (in)	BW (in)	S (in)	M (in)
FLRT-3062R	R	3.18	0.125	0.062	●	0.437	0.3750	0.195	0.344	0.8550
FLRT-3062L	L	3.18	0.125	0.062	●	0.437	0.3750	0.195	0.344	0.8550
FLRT-3094R	R	4.8	0.189	0.094	●	0.437	0.3750	0.195	0.344	0.8550
FLRT-3094L	L	4.8	0.189	0.094	●	0.437	0.3750	0.195	0.344	0.8550

*Fits FLSLT/RT toolholders

● : Line up

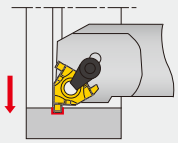
STANDARD CUTTING CONDITIONS

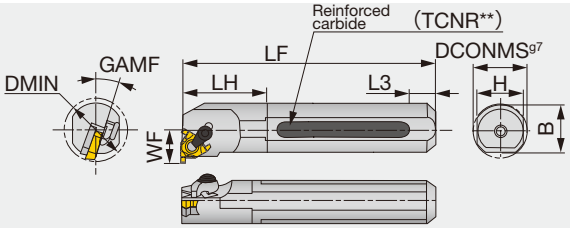
ISO	Workpiece material	Grade	Application	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	High carbon steel 1045, etc.	AH110	Grooving	328 - 656	0.005 - 0.014
	Alloy steel 4137, etc.	AH110	Grooving	164 - 262	0.005 - 0.012
M	Stainless steel 304, etc.	AH110	Grooving	164 - 492	0.004 - 0.008
K	Gray cast iron No.250B, etc.	AH110	Grooving	164 - 591	0.004 - 0.010
	Ductile cast iron 60-40-18, etc.	AH110	Grooving	164 - 394	0.004 - 0.010

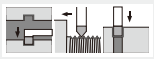
Reference pages: Toolholders → F167, F168

CNR/L

Internal threading and grooving toolholder (The -DT holders can be used either with the insert screw or top-clamp)







Right hand (R) shown.

Inch	Material	CWN	CWX	DMIN	DCONMS	H	B	LF	LH	WF	L3	GAMF	Insert	Torque
S12-CNR3DT	Steel	0.039	0.089	0.950	0.750	0.725	0.738	7.000	1.200	0.552	-	15°	GTGN-16...	2.58
S16-CNR3DT	Steel	0.039	0.089	1.150	1.000	0.906	0.953	8.000	1.500	0.652	-	15°	GTGN-16...	2.58
S20-CNR3DT	Steel	0.039	0.089	1.450	1.250	1.188	1.219	10.000	1.900	0.788	-	15°	GTGN-16...	2.58

Metric	Material	CWN	CWX	DMIN	DCONMS	H	B	LF	LH	WF	L3	GAMF	Insert	Torque*
TCNR0020R16DT	Reinforced	1	2.25	24	20	18	-	200	30	14	49	15°	GTGN-16...	3.5
TCNR0025S16DT	Reinforced	1	2.25	29	25	23	-	250	38	16.5	64	15°	GTGN-16...	3.5
CNR/L0020P16	Steel	1	2.25	24	20	18	19	170	30	14	-	15°	GTGN-16...	3.5
CNR/L0025R16	Steel	1	2.25	29	25	23	24	200	38	16.5	-	15°	GTGN-16...	3.5
CNR/L0032S16	Steel	1	2.25	37	32	30	31	250	48	20.1	-	15°	GTGN-16...	3.5

Note: A clamp set consists of a clamp and a clamping screw.
A shim set consists of a shim and a shim screw to secure the shim to the toolholder.
Use right-hand toolholders (T/CNR...) with right-hand inserts (**IR...); and left-hand toolholders (T/CNL...) with left-hand inserts (**IL...).
Standard shims can be used on both right- and left-hand toolholders. Please use either of the sides depending on the tool hand.
When using grooving inserts, please use shims for grooving. Shims for grooving inserts are sold separately.
Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS





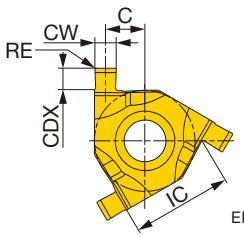



Designation	Clamp set	Clamping screw	Shim screw	Shim (Optional)	Wrench1	Wrench2
S**-CNR3DT	CSP16	CSTB-3.5ST	DTS5-3.5	G16EL/IR-DT	P-3.5	T-15F
TCNR002**16DT	CSP16	CSTB-3.5ST	DTS5-3.5	G16EL/IR-DT	P-3.5	T-15F
CNR00***16	CSP16	-	-	G16EL/IR-S	-	T-15F
CNL00***16	CSP16	-	-	G16ER/IL-S	-	T-15F

Reference pages: Inserts, Standard cutting conditions → F178

INSERT

GTGN16



ER/IL shown.

P	Steel	★			
M	Stainless	★			
K	Cast iron				
N	Non-ferrous				
S	Superalloys	★			
H	Hard materials				

★ : First choice
☆ : Second choice

Designation	HAND (Internal)	CW±0.03 (mm)	CW±0.001 (in)	RE (in)	Coated			Insert size	CDX (in)	IC (in)	C (in)	Shim	
					SH730							Dual-clamp toolholder: screw-on and clamp-on	Clamp-on toolholder
GTGN-16ER/IL100	L	1	0.039	0.004	●			16	0.049	0.375	0.166	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR100	R	1	0.039	0.004	●			16	0.049	0.375	0.166	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL120	L	1.2	0.047	0.004	●			16	0.051	0.375	0.162	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR120	R	1.2	0.047	0.004	●			16	0.051	0.375	0.162	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL140	L	1.4	0.055	0.004	●			16	0.059	0.375	0.158	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR140	R	1.4	0.055	0.004	●			16	0.059	0.375	0.158	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL170	L	1.7	0.067	0.004	●			16	0.067	0.375	0.144	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR170	R	1.7	0.067	0.004	●			16	0.067	0.375	0.144	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL195	L	1.95	0.077	0.004	●			16	0.067	0.375	0.148	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR195	R	1.95	0.077	0.004	●			16	0.067	0.375	0.148	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL225	L	2.25	0.089	0.004	●			16	0.071	0.375	0.142	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR225	R	2.25	0.089	0.004	●			16	0.071	0.375	0.142	G16EL/IR-DT	G16EL/IR-S

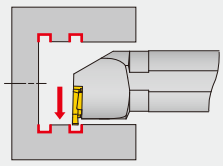
Note: GTGN insert can be used for both external and internal machining, but the tool hand is reversed.
Shim for GTGN depends on the toolholder type.

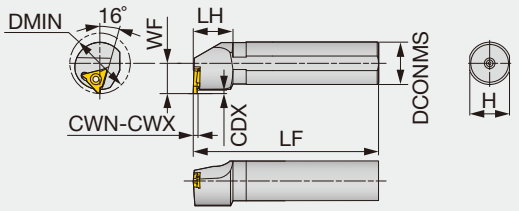
● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Steel 1045, 4140, etc.	SH730	164 - 492	0.002 - 0.004
M	Stainless steel 304, 316, etc.	SH730	98 - 492	0.002 - 0.004
S	Heat-resistant alloys, Titanium alloys, etc. Ti-6Al-4V, etc.	SH730	98 - 328	0.002 - 0.004

Reference pages: Toolholders → F177





Right hand (R) shown.

Inch	CWN	CWX	DMIN	CDX	DCONMS	H	LF	LH	WF	Insert	Torque
S16R-SGTR/L3	0.013	0.098	1.38	0.100	1.00	0.910	7.78	1.18	0.690	GBL/R32...	2.58

Metric	CWN	CWX	DMIN	CDX	DCONMS	H	LF	LH	WF	Insert	Torque*
S25R-SGTR/L16	0.33	2.5	35	2	25	23	200	30	17.5	GBL/R32...	3.5
S32S-SGTR/L22	1.25	4.5	40	2.5	32	30	250	30	23	GBL/R43...	5

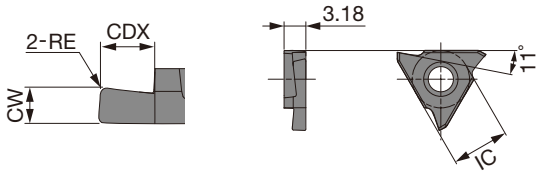
Use right-hand toolholders (SGTR) with left-hand inserts (GBL); and left-hand toolholders (SGTL) with right-hand inserts (GBR).
Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
S16R-SGTR/L3, S25R-SGTR/L16	CSTB-4S	T-15F
S32S-SGTR/L22	CSTB-5S	T-20F

INSERTS

GBR/L32



Right hand (R) shown.
Unit: mm

		Coated		Cermet		Uncoated													
P	Steel	★			★			★											
M	Stainless	★			★			★											
K	Cast iron	★			☆														
N	Non-ferrous							★											
S	Superalloys	☆						☆											
H	Hard materials																		

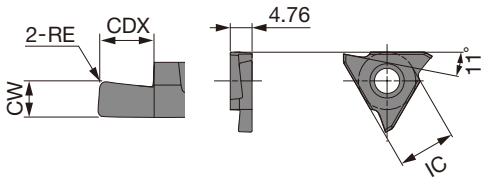
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	AH710			NS9530			KS05F								CDX (in)	IC (mm)
GBR32033	R	0.33	0.013	0.0012	●			●			●								0.031	9.53
GBL32033	L	0.33	0.013	0.0012	●														0.031	9.53
GBR32050	R	0.5	0.020	0.002	●			●			●								0.047	9.53
GBL32050	L	0.5	0.020	0.002	●														0.047	9.53
GBR32075	R	0.75	0.030	0.002	●			●			●								0.079	9.53
GBL32075	L	0.75	0.030	0.002	●			●											0.079	9.53
GBR32095	R	0.95	0.037	0.002	●			●			●								0.079	9.53
GBL32095	L	0.95	0.037	0.002	●			●											0.079	9.53
GBR32100	R	1	0.039	0.002	●			●			●								0.079	9.53
GBL32100	L	1	0.039	0.002	●			●											0.079	9.53
GBR32125	R	1.25	0.049	0.008	●			●			●								0.079	9.53
GBL32125	L	1.25	0.049	0.008	●			●											0.079	9.53
GBR32145	R	1.45	0.057	0.008	●			●			●								0.079	9.53
GBL32145	L	1.45	0.057	0.008	●														0.079	9.53
GBR32150	R	1.5	0.059	0.008	●			●			●								0.079	9.53
GBL32150	L	1.5	0.059	0.008	●														0.079	9.53
GBR32200	R	2	0.079	0.008	●			●			●								0.098	9.53
GBL32200	L	2	0.079	0.008	●														0.098	9.53
GBR32250	R	2.5	0.098	0.008	●			●			●								0.098	9.53
GBL32250	L	2.5	0.098	0.008	●														0.098	9.53

● : Line up

Reference pages: Inserts → F179 - F181, Standard cutting conditions → F181

GBR/L43



Right hand (R) shown.
Unit: mm

P	Steel	★	★	
M	Stainless	★		
K	Cast iron	★	☆	
N	Non-ferrous			★
S	Superalloys	☆		☆
H	Hard materials			

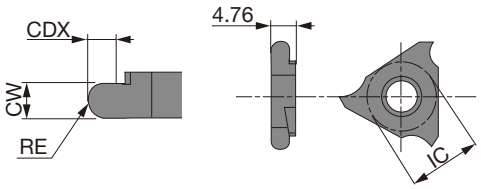
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH710	Cermet NS9530	Uncoated KS05F	CDX (in)	IC (mm)
GBR43125	R	1.25	0.049	0.008	●	●	●	0.079	12.7
GBL43125	L	1.25	0.049	0.008	●			0.079	12.7
GBR43145	R	1.45	0.057	0.008	●	●	●	0.079	12.7
GBL43145	L	1.45	0.057	0.008	●			0.079	12.7
GBR43150	R	1.50	0.059	0.008	●	●	●	0.138	12.7
GBL43150	L	1.50	0.059	0.008	●	●		0.138	12.7
GBR43175	R	1.75	0.069	0.008	●	●	●	0.138	12.7
GBL43175	L	1.75	0.069	0.008	●	●		0.138	12.7
GBR43185	R	1.85	0.073	0.008	●	●	●	0.138	12.7
GBL43185	L	1.85	0.073	0.008	●	●		0.138	12.7
GBR43200	R	2	0.079	0.008	●	●	●	0.138	12.7
GBL43200	L	2	0.079	0.008	●	●		0.138	12.7
GBR43230	R	2.3	0.091	0.008	●	●	●	0.138	12.7
GBL43230	L	2.3	0.091	0.008	●	●		0.138	12.7
GBR43250	R	2.5	0.098	0.012	●	●	●	0.197	12.7
GBL43250	L	2.5	0.098	0.012	●			0.197	12.7
GBR43265	R	2.65	0.104	0.012	●	●	●	0.197	12.7
GBL43265	L	2.65	0.104	0.012	●			0.197	12.7
GBR43280	R	2.8	0.110	0.012	●	●	●	0.197	12.7
GBL43280	L	2.8	0.110	0.012	●			0.197	12.7
GBR43300	R	3	0.118	0.012	●	●	●	0.197	12.7
GBL43300	L	3	0.118	0.012	●			0.197	12.7
GBR43330	R	3.3	0.130	0.012	●	●	●	0.197	12.7
GBL43330	L	3.3	0.130	0.012	●			0.197	12.7
GBR43350	R	3.5	0.138	0.012	●	●	●	0.197	12.7
GBL43350	L	3.5	0.138	0.012	●			0.197	12.7
GBR43400	R	4	0.157	0.016	●	●	●	0.197	12.7
GBL43400	L	4	0.157	0.016	●			0.197	12.7
GBR43430	R	4.3	0.169	0.016	●	●	●	0.197	12.7
GBL43430	L	4.3	0.169	0.016	●			0.197	12.7
GBR43450	R	4.5	0.177	0.016	●	●	●	0.197	12.7
GBL43450	L	4.5	0.177	0.016	●			0.197	12.7

● : Line up

Reference pages: Toolholders → F179

GBR/L43-R (full radius)



Right hand (R) shown.
Unit: mm

		AH710	NS9530	KS05F
P	Steel	★	★	
M	Stainless	★		
K	Cast iron	★	☆	
N	Non-ferrous			★
S	Superalloys	☆		☆
H	Hard materials			

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH710	Cermet NS9530	Uncoated KS05F	CDX (in)	IC (mm)
GBR43050R	R	1	0.039	0.020	●	●	●	0.079	12.7
GBL43050R	L	1	0.039	0.020	●		●	0.079	12.7
GBR43075R	R	1.5	0.059	0.030	●	●	●	0.138	12.7
GBL43075R	L	1.5	0.059	0.030	●		●	0.138	12.7
GBR43100R	R	2	0.079	0.039	●	●	●	0.138	12.7
GBL43100R	L	2	0.079	0.039	●		●	0.138	12.7
GBR43125R	R	2.5	0.098	0.049	●	●	●	0.197	12.7
GBL43125R	L	2.5	0.098	0.049	●		●	0.197	12.7
GBR43150R	R	3	0.118	0.059	●	●	●	0.197	12.7
GBL43150R	L	3	0.118	0.059	●		●	0.197	12.7
GBR43200R	R	4	0.157	0.079	●	●	●	0.197	12.7
GBL43200R	L	4	0.157	0.079	●		●	0.197	12.7

● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Grade	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Carbon steels, Alloy steels 1045, etc. 4140, etc.	150 - 240HB	NS9530	328 - 656	0.001 - 0.010
		150 - 240HB	AH710	197 - 492	0.002 - 0.010
M	Stainless steel 304, etc.	≤ 240HB	AH710	197 - 492	0.002 - 0.006
K	Cast irons No.250B, etc.	Tensile strength ≤ 350 N/mm^2	AH710	197 - 492	0.002 - 0.006
N	Non-ferrous metal Aluminum, etc.	-	KS05F	656 - 984	0.002 - 0.006

Reference pages: Toolholders → F179

Toolholders for internal grooving, with through coolant

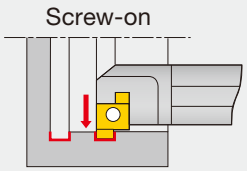
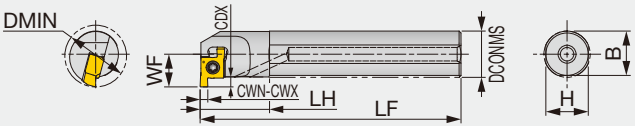


Fig. 1



Fig. 2



Right hand (R) shown.

Metric	Material	CWN	CWX	DMIN	CDX	DCONMS	H	B	LF	LH	WF	Insert	Torque	Fig.
A08H-SNGR06-D080	Steel	1	2	8	1.5	8	7	-	100	18	4.73	6GMR..., 6GR...	0.7	1
A08H-SNGR07-D100	Steel	1	2	10	1.5	8	7	-	100	23	5.8	7GMR..., 7GR...	1.0	1
A10K-SNGR07-D120	Steel	1	2	12	1.5	10	9	-	125	29	6.8	7GMR..., 7GR...	1.0	1
A10K-SNGR08-D140	Steel	1.5	3.5	14	2	10	9	-	125	15	7.6	8GMR..., 8GR...	1.0	2
A12M-SNGR08-D160	Steel	1.5	3.5	16	2	12	11	11.5	150	18	8.6	8GMR..., 8GR...	1.0	2
A16Q-SNGR09-D200	Steel	1.5	3.5	20	3	16	15	15.5	180	20	11.6	9GMR..., 9GR...	1.3	2
A20R-SNGR09-D240	Steel	1.5	3.5	24	3	20	18	19	200	25	13.6	9GMR..., 9GR...	1.3	2
E08X-SNGR07-D100	Carbide	1	2	10	1.5	8	7.5	-	120.5	35	5.8	7GMR..., 7GR...	1.0	1
E10X-SNGR07-D120	Carbide	1	2	12	1.5	10	9	-	143.5	45	6.8	7GMR..., 7GR...	1.0	1
E10X-SNGR08-D140	Carbide	1.5	3.5	14	2	10	9	-	146	-	7.6	8GMR..., 8GR...	1.0	2
E12X-SNGR08-D160	Carbide	1.5	3.5	16	2	12	11	-	174.8	-	8.6	8GMR..., 8GR...	1.0	2
E16X-SNGR09-D200	Carbide	1.5	3.5	20	3	16	15	-	194.6	-	11.6	9GMR..., 9GR...	1.5	2

Note: Use the right-hand insert (☐GR) with the right-hand holder (☐NGR).
Torque: Recommended clamping torque: N·m

SPARE PARTS





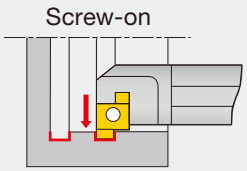
Designation	Clamping screw	Wrench
A**-SNGR06-D...	CSTB-2L040	T-6F
A**-SNGR07-D...	CSTB-2.2S	T-7F
A**-SNGR08-D...	CSTB-2.2	T-7F
A**-SNGR09-D...	CSTB-2.5L080	T-8F
E**-SNGR07-D...	CSTB-2.2S	T-7F
E**-SNGR08-D...	CSTB-2.2	T-7F
E**-SNGR09-D...	CSTB-2.5L080	T-8F

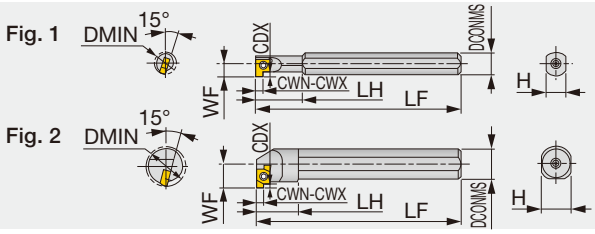
External
Internal
Face
Parting
Others

Reference pages: Inserts → F184, F185, Standard cutting conditions → F186

SNGR/L

Toolholders for internal grooving





Right hand (R) shown.

Metric	Material	CWN	CWX	DMIN	CDX	DCONMS	H	LF	LH	WF	Insert	Torque	Fig.
SNGR/L08H06	Steel	1	2	8	1.5	8	7	100	18	4.7	6GMR..., 6GR/L...	0.7	1
SNGR/L08H07	Steel	1	2	10	1.5	8	7	100	23	5.8	7GMR..., 7GR/L...	1.0	1
SNGR/L10K07	Steel	1	2	12	1.5	10	9	125	29	6.8	7GMR..., 7GR/L...	1.0	1
SNGR/L10K08	Steel	1.5	3.5	14	2	10	9	125	15	7.6	8GMR..., 8GR/L...	1.0	2
SNGR/L12M08	Steel	1.5	3.5	16	2	12	11	150	18	8.6	8GMR..., 8GR/L...	1.0	2
SNGR/L16Q09	Steel	1.5	3.5	20	3	16	15	180	20	11.6	9GMR..., 9GR/L...	1.3	2
SNGR/L20R09	Steel	1.5	3.5	24	3	20	18	200	25	13.6	9GMR..., 9GR/L...	1.3	2
SNGR/L08K06SC	Carbide	1	2	8	1.5	8	7	125	28	4.7	6GMR..., 6GR/L...	0.7	1
SNGR/L08K07SC	Carbide	1	2	10	1.5	8	7	125	35	5.8	7GMR..., 7GR/L...	1.0	1
SNGR/L10M07SC	Carbide	1	2	12	1.5	10	9	150	45	6.8	7GMR..., 7GR/L...	1.0	1
SNGR/L10M08SC	Carbide	1.5	3.5	14	2	10	9	150	45	7.6	8GMR..., 8GR/L...	1.0	2
SNGR/L12Q08SC	Carbide	1.5	3.5	16	2	12	11	180	-	8.6	8GMR..., 8GR/L...	1.0	2
SNGR/L16R09SC	Carbide	1.5	3.5	20	3	16	15	200	-	11.6	9GMR..., 9GR/L...	1.5	2

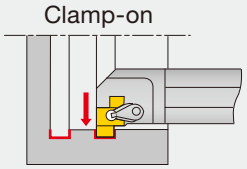
Note: Use the right-hand insert (☐GR) with the right-hand holder (☐NGR), and use the left-hand insert (☐GL) with the left-hand holder (☐NGL).
Torque: Recommended clamping torque: N·m

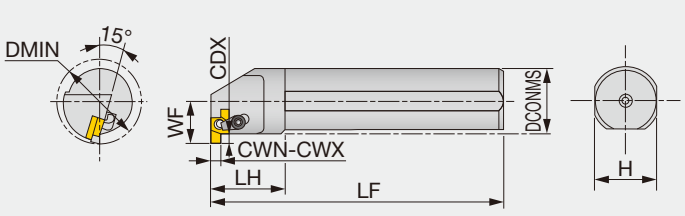
SPARE PARTS

Designation	Clamping screw	Wrench
SNGR/L***06	CSTB-2L040	T-6F
SNGR/L***07	CSTB-2.2S	T-7F
SNGR/L***08	CSTB-2.2	T-7F
SNGR/L***09	CSTB-2.5L080	T-8F
SNGR/L***06SC	CSTB-2L040	T-6F
SNGR/L***07SC	CSTB-2.2S	T-7F
SNGR/L***08SC	CSTB-2.2	T-7F
SNGR/L***09SC	CSTB-2.5L080	T-8F

CNGR/L

Toolholders for internal grooving





Right hand (R) shown.

Metric	CWN	CWX	DMIN	CDX	DCONMS	H	LF	LH	WF	Insert	Torque
CNGR/L25S15	2	5	32	5	25	23	250	30	18.1	15GR/L...	7
CNGR/L32T15	2	5	40	5	32	30	300	35	22.1	15GR/L...	7
CNGR/L40U15	2	5	48	5	40	38	350	45	26.1	15GR/L...	7

Note: Use the right-hand insert (☐GR) with the right-hand holder (☐NGR), and use the left-hand insert (☐GL) with the left-hand holder (☐NGL).
Torque: Recommended clamping torque: N·m

SPARE PARTS

Designation	Clamp set	Screw	Shim	Wrench
CNGR...	CSP22	DTS5-3.5	SGSR151	T-20F
CNGL...	CSP22	DTS5-3.5	SGSL151	T-20F

Optional parts for CNG holders

Use the following parts for screw clamp options.

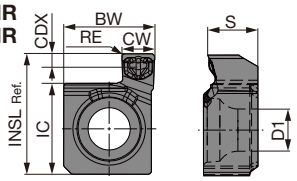


Designation	Clamping screw	Wrench
CNGR/L...	CSTB-3.5L	T-15F

Reference pages: Inserts → F184, F185, Standard cutting conditions → F186

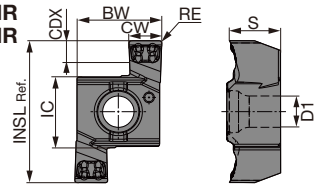
**GMR/L

6GMR
7GMR



Single edge

8GMR
9GMR



Double edge

Right hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.001 (in)	CW±0.025 (mm)	RE (mm)	Coated AH7025	CDX (mm)	BW (in)	S (in)	IC (in)	INSL (in)	D1 (in)
6GMR100-015	R	0.039	1	0.15	●	1.5	0.219	0.092	0.187	0.254	0.091
7GMR200-020	R	0.079	2	0.2	●	1.5	0.219	0.121	0.219	0.290	0.102
8GMR150-020	R	0.059	1.5	0.2	●	2	0.242	0.152	0.219	0.400	0.102
9GMR200-020	R	0.079	2	0.2	●	3	0.305	0.183	0.250	0.510	0.113
9GMR300-020	R	0.118	3	0.2	●	3	0.305	0.183	0.250	0.510	0.113

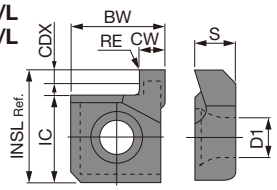
● : Line up

External
Internal
Face
Parting
Others

Reference pages: Toolholders → F182, F183, Standard cutting conditions → F186

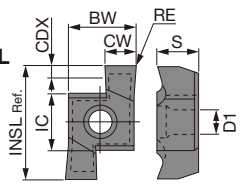
**GR/L

6GR/L
7GR/L



Single edge

8GR/L
9GR/L
15GR/L



Double edge

Right hand (R) shown.

		Cermet	Uncoated	
P	Steel	★	★	
M	Stainless		★	
K	Cast iron	☆	★	
N	Non-ferrous		★	
S	Superalloys		☆	
H	Hard materials			

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.001 (in)	CW±0.025 (mm)	RE (mm)	Cermet NS9530	Uncoated TH10	Uncoated UX30	CDX (mm)	BW (in)	S (in)	IC (in)	INSL (in)	D1 (in)
6GR100	R	0.039	1	0.2	●	●	●	1.5	0.220	0.092	0.187	0.254	0.098
6GL100	L	0.039	1	0.2			●	1.5	0.220	0.092	0.187	0.254	0.098
6GR150	R	0.059	1.5	0.2	●	●	●	1.5	0.220	0.092	0.187	0.254	0.098
6GL150	L	0.059	1.5	0.2		●	●	1.5	0.220	0.092	0.187	0.254	0.098
6GR200	R	0.079	2	0.2	●	●	●	1.5	0.220	0.092	0.187	0.254	0.098
6GL200	L	0.079	2	0.2		●	●	1.5	0.220	0.092	0.187	0.254	0.098
7GR100	R	0.039	1	0.2	●	●	●	1.5	0.220	0.121	0.219	0.290	0.102
7GR150	R	0.059	1.5	0.2	●	●	●	1.5	0.220	0.121	0.219	0.290	0.102
7GR200	R	0.079	2	0.2	●	●	●	1.5	0.220	0.121	0.219	0.290	0.102
7GL200	L	0.079	2	0.2		●	●	1.5	0.220	0.121	0.219	0.290	0.102
8GR150	R	0.059	1.5	0.2	●	●	●	2	0.244	0.152	0.219	0.400	0.102
8GR200	R	0.079	2	0.2	●	●	●	2	0.244	0.152	0.219	0.400	0.102
8GL200	L	0.079	2	0.2		●		2	0.244	0.152	0.219	0.400	0.102
8GR250	R	0.098	2.5	0.2	●	●	●	2	0.244	0.152	0.219	0.400	0.102
8GL250	L	0.098	2.5	0.2		●	●	2	0.244	0.152	0.219	0.400	0.102
8GR300	R	0.118	3	0.2	●	●	●	2	0.244	0.152	0.219	0.400	0.102
8GL300	L	0.118	3	0.2		●	●	2	0.244	0.152	0.219	0.400	0.102
8GR350	R	0.138	3.5	0.2		●	●	2	0.244	0.152	0.219	0.400	0.102
9GR150	R	0.059	1.5	0.2	●	●	●	2	0.303	0.183	0.250	0.510	0.114
9GL150	L	0.059	1.5	0.2	●		●	2	0.303	0.183	0.250	0.510	0.114
9GR200	R	0.079	2	0.2	●	●	●	3	0.303	0.183	0.250	0.510	0.114
9GL200	L	0.079	2	0.2	●	●	●	3	0.303	0.183	0.250	0.510	0.114
9GR250	R	0.098	2.5	0.2	●	●	●	3	0.303	0.183	0.250	0.510	0.114
9GL250	L	0.098	2.5	0.2	●		●	3	0.303	0.183	0.250	0.510	0.114
9GR300	R	0.118	3	0.2	●	●	●	3	0.303	0.183	0.250	0.510	0.114
9GL300	L	0.118	3	0.2	●	●	●	3	0.303	0.183	0.250	0.510	0.114
9GR350	R	0.138	3.5	0.2	●	●	●	3	0.303	0.183	0.250	0.510	0.114
9GL350	L	0.138	3.5	0.2	●		●	3	0.303	0.183	0.250	0.510	0.114
15GR200	R	0.079	2	0.2	●	●	●	3	0.425	0.201	0.362	0.819	0.189
15GR250	R	0.098	2.5	0.2	●	●	●	3	0.425	0.201	0.362	0.819	0.189
15GR300	R	0.118	3	0.2	●	●	●	3	0.425	0.201	0.362	0.819	0.189
15GL300	L	0.118	3	0.2			●	3	0.425	0.201	0.362	0.819	0.189
15GR350	R	0.138	3.5	0.2	●	●	●	3	0.425	0.201	0.362	0.819	0.189
15GR400	R	0.157	4	0.2	●	●	●	4	0.425	0.201	0.362	0.819	0.189
15GR450	R	0.177	4.5	0.2		●	●	4	0.425	0.201	0.362	0.819	0.189
15GL450	L	0.177	4.5	0.2		●		4	0.425	0.201	0.362	0.819	0.189
15GR500	R	0.197	5	0.2		●	●	5	0.425	0.201	0.362	0.819	0.189

Note: Use right-hand holder (□NGR ～) with right-hand insert (□GR ～); and left-hand holder (□NGL ～) with left-hand insert (□GL ～).

● : Line up

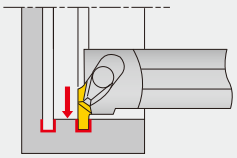
Reference pages: Toolholders → F182, F183, Standard cutting conditions → F186

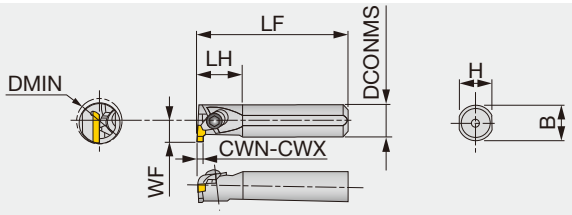
STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed rate: *f* (ipr) **GMR...	Feed rate: *f* (ipr) **GR/L...
P	Carbon steel 1045, etc.	AH7025	262 - 591	0.0012 - 0.0047	-
		NS9530	262 - 656	-	0.002 - 0.0059
		UX30	131 - 492	-	0.002 - 0.0059
	Alloy steel 4137, etc.	AH7025	262 - 591	0.0012 - 0.0047	-
		NS9530	262 - 656	-	0.002 - 0.0059
		UX30	131 - 492	-	0.002 - 0.0059
M	Stainless steel 304, etc.	AH7025	164 - 394	0.0012 - 0.0047	-
		UX30	131 - 328	-	0.0012 - 0.0039
K	Gray cast irons No.250B, etc.	AH7025	164 - 722	0.0012 - 0.0047	-
		TH10	197 - 656	-	0.002 - 0.0059
	Ductile cast irons 60-40-18, etc.	AH7025	164 - 591	0.0012 - 0.0047	-
		TH10	131 - 525	-	0.002 - 0.0059
S	Titanium alloys Ti-6Al-4V, etc.	AH7025	98 - 262	0.0012 - 0.0047	-
		TH10	66 - 164	-	0.002 - 0.0031
	Superalloys Inconel718, etc.	AH7025	66 - 197	0.0012 - 0.0047	-
		TH10	33 - 98	-	0.0012 - 0.0031

CGXR/L

Internal grooving





Right hand (R) shown.

Metric	Material	CWN	CWX	DMIN	CDX	DCONMS	H	B	LF	LH	WF	Insert	Torque
CGXR/L0016	Steel	1	3	20	3	16	15	15.5	150	24	11.3	GIR/L52...	2.2
CGXR/L0020	Steel	1	3	24	3	20	18	19	180	30	13.3	GIR/L52...	2.2
CGXR/L0025	Steel	1	5	32	5.3	25	23	24	200	38	18	GIR/L63...	5
CGXR/L0032	Steel	1	5	40	5.3	32	30	31	250	48	23	GIR/L63...	5
CGXR/L0040	Steel	1	5	48	5.3	40	37	38.5	300	60	27	GIR/L63...	5
CGXR/L16SC	Carbide	1	3	20	3	16	15	-	200	24	11.3	GIR/L52...	2.2

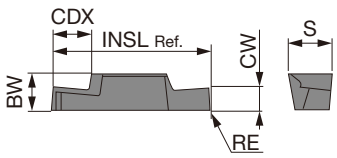
Note: Use right-hand holder (CGXR) with right-hand insert (GIR); and left-hand holder (L) with left-hand insert (GIL).
Torque: Recommended clamping torque: N·m

SPARE PARTS

Designation	Clamp set	Wrench1	Wrench2
CGXR/L0016/20	CSW-0	-	P-2.5T
CGXR/L0025/32/40	CSW-2	P-4	-
CGXR/L16SC	CSW-0	-	P-2.5T

INSERT

GIR/L



Right hand (R) shown.

P	Steel	★
M	Stainless	☆
K	Cast iron	☆
N	Non-ferrous	★
S	Superalloys	☆
H	Hard materials	

★ : First choice
☆ : Second choice

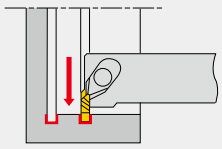
Designation	HAND	CW±0.002 (in)	CW±0.05 (mm)	RE (mm)	Cermet NS9530	Uncoated TH10	CDX (mm)	INSL (mm)	BW (mm)	S (mm)
GIR5210-02	R	0.039	1	0.2	●	●	1.5	15	3.5	4.4
GIL5210-02	L	0.039	1	0.2	●	●	1.5	15	3.5	4.4
GIR5215-02	R	0.059	1.5	0.2	●	●	2.3	15	3.5	4.4
GIL5215-02	L	0.059	1.5	0.2	●	●	2.3	15	3.5	4.4
GIR5220-02	R	0.079	2	0.2	●	●	3	15	3.5	4.4
GIL5220-02	L	0.079	2	0.2	●	●	3	15	3.5	4.4
GIR5225-02	R	0.098	2.5	0.2	●	●	3	15	3.5	4.4
GIL5225-02	L	0.098	2.5	0.2		●	3	15	3.5	4.4
GIR5230-02	R	0.118	3	0.2	●	●	3	15	3.5	4.4
GIL5230-02	L	0.118	3	0.2		●	3	15	3.5	4.4
GIR6310-02	R	0.039	1	0.2	●	●	1.5	24	5.5	6.4
GIL6310-02	L	0.039	1	0.2		●	1.5	24	5.5	6.4
GIR6315-02	R	0.059	1.5	0.2	●	●	2.3	24	5.5	6.4
GIL6315-02	L	0.059	1.5	0.2	●	●	2.3	24	5.5	6.4
GIR6320-02	R	0.079	2	0.2	●	●	3	24	5.5	6.4
GIL6320-02	L	0.079	2	0.2	●	●	3	24	5.5	6.4
GIR6325-02	R	0.098	2.5	0.2	●	●	3.8	24	5.5	6.4
GIL6325-02	L	0.098	2.5	0.2	●	●	3.8	24	5.5	6.4
GIR6330-02	R	0.118	3	0.2	●	●	4.5	24	5.5	6.4
GIL6330-02	L	0.118	3	0.2	●	●	4.5	24	5.5	6.4
GIR6335-02	R	0.138	3.5	0.2	●	●	5.3	24	5.5	6.4
GIL6335-02	L	0.138	3.5	0.2	●	●	5.3	24	5.5	6.4
GIR6340-02	R	0.157	4	0.2	●	●	5.3	24	5.5	6.4
GIL6340-02	L	0.157	4	0.2	●	●	5.3	24	5.5	6.4
GIR6345-02	R	0.177	4.5	0.2	●	●	5.3	24	5.5	6.4
GIL6345-02	L	0.177	4.5	0.2		●	5.3	24	5.5	6.4
GIR6350-02	R	0.197	5	0.2	●	●	5.3	24	5.5	6.4
GIL6350-02	L	0.197	5	0.2		●	5.3	24	5.5	6.4

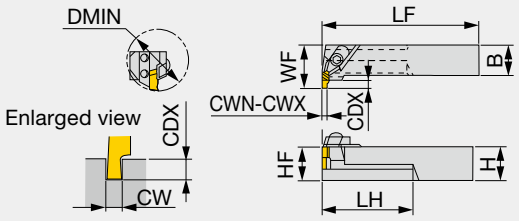
Use right-hand toolholders (CGXR〜) with right-hand inserts (GIR); and left-hand toolholders (GX-****LI) with left-hand inserts (XGR).

● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed: *f* (ipr)		
				CW < 0.079"	CW = 0.079" - 0.157"	CW > 0.157"
P	Carbon steel	NS9530	262 - 492	0.002 - 0.004	0.003 - 0.006	0.003 - 0.008
K	Cast iron, Light alloys	TH10	197 - 492	0.002 - 0.004	0.003 - 0.006	0.003 - 0.008





Right hand (R) shown.

Inch	CWN	CWX	DMIN	CDX	H	B	LF	LH	HF	WF	Insert	Torque
GX-1212RIU	0.039	0.177	2.165	0.059 - 0.236	0.750	0.75	6.30	2.36	0.75	1.37	XGL63...	3.69
GX-1616RIU	0.039	0.177	2.165	0.059 - 0.236	1.00	1.00	7.87	1.96	1.00	1.37	XGL63...	3.69

Metric	CWN	CWX	DMIN	CDX	H	B	LF	LH	HF	WF	Insert	Torque*
GX-2525R/LI	1	4.5	55	1.5 - 6	25	25	200	70	25	35	XGL/R63...	5

Use right-hand toolholders (GX-****RI) with left-hand inserts (XGL...); and left-hand toolholders (GX-****LI) with right-hand inserts (XGR...).
Torque: Recommended clamping torque: lbs·ft (*N·m)

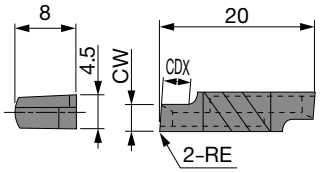
SPARE PARTS

Designation	Clamp set	Clamp screw	Shim	Shim screw	Wrench
GX-1212RIU	CP81B	RT-1	SL-7R	BHM4-8	P-4
GX-2525RI	CP81B	RT-1	SL-2R	BHM3-8	P-4
GX-1616RIU, GX-2525LI	CP81B	RT-1	SL-2L	BHM3-8	P-4

Note: Max. groove width and max. groove depth will depend on the insert type.

INSERT

XGR/L



Right hand (R) shown.
Unit: mm

		Cermet		Uncoated		
		NS9530		TH10	UX30	
P	Steel	★		☆	★	
M	Stainless				★	
K	Cast iron	☆		★		
N	Non-ferrous			★		
S	Superalloys			☆		
H	Hard materials					

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Cermet NS9530	Uncoated TH10	Uncoated UX30	CDX (in)
XGR6310-02	R	1	0.039	0.008	●	●	●	0.059
XGL6310-02	L	1	0.039	0.008	●	●	●	0.059
XGR6315-02	R	1.5	0.059	0.008	●	●	●	0.091
XGL6315-02	L	1.5	0.059	0.008	●	●	●	0.091
XGR6320-02	R	2	0.079	0.008	●	●	●	0.118
XGL6320-02	L	2	0.079	0.008	●	●	●	0.118
XGR6325-02	R	2.5	0.098	0.008	●	●	●	0.150
XGL6325-02	L	2.5	0.098	0.008	●	●	●	0.150
XGR6330-02	R	3	0.118	0.008	●	●	●	0.177
XGL6330-02	L	3	0.118	0.008	●	●	●	0.177
XGR6335-02	R	3.5	0.138	0.008	●	●	●	0.209
XGL6335-02	L	3.5	0.138	0.008	●	●	●	0.209
XGR6340-02	R	4	0.157	0.008	●	●	●	0.236
XGL6340-02	L	4	0.157	0.008	●	●	●	0.236
XGR6345-02	R	4.5	0.177	0.008	●	●	●	0.236
XGL6345-02	L	4.5	0.177	0.008	●	●	●	0.236

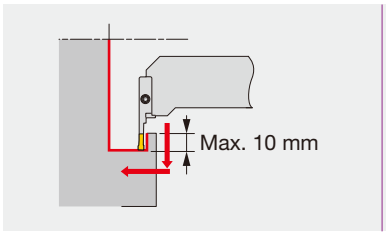
Use right-hand toolholders (GX-****RI) with left-hand inserts (XGL...)
left-hand toolholders (GX-****LI) with right-hand inserts (XGR...).

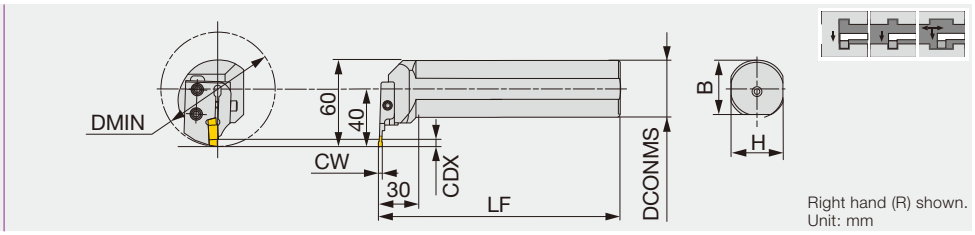
● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed: *f* (ipr) CW < 0.079"	CW = 0.079" - 0.157"	CW > 0.157"
P	Carbon steel	NS9530	262 - 656	0.002 - 0.004	0.003 - 0.008	0.003 - 0.010
		UX30	197 - 492	0.002 - 0.004	0.003 - 0.008	0.003 - 0.010
K	Cast irons , Light alloys	TH10	197 - 492	0.002 - 0.004	0.003 - 0.008	0.003 - 0.010
H	Hardened steel	BX360	164 - 591	0.002 - 0.006	0.002 - 0.006	0.002 - 0.006

MY-T SERIES
CGWTR/L0040-FLL/R3NP
Internal grooving and turning toolholder





Right hand (R) shown.
Unit: mm

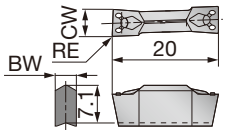
Metric	CW	DMIN	CDX	DCONMS	LF	H	B	Insert	Shank	Adapter	Torque
CGWTR/L0040-FLL/R3NP	3	80	10	40	180	37.5	37	FLEX30L/R	CGWTR/L0040	FLL/R3NP	5

Please place an order with the designation of a set or a shank+a adapter
Note: Use right-hand shanks (CGWTR) with left-hand adapters (FLL3NP); and left-hand shanks (CGWTL) with right-hand adapters (FLR3NP).
Torque: Recommended clamping torque: N·m

SPARE PARTS

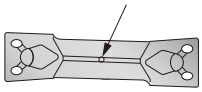
Designation	Clamping screw	Adapter screw	Wrench
CGWTR/L0040-FLL/R3NP	CHHM5-18	CSHB-6	P-4

INSERT
FLEX(R/L)



Right hand (R) shown.
Unit: mm

Recess



To distinguish the insert hands, the V-shape surface (top surface) of a left-hand insert has a recess. (not of a right-hand insert)

		Coated			Cermet			Uncoated			
P	Steel	★			★			★			
M	Stainless							★			
K	Cast iron				☆						
N	Non-ferrous										
S	Superalloys										
H	Hard materials										

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.002 (in)	CW±0.05 (mm)	RE (mm)	T9225	NS9530	UX30	BW (mm)
FLEX30R	R	0.118	3	0.4		●		2.2
FLEX30L	L	0.118	3	0.4		●		2.2
FLEX40R	R	0.157	4	0.4		●		3.1
FLEX40L	L	0.157	4	0.4		●		3.1
FLEX50R	R	0.197	5	0.4	●	●	●	4
FLEX50L	L	0.197	5	0.4	●	●	●	4

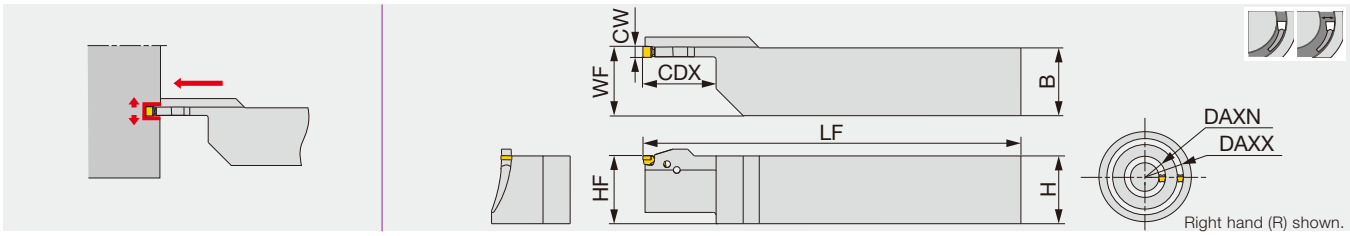
● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed: *f* (ipr) Grooving	Turning
P	Carbon steel	T9225	262 - 984	0.002 - 0.010	0.004 - 0.012
		NS9530	262 - 656	0.002 - 0.010	0.004 - 0.012
		UX30	197 - 492	0.002 - 0.010	0.004 - 0.012

ETFR/L

Face grooving and turning toolholder



Inch	CW	DAXN	DAXX	CDX	H	B	LF	HF	WF	Insert
ETFR/L12-4T15-030035	0.157	1.181	1.378	0.591	0.750	0.750	5.000	0.750	0.770	E**4...
ETFR/L16-4T15-030035	0.157	1.181	1.378	0.591	1.000	1.000	6.000	1.000	1.020	E**4...
ETFR/L12-4T22-035045	0.157	1.378	1.772	0.866	0.750	0.750	5.000	0.750	0.770	E**4...
ETFR/L16-4T22-035045	0.157	1.378	1.772	0.866	1.000	1.000	6.000	1.000	1.020	E**4...
ETFR/L12-4T25-045055	0.157	1.772	2.165	0.984	0.750	0.750	5.000	0.750	0.770	E**4...
ETFR/L16-4T25-045055	0.157	1.772	2.165	0.984	1.000	1.000	6.000	1.000	1.020	E**4...
ETFR/L12-4T25-055075	0.157	2.165	2.953	0.984	0.750	0.750	5.000	0.750	0.770	E**4...
ETFR/L16-4T25-055075	0.157	2.165	2.953	0.984	1.000	1.000	6.000	1.000	1.020	E**4...
ETFR/L12-4T25-075120	0.157	2.953	4.724	0.984	0.750	0.750	5.000	0.750	0.770	E**4...
ETFR/L16-4T25-075120	0.157	2.953	4.724	0.984	1.000	1.000	6.000	1.000	1.020	E**4...
ETFR/L16-4T25-120200	0.157	4.724	7.874	0.984	1.000	1.000	6.000	1.000	1.020	E**4...
ETFR/L16-4T25-200500	0.157	7.874	19.685	0.984	1.000	1.000	6.000	1.000	1.020	E**4...
ETFR/L16-5T25-035045	0.197	1.378	1.772	0.984	1.000	1.000	6.000	1.000	1.020	ETX5...
ETFR/L16-5T25-045055	0.197	1.772	2.165	0.984	1.000	1.000	6.000	1.000	1.020	ETX5...
ETFR/L16-5T25-055075	0.197	2.165	2.953	0.984	1.000	1.000	6.000	1.000	1.020	ETX5...
ETFR/L16-5T32-075120	0.197	2.953	4.724	1.260	1.000	1.000	6.000	1.000	1.020	ETX5...
ETFR/L16-5T32-120200	0.197	4.724	7.874	1.260	1.000	1.000	6.000	1.000	1.020	ETX5...
ETFR/L16-5T32-200500	0.197	7.874	19.685	1.260	1.000	1.000	6.000	1.000	1.020	ETX5...
ETFR/L16-6T25-040055	0.236	1.575	2.165	0.984	1.000	1.000	6.000	1.000	1.020	ETX6...
ETFR/L16-6T25-055075	0.236	2.165	2.953	0.984	1.000	1.000	6.000	1.000	1.020	ETX6...
ETFR/L16-6T32-075120	0.236	2.953	4.724	1.260	1.000	1.000	6.000	1.000	1.020	ETX6...
ETFR/L16-6T32-120200	0.236	4.724	7.874	1.260	1.000	1.000	6.000	1.000	1.020	ETX6...
ETFR/L16-6T32-200500	0.236	7.874	19.685	1.260	1.000	1.000	6.000	1.000	1.020	ETX6...

Metric	CW	DAXN	DAXX	CDX	H	B	LF	HF	WF	Insert
ETFR/L2020-4T15-030035	4	30	35	15	20	20	125	20	20.5	E**4...
ETFR/L2525-4T15-030035	4	30	35	15	25	25	150	25	25.5	E**4...
ETFR/L2020-4T22-035045	4	35	45	22	20	20.	125	20	20.5	E**4...
ETFR/L2525-4T22-035045	4	35	45	22	25	25	150	25	25.5	E**4...
ETFR/L2020-4T25-045055	4	45	55	25	20	20	125	20	20.5	E**4...
ETFR/L2525-4T25-045055	4	45	55	25	25	25	150	25	25.5	E**4...
ETFR/L2020-4T25-055075	4	55	75	25	20	20	125	20	20.5	E**4...
ETFR/L2525-4T25-055075	4	55	75	25	25	25	150	25	25.5	E**4...
ETFR/L2020-4T25-075120	4	75	120	25	20	20.	125	20	20.5	E**4...
ETFR/L2525-4T25-075120	4	75	120	25	25	25	150	25	25.5	E**4...
ETFR/L2525-4T25-120200	4	120	200	25	25	25	150	25	25.5	E**4...
ETFR/L2525-4T25-200500	4	200	500	25	25	25	150	25	25.5	E**4...
ETFR/L2525-5T25-035045	5	35	45	25	25	25	150	25	25.5	ETX5...
ETFR/L2525-5T25-045055	5	45	55	25	25	25	150	25	25.5	ETX5...
ETFR/L2525-5T25-055075	5	55	75	25	25	25	150	25	25.5	ETX5...
ETFR/L2525-5T32-075120	5	75	120	32	25	25	150	25	25.5	ETX5...
ETFR/L2525-5T32-120200	5	120	200	32	25	25	150	25	25.5	ETX5...
ETFR/L2525-5T32-200500	5	200	500	32	25	25	150	25	25.5	ETX5...
ETFR/L2525-6T25-040055	6	40	55	25	25	25	150	25	25.5	ETX6...
ETFR/L2525-6T25-055075	6	55	75	25	25	25	150	25	25.5	ETX6...
ETFR/L2525-6T32-075120	6	75	120	32	25	25	150	25	25.5	ETX6...
ETFR/L2525-6T32-120200	6	120	200	32	25	25	150	25	25.5	ETX6...
ETFR/L2525-6T32-200500	6	200	500	32	25	25	150	25	25.5	ETX6...

Wrench (ECW...) is not included. Please order it separately.

SPARE PARTS

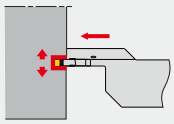
Designation	Wrench (Optional)
ETFR/L...	ECW-456EF

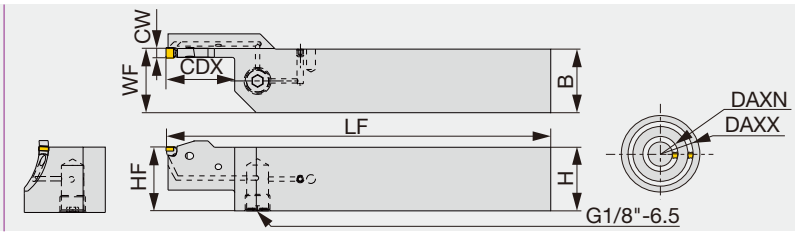
Reference pages: Inserts → F194, F195, Standard cutting conditions → F195

ETFR-CHP

Tube connection

Face grooving and turning toolholder, with high pressure coolant capability





Right hand (R) shown.

Inch	CW	DAXN	DAXX	CDX	H	B	LF	HF	WF	Insert
ETFR16-4T15-030035-CHP	0.157	1.181	1.378	0.591	1.000	1.000	6.000	1.000	1.020	E**4...
ETFR16-4T22-035045-CHP	0.157	1.378	1.772	0.866	1.000	1.000	6.000	1.000	1.020	E**4...
ETFR16-4T25-045055-CHP	0.157	1.772	2.165	0.984	1.000	1.000	6.000	1.000	1.020	E**4...
ETFR16-4T25-055075-CHP	0.157	2.165	2.953	0.984	1.000	1.000	6.000	1.000	1.020	E**4...
ETFR16-4T25-075120-CHP	0.157	2.953	4.724	0.984	1.000	1.000	6.000	1.000	1.020	E**4...
ETFR16-4T25-120200-CHP	0.157	4.724	7.874	0.984	1.000	1.000	6.000	1.000	1.020	E**4...
ETFR16-4T25-200500-CHP	0.157	7.874	19.685	0.984	1.000	1.000	6.000	1.000	1.020	E**4...

Metric	CW	DAXN	DAXX	CDX	H	B	LF	HF	WF	Insert
ETFR2525-4T15-030035-CHP	4	30	35	15	25	25	150	25	25.5	E**4...
ETFR2525-4T22-035045-CHP	4	35	45	22	25	25	150	25	25.5	E**4...
ETFR2525-4T25-045055-CHP	4	45	55	25	25	25	150	25	25.5	E**4...
ETFR2525-4T25-055075-CHP	4	55	75	25	25	25	150	25	25.5	E**4...
ETFR2525-4T25-075120-CHP	4	75	120	25	25	25	150	25	25.5	E**4...
ETFR2525-4T25-120200-CHP	4	120	200	25	25	25	150	25	25.5	E**4...
ETFR2525-4T25-200500-CHP	4	200	500	25	25	25	150	25	25.5	E**4...

Wrench (ECW...) is not included. Please order it separately.

SPARE PARTS

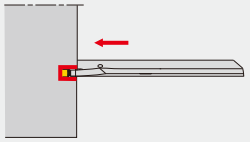


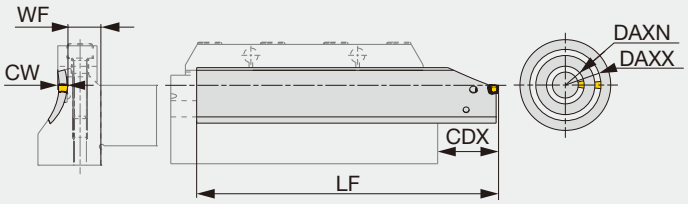
Designation	Wrench (Optional)
ETFR/L...	ECW-456EF

Reference pages: Inserts → F194, F195, Standard cutting conditions → F195
Parts for coolant hose → F290

EFPR/L

Face grooving blade





Right hand (R) shown.

Metric	CW	DAXN	DAXX	WF	LF	Min. CDX	Max. CDX	Insert
EFPR/L-4-030035	4	30	35	13.6	125	18	50	E**4...
EFPR-4-035045	4	35	45	13.6	125	18	50	E**4...
EFPR-4-045055	4	45	55	13.6	125	18	50	E**4...
EFPR-4-055075	4	55	75	13.6	125	18	50	E**4...
EFPR-4-075120	4	75	120	13.6	140	18	65	E**4...
EFPR-4-120200	4	120	200	13.6	140	18	65	E**4...
EFPR-4-200500	4	200	500	13.6	140	18	65	E**4...
EFPR-5-035045	5	35	45	13.6	125	19	50	ETX5...
EFPR-5-045055	5	45	55	13.6	125	19	50	ETX5...
EFPR-5-055075	5	55	75	13.6	125	19	50	ETX5...
EFPR-5-075120	5	75	120	13.6	140	19	65	ETX5...
EFPR-5-120200	5	120	200	13.6	140	19	65	ETX5...
EFPR-5-200500	5	200	500	13.6	140	19	65	ETX5...
EFPR-6-045055	6	45	55	13.6	125	20	50	ETX6...
EFPR-6-055075	6	55	75	13.6	125	20	50	ETX6...
EFPR-6-075120	6	75	120	13.6	140	20	65	ETX6...
EFPR-6-120200	6	120	200	13.6	140	20	65	ETX6...
EFPR/L-6-200500	6	200	500	13.6	140	20	65	ETX6...

Wrench (ECW...) is not included. Please order it separately.

SPARE PARTS

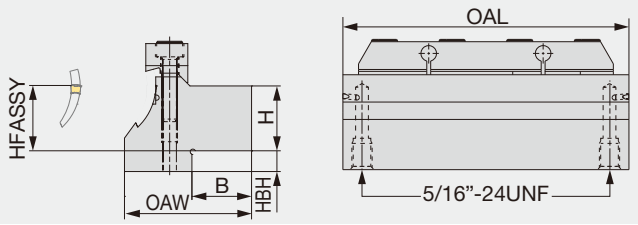


Designation	Wrench (Optional)
EFPR/L...	ECW-456I

Reference pages: Inserts → F194, F195, Standard cutting conditions → F195

CTBU-CHP for EFPR/L

Tool block for EFP blades with high pressure coolant capability



Inch	CW	DAXN	H	B	HFASSY	HBH	OAW	OAL	Blade
CTBU16-030-4U-CHP	0.157	1.181	1.000	0.905	1.000	0.299	1.929	4.331	EFPR/L-4-030035
CTBU16-035-4/5U-CHP	0.157, 0.197	1.378	1.000	0.905	1.000	0.299	1.929	4.331	EFPR/L-4/5-035045
CTBU16-045-4/5U-CHP	0.157, 0.197	1.772	1.000	0.905	1.000	0.299	1.929	4.331	EFPR/L-4/5-045055
CTBU16-055-4/5U-CHP	0.157, 0.197	2.165	1.000	0.905	1.000	0.299	1.850	4.331	EFPR/L-4/5-055075
CTBU16-075-4/5U-CHP	0.157, 0.197	2.953	1.000	0.905	1.000	0.299	1.771	4.331	EFPR/L-4/5-075120
CTBU16-120-4/5U-CHP	0.157, 0.197	4.724	1.000	0.905	1.000	0.299	1.732	4.331	EFPR/L-4/5-120200
CTBU16-200-4/5U-CHP	0.157, 0.197	7.874	1.000	0.905	1.000	0.299	1.633	4.331	EFPR/L-4/5-200500
CTBU16-045-6U-CHP	0.236	1.772	1.000	0.905	1.000	0.299	2.007	4.331	EFPR/L-6-045055
CTBU16-055-6U-CHP	0.236	2.165	1.000	0.905	1.000	0.299	1.929	4.331	EFPR/L-6-055075
CTBU16-075-6U-CHP	0.236	2.953	1.000	0.905	1.000	0.299	1.850	4.331	EFPR/L-6-075120
CTBU16-120-6U-CHP	0.236	4.724	1.000	0.905	1.000	0.299	1.811	4.331	EFPR/L-6-120200
CTBU16-200-6U-CHP	0.236	7.874	1.000	0.905	1.000	0.299	1.712	4.331	EFPR/L-6-200500

Metric	CW	DAXN	H	B	HFASSY	HBH	OAW	OAL	Blade
CTBU25-030-4-CHP	4	30	25	23	25	8	49	110	EFPR/L-4-030035
CTBU25-035-4/5-CHP	4, 5	35	25	23	25	8	49	110	EFPR-4/5-035045
CTBU25-045-4/5-CHP	4, 5	45	25	23	25	8	49	110	EFPR-4/5-045055
CTBU25-055-4/5-CHP	4, 5	55	25	23	25	8	47	110	EFPR-4/5-055075
CTBU25-075-4/5-CHP	4, 5	75	25	23	25	8	45	110	EFPR-4/5-075120
CTBU25-120-4/5-CHP	4, 5	120	25	23	25	8	44	110	EFPR-4/5-120200
CTBU25-200-4/5-CHP	4, 5	200	25	23	25	8	41.5	110	EFPR-4/5-200500
CTBU25-045-6-CHP	6	45	25	23	25	8	51	110	EFPR-6-045055
CTBU25-055-6-CHP	6	55	25	23	25	8	49	110	EFPR-6-055075
CTBU25-075-6-CHP	6	75	25	23	25	8	47	110	EFPR-6-075120
CTBU25-120-6-CHP	6	120	25	23	25	8	46	110	EFPR-6-120200
CTBU25-200-6-CHP	6	200	25	23	25	8	43.5	110	EFPR/L-6-200500

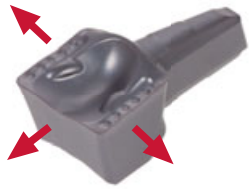
SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
CTBU25-***-***-CHP	CT-110	CM6X30-S	P-5

Reference pages: Inserts → F194, F195, Standard cutting conditions → F195
Parts for coolant hose → F290

CHIPBREAKER GUIDE

ETX type

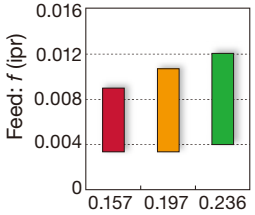


Multi-functional insert
Grooving and turning suitable for light to medium cutting
Well-balanced sharpness and strength

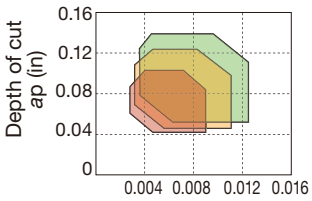
CW = 0.157" - 0.236"



■ Standard feed



■ Standard feed and depth of cut for turning



EGM type

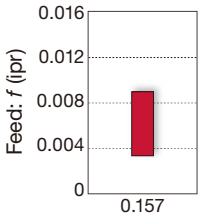


1st choice for parting
High strength
Well-designed edge

CW = 0.157"



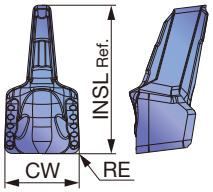
■ Standard feed



INSERTS

ETX





P	Steel	★
M	Stainless	★
K	Cast iron	☆
N	Non-ferrous	
S	Superalloys	
H	Hard materials	

★ : First choice
☆ : Second choice

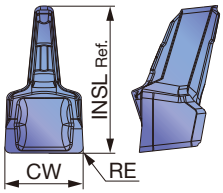
Designation	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH725	INSL (in)
ETX4-040	4	0.157	0.016	●	0.315
ETX5-040	5	0.197	0.016	●	0.394
ETX6-040	6	0.236	0.016	●	0.472

● : Line up

Reference pages: Toolholders → F190 - F193

EGM





P	Steel	★
M	Stainless	★
K	Cast iron	☆
N	Non-ferrous	
S	Superalloys	
H	Hard materials	

★ : First choice
☆ : Second choice

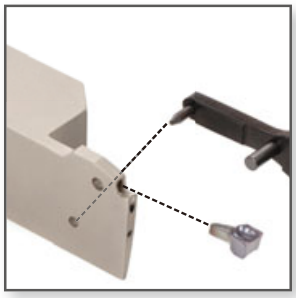
Designation	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH725	INSL (in)
EGM4-030	4	0.157	0.012	●	0.315

● : Line up

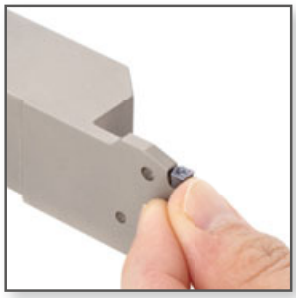
STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Grade	Chipbreaker	Cutting speed *Vc* (sfm)
P	Low carbon steel 1018, 1020, 1026, etc.	- 300 HB	AH725	ETX	262 - 591
		- 300 HB	AH725	EGM	262 - 591
	Carbon steel, Alloy steel 1045, 1055, etc.	- 300 HB	AH725	ETX	262 - 591
		- 300 HB	AH725	EGM	262 - 591
	Prehardened steel NAK80, PX5, etc.	- 300 HB	AH725	ETX	262 - 591
		- 300 HB	AH725	EGM	262 - 591
M	Stainless steel 304SS, 316SS, 17-4 PH, etc.	-	AH725	ETX	164 - 394
		-	AH725	EGM	164 - 394

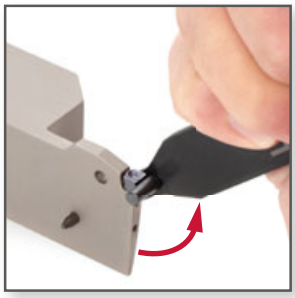
Procedure to clamp and unclanp insert



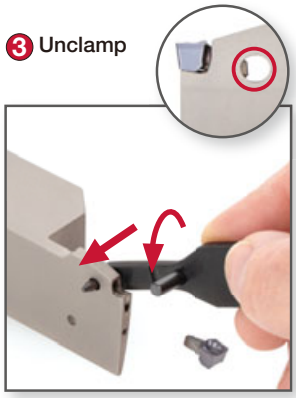
1 Put the insert in the Unclamp pocket



2 Turn the wrench Push the insert into the pocket to clamp



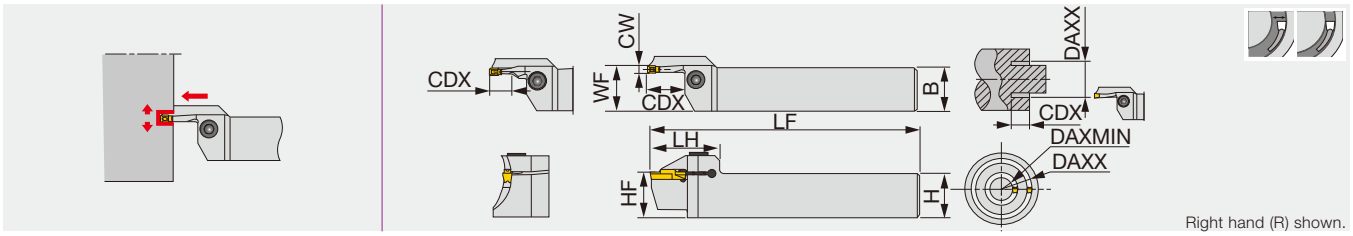
3 Unclamp



Reference pages: Toolholders → F190 - F193

CTFR/L

Face grooving and turning toolholder



Right hand (R) shown.

Metric	CW	DAXMIN	DAXX	Seat size	CDX	H	B	LF	LH	HF	WF (1)	Torque
CTFR/L2525-3T10-024035	3	24	35	3	10	25	25	150	38	25	25.5	5
CTFR/L2525-3T10-029040	3	29	40	3	10	25	25	150	38	25	25.5	5
CTFR/L2525-3T10-034050	3	34	50	3	10	25	25	150	38	25	25.5	5
CTFR/L2525-3T15-044070	3	44	70	3	15	25	25	150	38	25	25.5	5
CTFR/L2525-3T15-064100	3	64	100	3	15	25	25	150	38	25	25.5	5
CTFR/L2525-4T10-022036	4	22	36	4	10	25	25	150	39	25	25.6	5
CTFR/L2525-4T20-028042	4	28	42	4	20	25	25	150	39	25	25.6	5
CTFR/L2525-4T20-034050	4	34	50	4	20	25	25	150	39	25	25.6	5
CTFR/L2525-4T20-042070	4	42	70	4	20	25	25	150	39	25	25.6	5
CTFR/L2525-4T20-062120	4	62	120	4	20	25	25	150	39	25	25.6	5
CTFR/L2525-4T20-112200	4	112	200	4	20	25	25	150	39	25	25.6	5
CTFR/L2525-5T25-050080	5	50	80	5	25	25	25	150	49	25	25.6	12
CTFR/L2525-5T25-070110	5	70	110	5	25	25	25	150	49	25	25.6	12
CTFR/L2525-5T25-100150	5	100	150	5	25	25	25	150	49	25	25.6	12
CTFR/L2525-5T25-140200	5	140	200	5	25	25	25	150	49	25	25.6	12
CTFR/L2525-6T25-048070	6	48	70	6	25	25	25	150	49	25	25.6	12
CTFR/L2525-6T25-058100	6	58	100	6	25	25	25	150	49	25	25.6	12
CTFR/L2525-6T25-088180	6	88	180	6	25	25	25	150	49	25	25.6	12
CTFR/L2525-6T25-168400	6	168	400	6	25	25	25	150	49	25	25.6	12

When depth is deeper than (insert length - 1.5 mm), 1 corner type is recommended.
Max. groove depth will be 15 mm with DTF insert.
Use the right-hand insert for the right-hand holder with DTF insert.
(1) WF is calculated with the groove width (CW) in the above table.
Torque: Recommended clamping torque: N·m

SPARE PARTS




Designation	Clamping screw	Wrench
CTFR/L2525-3T - 4T...	CM6X1X25-A	P-5
CTFR/L2525-5T - 6T...	CM8X1.25X25-A	P-6

INSERT

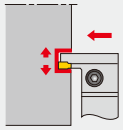
Designation	Seat size	Insert
CTFR/L2525-3T10-024035	3	DTF, DTX
CTFR/L2525-3T10-029040	3	DTF, DTX
CTFR/L2525-3T10-034050	3	DTF, DTX
CTFR/L2525-3T15-044070	3	DTF, DTX, DTR, DTE, DGG, DTM
CTFR/L2525-3T15-064100	3	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DGL, DTM
CTFR/L2525-4T10-022036	4	DTF, DTX
CTFR/L2525-4T20-028042	4	DTF, DTX, DTR
CTFR/L2525-4T20-034050	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL, SGN
CTFR/L2525-4T20-042070	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DTM, DGL
CTFR/L2525-4T20-062120	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DTM, DGL
CTFR/L2525-4T20-112200	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DTM, DGL
CTFR/L2525-5T25-...	5	DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL, SGN
CTFR/L2525-6T25-...	6	DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL, SGN

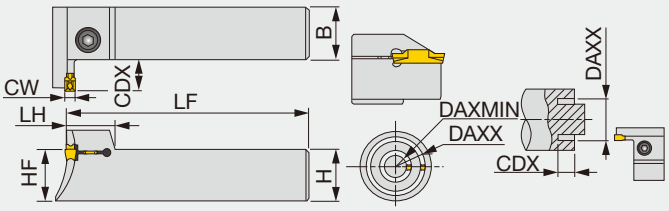
Insert	Groove width CW (mm)	Face grooving Min. machining dia. DAXMIN (mm)
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

Reference pages: Inserts → F207 - F221, Standard cutting conditions → F222

CTFVR/L

Face grooving and turning perpendicular toolholder







Right hand (R) shown.

Metric	CW	DAXMIN	DAXX	Seat size	CDX	H	B	LF	LH	HF	Torque
CTFVR/L2525-3T10-024035	3	24	35	3	10	25	25	150	18	25	5
CTFVR/L2525-3T10-029040	3	29	40	3	10	25	25	150	18	25	5
CTFVR/L2525-3T10-034050	3	34	50	3	10	25	25	150	18	25	5
CTFVR/L2525-3T15-044060	3	44	60	3	15	25	25	150	18	25	5
CTFVR/L2525-3T15-054085	3	54	85	3	15	25	25	150	18	25	5
CTFVR/L2525-4T12-022040	4	22	40	4	12	25	25	150	18.5	25	8.5
CTFVR/L2525-4T15-032050	4	32	50	4	15	25	25	150	18.5	25	8.5
CTFVR/L2525-4T15-042060	4	42	60	4	15	25	25	150	18.5	25	8.5
CTFVR/L2525-4T15-052085	4	52	85	4	15	25	25	150	18.5	25	8.5
CTFVR/L2525-5T20-050080	5	50	80	5	20	25	25	150	22	25	12
CTFVR/L2525-5T20-070110	5	70	110	5	20	25	25	150	22	25	12
CTFVR/L2525-5T20-100150	5	100	150	5	20	25	25	150	22	25	12
CTFVR/L2525-5T20-140200	5	140	200	5	20	25	25	150	22	25	12
CTFVR/L2525-6T20-048085	6	48	85	6	20	25	25	150	22	25	12
CTFVR/L2525-6T20-073150	6	73	150	6	20	25	25	150	22	25	12
CTFVR/L2525-6T20-138250	6	138	250	6	20	25	25	150	22	25	12

When depth is deeper than (insert length - 1.5 mm), 1 corner type is recommended
Max. groove depth will be 15 mm with DTF insert.
Use the right-hand insert for the right-hand holder with DTF insert.
Torque: Recommended clamping torque: N·m

SPARE PARTS





Designation	Clamping screw	Wrench
CTFVR/L2525-3T...	CM5X0.8X25-A	P-4
CTFVR/L2525-4T...	CM6X1X25-A	P-5
CTFVR/L2525-5T..., 6T...	CM8X1.25X25-A	P-6

INSERT

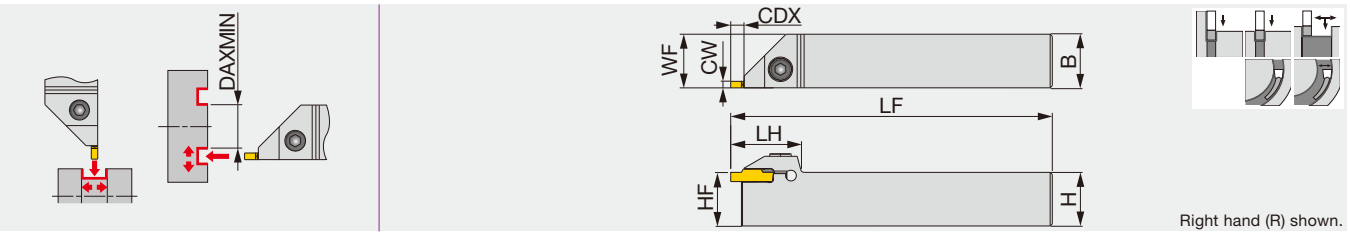
Designation	Seat size	Insert
CTFVR/L2525-3T10-024035	3	DTF, DTX
CTFVR/L2525-3T10-029040	3	DTF, DTX
CTFVR/L2525-3T10-034050	3	DTF, DTX, DTR
CTFVR/L2525-3T15-044060	3	DTF, DTX, DTR
CTFVR/L2525-3T15-054085	3	DTF, DTX, DTE, DGG, DTR, DTM
CTFVR/L2525-4T12-022040	4	DTF, DTX, DTR
CTFVR/L2525-4T15-032050	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL, SGN
CTFVR/L2525-4T15-042060	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DTM, DGL
CTFVR/L2525-4T15-052085	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DTM, DGL
CTFVR/L2525-5T20-...	5	DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL, SGN
CTFVR/L2525-6T20-...	6	DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL

Insert	Groove width CW (mm)	Face grooving Min. machining dia. DAXMIN (mm)
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

Reference pages: Inserts → F207 - F221, Standard cutting conditions → F222

CTEFR/L

External face grooving and turning toolholder



Right hand (R) shown.

Inch	CW	Seat size	CDX	H	B	LF	LH	HF	WF (1)	Torque
CTEFR/L12-4T04	0.157	2, 3, 4	0.189	0.750	0.750	5.000	1.300	0.750	0.770	6.27
CTEFR/L16-4T04	0.157	2, 3, 4	0.189	1.000	1.000	6.000	1.300	1.000	1.020	6.27
CTEFR/L12-6T04	0.236	5, 6	0.189	0.750	0.750	5.000	1.460	0.750	0.770	6.27
CTEFR/L16-6T04	0.236	5, 6	0.189	1.000	1.000	6.000	1.460	1.000	1.020	6.27

Metric	CW	Seat size	CDX	H	B	LF	LH	HF	WF (1)	Torque*
CTEFR/L2020-4T04	4	2, 3, 4	4.8	20	20	125	33	20	20.5	8.5
CTEFR/L2525-4T04	4	2, 3, 4	4.8	25	25	150	33	25	25.5	8.5
CTEFR/L2020-6T04	6	5, 6	4.8	20	20	125	37	20	20.6	8.5
CTEFR/L2525-6T04	6	5, 6	4.8	25	25	150	37	25	25.6	8.5

(1) "WF" value is calculated with groove width "CW" shown in the table.
Torque: Recommended clamping torque: lbs·ft (*N·m)

INCH SPARE PARTS

Designation	Clamping screw	Wrench
CTEFR/L12-4T04	CM6X1X20-A	P-5
CTEFR/L16-4T04	CM6X1X25-A	P-5
CTEFR/L12-6T04	CM6X1X20-A	P-5
CTEFR/L16-6T04	CM6X1X25-A	P-5

METRIC SPARE PARTS

Designation	Clamping screw	Wrench
CTEFR/L2020-4T04	CM6X1X20-A	P-5
CTEFR/L2525-4T04	CM6X1X25-A	P-5
CTEFR/L2020-6T04	CM6X1X20-A	P-5
CTEFR/L2525-6T04	CM6X1X25-A	P-5

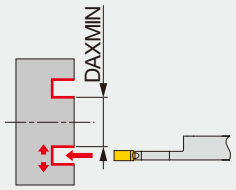
Insert	Groove width CW (in)	Face grooving Min. machining dia. DAXMIN (in)
DGM / DGS / SGN / DGL	0.079	11.614
DGM / DGS / SGN / DGL	0.118	3.622
DGM / DGS / SGN / DGL	0.157	1.457
DGM / DGS / SGN / DGL	0.197	2.362
DGM / DGS / DGL	0.236	2.244
DTX / DTM / DTR	0.079	11.614
DTE / DGG / DTM	0.118	2.441
DTE / DGG / DTM	0.157	1.654
DTE / DGG / DTM	0.197	2.520
DTE / DGG / DTM	0.236	2.402
DTR	0.118	1.732
DTR	0.157	1.260
DTR	0.197	1.890
DTR	0.236	1.890
DTX	0.118	0.866
DTX	0.157	0.787
DTX	0.197	0.787
DTX	0.236	0.906
DTF	0.118	0.787
DTF	0.157	0.787

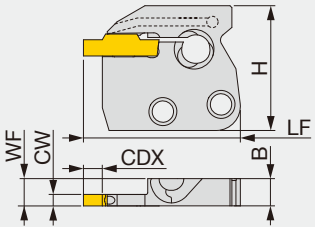
Insert	Groove width CW (mm)	Face grooving Min. machining dia. DAXMIN (mm)
DGM / DGS / SGN / DGL	2	295
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTX / DTM / DTR	2	295
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

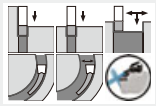
Reference pages: Inserts → F207 - F221, Standard cutting conditions → F222

CAEFR/L-CHP

Face and external grooving adapter, with high pressure coolant capability







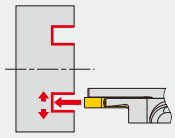
Right hand (R) shown.

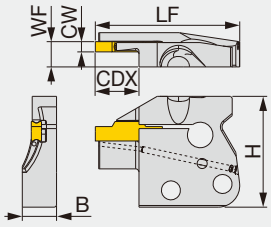
Metric	CW	Seat size	CDX	H	B	LF	WF (1)
CAEFR/L-4T04-CHP	4	2,3,4	4.8	33	7.2	41.5	7.7
CAEFR/L-6T04-CHP	6	5,6	4.8	33	7.2	46.3	7.8

(1) "WF" value is calculated with groove width "CW" shown in the table.

CAFR/L-CHP

Face grooving and turning adapter, with high pressure coolant capability









Right hand (R) shown.

Metric	CW	DAXMIN	DAXX	Seat size	CDX	H	B	LF	WF (1)
CAFR/L-3T12-040055-CHP	3	40	55	3	12	33	10.2	43	7.5
CAFR/L-3T12-055075-CHP	3	55	75	3	12	33	10.2	43	7.5
CAFR/L-3T12-075100-CHP	3	75	100	3	12	33	10.2	43	7.5
CAFR/L-3T12-100140-CHP	3	100	140	3	12	33	10.2	43	7.5
CAFR/L-3T12-140200-CHP	3	140	200	3	12	33	10.2	43	7.5
CAFR/L-4T16-050070-CHP	4	50	70	4	16	33	10.2	43	8
CAFR/L-4T16-070100-CHP	4	70	100	4	16	33	10.2	43	8
CAFR/L-4T16-100150-CHP	4	100	150	4	16	33	10.2	43	8
CAFR/L-4T16-150250-CHP	4	150	250	4	16	33	10.2	43	8
CAFR/L-5T20-055080-CHP	5	55	80	5	20	33	10.2	47	8.5
CAFR/L-5T20-080120-CHP	5	80	120	5	20	33	10.2	47	8.5
CAFR/L-5T20-120180-CHP	5	120	180	5	20	33	10.2	47	8.5
CAFR/L-5T20-180300-CHP	5	180	300	5	20	33	10.2	47	8.5
CAFR/L-5T20-300000-CHP	5	300	∞	5	20	33	10.2	47	8.5
CAFR/L-6T25-060090-CHP	6	60	90	6	25	33	10.2	52	9
CAFR/L-6T25-090150-CHP	6	90	150	6	25	33	10.2	52	9
CAFR/L-6T25-150250-CHP	6	150	250	6	25	33	10.2	52	9
CAFR/L-6T25-250400-CHP	6	250	400	6	25	33	10.2	52	9

When groove depth is larger than (insert length - 1.5 mm), please use 1-cornered insert.
Max. groove depth will be 15 mm with DTF insert.
Use the right-hand insert for the right-hand holder with DTF insert.
(1) WF is calculated with the groove width (CW) in the above table.

Insert	Groove width CW (mm)	Face grooving Min. machining dia. DAXMIN (mm)
DGM / DGS / SGN / DGL	2	295
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTX / DTM / DTR	2	295
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61

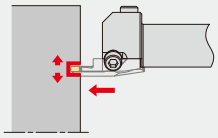
Insert	Groove width CW (mm)	Face grooving Min. machining dia. DAXMIN (mm)
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

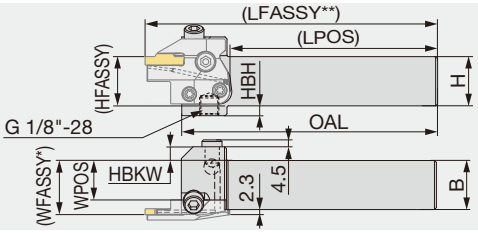
Reference pages: Inserts → F207 - F221, Shanks and toolholders → F200 - F202
Standard cutting conditions → F222, Technical Reference → L059

CHSR/L-CHP

Tube connection

Shank for adapter, with high pressure coolant capability





Right hand (R)
with left-hand adapter shown.

Inch	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque
CHSR/L12-CHP	0.750	0.750	5.000	4.035	0.560	0.510	0.750	0.190	CA*FL/R**-CHP	3.69
CHSR/L16-CHP	1.000	1.000	5.000	4.035	0.810	0.260	1.000	0.200	CA*FL/R**-CHP	3.69

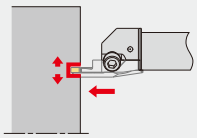
Metric	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP	20	20	130	105.5	15.1	12	20	10	CA*FL/R**-CHP	6.5
CHSR/L2525-CHP	25	25	130	105.5	20.1	7	25	5	CA*FL/R**-CHP	6.5

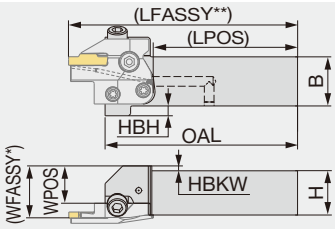
WFASSY* : Shank (WPOS) + adapter (WF)
LFASSY** : Shank (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: lbs·ft (*N·m)
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

CHSR/L-CHP-MC

Direct connection

Shank for adapter, with high pressure coolant capability





Right hand (R)
with left-hand adapter shown.

Metric	H	B	OAL	LPOS	WPOS	HBKW	HBH	Adapter (Option)	Torque
CHSR/L2020-CHP-MC	20	20	98	73.5	14	6	10	CA*FL/R**-CHP	6.5
CHSR/L2525-CHP-MC	25	25	98	73.5	19	-	5	CA*FL/R**-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)
LFASSY** : Shank (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: N·m
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHSR/L**-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179
CHSR/L**-CHP-MC	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	-

Recommended clamping torque (lbs·ft, N·m)

Clamping screw	Torque (lbs·ft)	Torque (N·m)
SR M5-04451	1.84	2.5
SR M6X12DIN6912	4.79	6.5
SR M6X20-XT	4.79	6.5

Combination of adapter and shank

Shank	External grooving adapter		Face grooving adapter		External and face grooving adapter	
	CAER**-CHP, -MD	CAEL**-CHP, -MD	CAFR**-CHP	CAFL**-CHP	CAEFR**-CHP	CAEFL**-CHP
CHSR**-CHP (-MC)	●			●	●	
CHSL**-CHP (-MC)		●	●			●

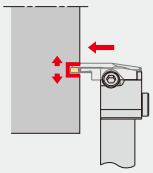
● : Corresponding

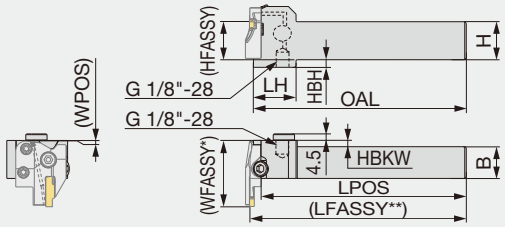
Reference pages: Inserts → F207 - F221, Adapters → F199, Standard cutting conditions → F222
Parts for coolant hose → F290, Technical Reference → L059

CHFVR/L-CHP

Tube connection

Shank for perpendicularly-mounted adapter, with high pressure coolant capability





Right hand (R)
with right-hand adapter shown.

Inch	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque
CHFVR/L12-CHP	0.750	0.750	5.500	1.100	5.307	0.020	0.234	0.750	0.431	CA*FR/L**-CHP	3.69
CHFVR/L16-CHP	1.000	1.000	5.500	1.100	5.307	0.020	-	1.000	0.200	CA*FR/L**-CHP	3.69

Metric	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHFVR/L2020-CHP	20	20	140	28	135.1	0.5	5	20	10	CA*FR/L**-CHP	6.5
CHFVR/L2525-CHP	25	25	140	28	135.1	0.5	0	25	5	CA*FR/L**-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (LF)
LFASSY** : Shank (LPOS) + adapter (WF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: lbs·ft (*N·m)
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHFVR/L...	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179

Recommended clamping torque (lbs·ft, N·m)

Clamping screw	Torque (lbs·ft)	Torque (N·m)
SR M5-04451	1.84	2.5
SR M6X12DIN6912	4.79	6.5
SR M6X20-XT	4.79	6.5

Combination of adapter and shank

Shank	External grooving adapter		Face grooving adapter		External and face grooving adapter	
	CAER**-CHP, -MD	CAEL**-CHP, -MD	CAFR**-CHP	CAFL**-CHP	CAEFR**-CHP	CAEFL**-CHP
CHFVR**-CHP		●	●			●
CHFVL**-CHP	●			●	●	

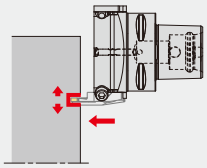
● : Corresponding

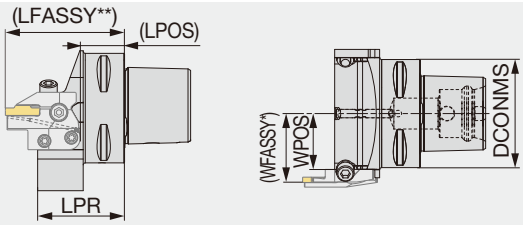
Reference pages: Inserts → F207 - F221, Adapters → F199, Standard cutting conditions → F222
Parts for coolant hose → F290, Technical Reference → L059

C*CHSN-CHP

Direct connection

Toolholder with TungCap connection, for adapter, with high pressure coolant capability





Left-hand (L) adapter shown.

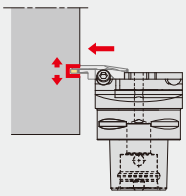
Metric	DCONMS	LPR	LPOS	WPOS	Adapter (Option)	Torque
C3CHSN19045-CHP	32	45	17.5	18.5	CA*FR/L**-CHP	6.5
C4CHSN21047-CHP	40	46.5	21.5	21	CA*FR/L**-CHP	6.5
C5CHSN26047-CHP	50	47	22.5	26	CA*FR/L**-CHP	6.5
C6CHSN33050-CHP	63	50	24.5	32.5	CA*FR/L**-CHP	6.5

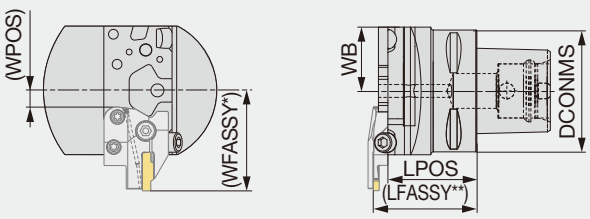
WFASSY* : Toolholder (WPOS) + adapter (WF)
LFASSY** : Toolholder (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: N·m
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

C*CHFVN-CHP

Direct connection

Toolholder with TungCap connection, for perpendicularly-mounted adapter, with high pressure coolant capability





Right-hand (R) adapter shown.

Metric	DCONMS	LPOS	WB	WPOS	Adapter (Option)	Torque
C3CHFVN26040-CHP	32	40	26	1.5	CA*FR/L**-CHP	6.5
C4CHFVN26046-CHP	40	46	26	1.5	CA*FR/L**-CHP	6.5
C5CHFVN26046-CHP	50	46	26	1.5	CA*FR/L**-CHP	6.5
C6CHFVN33046-CHP	63	46	33	8.5	CA*FR/L**-CHP	6.5

WFASSY* : Toolholder (WPOS) + adapter (LF)
LFASSY** : Toolholder (LPOS) + adapter (WF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: N·m
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring
C*CH**N**-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N

Recommended clamping torque (N·m)

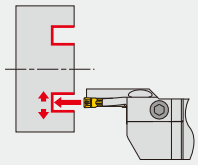
Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

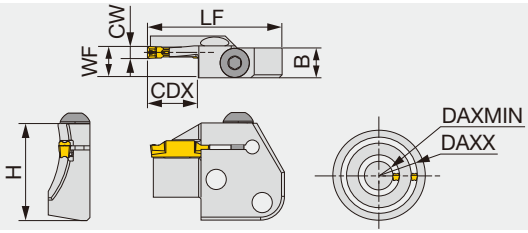
External
Internal
Face
Parting
Others

Reference pages: Inserts → F207 - F221, Adapters → F199, Standard cutting conditions → F222
Technical Reference → L059

CAFR/L

Face grooving and turning adapter





Right hand (R) shown.

Metric	CW	DAXMIN	DAXX	Seat size	CDX	H	B	LF	WF (1)	Torque
CAFR/L-3T12-040055	3	40	55	3	12	32.7	10	45	10.4	5
CAFR/L-3T12-055075	3	55	75	3	12	32.7	10	45	10.4	5
CAFR/L-3T12-075100	3	75	100	3	12	32.7	10	45	10.4	5
CAFR/L-3T12-100140	3	100	140	3	12	32.7	10	45	10.4	5
CAFR/L-3T12-140200	3	140	200	3	12	32.7	10	45	10.4	5
CAFR/L-4T16-050070	4	50	70	4	16	32.7	10	45	10.5	5
CAFR/L-4T16-070100	4	70	100	4	16	32.7	10	45	10.5	5
CAFR/L-4T16-100150	4	100	150	4	16	32.7	10	45	10.5	5
CAFR/L-4T16-150250	4	150	250	4	16	32.7	10	45	10.5	5
CAFR/L-5T20-055080	5	55	80	5	20	32.7	10	49	10.5	5
CAFR/L-5T20-080120	5	80	120	5	20	32.7	10	49	10.5	5
CAFR/L-5T20-120180	5	120	180	5	20	32.7	10	49	10.5	5
CAFR/L-5T20-180300	5	180	300	5	20	32.7	10	49	10.5	5
CAFR/L-5T20-300000	5	300	∞	5	20	32.7	10	49	10.5	5
CAFR/L-6T25-060090	6	60	90	6	25	32.7	10	55	10.5	5
CAFR/L-6T25-090150	6	90	150	6	25	32.7	10	55	10.5	5
CAFR/L-6T25-150250	6	150	250	6	25	32.7	10	55	10.5	5
CAFR/L-6T25-250400	6	250	400	6	25	32.7	10	55	10.5	5

When groove depth is larger than (insert length - 1.5 mm), please use 1-cornered insert.
Max. groove depth will be 15 mm with DTF insert.
Use the right-hand insert for the right-hand holder with DTF insert.
Not compatible with TungModularSystem
(1) WF is calculated with the groove width (CW) in the above table.
Torque: Recommended clamping torque: N·m

SPARE PARTS





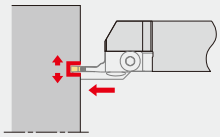
Designation	Clamping screw	Wrench
CAFR/L...	BHM6-20-A	P-4

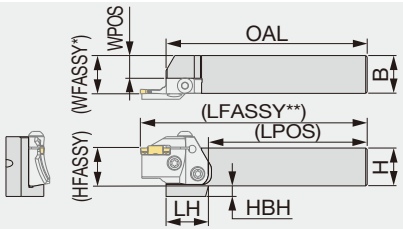
Insert	Groove width CW (mm)	Face grooving Min. machining dia. DAXMIN (mm)
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

Reference pages: Inserts → F207 - F221, Shanks and toolholders → F204, F205
Standard cutting conditions → F222

CHSR/L

Shank for adapter





Right hand (R)
with left-hand adapter shown.

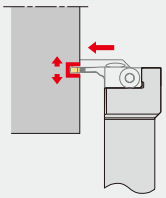
Inch	H	B	OAL	LPOS	LH	WPOS	HFASSY	HBH	Adapter (Option)
CHSR/L12-U	0.750	0.750	5.330	4.227	1.380	0.356	0.750	0.502	CAFL/R...
CHSR/L16-U	1.000	1.000	5.330	4.227	1.100	0.606	1.000	0.280	CAFL/R...
CHSR/L20-U	1.250	1.250	6.330	5.227	-	0.856	1.250	-	CAFL/R...

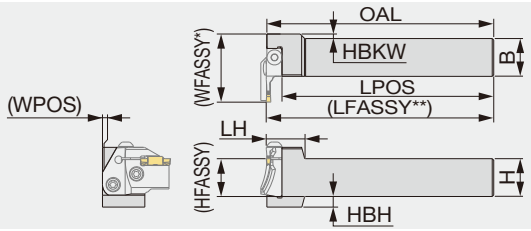
Metric	H	B	OAL	LPOS	LH	WPOS	HFASSY	HBH	Adapter (Option)
CHSR/L2020	20	20	133	105	35	10	20	12	CAFL/R...
CHSR/L2525	25	25	133	105	28	15	25	7	CAFL/R...
CHSR/L3232	32	32	153	125	-	22	32	-	CAFL/R...

WFASSY* : Shank (WPOS) + adapter (WF)
LFASSY** : Shank (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Not compatible with TungModularSystem

CHFVR/L

Shank for adapter, perpendicularly mounted





Right hand (R)
with right-hand adapter shown.

Inch	H	B	OAL	LPOS	LH	WPOS	HBKW	HFASSY	HBH	Adapter (Option)
CHFVR/L12-U	0.750	0.750	6.000	5.606	0.984	-0.001	0.352	0.750	0.502	CAFR/L...
CHFVR/L16-U	1.000	1.000	6.000	5.606	0.984	-0.001	0.102	1.000	0.276	CAFR/L...
CHFVR/L20-U	1.250	1.250	7.000	6.606	0.984	0.147	-	1.250	-	CAFR/L...

Metric	H	B	OAL	LPOS	LH	WPOS	HBKW	HFASSY	HBH	Adapter (Option)
CHFVR/L2020	20	20	150	140	25	0	8	20	12	CAFR/L...
CHFVR/L2525	25	25	150	140	25	0	3	25	7	CAFR/L...
CHFVR/L3232	32	32	170	160	25	4	-	32	-	CAFR/L...

WFASSY* : Shank (WPOS) + adapter (LF)
LFASSY** : Shank (LPOS) + adapter (WF)
The LFASSY or WFASSY value may change depending on the adapter type.
Not compatible with TungModularSystem

SPARE PARTS





Designation	Clamping screw	Wrench
CH**R/L...	CSHB-6-A	P-4

Combination of adapter and shank

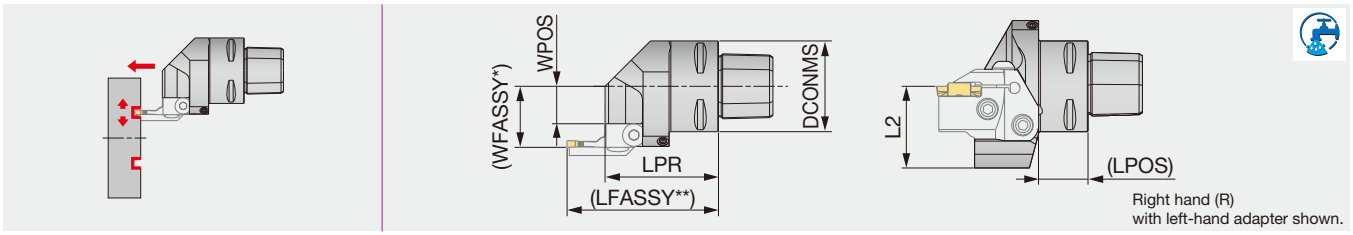
Shank	External grooving adapter		Face grooving adapter	
	CAER...	CAEL...	CAFR...	CAFL...
CHSR...	●			●
CHSL...		●	●	
CHFVR...		●	●	
CHFVL...	●			●

● : Corresponding

Reference pages: Inserts → F207 - F221, Adapters → F203, Standard cutting conditions → F222

C-CHSR/L

Toolholder with TungCap connection for adapter

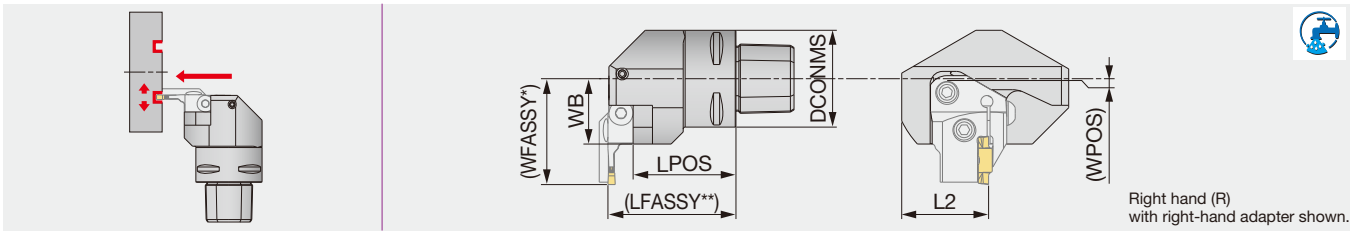


Metric	DCONMS	LPR	LPOS	L2	WPOS	Adapter (Option)
C3CHSR/L22050N	32	50	22.1	35	11.5	CAFL/R...
C4CHSR/L27050N	40	50	22.1	36	16.5	CAFL/R...
C5CHSR/L35060N	50	60	32.1	36	24.5	CAFL/R...
C6CHSR/L45065N	63	65	32.1	41	34.5	CAFL/R...

WFASSY* : Toolholder (WPOS) + adapter (WF)
LFASSY** : Toolholder (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type. If needed, the coolant direction can be adjusted by the nozzle.
Applicable for 7 MPa coolant. Not compatible with TungModularSystem.

C-CHFVR/L

Toolholder with TungCap connection for adapter, perpendicularly mounted



Metric	DCONMS	LPOS	L2	WB	WPOS	Adapter (Option)
C3CHFVR/L22040N	32	32.5	35	22	-5.9	CAFR/L...
C4CHFVR/L27050N	40	42.5	36	27	-0.9	CAFR/L...
C5CHFVR/L35060N	50	49.5	36	35	7.1	CAFR/L...
C6CHFVR/L45065N	63	54.5	41	45	17.1	CAFR/L...

WFASSY* : Toolholder (WPOS) + adapter (LF)
LFASSY** : Toolholder (LPOS) + adapter (WF)
The LFASSY or WFASSY value may change depending on the adapter type. If needed, the coolant direction can be adjusted by the nozzle.
Applicable for 7 MPa coolant. Not compatible with TungModularSystem.

SPARE PARTS

Designation	Coolant parts	Clamping screw	Wrench
C3CH**R/L...	SATZ-M8X1-M3	CSHB-6-A	P-4
C4CH**R/L...	SATZ-M8X1-M3	CSHB-6-A	P-4
C5CH**R/L...	SATZ-M10X1-M5	CSHB-6-A	P-4
C6CH**R/L...	SATZ-M10X1-M5	CSHB-6-A	P-4

Combination of adapter and toolholder

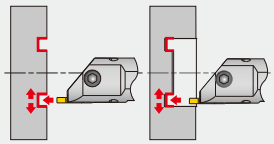
Toolholder	External grooving adapter		Face grooving adapter	
	CAER...	CAEL...	CAFR...	CAFL...
C*CHSR...	●			●
C*CHSL...		●	●	
C*CHFVR...		●	●	
C*CHFVL...	●			●

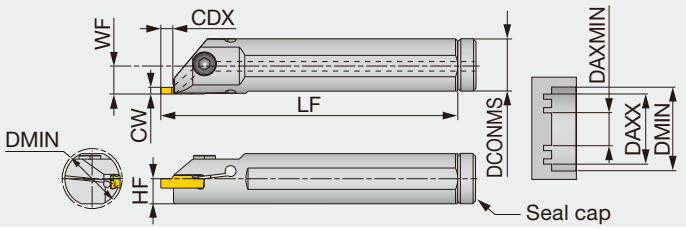
● : Corresponding

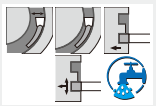
Reference pages: Inserts → F207 - F221, Adapters → F203, Standard cutting conditions → F222

CTIFR/L

External/Internal face grooving and turning toolholder







Right hand (R) shown.

Inch	CW	Seat size	CDX	DCONMS	LF	HF	WF (1)	Torque
CTIFR/L16-4T05-D17	0.157	2, 3, 4	0.217	1.000	8.000	0.450	0.531	3.69
CTIFR/L20-4T05-D22	0.157	2, 3, 4	0.217	1.250	10.000	0.590	0.656	3.69
CTIFR/L16-5T05-D17	0.236	5, 6	0.217	1.000	8.000	0.450	0.531	3.69
CTIFR/L20-5T05-D22	0.236	5, 6	0.217	1.250	10.000	0.590	0.656	3.69

Metric	CW	Seat size	CDX	DCONMS	LF	HF	WF (1)	Torque*
CTIFR/L25-4T05-D270	4	2, 3, 4	5.5	25	200	11.5	13.3	5
CTIFR/L32-4T05-D340	4	2, 3, 4	5.5	32	250	15	16.8	5
CTIFR/L25-5T05-D270	6	5, 6	5.5	25	200	11.5	13.3	5
CTIFR/L32-5T05-D340	6	5, 6	5.5	32	250	15	16.8	5

Use the right-hand insert for the right-hand holder with DTF insert.
(1) WF is calculated with the groove width CW in the above table.
Torque: Recommended clamping torque: lbs·ft (*N·m)

INCH SPARE PARTS





Designation	Clamping screw	Wrench	Seal cap
CTIFR/L16...	CM6X1X16-A	P-5	CA-25
CTIFR/L20...	CM6X1X20-A	P-5	CA-32

Seat size	Min. machining dia.: DMIN (in)	
	DCONMS = 1.000"	DCONMS = 1.250"
2	11.772	11.772
3	1.035	1.311
4	1.055	1.331
5	1.035	1.311
6	1.055	1.331

Insert	Groove width CW (in)	Face grooving Min. machining dia. DAXMIN (in)
DGM / DGS / SGN / DGL	0.079	11.614
DGM / DGS / SGN / DGL	0.118	3.622
DGM / DGS / SGN / DGL	0.157	1.457
DGM / DGS / SGN / DGL	0.197	2.362
DGM / DGS / DGL	0.236	2.244
DTX / DTM / DTR	0.079	11.614
DTE / DGG / DTM	0.118	2.441
DTE / DGG / DTM	0.157	1.654
DTE / DGG / DTM	0.197	2.520
DTE / DGG / DTM	0.236	2.402
DTR	0.118	1.732
DTR	0.157	1.260
DTR	0.197	1.890
DTR	0.236	1.890
DTX	0.118	0.866
DTX	0.157	0.787
DTX	0.197	0.787
DTX	0.236	0.906
DTF	0.118	0.787
DTF	0.157	0.787

METRIC SPARE PARTS





Designation	Clamping screw	Wrench	Seal cap
CTIFR/L25...	CM6X1X16-A	P-5	CA-25
CTIFR/L32...	CM6X1X20-A	P-5	CA-32

Seat size	Min. machining dia.: DMIN (mm)	
	DCONMS = 25 mm	DCONMS = 32 mm
2	299	299
3	26.3	33.3
4	26.8	33.8
5	26.3	33.3
6	26.8	33.8

Insert	Groove width CW (mm)	Face grooving Min. machining dia. DAXMIN (mm)
DGM / DGS / SGN / DGL	2	295
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTX / DTM / DTR	2	295
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

Reference pages: Inserts → F207 - F221, Standard cutting conditions → F222

Face grooving and turning

DTF type (2 corners)

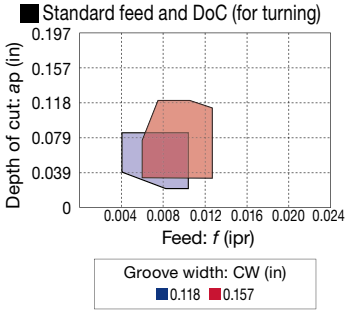
First choice

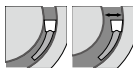


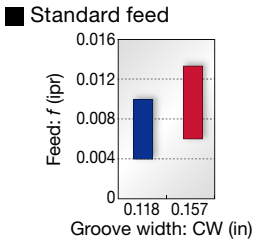
F211

1st choice for face grooving

Unique chipbreaker makes chips shorter
CW = 0.118" - 0.157"







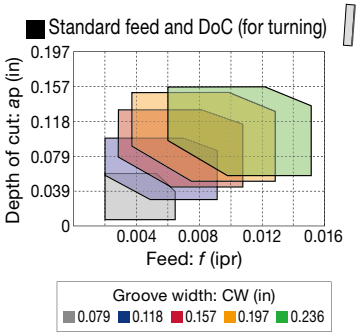
DTX type (2 corners)

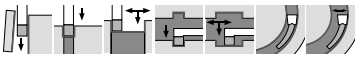


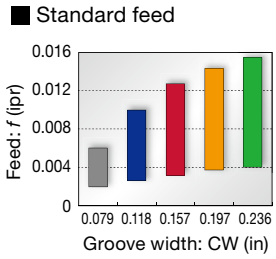
F211

Multi-functional type

Well balanced sharpness and strength
Multi-functional insert
CW = 0.079" - 0.236"







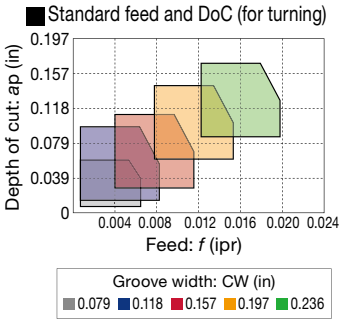
DTM type (2 corners)

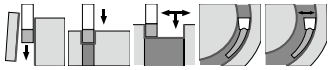


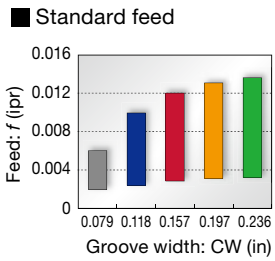
F212

General purpose

1st choice for grooving and turning
Suitable for light to medium cutting
Excellent chip control in machining steel, alloy steel, stainless steel, and heat-resistant alloy
CW = 0.079" - 0.236"







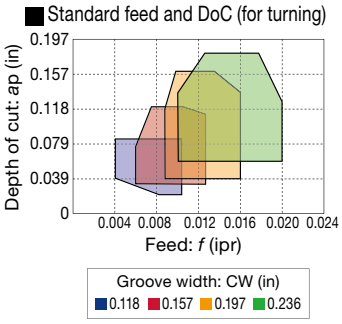
DTE type (2 corners)

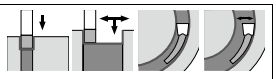


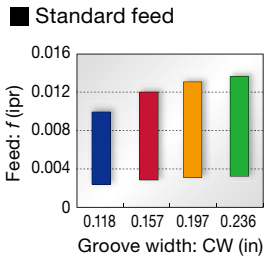
F212, F213

General purpose

Unique chipbreaker makes chips shorter
Molded and ground insert available
CW = 0.104" - 0.236"

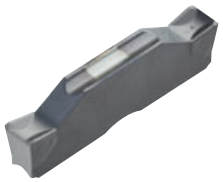






Please see page F*** for the product details.

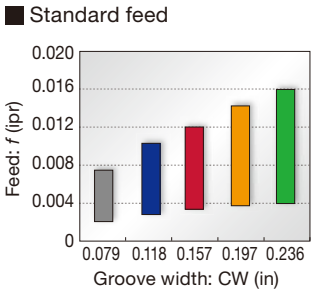
DGM type (2 corners) SGM type (1 corner)

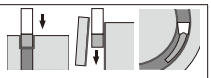


F214, F215

1st choice for grooving and parting

Smooth chip evacuation
Well-designed edge with high strength
Handed insert available
CW = 0.079" - 0.250"





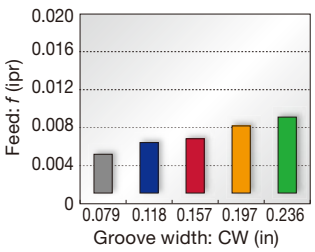
DGS type (2 corners) SGS type (1 corner)

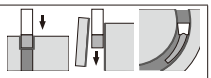


F216, F217

Lower cutting force and superior sharpness

Unique-designed edge and chipbreaker
Handed insert available
CW = 0.079" - 0.250"





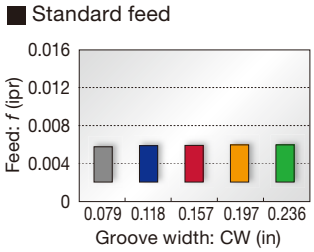
DGG type (2 corners)

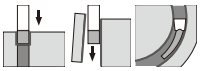


F217

For non-ferrous materials and titanium

Chipbreaker with low cutting force
Sharp cutting edge that prevents vibration and delivers fine surface finish
CW = 0.079" - 0.236"





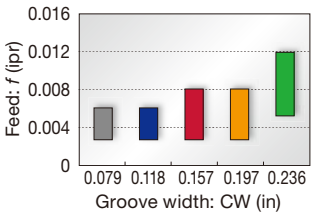
DGL type (2 corners)

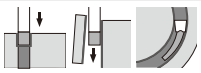


F218

1st choice for mild steel

Chipbreaker with excellent chip control at low feed
Suitable for mild steel which often presents challenges in chip control
CW = 0.079" - 0.236"





Please see page F*** for the product details.

Profiling and undercutting

DTR type (2 corners)
STR type (1 corner)

Molded
DTR, STR



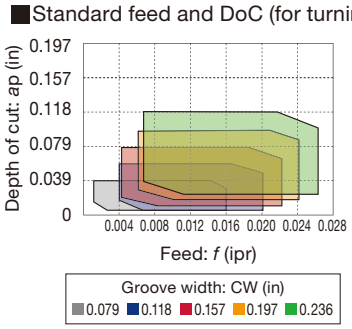
Ground
DTR

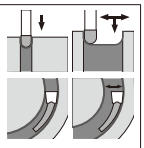


F218, F219

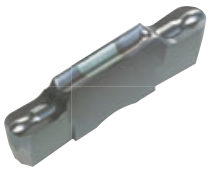
Full radius type

Excellent chip control
Molded and ground inserts available
CW = 0.079" - 0.236"





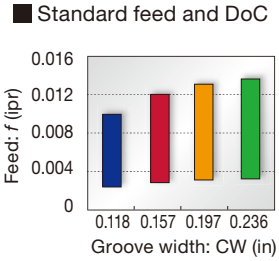
DTIU type
(2 corners)

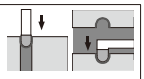


F220

Full radius type

Excellent chip control for undercutting
CW = 0.118" - 0.236"





Aluminum wheel machining

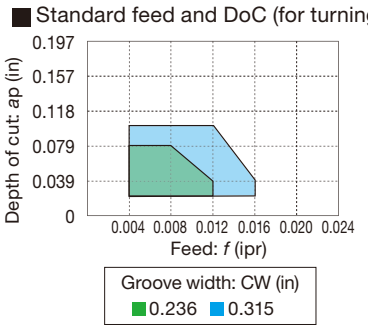
DTA type
(2 corners)

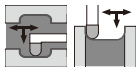


F220

Full radius type

Excellent chip control
For aluminum wheel profiling
Ground insert
CW = 0.236" - 0.315"





For high feed external and face turning of hardened steel parts

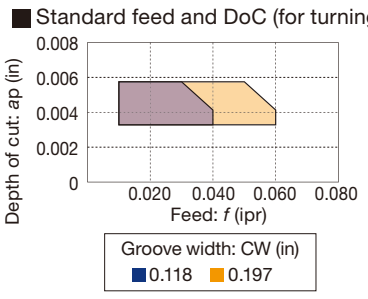
STH type
(1 corner)



F221

External and face turning of hardened steel parts

High efficiency machining using light D.O.C. and increased feeds
CW = 0.118", 0.197"





External grooving of hardened steel

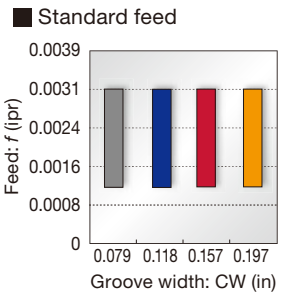
SGN-CBN type
(1 corner)

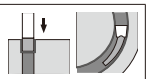


F221

For hardened steel cutting

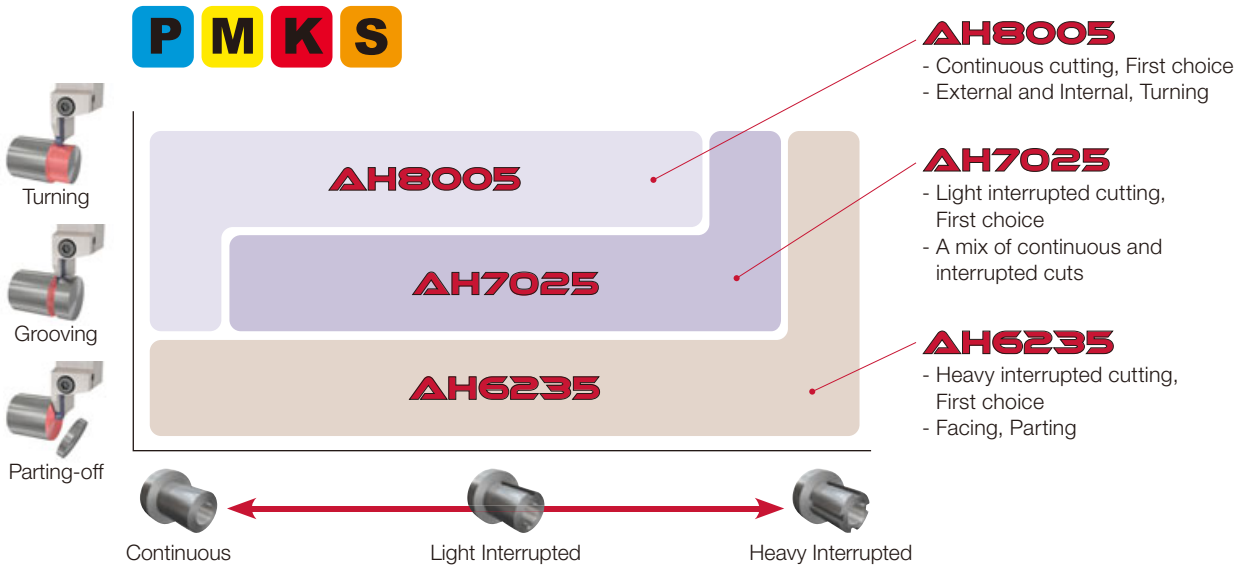
Optimum cutting edge shape for grooving of hardened steels
High tolerance width for finishing
CW = 0.079" - 0.197"
(Tol. ±0.001")





Please see page F*** for the product details.

GRADE SELECTION



GRADES

AH8005 P M K S
- First choice for external, internal, and side-turning, continuous cuts

AH7025 P M K S
- First choice for light interrupted cuts or a mix of continuous and interrupted cuts
- New PVD coating with high Al content provides excellent adhesion strength
- Improved wear and chipping resistance

AH6235 P M K
- First choice for heavy interrupted cuts, as well as parting and facing applications

AH725 P M S
- General purpose PVD grade for high fracture resistance

T515 K
- First recommended grade for cast iron
- Excellent wear resistance in high speed machining

T9225 P
- Suitable for steel machining at high speeds
- New CVD coating and substrate deliver an outstanding balance of wear and chipping resistance

NS9530 P
- Advanced cermet for finish cutting of steel
- Innovative grade with incredible fracture and high wear resistance

GH130 P M K
- Recommended for interrupted machining
- TiCNO PVD coating layer with high wear resistance
- High hardness wear resistance

AH905 S
- Remarkable for machining of heat resistant alloys
- Exclusive coating layer improves adhesion strength and wear resistance

KS05F N S
- Recommended for non-ferrous materials and titanium

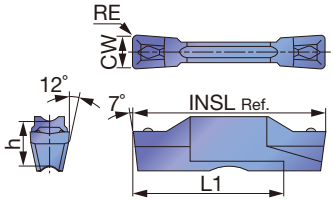
TH10 N
- Recommended for non-ferrous materials

BXA10 H
- Coated CBN grade designed for turning hardened steel parts

BX360 H
- Developed for grooving applications of hardened steel parts

DTF

Face grooving and turning



Right hand (R) shown.

P	Steel	★	★	☆	☆				★			
M	Stainless		★	☆	★							
K	Cast iron		★		☆				☆			
N	Non-ferrous											
S	Superalloys		★	☆								
H	Hard materials											

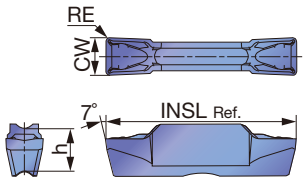
★ : First choice
☆ : Second choice

Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated						Cermet						INSL (in)	h (in)	L1 (in)
						T9225	AH7025	AH725	GH130			NS9530								
DTF3-040-R	3	R	3	0.118	0.016	●	●	●	●			●						0.787	0.197	0.630
DTF3-040-L	3	L	3	0.118	0.016	●	●	●	●			●						0.787	0.197	0.630
DTF4-040-R	4	R	4	0.157	0.016	●	●	●	●			●						0.787	0.197	0.630
DTF4-040-L	4	L	4	0.157	0.016	●	●	●	●			●						0.787	0.197	0.630

●: Line up

DTX

External, internal and face grooving, and turning



P	Steel	★	★	☆	★	☆	★		★								
M	Stainless		★	☆	★	★	★										
K	Cast iron		★		★	☆	★		☆				☆				
N	Non-ferrous												☆				
S	Superalloys		★	☆	★								★				
H	Hard materials																

★ : First choice
☆ : Second choice

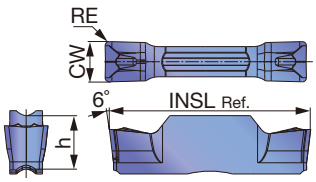
Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated						Cermet				Uncoated				INSL (in)	h (in)
					T9225	AH7025	AH725	AH8005	GH130	AH6235	NS9530				KS05F					
DTX2-020	2	2	0.079	0.008		●		●		●					●				0.787	0.197
DTX3-030	3	3	0.118	0.012	●	●	●	●	●	●	●				●				0.787	0.197
DTX4-040	4	4	0.157	0.016	●	●	●	●	●	●	●				●				0.787	0.197
DTX5-040	5	5	0.197	0.016	●	●	●	●	●	●	●				●				0.984	0.217
DTX6-080	6	6	0.236	0.031		●	●	●	●	●					●				0.984	0.217

● : Line up

Reference pages: Toolholders → F196 - F206, Standard cutting conditions → F222

DTM

External face grooving and turning



P	Steel	★	★	★
M	Stainless	★	★	★
K	Cast iron	★	★	★
N	Non-ferrous			
S	Superalloys	★	★	
H	Hard materials			

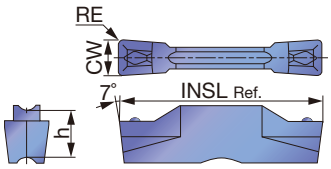
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	Coated AH8005	Coated AH6235	INSL (in)	h (in)
DTM2-020	2	2	0.079	0.008	●	●	●	0.787	0.197
DTM3-030	3	3	0.118	0.012	●	●	●	0.787	0.197
DTM4-040	4	4	0.157	0.016	●	●	●	0.787	0.197
DTM4-080	4	4	0.157	0.031	●	●	●	0.787	0.197
DTM5-080	5	5	0.197	0.031	●	●	●	0.984	0.217
DTM6-080	6	6	0.236	0.031	●	●	●	0.984	0.217

● : Line up

DTE

External face grooving and turning (for high precision)



P	Steel	★	★	☆	☆	★
M	Stainless		★	☆	★	
K	Cast iron		★		☆	
N	Non-ferrous					
S	Superalloys		★	☆		
H	Hard materials					

★ : First choice
☆ : Second choice

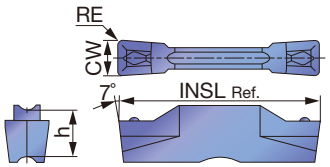
Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Coated T9225	Coated AH7025	Coated AH725	Coated GH130	Cermet NS9530	INSL (in)	h (in)
DTE265-015	3	2.65	0.104	0.006	●	●	●	●	●	0.787	0.197
DTE300-020	3	3	0.118	0.008	●	●	●	●	●	0.787	0.197
DTE300-040	3	3	0.118	0.016	●	●	●	●	●	0.787	0.197
DTE315-015	3	3.15	0.124	0.006	●	●	●	●	●	0.787	0.197
DTE400-040	4	4	0.157	0.016	●	●	●	●	●	0.787	0.197
DTE400-080	4	4	0.157	0.031	●	●	●	●	●	0.787	0.197
DTE415-015	4	4.15	0.163	0.006	●	●	●	●	●	0.787	0.197
DTE478-055	5	4.78	0.188	0.022	●	●	●	●	●	0.984	0.217
DTE500-040	5	5	0.197	0.016	●	●	●	●	●	0.984	0.217
DTE500-080	5	5	0.197	0.031	●	●	●	●	●	0.984	0.217
DTE515-015	5	5.15	0.203	0.006	●	●	●	●		0.984	0.217
DTE600-080	6	6	0.236	0.031	●	●	●	●		0.984	0.217
DTE600-120	6	6	0.236	0.047	●	●	●	●		0.984	0.217

●: Line up

Reference pages: Toolholders → F196 - F206, Standard cutting conditions → F222

DTE

External face grooving and turning



P	Steel	★		★	☆	★	☆	★		★		
M	Stainless			★	☆	★	★	★				
K	Cast iron		★	★		★	☆	★				
N	Non-ferrous											
S	Superalloys			★	☆	★						
H	Hard materials											

★ : First choice
☆ : Second choice

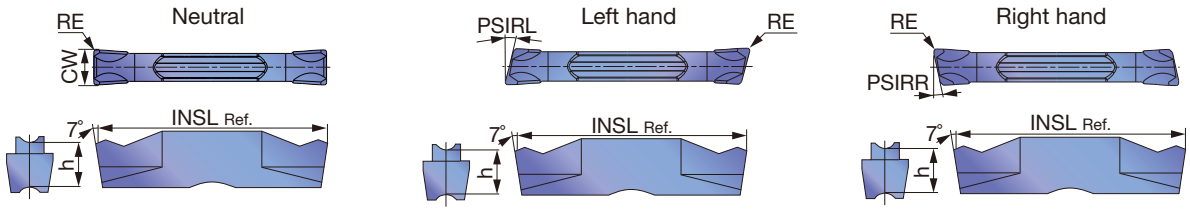
Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated							Cermet						INSL (in)	h (in)
					T9225	T515	AH7025	AH725	AH8005	GH130	AH6235	NS9530							
DTE3-020	3	3	0.118	0.008			●		●		●							0.787	0.197
DTE3-040	3	3	0.118	0.016	●	●	●	●	●	●	●	●						0.787	0.197
DTE4-040	4	4	0.157	0.016	●	●	●	●	●	●	●	●						0.787	0.197
DTE4-080	4	4	0.157	0.031			●		●		●							0.787	0.197
DTE5-040	5	5	0.197	0.016		●	●		●		●							0.984	0.217
DTE5-080	5	5	0.197	0.031			●		●		●							0.984	0.217
DTE6-080	6	6	0.236	0.031		●	●		●		●							0.984	0.217

● : Line up

Reference pages: Toolholders → F196 - F206, Standard cutting conditions → F222

DGM

External/face grooving and parting



		T9225	AH7025	AH725	AH8005	AH905	GH130	AH6235	NS9530	KS05F
P	Steel	★	★	☆	★		☆	★	★	
M	Stainless		★	☆	★		★	★		
K	Cast iron		★		★	☆	☆	★	☆	☆
N	Non-ferrous									☆
S	Superalloys		★	☆	★	★				★
H	Hard materials									

★ : First choice
☆ : Second choice

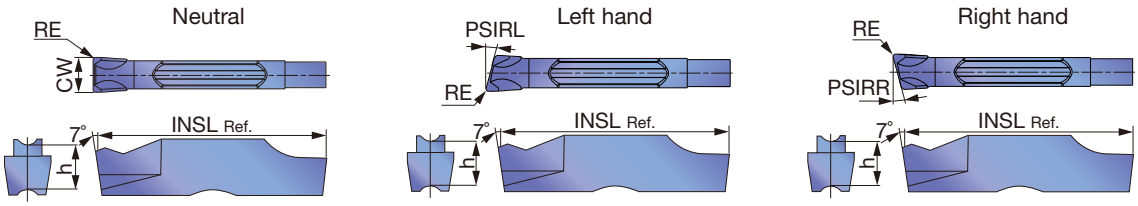
Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated							Cermet		Un-coated		INSL (in)	h (in)	PSIRL	PSIRR
						T9225	AH7025	AH725	AH8005	AH905	GH130	AH6235	NS9530		KS05F					
DGM2-020	2	N	2	0.079	0.008	●	●	●	●		●	●	●		●		0.787	0.197	0°	0°
DGM2-020-6R	2	R	2	0.079	0.008		●	●			●						0.787	0.197	0°	6°
DGM2-020-6L	2	L	2	0.079	0.008		●	●			●						0.787	0.197	6°	0°
DGM2-020-8R	2	R	2	0.079	0.008		●	●			●						0.787	0.197	0°	8°
DGM2-020-8L	2	L	2	0.079	0.008		●	●			●						0.787	0.197	8°	0°
DGM2-020-15R	2	R	2	0.079	0.008		●	●			●						0.787	0.197	0°	15°
DGM2-020-15L	2	L	2	0.079	0.008		●	●			●						0.787	0.197	15°	0°
DGM2-002-15R	2	R	2	0.079	0.0008			●			●						0.762	0.197	0°	15°
DGM2-002-15L	2	L	2	0.079	0.0008			●			●						0.762	0.197	15°	0°
DGM2.39-020	2	N	2.39	0.094	0.008		●		●			●					0.787	0.197	0°	0°
DGM3-020	3	N	3	0.118	0.008	●	●	●	●	●	●	●	●		●		0.787	0.197	0°	0°
DGM3-020-6R	3	R	3	0.118	0.008		●	●			●						0.787	0.197	0°	6°
DGM3-020-6L	3	L	3	0.118	0.008		●	●			●						0.787	0.197	6°	0°
DGM3-002-6R	3	R	3	0.118	0.008			●			●						0.766	0.197	0°	6°
DGM3-002-6L	3	L	3	0.118	0.008			●			●						0.766	0.197	6°	0°
DGM3-020-15R	3	R	3	0.118	0.008		●	●			●						0.787	0.197	0°	15°
DGM3-020-15L	3	L	3	0.118	0.008		●	●			●						0.787	0.197	15°	0°
DGM3.18-020	3	N	3.18	0.125	0.008		●		●			●					0.787	0.197	0°	0°
DGM4-030	4	N	4	0.157	0.012	●	●	●	●	●	●	●	●		●		0.787	0.197	0°	0°
DGM4-030-4R	4	R	4	0.157	0.012		●	●			●						0.787	0.197	0°	4°
DGM4-030-4L	4	L	4	0.157	0.012		●	●			●						0.787	0.197	4°	0°
DGM4-030-15R	4	R	4	0.157	0.012		●	●			●						0.787	0.197	0°	15°
DGM4-030-15L	4	L	4	0.157	0.012		●	●			●						0.787	0.197	15°	0°
DGM4.76-040	5	N	4.76	0.187	0.016		●		●			●					0.984	0.217	0°	0°
DGM5-030	5	N	5	0.197	0.012	●	●	●	●	●	●	●	●		●		0.984	0.217	0°	0°
DGM5-030-4R	5	R	5	0.197	0.012		●	●			●						0.984	0.217	0°	4°
DGM6-030	6	N	6	0.236	0.012	●	●	●	●	●	●	●			●		0.984	0.217	0°	0°
DGM6.35-040	6	N	6.35	0.250	0.016		●		●			●					0.984	0.217	0°	0°

● : Line up

Reference pages: Toolholders → F196 - F206, Standard cutting conditions → F222

SGM

External/face deep grooving and parting



		AH7025	AH725	AH8005	GH130	AH6235	KS05F
P	Steel	★	☆	★	☆	★	
M	Stainless	★	☆	★	★	★	
K	Cast iron	★		★	☆	★	☆
N	Non-ferrous						☆
S	Superalloys	★	☆	★			★
H	Hard materials						

★ : First choice
☆ : Second choice

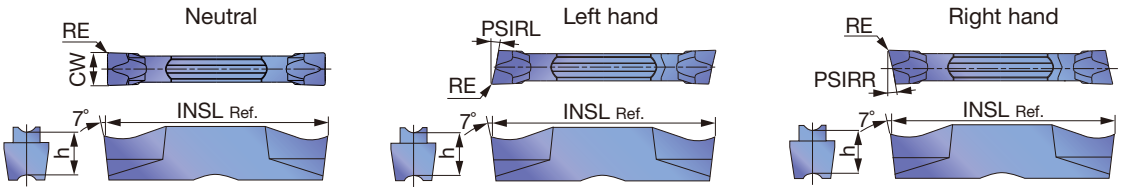
Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated					Uncoated				INSL (in)	h (in)	PSIRL	PSIRR
						AH7025	AH725	AH8005	GH130	AH6235	KS05F							
SGM2-020	2	N	2	0.079	0.008	●	●	●	●	●	●				0.787	0.197	0°	0°
SGM2-020-6R	2	R	2	0.079	0.008	●	●		●						0.787	0.197	0°	6°
SGM2-020-6L	2	L	2	0.079	0.008	●	●		●						0.787	0.197	6°	0°
SGM3-020	3	N	3	0.118	0.008	●	●	●	●	●	●				0.787	0.197	0°	0°
SGM3-020-6R	3	R	3	0.118	0.008	●	●		●						0.787	0.197	0°	6°
SGM3-020-6L	3	L	3	0.118	0.008	●	●		●						0.787	0.197	6°	0°
SGM3-020-15R	3	R	3	0.118	0.008	●	●		●						0.787	0.197	0°	15°
SGM3-020-15L	3	L	3	0.118	0.008	●	●		●						0.787	0.197	15°	0°
SGM4-030	4	N	4	0.157	0.012	●	●	●	●	●	●				0.787	0.197	0°	0°
SGM4-030-4R	4	R	4	0.157	0.012	●	●		●						0.787	0.197	0°	4°
SGM4-030-4L	4	L	4	0.157	0.012	●	●		●						0.787	0.197	4°	0°
SGM5-030	5	N	5	0.197	0.012	●	●	●	●	●	●				0.984	0.217	0°	0°
SGM6-030	6	N	6	0.236	0.012	●	●	●	●	●	●				0.984	0.217	0°	0°

● : Line up

Reference pages: Toolholders → F196 - F206, Standard cutting conditions → F222

DGS

External/face grooving and parting



P	Steel	★	★	☆	★	☆	★		★					
M	Stainless		★	☆	★	★	★							
K	Cast iron		★		★	☆	★		☆			☆		
N	Non-ferrous											☆		
S	Superalloys		★	☆	★							★		
H	Hard materials													

★ : First choice
☆ : Second choice

Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated						Cermet			Uncoated			INSL (in)	h (in)	PSIRL	PSIRR
						T9225	AH7025	AH725	AH8005	GH130	AH6235	NS9530			KS05F						
DGS2-005	2	N	2	0.079	0.002			●										0.787	0.197	0°	0°
DGS2-010	2	N	2	0.079	0.004			●										0.787	0.197	0°	0°
DGS2-020	2	N	2	0.079	0.008	●	●	●	●	●	●	●			●			0.787	0.197	0°	0°
DGS2-020-6R	2	R	2	0.079	0.008		●	●		●								0.787	0.197	0°	6°
DGS2-020-6L	2	L	2	0.079	0.008		●	●		●								0.787	0.197	6°	0°
DGS2-002-6R	2	R	2	0.079	0.0008			●		●								0.768	0.197	0°	6°
DGS2-002-6L	2	L	2	0.079	0.0008			●		●								0.768	0.197	6°	0°
DGS2-020-15R	2	R	2	0.079	0.008		●	●		●								0.787	0.197	0°	15°
DGS2-020-15L	2	L	2	0.079	0.008		●	●		●								0.787	0.197	15°	0°
DGS2-002-15R	2	R	2	0.079	0.0008			●		●								0.768	0.197	0°	15°
DGS2-002-15L	2	L	2	0.079	0.0008			●		●								0.768	0.197	15°	0°
DGS2.39-020	2	N	2.39	0.094	0.008		●		●		●							0.787	0.197	0°	0°
DGS3-020	3	N	3	0.118	0.008	●	●	●	●	●	●	●			●			0.787	0.197	0°	0°
DGS3-020-6R	3	R	3	0.118	0.008		●	●		●								0.787	0.197	0°	6°
DGS3-020-6L	3	L	3	0.118	0.008		●	●		●								0.787	0.197	6°	0°
DGS3-002-6R	3	R	3	0.118	0.0008			●		●								0.766	0.197	0°	6°
DGS3-002-6L	3	L	3	0.118	0.0008			●		●								0.766	0.197	6°	0°
DGS3-020-15R	3	R	3	0.118	0.008		●	●		●								0.787	0.197	0°	15°
DGS3-020-15L	3	L	3	0.118	0.008		●	●		●								0.787	0.197	15°	0°
DGS3-002-15R	3	R	3	0.118	0.0008			●		●								0.766	0.197	0°	15°
DGS3-002-15L	3	L	3	0.118	0.0008			●		●								0.766	0.197	15°	0°
DGS3.18-020	3	N	3.18	0.125	0.008		●		●		●							0.787	0.197	0°	0°
DGS4-030	4	N	4	0.157	0.012	●	●	●	●	●	●	●			●			0.787	0.197	0°	0°
DGS4-030-4R	4	R	4	0.157	0.012		●	●		●								0.787	0.197	0°	4°
DGS4-030-4L	4	L	4	0.157	0.012		●	●		●								0.787	0.197	4°	0°
DGS4.76-040	5	N	4.76	0.187	0.016		●		●		●							0.984	0.217	0°	0°
DGS5-030	5	N	5	0.197	0.012	●	●	●	●	●	●	●			●			0.984	0.217	0°	0°
DGS6-030	6	N	6	0.236	0.012	●	●	●	●	●	●				●			0.984	0.217	0°	0°
DGS6.35-040	6	N	6.35	0.250	0.016		●		●		●							0.984	0.217	0°	0°

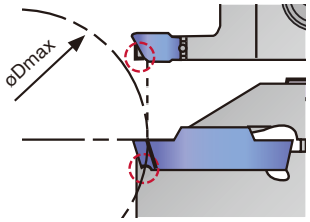
● : Line up

Caution

The tool will interfere with the workpiece when grooving larger diameters than øDmax.

Designation	øDmax (in)
DGM2-002-15R/L	1.102
DGM3-002-15R/L	1.141
DGM4-030-15R/L	1.181
SGM3-020-15R/L	4.055

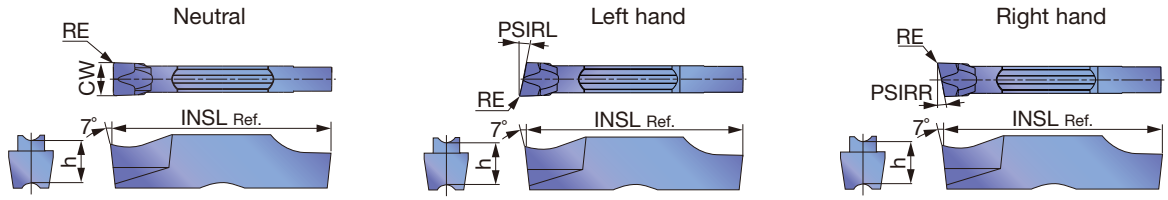
Designation	øDmax (in)
DGS2-002-15R/L	1.102
DGS3-002-15R/L	1.141
SGS3-020-15R/L	4.055
SGS3-002-15R/L	1.338



Reference pages: Toolholders → F196 - F206, Standard cutting conditions → F222

SGS

External/face deep grooving and parting



P	Steel	★	☆	★	☆	★																
M	Stainless	★	☆	★	★	★																
K	Cast iron	★		★	☆	★	☆															
N	Non-ferrous						☆															
S	Superalloys	★	☆	★			★															
H	Hard materials																					

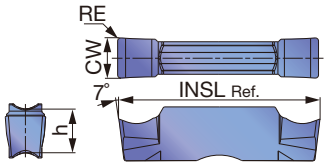
★ : First choice
☆ : Second choice

Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated					Uncoated								INSL (in)	h (in)	PSIRL	PSIRR
						AH7025	AH725	AH8005	GH130	AH6235	KS05F											
SGS2-020	2	N	2	0.079	0.008	●	●	●	●	●	●								0.787	0.197	0°	0°
SGS2-020-6R	2	R	2	0.079	0.008	●	●		●										0.787	0.197	0°	6°
SGS2-020-6L	2	L	2	0.079	0.008	●	●		●										0.787	0.197	6°	0°
SGS2-020-15R	2	R	2	0.079	0.008	●	●		●										0.787	0.197	0°	15°
SGS2-020-15L	2	L	2	0.079	0.008	●	●		●										0.787	0.197	15°	0°
SGS3-020	3	N	3	0.118	0.008	●	●	●	●	●	●								0.787	0.197	0°	0°
SGS3-020-6R	3	R	3	0.118	0.008	●	●		●										0.787	0.197	0°	6°
SGS3-020-6L	3	L	3	0.118	0.008	●	●		●										0.787	0.197	6°	0°
SGS3-002-6R	3	R	3	0.118	0.0008		●		●										0.780	0.197	0°	6°
SGS3-002-6L	3	L	3	0.118	0.0008		●		●										0.780	0.197	6°	0°
SGS3-020-15R	3	R	3	0.118	0.008	●	●		●										0.787	0.197	0°	15°
SGS3-020-15L	3	L	3	0.118	0.008	●	●		●										0.787	0.197	15°	0°
SGS3-002-15R	3	R	3	0.118	0.0008		●		●										0.780	0.197	0°	15°
SGS3-002-15L	3	L	3	0.118	0.0008		●		●										0.780	0.197	15°	0°
SGS4-030	4	N	4	0.157	0.012	●	●	●	●	●	●								0.787	0.197	0°	0°
SGS5-030	5	N	5	0.197	0.012	●	●	●	●	●	●								0.984	0.217	0°	0°
SGS6-030	6	N	6	0.236	0.012	●	●	●	●	●	●								0.984	0.217	0°	0°

● : Line up

DGG

External/face grooving (for high precision)



P	Steel	★			★																	
M	Stainless	★																				
K	Cast iron	★			☆				☆													
N	Non-ferrous								★													
S	Superalloys	★							☆													
H	Hard materials																					

★ : First choice
☆ : Second choice

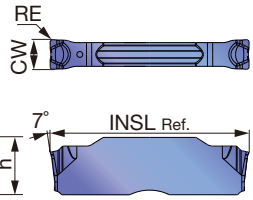
Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Coated		Cermet		Uncoated								INSL (in)	h (in)
					AH7025		NS9530		KS05F									
DGG200-020	2	2	0.079	0.008	●		●		●								0.787	0.197
DGG300-020	3	3	0.118	0.008	●		●		●								0.787	0.197
DGG400-040	4	4	0.157	0.016	●		●		●								0.787	0.197
DGG500-040	5	5	0.197	0.016	●		●		●								0.984	0.217
DGG600-040	6	6	0.236	0.016	●		●		●								0.984	0.217

●: Line up

Reference pages: Toolholders → F196 - F206, Standard cutting conditions → F222

DGL

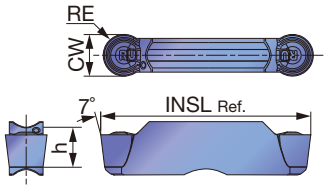
External/face grooving and parting



| | | |

DTR

Profiling and undercutting



		T9225	AH7025	AH725	AH8005	AH905	GH130	AH6235	NS9530	KS05F
P	Steel	★	★	☆	★		☆	★	★	
M	Stainless		★	☆	★		★	★		
K	Cast iron		★		★	☆	☆	★	☆	☆
N	Non-ferrous									☆
S	Superalloys		★	☆	★	★				★
H	Hard materials									

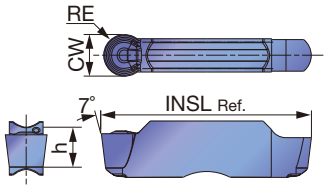
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated							Cermet		Uncoated		INSL (in)	h (in)
					T9225	AH7025	AH725	AH8005	AH905	GH130	AH6235	NS9530		KS05F			
DTR2-100	2	2	0.079	0.039		●		●			●			●		0.787	0.197
DTR3-150	3	3	0.118	0.059	●	●	●	●	●	●	●	●		●		0.787	0.197
DTR4-200	4	4	0.157	0.079	●	●	●	●	●	●	●	●		●		0.787	0.197
DTR5-250	5	5	0.197	0.098	●	●	●	●	●	●	●	●		●		0.984	0.217
DTR6-300	6	6	0.236	0.118	●	●	●	●		●	●			●		0.984	0.217

● : Line up

STR

Profiling and undercutting



		AH7025	AH8005	KS05F
P	Steel	★	★	
M	Stainless	★	★	
K	Cast iron	★	★	☆
N	Non-ferrous			☆
S	Superalloys	★	★	★
H	Hard materials			

★ : First choice
☆ : Second choice

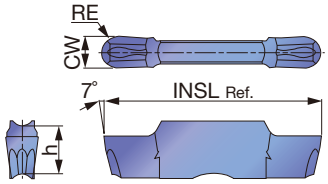
Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated		Uncoated							INSL (in)	h (in)
					AH7025	AH8005	KS05F								
STR2-100	2	2	0.079	0.039	●	●	●							0.787	0.197
STR3-150	3	3	0.118	0.059	●	●	●							0.787	0.197
STR4-200	4	4	0.157	0.079	●	●	●							0.787	0.197
STR5-250	5	5	0.197	0.098	●	●	●							0.984	0.217
STR6-300	6	6	0.236	0.118	●	●	●							0.984	0.217

●: Line up

Reference pages: Toolholders → F196 - F206, Standard cutting conditions → F222

DTIU

Profiling and undercutting (for high precision)



P	Steel	★	☆	☆
M	Stainless	★	☆	★
K	Cast iron	★		☆
N	Non-ferrous			
S	Superalloys	★	☆	
H	Hard materials			

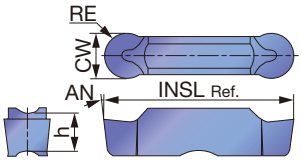
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Coated AH7025	Coated AH725	Coated GH130	INSL (in)	h (in)
DTIU300-150	3	3	0.118	0.059	●	●	●	0.787	0.197
DTIU400-200	4	4	0.157	0.079	●	●	●	0.787	0.197
DTIU500-250	5	5	0.197	0.098	●	●	●	0.984	0.217
DTIU600-300	6	6	0.236	0.118	●	●	●	0.984	0.217

●: Line up

DTA

Aluminum wheel machining (for high precision)



P	Steel			
M	Stainless			
K	Cast iron			
N	Non-ferrous	★		
S	Superalloys			
H	Hard materials			

★ : First choice
☆ : Second choice

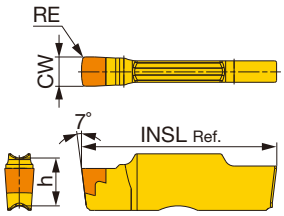
Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Uncoated TH10	INSL (in)	h (in)	AN
DTA600-300	6	6	0.236	0.118	●	0.984	0.217	7°

●: Line up

Reference pages: Toolholders → F196 - F206, Standard cutting conditions → F222

STH

External and face turning



P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

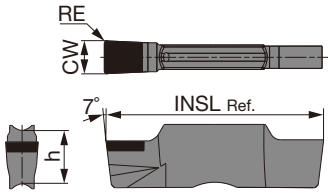
★ : First choice

Designation	Seat size	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	CBN	INSL (in)	h (in)
					BXA10		
STH300-SR	3	3	0.118	0.012	●	0.787	0.197
STH500-SR	5	5	0.197	0.012	●	0.984	0.217

●: Line up

SGN

External/face grooving



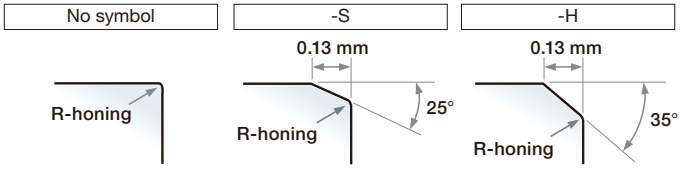
P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	CBN	INSL (in)	h (in)	Condition		
					BX360			Continuous	Light interrupted	Heavy interrupted
SGN200-020	2	2	0.079	0.008	●	0.787	0.197	○		
SGN200-020-S	2	2	0.079	0.008	●	0.787	0.197		○	
SGN200-020-H	2	2	0.079	0.008	●	0.787	0.197			○
SGN300-020	3	3	0.118	0.008	●	0.787	0.197	○		
SGN300-020-S	3	3	0.118	0.008	●	0.787	0.197		○	
SGN300-020-H	3	3	0.118	0.008	●	0.787	0.197			○
SGN400-020	4	4	0.157	0.008	●	0.787	0.197	○		
SGN400-020-S	4	4	0.157	0.008	●	0.787	0.197		○	
SGN400-020-H	4	4	0.157	0.008	●	0.787	0.197			○
SGN500-020-S	5	5	0.197	0.008	●	0.984	0.217		○	
SGN500-020-H	5	5	0.197	0.008	●	0.984	0.217			○

●: Line up

Edge preparations



Reference pages: Toolholders → F196 - F206, Standard cutting conditions → F222

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed *Vc* (sfm)
P	Steel 1045, 4135, etc.	< 300 HB	First choice	AH7025, AH725	164 - 591
		< 300 HB	Wear resistance	T9225, AH8005	262 - 984
		< 300 HB	Impact resistance	AH6235, GH130	164 - 394
		< 300 HB	Surface quality	NS9530	262 - 722
M	Stainless steel 303, 304, etc.	< 200 HB	First choice	AH7025, AH725	164 - 394
		< 200 HB	Wear resistance	AH8005	164 - 394
		< 200 HB	Impact resistance	AH6235, GH130	164 - 394
K	Gray cast iron No.250B, etc.	-	First choice	T515	492 - 2297
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	164 - 591
	Ductile cast iron 65-45-12, etc.	-	First choice	T515	492 - 984
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	164 - 394
N	Aluminum alloys Si < 12%	-	First choice	TH10	328 - 1640
		-	First choice	KS05F	328 - 1969
S	Superalloys Inconel718, etc.	< HRC 40	First choice	AH8005	66 - 197
		< HRC 40	Impact resistance	AH7025, AH725, AH6235	66 - 131
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	First choice	KS05F	66 - 328
		< HRC 40	Impact resistance	AH7025, AH725	66 - 262

Please see page F207 - F209 for feed: *f* (ipr).

STH

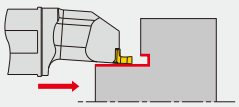
ISO	Grade	CW	Application	Cutting speed *Vc* (sfm)	Depth of cut *ap* (in)	Feed *f* (ipr)
H	BXA10	0.118"	External turning	328 - 755	0.003 - 0.005	0.016 - 0.039
			Face turning	328 - 755	0.003 - 0.005	0.016 - 0.031
		0.197"	External turning	328 - 755	0.003 - 0.005	0.020 - 0.059
			Face turning	328 - 755	0.003 - 0.005	0.020 - 0.031

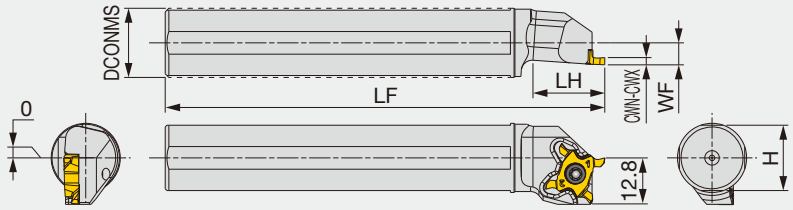
SGN

ISO	Grade	Edge preparation	Workpiece condition	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
H	BX360	No symbol	Continuous	262 - 492	0.0012 - 0.0031
		-S	Light interrupted	164 - 394	0.0012 - 0.0031
		-H	Heavy interrupted	131 - 328	0.0012 - 0.0024

JS-STCFL18

Face grooving toolholder with round shank





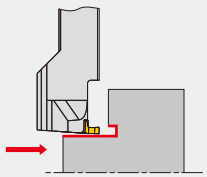
Left-hand (L) shown.

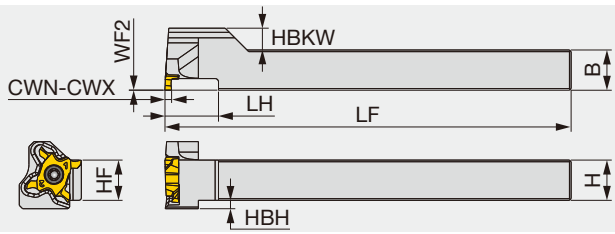
Metric	CWN	CWX	DCONMS	LF	LH	H	WF	Insert	Torque
JS16F-STCFL18	0.33	3.18	16	85	20	15	6	TCF18L...	1.2
JS19G-STCFL18	0.33	3.18	19.05	90	20	18	6	TCF18L...	1.2
JS19X-STCFL18	0.33	3.18	19.05	120	20	18	6	TCF18L...	1.2
JS20G-STCFL18	0.33	3.18	20	90	20	19	6	TCF18L...	1.2
JS20X-STCFL18	0.33	3.18	20	120	20	19	6	TCF18L...	1.2
JS22X-STCFL18	0.33	3.18	22	120	20	21	6	TCF18L...	1.2
JS25H-STCFL18	0.33	3.18	25	100	20	24	6	TCF18L...	1.2
JS254X-STCFL18	0.33	3.18	25.4	120	20	24.5	6	TCF18L...	1.2

Note: The left hand insert (L) is used for the left hand toolholders (L).
Torque: Recommended clamping torque: N·m

STCFVR-18

Face grooving toolholder with square shank, for Swiss lathes





Right-hand (R) shown.

Inch	CWN	CWX	H	B	LF	LH	HF	WF2	HBKW	HBH	Insert	Torque
STCFVR06-18	0.013	0.125	0.375	0.375	4.016	0.472	0.375	0	0.354	0.177	TCF18L...	0.89
STCFVR08-18	0.013	0.125	0.500	0.500	4.764	0.630	0.500	0	0.228	0.098	TCF18L...	0.89
STCFVR10-18	0.013	0.125	0.625	0.625	4.764	0.787	0.625	0	0.106	-	TCF18L...	0.89

Metric	CWN	CWX	H	B	LF	LH	HF	WF2	HBKW	HBH	Insert	Torque*
STCFVR1010H18	0.33	3.18	10	10	100	12	10	0	8.5	4.5	TCF18L...	1.2
STCFVR1212F18	0.33	3.18	12	12	85	16	12	0	6.5	2.5	TCF18L...	1.2
STCFVR1212X18	0.33	3.18	12	12	120	16	12	0	6.5	2.5	TCF18L...	1.2
STCFVR1616X18	0.33	3.18	16	16	120	20	16	0	2.5	0	TCF18L...	1.2

Note: The left hand insert (L) is used for the right hand toolholders (R).
Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS



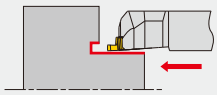


Designation	Clamping screw	Wrench
JS**-STCFL18, STCFVR**18	CSTC-4L100DR	T-1008/5

Reference pages: Inserts → F229, F230, Standard cutting conditions → F237

STCR/L-18

Precision grooving tools with uniquely shaped insert for swiss type machine and general lathes



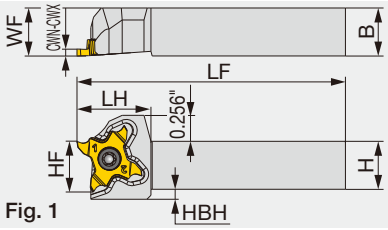


Fig. 1

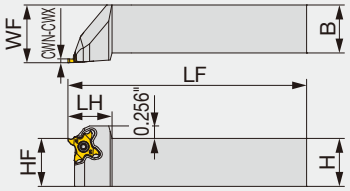
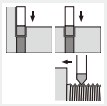


Fig. 2



Right-hand (R) shown.

Inch	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque	Fig.
STCR/L06-18	0.013	0.125	0.375	0.375	4.750	0.740	0.375	0.375	0.177	TC*18...	0.89	1
STCR/L08-18	0.013	0.125	0.500	0.500	4.750	0.740	0.500	0.500	0.098	TC*18...	0.89	1
STCR/L10-18	0.013	0.125	0.625	0.625	4.750	0.740	0.625	0.625	-	TC*18...	0.89	1
STCR/L12-18	0.013	0.125	0.750	0.750	4.750	0.900	0.750	1.000	-	TC*18...	0.89	2
STCR/L16-18	0.013	0.125	1.000	1.000	5.500	0.900	1.000	1.250	-	TC*18...	0.89	2

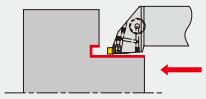
Metric	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque*	Fig.
STCR/L1010X18	0.33	3.18	10	10	120	18.5	10	10	4.5	TC*18...	1.2	1
STCR/L1212F18	0.33	3.18	12	12	85	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1212X18	0.33	3.18	12	12	120	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1616X18	0.33	3.18	16	16	120	18.5	16	16	-	TC*18...	1.2	1
STCR/L2020H18	0.33	3.18	20	20	100	18.5	20	20	-	TC*18...	1.2	1
STCR/L2020X18	0.33	3.18	20	20	120	23	20	25	-	TC*18...	1.2	2
STCR/L2525Z18	0.33	3.18	25	25	135	23	25	30	-	TC*18...	1.2	2

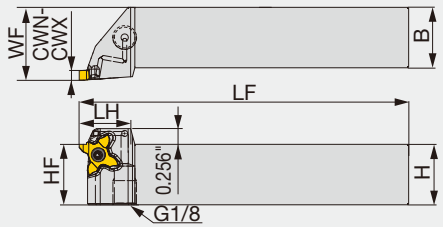
The right hand insert (TC*18R...) is used for the right hand toolholders (STCR...), and the left hand insert is used for the left hand toolholders
Torque: Recommended clamping torque: lbs·ft (*N·m)

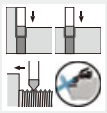
STCR/L-18-CHP

Tube connection

Threading tool - for external theading with high pressure coolant capability







Right-hand (R) shown.

Inch	CWN	CWX	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque
STCR/L12-18-CHP	0.013	0.125	0.750	0.750	4.750	0.900	-	0.750	1.000	-	TC*18...	0.89
STCR/L16-18-CHP	0.013	0.125	1.000	1.000	5.500	0.900	-	1.000	1.250	-	TC*18...	0.89

Metric	CWN	CWX	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque*
STCR/L2020X18-CHP	0.33	3.18	20	20	120	23	-	20	25	-	TC*18...	1.2
STCR/L2525Z18-CHP	0.33	3.18	25	25	135	23	-	25	30	-	TC*18...	1.2

Use the right hand insert (TC*18R...) with the right hand toolholders (STCR...). Use the left hand insert (TC*18L...) with the left hand holder (STCL...).
Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS



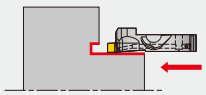


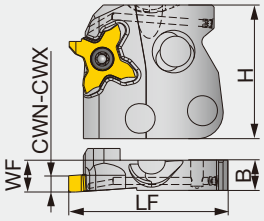
Designation	Clamping screw	Wrench
STCL**18, STCL**18-CHP	CSTC-4L100DR	T-1008/5
STCR**18, STCR**18-CHP	CSTC-4L100DL	T-1008/5

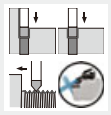
Reference pages: STCR/L-18: Inserts → F229 - F236, Standard cutting conditions → F237
STCR/L-18-CHP: Inserts → F229 - F236, Standard cutting conditions → F237
Parts for coolant hose → F290

STCAR/L18-CHP

External grooving and threading adapter, with high pressure coolant capability







Right-hand (R) shown.

Metric	CWN	CWX	WF	H	LF	B	Insert	Torque
STCAR/L18-CHP	0.33	3.18	7.5	33	38	7.2	TC*18...	1.2

Use the right hand insert (TC*18R...) with the right hand adapter (STCAR...). Use the left hand insert (TC*18L...) with the left hand adapter (STCAL...).
Torque: Recommended clamping torque: N·m

SPARE PARTS





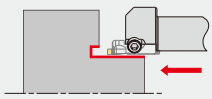
Designation	Clamping screw	Wrench
STCAL18-CHP	CSTC-4L100DR	T-1008/5
STCAR18-CHP	CSTC-4L100DL	T-1008/5

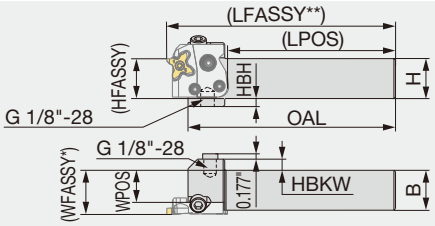
Reference pages: STCAR/L18-CHP: Inserts → F229 - F236, Shanks and toolholders → F226 - F228
Standard cutting conditions → F237, Technical Reference → L059

CHSR/L-CHP

Tube connection

Shank for adapter, with high pressure coolant capability





Right hand (R)
with right-hand adapter shown.

Inch	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque
CHSR/L12-CHP	0.750	0.750	5.000	4.035	0.560	0.510	0.750	0.190	STCAR/L18-CHP	3.69
CHSR/L16-CHP	1.000	1.000	5.000	4.035	0.810	0.260	1.000	0.200	STCAR/L18-CHP	3.69

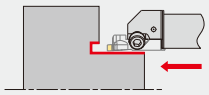
Metric	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP	20	20	130	105.5	15.1	12	20	10	STCAR/L18-CHP	6.5
CHSR/L2525-CHP	25	25	130	105.5	20.1	7	25	5	STCAR/L18-CHP	6.5

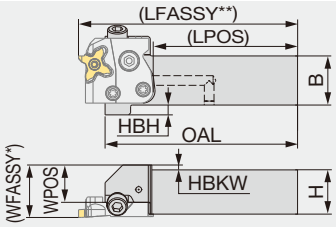
WFASSY* : Shank (WPOS) + adapter (WF)
LFASSY** : Shank (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: lbs·ft (*N·m)
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

CHSR/L-CHP-MC

Direct connection

Shank for adapter, with high pressure coolant capability





Right hand (R)
with right-hand adapter shown.

Metric	H	B	OAL	LPOS	WPOS	HBKW	HBH	Adapter (Option)	Torque
CHSR/L2020-CHP-MC	20	20	98	73.5	14	6	10	STCAR/L18-CHP	6.5
CHSR/L2525-CHP-MC	25	25	98	73.5	19	-	5	STCAR/L18-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)
LFASSY** : Shank (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: N·m
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHSR/L**-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179
CHSR/L**-CHP-MC	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	-

Recommended clamping torque (lbs·ft, N·m)

Clamping screw	Torque (lbs·ft)	Torque (N·m)
SR M5-04451	1.84	2.5
SR M6X12DIN6912	4.79	6.5
SR M6X20-XT	4.79	6.5

Combination of adapter and shank

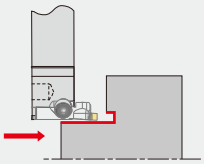
Shank	Adapter	
	STCAR18-CHP	STCAL18-CHP
CHSR**-CHP (-MC)	●	
CHSL**-CHP (-MC)		●
CHFVR**-CHP		●
CHFVL**-CHP	●	

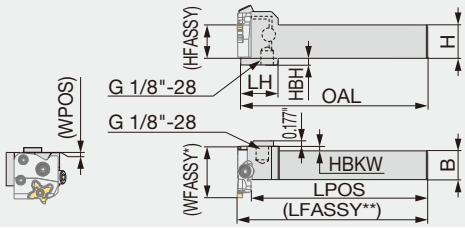
● : Corresponding

Reference pages: Inserts → F229 - F236, Adapters → F225, Standard cutting conditions → F237
Parts for coolant hose → F290, Technical Reference → L059

CHFVR/L-CHP

Shank for perpendicularly-mounted adapter, with high pressure coolant capability





Right hand (R)
with left-hand adapter shown.

Inch	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque
CHFVR/L12-CHP	0.750	0.750	5.500	1.100	5.307	0.020	0.234	0.750	0.431	STCAL/R18-CHP	3.69
CHFVR/L16-CHP	1.000	1.000	5.500	1.100	5.307	0.020	-	1.000	0.200	STCAL/R18-CHP	3.69

Metric	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHFVR/L2020-CHP	20	20	140	28	135.1	0.5	5	20	10	STCAL/R18-CHP	6.5
CHFVR/L2525-CHP	25	25	140	28	135.1	0.5	0	25	5	STCAL/R18-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (LF)
LFASSY** : Shank (LPOS) + adapter (WF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: lbs·ft (*N·m)
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHFVR/L...	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179

Recommended clamping torque (lbs·ft, N·m)

Clamping screw	Torque (lbs·ft)	Torque (N·m)
SR M5-04451	1.84	2.5
SR M6X12DIN6912	4.79	6.5
SR M6X20-XT	4.79	6.5

Combination of adapter and shank

Shank	Adapter	
	STCAR18-CHP	STCAL18-CHP
CHSR**-CHP (-MC)	●	
CHSL**-CHP (-MC)		●
CHFVR**-CHP		●
CHFVL**-CHP	●	

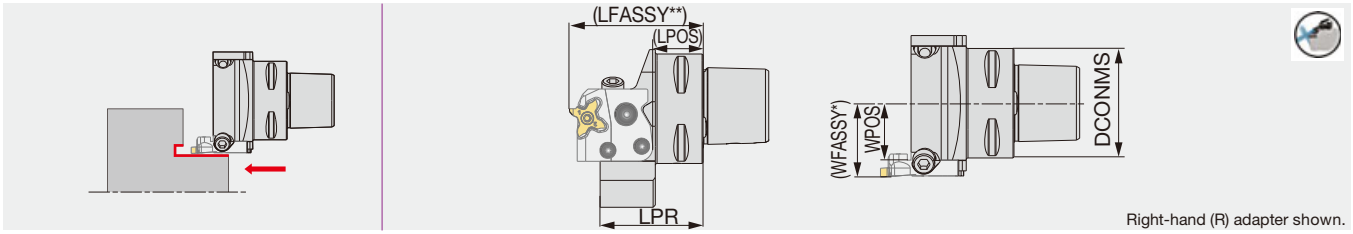
● : Corresponding

Reference pages: Inserts → F229 - F236, Adapters → F225, Standard cutting conditions → F237
Parts for coolant hose → F290, Technical Reference → L059

C*CHSN-CHP

Direct connection

Toolholder with TungCap connection, for adapter, with high pressure coolant capability



Right-hand (R) adapter shown.

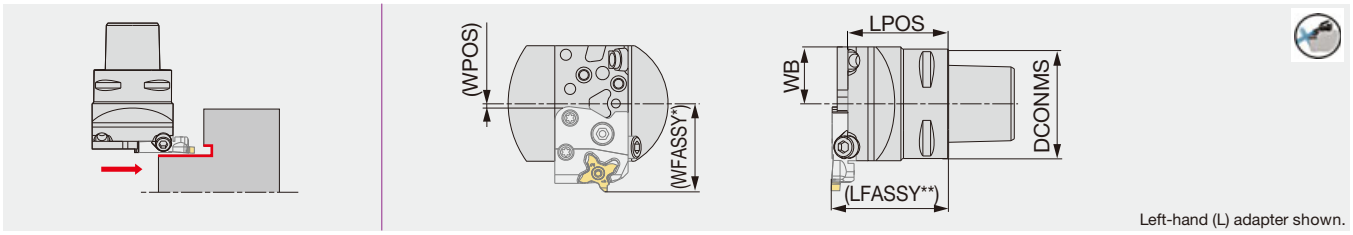
Metric	DCONMS	LPR	LPOS	WPOS	Adapter (Option)	Torque
C3CHSN19045-CHP	32	45	17.5	18.5	STCAR/L18-CHP	6.5
C4CHSN21047-CHP	40	46.5	21.5	21	STCAR/L18-CHP	6.5
C5CHSN26047-CHP	50	47	22.5	26	STCAR/L18-CHP	6.5
C6CHSN33050-CHP	63	50	24.5	32.5	STCAR/L18-CHP	6.5

WFASSY* : Toolholder (WPOS) + adapter (WF)
LFASSY** : Toolholder (LPOS) + adapter (LF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: N·m
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

C*CHFVN-CHP

Direct connection

Toolholder with TungCap connection, for perpendicularly-mounted adapter, with high pressure coolant capability



Left-hand (L) adapter shown.

Metric	DCONMS	LPOS	WB	WPOS	Adapter (Option)	Torque
C3CHFVN26040-CHP	32	40	26	1.5	STCAR/L18-CHP	6.5
C4CHFVN26046-CHP	40	46	26	1.5	STCAR/L18-CHP	6.5
C5CHFVN26046-CHP	50	46	26	1.5	STCAR/L18-CHP	6.5
C6CHFVN33046-CHP	63	46	33	8.5	STCAR/L18-CHP	6.5

WFASSY* : Toolholder (WPOS) + adapter (LF)
LFASSY** : Toolholder (LPOS) + adapter (WF)
The LFASSY or WFASSY value may change depending on the adapter type.
Torque: Recommended clamping torque: N·m
Applicable for 30 MPa coolant
Please see page L059 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring
C*CH**N**-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

Reference pages: Inserts → F229 - F236, Adapters → F225, Standard cutting conditions → F237
Technical Reference → L059

Face grooving

TCF18 (4 corners)



F230

First choice for face grooving

Provides light cutting action and excellent surface finish.
Provides superior chip evacuation for face grooving operations.

CW = 0.020" - 0.098"
CDX = 0.118"



External grooving

TCS18 (4 corners)



F230, F231

First choice for O.D. grooving

General-purpose pressed-in 3D chipbreaker for smooth chip control

CW = 0.039" - 0.118"
CDX = 0.118"



TCL18 (4 corners)



F232

For lighter cutting action

Features pressed-in 3D chipbreaker with sharp cutting edge for light cutting action. Provides excellent chip control at low feed rates.

CW = 0.059" - 0.118"
CDX = 0.118"



TCG18 (4 corners)



F233, F234

For better chipping resistance

Features an optimum rake angle and edge preparation for a good balance of light cutting action and fracture resistance.

CW = 0.039" - 0.125"
CDX = 0.118"



TCP18 (4 corners)



F235, F236

For higher surface quality

Featuring a large rake angle, providing light cutting action and better surface finish. TCP-F style insert is also available for sharp cutting edge.

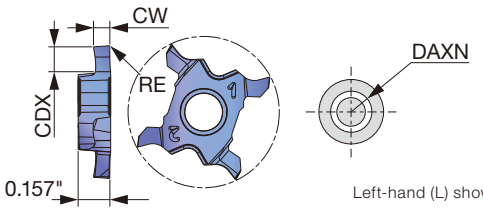
CW = 0.013" - 0.118"
CDX = 0.118"



Please see page F*** for the product details.

TCF18L (Face grooving, sharp edge)





Left-hand (L) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

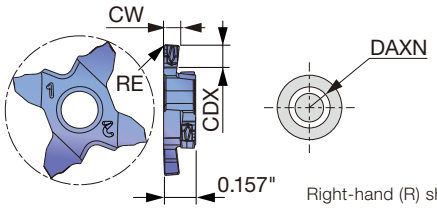
★: First choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated SH725	CDX (in)	DAXN (in)
TCF18L050F-005	L	0.5	0.020	0.002	●	0.039	0.236
TCF18L100F-005	L	1	0.039	0.002	●	0.098	0.236
TCF18L150F-005	L	1.5	0.059	0.002	●	0.098	0.236
TCF18L200F-005	L	2	0.079	0.002	●	0.118	0.236
TCF18L250F-005	L	2.5	0.098	0.002	●	0.118	0.236

5 pieces per package
●: Line up

TCS18R/L (3D chipbreaker, honed edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)	DAXN (in)
TCS18R100-010	R	1	0.039	0.004	●	0.079	2.559
TCS18L100-010	L	1	0.039	0.004	●	0.079	2.559
TCS18R120-010	R	1.2	0.047	0.004	●	0.079	2.559
TCS18L120-010	L	1.2	0.047	0.004	●	0.079	2.559
TCS18R125-010	R	1.25	0.049	0.004	●	0.079	2.559
TCS18L125-010	L	1.25	0.049	0.004	●	0.079	2.559
TCS18R125-020	R	1.25	0.049	0.008	●	0.079	2.559
TCS18L125-020	L	1.25	0.049	0.008	●	0.079	2.559
TCS18R130-020	R	1.3	0.051	0.008	●	0.118	2.559
TCS18L130-020	L	1.3	0.051	0.008	●	0.118	2.559
TCS18R140-010	R	1.4	0.055	0.004	●	0.118	2.559
TCS18L140-010	L	1.4	0.055	0.004	●	0.118	2.559
TCS18R140-020	R	1.4	0.055	0.008	●	0.118	2.559
TCS18L140-020	L	1.4	0.055	0.008	●	0.118	2.559
TCS18R145-010	R	1.45	0.057	0.004	●	0.118	2.559
TCS18L145-010	L	1.45	0.057	0.004	●	0.118	2.559

5 pieces per package
● : Line up

Reference pages: Toolholders → F223 - F228, Standard cutting conditions → F237

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

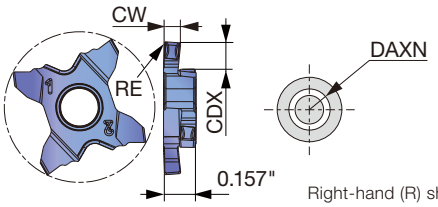
Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)	DAXN (in)
TCS18R150-010	R	1.5	0.059	0.004	●	0.118	2.559
TCS18L150-010	L	1.5	0.059	0.004	●	0.118	2.559
TCS18R150-020	R	1.5	0.059	0.008	●	0.118	2.559
TCS18L150-020	L	1.5	0.059	0.008	●	0.118	2.559
TCS18R160-020	R	1.6	0.063	0.008	●	0.118	2.559
TCS18L160-020	L	1.6	0.063	0.008	●	0.118	2.559
TCS18R170-020	R	1.7	0.067	0.008	●	0.118	2.559
TCS18L170-020	L	1.7	0.067	0.008	●	0.118	2.559
TCS18R175-010	R	1.75	0.069	0.004	●	0.118	2.559
TCS18L175-010	L	1.75	0.069	0.004	●	0.118	2.559
TCS18R175-020	R	1.75	0.069	0.008	●	0.118	2.559
TCS18L175-020	L	1.75	0.069	0.008	●	0.118	2.559
TCS18R185-020	R	1.85	0.073	0.008	●	0.118	2.559
TCS18L185-020	L	1.85	0.073	0.008	●	0.118	2.559
TCS18R195-020	R	1.95	0.077	0.008	●	0.118	2.559
TCS18L195-020	L	1.95	0.077	0.008	●	0.118	2.559
TCS18R200-010	R	2	0.079	0.004	●	0.118	2.559
TCS18L200-010	L	2	0.079	0.004	●	0.118	2.559
TCS18R200-020	R	2	0.079	0.008	●	0.118	2.559
TCS18L200-020	L	2	0.079	0.008	●	0.118	2.559
TCS18R225-020	R	2.25	0.089	0.008	●	0.118	2.559
TCS18L225-020	L	2.25	0.089	0.008	●	0.118	2.559
TCS18R230-020	R	2.3	0.091	0.008	●	0.118	2.559
TCS18L230-020	L	2.3	0.091	0.008	●	0.118	2.559
TCS18R250-010	R	2.5	0.098	0.004	●	0.118	2.559
TCS18L250-010	L	2.5	0.098	0.004	●	0.118	2.559
TCS18R250-020	R	2.5	0.098	0.008	●	0.118	2.559
TCS18L250-020	L	2.5	0.098	0.008	●	0.118	2.559
TCS18R250-030	R	2.5	0.098	0.012	●	0.118	2.559
TCS18L250-030	L	2.5	0.098	0.012	●	0.118	2.559
TCS18R265-030	R	2.65	0.104	0.012	●	0.118	2.559
TCS18L265-030	L	2.65	0.104	0.012	●	0.118	2.559
TCS18R280-030	R	2.8	0.110	0.012	●	0.118	2.559
TCS18L280-030	L	2.8	0.110	0.012	●	0.118	2.559
TCS18R300-010	R	3	0.118	0.004	●	0.118	2.559
TCS18L300-010	L	3	0.118	0.004	●	0.118	2.559
TCS18R300-020	R	3	0.118	0.008	●	0.118	2.559
TCS18L300-020	L	3	0.118	0.008	●	0.118	2.559
TCS18R300-030	R	3	0.118	0.012	●	0.118	2.559
TCS18L300-030	L	3	0.118	0.012	●	0.118	2.559

5 pieces per package
● : Line up

Reference pages: Toolholders → F223 - F228, Standard cutting conditions → F237

TCL18R/L (3D chipbreaker, honed edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

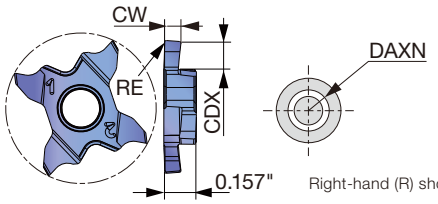
Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)	DAXN (in)
TCL18R150-010	R	1.5	0.059	0.004	●	0.118	2.559
TCL18L150-010	L	1.5	0.059	0.004	●	0.118	2.559
TCL18R150-020	R	1.5	0.059	0.008	●	0.118	2.559
TCL18L150-020	L	1.5	0.059	0.008	●	0.118	2.559
TCL18R175-020	R	1.75	0.069	0.008	●	0.118	2.559
TCL18L175-020	L	1.75	0.069	0.008	●	0.118	2.559
TCL18R200-010	R	2	0.079	0.004	●	0.118	2.559
TCL18L200-010	L	2	0.079	0.004	●	0.118	2.559
TCL18R200-020	R	2	0.079	0.008	●	0.118	2.559
TCL18L200-020	L	2	0.079	0.008	●	0.118	2.559
TCL18R250-030	R	2.5	0.098	0.012	●	0.118	2.559
TCL18L250-030	L	2.5	0.098	0.012	●	0.118	2.559
TCL18R300-010	R	3	0.118	0.004	●	0.118	2.559
TCL18L300-010	L	3	0.118	0.004	●	0.118	2.559
TCL18R300-020	R	3	0.118	0.008	●	0.118	2.559
TCL18L300-020	L	3	0.118	0.008	●	0.118	2.559
TCL18R300-030	R	3	0.118	0.012	●	0.118	2.559
TCL18L300-030	L	3	0.118	0.012	●	0.118	2.559

5 pieces per package
● : Line up

Reference pages: Toolholders → F223 - F228, Standard cutting conditions → F237

TCG18R/L (honed edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)	DAXN (in)
TCG18R100-010	R	1	0.039	0.004	●	0.079	2.559
TCG18L100-010	L	1	0.039	0.004	●	0.079	2.559
TCG18R120-010	R	1.2	0.047	0.004	●	0.079	2.559
TCG18L120-010	L	1.2	0.047	0.004	●	0.079	2.559
TCG18R125-010	R	1.25	0.049	0.004	●	0.079	2.559
TCG18L125-010	L	1.25	0.049	0.004	●	0.079	2.559
TCG18R125-020	R	1.25	0.049	0.008	●	0.079	2.559
TCG18L125-020	L	1.25	0.049	0.008	●	0.079	2.559
TCG18R130-020	R	1.3	0.051	0.008	●	0.079	2.559
TCG18L130-020	L	1.3	0.051	0.008	●	0.079	2.559
TCG18R140-010	R	1.4	0.055	0.004	●	0.118	2.559
TCG18L140-010	L	1.4	0.055	0.004	●	0.118	2.559
TCG18R140-020	R	1.4	0.055	0.008	●	0.118	2.559
TCG18L140-020	L	1.4	0.055	0.008	●	0.118	2.559
TCG18R145-010	R	1.45	0.057	0.004	●	0.118	2.559
TCG18L145-010	L	1.45	0.057	0.004	●	0.118	2.559
TCG18R145-020	R	1.45	0.057	0.008	●	0.118	2.559
TCG18L145-020	L	1.45	0.057	0.008	●	0.118	2.559
TCG18R150-010	R	1.5	0.059	0.004	●	0.118	2.559
TCG18L150-010	L	1.5	0.059	0.004	●	0.118	2.559
TCG18R150-020	R	1.5	0.059	0.008	●	0.118	2.559
TCG18L150-020	L	1.5	0.059	0.008	●	0.118	2.559
TCG18R160-020	R	1.6	0.063	0.008	●	0.118	2.559
TCG18L160-020	L	1.6	0.063	0.008	●	0.118	2.559
TCG18R170-020	R	1.7	0.067	0.008	●	0.118	2.559
TCG18L170-020	L	1.7	0.067	0.008	●	0.118	2.559
TCG18R175-010	R	1.75	0.069	0.004	●	0.118	2.559
TCG18L175-010	L	1.75	0.069	0.004	●	0.118	2.559
TCG18R175-020	R	1.75	0.069	0.008	●	0.118	2.559
TCG18L175-020	L	1.75	0.069	0.008	●	0.118	2.559
TCG18R185-020	R	1.85	0.073	0.008	●	0.118	2.559
TCG18L185-020	L	1.85	0.073	0.008	●	0.118	2.559
TCG18R195-020	R	1.95	0.077	0.008	●	0.118	2.559
TCG18L195-020	L	1.95	0.077	0.008	●	0.118	2.559
TCG18R200-010	R	2	0.079	0.004	●	0.118	2.559
TCG18L200-010	L	2	0.079	0.004	●	0.118	2.559
TCG18R200-020	R	2	0.079	0.008	●	0.118	2.559
TCG18L200-020	L	2	0.079	0.008	●	0.118	2.559
TCG18R225-020	R	2.25	0.089	0.008	●	0.118	2.559
TCG18L225-020	L	2.25	0.089	0.008	●	0.118	2.559
TCG18R230-020	R	2.3	0.091	0.008	●	0.118	2.559
TCG18L230-020	L	2.3	0.091	0.008	●	0.118	2.559
TCG18R250-010	R	2.5	0.098	0.004	●	0.118	2.559
TCG18L250-010	L	2.5	0.098	0.004	●	0.118	2.559

5 pieces per package
● : Line up

Reference pages: Toolholders → F223 - F228, Standard cutting conditions → F237

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

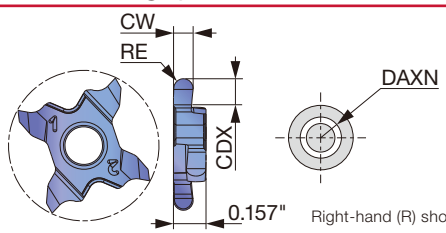
★ : First choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)	DAXN (in)
TCG18R250-020	R	2.5	0.098	0.008	●	0.118	2.559
TCG18L250-020	L	2.5	0.098	0.008	●	0.118	2.559
TCG18R250-030	R	2.5	0.098	0.012	●	0.118	2.559
TCG18L250-030	L	2.5	0.098	0.012	●	0.118	2.559
TCG18R265-030	R	2.65	0.104	0.012	●	0.118	2.559
TCG18L265-030	L	2.65	0.104	0.012	●	0.118	2.559
TCG18R280-030	R	2.8	0.110	0.012	●	0.118	2.559
TCG18L280-030	L	2.8	0.110	0.012	●	0.118	2.559
TCG18R300-010	R	3	0.118	0.004	●	0.118	2.559
TCG18L300-010	L	3	0.118	0.004	●	0.118	2.559
TCG18R300-020	R	3	0.118	0.008	●	0.118	2.559
TCG18L300-020	L	3	0.118	0.008	●	0.118	2.559
TCG18R300-030	R	3	0.118	0.012	●	0.118	2.559
TCG18L300-030	L	3	0.118	0.012	●	0.118	2.559

5 pieces per package
● : Line up

TCG18R/L (Full R, honed edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

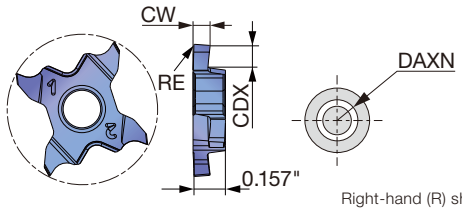
Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)	DAXN (in)
TCG18R100-050	R	1	0.039	0.020	●	0.079	2.559
TCG18L100-050	L	1	0.039	0.020	●	0.079	2.559
TCG18R158-079	R	1.58	0.062	0.031	●	0.118	2.559
TCG18L158-079	L	1.58	0.062	0.031	●	0.118	2.559
TCG18R200-100	R	2	0.079	0.039	●	0.118	2.559
TCG18L200-100	L	2	0.079	0.039	●	0.118	2.559
TCG18R239-120	R	2.39	0.094	0.047	●	0.118	2.559
TCG18L239-120	L	2.39	0.094	0.047	●	0.118	2.559
TCG18R300-150	R	3	0.118	0.059	●	0.118	2.559
TCG18L300-150	L	3	0.118	0.059	●	0.118	2.559
TCG18R318-159	R	3.18	0.125	0.063	●	0.118	2.559
TCG18L318-159	L	3.18	0.125	0.063	●	0.118	2.559

5 pieces per package
● : Line up

Reference pages: Toolholders → F223 - F228, Standard cutting conditions → F237

TCP18R/L (lightly honed edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

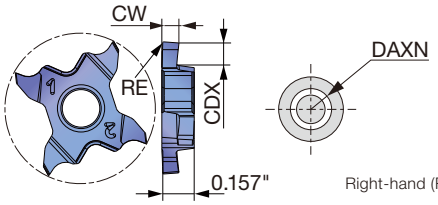
Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH725	CDX (in)	DAXN (in)
TCP18R033-005	R	0.33	0.013	0.002	●	0.031	2.559
TCP18L033-005	L	0.33	0.013	0.002	●	0.031	2.559
TCP18R043-005	R	0.43	0.017	0.002	●	0.047	2.559
TCP18L043-005	L	0.43	0.017	0.002	●	0.047	2.559
TCP18R050-005	R	0.5	0.020	0.002	●	0.047	2.559
TCP18L050-005	L	0.5	0.020	0.002	●	0.047	2.559
TCP18R075-005	R	0.75	0.030	0.002	●	0.079	2.559
TCP18L075-005	L	0.75	0.030	0.002	●	0.079	2.559
TCP18R095-005	R	0.95	0.037	0.002	●	0.079	2.559
TCP18L095-005	L	0.95	0.037	0.002	●	0.079	2.559
TCP18R100-010	R	1	0.039	0.004	●	0.079	2.559
TCP18L100-010	L	1	0.039	0.004	●	0.079	2.559
TCP18R120-010	R	1.2	0.047	0.004	●	0.079	2.559
TCP18L120-010	L	1.2	0.047	0.004	●	0.079	2.559
TCP18R125-010	R	1.25	0.049	0.004	●	0.079	2.559
TCP18L125-010	L	1.25	0.049	0.004	●	0.079	2.559
TCP18R140-010-35	R	1.4	0.055	0.004	●	0.118	2.559
TCP18L140-010-35	L	1.4	0.055	0.004	●	0.118	2.559
TCP18R145-010	R	1.45	0.057	0.004	●	0.079	2.559
TCP18L145-010	L	1.45	0.057	0.004	●	0.079	2.559
TCP18R145-010-35	R	1.45	0.057	0.004	●	0.118	2.559
TCP18L145-010-35	L	1.45	0.057	0.004	●	0.118	2.559
TCP18R150-010	R	1.5	0.059	0.004	●	0.079	2.559
TCP18L150-010	L	1.5	0.059	0.004	●	0.079	2.559
TCP18R150-010-35	R	1.5	0.059	0.004	●	0.118	2.559
TCP18L150-010-35	L	1.5	0.059	0.004	●	0.118	2.559
TCP18R175-010	R	1.75	0.069	0.004	●	0.079	2.559
TCP18L175-010	L	1.75	0.069	0.004	●	0.079	2.559
TCP18R175-010-35	R	1.75	0.069	0.004	●	0.118	2.559
TCP18L175-010-35	L	1.75	0.069	0.004	●	0.118	2.559
TCP18R200-010	R	2	0.079	0.004	●	0.098	2.559
TCP18L200-010	L	2	0.079	0.004	●	0.098	2.559
TCP18R200-010-35	R	2	0.079	0.004	●	0.118	2.559
TCP18L200-010-35	L	2	0.079	0.004	●	0.118	2.559
TCP18R250-010	R	2.5	0.098	0.004	●	0.098	2.559
TCP18L250-010	L	2.5	0.098	0.004	●	0.098	2.559
TCP18R250-010-35	R	2.5	0.098	0.004	●	0.118	2.559
TCP18L250-010-35	L	2.5	0.098	0.004	●	0.118	2.559
TCP18R300-010	R	3	0.118	0.004	●	0.098	2.559
TCP18L300-010	L	3	0.118	0.004	●	0.098	2.559
TCP18R300-010-35	R	3	0.118	0.004	●	0.118	2.559
TCP18L300-010-35	L	3	0.118	0.004	●	0.118	2.559

5 pieces per package
● : Line up

Reference pages: Toolholders → F223 - F228, Standard cutting conditions → F237

TCP18R/L-F (sharp edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated	CDX (in)	DAXN (in)
					SH725		
TCP18R033F-005	R	0.33	0.013	0.002	●	0.031	2.559
TCP18L033F-005	L	0.33	0.013	0.002	●	0.031	2.559
TCP18R043F-005	R	0.43	0.017	0.002	●	0.047	2.559
TCP18L043F-005	L	0.43	0.017	0.002	●	0.047	2.559
TCP18R050F-005	R	0.5	0.020	0.002	●	0.047	2.559
TCP18L050F-005	L	0.5	0.020	0.002	●	0.047	2.559
TCP18R075F-005	R	0.75	0.030	0.002	●	0.079	2.559
TCP18L075F-005	L	0.75	0.030	0.002	●	0.079	2.559
TCP18R095F-005	R	0.95	0.037	0.002	●	0.079	2.559
TCP18L095F-005	L	0.95	0.037	0.002	●	0.079	2.559
TCP18R100F-005	R	1	0.039	0.002	●	0.079	2.559
TCP18R100F-010	R	1	0.039	0.004	●	0.079	2.559
TCP18L100F-010	L	1	0.039	0.004	●	0.079	2.559
TCP18R120F-005	R	1.2	0.047	0.002	●	0.079	2.559
TCP18R120F-010	R	1.2	0.047	0.004	●	0.079	2.559
TCP18L120F-010	L	1.2	0.047	0.004	●	0.079	2.559
TCP18R125F-005	R	1.25	0.049	0.002	●	0.079	2.559
TCP18R125F-010	R	1.25	0.049	0.004	●	0.079	2.559
TCP18L125F-010	L	1.25	0.049	0.004	●	0.079	2.559
TCP18R140F-010-35	R	1.4	0.055	0.004	●	0.118	2.559
TCP18R145F-005-35	R	1.45	0.057	0.002	●	0.118	2.559
TCP18R145F-010	R	1.45	0.057	0.004	●	0.079	2.559
TCP18L145F-010	L	1.45	0.057	0.004	●	0.079	2.559
TCP18R145F-010-35	R	1.45	0.057	0.004	●	0.118	2.559
TCP18L145F-010-35	L	1.45	0.057	0.004	●	0.118	2.559
TCP18R150F-005-35	R	1.5	0.059	0.002	●	0.118	2.559
TCP18R150F-010	R	1.5	0.059	0.004	●	0.079	2.559
TCP18L150F-010	L	1.5	0.059	0.004	●	0.079	2.559
TCP18R150F-010-35	R	1.5	0.059	0.004	●	0.118	2.559
TCP18L150F-010-35	L	1.5	0.059	0.004	●	0.118	2.559
TCP18R175F-005-35	R	1.75	0.069	0.002	●	0.118	2.559
TCP18R175F-010	R	1.75	0.069	0.004	●	0.079	2.559
TCP18L175F-010	L	1.75	0.069	0.004	●	0.079	2.559
TCP18R175F-010-35	R	1.75	0.069	0.004	●	0.118	2.559
TCP18L175F-010-35	L	1.75	0.069	0.004	●	0.118	2.559
TCP18R200F-005-35	R	2	0.079	0.002	●	0.118	2.559
TCP18R200F-010	R	2	0.079	0.004	●	0.098	2.559
TCP18L200F-010	L	2	0.079	0.004	●	0.098	2.559
TCP18R200F-010-35	R	2	0.079	0.004	●	0.118	2.559
TCP18L200F-010-35	L	2	0.079	0.004	●	0.118	2.559
TCP18R250F-010	R	2.5	0.098	0.004	●	0.098	2.559
TCP18L250F-010	L	2.5	0.098	0.004	●	0.098	2.559
TCP18R250F-010-35	R	2.5	0.098	0.004	●	0.118	2.559
TCP18L250F-010-35	L	2.5	0.098	0.004	●	0.118	2.559
TCP18R300F-010	R	3	0.118	0.004	●	0.098	2.559
TCP18L300F-010	L	3	0.118	0.004	●	0.098	2.559
TCP18R300F-010-35	R	3	0.118	0.004	●	0.118	2.559
TCP18L300F-010-35	L	3	0.118	0.004	●	0.118	2.559

5 pieces per package
● : Line up

Reference pages: Toolholders → F223 - F228, Standard cutting conditions → F237

STANDARD CUTTING CONDITIONS

TCF18L (Face grooving)

ISO	Workpiece materials	Grades	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Low carbon steel 1015, etc.	SH725	98 - 328	0.0004 - 0.0016
P	Carbon steel, Alloy steel 1055, 4140, etc.	SH725	98 - 328	0.0004 - 0.0016
P	Prehardened steel NAK80, PX5, etc.	SH725	98 - 328	0.0004 - 0.0016
M	Stainless steel 304, 316, etc.	SH725	98 - 328	0.0004 - 0.0016
K	Gray cast iron No.250B, No.300B, etc.	SH725	98 - 328	0.0004 - 0.0016
K	Ductile cast iron 60-40-18, etc.	SH725	98 - 328	0.0004 - 0.0016
S	Titanium alloys Ti-6Al-4V, etc.	SH725	66 - 131	0.0004 - 0.0016
S	Superalloys Inconel718, etc.	SH725	33 - 98	0.0004 - 0.0016

TCS18R/L, TCL18R/L (3D chipbreaker), TCG18R/L (honed edge), TCG18R/L (Full R)

ISO	Workpiece materials	Grade	Cutting speed *Vc* (sfm)	Feed: *f* (ipr)		
				TCL18	TCS18	TCG18
P	Low carbon steel 1015, etc.	AH7025	262 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
P	Carbon steel, Alloy steel 1055, 4140, etc.	AH7025	262 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
P	Prehardened steel NAK80, PX5, etc.	AH7025	262 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
M	Stainless steel 304, 316, etc.	AH7025	164 - 394	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
K	Gray cast iron No.250B, No.300B, etc.	AH7025	164 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
K	Ductile cast iron 60-40-18, etc.	AH7025	164 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
S	Titanium alloys Ti-6Al-4V, etc.	AH7025	98 - 197	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006
S	Superalloys Inconel718, etc.	AH7025	66 - 131	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006

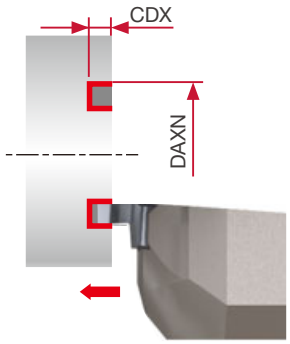
TCP18R/L (lightly honed edge), TCP18R/L-F (sharp edge)

ISO	Workpiece materials	Priority	Grades	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Low carbon steel 1015, etc.	First choice	SH725	262 - 591	0.001 - 0.004
P	Low carbon steel 1015, etc.	Toughness	AH725	262 - 591	0.001 - 0.004
P	Carbon steel, Alloy steel 1055, 4140, etc.	First choice	SH725	262 - 591	0.001 - 0.004
P	Carbon steel, Alloy steel 1055, 4140, etc.	Toughness	AH725	262 - 591	0.001 - 0.004
P	Prehardened steel NAK80, PX5, etc.	First choice	SH725	262 - 591	0.001 - 0.004
P	Prehardened steel NAK80, PX5, etc.	Toughness	AH725	262 - 591	0.001 - 0.004
M	Stainless steel 304, 316, etc.	First choice	SH725	164 - 394	0.001 - 0.004
M	Stainless steel 304, 316, etc.	Toughness	AH725	164 - 394	0.001 - 0.004
K	Gray cast iron No.250B, No.300B, etc.	First choice	AH725	164 - 591	0.001 - 0.004
K	Gray cast iron No.250B, No.300B, etc.	Sharpness	SH725	164 - 591	0.001 - 0.004
K	Ductile cast iron 60-40-18, etc.	First choice	AH725	164 - 591	0.001 - 0.004
K	Ductile cast iron 60-40-18, etc.	Sharpness	SH725	164 - 591	0.001 - 0.004
S	Titanium alloys Ti-6Al-4V, etc.	First choice	SH725	98 - 262	0.001 - 0.004
S	Titanium alloys Ti-6Al-4V, etc.	Toughness	AH725	98 - 262	0.001 - 0.004
S	Superalloys Inconel718, etc.	First choice	AH725	66 - 131	0.001 - 0.004

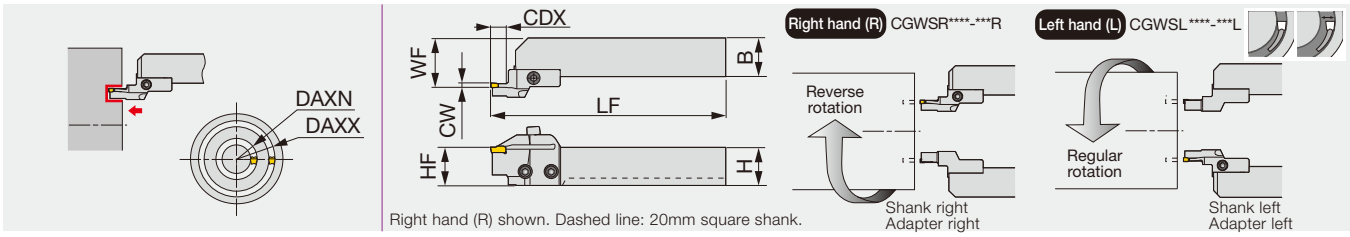
Precautions of processing

Minimum diameter for face grooving

Minimum face diameter DAXN (in)	Maximum groove depth CDX (in)
2.559	0.118



Adapter for face grooving and turning toolholders (CGWSR/L-#S/D, CGWTR/L-#S/D)



Right hand (R) shown. Dashed line: 20mm square shank.

Metric	CW	DAXN	DAXX	CDX	H	B	LF	HF	WF	Insert	Shank	Torque
30S3040R/L	3	30	40	10	20/25	20/25	152.5	20/25	27/32	G*30, GE30-AL	CGWSR/L...	5
30S4050R/L	3	40	50	10	20/25	20/25	152.5	20/25	27/32	G*30, GE30-AL	CGWSR/L...	5
30S5065R/L	3	50	65	10	20/25	20/25	152.5	20/25	27/32	G*30, GE30-AL	CGWSR/L...	5
30S6590R/L	3	65	90	10	20/25	20/25	152.5	20/25	27/32	G*30, GE30-AL	CGWSR/L...	5
30S90150R/L	3	90	150	10	20/25	20/25	152.5	20/25	27/32	G*30, GE30-AL	CGWSR/L...	5
30S150500R/L	3	150	500	10	20/25	20/25	152.5	20/25	27/32	G*30, GE30-AL	CGWSR/L...	5
40S3545R/L	4	35	45	14	20/25	20/25	152.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40S4555R/L	4	45	55	14	20/25	20/25	152.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40S5580R/L	4	55	80	14	20/25	20/25	152.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40S80140R/L	4	80	140	14	20/25	20/25	152.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40S140500R/L	4	140	500	14	20/25	20/25	152.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40D3545R/L	4	35	45	22	20/25	20/25	160.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40D4555R/L	4	45	55	22	20/25	20/25	160.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40D5580R/L	4	55	80	22	20/25	20/25	160.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40D80140R/L	4	80	140	22	20/25	20/25	160.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40D140500R/L	4	140	500	22	20/25	20/25	160.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
50S3545R/L	5	35	45	14	20/25	20/25	152.5	20/25	27/32	G*50	CGWSR/L...	5
50S4555R/L	5	45	55	14	20/25	20/25	152.5	20/25	27/32	G*50	CGWSR/L...	5
50S5575R/L	5	55	75	14	20/25	20/25	152.5	20/25	27/32	G*50	CGWSR/L...	5
50S75130R/L	5	75	130	14	20/25	20/25	152.5	20/25	27/32	G*50	CGWSR/L...	5
50S130500R/L	5	130	500	14	20/25	20/25	152.5	20/25	27/32	G*50	CGWSR/L...	5
50D3545R/L	5	35	45	22	20/25	20/25	160.5	20/25	27/32	G*50	CGWSR/L...	5
50D4555R/L	5	45	55	22	20/25	20/25	160.5	20/25	27/32	G*50	CGWSR/L...	5
50D5575R/L	5	55	75	22	20/25	20/25	160.5	20/25	27/32	G*50	CGWSR/L...	5
50D75130R/L	5	75	130	22	20/25	20/25	160.5	20/25	27/32	G*50	CGWSR/L...	5
50D130500R/L	5	130	500	22	20/25	20/25	160.5	20/25	27/32	G*50	CGWSR/L...	5

Toolholders are in stock with the designations of: a set of shank and adapter; a shank; a adapter. Combining the designations of a adapter and a shank will make the designation of a set.
Please check the stock and place an order with the designation of a set or a shank+a adapter.
Use right-hand shanks (CGWSR～) with right-hand adapters (～R); and left-hand shanks (CGWSL～) with left-hand adapters (～L).
Torque: Recommended clamping torque: N·m

SPARE PARTS

Designation	Clamping screw	Adapter screw	Wrench
30S..., 40S...	CHHM5-18	CSHB-6	P-4
40D...	CM5X0.8X16	CSHB-6	P-4
50S...	CHHM5-18	CSHB-6	P-4
50D...	CM5X0.8X16	CSHB-6	P-4

Combination of adapter and shank

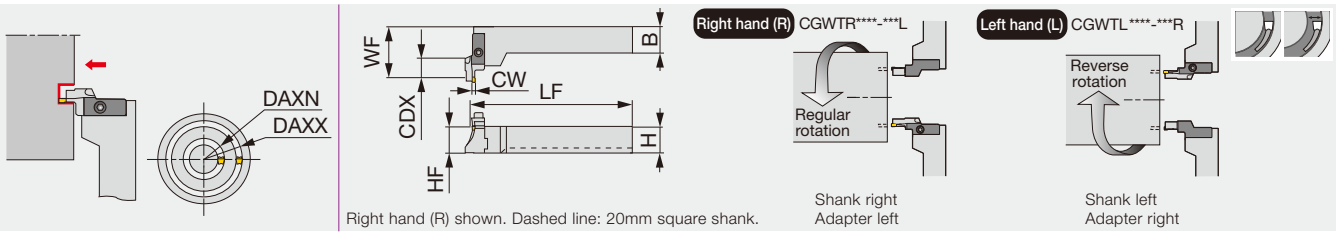
Shank	Adapter	
	S/DR	**S/D**L
CGWSR...	●	
CGWSL...		●
CGWTR...		●
CGWTL...	●	

● : Corresponding

Reference pages: Inserts → F241 - F244, Shanks → F240, Standard cutting conditions → F245

#S/D##R/L+CGWTR/L

Adapter for face grooving and turning toolholders (CGWSR/L-#S/D, CGWTR/L-#S/D)



Right hand (R) shown. Dashed line: 20mm square shank.

Metric	CW	DAXN	DAXX	CDX	H	B	LF	HF	WF	Insert	Shank	Torque
30S3040R/L	3	30	40	10	20/25	20/25	150	20/25	52.25	G*30, GE30-AL	CGWTL/R...	5
30S4050R/L	3	40	50	10	20/25	20/25	150	20/25	52.25	G*30, GE30-AL	CGWTL/R...	5
30S5065R/L	3	50	65	10	20/25	20/25	150	20/25	52.25	G*30, GE30-AL	CGWTL/R...	5
30S6590R/L	3	65	90	10	20/25	20/25	150	20/25	52.25	G*30, GE30-AL	CGWTL/R...	5
30S90150R/L	3	90	150	10	20/25	20/25	150	20/25	52.25	G*30, GE30-AL	CGWTL/R...	5
30S150500R/L	3	150	500	10	20/25	20/25	150	20/25	52.25	G*30, GE30-AL	CGWTL/R...	5
40S3545R/L	4	35	45	14	20/25	20/25	150	20/25	52.25	G*40, GE40-AL	CGWTL/R...	5
40S4555R/L	4	45	55	14	20/25	20/25	150	20/25	52.25	G*40, GE40-AL	CGWTL/R...	5
40S5580R/L	4	55	80	14	20/25	20/25	150	20/25	52.25	G*40, GE40-AL	CGWTL/R...	5
40S80140R/L	4	80	140	14	20/25	20/25	150	20/25	52.25	G*40, GE40-AL	CGWTL/R...	5
40S140500R/L	4	140	500	14	20/25	20/25	150	20/25	52.25	G*40, GE40-AL	CGWTL/R...	5
40D3545R/L	4	35	45	22	20/25	20/25	150	20/25	60.25	G*40, GE40-AL	CGWTL/R...	5
40D4555R/L	4	45	55	22	20/25	20/25	150	20/25	60.25	G*40, GE40-AL	CGWTL/R...	5
40D5580R/L	4	55	80	22	20/25	20/25	150	20/25	60.25	G*40, GE40-AL	CGWTL/R...	5
40D80140R/L	4	80	140	22	20/25	20/25	150	20/25	60.25	G*40, GE40-AL	CGWTL/R...	5
40D140500R/L	4	140	500	22	20/25	20/25	150	20/25	60.25	G*40, GE40-AL	CGWTL/R...	5
50S3545R/L	5	35	45	14	20/25	20/25	150	20/25	52.25	G*50	CGWTL/R...	5
50S4555R/L	5	45	55	14	20/25	20/25	150	20/25	52.25	G*50	CGWTL/R...	5
50S5575R/L	5	55	75	14	20/25	20/25	150	20/25	52.25	G*50	CGWTL/R...	5
50S75130R/L	5	75	130	14	20/25	20/25	150	20/25	52.25	G*50	CGWTL/R...	5
50S130500R/L	5	130	500	14	20/25	20/25	150	20/25	52.25	G*50	CGWTL/R...	5
50D3545R/L	5	35	45	22	20/25	20/25	150	20/25	60.25	G*50	CGWTL/R...	5
50D4555R/L	5	45	55	22	20/25	20/25	150	20/25	60.25	G*50	CGWTL/R...	5
50D5575R/L	5	55	75	22	20/25	20/25	150	20/25	60.25	G*50	CGWTL/R...	5
50D75130R/L	5	75	130	22	20/25	20/25	150	20/25	60.25	G*50	CGWTL/R...	5
50D130500R/L	5	130	500	22	20/25	20/25	150	20/25	60.25	G*50	CGWTL/R...	5

Toolholders are in stock with the designations of: a set of shank and adapter; a shank; a adapter. Combining the designations of a adapter and a shank will make the designation of a set.
Please check the stock and place an order with the designation of a set or a shank+a adapter.
Use right-hand shanks (CGWTR～) with left-hand adapters (～L); and left-hand shanks (CGWTL～) with right-hand adapters (～R).
Torque: Recommended clamping torque: N·m

SPARE PARTS





Designation	Clamping screw	Adapter screw	Wrench
30S..., 40S...	CHHM5-18	CSHB-6	P-4
40D...	CM5X0.8X16	CSHB-6	P-4
50S...	CHHM5-18	CSHB-6	P-4
50D...	CM5X0.8X16	CSHB-6	P-4

Combination of adapter and shank

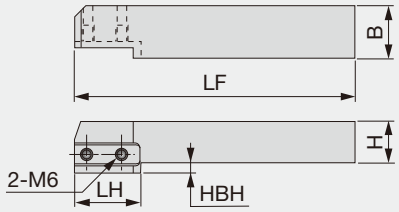
Shank	Adapter	
	S/DR	**S/D**L
CGWSR...	●	
CGWSL...		●
CGWTR...		●
CGWTL...	●	

● : Corresponding

Reference pages: Inserts → F241 - F244, Shanks → F240, Standard cutting conditions → F245

CGWSR/L

Shank for CGWSR/L-WG, -WG-L, -G, -CGD, -FL-G/TP, and -#S/D toolholders



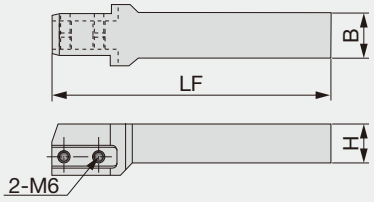
Right hand (R) shown.

Inch	H	B	LF	LH	HBH
CGWSR/L12	0.75	0.75	5.40	1.310	0.250
CGWSR/L16	1.00	1.00	5.40	-	-

Metric	H	B	LF	LH	HBH
CGWSR/L2020	20	20	137	32.5	5
CGWSR/L2525	25	25	137	-	-

CGWSRL

Shank of toolholders. Vertical type with offset

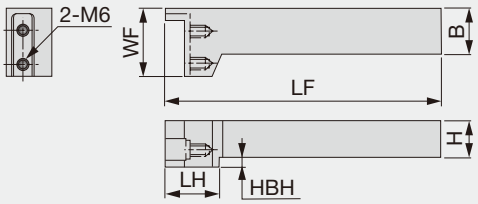


Inch	H	B	LF
CGWSRL12	0.75	0.75	5.40
CGWSRL16	1.00	1.00	5.40

Note: Right (R) or Left (L) hand cartridges can be used in this toolholder

CGWTR/L

Shank for CGWSR/L-WG, -WG-L, -G, -CGD, -FL-G/TP, and -#S/D toolholders, for tangentially clamped adapter



Right hand (R) shown.

Inch	H	B	LF	LH	WF	HBH
CGWTR/L12	0.75	0.75	6.00	1.20	1.50	0.234
CGWTR/L16	1.00	1.00	6.00	-	1.50	-

Metric	H	B	LF	LH	WF	HBH
CGWTR/L2020	20	20	150	30.5	37	5
CGWTR/L2525	25	25	150	-	37	-

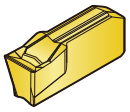
SPARE PARTS



Designation	Adapter screw
CGW...	CSHB-6

Face grooving

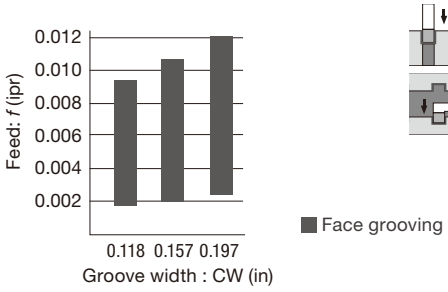
GF

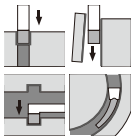


F243

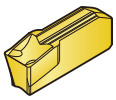
1st choice for face grooving
Low cutting force and good chip control for face grooving

CW = 0.118" - 0.197"





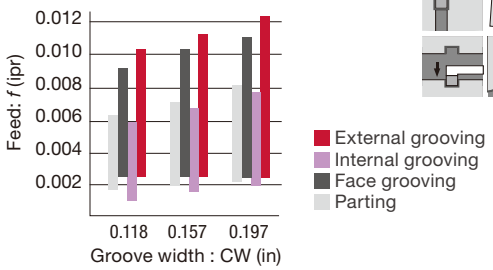
GE

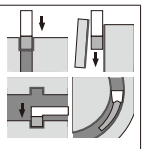


F242

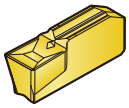
1st choice for external grooving and parting
Excellent chip control for grooving

CW = 0.118" - 0.197"





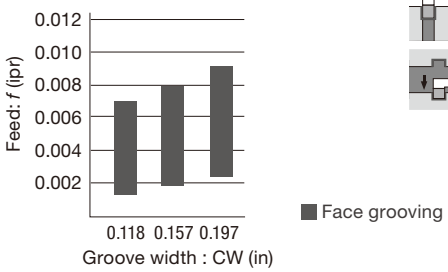
GN

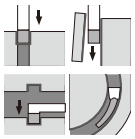


F244

1st choice for internal grooving
Low cutting force and good chip control for internal grooving

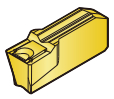
CW = 0.118" - 0.197"





External grooving and turning

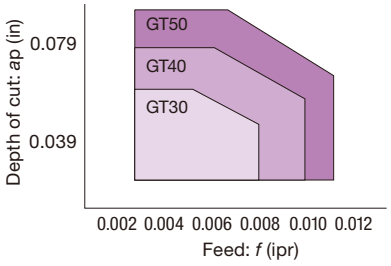
GT

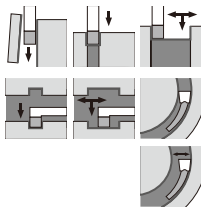


F242

1st choice for turning
Low cutting force and good chip control for traversing

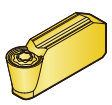
CW = 0.118" - 0.197"





For profiling

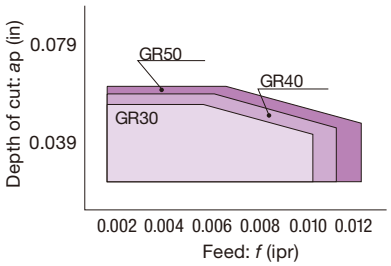
GR

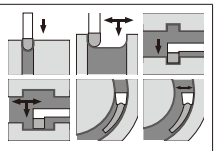


F243

Full radius type
Low cutting force and good chip control for profiling

CW = 0.118" - 0.197"

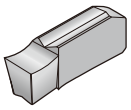




Please see page F*** for the product details.

For aluminum and non-ferrous metal

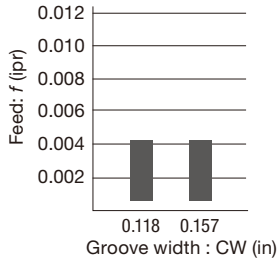
GE-AL

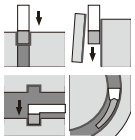


F244

Reduce cutting force and welding due to sharp chipbreaker

CW = 0.118" - 0.157"



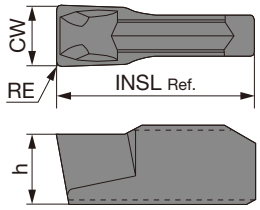


Please see page F*** for the product details.

INSERTS

GE

For external grooving and parting



P	Steel	★	★	★				★			
M	Stainless		★	★							
K	Cast iron		★	☆				☆			
N	Non-ferrous										
S	Superalloys		☆								
H	Hard materials										

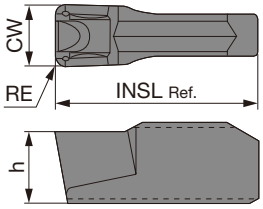
★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated T9225	Coated AH120	Coated GH730	Cermet NS9530	INSL (in)	h (in)
GE30	3	0.118	0.008	●	●	●	●	0.394	0.138
GE40	4	0.157	0.008	●	●	●	●	0.394	0.157
GE50	5	0.197	0.008	●	●	●	●	0.472	0.177

● : Line up

GT

For external grooving and turning



P	Steel	★	★	★				★			
M	Stainless		★	★							
K	Cast iron		★	☆				☆			
N	Non-ferrous										
S	Superalloys		☆								
H	Hard materials										

★ : First choice
☆ : Second choice

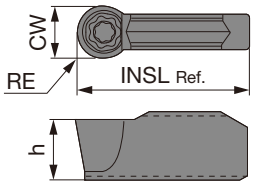
Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated T9225	Coated AH120	Coated GH730	Cermet NS9530	INSL (in)	h (in)
GT30	3	0.118	0.016		●	●	●	0.394	0.138
GT40	4	0.157	0.016		●	●	●	0.394	0.157
GT50	5	0.197	0.016	●	●	●	●	0.472	0.177

● : Line up

Reference pages: Toolholders → F238 - F240, Standard cutting conditions → F245

GR

For profiling (full radius)



P	Steel	★	★	★				★			
M	Stainless		★	★							
K	Cast iron		★	☆				☆			
N	Non-ferrous										
S	Superalloys		☆								
H	Hard materials										

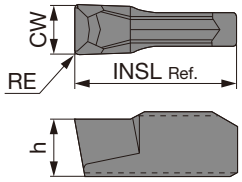
★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated						Cermet						INSL (in)	h (in)
				T9225	AH120	GH730				NS9530							
GR30	3	0.118	0.059		●	●				●						0.394	0.138
GR40	4	0.157	0.079	●	●	●				●						0.394	0.157
GR50	5	0.197	0.098	●	●	●				●						0.472	0.177

● : Line up

GF

For face grooving



P	Steel	★			★						
M	Stainless	★									
K	Cast iron	☆			☆						
N	Non-ferrous										
S	Superalloys										
H	Hard materials										

★ : First choice
☆ : Second choice

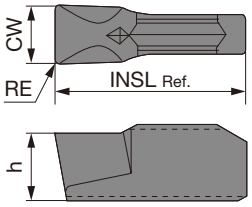
Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated			Cermet									INSL (in)	h (in)
				GH730			NS9530										
GF30	3	0.118	0.008	●			●									0.394	0.138
GF40	4	0.157	0.008	●			●									0.394	0.157
GF50	5	0.197	0.008	●			●									0.472	0.177

● : Line up

Reference pages: Toolholders → F238 - F240, Standard cutting conditions → F245

GN

For internal grooving



P	Steel	★	
M	Stainless	★	
K	Cast iron	☆	
N	Non-ferrous		
S	Superalloys		
H	Hard materials		

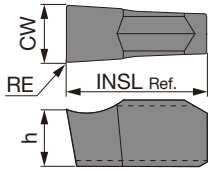
★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated GH730	INSL (in)	h (in)
GN30	3	0.118	0.008	●	0.394	0.138
GN40	4	0.157	0.008	●	0.394	0.157
GN50	5	0.197	0.008	●	0.472	0.177

● : Line up

GE-AL

For aluminum and non-ferrous metal



P	Steel		
M	Stainless		
K	Cast iron		
N	Non-ferrous	★	
S	Superalloys		
H	Hard materials		

★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Uncoated KS05F	INSL (in)	h (in)
GE30-AL	3	0.118	0.008	●	0.394	0.138
GE40-AL	4	0.157	0.008	●	0.394	0.157

● : Line up

Reference pages: Toolholders → F238 - F240

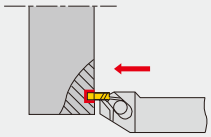
STANDARD CUTTING CONDITIONS

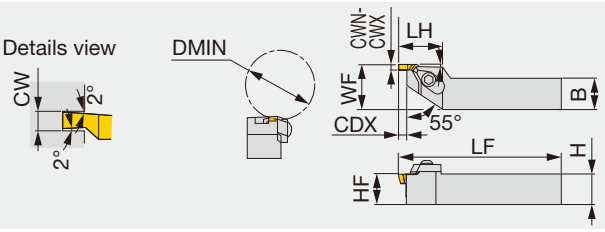
ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)
P	Low carbon steel, Alloy steel (~ HB150)	T9225	262 - 984
		NS9530	328 - 656
		GH730, AH120	164 - 591
	Medium carbon steel, Alloy steel (HB150 ~ 250)	T9225	262 - 722
		NS9530	262 - 591
		GH730, AH120	164 - 492
	High carbon steel, Alloy steel (HB250 ~)	T9225	262 - 722
		NS9530	262 - 492
		GH730, AH120	164 - 394
M	Stainless steel	GH730, AH120	164 - 394
K	Gray iron, Ductile cast iron	GH730, AH120	164 - 591
N	Aluminum alloy, Non-ferrous metal	KS05F	656 - 984

For face grooving

Operation	Feed: *f* (ipr) Groove width: CW		
	3 mm (0.118")	4 mm (0.157")	5 mm (0.197")
Face grooving (GE**)	0.0024 - 0.009	0.0024 - 0.009	0.0028 - 0.010
Face grooving (GF**)	0.0016 - 0.010	0.0020 - 0.010	0.0020 - 0.012
Traversing (GT**)	*ap* = 0.020 - 0.059 *f* = 0.0024 - 0.008	*ap* = 0.020 - 0.079 *f* = 0.0024 - 0.010	*ap* = 0.020 - 0.098 *f* = 0.0024 - 0.011
Traversing (GR**)	*ap* = 0.020 - 0.055 *f* = 0.002 - 0.010	*ap* = 0.020 - 0.059 *f* = 0.002 - 0.010	*ap* = 0.020 - 0.063 *f* = 0.002 - 0.012
Grooving for Aluminum alloys (GE**-AL)	0.0012 - 0.004	0.0012 - 0.004	-

For diameter compensation values in traversing, F129 page
When vibration occurs in turning, please use the lower limit value in the above table.





Right hand (R) shown.

Metric	CWN	CWX	DMIN	CDX	H	B	LF	LH	HF	WF	Insert	Torque
GX-2525R/LF	1	4.5	55	1.5 - 6	25	25	150	35	25	32	XNL/R63...	5

Use right-hand toolholders (GX-...RF) with left-hand inserts (XNL); and left-hand toolholders (GX-...LF) with right-hand inserts (XNR).
Torque: Recommended clamping torque: N·m

SPARE PARTS



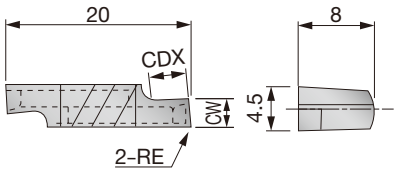




Designation	Clamp set	Clamping screw	Shim	Shim screw	Wrench
GX-2525RF	CP81A	RT-1	SL-3R	BHM4-8	P-4
GX-2525LF	CP81A	RT-1	SL-3L	BHM4-8	P-4

INSERT

XNR/L



Left hand (L) shown.
Unit: mm

		Cermet	Uncoated
P	Steel	★	★
M	Stainless		
K	Cast iron	☆	☆
N	Non-ferrous		
S	Superalloys		
H	Hard materials		

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.002 (in)	CW±0.05 (mm)	RE (mm)	Cermet NS9530	Uncoated TH10	CDX (mm)
XNR6310-02	R	0.039	1	0.2	●	●	1.5
XNL6310-02	L	0.039	1	0.2	●	●	1.5
XNR6315-02	R	0.059	1.5	0.2	●	●	2.3
XNL6315-02	L	0.059	1.5	0.2	●	●	2.3
XNR6320-02	R	0.079	2	0.2	●	●	3
XNL6320-02	L	0.079	2	0.2	●	●	3
XNR6325-02	R	0.098	2.5	0.2	●	●	3.8
XNL6325-02	L	0.098	2.5	0.2	●	●	3.8
XNR6330-02	R	0.118	3	0.2	●	●	4.5
XNL6330-02	L	0.118	3	0.2	●	●	4.5
XNR6335-02	R	0.138	3.5	0.2	●	●	5.3
XNL6335-02	L	0.138	3.5	0.2	●	●	5.3
XNR6340-02	R	0.157	4	0.2	●	●	6
XNL6340-02	L	0.157	4	0.2	●	●	6
XNR6345-02	R	0.177	4.5	0.2	●	●	6
XNL6345-02	L	0.177	4.5	0.2	●	●	6

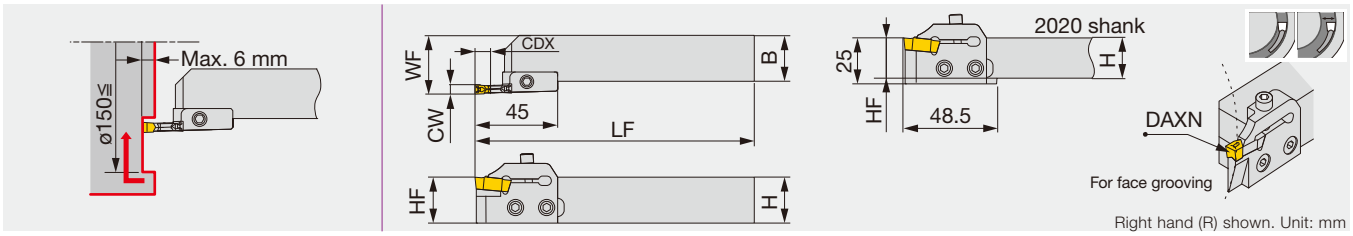
● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed: *f* (ipr)		
				CW < 0.079"	CW = 0.079" - 0.157"	CW > 0.157"
P	Carbon steels	NS9530	262 - 656	0.002 - 0.004	0.003 - 0.008	0.003 - 0.010
K	Cast irons, Light alloys	TH10	197 - 492	0.002 - 0.004	0.003 - 0.008	0.003 - 0.010

CGWSR/L-FLR/L5TP

Face grooving and turning toolholder



Right hand (R) shown. Unit: mm

Metric	CW	DAXN	CDX	H	B	LF	HF	WF	Insert	Shank	Adapter	Torque
CGWSR/L2020-FLR/L5TP	5	150	6	20	20	152	20	27	FLEX50R/L	CGWSR/L2020	FLR/L5TP	5
CGWSR/L2525-FLR/L5TP	5	150	6	25	25	152	25	32	FLEX50R/L	CGWSR/L2525	FLR/L5TP	5

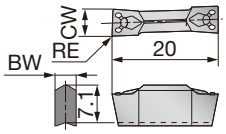
Toolholders are in stock with the designations of: a set of shank and adapter; a shank; a adapter. Combining the designations of a adapter and a shank will make the designation of a set.
Please check the stock and place an order with the designation of a set or a shank+a adapter.
Note: Use right-hand shanks (CGWSR...) with right-hand adapters (FLR5TP); and left-hand shanks (CGWSL...) with left-hand adapters (FLL5TP).
Torque: Recommended clamping torque: N·m

SPARE PARTS

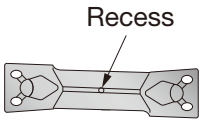
Designation	Clamping screw	Adapter screw	Wrench
CGWSR/L****-FLR/L5TP	CHHM5-18	CSHB-6	P-4

INSERT

FLEX(R/L)



Right hand (R) shown.
Unit: mm



To distinguish the insert hands, the V-shape surface (top surface) of a left-hand insert has a recess. (not of a right-hand insert)

		Coated			Cermet			Uncoated			
P	Steel	★			★			★			
M	Stainless	★						★			
K	Cast iron	☆			☆						
N	Non-ferrous										
S	Superalloys										
H	Hard materials										

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.002 (in)	CW±0.05 (mm)	RE (mm)	Coated T9225	Cermet NS9530	Uncoated UX30	BW (mm)
FLEX30R	R	0.118	3	0.4		●		2.2
FLEX30L	L	0.118	3	0.4		●		2.2
FLEX40R	R	0.157	4	0.4		●		3.1
FLEX40L	L	0.157	4	0.4		●		3.1
FLEX50R	R	0.197	5	0.4	●	●	●	4
FLEX50L	L	0.197	5	0.4	●	●	●	4

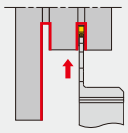
● : Line up

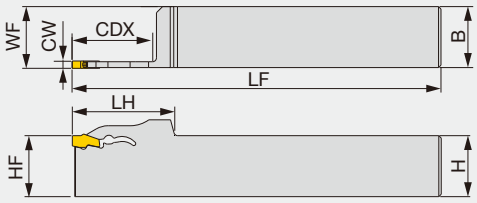
STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed: *f* (ipr) Grooving	Feed: *f* (ipr) Turning
P	Carbon steel	T9225	262 - 984	0.002 - 0.010	0.004 - 0.012
		NS9530	262 - 656	0.002 - 0.010	0.004 - 0.012
		UX30	197 - 492	0.002 - 0.010	0.004 - 0.012

QSER/L

External toolholders for grooving and parting







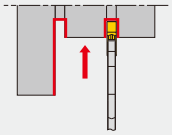
Right hand (R) shown.

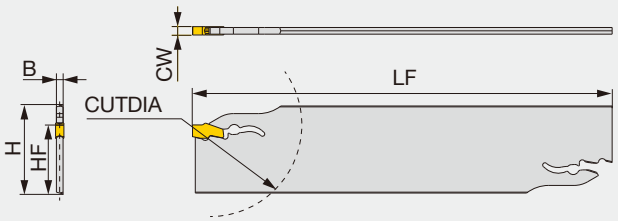
Inch	CW	CDX	Seat size	H	B	LF	LH	HF	WF
QSER/L12-2T26	0.079	1.024	2	0.750	0.750	5.000	1.417	0.750	0.756
QSER/L12-2T33	0.079	1.299	2	0.750	0.750	5.000	1.654	0.750	0.756
QSER/L16-2T26	0.079	1.024	2	1.000	1.000	6.000	1.417	1.000	1.004
QSER/L16-2T33	0.079	1.299	2	1.000	1.000	6.000	1.654	1.000	1.004
QSER/L12-3T26	0.118	1.024	3	0.750	0.750	5.000	1.417	0.750	0.764
QSER/L12-3T33	0.118	1.299	3	0.750	0.750	5.000	1.654	0.750	0.764
QSER/L16-3T26	0.118	1.024	3	1.000	1.000	6.000	1.417	1.000	1.012
QSER/L16-3T33	0.118	1.299	3	1.000	1.000	6.000	1.654	1.000	1.012
QSER/L12-4T33	0.157	1.299	4	0.750	0.750	5.000	1.654	0.750	0.768
QSER/L16-4T33	0.157	1.299	4	1.000	1.000	6.000	1.654	1.000	1.016
QSER/L16-5T33	0.197	1.299	5	1.000	1.000	6.000	1.654	1.000	1.020
QSER/L16-6T36	0.236	1.417	6	1.000	1.000	6.000	1.890	1.000	1.016

Metric	CW	CDX	Seat size	H	B	LF	LH	HF	WF
QSER/L2020-2T26	2	26	2	20	20	125	36	20	20.1
QSER/L2020-2T33	2	33	2	20	20	125	42	20	20.1
QSER/L2525-2T26	2	26	2	25	25	150	36	25	25.1
QSER/L2525-2T33	2	33	2	25	25	150	42	25	25.1
QSER/L2020-3T26	3	26	3	20	20	125	36	20	20.3
QSER/L2020-3T33	3	33	3	20	20	125	42	20	20.3
QSER/L2525-3T26	3	26	3	25	25	150	36	25	25.3
QSER/L2525-3T33	3	33	3	25	25	150	42	25	25.3
QSER/L2020-4T33	4	33	4	20	20	125	42	20	20.4
QSER/L2525-4T33	4	33	4	25	25	150	42	25	25.4
QSER/L2525-5T33	5	33	5	25	25	150	42	25	25.5

QSP

Blades for external deep grooving and parting







Metric	CW	CUTDIA	Seat size	H	B	LF	HF
QSP26-2D	2	52	2	26	1.8	150	21.4
QSP32-2D	2	66	2	32	1.8	150	24.8
QSP26-3D	3	75	3	26	2.4	150	21.4
QSP32-3D	3	120	3	32	2.4	150	24.8
QSP26-4D	4	80	4	26	3.2	150	21.4
QSP32-4D	4	120	4	32	3.2	150	24.9
QSP32-5D	5	120	5	32	4	150	24.9

SPARE PARTS

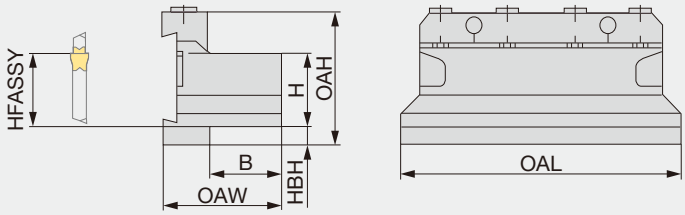


Designation	Wrench
QS...	QL-39

Reference pages: Inserts → F252, F253, Standard cutting conditions → F253

CTBU

Tool block for QSP blades



Inch	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU12-26-U	0.750	0.827	3.386	0.750	0.354	1.693	1.496	QSP26...
CTBU16-26-U	1.000	0.906	4.331	1.000	0.197	1.772	1.654	QSP26...
CTBU12-32-U	0.750	0.748	3.937	0.750	0.512	1.969	1.496	QSP32...
CTBU16-32-U	1.000	0.906	4.331	1.000	0.315	1.969	1.654	QSP32...
CTBU20-32-U	1.250	1.142	4.331	1.250	0.197	2.126	1.890	QSP32...

Metric	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU20-26	20	21	86	20	9	43	38	QSP26...
CTBU25-26	25	23	110	25	5	45	43	QSP26...
CTBU20-32	20	19	100	20	13	50	38	QSP32...
CTBU25-32	25	23	110	25	8	50	42	QSP32...
CTBU32-32	32	29	110	32	5	54	48	QSP32...

INCH SPARE PARTS

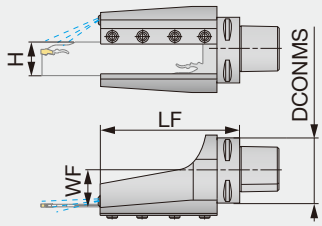
Designation	Clamp	Clamping screw	Wrench
CTBU12-26-U	CT-86	CM6X30-S	P-5
CTBU16-26-U	CT-100	CM6X30-S	P-5
CTBU12-32-U	CT-105	CM6X30-S	P-5
CTBU16-32-U	CT-110	CM6X30-S	P-5
CTBU20-32-U	CT-110	CM6X30-S	P-5

METRIC SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
CTBU20-26	CT-86	CM6X30-S	P-5
CTBU25-26	CT-105	CM6X30-S	P-5
CTBU20-32	CT-100	CM6X30-S	P-5
CTBU25-32	CT-110	CM6X30-S	P-5
CTBU32-32	CT-110	CM6X30-S	P-5

C-TBK-R/L

Toolholder with TungCap connection for parting-off blade



Right hand (R) shown.

Metric	DCONMS	WF	LF	H
C6TBK-32R/L	63	32	138	32

Applicable for 3 MPa coolant

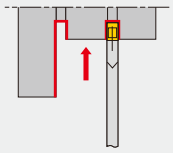
SPARE PARTS

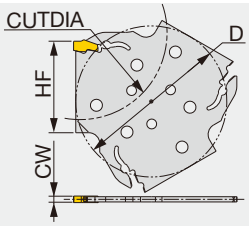
Designation	Clamp	Clamping screw	Wrench	Coolant parts
C6TBK-32R/L	BK32-9WEDG	SRM6X16DIN912-12.9	HW5.0	EZ125

Reference pages: Inserts → F252, F253, Standard cutting conditions → F253

QSG

Parting-off and external grooving blade







Metric	CW	Seat size	CUTDIA	HF	D
QSG52-2T	2	2	52	27	48.3
QSG82-2T	2	2	82	42	69.3
QSG52-3T	3	3	52	27	48.3
QSG82-3T	3	3	82	42	69.3
QSG120-3T	3	3	120	61	88
QSG52-4T	4	4	52	27	69.3
QSG82-4T	4	4	82	42	69.3
QSG120-4T	4	4	120	61	88
QSG120-5T	5	5	120	61	88

SPARE PARTS

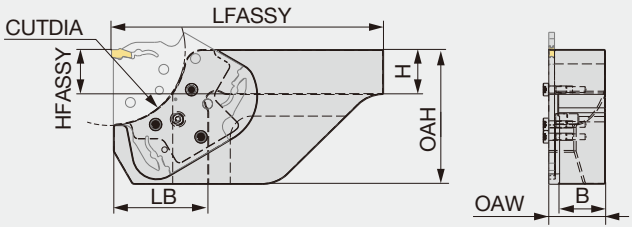


Designation	Wrench
QSG...	QL-39

Reference pages: Inserts → F252, F253, Standard cutting conditions → F253

CHTBR/L

Tool block for QSG blade



Right hand (R) shown.

Inch	CUTDIA	H	B	LFASSY	HFASSY	OAH	OAW	LB
CHTBR/L12-52	2.047	0.750	0.770	4.000	0.750	1.968	1.000	1.457
CHTBR/L16-52	2.047	1.000	1.020	5.000	1.000	1.968	1.250	1.457
CHTBR/L12-82	3.228	0.750	0.770	5.500	0.750	2.953	1.000	2.087
CHTBR/L16-82	3.228	1.000	1.020	6.000	1.000	2.953	1.250	2.087
CHTBR/L16-120	4.724	1.000	1.020	6.500	1.000	3.937	1.250	2.638
CHTBR/L20-120	4.724	1.250	1.270	6.500	1.250	3.937	1.500	2.638

Metric	CUTDIA	H	B	LFASSY	HFASSY	OAH	OAW	LB
CHTBR/L2020-52	52	20	20.5	100	20	50	26.5	37
CHTBR/L2525-52	52	25	25.5	125	25	50	31.5	37
CHTBR/L2020-82	82	20	20.5	140	20	75	26.5	53
CHTBR/L2525-82	82	25	25.5	150	25	75	31.5	53
CHTBR/L2525-120	120	25	25.5	165	25	100	31.5	67
CHTBR/L3232-120	120	32	32.5	165	32	100	38.5	67

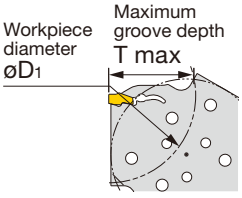
The blade clamping screw heads protrude out for as much as 0.122" (3.1 mm) over the insert cutting edge point.
Maintain the clearance from the chucking device to avoid interference.

SPARE PARTS





Designation	Clamping screw	Grip	Torx bit
CHTBR/L...	SR ISO 14580 M4X10	SW6-SD	BLDT20/S7



Maximum groove depth (T max) as function of workpiece diameter (øD1)

Designation	øD1 (in)																	
CHTBR/L**-52	2.087	2.126	2.165	2.205	2.283	2.362	2.441	2.559	2.677	2.835	3.071	3.307	3.622	4.016	4.528	5.236	6.260	7.795
CHTBR/L**-82	4.094	4.252	4.409	4.567	4.764	5.000	5.276	5.591	5.945	6.378	6.929	7.559	8.346	9.331	10.630	12.323	14.764	18.425
CHTBR/L**-120	8.071	8.425	8.819	9.252	9.724	10.276	10.945	11.693	12.559	13.583	14.803	16.299	18.189	20.551	23.661	27.913	34.055	43.780
T max (in)	0.827	0.787	0.748	0.709	0.669	0.630	0.591	0.551	0.512	0.472	0.433	0.394	0.354	0.315	0.276	0.236	0.197	0.157

Designation	øD1 (in)												
CHTBR/L**-82	3.268	3.307	3.307	3.346	3.386	3.425	3.504	3.543	3.622	3.701	3.780	3.858	3.976
CHTBR/L**-120	5.669	5.787	5.906	6.024	6.142	6.299	6.457	6.614	6.811	7.008	7.244	7.480	7.756
T max (in)	1.339	1.299	1.260	1.220	1.181	1.142	1.102	1.063	1.024	0.984	0.945	0.906	0.866

Designation	øD1 (in)																
CHTBR/L**-120	4.764	4.803	4.843	4.882	4.921	4.961	5.000	5.039	5.079	5.118	5.157	5.236	5.276	5.354	5.433	5.512	5.591
T max (in)	2.165	2.047	1.969	1.890	1.850	1.811	1.772	1.732	1.693	1.654	1.614	1.575	1.535	1.496	1.457	1.417	1.378

Reference pages: Inserts → F252, F253, Standard cutting conditions → F253

CHIPBREAKER GUIDE

QGM



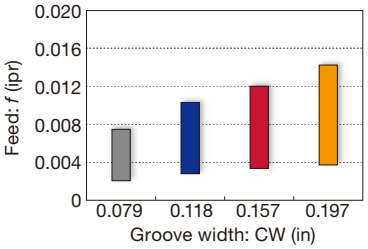
First choice for grooving and parting

Smooth chip evacuation
Well-designed edge with high strength
CW = 0.079" - 0.197"

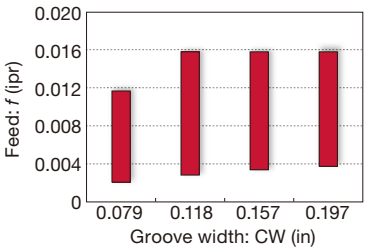
TUNGFEED BLADE

Enables high feed machining when combined with extremely rigid TungFeed-Blade toolholder
CW = 0.079" - 0.197"
CUTDIA = ø2.047", ø3.228", ø4.724"

■ Standard feed



■ Recommended feed when using TungFeed-Blade



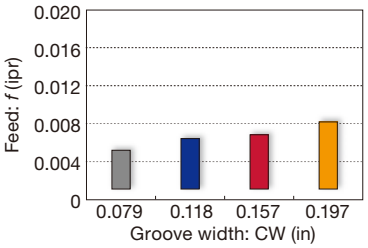
QGS



Lower cutting force and superior sharpness

Uniquely designed edge and chipbreaker
CW = 0.079" - 0.197"

■ Standard feed

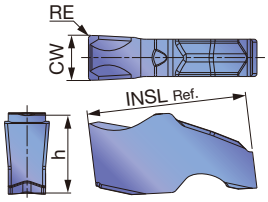


INSERTS

QGM

External deep grooving and parting





P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	INSL (in)	h (in)
QGM2-020	2	2	0.079	0.008	●	0.433	0.209
QGM3-020	3	3	0.118	0.008	●	0.433	0.209
QGM4-030	4	4	0.157	0.012	●	0.512	0.287
QGM5-030	5	5	0.197	0.012	●	0.512	0.287

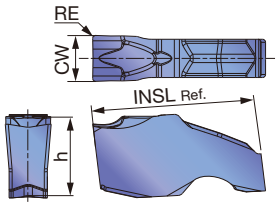
●: Line up

Reference pages: Toolholders → F248 - F251

QGS

External deep grooving and parting





P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	INSL (in)	h (in)
QGS2-020	2	2	0.079	0.008	●	0.433	0.209
QGS3-020	3	3	0.118	0.008	●	0.433	0.209
QGS4-030	4	4	0.157	0.012	●	0.512	0.287
QGS5-030	5	5	0.197	0.012	●	0.512	0.287

●: Line up

STANDARD CUTTING CONDITIONS

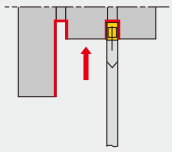
ISO	Workpiece material	Hardness	Grade	Cutting speed *Vc* (sfm)
P	Steel 1045, 4140, etc.	< 300 HB	AH7025	164 - 591
M	Stainless steel 304, etc.	< 200 HB	AH7025	164 - 394
K	Gray cast iron No.250B, etc.	-	AH7025	164 - 591
	Ductile cast iron 65-45-12, etc.	-	AH7025	164 - 394
S	Superalloys Inconel718, etc.	< HRC 40	AH7025	66 - 197
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	AH7025	66 - 262

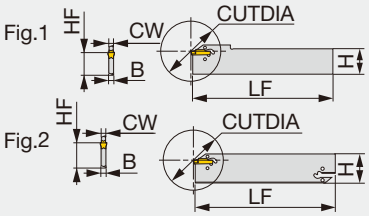
Please see page F252 for feed: *f* (ipr).

Reference pages: Toolholders → F248 - F251

CGP

External deep grooving and parting blade





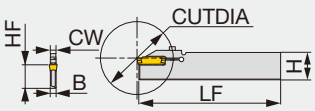
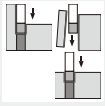


Fig.3



Metric	CW	Seat size	CUTDIA	H	B	LF	HF	Fig.	Torque
CGP26-1.4S	1.4	1	26	26	1	150	21.4	1	-
CGP32-1.4D	1.4	1	26	32	1	150	24.8	2	-
CGP26-2S	2	2	40	26	1.8	150	21.4	1	-
CGP32-2D	2	2	50	32	1.8	150	24.8	2	-
CGP26-3S	3	3	50	26	2.4	150	21.4	1	-
CGP32-3D	3	3	100	32	2.4	150	24.8	2	-
CGP26-4S	4	4	80	26	3.2	150	21.4	1	-
CGP32-4D	4	4	100	32	3.2	150	24.9	2	-
CGP45-4D	4	4	120	45	3.2	150	38.1	2	-
CGP32-5D	5	5	120	32	4	150	24.9	2	-
CGP32-6D	6	6	120	32	5.2	150	24.9	2	-
CGP32-8S-CL	8	8	80	32	6.2	150	24.9	3	3

When depth is deeper than (insert length - 1.5mm), 1 corner type is recommended.
Wrench (CRW...) is not included. Please order it separately.
Torque: Recommended clamping torque: N·m

SPARE PARTS



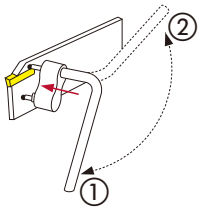


Designation	Clamping screw	Wrench	Wrench (Optional)
CGP**-1.4*	-	-	CRW23
CGP**-2/3/4/5/6	-	-	CRW33
CGP32-8S-CL	CM4X0.7X20-M0-A	P-3	-

Caution

Newly developed clamp

Insert is clamped by the elastic deformation of upper jaw.
Low clamping stress increases the stability and tool life.

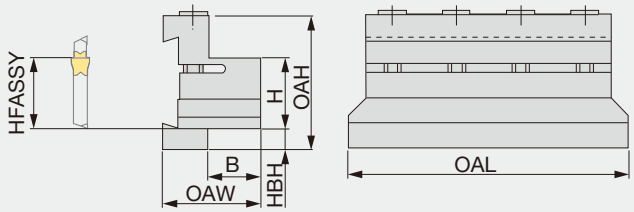




①→②: unclamp
②→①: clamp

CTBF

Tool block for CGP blade, mono block



Metric	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBF25-45	25	22	110	25	25	66	40	CGP45...
CTBF32-45	32	28	120	32	18	66	45	CGP45...

SPARE PARTS

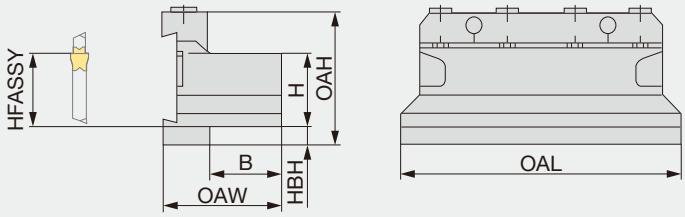



Designation	Clamping screw	Wrench
CTBF...	CM6X1.0X40-A	P-5

Reference pages: Inserts → F261 - F270, Tool blocks → F254, F255, Standard cutting conditions → F271

CTBU

Tool block for CGP blade



Inch	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU12-26-U	0.750	0.827	3.386	0.750	0.354	1.693	1.496	CGP26...
CTBU16-26-U	1.000	0.906	4.331	1.000	0.197	1.772	1.654	CGP26...
CTBU12-32-U	0.750	0.748	3.937	0.750	0.512	1.969	1.496	CGP32...
CTBU16-32-U	1.000	0.906	4.331	1.000	0.315	1.969	1.654	CGP32...
CTBU20-32-U	1.250	1.142	4.331	1.250	0.197	2.126	1.890	CGP32...

Metric	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU20-26	20	21	86	20	9	43	38	CGP26...
CTBU25-26	25	23	110	25	5	45	43	CGP26...
CTBU20-32	20	19	100	20	13	50	38	CGP32...
CTBU25-32	25	23	110	25	8	50	42	CGP32...
CTBU32-32	32	29	110	32	5	54	48	CGP32...

INCH SPARE PARTS

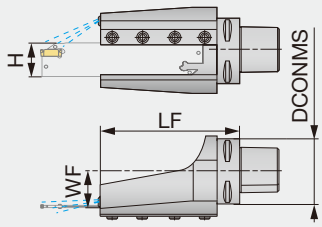
Designation	Clamp	Clamping screw	Wrench
CTBU12-26-U	CT-86	CM6X30-S	P-5
CTBU16-26-U	CT-100	CM6X30-S	P-5
CTBU12-32-U	CT-105	CM6X30-S	P-5
CTBU16-32-U	CT-110	CM6X30-S	P-5
CTBU20-32-U	CT-110	CM6X30-S	P-5

METRIC SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
CTBU20-26	CT-86	CM6X30-S	P-5
CTBU25-26	CT-105	CM6X30-S	P-5
CTBU20-32	CT-100	CM6X30-S	P-5
CTBU25-32	CT-110	CM6X30-S	P-5
CTBU32-32	CT-110	CM6X30-S	P-5

C-TBK-R/L

Toolholder with TungCap connection for parting-off blade



Right hand (R) shown.

Metric	DCONMS	WF	LF	H
C6TBK-32R/L	63	32	138	32

Applicable for 3 MPa coolant

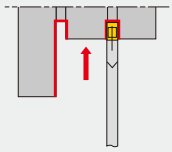
SPARE PARTS

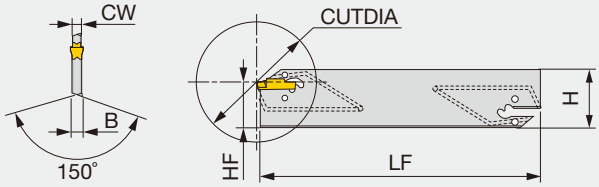
Designation	Clamp	Clamping screw	Wrench	Coolant parts
C6TBK-32R/L	BK32-9WEDG	SRM6X16DIN912-12.9	HW5.0	EZ125

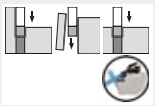
Reference pages: Inserts → F261 - F270, Blades → F254, Standard cutting conditions → F271

CGP32-CHP

External deep grooving and parting blade, with high pressure coolant capability







Metric	CW	Seat size	CUTDIA	H	B	LF	HF
CGP32-2D-CHP	2	2	50	32	1.8	150	24.8
CGP32-3D-CHP	3	3	90	32	2.5	150	24.8
CGP32-4D-CHP	4	4	90	32	3.2	150	24.9
CGP32-5D-CHP	5	5	110	32	4	150	24.9
CGP32-6D-CHP	6	6	110	32	5.2	150	24.9

When depth is deeper than (insert length - 1.5mm), 1 corner type is recommended.
Wrench (CRW...) is not included. Please order it separately.

SPARE PARTS



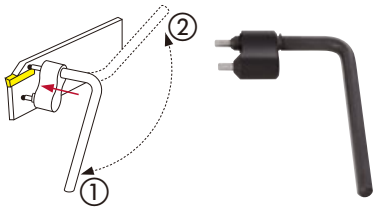


Designation	Sealing screw	Wrench (Optional)
CGP32-*D-CHP	SGC340	CRW33

Caution

Newly developed clamp

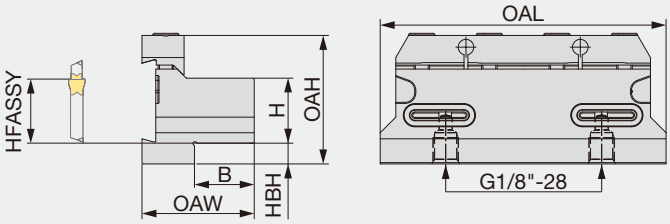
Insert is clamped by the elastic deformation of upper jaw.
Low clamping stress increases the stability and tool life.



①→②: unclamp
②→①: clamp

CTBU-CHP

Tool block for CGP-CHP blade, with high pressure coolant capability





Inch	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU16-32-U-CHP	1.000	0.906	4.331	1.000	0.315	1.97	1.654	CGP32-*D-CHP

Metric	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU25-32-CHP	25	23	110	25	8	50	43.2	CGP32-*D-CHP

Applicable for 14 MPa coolant

SPARE PARTS







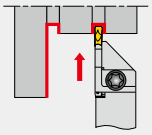


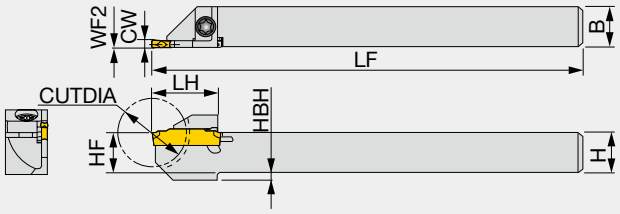
Designation	Clamping screw	Clamp	Wrench	O-ring
CTBU...	SRM6X16DIN912-12.9	CT-110	P-5	OR14X2.5NN

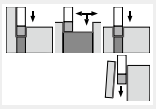
Reference pages: Inserts → F261 - F270, Standard cutting conditions → F271
Parts for coolant hose → F290

JCTER/L

External grooving and parting toolholder, for Swiss lathes







Right hand (R) shown.

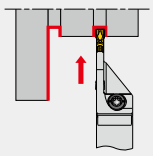
Inch	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	Torque
JCTER/L08-2T12	0.079	2	0.945	0.500	0.500	4.750	0.748	0.500	0.005/0.505	0.079	2.21
JCTER/L08-3T12	0.118	3	0.945	0.500	0.500	4.750	0.748	0.500	0.012/0.512	0.079	2.21
JCTER/L10-2T16	0.079	2	1.260	0.625	0.625	4.750	0.945	0.625	0.005/0.630	-	2.21
JCTER/L10-3T16	0.118	3	1.260	0.625	0.625	4.750	0.945	0.625	0.012/0.637	-	2.21

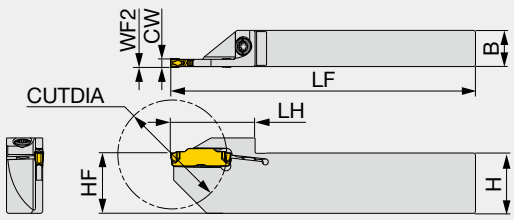
Metric	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	Torque*
JCTER/L1010X1.4T10	1.4	1	20	10	10	120	18	10	0.2/10.2	-	3
JCTER/L1212F1.4T12	1.4	1	24	12	12	85	19.5	12	0.2/12.2	-	3
JCTER/L1212X1.4T12	1.4	1	24	12	12	120	19.5	12	0.2/12.2	-	3
JCTER/L1414-1.4T12	1.4	1	24	14	14	125	19.5	14	0.2/14.2	-	3
JCTER/L1616X1.4T16	1.4	1	32	16	16	120	24	16	0.2/16.2	-	3
JCTER/L1010X2T10	2	2	20	10	10	120	19	10	0.1/10.1	2	3
JCTER/L1212F2T12	2	2	24	12	12	85	19	12	0.1/12.1	2	3
JCTER/L1212X2T12	2	2	24	12	12	120	19	12	0.1/12.1	2	3
JCTER/L1414-2T12	2	2	24	14	14	125	19	14	0.1/14.1	-	3
JCTER/L1616X2T16	2	2	32	16	16	120	24	16	0.1/16.1	-	3
JCTER/L1212F3T12	3	3	24	12	12	85	19	12	0.3/12.3	2	3
JCTER/L1212X3T12	3	3	24	12	12	120	19	12	0.3/12.3	2	3
JCTER/L1616X3T16	3	3	32	16	16	120	24	16	0.3/16.3	-	3
JCTER/L2020H3T16	3	3	32	20	20	100	24	20	0.3/20.3	-	3

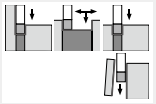
(1) "WF2" value is calculated with groove width "CW" shown in the table.
Torque: Recommended clamping torque: lbs·ft (*N·m)

JCTER/L2012

External grooving and parting toolholder, for Swiss lathes, with 20 mm shank height







Right hand (R) shown.

Metric	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	Torque
JCTER/L2012H2T18	2	2	36	20	12	100	25	20	0.1/12.1	3
JCTER/L2012H3T21	3	3	42	20	12	100	28	20	0.3/12.3	3

(1) "WF2" value is calculated with groove width "CW" shown in the table.
Torque: Recommended clamping torque: N·m

SPARE PARTS





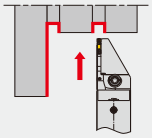
Designation	Clamping screw	Wrench
JCTER/L...	CSHB-4-A	T-15F

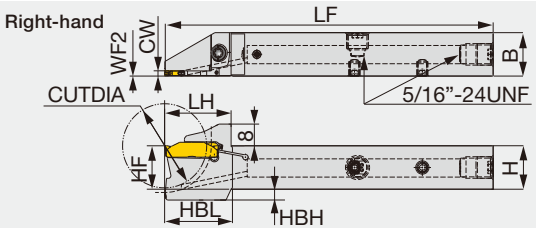
Reference pages: Inserts → F261 - F270, Standard cutting conditions → F271

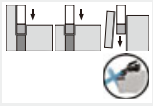
JCTER/L-CHP

Direct connection

External grooving and parting toolholder, with high pressure coolant capability







Inch	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	HBL	Torque
JCTER/L08X2T12-CHP	0.079	2	0.980	0.500	0.500	4.750	0.972	0.500	0 / 0.500	0.169	0.965	2.21
JCTER/L10X2T12-CHP	0.079	2	0.980	0.625	0.625	4.750	0.972	0.625	0 / 0.625	0.039	0.965	2.21
JCTER/L10X2T16-CHP	0.079	2	1.260	0.625	0.625	4.750	0.972	0.625	0 / 0.625	0.157	0.965	2.21
JCTER/L12X2T16-CHP	0.079	2	1.260	0.750	0.750	4.750	0.972	0.750	0 / 0.750	0.037	0.965	2.21

Metric	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	HBL	Torque*
JCTER/L1212X2T12-CHP	2	2	25	12	12	120	24.7	12	0/12	5	24.7	3
JCTER/L1616X2T12-CHP	2	2	25	16	16	120	24.7	16	0/16	1	24.5	3
JCTER/L1616X2T16-CHP	2	2	32	16	16	120	24.7	16	0/16	4	24.7	3
JCTER/L2020X2T16-CHP	2	2	32	20	20	120	24.7	20	0/20	-	-	3

(1) "WF2" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS



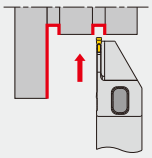


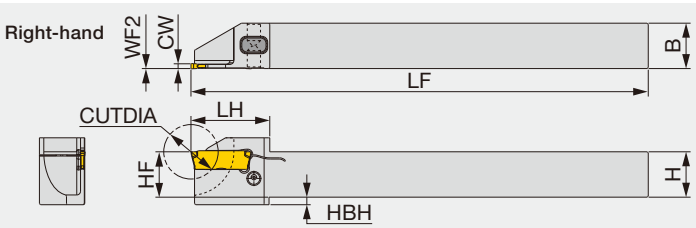



Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JCTER/L...	CSHB-4-A	T-15F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

JTTER/L

External grooving and parting toolholder, for Swiss lathes







Metric	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	Torque
JTTER/L1010H1.2D12	1.2	0.9	12	10	10	100	17	10	0/10	-	1.5
JTTER/L1212F1.2D16	1.2	0.9	16	12	12	85	19	12	0/12	-	1.5
JTTER/L1212X1.2D16	1.2	0.9	16	12	12	120	19	12	0/12	-	1.5
JTTER/L1212X1.2D20	1.2	0.9	20	12	12	120	21	12	0/12	2	1.5
JTTER/L1616X1.2D20	1.2	0.9	20	16	16	120	21	16	0/16	-	2

(1) "WF2" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
Torque: Recommended clamping torque: N·m

SPARE PARTS





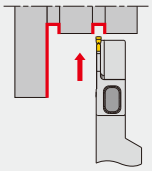
Designation	Clamping screw	Clamping pin	Wrench
JTTER/L1010...	SSM3.5x0.35	PIN-SL-TC	P-2F
JTTER/L1212...	SSM3.5x0.35	PIN-SL-TC	P-2F
JTTER/L1616...	SRM5-24145-RL	PIN-32121	P-2.5F

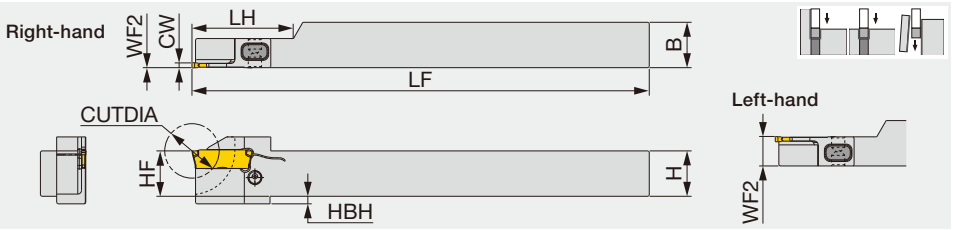
External
Internal
Face
Parting
Others

Reference pages: Inserts → F261 - F270, Standard cutting conditions → F271
Parts for coolant hose → F290

JTTER/L-S

External grooving and parting toolholder, for Swiss lathes (for sub spindle)





Metric	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	Torque
JTTER/L1010H1.2D12-S	1.2	0.9	12	10	10	100	22.8	10	0/7.7	-	1.5
JTTER1212F1.2D16-S (2)	1.2	0.9	16	12	12	85	22.8	12	0	-	1.5
JTTER/L1212X1.2D16-S	1.2	0.9	16	12	12	120	26.8	12	0/7.7	-	1.5
JTTER/L1212X1.2D20-S	1.2	0.9	20	12	12	120	26.8	12	0/7.7	2	1.5
JTTER/L1616X1.2D20-S	1.2	0.9	20	16	16	120	26.8	16	0/7.7	-	1.5

(1) "WF2" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
(2) No clamping screw from the insert side.
Torque: Recommended clamping torque: N·m

SPARE PARTS

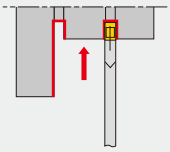


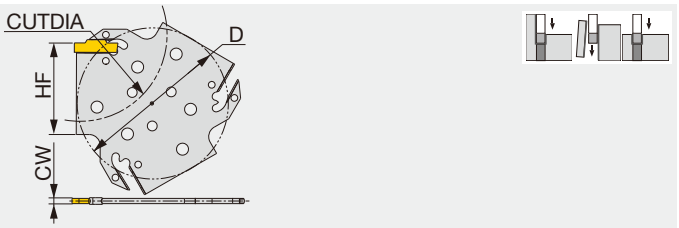


Designation	Clamping screw	Clamping pin	Wrench
JTTER/L**-S	SSM3.5x0.35	PIN-SL-TC	P-2F

CHGP

Parting-off and external grooving blade





Metric	CW	Seat size	CUTDIA	HF	D
CHGP52-2T	2	2	52	27	48.3
CHGP52-3T	3	3	52	27	48.3
CHGP82-3T	3	3	82	42	69.3
CHGP82-4T	4	4	82	42	69.3

When depth is deeper than insert length - 1.5mm, 1 corner type is recommended.

SPARE PARTS

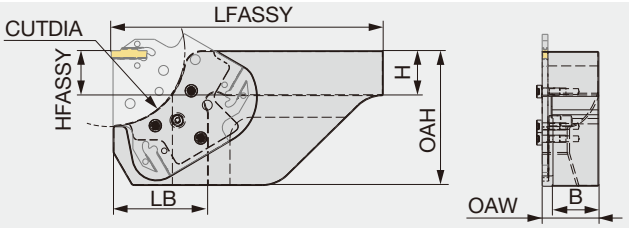


Designation	Wrench (Option)
CHGP...	CRW33

Reference pages: Inserts → F261 - F270, Tool blocks → F260, Standard cutting conditions → F271

CHTBR/L

Tool block for CHGP blade



Right hand (R) shown.

Inch	CUTDIA	H	B	LFASSY	HFASSY	OAH	OAW	LB
CHTBR/L12-52	2.047	0.750	0.770	4.000	0.750	1.968	1.000	1.457
CHTBR/L16-52	2.047	1.000	1.020	5.000	1.000	1.968	1.250	1.457
CHTBR/L12-82	3.228	0.750	0.770	5.500	0.750	2.953	1.000	2.087
CHTBR/L16-82	3.228	1.000	1.020	6.000	1.000	2.953	1.250	2.087

Metric	CUTDIA	H	B	LFASSY	HFASSY	OAH	OAW	LB
CHTBR/L2020-52	52	20	20.5	100	20	50	26.5	37
CHTBR/L2525-52	52	25	25.5	125	25	50	31.5	37
CHTBR/L2020-82	82	20	20.5	140	20	75	26.5	53
CHTBR/L2525-82	82	25	25.5	150	25	75	31.5	53

The blade clamping screw heads protrude out for as much as 0.122" (3.1 mm) over the insert cutting edge point.
Maintain the clearance from the chucking device to avoid interference.

SPARE PARTS



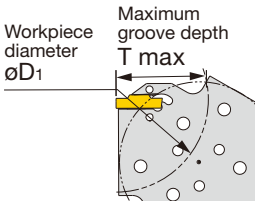


Designation	Clamping screw	Grip	Torx bit
CHTBR/L...	SR ISO 14580 M4X10	SW6-SD	BLDT20/S7

Maximum groove depth (T max) as function of workpiece diameter (øD1)

Designation	øD1 (in)																	
CHTBR/L**-52	2.087	2.126	2.165	2.205	2.283	2.362	2.441	2.559	2.677	2.835	3.071	3.307	3.622	4.016	4.528	5.236	6.260	7.795
CHTBR/L**-82	4.094	4.252	4.409	4.567	4.764	5.000	5.276	5.591	5.945	6.378	6.929	7.559	8.346	9.331	10.630	12.323	14.764	18.425
T max (in)	0.827	0.787	0.748	0.709	0.669	0.630	0.591	0.551	0.512	0.472	0.433	0.394	0.354	0.315	0.276	0.236	0.197	0.157

Designation	øD1 (in)											
CHTBR/L**-82	3.268	3.307	3.346	3.386	3.425	3.504	3.543	3.622	3.701	3.780	3.858	3.976
T max (in)	1.339	1.299	1.220	1.181	1.142	1.102	1.063	1.024	0.984	0.945	0.906	0.866

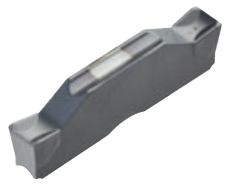


External
Internal
Face
Parting
Others

Reference pages: Inserts → F261 - F270, Blades → F259, Standard cutting conditions → F271

External grooving and parting

DGM type (2 corners) SGM type (1 corner)



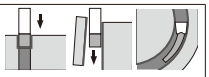
F264, F265

1st choice for grooving and parting

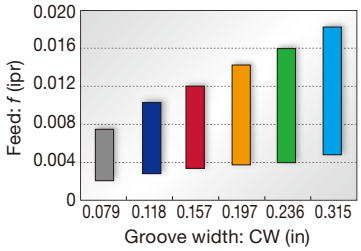
Smooth chip evacuation
Well-designed edge with high strength
Handed insert available
CW = 0.079" - 0.315"

TungFeed-Blade

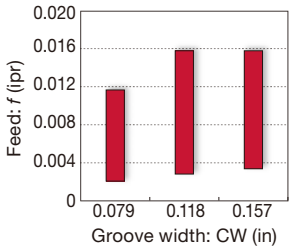
Enables high feed machining when combined with extremely rigid TungFeed-Blade toolholder
CW = 0.079" - 0.157"
CUTDIA = ø2.047", ø3.228"



■ Standard feed



■ Recommended feed when using TungFeed-Blade



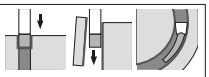
DGS type (2 corners) SGS type (1 corner)



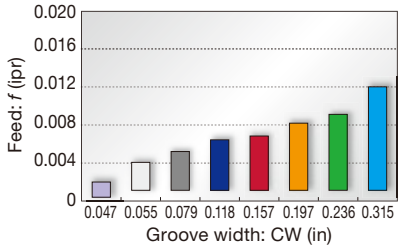
F266, F267

Lower cutting force and superior sharpness

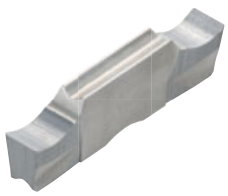
Unique-designed edge and chipbreaker
Handed insert available
CW = 0.047" - 0.315"



■ Standard feed



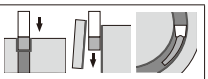
DGG type (2 corners)



F268

For non-ferrous materials and titanium

Chipbreaker with low cutting force
Sharp cutting edge that prevents vibration and delivers fine surface finish
CW = 0.079" - 0.236"



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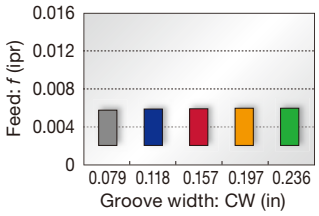


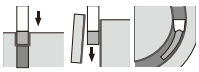
DGL type (2 corners)



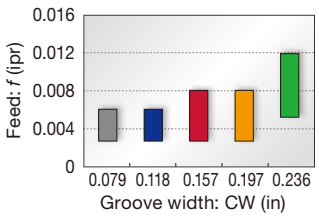
F268

1st choice for mild steel

Chipbreaker with excellent chip control at low feed
Suitable for mild steel which often presents challenges in chip control
CW = 0.079" - 0.236"



■ Standard feed



Please see page F*** for the product details.

External grooving and parting

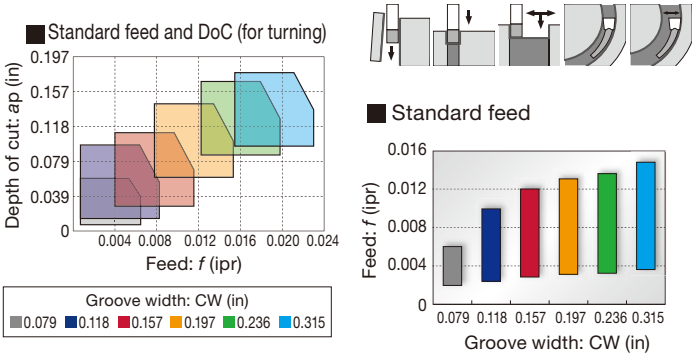
DTM type (2 corners)



F269

General purpose

1st choice for grooving and turning
Suitable for light to medium cutting
Excellent chip control in machining steel, alloy steel, stainless steel, and heat-resistant alloy
CW = 0.079" - 0.315"



External grooving, turning and parting

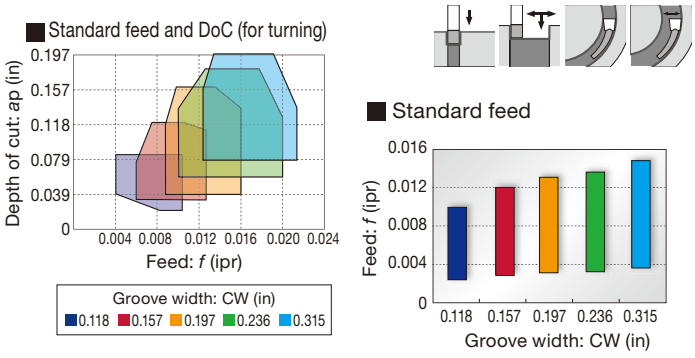
DTE type (2 corners)



F269, F270

General purpose

Unique chipbreaker makes chips shorter
Molded and ground insert available
CW = 0.104" - 0.315"



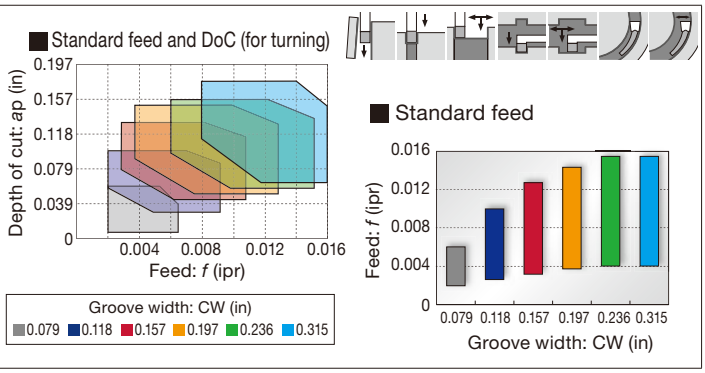
DTX type (2 corners)



F270

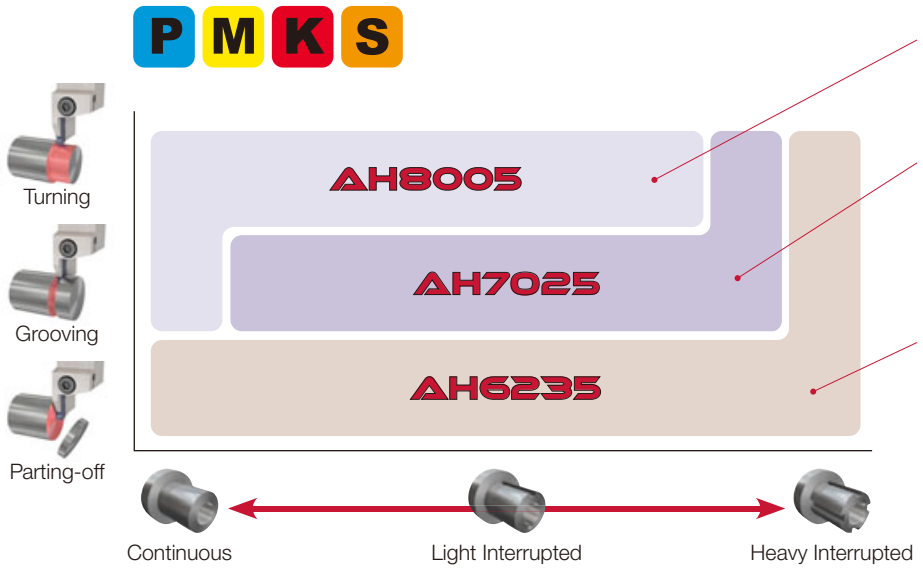
Multi-functional type

Well balanced sharpness and strength
Multi-functional insert
CW = 0.079" - 0.315"



Please see page F*** for the product details.

GRADE SELECTION



GRADES

AH8005 P M K S
- First choice for external, internal, and side-turning, continuous cuts

AH7025 P M K S
- First choice for light interrupted cuts or a mix of continuous and interrupted cuts
- New PVD coating with high Al content provides excellent adhesion strength
- Improved wear and chipping resistance

AH6235 P M K
- First choice for heavy interrupted cuts, as well as parting and facing applications

AH725 P M S
- General purpose PVD grade for high fracture resistance

T515 K
- First recommended grade for cast iron
- Excellent wear resistance in high speed machining

T9225 P
- Suitable for steel machining at high speeds
- New CVD coating and substrate deliver an outstanding balance of wear and chipping resistance

NS9530 P
- Advanced cermet for finish cutting of steel
- Innovative grade with incredible fracture and high wear resistance

GH130 P M K
- Recommended for interrupted machining
- TiCNO PVD coating layer with high wear resistance
- High hardness wear resistance

AH905 S
- Remarkable for machining of heat resistant alloys
- Exclusive coating layer improves adhesion strength and wear resistance

KS05F N S
- Recommended for non-ferrous materials and titanium

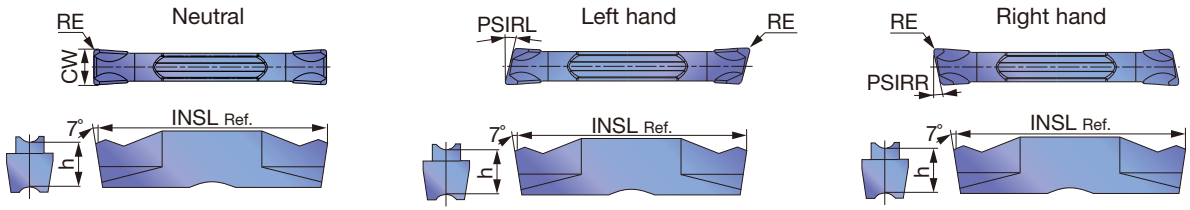
TH10 N
- Recommended for non-ferrous materials

BXA10 H
- Coated CBN grade designed for turning hardened steel parts

BX360 H
- Developed for grooving applications of hardened steel parts

DGM

External grooving and parting



		T9225	AH7025	AH725	AH8005	AH905	GH130	AH6235	NS9530	KS05F
P	Steel	★	★	☆	★		☆	★	★	
M	Stainless		★	☆	★		★	★		
K	Cast iron		★		★	☆	☆	★	☆	☆
N	Non-ferrous									☆
S	Superalloys		★	☆	★	★				★
H	Hard materials									

★ : First choice
☆ : Second choice

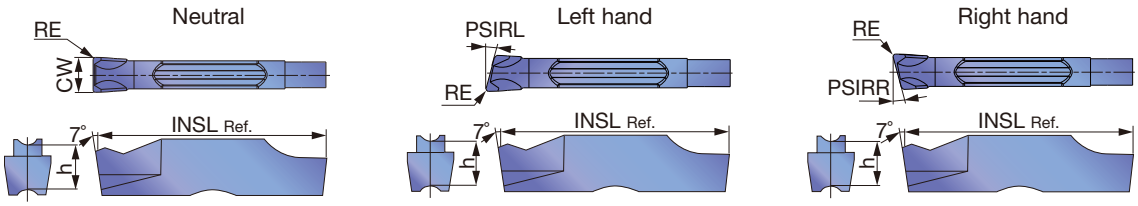
Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated							Cermet		Un-coated		INSL (in)	h (in)	PSIRL	PSIRR
						T9225	AH7025	AH725	AH8005	AH905	GH130	AH6235	NS9530		KS05F					
DGM2-020	2	N	2	0.079	0.008	●	●	●	●		●	●	●		●		0.787	0.197	0°	0°
DGM2-020-6R	2	R	2	0.079	0.008		●	●			●						0.787	0.197	0°	6°
DGM2-020-6L	2	L	2	0.079	0.008		●	●			●						0.787	0.197	6°	0°
DGM2-020-8R	2	R	2	0.079	0.008		●	●			●						0.787	0.197	0°	8°
DGM2-020-8L	2	L	2	0.079	0.008		●	●			●						0.787	0.197	8°	0°
DGM2-020-15R	2	R	2	0.079	0.008		●	●			●						0.787	0.197	0°	15°
DGM2-020-15L	2	L	2	0.079	0.008		●	●			●						0.787	0.197	15°	0°
DGM2-002-15R	2	R	2	0.079	0.0008			●			●						0.762	0.197	0°	15°
DGM2-002-15L	2	L	2	0.079	0.0008			●			●						0.762	0.197	15°	0°
DGM2.39-020	2	N	2.39	0.094	0.008		●		●			●					0.787	0.197	0°	0°
DGM3-020	3	N	3	0.118	0.008	●	●	●	●	●	●	●	●		●		0.787	0.197	0°	0°
DGM3-020-6R	3	R	3	0.118	0.008		●	●			●						0.787	0.197	0°	6°
DGM3-020-6L	3	L	3	0.118	0.008		●	●			●						0.787	0.197	6°	0°
DGM3-002-6R	3	R	3	0.118	0.008			●			●						0.766	0.197	0°	6°
DGM3-002-6L	3	L	3	0.118	0.008			●			●						0.766	0.197	6°	0°
DGM3-020-15R	3	R	3	0.118	0.008		●	●			●						0.787	0.197	0°	15°
DGM3-020-15L	3	L	3	0.118	0.008		●	●			●						0.787	0.197	15°	0°
DGM3.18-020	3	N	3.18	0.125	0.008		●		●			●					0.787	0.197	0°	0°
DGM4-030	4	N	4	0.157	0.012	●	●	●	●	●	●	●	●		●		0.787	0.197	0°	0°
DGM4-030-4R	4	R	4	0.157	0.012		●	●			●						0.787	0.197	0°	4°
DGM4-030-4L	4	L	4	0.157	0.012		●	●			●						0.787	0.197	4°	0°
DGM4-030-15R	4	R	4	0.157	0.012		●	●			●						0.787	0.197	0°	15°
DGM4-030-15L	4	L	4	0.157	0.012		●	●			●						0.787	0.197	15°	0°
DGM4.76-040	5	N	4.76	0.187	0.016		●		●			●					0.984	0.217	0°	0°
DGM5-030	5	N	5	0.197	0.012	●	●	●	●	●	●	●	●		●		0.984	0.217	0°	0°
DGM5-030-4R	5	R	5	0.197	0.012		●	●			●						0.984	0.217	0°	4°
DGM6-030	6	N	6	0.236	0.012	●	●	●	●	●	●	●			●		0.984	0.217	0°	0°
DGM6.35-040	6	N	6.35	0.250	0.016		●		●			●					0.984	0.217	0°	0°
DGM8-040	8	N	8	0.315	0.016	●	●	●	●		●	●			●		1.181	0.264	0°	0°

● : Line up

Reference pages: Toolholders → F254 - F260, Standard cutting conditions → F271

SGM

External deep grooving and parting



P	Steel	★	☆	★	☆	★							
M	Stainless	★	☆	★	★	★							
K	Cast iron	★		★	☆	★		☆					
N	Non-ferrous							☆					
S	Superalloys	★	☆	★				★					
H	Hard materials												

★ : First choice
☆ : Second choice

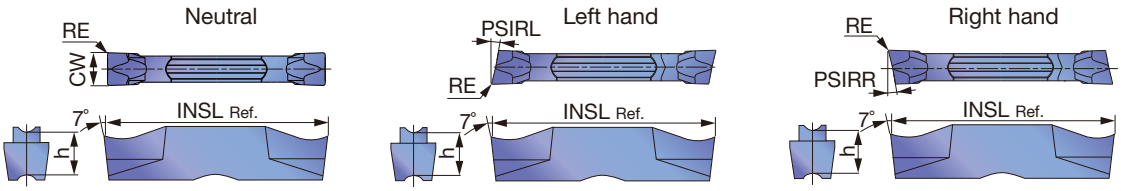
Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated					Uncoated					INSL (in)	h (in)	PSIRL	PSIRR
						AH7025	AH725	AH8005	GH130	AH6235	KS05F								
SGM2-020	2	N	2	0.079	0.008	●	●	●	●	●	●					0.787	0.197	0°	0°
SGM2-020-6R	2	R	2	0.079	0.008	●	●		●							0.787	0.197	0°	6°
SGM2-020-6L	2	L	2	0.079	0.008	●	●		●							0.787	0.197	6°	0°
SGM3-020	3	N	3	0.118	0.008	●	●	●	●	●	●					0.787	0.197	0°	0°
SGM3-020-6R	3	R	3	0.118	0.008	●	●		●							0.787	0.197	0°	6°
SGM3-020-6L	3	L	3	0.118	0.008	●	●		●							0.787	0.197	6°	0°
SGM3-020-15R	3	R	3	0.118	0.008	●	●		●							0.787	0.197	0°	15°
SGM3-020-15L	3	L	3	0.118	0.008	●	●		●							0.787	0.197	15°	0°
SGM4-030	4	N	4	0.157	0.012	●	●	●	●	●	●					0.787	0.197	0°	0°
SGM4-030-4R	4	R	4	0.157	0.012	●	●		●							0.787	0.197	0°	4°
SGM4-030-4L	4	L	4	0.157	0.012	●	●		●							0.787	0.197	4°	0°
SGM5-030	5	N	5	0.197	0.012	●	●	●	●	●	●					0.984	0.217	0°	0°
SGM6-030	6	N	6	0.236	0.012	●	●	●	●	●	●					0.984	0.217	0°	0°
SGM8-040	8	N	8	0.315	0.016	●		●		●	●					1.181	0.264	0°	0°

● : Line up

Reference pages: Toolholders → F254 - F260, Standard cutting conditions → F271

DGS

External grooving and parting



		Coated						Cermet			Uncoated						
P	Steel	★	★	☆	★	☆	★		★								
M	Stainless		★	☆	★	★	★										
K	Cast iron		★		★	☆	★		☆			☆					
N	Non-ferrous											☆					
S	Superalloys		★	☆	★							★					
H	Hard materials																

★ : First choice
☆ : Second choice

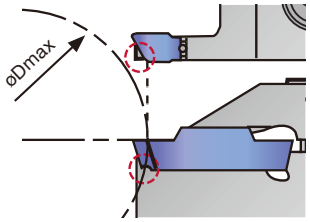
Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	T9225	AH7025	AH725	AH8005	GH130	AH6235	NS9530	KS05F	INSL (in)	h (in)	PSIRL	PSIRR
DGS1.2-003	0.9	N	1.2	0.047	0.0012			●						0.630	0.185	0°	0°
DGS1.4-005	1	N	1.4	0.055	0.002			●						0.630	0.169	0°	0°
DGS1.4-010	1	N	1.4	0.055	0.004			●						0.630	0.169	0°	0°
DGS1.4-016	1	N	1.4	0.055	0.006		●	●		●				0.630	0.169	0°	0°
DGS2-005	2	N	2	0.079	0.002			●						0.787	0.197	0°	0°
DGS2-010	2	N	2	0.079	0.004			●						0.787	0.197	0°	0°
DGS2-020	2	N	2	0.079	0.008	●	●	●	●	●	●	●	●	0.787	0.197	0°	0°
DGS2-020-6R	2	R	2	0.079	0.008		●	●		●				0.787	0.197	0°	6°
DGS2-020-6L	2	L	2	0.079	0.008		●	●		●				0.787	0.197	6°	0°
DGS2-002-6R	2	R	2	0.079	0.0008			●		●				0.768	0.197	0°	6°
DGS2-002-6L	2	L	2	0.079	0.0008			●		●				0.768	0.197	6°	0°
DGS2-020-15R	2	R	2	0.079	0.008		●	●		●				0.787	0.197	0°	15°
DGS2-020-15L	2	L	2	0.079	0.008		●	●		●				0.787	0.197	15°	0°
DGS2-002-15R	2	R	2	0.079	0.0008			●		●				0.768	0.197	0°	15°
DGS2-002-15L	2	L	2	0.079	0.0008			●		●				0.768	0.197	15°	0°
DGS2.39-020	2	N	2.39	0.094	0.008		●		●		●			0.787	0.197	0°	0°
DGS3-020	3	N	3	0.118	0.008	●	●	●	●	●	●	●	●	0.787	0.197	0°	0°
DGS3-020-6R	3	R	3	0.118	0.008		●	●		●				0.787	0.197	0°	6°
DGS3-020-6L	3	L	3	0.118	0.008		●	●		●				0.787	0.197	6°	0°
DGS3-002-6R	3	R	3	0.118	0.0008			●		●				0.766	0.197	0°	6°
DGS3-002-6L	3	L	3	0.118	0.0008			●		●				0.766	0.197	6°	0°
DGS3-020-15R	3	R	3	0.118	0.008		●	●		●				0.787	0.197	0°	15°
DGS3-020-15L	3	L	3	0.118	0.008		●	●		●				0.787	0.197	15°	0°
DGS3-002-15R	3	R	3	0.118	0.0008			●		●				0.766	0.197	0°	15°
DGS3-002-15L	3	L	3	0.118	0.0008			●		●				0.766	0.197	15°	0°
DGS3.18-020	3	N	3.18	0.125	0.008		●		●		●			0.787	0.197	0°	0°
DGS4-030	4	N	4	0.157	0.012	●	●	●	●	●	●	●	●	0.787	0.197	0°	0°
DGS4-030-4R	4	R	4	0.157	0.012		●	●		●				0.787	0.197	0°	4°
DGS4-030-4L	4	L	4	0.157	0.012		●	●		●				0.787	0.197	4°	0°
DGS4.76-040	5	N	4.76	0.187	0.016		●		●		●			0.984	0.217	0°	0°
DGS5-030	5	N	5	0.197	0.012	●	●	●	●	●	●	●	●	0.984	0.217	0°	0°
DGS6-030	6	N	6	0.236	0.012	●	●	●	●	●	●		●	0.984	0.217	0°	0°
DGS6.35-040	6	N	6.35	0.250	0.016		●		●		●			0.984	0.217	0°	0°
DGS8-040	8	N	8	0.315	0.016		●		●		●		●	1.181	0.264	0°	0°

● : Line up

Caution

The tool will interfere with the workpiece when grooving larger diameters than øDmax.

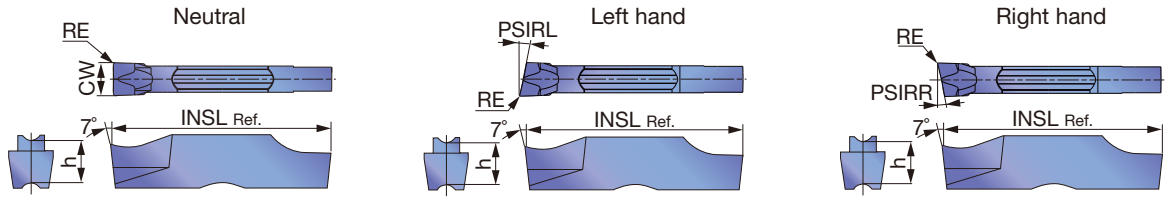
Designation	øDmax (in)	Designation	øDmax (in)
DGM2-002-15R/L	1.102	DGS2-002-15R/L	1.102
DGM3-002-15R/L	1.141	DGS3-002-15R/L	1.141
DGM4-030-15R/L	1.181	SGS3-020-15R/L	4.055
SGM3-020-15R/L	4.055	SGS3-002-15R/L	1.338



Reference pages: Toolholders → F254 - F260, Standard cutting conditions → F271

SGS

External deep grooving and parting



P	Steel	★	☆	★	☆	★						
M	Stainless	★	☆	★	★	★						
K	Cast iron	★		★	☆	★		☆				
N	Non-ferrous							☆				
S	Superalloys	★	☆	★				★				
H	Hard materials											

★ : First choice
☆ : Second choice

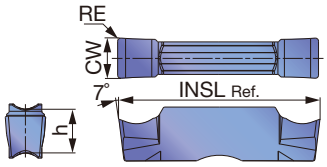
Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	Coated AH725	Coated AH8005	Coated GH130	Coated AH6235	Uncoated KS05F	INSL (in)	h (in)	PSIRL	PSIRR
SGS2-020	2	N	2	0.079	0.008	●	●	●	●	●	●	0.787	0.197	0°	0°
SGS2-020-6R	2	R	2	0.079	0.008	●	●		●			0.787	0.197	0°	6°
SGS2-020-6L	2	L	2	0.079	0.008	●	●		●			0.787	0.197	6°	0°
SGS2-020-15R	2	R	2	0.079	0.008	●	●		●			0.787	0.197	0°	15°
SGS2-020-15L	2	L	2	0.079	0.008	●	●		●			0.787	0.197	15°	0°
SGS3-020	3	N	3	0.118	0.008	●	●	●	●	●	●	0.787	0.197	0°	0°
SGS3-020-6R	3	R	3	0.118	0.008	●	●		●			0.787	0.197	0°	6°
SGS3-020-6L	3	L	3	0.118	0.008	●	●		●			0.787	0.197	6°	0°
SGS3-002-6R	3	R	3	0.118	0.0008		●		●			0.780	0.197	0°	6°
SGS3-002-6L	3	L	3	0.118	0.0008		●		●			0.780	0.197	6°	0°
SGS3-020-15R	3	R	3	0.118	0.008	●	●		●			0.787	0.197	0°	15°
SGS3-020-15L	3	L	3	0.118	0.008	●	●		●			0.787	0.197	15°	0°
SGS3-002-15R	3	R	3	0.118	0.0008		●		●			0.780	0.197	0°	15°
SGS3-002-15L	3	L	3	0.118	0.0008		●		●			0.780	0.197	15°	0°
SGS4-030	4	N	4	0.157	0.012	●	●	●	●	●	●	0.787	0.197	0°	0°
SGS5-030	5	N	5	0.197	0.012	●	●	●	●	●	●	0.984	0.217	0°	0°
SGS6-030	6	N	6	0.236	0.012	●	●	●	●	●	●	0.984	0.217	0°	0°
SGS8-040	8	N	8	0.315	0.016	●		●		●		1.181	0.264	0°	0°

● : Line up

Reference pages: Toolholders → F254 - F260, Standard cutting conditions → F271

DGG

External grooving and parting (for high precision)



P	Steel	★			★								
M	Stainless	★											
K	Cast iron	★			☆			☆					
N	Non-ferrous							★					
S	Superalloys	★						☆					
H	Hard materials												

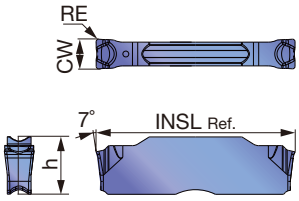
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Coated			Cermet			Uncoated					INSL (in)	h (in)
					AH7025			NS9530			KS05F						
DGG200-020	2	2	0.079	0.008	●			●			●					0.787	0.197
DGG300-020	3	3	0.118	0.008	●			●			●					0.787	0.197
DGG400-040	4	4	0.157	0.016	●			●			●					0.787	0.197
DGG500-040	5	5	0.197	0.016	●			●			●					0.984	0.217
DGG600-040	6	6	0.236	0.016	●			●			●					0.984	0.217

●: Line up

DGL

External grooving and parting



P	Steel	★	★	★									
M	Stainless	★	★	★									
K	Cast iron	★	★	★									
N	Non-ferrous												
S	Superalloys	★	★										
H	Hard materials												

★ : First choice
☆ : Second choice

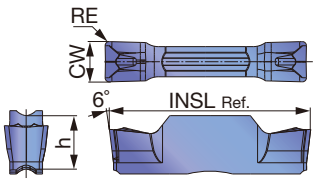
Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated											INSL (in)	h (in)
					AH7025	AH8005	AH6235										
DGL2-020	2	2	0.079	0.008	●	●	●									0.787	0.197
DGL3-025	3	3	0.118	0.010	●	●	●									0.787	0.197
DGL4-030	4	4	0.157	0.012	●	●	●									0.787	0.197
DGL5-030	5	5	0.197	0.012	●	●	●									0.984	0.217
DGL6-080	6	6	0.236	0.031	●	●	●									0.984	0.217

● : Line up

Reference pages: Toolholders → F254 - F260, Standard cutting conditions → F271

DTM

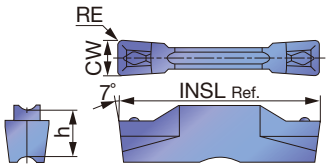
External/face grooving, turning and parting



| | | |

DTE

External/face grooving, turning and parting



P	Steel	★		★	☆	★	☆	★		★			
M	Stainless			★	☆	★	★	★					
K	Cast iron		★	★		★	☆	★					
N	Non-ferrous												
S	Superalloys			★	☆	★							
H	Hard materials												

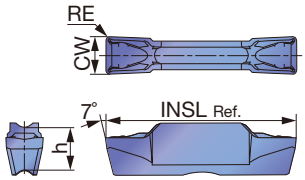
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated							Cermet						INSL (in)	h (in)
					T9225	T515	AH7025	AH725	AH8005	GH130	AH6235	NS9530							
DTE3-020	3	3	0.118	0.008			●		●		●							0.787	0.197
DTE3-040	3	3	0.118	0.016	●	●	●	●	●	●	●	●						0.787	0.197
DTE4-040	4	4	0.157	0.016	●	●	●	●	●	●	●	●						0.787	0.197
DTE4-080	4	4	0.157	0.031			●		●		●							0.787	0.197
DTE5-040	5	5	0.197	0.016		●	●		●		●							0.984	0.217
DTE5-080	5	5	0.197	0.031			●		●		●							0.984	0.217
DTE6-080	6	6	0.236	0.031		●	●		●		●							0.984	0.217

● : Line up

DTX

External/internal/face grooving, turning and parting



P	Steel	★	★	☆	★	☆	★		★										
M	Stainless		★	☆	★	★	★												
K	Cast iron		★		★	☆	★		☆							☆			
N	Non-ferrous															☆			
S	Superalloys		★	☆	★											★			
H	Hard materials																		

★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated							Cermet				Uncoated				INSL (in)	h (in)
					T9225	AH7025	AH725	AH8005	GH130	AH6235		NS9530				KS05F					
DTX2-020	2	2	0.079	0.008		●		●		●						●				0.787	0.197
DTX3-030	3	3	0.118	0.012	●	●	●	●	●	●		●				●				0.787	0.197
DTX4-040	4	4	0.157	0.016	●	●	●	●	●	●		●				●				0.787	0.197
DTX5-040	5	5	0.197	0.016	●	●	●	●	●	●		●				●				0.984	0.217
DTX6-080	6	6	0.236	0.031		●	●	●	●	●						●				0.984	0.217
DTX8-080	8	8	0.315	0.031		●		●		●						●				1.181	0.264

● : Line up

Reference pages: Toolholders → F254 - F260, Standard cutting conditions → F271

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed *Vc* (sfm)
P	Steel 1045, 4135, etc.	< 300 HB	First choice	AH7025, AH725	164 - 591
		< 300 HB	Wear resistance	T9225, AH8005	262 - 984
		< 300 HB	Impact resistance	AH6235, GH130	164 - 394
		< 300 HB	Surface quality	NS9530	262 - 722
M	Stainless steel 303, 304, etc.	< 200 HB	First choice	AH7025, AH725	164 - 394
		< 200 HB	Wear resistance	AH8005	164 - 394
		< 200 HB	Impact resistance	AH6235, GH130	164 - 394
K	Gray cast iron No.250B, etc.	-	First choice	T515	492 - 2297
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	164 - 591
	Ductile cast iron 65-45-12, etc.	-	First choice	T515	492 - 984
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	164 - 394
N	Aluminum alloys Si < 12%	-	First choice	TH10	328 - 1640
		-	First choice	KS05F	328 - 1969
S	Superalloys Inconel718, etc.	< HRC 40	First choice	AH8005	66 - 197
		< HRC 40	Impact resistance	AH7025, AH725, AH6235	66 - 131
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	First choice	KS05F	66 - 328
		< HRC 40	Impact resistance	AH7025, AH725	66 - 262

Please see page F261, F262 for feed: *f* (ipr).

STH

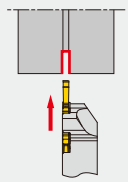
ISO	Grade	CW	Application	Cutting speed *Vc* (sfm)	Depth of cut *ap* (in)	Feed *f* (ipr)
H	BXA10	0.118"	External turning	328 - 755	0.003 - 0.005	0.016 - 0.039
			Face turning	328 - 755	0.003 - 0.005	0.016 - 0.031
		0.197"	External turning	328 - 755	0.003 - 0.005	0.020 - 0.059
			Face turning	328 - 755	0.003 - 0.005	0.020 - 0.031

SGN

ISO	Grade	Edge preparation	Workpiece condition	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
H	BX360	No symbol	Continuous	262 - 492	0.0012 - 0.0031
		-S	Light interrupted	164 - 394	0.0012 - 0.0031
		-H	Heavy interrupted	131 - 328	0.0012 - 0.0024

JSXXR/L

Parting-off and grooving toolholders



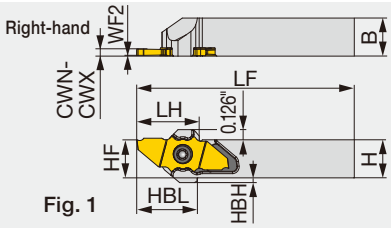


Fig. 1



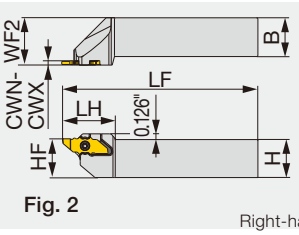
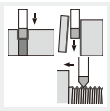


Fig. 2



Right-hand (R) shown.

Inch	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBL(1)	HBH	Insert	Torque	Fig.
JSXXR/L063	0.024	0.098	0.375	0.375	4.750	0.774	0.375	0.008/0.367	0.748	0.120	JX**06...,12...,16..., 20...	0.89	1
JSXXR/L083	0.024	0.098	0.500	0.500	4.750	0.774	0.500	0.008/0.492	0.748	0.060	JX**06...,12...,16..., 20...	0.89	1
JSXXR/L103	0.024	0.098	0.625	0.625	4.750	0.774	0.625	0.008/0.617	-	-	JX**06...,12...,16..., 20...	0.89	1
JSXXR/L123	0.024	0.098	0.750	0.750	3.950	0.886	0.750	0.008/0.742	-	-	JX**06...,12...,16..., 20...	0.89	1
JSXXR/L163	0.024	0.098	1.000	1.000	5.350	1.339	1.000	1.250	-	-	JX**06...,12...,16..., 20...	0.89	2

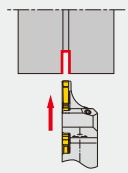
Metric	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBL(1)	HBH	Insert	Torque*	Fig.
JSXXR/L1010X09	0.6	2.5	10	10	120	19.65	10	0.2/9.8	19	3	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212F09	0.6	2.5	12	12	85	19.65	12	0.2/11.8	19	1.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212X09	0.6	2.5	12	12	120	19.65	12	0.2/11.8	19	1.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09	0.6	2.5	16	16	120	19.65	16	0.2/15.8	-	-	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L2020H09	0.6	2.5	20	20	100	22.5	20	0.2/19.8	-	-	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L2525Z09	0.6	2.5	25	25	135	34	25	30	-	-	JX**06...,12...,16..., 20...	1.2	2

Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JX**16... insert. LF, LH, and HBL will all be 0.079" (2 mm) shorter than the above values with JX**12... and JX**20...inserts, and 0.157" (4 mm) shorter for JX**06... insert.
(2) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

JSXXR/L-F/H/X-CHP

Parting-off toolholders with high pressure coolant capability, for swiss lathes

Direct connection **Tube connection**



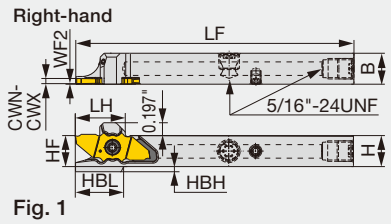


Fig. 1

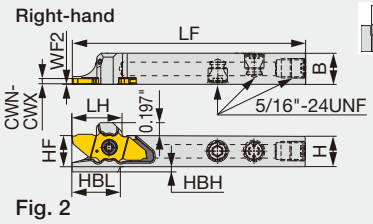
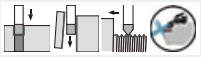
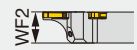


Fig. 2





Inch	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBL(1)	HBH	Insert	Torque	Fig.
JSXXR/L083F-CHP	0.024	0.098	0.500	0.500	3.344	0.764	0.500	0.008 / 0.492	0.736	0.051	JX**06...,12...,16..., 20...	0.89	2
JSXXR/L083X-CHP(3)	0.024	0.098	0.500	0.500	4.750	0.764	0.500	0.008 / 0.492	0.736	0.051	JX**06...,12...,16..., 20...	0.89	1
JSXXR/L103X-CHP(3)	0.024	0.098	0.625	0.625	4.750	0.764	0.625	0.008 / 0.617	-	-	JX**06...,12...,16..., 20...	0.89	1

Metric	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBL(1)	HBH	Insert	Torque*	Fig.
JSXXR/L1012H09-CHP(3)	0.6	2.5	10	12	102	19.2	10	0.2/11.8	18.7	3	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212F09-CHP	0.6	2.5	12	12	85	19.4	12	0.2/11.8	18.8	2	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212X09-CHP(3)	0.6	2.5	12	12	120	19.4	12	0.2/11.8	18.8	2	JX**06...,12...,16..., 20...	1.2	1
JSXXR1616X09-CHP(3),(4)	0.6	2.5	16	16	120	19.4	16	0.2	18.7	2.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09B-CHP(3)	0.6	2.5	16	16	120	19.4	16	0.2/15.8	18.7	-	JX**06...,12...,16..., 20...	1.2	1

Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JX**16... insert. LF, LH, and HBL will all be 0.079" (2 mm) shorter than the above values with JX**12... and JX**20... inserts, and 0.157" (4 mm) shorter for JX**06... insert.
(2) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
(3) Compatible to the direct internal coolant supply system without the use of external coolant hose.
(4) To be replaced with the new design
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

SPARE PARTS





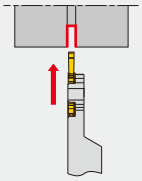


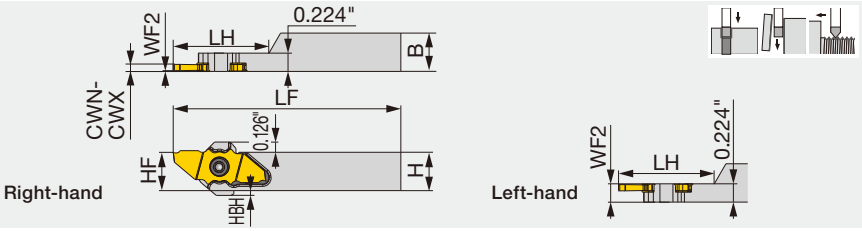

Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JSXXR**09	CSTC-4L100DL	T-1008/5	-	-	-	-
JSXXL**09	CSTC-4L100DR	T-1008/5	-	-	-	-
JSXXR**F**-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXL**F**-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXR**H/X**-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSXXL**H/X**-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

Reference pages: Inserts → F274, F275, Standard cutting conditions → F275
Parts for coolant hose → F290

JSXXR/L-S

Parting-off toolholders, for swiss lathes (for sub spindle)





Inch	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBH	Insert	Torque
JSXXR/L063-S	0.024	0.098	0.375	0.375	4.750	1.030	0.383	0.008/0.217	0.120	JX**06...,12...,16...(3)	0.89
JSXXR/L083-S	0.024	0.098	0.500	0.500	4.750	1.030	0.500	0.008/0.217	0.060	JX**06...,12...,16...(3)	0.89

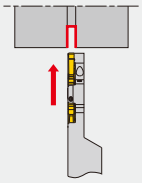
Metric	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBH	Insert	Torque*
JSXXR/L1010X09-S	0.6	2.5	10	10	120	26	10	0.2/5.5	3	JX**06...,12...,16...(3)	1.2
JSXXR/L1212F09-S	0.6	2.5	12	12	85	26	12	0.2/5.5	1.5	JX**06...,12...,16...(3)	1.2
JSXXR/L1212X09-S	0.6	2.5	12	12	120	30	12	0.2/5.5	1.5	JX**06...,12...,16...(3)	1.2
JSXXR/L1616X09-S	0.6	2.5	16	16	120	30	16	0.2/5.5	-	JX**06...,12...,16..., 20...	1.2

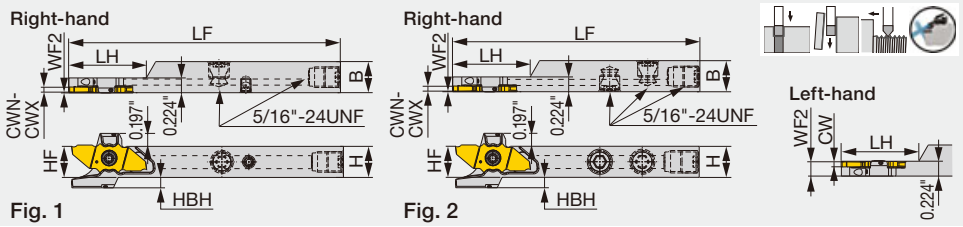
Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) LF (Functional Length) and LH (Head Length) values shown above are true with JX**16... insert. Both LF and LH will be 0.079" (2 mm) shorter than the above value with JX**12... and JX**20... inserts; 0.157" (4 mm) shorter with JX**06... insert.
(2) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
(3) JX**20... insert will not fit.
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

JSXXR/L-F/X-S-CHP

Parting-off toolholders with high pressure coolant capability, for swiss lathes (for sub spindle)

Direct connection **Tube connection**





Inch	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBH	Insert	Torque	Fig.
JSXXR/L083F-S-CHP	0.024	0.098	0.500	0.500	3.344	1.024	0.500	0.008/0.217	0.051	JX**06...,12...,16..., 20...	0.89	2
JSXXR/L083X-S-CHP	0.024	0.098	0.500	0.500	4.750	1.181	0.500	0.008/0.217	0.051	JX**06...,12...,16..., 20...	0.89	1
JSXXR/L103X-S-CHP	0.024	0.098	0.625	0.625	4.750	1.181	0.625	0.008/0.217	-	JX**06...,12...,16..., 20...	0.89	1

Metric	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBH	Insert	Torque*	Fig.
JSXXR1212F09-S-CHP(4)	0.6	2.5	12	12	85	26	12	0.2	4	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212F09B-S-CHP	0.6	2.5	12	12	85	30	12	0.2/5.5	2	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212X09-S-CHP(3),(4)	0.6	2.5	12	12	120	30	12	0.2/5.5	4	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212X09B-S-CHP(3)	0.6	2.5	12	12	120	30	12	0.2/5.5	2	JX**06...,12...,16..., 20...	1.2	1
JSXXR1616X09-S-CHP(3),(4)	0.6	2.5	16	16	120	30	16	0.2	1.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09B-S-CHP(3)	0.6	2.5	16	16	120	30	16	0.2/5.5	-	JX**06...,12...,16..., 20...	1.2	1

Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) LF (Functional Length) and LH (Head Length) values shown above are true with JX**16... insert. Both LF and LH will be 0.079" (2 mm) shorter than the above value with JX**12... and JX**20... inserts; 0.157" (4 mm) shorter with JX**06... insert.
(2) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
(3) Compatible to the direct internal coolant supply system without the use of external coolant hose.
(4) To be replaced with the new design
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

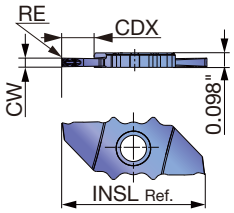
SPARE PARTS

Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JSXXR**-S	CSTC-4L055DL	T-1008/5	-	-	-	-
JSXXL**-S	CSTC-4L055DR	T-1008/5	-	-	-	-
JSXXR**F**-S-CHP	CSTC-4L055DL	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXL**F**-S-CHP	CSTC-4L055DR	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXR**X**-S-CHP	CSTC-4L055DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSXXL**X**-S-CHP	CSTC-4L055DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

Reference pages: Inserts → F274, F275, Standard cutting conditions → F275
Parts for coolant hose → F290

JXPS**R/L-F (with 3D chipbreaker, sharp edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

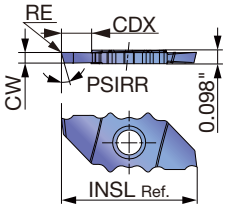
Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated SH725	CUTDIA (in)	CDX* (in)	INSL (in)
JXPS06R06F	R	0.6	0.024	0.002	●	0.236	0.138	0.827
JXPS06L06F	L	0.6	0.024	0.002	●	0.236	0.138	0.827
JXPS12R08F	R	0.8	0.031	0.002	●	0.472	0.256	0.984
JXPS12L08F	L	0.8	0.031	0.002	●	0.472	0.256	0.984
JXPS12R10F	R	1	0.039	0.002	●	0.472	0.256	0.984
JXPS12L10F	L	1	0.039	0.002	●	0.472	0.256	0.984
JXPS12R15F	R	1.5	0.059	0.002	●	0.472	0.256	0.984
JXPS12L15F	L	1.5	0.059	0.002	●	0.472	0.256	0.984
JXPS16R15F	R	1.5	0.059	0.002	●	0.630	0.335	1.142
JXPS16L15F	L	1.5	0.059	0.002	●	0.630	0.335	1.142
JXPS20R20F	R	2	0.079	0.002	●	0.787	0.413	1.299
JXPS20L20F	L	2	0.079	0.002	●	0.787	0.413	1.299

*Max grooving depth (CDX) varies depending on workpiece diameters.

● : Line up

JXPG**R/L-F (Sharp edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated SH725	CUTDIA (in)	CDX* (in)	INSL (in)	PSIRR
JXPG06R10F	R	1	0.039	0.002	●	0.236	0.138	0.827	0°
JXPG06L10F	L	1	0.039	0.002	●	0.236	0.138	0.827	0°
JXPG06R15F	R	1.5	0.059	0.002	●	0.236	0.138	0.827	0°
JXPG06L15F	L	1.5	0.059	0.002	●	0.236	0.138	0.827	0°
JXPG06R10F-15	R	1	0.039	0.002	●	0.236	0.138	0.827	15°
JXPG06L10F-15	L	1	0.039	0.002	●	0.236	0.138	0.827	15°
JXPG06R15F-15	R	1.5	0.059	0.002	●	0.236	0.138	0.827	15°
JXPG06L15F-15	L	1.5	0.059	0.002	●	0.236	0.138	0.827	15°

*Max grooving depth (CDX) varies depending on workpiece diameters.

● : Line up

Reference pages: Toolholders → F272, F273

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated	CUTDIA (in)	CDX* (in)	INSL (in)	PSIRR
					SH725				
JXPG12R15F	R	1.5	0.059	0.002	●	0.472	0.256	0.984	0°
JXPG12L15F	L	1.5	0.059	0.002	●	0.472	0.256	0.984	0°
JXPG12R20F	R	2	0.079	0.002	●	0.472	0.256	0.984	0°
JXPG12L20F	L	2	0.079	0.002	●	0.472	0.256	0.984	0°
JXPG12R15F-15	R	1.5	0.059	0.002	●	0.472	0.256	0.984	15°
JXPG12L15F-15	L	1.5	0.059	0.002	●	0.472	0.256	0.984	15°
JXPG12R20F-15	R	2	0.079	0.002	●	0.472	0.256	0.984	15°
JXPG12L20F-15	L	2	0.079	0.002	●	0.472	0.256	0.984	15°
JXPG16R15F	R	1.5	0.059	0.002	●	0.630	0.335	1.142	0°
JXPG16L15F	L	1.5	0.059	0.002	●	0.630	0.335	1.142	0°
JXPG16R20F	R	2	0.079	0.002	●	0.630	0.335	1.142	0°
JXPG16L20F	L	2	0.079	0.002	●	0.630	0.335	1.142	0°
JXPG16R15F-15	R	1.5	0.059	0.002	●	0.630	0.335	1.142	15°
JXPG16L15F-15	L	1.5	0.059	0.002	●	0.630	0.335	1.142	15°
JXPG16R20F-15	R	2	0.079	0.002	●	0.630	0.335	1.142	15°
JXPG16L20F-15	L	2	0.079	0.002	●	0.630	0.335	1.142	15°
JXPG20R15F	R	1.5	0.059	0.002	●	0.787	0.413	1.299	0°
JXPG20L15F	L	1.5	0.059	0.002	●	0.787	0.413	1.299	0°
JXPG20R20F	R	2	0.079	0.002	●	0.787	0.413	1.299	0°
JXPG20L20F	L	2	0.079	0.002	●	0.787	0.413	1.299	0°
JXPG20R15F-15	R	1.5	0.059	0.002	●	0.787	0.413	1.299	15°
JXPG20L15F-15	L	1.5	0.059	0.002	●	0.787	0.413	1.299	15°
JXPG20R20F-15	R	2	0.079	0.002	●	0.787	0.413	1.299	15°
JXPG20L20F-15	L	2	0.079	0.002	●	0.787	0.413	1.299	15°

*Max grooving depth (CDX) varies depending on workpiece diameters.

● : Line up

STANDARD CUTTING CONDITIONS

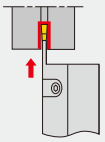
Parting, Grooving

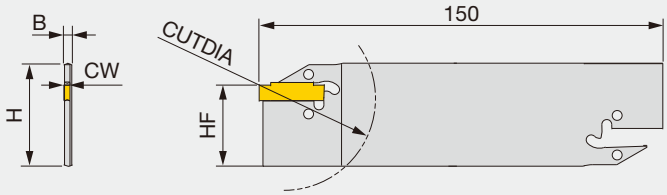
ISO	Workpiece materials	Grades	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Low carbon steels 1015, etc.	SH725	164 - 656	0.00039 - 0.0020
P	Carbon steels, Alloy steels 1055, etc., 4140, etc.	SH725	164 - 656	0.00039 - 0.0020
P	Free cutting steels SUH22, SUH23, etc.	SH725	164 - 656	0.00039 - 0.0020
M	Stainless steels 304, etc.	SH725	164 - 656	0.00039 - 0.0020
N	Aluminum alloys 5056, 6061, etc.	SH725	492 - 656	0.00039 - 0.0020
N	Copper alloy C2600, C280C, etc.	SH725	328 - 656	0.00039 - 0.0020
S	Titanium alloys Ti-6Al-4V, etc.	SH725	98 - 262	0.00039 - 0.0020
S	Superalloys Inconel718, etc.	SH725	98 - 262	0.00039 - 0.0020

Reference pages: Toolholders → F272, F273

CCH-W

External grooving and parting blade, for 2 corner inserts





Unit: mm

Metric	CW	CUTDIA	H	B	HF	Insert
CCH32-W20	2	33	32	1.6	24.6	WGE20, WGE20R/L
CCH32-W30	3	33	32	2.2	24.6	WG*30, WGE30R/L
CCH32-W40	4	42	32	3.2	24.5	WG*40, WGE40R/L
CCH32-W50	5	42	32	4.2	24.3	WG*50, WGE50R/L

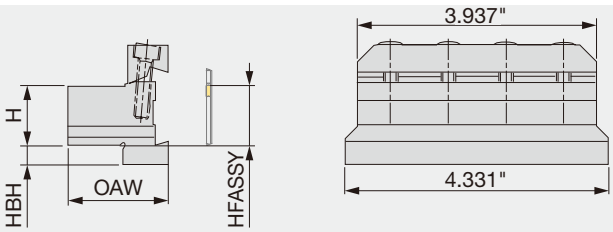
SPARE PARTS



Designation	Wrench (Optional)
CCH32-W...	CRW33

CCBS-32

Tool block for CCH blade



Inch	H	HFASSY	HBH	OAW	Blade
CCBS12-32-U	0.750	0.750	0.550	1.490	CCH32...
CCBS16-32-U	1.000	1.000	0.300	1.660	CCH32...
CCBS20-32-U	1.250	1.250	0.210	1.660	CCH32...

Metric	H	HFASSY	HBH	OAW	Blade
CCBS20-32	20	20	13	38	CCH32...
CCBS25-32	25	25	8	42	CCH32...
CCBS32-32	32	32	5	42	CCH32...

Blade sold separately.

SPARE PARTS





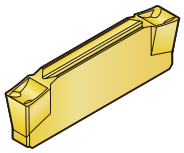
Designation	Clamp	Screw	Wrench
CCBS...	CC-32	CM6X25	P-5

External
Internal
Face
Parting
Others

Reference pages: Inserts → F277 - F279, Standard cutting conditions → F279

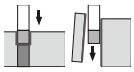
External grooving and parting

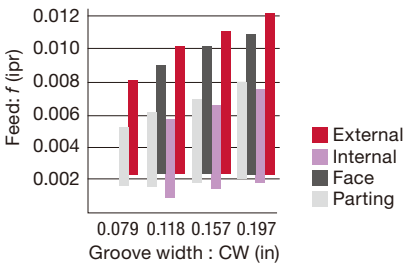
WGE



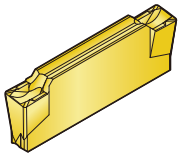
F278

1st choice for external grooving and parting
Excellent chip control for grooving
CW = 0.079" - 0.197"





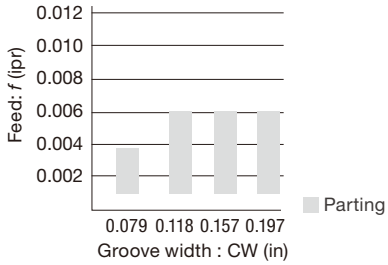
WGE R/L



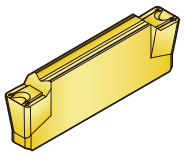
F279

Handed insert
Minimize burr generation when workpiece is cut off
CW = 0.079" - 0.197"



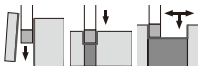


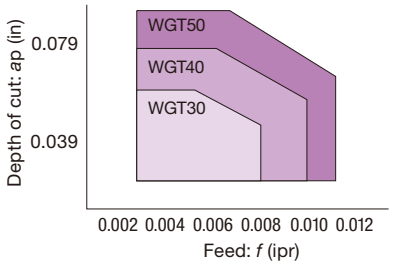
WGT



F278

1st choice for turning
Low cutting force and good chip control for traversing
CW = 0.118" - 0.197"



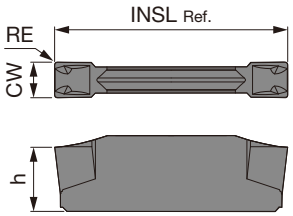


Please see page F*** for the product details.

INSERTS (2 corners)

WGE

For external grooving and parting



P	Steel	★	★	★				★			
M	Stainless		★	★							
K	Cast iron		★	☆				☆			
N	Non-ferrous										
S	Superalloys		☆								
H	Hard materials										

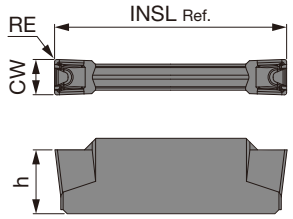
★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated T9225	Coated AH120	Coated GH730	Cermet NS9530	INSL (in)	h (in)
WGE20	2	0.079	0.008	●	●	●	●	0.787	0.185
WGE30	3	0.118	0.008	●	●	●	●	0.787	0.217
WGE40	4	0.157	0.008	●	●	●	●	0.984	0.224
WGE50	5	0.197	0.008	●	●	●	●	0.984	0.232

● : Line up

WGT

For external grooving, parting and turning



P	Steel	★	★	★				★			
M	Stainless		★	★							
K	Cast iron		★	☆				☆			
N	Non-ferrous										
S	Superalloys		☆								
H	Hard materials										

★ : First choice
☆ : Second choice

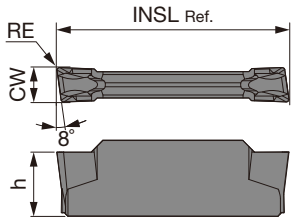
Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated T9225	Coated AH120	Coated GH730	Cermet NS9530	INSL (in)	h (in)
WGT30	3	0.118	0.016	●		●	●	0.787	0.217
WGT40	4	0.157	0.016	●		●	●	0.984	0.224
WGT50	5	0.197	0.016	●	●	●	●	0.984	0.232

● : Line up

Reference pages: Toolholders → F276

WGE(R/L)

For parting off (handed inserts)



Right hand (R) shown.

P	Steel	★	★
M	Stainless	★	★
K	Cast iron	★	☆
N	Non-ferrous		
S	Superalloys	☆	
H	Hard materials		

★ : First choice
☆ : Second choice

Designation	HAND	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated AH120	Coated GH730	INSL (in)	h (in)
WGE20R	R	2	0.079	0.008		●	0.787	0.185
WGE20L	L	2	0.079	0.008		●	0.787	0.185
WGE30R	R	3	0.118	0.008	●	●	0.787	0.217
WGE30L	L	3	0.118	0.008		●	0.787	0.217
WGE40R	R	4	0.157	0.008		●	0.984	0.224
WGE40L	L	4	0.157	0.008		●	0.984	0.224
WGE50R	R	5	0.197	0.008		●	0.984	0.232
WGE50L	L	5	0.197	0.008		●	0.984	0.232

● : Line up

STANDARD CUTTING CONDITIONS (for 2 corner inserts)

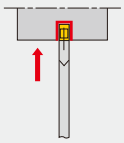
ISO	Workpiece material	Recommended grade	Cutting speed *Vc* (sfm)
P	Low carbon steels Alloy steels (~ HB150)	T9225	262 - 984
		NS9530	328 - 656
		GH730, AH120	164 - 591
	Medium carbon steels Alloy steels (HB150 ~ 250)	T9225	262 - 722
		NS9530	262 - 591
		GH730, AH120	164 - 492
	High carbon steels Alloy steels (HB250 ~)	T9225	262 - 722
		NS9530	262 - 492
		GH730, AH120	164 - 492
M	Stainless steels	GH730, AH120	164 - 394
K	Gray and ductile cast irons	GH730, AH120	164 - 591

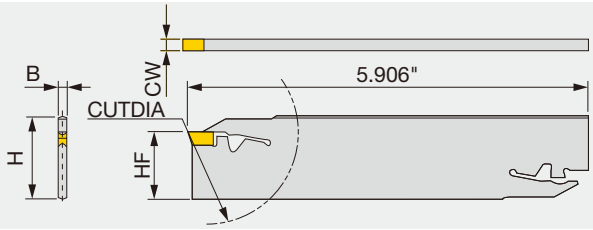
Operation	Feed: *f* (ipr) Groove width: CW 2 mm (0.079")	3 mm (0.118")	4 mm (0.157")	5 mm (0.197")
Grooving (WGE□□)	0.0024 - 0.008	0.0024 - 0.010	0.0028 - 0.011	0.0028 - 0.012
Parting off (WGE□□R/L)	0.0016 - 0.004	0.0016 - 0.006	0.0016 - 0.006	0.0016 - 0.006
Turning (WGT□□)	-	*ap* = 0.020 - 0.059 *f* = 0.0024 - 0.008	*ap* = 0.020 - 0.079 *f* = 0.0024 - 0.010	*ap* = 0.020 - 0.098 *f* = 0.0024 - 0.011

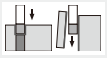
Reference pages: Toolholders → F276

CCH

External grooving and parting blade, for 1 corner inserts







Inch	CW	CUTDIA	H	B	HF	Insert
CCH26-30	0.118	2.76	0.979	0.087	0.843	GE30,GE30R/L,GE30-AL
CCH26-40	0.157	2.76	0.968	0.126	0.837	GE40,GE40R/L,GE40-AL
CCH32-30U	0.118	3.94	1.230	0.087	0.968	GE30,GE30R/L,GE30-AL
CCH32-40U	0.157	3.94	1.220	0.126	0.963	GE40,GE40R/L,GE40-AL
CCH32-50U	0.197	4.72	1.210	0.165	0.958	GE50,GE50R/L

Metric	CW	CUTDIA	H	B	HF	Insert
CCH32-30	3	100	32	2.2	24.6	GE30,GE30R/L,GE30-AL
CCH32-40	4	100	32	3.2	24.5	GE40,GE40R/L,GE40-AL
CCH32-50	5	120	32	4.2	24.3	GE50,GE50R/L

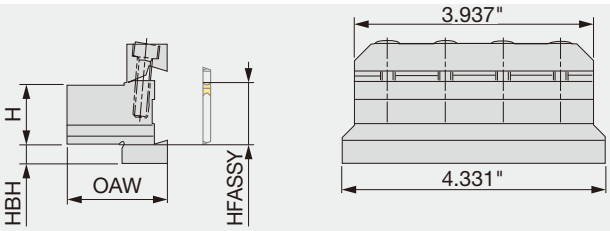


SPARE PARTS

Designation	Wrench
CCH...	CTL-2

CCBS-32

Tool block for CCH blade



Inch	H	HFASSY	HBH	OAW	Blade
CCBS12-32-U	0.750	0.750	0.550	1.490	CCH32...
CCBS16-32-U	1.000	1.000	0.300	1.660	CCH32...
CCBS20-32-U	1.250	1.250	0.210	1.660	CCH32...

Metric	H	HFASSY	HBH	OAW	Blade
CCBS20-32	20	20	13	38	CCH32...
CCBS25-32	25	25	8	42	CCH32...
CCBS32-32	32	32	5	42	CCH32...

Blade sold separately.





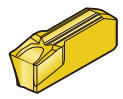
SPARE PARTS

Designation	Clamp	Screw	Wrench
CCBS...	CC-32	CM6X25	P-5

Reference pages: Inserts → F281 - F285, Standard cutting conditions → F285

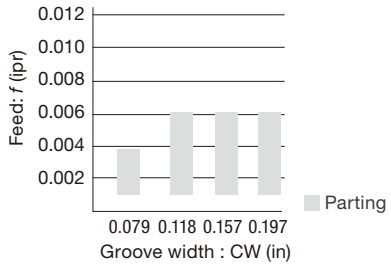
External grooving and parting

GE R/L

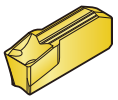


F282

Handed insert
Minimize burr generation when workpiece is cut off
CW = 0.118" - 0.197"

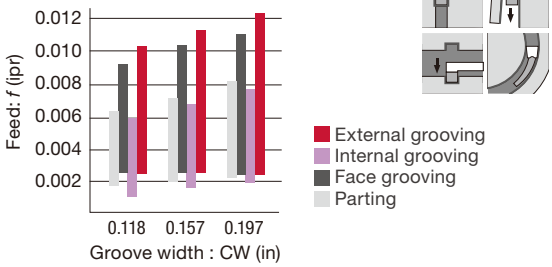


GE

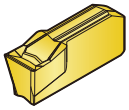


F283

1st choice for external grooving and parting
Excellent chip control for grooving
CW = 0.118" - 0.197"

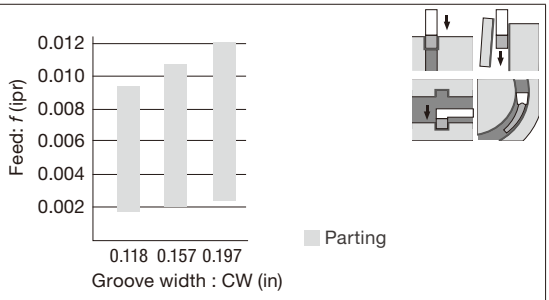


GF

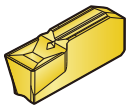


F283

1st choice for face grooving
Low cutting force and good chip control for face grooving
CW = 0.118" - 0.197"

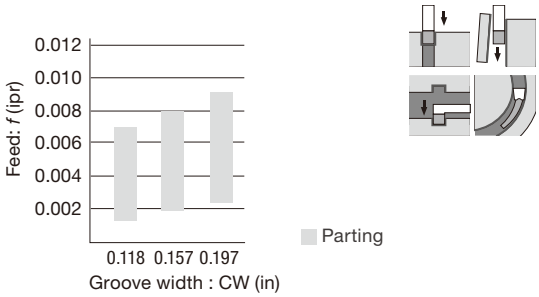


GN



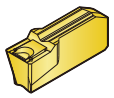
F284

1st choice for internal grooving
Low cutting force and good chip control for internal grooving
CW = 0.118" - 0.197"



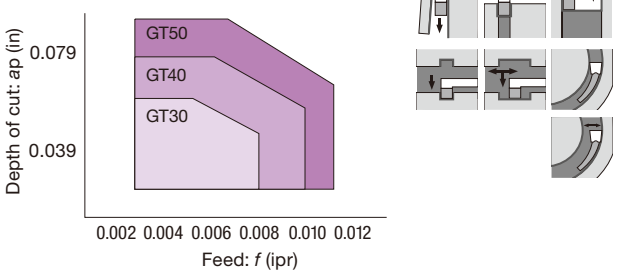
External grooving and turning

GT



F284

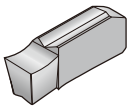
1st choice for turning
Low cutting force and good chip control for traversing
CW = 0.118" - 0.197"



Please see page F*** for the product details.

For aluminum and non-ferrous metal

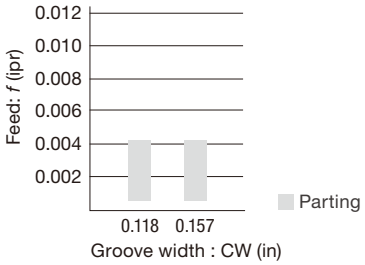
GE-AL

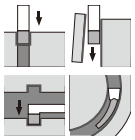


F285

Reduce cutting force and welding due to sharp chipbreaker

CW = 0.118" - 0.157"



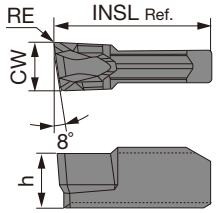


Please see page F*** for the product details.

INSERTS (1 corner)

GE-R/L

For parting off (handed inserts)



Right hand (R) shown.

P	Steel	★	★
M	Stainless	★	★
K	Cast iron	★	☆
N	Non-ferrous		
S	Superalloys	☆	
H	Hard materials		

★ : First choice
☆ : Second choice

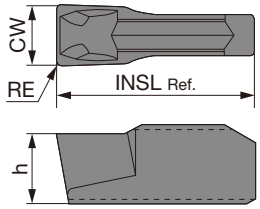
Designation	HAND	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated AH120	Coated GH730	INSL (in)	h (in)
GE30R	R	3	0.118	0.008	●	●	0.394	0.138
GE30L	L	3	0.118	0.008		●	0.394	0.138
GE40R	R	4	0.157	0.008	●	●	0.394	0.157
GE40L	L	4	0.157	0.008		●	0.394	0.157
GE50R	R	5	0.197	0.008		●	0.472	0.177
GE50L	L	5	0.197	0.008	●	●	0.472	0.177

● : Line up

Reference pages: Toolholders → F280, Standard cutting conditions → F285

GE

For external grooving and parting



P	Steel	★	★	★				★			
M	Stainless		★	★							
K	Cast iron		★	☆				☆			
N	Non-ferrous										
S	Superalloys		☆								
H	Hard materials										

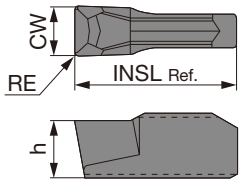
★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated						Cermet						INSL (in)	h (in)
				T9225	AH120	GH730				NS9530							
GE30	3	0.118	0.008	●	●	●				●						0.394	0.138
GE40	4	0.157	0.008	●	●	●				●						0.394	0.157
GE50	5	0.197	0.008	●	●	●				●						0.472	0.177

● : Line up

GF

For face grooving



P	Steel	★			★						
M	Stainless	★									
K	Cast iron	☆			☆						
N	Non-ferrous										
S	Superalloys										
H	Hard materials										

★ : First choice
☆ : Second choice

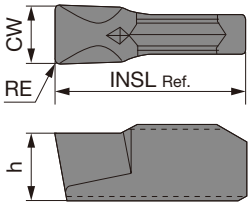
Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated			Cermet									INSL (in)	h (in)
				GH730			NS9530										
GF30	3	0.118	0.008	●			●									0.394	0.138
GF40	4	0.157	0.008	●			●									0.394	0.157
GF50	5	0.197	0.008	●			●									0.472	0.177

● : Line up

Reference pages: Toolholders → F280, Standard cutting conditions → F285

GN

For internal grooving



P	Steel	★
M	Stainless	★
K	Cast iron	☆
N	Non-ferrous	
S	Superalloys	
H	Hard materials	

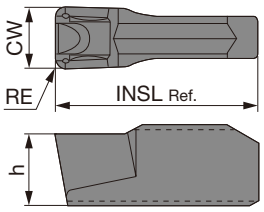
★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated GH730	INSL (in)	h (in)
GN30	3	0.118	0.008	●	0.394	0.138
GN40	4	0.157	0.008	●	0.394	0.157
GN50	5	0.197	0.008	●	0.472	0.177

● : Line up

GT

For external grooving and turning



P	Steel	★	★	★	★
M	Stainless		★	★	
K	Cast iron		★	☆	☆
N	Non-ferrous				
S	Superalloys		☆		
H	Hard materials				

★ : First choice
☆ : Second choice

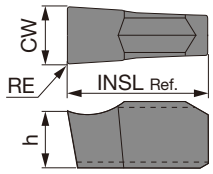
Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Coated T9225	Coated AH120	Coated GH730	Cermet NS9530	INSL (in)	h (in)
GT30	3	0.118	0.016		●	●	●	0.394	0.138
GT40	4	0.157	0.016		●	●	●	0.394	0.157
GT50	5	0.197	0.016	●	●	●	●	0.472	0.177

● : Line up

Reference pages: Toolholders → F280

GE-AL

For aluminum and non-ferrous metal



P	Steel	
M	Stainless	
K	Cast iron	
N	Non-ferrous	★
S	Superalloys	
H	Hard materials	

★ : First choice
☆ : Second choice

Designation	$CW^{+0.1}_{0}$ (mm)	$CW^{+0.004}_{0}$ (in)	RE (in)	Uncoated KS05F	INSL (in)	h (in)
GE30-AL	3	0.118	0.008	●	0.394	0.138
GE40-AL	4	0.157	0.008	●	0.394	0.157

● : Line up

STANDARD CUTTING CONDITIONS (for 1 corner inserts)

ISO	Workpiece material	Grades	Cutting speed *Vc* (sfm)
P	Low carbon steel, Alloy steel (~ HB150)	T9225	262 - 984
		NS9530	328 - 656
		GH730, AH120	164 - 591
	Medium carbon steel, Alloy steel (HB150 ~ 250)	T9225	262 - 722
		NS9530	262 - 591
		GH730, AH120	164 - 492
	High carbon steel, Alloy steel (HB250 ~)	T9225	262 - 722
		NS9530	262 - 492
		GH730, AH120	164 - 394
M	Stainless steel	GH730, AH120	164 - 394
K	Gray iron, Ductile cast iron	GH730, AH120	164 - 591
N	Aluminum alloy, Non-ferrous metal	KS05F	656 - 984

For Parting off

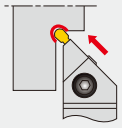
Operation	Feed: *f* (ipr) Groove width: CW		
	3 mm (0.118")	4 mm (0.157")	5 mm (0.197")
Grooving (GE**)	0.0024 - 0.010	0.0028 - 0.011	0.0028 - 0.012
Parting off (GE**R/L)	0.0016 - 0.006	0.0016 - 0.006	0.0016 - 0.006
Traversing (GT**)	*ap* = 0.020 - 0.059 *f* = 0.0024 - 0.008	*ap* = 0.020 - 0.079 *f* = 0.0024 - 0.010	*ap* = 0.020 - 0.098 *f* = 0.0024 - 0.011
Parting off for Aluminum alloys (GE**-AL)	0.0012 - 0.004	0.0012 - 0.004	-

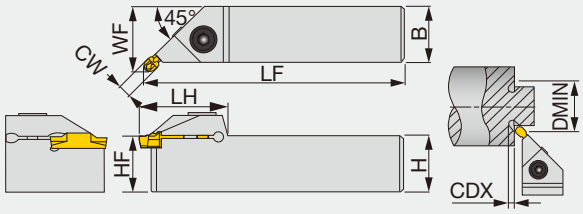
For diameter compensation values in traversing, see page F129.

Reference pages: Toolholders → F280

CGEUR/L

External 45° undercutting toolholder





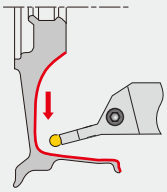
Right hand (R) shown.

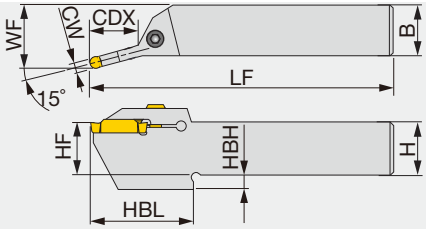
Metric	CW	DMIN	Seat size	CDX	H	B	LF	LH	HF	WF (1)	Insert	Torque
CGEUR/L1616-3T02	3	32	3	2.8	16	16	110	30	16	19.3	DTIU...	5
CGEUR/L2020-3T02	3	32	3	2.8	20	20	125	30	20	23.3	DTIU...	5
CGEUR/L2525-3T02	3	32	3	2.8	25	25	150	30	25	28.3	DTIU...	5
CGEUR/L1616-4T02	4	32	4	2.8	16	16	110	31	16	19.5	DTIU...	8.5
CGEUR/L2020-4T02	4	32	4	2.8	20	20	125	31	20	23.5	DTIU...	8.5
CGEUR/L2525-4T02	4	32	4	2.8	25	25	150	31	25	28.5	DTIU...	8.5
CGEUR/L2525-6T03	6	34	5, 6	3.4	25	25	150	35	25	28.9	DTIU...	8.5

(1) "WF" value is calculated with groove width "CW" shown in the table.
Torque: Recommended clamping torque: N·m

CTER/L-15A

Square shank toolholder for profiling aluminum wheel





Right hand (R) shown.

Metric	CW	Seat size	CDX	H	B	LF	HF	WF	HBH	HBL	Insert	Torque
CTER/L2525-6T25-15A	6	6	25	25	25	150	25	32.2	7	50.5	DTA...	5
CTER/L2525-8T30-15A	8	8	30	25	25	150	25	32.9	7	55	DTA...	5

Torque: Recommended clamping torque: N·m

SPARE PARTS



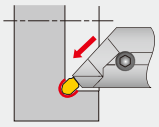

Designation	Clamping screw	Wrench
CGEUR/L****-3T02	CM5X0.8X16-A	P-4
CGEUR/L1616-4T02	CM6X1X16-A	P-5
CGEUR/L2020-4T02	CM6X1X20-A	P-5
C**R/L2525-...	CM6X1X25-A	P-5

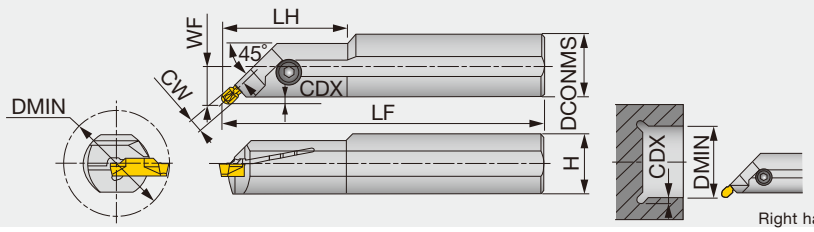
External
Internal
Face
Parting
Others

Reference pages: Inserts → F288, F289, Standard cutting conditions → F289

CGIUR/L

Internal 45° undercutting toolholder





Right hand (R) shown.

Metric	CW	DMIN	Seat size	CDX	DCONMS	H	LF	LH	WF (1)	Insert	Torque
CGIUR/L20-3T02-D380	3	38	3	2.8	20	19	160	-	12.8	DTIU...	5
CGIUR/L25-3T02-D380	3	38	3	2.8	25	23	200	40	14.8	DTIU...	5
CGIUR/L20-4T02-D380	4	38	4	2.8	20	19	160	-	12.9	DTIU...	5
CGIUR/L25-4T02-D460	4	46	4	2.8	25	23	200	40	14.9	DTIU...	5
CGIUR/L25-6T02-D460	6	46	5, 6	2.8	25	23	200	-	15.2	DTIU...	8.5

(1) WF is calculated with the groove width CW in the above table.
Torque: Recommended clamping torque: N·m

SPARE PARTS

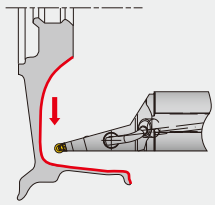


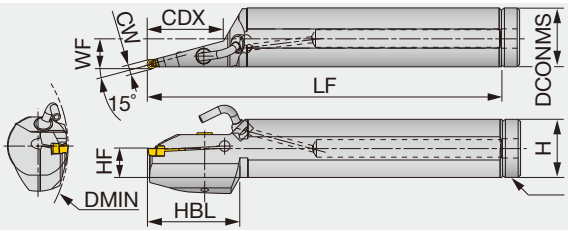


Designation	Clamping screw	Wrench
CGIUR/L20-3T02-D380	CM5X0.8X12-A	P-4
CGIUR/L25-3T02-D380	CM5X0.8X16-A	P-4
CGIUR/L**-4T02-D...	CM5X0.8X16-A	P-4
CGIUR/L25-6T02-D460	CM6X1X25-A	P-5

CGIUR/L-15A

Round-shank toolholder for profiling aluminum wheel





Right hand (R) shown.

Metric	CW	DMIN	Seat size	CDX	DCONMS	H	WF	LF	HF	HBL	Insert	Seal cap	Torque
CGIUR/L40-6T50-D160-15A	6	160	6	50	40	38.5	19.7	320	19	60	DTA...	CA-40	5
CGIUR/L40-8T83-D160-15A	8	160	8	83	40	38.5	20.5	320	19	85	DTA...	CA-40	5
CGIUR/L50-6T85-D200-15A	6	200	6	85	50	48.5	25.2	350	23.5	85	DTA...	-	5
CGIUR/L50-8T85-D200-15A	8	200	8	85	50	48.5	25.9	350	23.5	85	DTA...	-	5

Torque: Recommended clamping torque: N·m

SPARE PARTS







Designation	Clamping screw	Wrench	Seal cap
CGIUR/L**-15A	CM6X1X25-A	P-5	CA-40

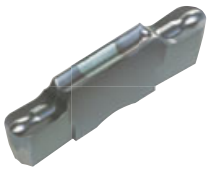
NOZZLE

Coolant pipe	Coolant nozzle
PNZ5	CNZ125

Reference pages: Inserts → F288, F289, Standard cutting conditions → F289

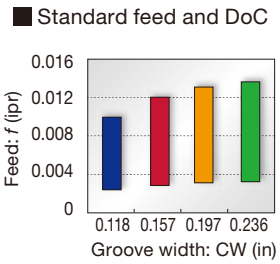
Profiling and undercutting

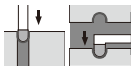
DTIU type (2 corners)



Full radius type

Excellent chip control for undercutting
CW = 0.118" - 0.236"





External
Internal
Face
Parting
Others

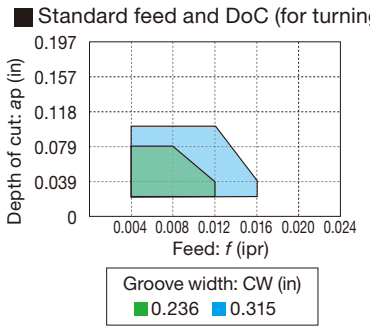
Aluminum wheel machining

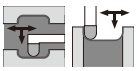
DTA type (2 corners)



Full radius type

Excellent chip control
For aluminum wheel profiling
Ground insert
CW = 0.236" - 0.315"

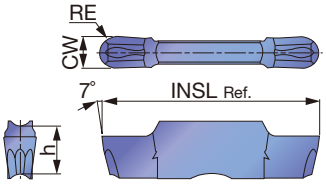




INSERTS

DTIU

Profiling and undercutting (for high precision)



P	Steel	★	☆	☆
M	Stainless	★	☆	★
K	Cast iron	★		☆
N	Non-ferrous			
S	Superalloys	★	☆	
H	Hard materials			

★ : First choice
☆ : Second choice

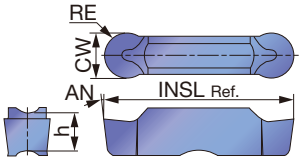
Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Coated AH7025	Coated AH725	Coated GH130	INSL (in)	h (in)
DTIU300-150	3	3	0.118	0.059	●	●	●	0.787	0.197
DTIU400-200	4	4	0.157	0.079	●	●	●	0.787	0.197
DTIU500-250	5	5	0.197	0.098	●	●	●	0.984	0.217
DTIU600-300	6	6	0.236	0.118	●	●	●	0.984	0.217

●: Line up

Reference pages: Toolholders → F286, F287

DTA

Aluminum wheel machining (for high precision)



P	Steel	
M	Stainless	
K	Cast iron	
N	Non-ferrous	★
S	Superalloys	
H	Hard materials	

★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Uncoated TH10	INSL (in)	h (in)	AN
DTA600-300	6	6	0.236	0.118	●	0.984	0.217	7°
DTA800-400	8	8	0.315	0.157	●	1.181	0.264	10°

●: Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed *Vc* (sfm)
P	Steel 1045, 4135, etc.	< 300 HB	First choice	AH7025, AH725	164 - 591
		< 300 HB	Impact resistance	GH130	164 - 394
M	Stainless steel 303, 304, etc.	< 200 HB	First choice	AH7025, AH725	164 - 394
		< 200 HB	Impact resistance	GH130	164 - 394
K	Gray cast iron No.250B, etc.	-	First choice	AH7025	492 - 2297
		-	Impact resistance	GH130	164 - 591
	Ductile cast iron 65-45-12, etc.	-	First choice	AH7025	492 - 984
		-	Impact resistance	GH130	164 - 394
N	Aluminum alloys Si < 12%	-	First choice	TH10	328 - 1640
S	Superalloys Inconel718, etc.	< HRC 40	First choice	AH7025, AH725	66 - 197
		< HRC 40	Impact resistance	GH130	66 - 131
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	Impact resistance	AH7025, AH725	66 - 262

Please see page F288 for feed: *f* (ipr).

Reference pages: Toolholders → F286, F287

PARTS FOR COOLANT HOSE

Connecting hose

Fig.1

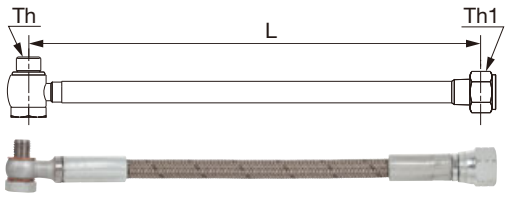
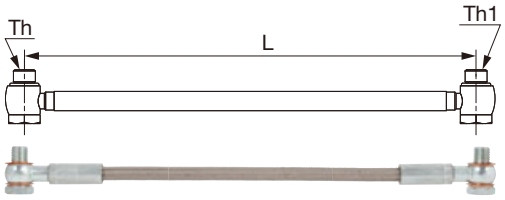
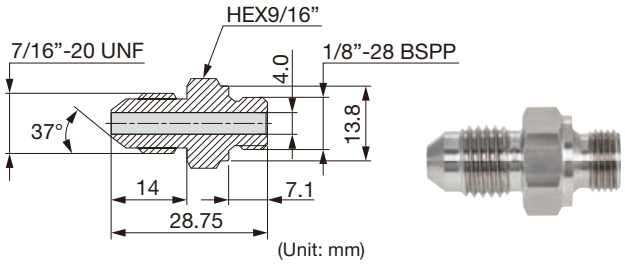


Fig.2



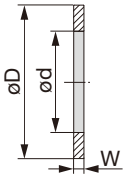
Metric	Length L	Screw Th	Screw Th1	Max. pressure MPa (PSI)	Fig.
CHP-HOSE-G1/8-7/16-200BS	200	G1/8"-28 BSPP	7/16"-20 UNF	26 (3771)	1
CHP-HOSE-G1/8-7/16-250BS	250	G1/8"-28 BSPP	7/16"-20 UNF	26 (3771)	1
CHP-HOSE-5/16-7/16-200BS	200	5/16"-24UNF	7/16"-20 UNF	20 (2901)	1
CHP-HOSE-5/16-G1/8-200BS	200	5/16"-24UNF	G1/8"-28 BSPP	20 (2901)	1
CHP-HOSE-G1/8-G1/8-200BB	200	G1/8"-28 BSPP	G1/8"-28 BSPP	26 (3771)	2
CHP-HOSE-G1/8-G1/8-250BB	250	G1/8"-28 BSPP	G1/8"-28 BSPP	26 (3771)	2

Connector



Metric
CHP-NIPPLE-G1/8-7/16UNF

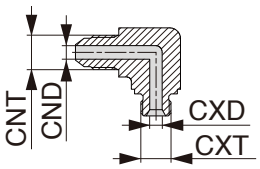
Seal washer





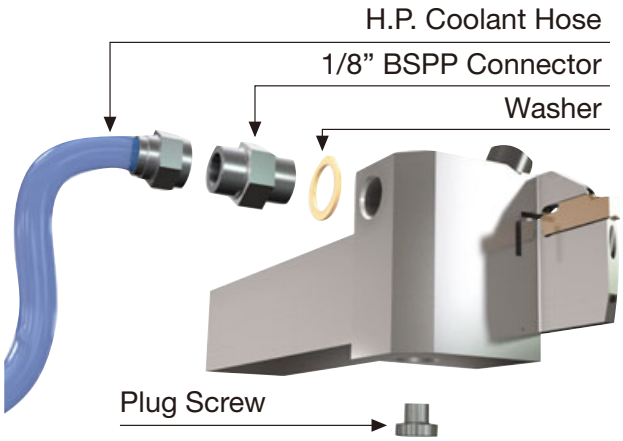
Metric	øD	ød	W
CHP-COPPER-SEAL1/8	15	10	1
CHP-COPPER-SEAL5/16	11.9	8.15	1.35
CHP-COPPER-SEAL5/16-2.5	9.4	8	2.5

Connector elbow





Metric	CNT	CND	CXT	CXD
CHP-ELBOW-90-G1/8-7/16UNF	7/16"-20 UNF	4.4	1/8"-28 BSPP	4
CHP-ELBOW-90-5/16-7/16UNF	7/16"-20 UNF	4.4	5/16"-24 UNF	4



Miniature Machining



Miniature Machining - Content structure

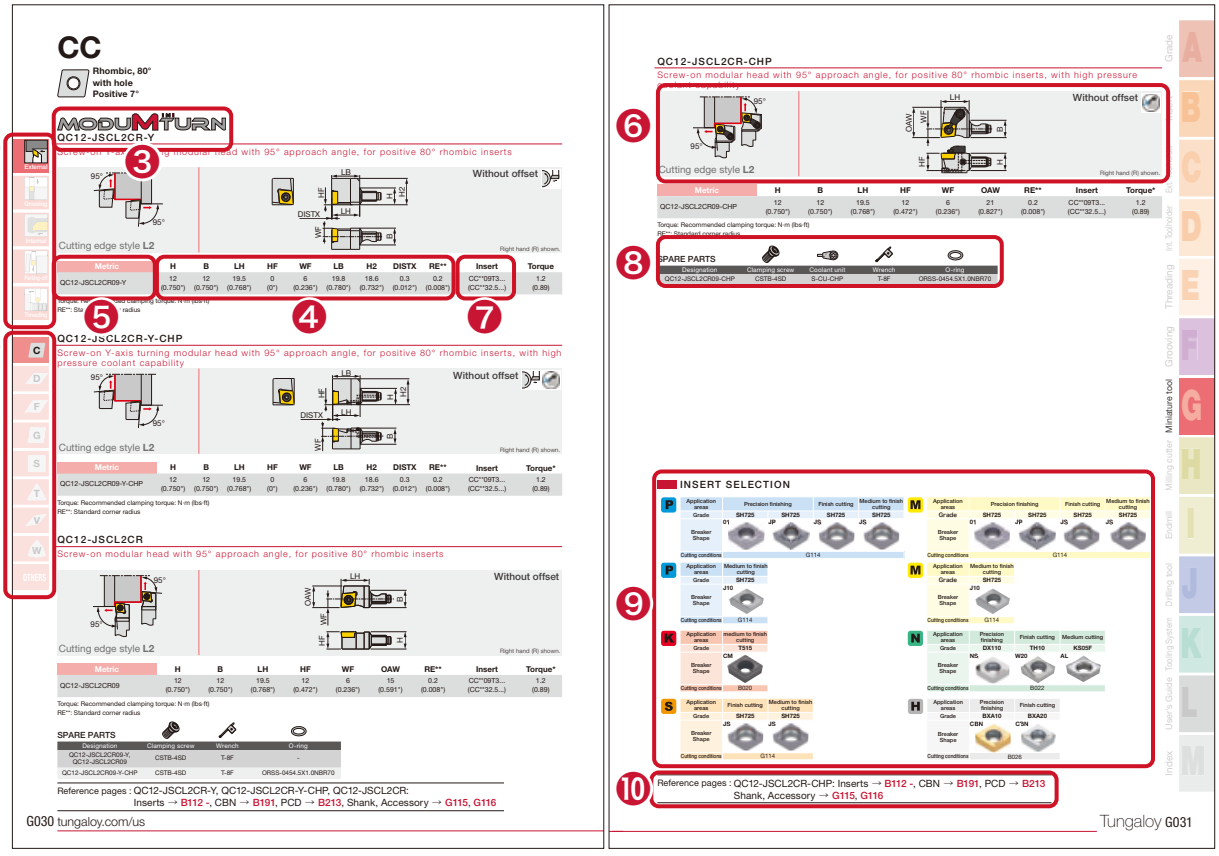
- Products are listed by application.
- In the same application, products are listed by insert shape.
- Items are listed by product series.
- Toolholders in the catalog are our standard items.

How to use the page

Method ① Select the application and the insert shape described at the left end of each page, jump to the page on the left index, and choose a designation you need (❺) in the dimension table (❹). Applicable inserts are shown in (❼) and (❾).

Method ② Select the series name on G003 and check the details on each page.

Method ③ Select an item from Quick Guide on G004 - G025.



❶ : Application
❷ : Insert shape
❸ : Tool series name
❹ : Dimension table
❺ : Toolholder designation
e.g. right-hand, 0.5 inch square shank

→ **JSDJ2X R 082 X-CHP**

❻ : Dimension drawing (conforming to ISO13399)
❼ : Applicable insert
❽ : Spare parts
❾ : Insert selection
❿ : Reference page

When ordering
- Please specify the designation and quantity.

e.g. **JSWL2XR082X-CHP** ... 1 (one toolholder per package)
* Inserts are not included. Please order those separately.

Main products



MODUMINITURN

Modular head turning toolholder system

G026



MINIVLOCKGROOVE

High precision grooving and threading tool series for CNC automatic lathes

G014, G020, G083 -, G168 -



MINIFORCETURN

Economical double-sided inserts with excellent sharpness

G029



J-SERIES

Toolholders for small-part machining

G004 -, G032 -
G106 -, G182 -



TETRAMINICUT

Unique insert pocket geometry for grooving with high quality and precision

CW = 0.013" - 0.125"

G014 -
G016 -, G020 -
G086 -, G137 -, G170 -



TETRAFORCECUT

4-cornered insert with good clamping rigidity for highly precise grooving and parting

CW = 0.02" - 0.125"

G014, G099 -



DUOFORCECUT

New flexible turning tool series for CNC automatic lathes and cam-driven lathes

CW = 0.02" - 0.039"

G074, G140 -



DUOJUSTCUT

Innovative clamping system for high rigidity in parting

CW = 0.024" - 0.079"

G018 -, G022 -
G142 -, G176 -



TUNGCUT

Multi-functional tool series for various grooving operations

CW = 0.047" - 0.157"

G018 -, G148 -



TINYMINITURN

Solid boring bar for turning small diameters with high precision

G024 -, G123 -



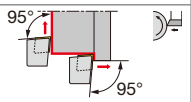
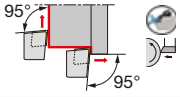
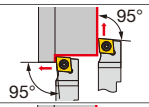
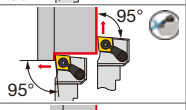
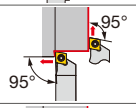
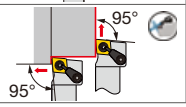
TUNGHEAVYGROOVE

Highly rigid clamping for wide grooving and profiling in one pass

CW = 0.394" - 1.000"

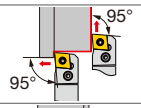
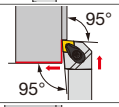
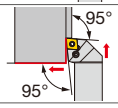
G016, G112 -

CC** inserts

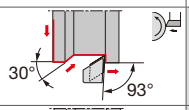
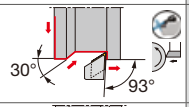
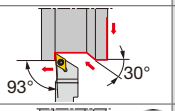
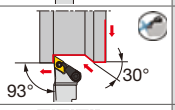
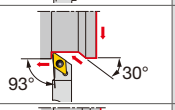
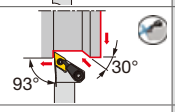
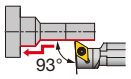
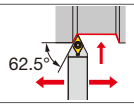
Cutting edge angle	Application	Designation	Insert	Size of square shanks (in)					Holder			Clamping style		Offset	Page
				0.375 x 0.375	0.500 x 0.500	0.500 x 0.625	0.625 x 0.625	0.750 x 0.750	MODUMTURN (Modular head)	Y-axis feed	TUNGTJET (Through-coolant)	Screw-on	Back-clamp		
95°		QC-JSCL2CR-Y	CC**3...		○	○			○	○		✓		without*	G030
		QC-JSCL2CR-Y-CHP	CC**3...		○	○			○	○	○	✓		without*	G030
		QC-JSCL2CR	CC**3...		○	○			○			✓		without*	G030
		QC-JSCL2CR-CHP	CC**3...		○	○			○		○	✓		without*	G031
		JSCL2CR/L	CC**2...	○	○		○					✓		without	G032
		JSCL2CR-CHP	CC**3...		○		○				○	✓		without	G033

* When using stepped-head shank, the “Offset” will be “with”.

CN** inserts

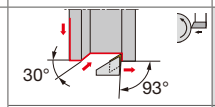
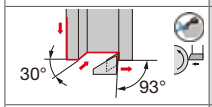
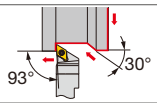
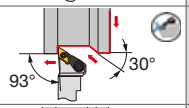
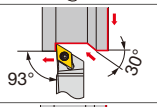
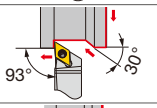
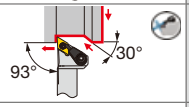
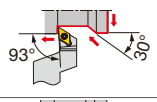
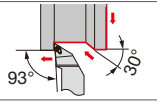
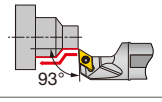
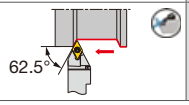
Cutting edge angle	Application	Designation	Insert	Size of square shanks (in)		Holder	Clamping style				Offset	Page
				0.625 x 0.625	0.750 x 0.750	TUNGTJET (Through-coolant)	Screw-on	Back-clamp	Lever-lock	Double-clamp		
95°		PCLNR/L	C/GN**33		○		✓				with	G036
		ACLNR/L	C/GN**33/43		○			✓			with	C019
		PCLNR/L-CHP	C/GN**33		○	○			✓		with	C023

DC** inserts

Cutting edge angle	Application	Designation	Insert	Size of square shanks (in) 0.375 x 0.375	0.500 x 0.500	0.500 x 0.625	0.625 x 0.625	Cylindrical shank (shank dia.) ø0.625	ø0.750	Holder MODUMTURN (Modular head)	Y-axis feed	TUNGTJET (Through-coolant)	Clamping style Screw-on	Back-clamp	Offset	Page
93°		**QC-JSDJ2CR-Y**	DC**2		○	○				○	○		✓		without*	G037
		**QC-JSDJ2CR-Y-CHP**	DC**2		○	○				○	○	○	✓		without*	G038
		**QC-JSDJ2CR**	DC**2/3		○	○				○			✓		without*	G038
		**QC-JSDJ2CR-CHP**	DC**2/3		○	○				○		○	✓		without*	G038
		**JSDJ2CR/L**	DC**2/3	○	○		○						✓		without	G039
		**JSDJ2CR/L-CHP**	DC**2/3		○		○					○	✓		without	G040 G041
		**JS-SDUCL**	DC**2/3						○				✓		-	G043
62.5°		**JSDNCN**	DC**2	○	○		○						✓		with	G044

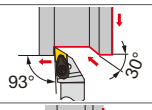
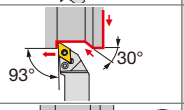
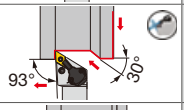
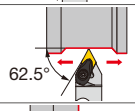
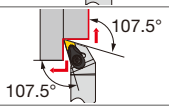
* When using stepped-head shank, the “Offset” will be “with”.

DX*U inserts

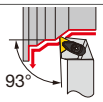
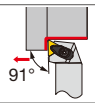
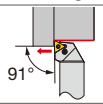
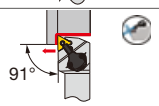
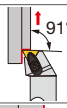
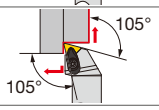
Cutting edge angle	Application	Designation	Insert	Size of square shanks (in)						Cylindrical shank (shank dia.)		Holder			Clamping style		Offset	Page
				0.375 x 0.375	0.500 x 0.500	0.500 x 0.625	0.625 x 0.625	0.625 x 0.750	0.750 x 0.750	ø0.625	ø0.750	MODULMTURN (Modular head)	Y-axis feed	TUNGTJET (Through-coolant)	Screw-on	Back-clamp		
93°		QC-JSDJ2XR-Y	DX*U		○	○						○	○		✓		without*	G046
		QC-JSDJ2XR-Y-CHP	DX*U		○	○						○	○	○	✓		without*	G046
		QC-JSDJ2XR	DX*U		○	○						○			✓		without*	G046
		QC-JSDJ2XR-CHP	DX*U		○	○						○		○	✓		without*	G047
		JSDJ2XR/L	DX*U	○	○		○								✓		without	G047
		JPDJ2XR/L	DX*U	○	○		○									✓	without	G048
		JSDJ2XR/L-CHP	DX*U		○		○							○	✓		without	G048
		JSDJXR-F	DX*U			○		○							✓		with	G049
		JSDJXR/L	DX*U						○						✓		with	C057
		JS-SDUXL	DX*U							○	○				✓		-	G050
62.5°		QC-JSDNXR-CHP	DX*U		○	○						○		○	✓		without*	G051

* When using stepped-head shank, the “Offset” will be “with”.

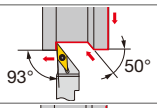
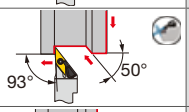
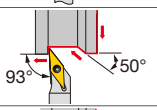
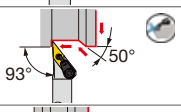
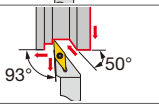
DN** inserts

Cutting edge angle	Application	Designation	Insert	Size of square shanks (in) 0.625 x 0.625	Size of square shanks (in) 0.750 x 0.750	Holder TUNGTJET (Through-coolant)	Clamping style Lever-lock	Clamping style Double-clamp	Offset	Page
93°		**ADJNR/L**	DN**33/43/44		○			✓	with	C036
		**PDJNR/L**	DN**33/43/44	○	○		✓		with	G052
		**PDJNR/L-CHP**	DN**33/43/44		○	○	✓		with	C039
62.5°		**ADPNN**	DN**43		○			✓	with	C049
107.5°		**ADQNR/L**	DN**33/43/44		○			✓	with	C045

TN** inserts

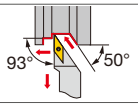
Cutting edge angle	Application	Designation	Insert	Size of square shanks (in) 0.625 x 0.625	Size of square shanks (in) 0.750 x 0.750	Holder TUNGTJET (Through-coolant)	Clamping style Lever-lock	Clamping style Double-clamp	Offset	Page
93°		**ATJNR/L**	TN**33		○			✓	with	C088
91°		**ATGNR/L**	TN**33		○			✓	with	C091
		**PTGNR/L**	TN**23		○		✓		with	C092
		**PTGNR/L-CHP**	TN**23/33		○	○	✓		with	C093
		**ATFNR/L**	TN**33		○			✓	with	C094
105°		**ATQNR/L**	TN**33		○			✓	with	C096

VB** inserts

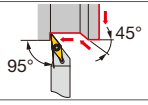
Cutting edge angle	Application	Designation	Insert	Size of square shanks (in) 0.375 x 0.375	0.500 x 0.500	0.500 x 0.625	0.625 x 0.625	0.625 x 0.750	0.750 x 0.750	Holder MODUMTURN (Modular head)	Holder TUNGTJET (Through-coolant)	Clamping style Screw-on	Clamping style Back-clamp	Offset	Page
93°		**QC-JSVJ2BR**	VB**22		○	○				○		✓		without*	G058
		**QC-JSVJ2BR-CHP**	VB**22		○	○				○	○	✓		without*	G058
		**JSVJ2BR/L**	VB**22	○	○		○					✓		without	G058
		**JSVJ2BR/L-CHP**	VB**22		○		○				○	✓		without	G059
		**JSVJBR/L**	VB**22						○			✓		with	G060

* When using stepped-head shank, the “Offset” will be “with”.

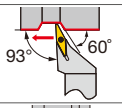
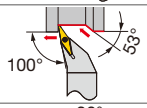
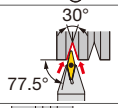
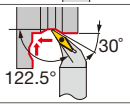
VC** inserts

Cutting edge angle	Application	Designation	Insert	Size of square shanks (in) 0.625 x 0.625	0.750 x 0.750	Clamping style Screw-on	Clamping style Back-clamp	Offset	Page
93°		**SVJCR**	VB**33	○	○	✓		with	C113

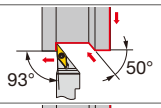
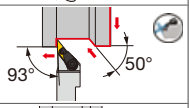
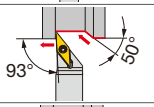
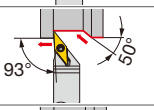
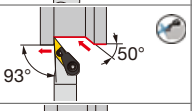
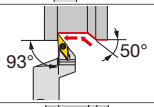
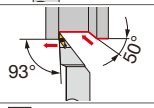
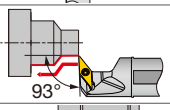
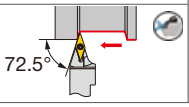
VP** inserts

Cutting edge angle	Application	Designation	Insert	Size of square shanks (in) 0.500 x 0.500	0.625 x 0.625	0.750 x 0.750	Clamping style Screw-on	Clamping style Back-clamp	Offset	Page
93°		**JSVL2PR/L**	VP**22	○	○		✓		without	G062

YWMT inserts

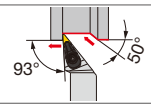
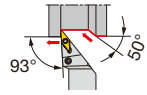
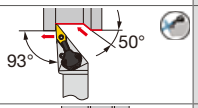
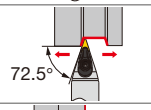
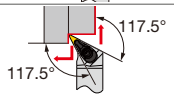
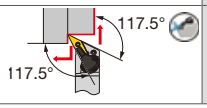
Cutting edge angle	Application	Designation	Insert	Size of square shanks (in) 0.625 x 0.625	Size of square shanks (in) 0.750 x 0.750	Clamping style Screw-on	Clamping style Back-clamp	Offset	Page
93°		**SYJBR/L**	YWMT16		○	✓		with	C130
100°		**SYHBR/L**	YWMT16		○	✓		with	C132
77.5°		**SYIBN**	YWMT16		○	✓		with	C131
122.5°		**SYQBR/L**	YWMT16		○	✓		with	C131

VXGU inserts

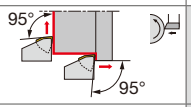
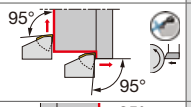
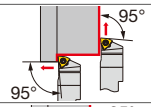
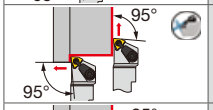
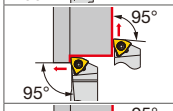
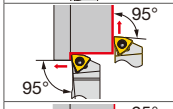
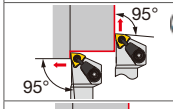
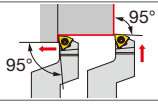
Cutting edge angle	Application	Designation	Insert	Size of square shanks (in) 0.375 x 0.375	0.500 x 0.500	0.500 x 0.625	0.625 x 0.625	0.625 x 0.750	0.750 x 0.750	Cylindrical shank (shank dia.) ø0.625	ø0.750	ø1.000	Holder MODULTURN (Modular head)	Holder TUNGTJET (Through-coolant)	Clamping style Screw-on	Clamping style Back-clamp	Offset	Page
93°		**QC-JSVJ2XR**	VXGU		○	○							○		✓		without*	G064
		**QC-JSVJ2XR-CHP**	VXGU		○	○							○	○	✓		without*	G064
		**JSVJ2XR/L**	VXGU	○	○		○								✓		without	G065
		**JPVJ2XR/L**	VXGU	○	○		○									✓	without	G065
		**JSVJ2XR/L-CHP**	VXGU		○		○							○	✓		without	G066
		**JSVJXR-F**	VXGU			○		○							✓		with	G067
		**JSVJXR/L**	VXGU						○						✓		with	C119
		**JS-SVUXL**	VXGU							○	○	○			✓		–	C120
72.5°		**QC-JSVVXR-CHP**	VXGU		○	○							○	○	✓		without*	G067

* When using stepped-head shank, the “Offset” will be “with”.

V/YN** inserts

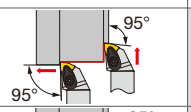
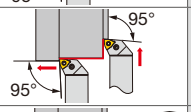
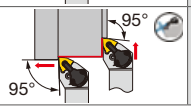
Cutting edge angle	Application	Designation	Insert	Size of square shanks (in) 0.625 x 0.625	Size of square shanks (in) 0.750 x 0.750	Holder TUNGTJET (Through-coolant)	Clamping style Lever-lock	Clamping style Double-clamp	Offset	Page
93°		**AVJNR/L**	VN**2.33, V/YN**33		○			✓	with	C103
		**PVJNR/L**	VN**2.33	○			✓		with	C104
		**PVJNR/L-CHP**	VN**2.33, V/YN**33		○	○	✓		with	C105
72.5°		**AVVNN**	VN**2.33, V/YN**33		○			✓	with	C107
117.5°		**AVQNR/L**	VN**2.33, V/YN**33		○			✓	with	C110
		**PVQNR/L-CHP**	V/YN**33		○	○	✓		with	C112

WXGU inserts

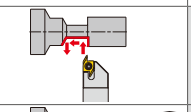
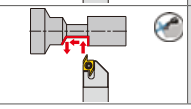
Cutting edge angle	Application	Designation	Insert	Size of square shanks (in) 0.375 x 0.375	0.500 x 0.500	0.500 x 0.625	0.625 x 0.625	0.625 x 0.750	0.750 x 0.750	Holder MODUMTURN (Modular head)	Holder Y-axis feed	Holder TUNGTJET (Through-coolant)	Clamping style Screw-on	Clamping style Back-clamp	Offset	Page
95°		**QC-JSWL2XR-Y**	WXGU		○	○				○	○		✓		without*	G069
		**QC-JSWL2XR-Y-CHP**	WXGU		○	○				○	○	○	✓		without*	G069
		**QC-JSWL2XR**	WXGU		○	○				○			✓		without*	G070
		**QC-JSWL2XR-CHP**	WXGU		○	○				○		○	✓		without*	G070
		**JSWL2XR/L**	WXGU	○	○		○						✓		without	G071
		**JPWL2XR/L**	WXGU	○	○		○							✓	without	G071
		**JSWL2XR/L-CHP**	WXGU		○		○					○	✓		without	G072
		**JSWLXR-F**	WXGU			○		○					✓		with	G073

* When using stepped-head shank, the “Offset” will be “with”.

WN** inserts

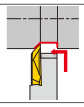
Cutting edge angle	Application	Designation	Insert	Size of square shanks (in) 0.500 x 0.500	0.500 x 0.625	0.750 x 0.750	Holder MODUMTURN (Modular head)	TUNGTJET (Through-coolant)	Clamping style Lever-lock	Double-clamp	Offset	Page
95°		**AWLNR/L**	WN**43/33			○				✓	with	C121
		**PWLNR/L**	WN**33			○			✓		with	C123
		**PWLNR/L-CHP**	WN**43/33			○		○	✓		with	C124

J10E inserts

Cutting edge angle	Application	Designation	Insert	Size of square shanks (in) 0.500 x 0.500	0.500 x 0.625	0.750 x 0.750	Holder MODUMTURN (Modular head)	TUNGTJET (Through-coolant)	Clamping style Screw-on	Back-clamp	Offset	Page
Back turning		**QC-JSEGR**	J10ER...	○	○		○		✓		without*	G078
		**QC-JSEGR-CHP**	J10ER...	○	○		○	○	✓		without*	G078

* When using stepped-head shank, the “Offset” will be “with”.

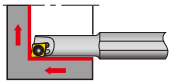
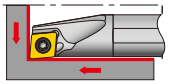
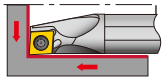
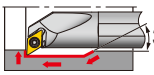
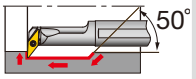
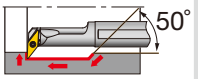
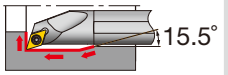
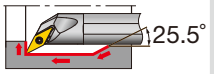
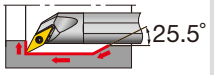
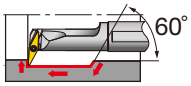
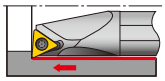
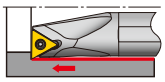
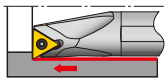
JTB inserts

Cutting edge angle	Application	Designation	Insert	Size of square shanks (in) 0.375 x 0.375	0.500 x 0.500	0.625 x 0.625	Clamping style Screw-on	Back-clamp	Offset	Page
Back turning		**JSTBR/L**	JTBR/L30	○	○	○	✓		without	G081

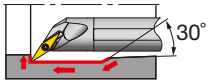
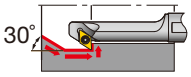
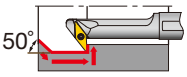
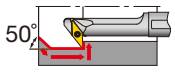
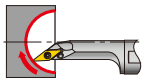
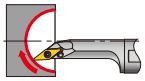
Miniature Internal Turning - Quick Guide

Positive type

StreamJet-Bar

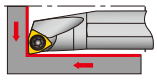
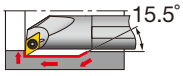
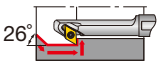
Appli-cation	Style	Designation	Insert	Material	Through coolant	ISO Insert	Y-PRO	Min. bore diameter DMIN (in) 0 0.125 0.250 0.375 0.500 0.625 0.750 0.875 1.000 1.250	Page
Boring & Internal facing		**SEXPR/L**	EP...	Steel Carbide	○	✓		ø0.250" ø0.250"	D048
		**SCLCR/L**	CC...	Steel Carbide	○	✓		ø0.375" ø1.250" ø0.500" ø1.250"	D018
		**SCLPR/L**	CP...	Steel Carbide	○	✓		ø0.500" ø0.875" ø0.500" ø0.875"	D022
Boring & internal profiling		**SDUCR/L**	DC...	Steel Carbide	○	✓		ø0.625" ø1.000" ø0.625" ø1.000"	D032
		**SVUCR/L**	VC...	Steel	○	✓		ø0.875" ø1.000"	D072
		**SVUBR/L**	VB...	Steel	○	✓		ø1.000"	D068
		**SDQCR/L**	DC...	Steel	○	✓		ø0.625" ø0.875"	D035
		**SVQCR/L**	VC...	Steel	○	✓		ø0.688" ø1.000"	D074
		**SVQBR/L**	VB...	Steel	○	✓		ø1.000"	D069
		**SYUBR/L**	YW...	Steel Carbide	○		✓	ø1.000" ø0.875" ø1.000"	D088
Boring		**STUPR/L**	TP...	Steel Carbide	○	✓		ø0.438" ø1.250" ø0.438" ø0.875"	D060
Blind hole boring		**STFPR/L**	TP...	Carbide	○	✓		ø0.500" ø1.000"	D057
		**STFCR/L**	TC...	Carbide	○	✓		ø0.500" ø1.000"	D056

StreamJet-Bar

Appli-cation	Style	Designation	Insert	Material	Through coolant	ISO Insert	Y-PRO	Min. bore diameter DMIN (in) 0 0.125 0.250 0.375 0.500 0.625 0.750 0.875 1.000	Page
Internal undercut & profiling		**SYQBR/L**	YW...	Steel Carbide	○		✓	ø0.750" ø0.875" ø0.750" ø0.875"	D089
Back boring		**SDZCR/L**	DC...	Steel	○	✓		ø0.875"	D037
		**SVZCR/L**	VC...	Steel	○	✓		ø0.750" ø1.000"	D076
		**SVZBR/L**	VB...	Steel	○	✓		ø1.000"	D071
Internal sphere cutting		**SVJCR/L**	VC...	Steel	○	✓		ø1.000"	D075
		**SVJBR/L**	VB...	Steel	○	✓		ø1.000	D070

Double-sided insert with positive cutting edges

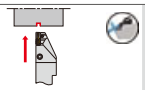
MiniForce-Turn

Appli-cation	Style	Designation	Insert	Material	Through coolant	MINIFÜRN	Min. bore diameter DMIN (in) 0 0.125 0.250 0.375 0.500 0.625 0.750 0.875 1.000	Page
Boring & Internal facing		**SWLXR/L**	WX*U...	Steel Carbide	○	✓	ø0.500" ø1.000" ø0.500" ø1.000"	D081
Boring & internal profiling		**SDXXR/L**	DX*U...	Steel Carbide	○	✓	ø0.625" ø1.000"	D040
Back boring		**SDZXR/L**	DX*U...	Steel	○	✓	ø0.625" ø0.875"	D041

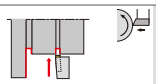
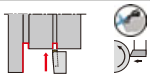
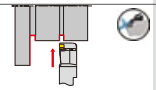
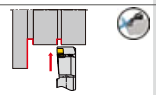
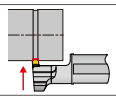
Miniature Grooving - Quick Guide

External Grooving

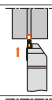
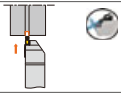
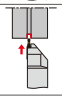
MiniVLockGroove

Application	Designation	Insert	Square shank (height x width) 0.375 x 0.375	0.500 x 0.500	0.500 x 0.625	0.625 x 0.625	Holder ModuMiniTurn (Modular head)	TungTJet (Through-coolant)	Direct connection	Groove width (in) 0	0.0313	0.0938	Max. groove depth (in)	Page
	**QC12-SVER/L-CHP** Modular head	VGP...		○	○		○	○	○	0.013"		0.039"	0.079" - 0.157"	G083
	**SVER/L**	VGP...	○	○						0.020"		0.039"	0.098" - 0.157"	G083
	**SVER/L-CHP**	VGP...		○				○	○	0.020"		0.039"	0.098" - 0.157"	G084

TetraMini-Cut

Application	Designation	Insert	Square shank (height x width) 0.375 x 0.375	0.375 x 0.500	0.500 x 0.500	0.500 x 0.625	0.625 x 0.625	0.750 x 0.750	Cylindrical shank (shank dia.) ø0.500	ø0.625	ø0.750	ø1.000	Holder ModuMiniTurn (Modular head)	Y-axis feed	TungTJet (Through-coolant)	Direct connection
	**QC12-STCR/L-Y** Modular head	TC*18R/L...			○	○							○	○		
	**QC12-STCR/L-Y-CHP** Modular head	TC*18R/L...			○	○							○	○	○	○
	**QC12-STCR/L** Modular head	TC*18R/L...			○	○							○			
	**QC12-STCR/L-CHP** Modular head	TC*18R/L...			○	○							○		○	○
	**STCR/L-18**	TC*18R/L...	○		○		○	○								
	**STCR/L-18-CHP**	TC*18R/L...			○	○									○	○
	**JS-STCL18**	TC*18R/L...								○	○	○				

TetraForce-Cut

Application	Designation	Insert	Square shank (height x width) 0.375 x 0.375	0.500 x 0.500	0.625 x 0.625	0.750 x 0.750	Holder ModuMiniTurn (Modular head)	TungTJet (Through-coolant)	Direct connection	Groove width (in) 0	0.0313	0.0625	0.0938	0.1250	0.1563	0.1875
	**STCR/L-27**	TC*27...	○	○	○	○				0.020"				0.125"		
	**STCR/L-27-CHP**	TC*27...		○		○		○	○	0.020"				0.125"		
	**STCR/L-38**	TCL38...				○						0.059"			0.157"	

	Groove width (in)							Max. groove depth (in)	Page
	0	0.0313	0.0625	0.0938	0.1250	0.1563	0.1875		
	0.013"				0.125"			0.0315" - 0.138"	G086
	0.013"				0.125"			0.0315" - 0.138"	G086
	0.013"				0.125"			0.0315" - 0.138"	G087
	0.013"				0.125"			0.0315" - 0.138"	G087
	0.013"				0.125"			0.0315" - 0.138"	G088
	0.013"				0.125"			0.0315" - 0.138"	G088 G089
	0.013"				0.125"			0.0315" - 0.138"	G089

	Max. groove depth (in)	Page
	0.039" - 0.252"	G099
	0.039" - 0.252"	G099 G100
	0.354" - 0.394"	G105

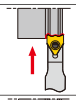
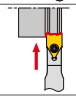
Miniature Grooving - Quick Guide

External Grooving

GTGN

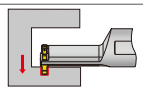
Application	Designation	Insert	Square shank (height x width) 0.375 x 0.375	0.500 x 0.500	0.625 x 0.625	0.750 x 0.750	Groove width (in) 0 0.0313 0.0625 0.0938 0.1250 0.1563 0.1875
	**CER/L**	GTGN-16E...				○	0.039" — 0.089"

TungHeavyGroove

Application	Designation	Insert	Square shank (height x width) 0.500 x 0.500	0.625 x 0.625	0.750 x 0.750	Groove width (in) 0 0.394 0.787 1.181 1.575 1.969	Max. groove depth (in)	Page
	**FPGN**	PSGB...	○	○	○	0.394" — 0.984"	-	G111
	**SPGN**	PSGB...	○	○	○	0.394" — 0.984"	-	G112

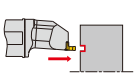
Internal Grooving

AddInternalCut

Application	Designation	Insert	Cylindrical shank ø0.500	ø0.625	Groove width (in)	Max. groove depth (in)	Through coolant
	**A/E-STCIR/L**	TCIG10/12...	○	○	0.020" - 0.118"	0.039" - 0.118"	○

Face Grooving

TetraMini-Cut

Application	Designation	Insert	Square shank (height x width) 0.375 x 0.375	0.500 x 0.500	0.625 x 0.625	Cylindrical shank ø0.625	ø0.750	Groove width (in)	Max. groove depth (in)
	**JS-STCFL18**	TCF18L...				○	○	0.020" - 0.118"	0.039" - 0.118"
	**STCFVR-18**	TCF18L...	○	○	○			0.020"- 0.118"	0.039" - 0.118"

	Max. groove depth (in)	Page
	0.049" - 0.071"	F105

Min. bore diameter DMIN (in)

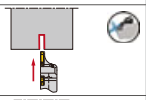
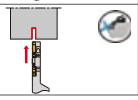
0	0.125	0.250	0.375	0.625	0.750	0.875	1.000	Page
		ø0.438"				ø0.813"		G117

Min. face groove outside diameter (in)

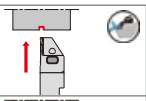
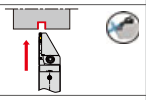
0	0.125	0.250	0.375	0.625	0.750	0.875	1.000	Page
	ø0.236"							G137
	ø0.236"							G137

Parting

DuoJustCut

Application	Designation	Insert	Square shank (height x width) 0.375 x 0.375	0.500 x 0.500	0.625 x 0.625	0.750 x 0.750	Groove width (in)	Holder TUNGTJET (Through-coolant)
	**JSXXR/L**	JXP...	○	○	○	○	0.024" - 0.079"	
	**JSXXR/L-CHP**	JXP...		○	○		0.024" - 0.079"	○
	**JSXXR/L-S**	JXP...	○	○			0.024" - 0.079"	
	**JSXXR/L-S-CHP**	JXP...		○	○		0.024" - 0.079"	○

TungCut

Application	Designation	Insert	Square shank (height x width) 0.375 x 0.375	0.500 x 0.500	0.500 x 0.625	0.625 x 0.625	0.750 x 0.750	Groove width (in)	Holder MODUMTURN (Modular head)	TUNGTJET (Through-coolant)	Direct connection
	**QC12-JTTER/L-CHP** Modular head	DG.../ SG...		○	○			0.047" - 0.079"	○	○	○
	**J*TER/L**	DG.../ SG...		○		○		0.079" - 0.118"			
	**JCTER/L-CHP**	DG.../ SG...		○		○	○	0.079"		○	○
	**CHGP**	DG.../ SG...					○	0.079" - 0.157"			
	**CGP**	DG.../ SG...					○	0.055" - 0.315"			

AddForceCut

Application	Designation	Insert	Square shank 0.375 x 0.375	0.500 x 0.500	0.500 x 0.625	0.625 x 0.625	0.750 x 0.750	Groove width (in)	Holder MODUMTURN (Modular head)	TUNGTJET (Through-coolant)	Direct connection
	**QSG**	QG...					○	0.079" - 0.157"			
	**QSP**	QG...					○	0.079" - 0.157"			

Max. parting diameter (in)

0 0.250 0.500 0.750 1.000 1.250 1.500 1.750 2.000	Page
ø0.236" ø0.787"	G142
ø0.236" ø0.787"	G143
ø0.236" ø0.787"	G142
ø0.236" ø0.787"	G143

Max. parting diameter (in)

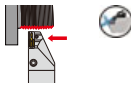
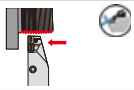
0 0.625 1.250 1.875 2.500 3.125 3.750 4.375 5.000	Page
ø0.787"	G148
ø0.945" ø1.260"	G149 G150
ø0.980" ø1.260"	G151
ø2.047" ø3.228"	G152
ø1.024" ø4.724"	G152

Max. parting diameter (in)

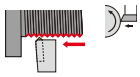
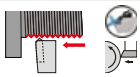
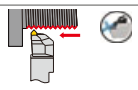
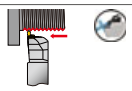
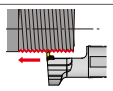
0 0.625 1.250 1.875 2.500 3.125 3.750 4.375 5.000	Page
ø2.047" ø3.228"	G164
ø2.047" ø4.724"	G163

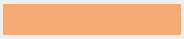
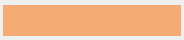
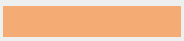
External Threading

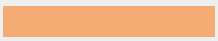
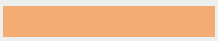
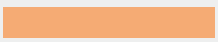
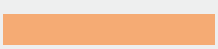
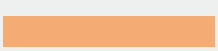
MiniVLockGroove

Application	Designation	Insert	Square shank (height x width) 0.375 x 0.375	0.500 x 0.500	0.500 x 0.625	Corner R (in)	Holder MODUMTURN (Modular head)	TUNGTJET (Through-coolant)	Direct connection
	**QC12-SVER/L-CHP** Modular head	VGT10F...		○	○	0.020" - 0.039"	○		○
	**SVER/L**	VGT10F...	○	○		0.020" - 0.039"			
	**SVER/L-CHP**	VGT10F...		○		0.020" - 0.039"			○

TetraMini-Cut

Application	Designation	Insert	Square shank (height x width) 0.375 x 0.375	0.375 x 0.500	0.500 x 0.500	0.500 x 0.625	0.625 x 0.625	0.750 x 0.750	Cylindrical shank (shank dia.) ø0.500	ø0.625	ø0.750	ø1.000	Corner R (in)
	**QC12-STCR/L-Y** Modular head	TCT18R/L...			○	○							0.002" - 0.008"
	**QC12-STCR/L-Y-CHP** Modular head	TCT18R/L...			○	○							0.002" - 0.008"
	**QC12-STCR/L** Modular head	TCT18R/L...			○	○							0.002" - 0.008"
	**QC12-STCR/L-CHP** Modular head	TCT18R/L...			○	○							0.002" - 0.008"
	**STCR/L-18**	TCT18R/L...	○		○		○	○					0.002" - 0.008"
	**STCR/L-18-CHP**	TCT18R/L...			○	○							0.002" - 0.008"
	**JS-STCL18**	TCT18R/L...								○	○	○	0.002" - 0.008"

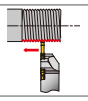
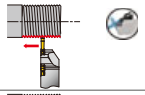
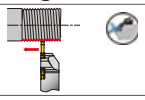
	Threads per inch										
	0	16	32	48	64	80	96	112	128	144	Page
	12				64						G168
	12				64						G168
	12				64						G168

	Holder												
	MODUMTURN (Modular head)	Y-axis feed	TUNGTJET (Through-coolant)	Direct connection	Threads per inch 0	16	32	48	64	80	96	112	128	144	Page
	○	○			8				64						G170
	○	○	○	○	8				64						G170
	○				8				64						G171
	○		○	○	8				64						G171
					8				64						G172
			○	○	8				64						G172 G173
					8				64						G173

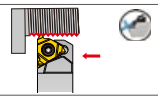
Miniature Threading - Quick Guide

External Threading

DuoJust-Cut

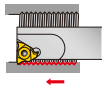
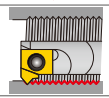
Application	Designation	Insert	Square shank (height x width) 0.375 x 0.375	0.500 x 0.500	0.625 x 0.625	0.750 x 0.750	Corner R (in)	Holder TUNGTJET (Through-coolant)	Holder Direct connection
	**JSXXR/L**	JXTG12...	○	○	○	○	0.002" - 0.004"		
	**JSXXR/L-CHP**	JXTG12...		○	○		0.002" - 0.004"	○	○
	**JSXXR/L-S**	JXTG12...	○	○			0.002" - 0.004"		
	**JSXXR/L-S-CHP**	JXTG12...		○	○		0.002" - 0.004"	○	○

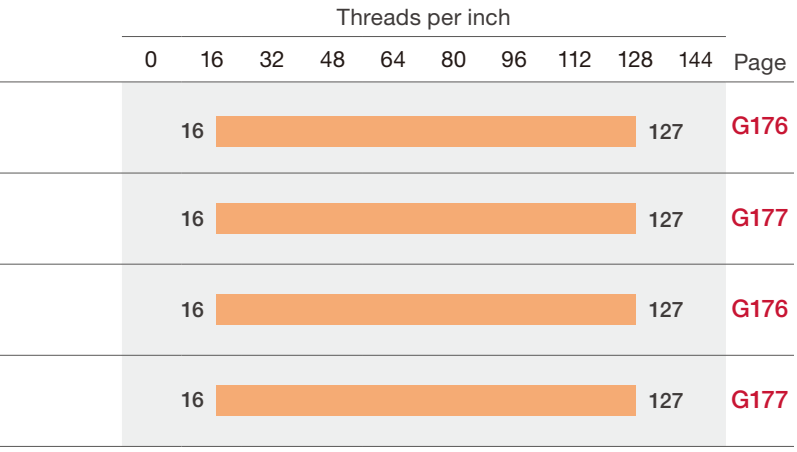
TungThread

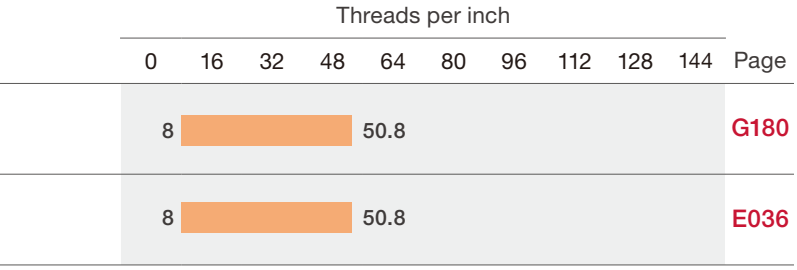
Application	Designation	Insert	Square shank (height x width) 0.375 x 0.375	0.500 x 0.500	0.500 x 0.625	0.625 x 0.625	0.750 x 0.750	Corner R (in)	Holder MODUMTURN (Modular head)	Holder TUNGTJET (Through-coolant)	Holder Direct connection
	**JSE2R16-CHP**	16ER...		○		○		0.002" - 0.009"		○	○
	**CER/L**	16ER/L...					○	0.002" - 0.009"		○	○

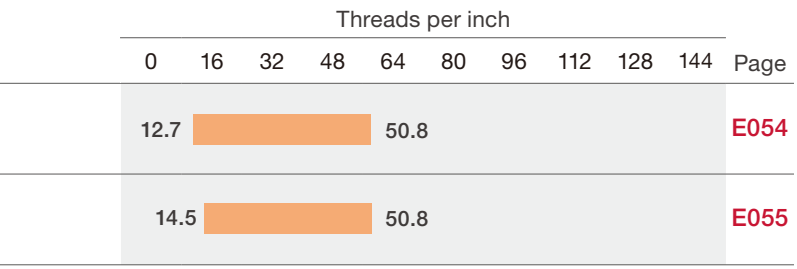
Internal Threading

TungThread

Application	Designation	Insert	Min. bore diameter DMIN (in)	Corner R (in)
	**SIR**	6/8IR...	ø0.640" - ø1.800"	0.002" - 0.007"
	**SNR**	6IR...	ø0.750"	0.002" - 0.004"


Threads per inch
0 16 32 48 64 80 96 112 128 144
Page
16 127
G176
16 127
G177
16 127
G176
16 127
G177

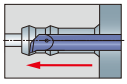
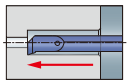
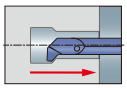
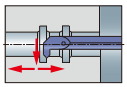
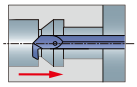
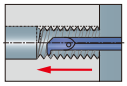
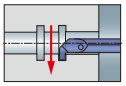
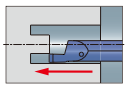
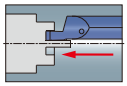
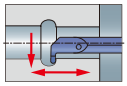

Threads per inch
0 16 32 48 64 80 96 112 128 144
Page
8 50.8
G180
8 50.8
E036


Threads per inch
0 16 32 48 64 80 96 112 128 144
Page
12.7 50.8
E054
14.5 50.8
E055

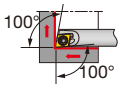
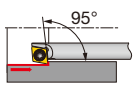
Miniature Internal Turning - Quick Guide

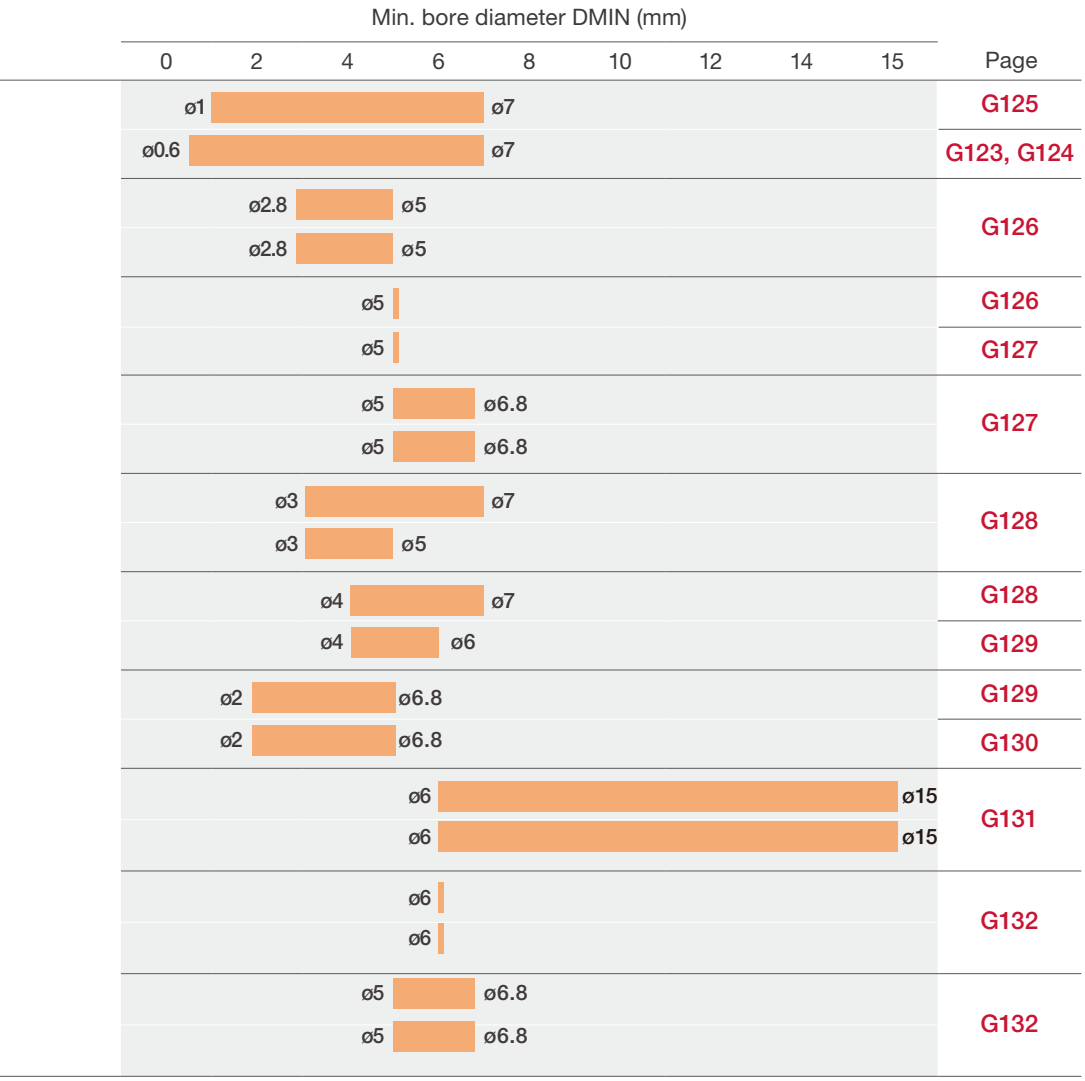
TinyMini-Turn

Solid carbide tools for small diameters turning

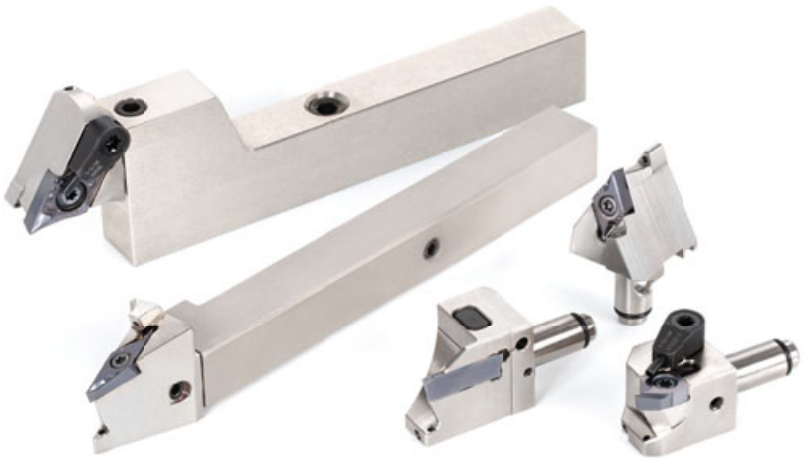
Application		Description	Material	Through coolant	Cylindrical shank ø4	Cylindrical shank ø7	Groove width
Boring, profiling & chamfering		**TBT**	Carbide		○	○	-
		JBT	Carbide	○	○	○	
Internal, Face grooving		**TBP**	Carbide		○	○	-
		JBP	Carbide	○	○	○	
Back boring & chamfering		**TBU**	Carbide			○	-
		JBU	Carbide	○		○	
Boring & 45°chamfering		**TBC**	Carbide			○	-
		JBC	Carbide	○		○	
Back boring		**TBB**	Carbide		○	○	-
		JBB	Carbide	○	○	○	
Threading (Metric thread)		**TBI**	Carbide		○	○	-
		JBI	Carbide	○	○	○	
Internal Grooving		**TBG**	Carbide		○	○	0.5 - 2
		JBG	Carbide	○	○	○	
Face grooving		**TBF**	Carbide			○	1 - 3
		JBF	Carbide	○		○	
Face grooving (for shaft)		**TBS**	Carbide			○	2
		JBS	Carbide	○		○	
Boring & profiling (full radius type)		**TBR**	Carbide			○	1
		JBR	Carbide	○		○	

Indexable tools for small diameters turning

Application		Description	Cylindrical shank ø7	Through coolant	Min. bore diameter DMIN (mm) 0 2 4 6 8 10	Page
Boring & internal facing		**SEXPR**	○	○	ø5 ø6	G133
Back boring		**SEZPR**	○	○	ø5.5	G133


Min. bore diameter DMIN (mm)
0
2
4
6
8
10
12
14
15
Page
ø1
ø7
G125
ø0.6
ø7
G123, G124
ø2.8
ø5
ø2.8
ø5
G126
ø5
G126
ø5
G127
ø5
ø6.8
ø5
ø6.8
G127
ø3
ø7
ø3
ø5
G128
ø4
ø7
G128
ø4
ø6
G129
ø2
ø6.8
G129
ø2
ø6.8
G130
ø6
ø15
ø6
ø15
G131
ø6
ø6
G132
ø5
ø6.8
ø5
ø6.8
G132

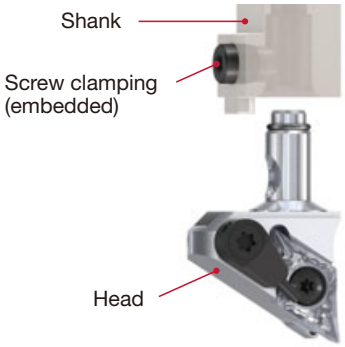
MODUMINI TURN

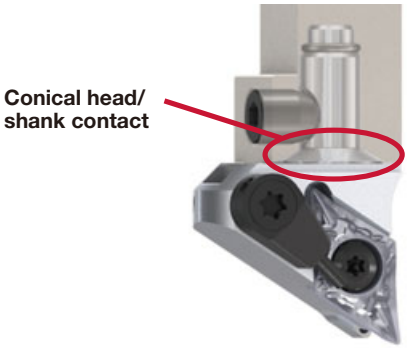


Modular style Swiss turning tool system facilitates tool changes with high repeatability

Unique coupling design

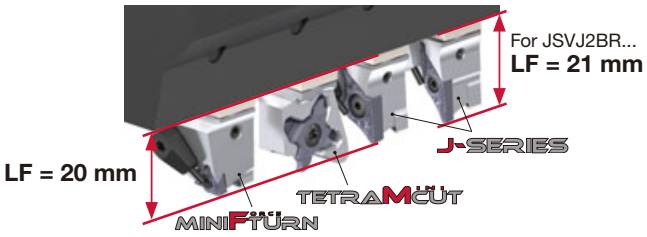
Simply loosen the clamping screw for easy tool exchanges.
Unique coupling design allows extremely high repeatability.





Benefits of Y-axis feed

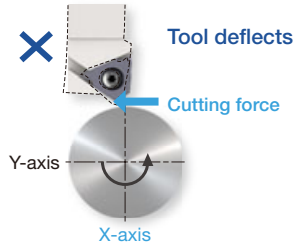
Designed with common functional lengths (LF), the cutting heads allow easy tool changes without removing the shank from the tool post.

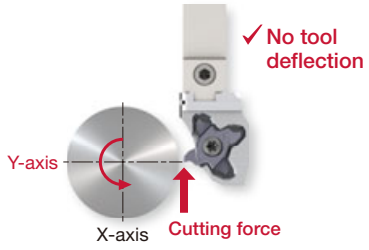


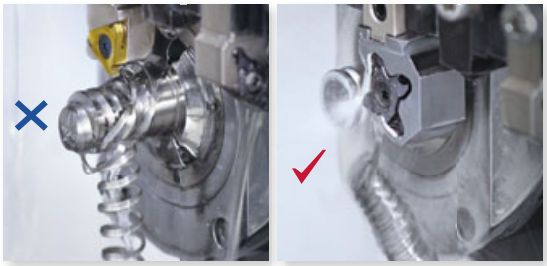
Benefits of Y-axis feed

No chip entanglements — Chips are directed downward and away from the cutting zone

Conventional X-axis feed	Y-axis feed	Conventional X-axis feed	Y-axis feed







Reference pages : G030 -, G083 -, G148, G168 -
Shank, Accessory : G115, G116

TUNGTURN JET



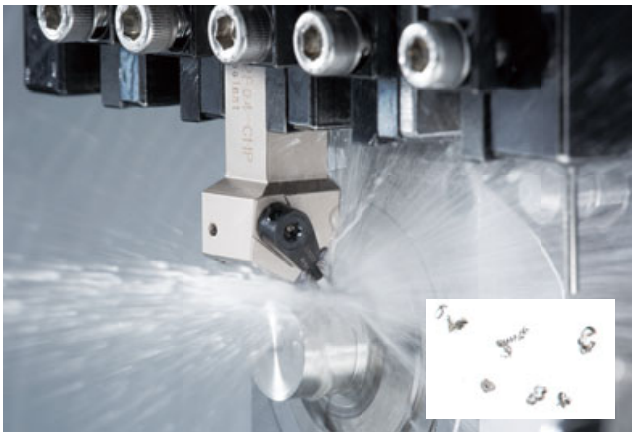
Thru-coolant holder system

High pressure coolant is supplied through the holder to facilitate smooth chip evacuation, improved chip breaking and reduced machine down-time

External coolant supply at normal pressure



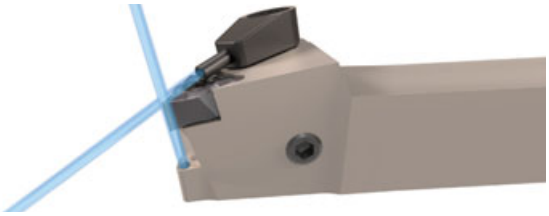
High pressure coolant (7 MPa)

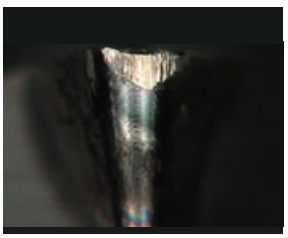


Coolant jets from two outlets ensure high cutting efficiency and extended tool life

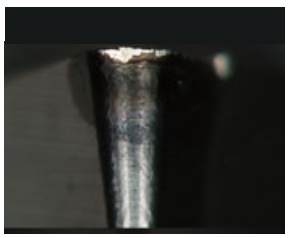
Directly to the cutting edge

Reliable chip control
Reduces crater and notch wears

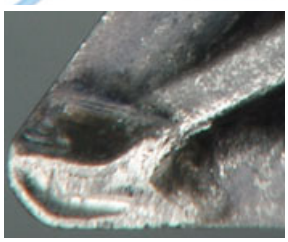




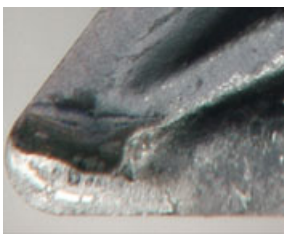
Excessive wear with external coolant supply (at normal pressure)



High pressure coolant (7 MPa)



Excessive crater wear with external coolant supply (at normal pressure)

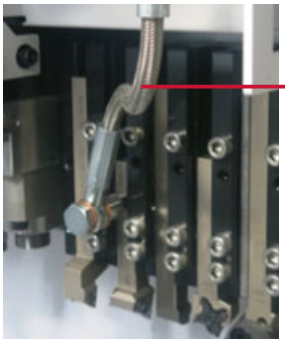


High pressure coolant (7 MPa)

Reference pages: G030 -, G083 -, G143 -, G168 -

Tube-free design streamlines tool setup.
Through-coolant supply enables high productivity

Conventional

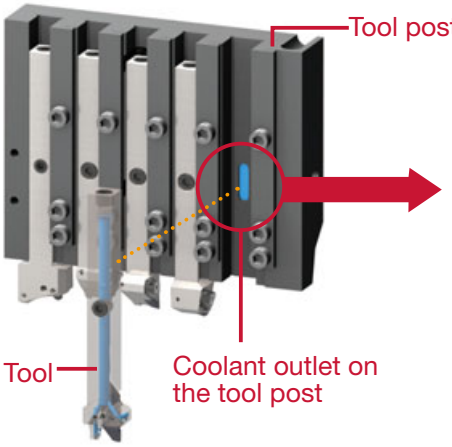


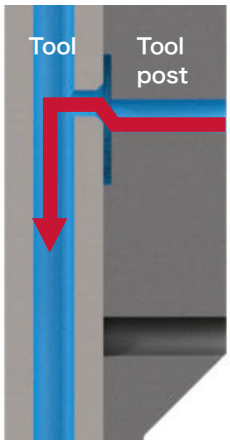
DirectTung-Jet system

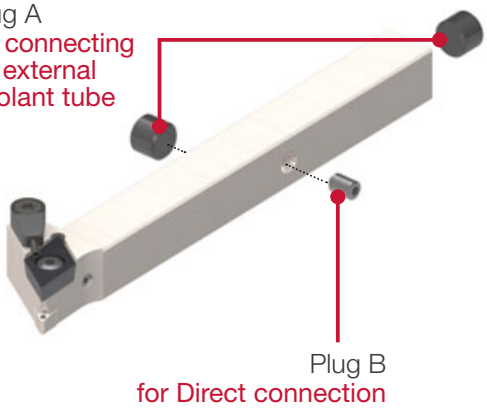


No need for coolant tube setup. Eliminates chip entanglement on tubes and streamlines tool replacement.

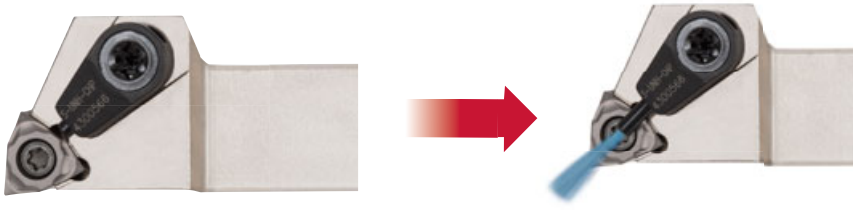
Coolant is supplied from the tool post directly to the tools.





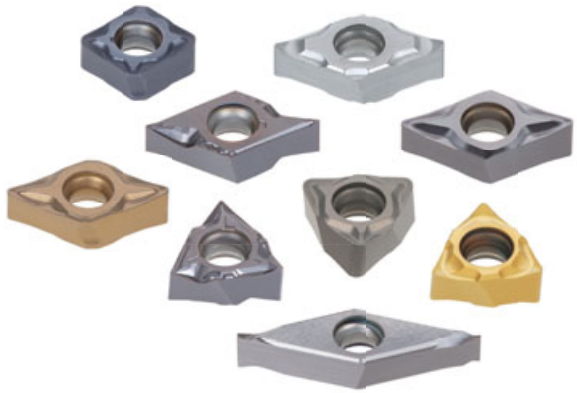


Use a non-coolant-through tool when a coolant supply is not needed through the tool.



Nozzle tube delivers coolant directly to the cutting edge

MINIFORCE TURN





Economical double-sided positive insert

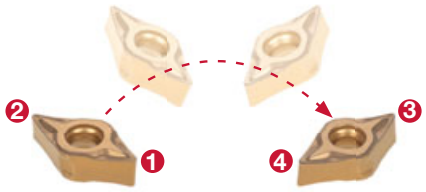
Innovative geometry and seat interface ensures stability and high performance.

Insert

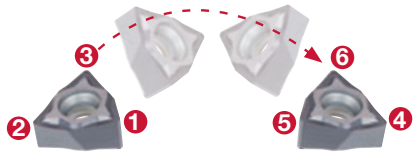
CXMU0603... 4 edges, rhombic 80°



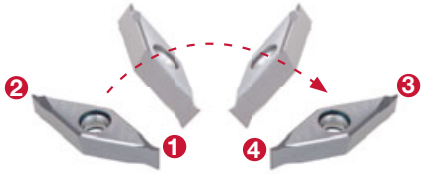
DXM/GU0703... 4 edges, rhombic 55°



WXGU0403... 6 positive cutting edges



VXGU09T2... 4 positive cutting edges



High rake angle

WXGU0403...

External turning



External turning

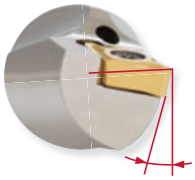


DXGU0703...

Internal turning



Internal turning



Reference pages : G046 -, G064 -, G069 -

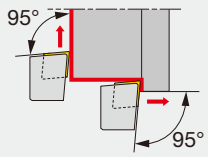
CC

Rhombic, 80°
with hole
Positive 7°

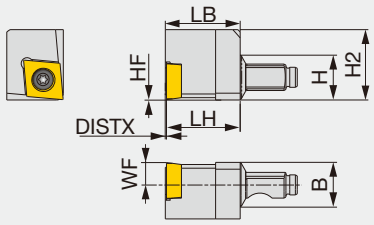
MODUMINI TURN

QC12-JSCL2CR-Y

Screw-on Y-axis turning modular head with 95° approach angle, for positive 80° rhombic inserts



Cutting edge style **L2**



Without offset

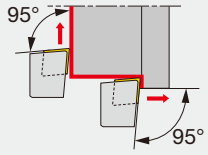
Right hand (R) shown.

Metric	H	B	LH	HF	WF	LB	H2	DISTX	RE**	Insert	Torque
QC12-JSCL2CR09-Y	12 (0.750")	12 (0.750")	19.5 (0.768")	0 (0")	6 (0.236")	19.8 (0.780")	18.6 (0.732")	0.3 (0.012")	0.2 (0.008")	CC**09T3... (CC**32.5...)	1.2 (0.89)

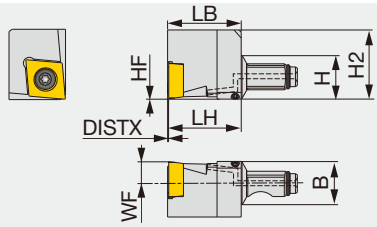
Torque: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius

QC12-JSCL2CR-Y-CHP

Screw-on Y-axis turning modular head with 95° approach angle, for positive 80° rhombic inserts, with high pressure coolant capability



Cutting edge style **L2**



Without offset

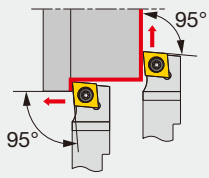
Right hand (R) shown.

Metric	H	B	LH	HF	WF	LB	H2	DISTX	RE**	Insert	Torque*
QC12-JSCL2CR09-Y-CHP	12 (0.750")	12 (0.750")	19.5 (0.768")	0 (0")	6 (0.236")	19.8 (0.780")	18.6 (0.732")	0.3 (0.012")	0.2 (0.008")	CC**09T3... (CC**32.5...)	1.2 (0.89)

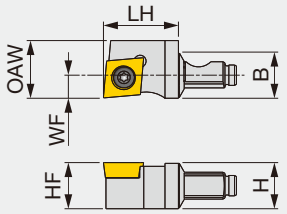
Torque: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius

QC12-JSCL2CR

Screw-on modular head with 95° approach angle, for positive 80° rhombic inserts



Cutting edge style **L2**



Without offset

Right hand (R) shown.

Metric	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSCL2CR09	12 (0.750")	12 (0.750")	19.5 (0.768")	12 (0.472")	6 (0.236")	15 (0.591")	0.2 (0.008")	CC**09T3... (CC**32.5...)	1.2 (0.89)

Torque: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius

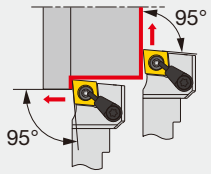
SPARE PARTS

Designation	Clamping screw	Wrench	O-ring
QC12-JSCL2CR09-Y, QC12-JSCL2CR09	CSTB-4SD	T-8F	-
QC12-JSCL2CR09-Y-CHP	CSTB-4SD	T-8F	ORSS-0454.5X1.0NBR70

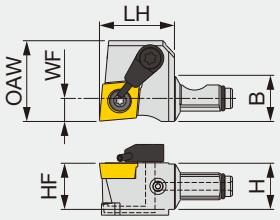
Reference pages : QC12-JSCL2CR-Y, QC12-JSCL2CR-Y-CHP, QC12-JSCL2CR:
Inserts → B112 -, CBN → B191, PCD → B213, Shank, Accessory → G115, G116

QC12-JSCL2CR-CHP

Screw-on modular head with 95° approach angle, for positive 80° rhombic inserts, with high pressure coolant capability



Cutting edge style **L2**



Without offset

Right hand (R) shown.

Metric	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSCL2CR09-CHP	12 (0.750")	12 (0.750")	19.5 (0.768")	12 (0.472")	6 (0.236")	21 (0.827")	0.2 (0.008")	CC**09T3... (CC**32.5...)	1.2 (0.89)

Torque: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	O-ring
QC12-JSCL2CR09-CHP	CSTB-4SD	S-CU-CHP	T-8F	ORSS-0454.5X1.0NBR70

INSERT SELECTION

P

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

M

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

P

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	J10
Cutting conditions	G114

M

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	J10
Cutting conditions	G114

K

Application areas	medium to finish cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application areas	Precision finishing	Finish cutting	Medium cutting
Grade	DX110	TH10	KS05F
Breaker Shape	NS	W20	AL
Cutting conditions	B022		

S

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JS	JS
Cutting conditions	G114	

H

Application areas	Precision finishing	Finish cutting
Grade	BXA10	BXA20
Breaker Shape	CBN	CBN
Cutting conditions	B026	

Reference pages : QC12-JSCL2CR-CHP: Inserts → B112 -, CBN → B191, PCD → B213
Shank, Accessory → G115, G116

CC

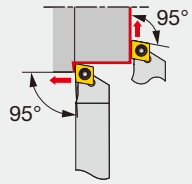


Rhombic, 80°
with hole
Positive 7°

J-SERIES

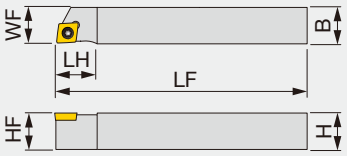
JSCL2CR/L

Screw-on toolholder with 95° approach angle, for positive 80° rhombic inserts



Cutting edge style **L2**

Without offset



Right hand (R) shown.

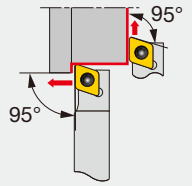
Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
JSCL2CR/L062	0.375	0.375	5.000	0.438	0.375	0.375	0.008	CC**21.5...	0.89
JSCL2CR/L082	0.500	0.500	5.000	0.438	0.500	0.500	0.008	CC**21.5...	0.89
JSCL2CR/L103	0.625	0.625	5.000	0.625	0.625	0.625	0.008	CC**32.5...	0.89

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSCL2CR/L1010X06	10	10	120	12	10	10	0.2	CC**0602...	1.2
JSCL2CR/L1212F06	12	12	85	12	12	12	0.2	CC**0602...	1.2
JSCL2CR/L1212X06	12	12	120	12	12	12	0.2	CC**0602...	1.2
JSCL2CR/L1212F09	12	12	85	16	12	12	0.2	CC**09T3...	1.2
JSCL2CR/L1212X09	12	12	120	16	12	12	0.2	CC**09T3...	1.2
JSCL2CR/L1616X09	16	16	120	16	16	16	0.2	CC**09T3...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
**RE: Standard corner radius

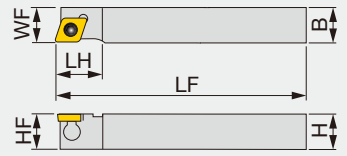
JTCL2CR/L

Back-clamp toolholder with 95° approach angle, for positive 80° rhombic inserts



Cutting edge style **L2**

Without offset



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JTCL2CR/L1010X06	10	10	120	12	10	10	0.2	CC**0602...	0.9
JTCL2CR/L1212F09	12	12	85	16	12	12	0.2	CC**09T3...	1.2
JTCL2CR/L1212X09	12	12	120	16	12	12	0.2	CC**09T3...	1.2
JTCL2CR/L1616X09	16	16	120	16	16	16	0.2	CC**09T3...	1.2

Torque*: Recommended clamping torque (N·m)
RE**: Standard corner radius

SPARE PARTS







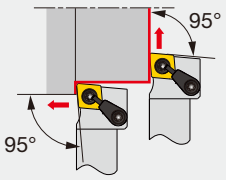

Designation	Clamping screw	Clamp	Clamping screw	Wrench	Wrench 1	Wrench 2 (Optional)
JSCL2CR/L062/082, JSCL2CR/L**06	CSTB-2.5	-	-	-	T-8F	(T-8L)
JSCL2CR/L103, JSCL2CR/L**09	CSTB-4SD	-	-	-	T-8F	(T-8L)
JTCL2CR/L**06	-	JCP-2	JDS-3525	P-2F	-	-
JTCL2CR/L**09	-	JCP-3	JDS-5040	P-2.5F	-	-

Reference pages : JSCL2CR/L, JTCL2CR/L : Inserts → B112 -, CBN → B191, PCD → B213

JSCL2CR-CHP

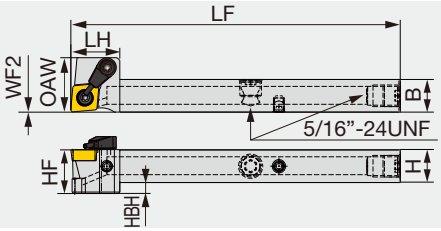
Direct connection

Screw-on toolholder without offset, 95° approach angle for positive 80° rhombic inserts, high pressure coolant compatible



Cutting edge style **L2**





Without offset

Right hand (R) shown.

Inch	H	B	LF	LH	HF	HBH	WF2	OAW	RE	Insert	Torque
JSCL2CR083X-CHP	0.500	0.500	4.750	0.709	0.500	0.031	0	0.787	0.008	CC** 32.5...	0.89
JSCL2CR103X-CHP	0.625	0.625	4.750	0.709	0.625	-	0	0.787	0.008	CC** 32.5...	0.89

Metric	H	B	LF	LH	HF	HBH	WF2	OAW	RE	Insert	Torque*
JSCL2CR1212X09B-CHP	12	12	120	18	12	1.5	0	20	0.2	CC**09T3...	1.2
JSCL2CR1616X09-CHP	16	16	120	18	16	-	0	20	0.2	CC**09T3...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m) RE**: Standard corner radius

SPARE PARTS









Designation	Clamping screw	Coolant unit	Wrench	Coolant plug	Wrench 1	DirectJet plug	Wrench 2
JSCL2CR**-CHP	CSTB-4SD	S-CU-CHP	T-8F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

INSERT SELECTION

P

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

M

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

P

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	J10
Cutting conditions	G114

M

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	J10
Cutting conditions	G114

K

Application areas	medium to finish cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application areas	Precision finishing	Finish cutting	Medium cutting
Grade	DX110	TH10	KS05F
Breaker Shape	NS	W20	AL
Cutting conditions	B022		

S

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JS	JS
Cutting conditions	G114	

H

Application areas	Precision finishing	Finish cutting
Grade	BXA10	BXA20
Breaker Shape	CBN	CBN
Cutting conditions	B026	

Reference pages : JSCL2CR-CHP: Inserts → B112 -, CBN → B191, PCD → B213

CC

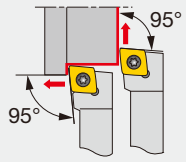


Rhombic, 80°
with hole
Positive 7°

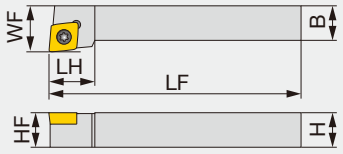
J-SERIES

JSCLCR/L

Screw-on toolholder with 95° approach angle, for positive 80° rhombic inserts



Cutting edge style **L**



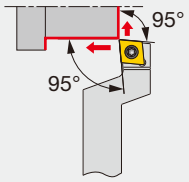
Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSCLCR/L0808H06	8	8	100	12	8	10	0.4	CC**0602...	1.2
JSCLCR/L1010H06	10	10	100	12	10	12	0.4	CC**0602...	1.2
JSCLCR/L1212H09	12	12	100	16	12	16	0.8	CC**09T3...	1.2
JSCLCR/L1616H09	16	16	100	16	16	20	0.8	CC**09T3...	1.2

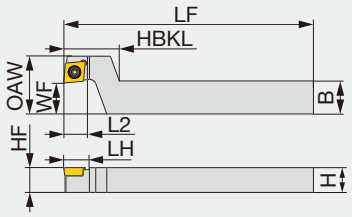
Torque*: Recommended clamping torque (N·m)
RE**: Standard corner radius

JSCLCR-F

Screw-on stepped-head toolholder with 95° approach angle, for positive 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Metric	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque*
JSCLCR1216F09-F15	12	16	85	12	27	12.5	12	15	28	0.2	CC**09T3...	1.2
JSCLCR1216X09-F15	12	16	120	12	27	12.5	12	15	28	0.2	CC**09T3...	1.2
JSCLCR1620X09-F15	16	20	120	12	27	12.5	16	15	28	0.2	CC**09T3...	1.2

Torque*: Recommended clamping torque (N·m)
RE**: Standard corner radius

SPARE PARTS



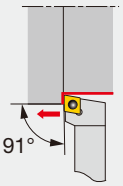


Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSCLCR/L**H06	CSTB-2.5	T-8F	-
JSCLCR/L**H09	CSTB-4SD	T-8F	-
JSCLCR**F15	CSTB-4SD	T-8F	(T-8L)

Reference pages : JSCLCR/L, JSCLCR-F: Inserts → B112 -, CBN → B191, PCD → B213

JSCGCR/L

Screw-on toolholder with 91° approach angle, for positive 80° rhombic inserts



Cutting edge style **G**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSCGCR/L1212H06	12	12	100	12	12	16	0.4	CC**0602...	1.2
JSCGCR/L1616H09	16	16	100	16	16	20	0.8	CC**09T3...	1.2

Torque*: Recommended clamping torque (N·m)
RE**: Standard corner radius

SPARE PARTS





Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSCGCR/L1212H06	CSTB-2.5	T-8F	(T-8L)
JSCGCR/L1616H09	CSTB-4SD	T-8F	(T-8L)

INSERT SELECTION

P

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

M

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

P

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	J10
Cutting conditions	G114

M

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	J10
Cutting conditions	G114

K

Application areas	medium to finish cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application areas	Precision finishing	Finish cutting	Medium cutting
Grade	DX110	TH10	KS05F
Breaker Shape	NS	W20	AL
Cutting conditions	B022		

S

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JS	JS
Cutting conditions	G114	

H

Application areas	Precision finishing	Finish cutting
Grade	BXA10	BXA20
Breaker Shape	CBN	CBN
Cutting conditions	B026	

Reference pages : JSCGCR/L: Inserts → B112 -, CBN → B191, PCD → B213

CN



Rhombic, 80° with hole

GN

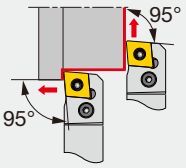


Rhombic, 70° with hole

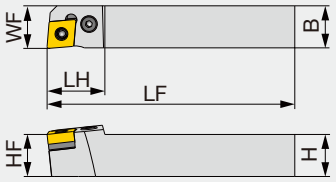
J-SERIES

PCL2NR

Lever-lock toolholder with 95° approach angle, for negative 80°/70° rhombic inserts



Cutting edge style **L2**



Without offset

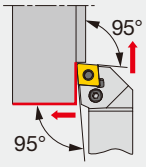
Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PCL2NR2020H12	20	20	100	26	20	20	0.8	CN**/GNGA1204...	3

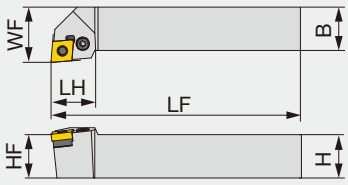
Torque*: Recommended clamping torque (N·m) RE**: Standard corner radius

PCLNR/L

Lever-lock toolholder with 95° approach angle, for negative 80°/70° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PCLNR/L1233	0.750	0.750	4.500	0.813	0.750	1.000	0.031	CN**/GNMG 33...	1.48

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PCLNR2020H12	20	20	100	26	20	25	0.8	CN**/GNGA1204...	3

Torque: Recommended clamping torque: lbs·ft (*N·m) RE**: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Lever	Spring pin	Wrench
PCLNR/L1233	LSC317	LCS3	LCL33	LSP3	P-2.5
PCL**2020H12	LSC42	LCS4	LCL4	LSP4	P-3

INSERT SELECTION

P

Application areas	Precision finishing	Finish cutting	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application areas	Finish cutting	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Breaker Shape	SF	SM	SH
Cutting conditions	B006		

K

Application areas	Finish cutting	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application areas	Finish cutting	Medium cutting	
Grade	DX110	TH10	KS05F
Breaker Shape	DIA	P	28
Cutting conditions	B010		

S

Application areas	Precision finishing	Finish cutting	Medium cutting
Grade	BX950	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application areas	Precision finishing
Grade	BXA10
Breaker Shape	HP
Cutting conditions	B014

Reference pages : PCL2NR, PCLNR/L: Inserts → B054 -, CBN → B168 -, PCD → B211

DC

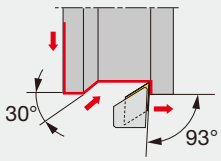


Rhombic, 55°
with hole
Positive 7°

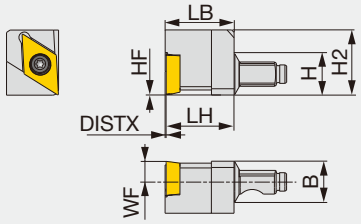
MODUMINI TURN

QC12-JSDJ2CR-Y

Screw-on Y-axis turning modular head with 93° approach angle, for positive 55° rhombic inserts



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Metric	H	B	LH	HF	WF	LB	H2	DISTX	RE**	Insert	Torque*
QC12-JSDJ2CR11-Y	12 (0.750")	12 (0.750")	19.5 (0.768")	0 (0")	6 (0.236")	19.8 (0.78")	18.7 (0.736")	0.3 (0.012")	0.2 (0.008")	DC**11T3... (DC**32.5...)	1.2 (0.89)

Torque: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius

SPARE PARTS




Designation	Clamping screw	Wrench
QC12-JSDJ2CR11-Y	CSTB-4SD	T-8F

INSERT SELECTION

P

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

M

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

P

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	01
Cutting conditions	G114

M

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	01
Cutting conditions	G114

K

Application areas	Medium to finish cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application areas	Precision finishing	Medium cutting
Grade	DX110	KS05F
Breaker Shape	NS	AL
Cutting conditions	B022	

S

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JS	JS
Cutting conditions	G114	

H

Application areas	Precision finishing	Finish cutting
Grade	BXA10	BXA20
Breaker Shape	CBN	CBN
Cutting conditions	B026	

Reference pages : QC12-JSDJ2CR-Y : Inserts → B121 -, CBN → B193 -, PCD → B214
Shank, Accessory → G115, G116

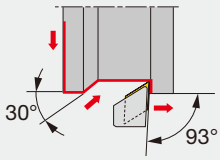
DC

Rhombic, 55°
with hole
Positive 7°

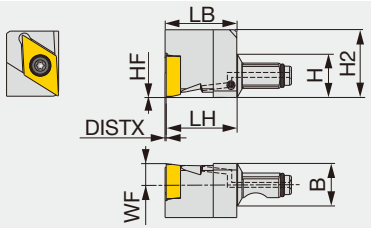
MODUMINI TURN

QC12-JSDJ2CR-Y-CHP

Screw-on Y-axis turning modular head with 93° approach angle, for positive 55° rhombic inserts, with high pressure coolant capability



Cutting edge style **J2**



Without offset

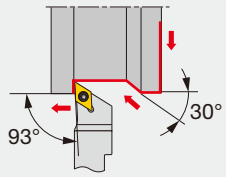
Right hand (R) shown.

Metric	H	B	LH	HF	WF	LB	H2	DISTX	RE**	Insert	Torque*
QC12-JSDJ2CR11-Y-CHP	12 (0.750")	12 (0.750")	19.5 (0.768")	0 (0")	6 (0.236")	19.8 (0.78")	18.7 (0.736")	0.3 (0.012")	0.2 (0.008")	DC**11T3... (DC**32.5...)	1.2 (0.89)

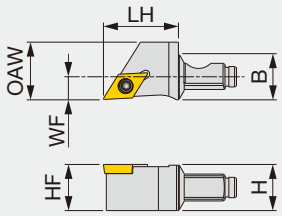
Torque*: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius

QC12-JSDJ2CR

Screw-on modular head with 93° approach angle, for positive 55° rhombic inserts



Cutting edge style **J2**



Without offset

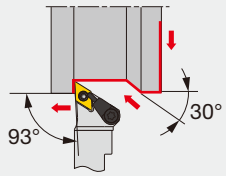
Right hand (R) shown.

Metric	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSDJ2CR07	12 (0.750")	12 (0.750")	19.5 (0.768")	12 (0.472")	6 (0.236")	15 (0.591")	0.2 (0.008")	DC**0702... (DC**21.5...)	1.2 (0.89)
QC12-JSDJ2CR11	12 (0.750")	12 (0.750")	19.5 (0.768")	12 (0.472")	6 (0.236")	15 (0.591")	0.2 (0.008")	DC**11T3... (DC**32.5...)	1.2 (0.89)

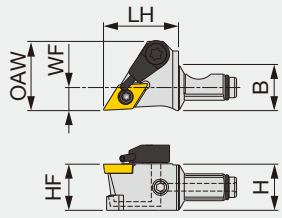
Torque*: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius

QC12-JSDJ2CR-CHP

Screw-on modular head with 93° approach angle, for positive 55° rhombic inserts, with high pressure coolant capability



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Metric	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSDJ2CR07-CHP	12 (0.750")	12 (0.750")	19.5 (0.768")	12 (0.472")	6 (0.236")	18 (0.709")	0.2 (0.008")	DC**0702... (DC**21.5...)	1.2 (0.89)
QC12-JSDJ2CR11-CHP	12 (0.750")	12 (0.750")	19.5 (0.768")	12 (0.472")	6 (0.236")	21 (0.827")	0.2 (0.008")	DC**11T3... (DC**32.5...)	1.2 (0.89)

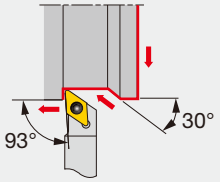
Torque*: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius

SPARE PARTS

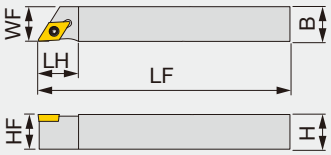
Designation	Clamping screw	Coolant unit	Wrench	O-ring
QC12-JSDJ2CR11-Y-CHP	CSTB-4SD	-	T-8F	ORSS-0454.5X1.0NBR70
QC12-JSDJ2CR07	CSTB-2.5	-	T-8F	-
QC12-JSDJ2CR07-CHP	CSTB-2.5	S-CU-CHP	T-8F	ORSS-0454.5X1.0NBR70
QC12-JSDJ2CR11-CHP	CSTB-4SD	S-CU-CHP	T-8F	ORSS-0454.5X1.0NBR70

JSDJ2CR/L

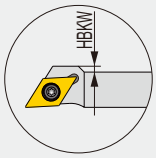
Screw-on toolholder with 93° approach angle, for positive 55° rhombic inserts



Cutting edge style **J2**



Without offset



JSDJ2CR/L1010X11
JSDJ2CR/L1212F11
JSDJ2CR/L1212X11

Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	HBKW	RE**	Insert	Torque
JSDJ2CR/L062	0.375	0.375	5.000	0.563	0.375	0.380	-	0.008	DC**21.5...	0.89
JSDJ2CR/L082	0.500	0.500	5.000	0.563	0.500	0.500	-	0.008	DC**21.5...	0.89
JSDJ2CR/L103	0.625	0.625	5.000	0.813	0.625	0.630	-	0.008	DC**32.5...	0.89

Metric	H	B	LF	LH	HF	WF	HBKW	RE**	Insert	Torque*
JSDJ2CR/L0808F07	8	8	85	14	8	8	-	0.2	DC**0702...	1.2
JSDJ2CR/L1010X07	10	10	120	14	10	10	-	0.2	DC**0702...	1.2
JSDJ2CR/L1010X11	10	10	120	20	10	10	4	0.2	DC**11T3...	1.2
JSDJ2CR/L1212F07	12	12	85	14	12	12	-	0.2	DC**0702...	1.2
JSDJ2CR/L1212F11	12	12	85	20	12	12	2	0.2	DC**11T3...	1.2
JSDJ2CR/L1212X07	12	12	120	14	12	12	-	0.2	DC**0702...	1.2
JSDJ2CR/L1212X11	12	12	120	20	12	12	2	0.2	DC**11T3...	1.2
JSDJ2CR/L1616X11	16	16	120	20	16	16	-	0.2	DC**11T3...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
RE**: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSDJ2CR/L062/082, JSDJ2CR/L**07	CSTB-2.5	T-8F	(T-8L)
JSDJ2CR/L103, JSDJ2CR/L**11	CSTB-4SD	T-8F	(T-8L)

INSERT SELECTION

P

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

M

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

P

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	01
Cutting conditions	G114

M

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	01
Cutting conditions	G114

K

Application areas	Medium to finish cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application areas	Precision finishing	Medium cutting
Grade	DX110	KS05F
Breaker Shape	NS	AL
Cutting conditions	B022	

S

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JS	JS
Cutting conditions	G114	

H

Application areas	Precision finishing	Finish cutting
Grade	BXA10	BXA20
Breaker Shape	CBN	CBN
Cutting conditions	B026	

Reference pages : QC12-JSDJ2CR-Y-CHP, QC12-JSDJ2CR, QC12-JSDJ2CR-CHP, JSDJ2CR/L
: Inserts → B121 -, CBN → B193 -, PCD → B214, Shank, Accessory → G115, G116

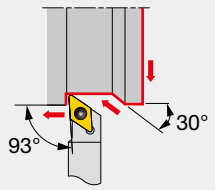
DC

Rhombic, 55°
with hole
Positive 7°

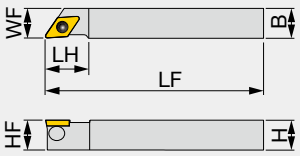
J-SERIES

JTDJ2CR/L

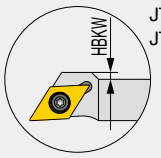
Back-clamp toolholder with 93° approach angle, for positive 55° rhombic inserts



Cutting edge style **J2**



Without offset
JTDJ2CR/L1212F11
JTDJ2CR/L1212X11



Right hand (R) shown.

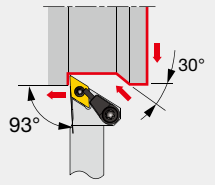
Metric	H	B	LF	LH	HF	WF	HBKW	RE**	Insert	Torque*
JTDJ2CR/L1010X07	10	10	120	14	10	10	-	0.2	DC**0702...	0.9
JTDJ2CR/L1212F07	12	12	85	14	12	12	-	0.2	DC**0702...	0.9
JTDJ2CR/L1212X07	12	12	120	14	12	12	-	0.2	DC**0702...	0.9
JTDJ2CR/L1212F11	12	12	85	20	12	12	2	0.2	DC**11T3...	1.2
JTDJ2CR/L1212X11	12	12	120	20	12	12	2	0.2	DC**11T3...	1.2
JTDJ2CR/L1616X11	16	16	120	20	16	16	-	0.2	DC**11T3...	1.2

Torque*: Recommended clamping torque (N·m)
RE**: Standard corner radius

JSDJ2CR-CHP

Direct connection

Screw-on toolholder without offset, 93° approach angle for positive 55° rhombic inserts, high pressure coolant compatible



Cutting edge style **J2**

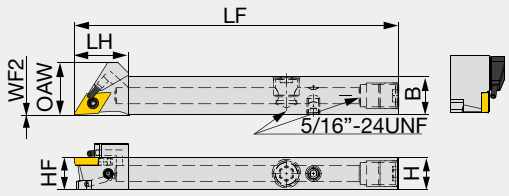


Fig.1

Without offset

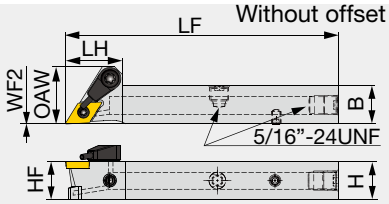


Fig.2

Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF2	OAW	RE**	Insert	Torque	Fig.
JSDJ2CR083X-CHP	0.500	0.500	4.750	0.748	0.500	0	0.807	0.008	DC**32.5...	0.89	-
JSDJ2CR103X-CHP	0.625	0.625	4.750	0.748	0.625	0	0.807	0.008	DC**32.5...	0.89	-

Metric	H	B	LF	LH	HF	WF2	OAW	RE**	Insert	Torque*	Fig.
JSDJ2CR1012H07-CHP	10	12	100	17	10	0	16.4	0.2	DC**0702	1.2	1
JSDJ2CR1212X11-CHP	12	12	120	19	12	0	20.5	0.2	DC**11T3	1.2	2
JSDJ2CR1616X11-CHP	16	16	120	19	16	0	20.5	0.2	DC**11T3	1.2	2

Torque: Recommended clamping torque: lbs·ft (*N·m)
RE**: Standard corner radius

SPARE PARTS





Designation	Clamp	Clamping screw	Wrench 1
JTDJ2CR/L**07	JCP-2	JDS-3525	P-2F
JTDJ2CR/L**11	JCP-3	JDS-5040	P-2.5F

SPARE PARTS










Designation	Clamping screw	Coolant nozzle	Nozzle retainer screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSDJ2CR1012H07-CHP	CSTB-2.5	NZ-1.10-7-CHP	SSHM4-4-TB	T-8F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2









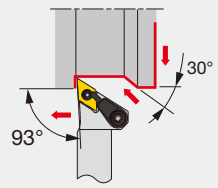
Designation	Clamping screw	Coolant unit	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSDJ2CR**X-CHP, JSDJ2CR**11-CHP	CSTB-4SD	S-CU-CHP	T-8F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

Reference pages : JTDJ2CR/L, JSDJ2CR-CHP: Inserts → B121 -, CBN → B193 -, PCD → B214

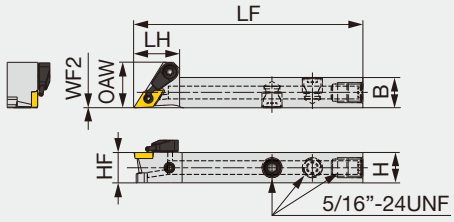
JSDJ2CR/L-CHP

Tube connection

Screw-on toolholders without offset – 93° approach angle. For positive 55° rhombic insert. High-pressure coolant capability.



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	OAW	RE	Insert	Torque
JSDJ2CR/L082-CHP	0.500	0.500	3.344	0.710	0.500	0.500	0.710	0.2	DC**21.5...	0.89

Metric	H	B	LF	LH	HF	WF2	OAW	RE**	Insert	Torque*
JSDJ2CR/L1212F07-CHP	12	12	85	18	12	0	18	0.2	DC**0702...	1.2
JSDJ2CR/L1212F11-CHP	12	12	85	19	12	0	20.5	0.2	DC**11T3...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
RE**: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench 1	Wrench 2 (Optional)
JSDJ2CR/L082-CHP, JSDJ2CR/L1212F07-CHP	CSTB-2.5	S-CU-CHP	T-8F	-
JSDJ2CR/L1212F11-CHP	CSTB-4SD	S-CU-CHP	T-8F	-

INSERT SELECTION

P

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

M

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

P

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	01
Cutting conditions	G114

M

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	01
Cutting conditions	G114

K

Application areas	Medium to finish cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application areas	Precision finishing	Medium cutting
Grade	DX110	KS05F
Breaker Shape	NS	AL
Cutting conditions	B022	

S

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JS	JS
Cutting conditions	G114	

H

Application areas	Precision finishing	Finish cutting
Grade	BXA10	BXA20
Breaker Shape	CBN	CBN
Cutting conditions	B026	

Reference pages : JSDJ2CR/L-CHP: Inserts → B121 -, CBN → B193 -, PCD → B214

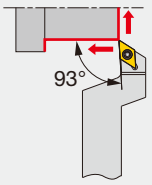
DC

Rhombic, 55°
with hole
Positive 7°

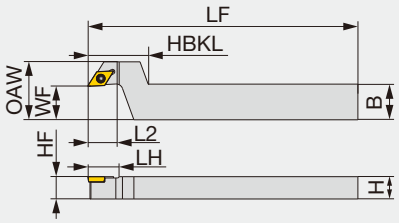
J-SERIES

JSDJCR-F

Screw-on stepped-head toolholder with 93° approach angle, for positive 55° rhombic inserts



Cutting edge style **J**



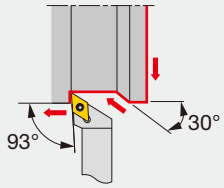
Right hand (R) shown.

Metric	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque*
JSDJCR1016X07-F15	10	16	120	12.5	27	14	10	15	26	0.2	DC**0702...	1.2
JSDJCR1216F07-F15	12	16	85	12.5	27	14	12	15	26	0.2	DC**0702...	1.2
JSDJCR1216X07-F15	12	16	120	12.5	27	14	12	15	26	0.2	DC**0702...	1.2
JSDJCR1216F11-F15	12	16	85	12.5	27	20	12	15	28	0.2	DC**11T3...	1.2
JSDJCR1216X11-F15	12	16	120	12.5	27	20	12	15	28	0.2	DC**11T3...	1.2
JSDJCR1620X11-F15	16	20	120	12.5	27	20	16	15	28	0.2	DC**11T3...	1.2

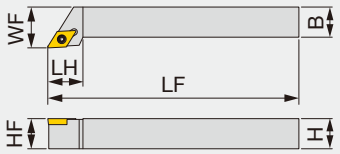
Torque*: Recommended clamping torque (N·m)
RE**: Standard corner radius

JSDJCR/L

Screw-on toolholder with 93° approach angle, for positive 55° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSDJCR/L0808H07	8	8	100	14	8	10	0.4	DC**0702...	1.2
JSDJCR/L1010H11	10	10	100	18	10	12	0.8	DC**11T3...	1.2
JSDJCR/L1212H07	12	12	100	14	12	16	0.4	DC**0702...	1.2
JSDJCR/L1212H11	12	12	100	18	12	16	0.8	DC**11T3...	1.2
JSDJCR/L1616H11	16	16	100	18	16	20	0.8	DC**11T3...	1.2

Torque*: Recommended clamping torque (N·m)
RE**: Standard corner radius

SPARE PARTS



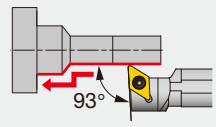


Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSDJC**H07, JSDJCR**07-F15	CSTB-2.5	T-8F	(T-8L)
JSDJC**H11, JSDJCR**11-F15	CSTB-4SD	T-8F	(T-8L)

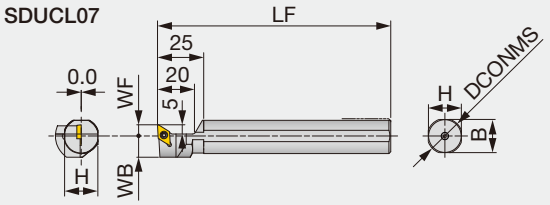
Reference pages : JSDJCR-F, JSDJCR/L: Inserts → B121 -, CBN → B193 -, PCD → B214

JS-SDUCL

Screw-on round-shank toolholder with 93° approach angle, for positive 55° rhombic inserts



Cutting edge style **U**



Left hand (L) shown.

Metric	DCONMS	WF	LF	H	B	WB	RE**	Insert	Torque*
JS19K-SDUCL07	19.05	6	125	18	18	11.5	0.4	DC**0702...	1.2
JS20K-SDUCL07	20	6	125	19	19	11.5	0.4	DC**0702...	1.2
JS22K-SDUCL07	22	6	125	21	21	11.5	0.4	DC**0702...	1.2
JS19K-SDUCL11	19.05	10	125	18	18	11.5	0.8	DC**11T3...	1.2
JS20K-SDUCL11	20	10	125	19	19	11.5	0.8	DC**11T3...	1.2
JS22K-SDUCL11	22	11	125	21	21	11.5	0.8	DC**11T3...	1.2
JS25K-SDUCL11	25	12	125	24	24	12.5	0.8	DC**11T3...	1.2
JS254K-SDUCL11	25.4	12	125	24	24	12.7	0.8	DC**11T3...	1.2

Torque*: Recommended clamping torque (N·m)
RE**: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench
JS**K-SDUCL07	CSTB-2.5	T-8F
JS**K-SDUCL11	CSTB-4SD	T-8F

INSERT SELECTION

P

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

M

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

P

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	01
Cutting conditions	G114

M

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	01
Cutting conditions	G114

K

Application areas	Medium to finish cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application areas	Precision finishing	Medium cutting
Grade	DX110	KS05F
Breaker Shape	NS	AL
Cutting conditions	B022	

S

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JS	JS
Cutting conditions	G114	

H

Application areas	Precision finishing	Finish cutting
Grade	BXA10	BXA20
Breaker Shape	CBN	CBN
Cutting conditions	B026	

Reference pages : JS-SDUCL: Inserts → B121 -, CBN → B193 -, PCD → B214

DC

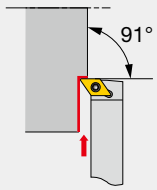


Rhombic, 55°
with hole
Positive 7°

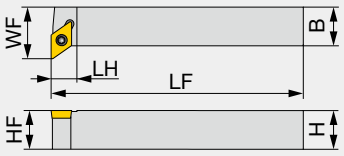
J-SERIES

JSDFCR/L

Screw-on toolholder for facing with 91° approach angle, for positive 55° rhombic inserts



Cutting edge style **F**



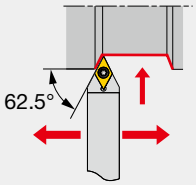
Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSDFCR/L1212H07	12	12	100	8	12	16	0.4	DC**0702...	1.2
JSDFCR/L1616H11	16	16	100	10.5	16	22	0.8	DC**11T3...	1.2

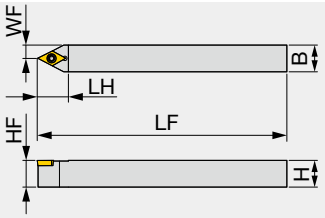
Torque*: Recommended clamping torque (N·m)
RE**: Standard corner radius

JSDNCN

Screw-on toolholder with 62.5° approach angle, for positive 55° rhombic inserts



Cutting edge style **N**



Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
JSDNCN062	0.375	0.375	5.000	0.563	0.375	0.188	0.008	DC**21.5...	0.89
JSDNCN082	0.500	0.500	5.000	0.563	0.500	0.250	0.008	DC**21.5...	0.89
JSDNCN103	0.625	0.625	5.000	0.813	0.625	0.313	0.008	DC**32.5...	0.89

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSDNCN1010X07	10	10	120	15	10	5	0.2	DC**0702...	1.2
JSDNCN1010X11	10	10	120	21	10	5	0.2	DC**11T3...	1.2
JSDNCN1212F07	12	12	85	15	12	6	0.2	DC**0702...	1.2
JSDNCN1212X07	12	12	120	15	12	6	0.2	DC**0702...	1.2
JSDNCN1212F11	12	12	85	21	12	6	0.2	DC**11T3...	1.2
JSDNCN1212X11	12	12	120	21	12	6	0.2	DC**11T3...	1.2
JSDNCN1616X11	16	16	120	21	16	8	0.2	DC**11T3...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
RE**: Standard corner radius

SPARE PARTS



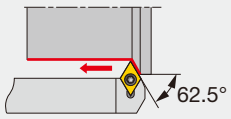


Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSDFCR/L1212H07, JSDNCN**07 JSDNCN062, 082	CSTB-2.5	T-8F	(T-8L)
JSDNCN103, JSDNCN**11, JSDFCR/L1616H11	CSTB-4SD	T-8F	(T-8L)

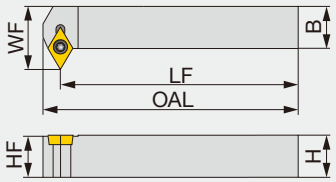
Reference pages : JSDFCR/L, JSDNCN: Inserts → B121 -, CBN → B193 -, PCD → B214

JSDN3CR

Screw-on toolholder with 62.5° approach angle (N3-style), for positive 55° rhombic inserts



Cutting edge style **N3**



Right hand (R) shown.

Metric	H	B	OAL	LF	HF	WF	RE**	Insert	Torque*
JSDN3CR1212H07	12	12	105	100	12	18	0.4	DC**0702...	1.2
JSDN3CR1616H11	16	16	107	100	16	25	0.8	DC**11T3...	1.2

Torque*: Recommended clamping torque (N·m)
RE**: Standard corner radius

SPARE PARTS





Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSDN3CR1212H07	CSTB-2.5	T-8F	(T-8L)
JSDN3CR1616H11	CSTB-4SD	T-8F	(T-8L)

INSERT SELECTION

P

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

M

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

P

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	J10
Cutting conditions	G114

M

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	J10
Cutting conditions	G114

K

Application areas	Medium to finish cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application areas	Precision finishing	Finish cutting	Medium cutting
Grade	DX110	DX140	KS05F
Breaker Shape	NS	DIA	AL
Cutting conditions	B022		

S

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JS	JS
Cutting conditions	G114	

H

Application areas	Precision finishing	Finish cutting
Grade	BXA10	BXA20
Breaker Shape	HP	CBN
Cutting conditions	B026	

Reference pages : JSDN3CR: Inserts → B121 -, CBN → B193 -, PCD → B214

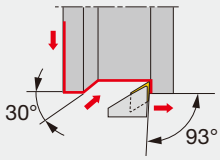
DX

Rhombic, 55° with hole

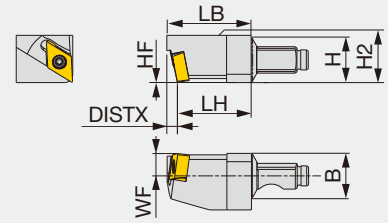
MINIFORCE TURN

QC12-JSDJ2XR-Y

Screw-on Y-axis turning modular head with 93° approach angle, for DX*U inserts



Cutting edge style **J2**



Without offset

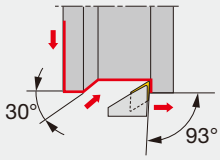
Right hand (R) shown.

Metric	H	B	LH	HF	WF	LB	H2	DISTX	RE**	Insert	Torque*
QC12-JSDJ2XR07-Y	12 (0.750")	12 (0.750")	19.5 (0.768")	0 (0")	6 (0.236")	22.3 (0.878")	12.5 (0.492")	2.8 (0.110")	0.2 (0.008")	DX*U0703**L... (DX*U22**L...)	0.9 (0.66)

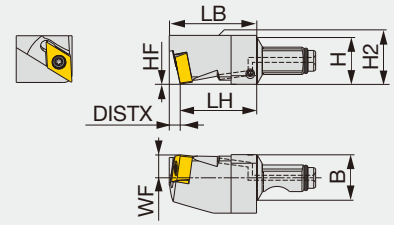
Torque: Recommended clamping torque: N·m (lbs·ft) RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).

QC12-JSDJ2XR-Y-CHP

Screw-on Y-axis turning modular head with 93° approach angle, for DX*U inserts, with high pressure coolant capability



Cutting edge style **J2**



Without offset

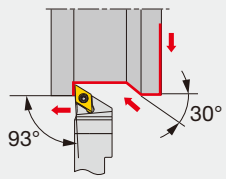
Right hand (R) shown.

Metric	H	B	LH	HF	WF	LB	H2	DISTX	RE**	Insert	Torque*
QC12-JSDJ2XR07-Y-CHP	12 (0.750")	12 (0.750")	19.5 (0.768")	0 (0")	6 (0.236")	22.3 (0.878")	12.5 (0.492")	2.8 (0.110")	0.2 (0.008")	DX*U0703**L... (DX*U22**L...)	0.9 (0.66)

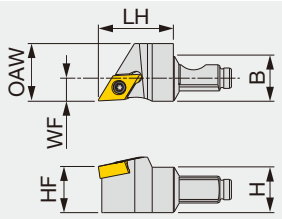
Torque: Recommended clamping torque: N·m (lbs·ft) RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).

QC12-JSDJ2XR

Screw-on modular head with 93° approach angle, for DX*U inserts



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Metric	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSDJ2XR07	12 (0.750")	12 (0.750")	19.5 (0.768")	12 (0.472")	6 (0.236")	15 (0.591")	0.2 (0.008")	DX*U0703**L... (DX*U22**L...)	0.9 (0.66)

Torque: Recommended clamping torque: N·m (lbs·ft) RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).

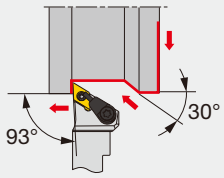
SPARE PARTS

Designation	Clamping screw	Wrench	O-ring
QC12-JSDJ2XR07-Y	SR34-514	T-7F	-
QC12-JSDJ2XR07-Y-CHP, QC12-JSDJ2XR07	SR34-514	T-7F	ORSS-0454.5X1.0NBR70

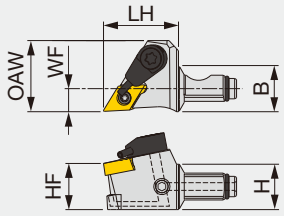
Reference pages : QC12-JSDJ2XR-Y, QC12-JSDJ2XR-Y-CHP, QC12-JSDJ2XR: Inserts → B126 - Shank, accessory → G115, G116, Standard cutting conditions → G114

QC12-JSDJ2XR-CHP

Screw-on modular head with 93° approach angle, for DX*U inserts, with high pressure coolant capability



Cutting edge style **J2**



Without offset

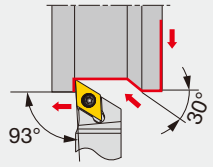
Right hand (R) shown.

Metric	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSDJ2XR07-CHP	12 (0.750")	12 (0.750")	19.5 (0.768")	12 (0.472")	6 (0.236")	18.4 (0.724")	0.2 (0.008")	DX*U0703**L... (DX*U22**L...)	0.9 (0.66)

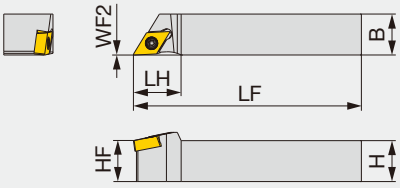
Torque: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).

JSDJ2XR/L

Screw-on toolholder with 93° approach angle, for DX*U inserts



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
JSDJ2XR/L062	0.375	0.375	4.750	0.625	0.375	0	0.008	DX*U22**L/R...	0.66
JSDJ2XR/L082	0.500	0.500	4.750	0.625	0.500	0	0.008	DX*U22**L/R...	0.66
JSDJ2XR/L102	0.625	0.625	4.750	0.625	0.625	0	0.008	DX*U22**L/R...	0.66

Metric	H	B	LF	LH	HF	WF2	RE**	Insert	Torque*
JSDJ2XR/L1010X07	10	10	120	14	10	0	0.2	DX*U0703**L/R...	0.9
JSDJ2XR/L1212F07	12	12	85	14	12	0	0.2	DX*U0703**L/R...	0.9
JSDJ2XR/L1212X07	12	12	120	14	12	0	0.2	DX*U0703**L/R...	0.9
JSDJ2XR/L1616X07	16	16	120	18	16	0	0.2	DX*U0703**L/R...	0.9
JSDJ2XR/L2020H07	20	20	100	18	20	0	0.2	DX*U0703**L/R...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m) RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS






Designation	Clamping screw	Coolant unit	Wrench	O-ring
QC12-JSDJ2XR07-CHP	SR34-514	S-CU-CHP	T-7F	ORSS-0454.5X1.0NBR70
JSDJ2XR/L...	SR34-514	-	T-7F	-

INSERT SELECTION

for Swiss lathes

P

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JSS	JS
Cutting conditions	G114	

M

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JSS	JS
Cutting conditions	G114	

for Small CNC lathes

P

Application areas	Finish cutting	Medium cutting
Grade	AH725	AH725
Breaker Shape	SS	TS
Cutting conditions	G114	

M

Application areas	Finish cutting	Medium cutting
Grade	AH8015	AH8015
Breaker Shape	SS	TS
Cutting conditions	G114	

N

Application areas	Medium to finish cutting	
Grade	KS05F	KS05F
Breaker Shape	SS	TS
Cutting conditions	B022	

Reference pages : QC12-JSDJ2XR-CHP, JSDJ2XR/L: Inserts → B126 -
Shank, accessory → G115, G116, Standard cutting conditions → G114

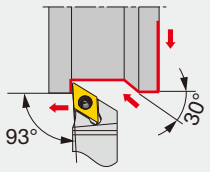
DX

Rhombic, 55° with hole

MINIFORCE TURN

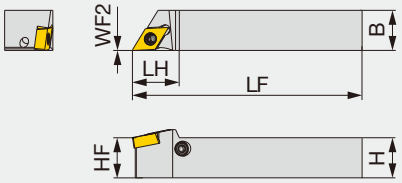
JPDJ2XR/L

Lever-lock toolholder with 93° approach angle, for DX*U inserts



Cutting edge style **J2**

Without offset



Right hand (R) shown.

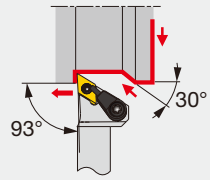
Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
JPDJ2XR/L062	0.375	0.375	4.750	0.625	0.375	0	0.008	DX*U22**L/R...	0.66
JPDJ2XR/L082	0.500	0.500	4.750	0.625	0.500	0	0.008	DX*U22**L/R...	0.66
JPDJ2XR/L102	0.625	0.625	4.750	0.625	0.625	0	0.008	DX*U22**L/R...	0.66
Metric	**H**	**B**	**LF**	**LH**	**HF**	**WF2**	**RE****	**Insert**	**Torque***
JPDJ2XR/L1010X07	10	10	120	14	10	0	0.2	DX*U0703**L/R...	0.9
JPDJ2XR/L1212F07	12	12	85	14	12	0	0.2	DX*U0703**L/R...	0.9
JPDJ2XR/L1212X07	12	12	120	14	12	0	0.2	DX*U0703**L/R...	0.9
JPDJ2XR/L1616X07	16	16	120	18	16	0	0.2	DX*U0703**L/R...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m) RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

JSDJ2XR-CHP

Direct connection

Screw-on toolholder without offset, 93° approach angle, for DX*U inserts, high pressure coolant compatible



Cutting edge style **J2**

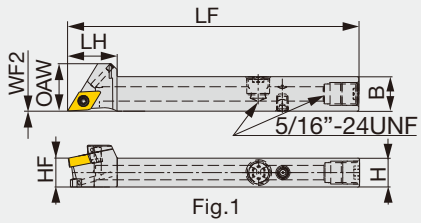


Fig.1

Without offset

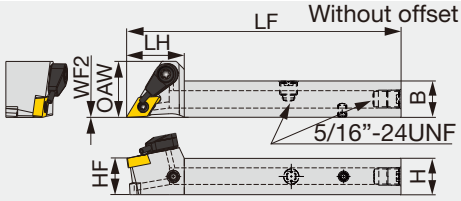
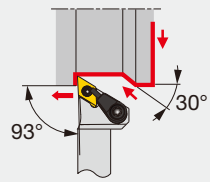


Fig.2

Right hand (R) shown.

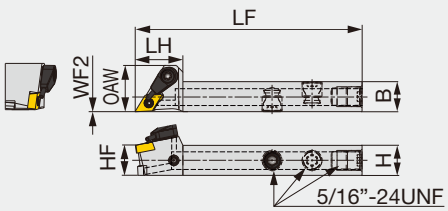
Inch	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque	Fig.
JSDJ2XR082X-CHP	0.500	0.500	4.750	0.748	0.500	0	0.728	0.008	DX*U22**L/R...	0.66	2
JSDJ2XR102X-CHP	0.625	0.625	4.750	0.748	0.625	0	0.728	0.008	DX*U22**L/R...	0.66	2
Metric	**H**	**B**	**LF**	**LH**	**HF**	**WF2**	**OAW**	**RE****	**Insert**	**Torque***	**Fig.**
JSDJ2XR1012H07-CHP	10	12	100	17	10	0	14.7	0.2	DX*U0703**L	0.9	1
JSDJ2XR1212X07-CHP	12	12	120	19	12	0	18.5	0.2	DX*U0703**L	0.9	2
JSDJ2XR1616X07-CHP	16	16	120	19	16	0	18.5	0.2	DX*U0703**L	0.9	2

Tube connection



Cutting edge style **J2**

Without offset



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque
JSDJ2XR/L082-CHP	0.500	0.500	3.344	0.750	0.500	0	0.730	0.008	DXGU0703**L/R...	0.66
Metric	**H**	**B**	**LF**	**LH**	**HF**	**WF2**	**OAW**	**RE ****	**Insert**	**Torque***
JSDJ2XR/L1212F07-CHP	12	12	85	19	12	0	18.5	0.2	DX*U0703**L/R...	0.9

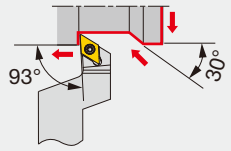
Torque: Recommended clamping torque: lbs·ft (*N·m) RE**: Standard corner radius
Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

SPARE PARTS

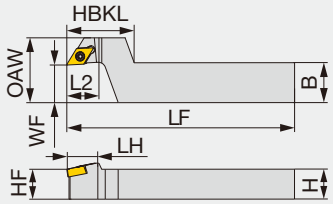
Designation	Lever	Pin	Clamping screw 1	Wrench 1	Clamping screw 2	Coolant unit	Wrench 2	Coolant plug	Wrench 3	DirectJet plug	Wrench 4
JPDJ2XR/L...	SLLV-2	SL-PI-2	SR10400611	HW2.0/5RED	-	-	-	-	-	-	-
JSDJ2XR1012H07-CHP	-	-	-	-	SR34-514	-	T-7F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSDJ2XR**07-CHP	-	-	-	-	SR34-514	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSDJ2XR/L1212F07-CHP	-	-	-	-	SR34-514	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	-	-
JSDJXR**-F15	-	-	-	-	SR34-514	-	T-7F	-	-	-	-

JSDJXR-F

Screw-on stepped-head toolholder with 93° approach angle, for DX*U inserts



Cutting edge style **J**



Right hand (R) shown.

Inch	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque
JSDJXR082-F10	0.500	0.625	4.750	0.500	1.130	0.625	0.500	0.625	1.000	0.008	DX*U22**L/R...	0.66
JSDJXR102-F10	0.625	0.750	4.750	0.500	1.130	0.625	0.625	0.625	1.000	0.008	DX*U22**L/R...	0.66

Metric	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque*
JSDJXR1016X07-F15	10	16	120	12	27	14	10	15	26	0.2	DX*U0703**L...	0.9
JSDJXR1216F07-F15	12	16	85	12	27	14	12	15	26	0.2	DX*U0703**L...	0.9
JSDJXR1216X07-F15	12	16	120	12	27	14	12	15	26	0.2	DX*U0703**L...	0.9
JSDJXR1620X07-F15	16	20	120	12	27	14	16	15	26	0.2	DX*U0703**L...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m) RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench
JSDJXR**-F...	SR34-514	T-7F

INSERT SELECTION

for Swiss lathes

P	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JSS	JS
	Cutting conditions	G114	

M	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JSS	JS
	Cutting conditions	G114	

for Small CNC lathes

P	Application areas	Finish cutting	Medium cutting
	Grade	AH725	AH725
	Breaker Shape	SS	TS
	Cutting conditions	G114	

M	Application areas	Finish cutting	Medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	SS	TS
	Cutting conditions	G114	

N	Application areas	Medium to finish cutting	
	Grade	KS05F	KS05F
	Breaker Shape	SS	TS
	Cutting conditions	B022	

Reference pages : JPDJ2XR/L, JSDJ2XR-CHP, JSDJXR-F : Inserts → B126 -
Standard cutting conditions → G114

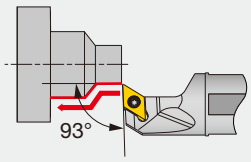
DX

Rhombic, 55° with hole

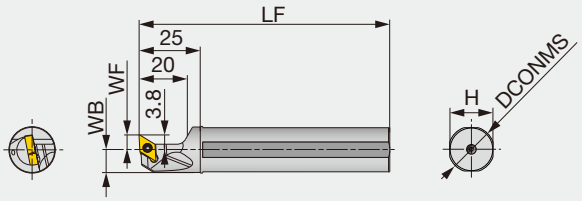
MINIFORCE TURN

JS-SDUXL

Screw-on round-shank toolholder with 93° approach angle, for DX*U inserts



Cutting edge style **U**



Left hand (L) shown.

Metric	DCONMS	WF	LF	H	WB	RE**	Insert	Torque*
JS14H-SDUXL07	14	6	100	13	6.75	0.2	DX*U0703**L...	0.9
JS159F-SDUXL07	15.875	6	85	15	7.687	0.2	DX*U0703**L...	0.9
JS16F-SDUXL07	16	6	85	15	7.75	0.2	DX*U0703**L...	0.9
JS19G-SDUXL07	19.05	6	90	18	9.275	0.2	DX*U0703**L...	0.9
JS19X-SDUXL07	19.05	6	120	18	9.275	0.2	DX*U0703**L...	0.9
JS20G-SDUXL07	20	6	90	19	9.75	0.2	DX*U0703**L...	0.9
JS20X-SDUXL07	20	6	120	19	9.75	0.2	DX*U0703**L...	0.9
JS22X-SDUXL07	22	10	120	21	10.75	0.2	DX*U0703**L...	0.9
JS25H-SDUXL07	25	10	100	24	12.25	0.2	DX*U0703**L...	0.9
JS254X-SDUXL07	25.4	10	120	24	12.45	0.2	DX*U0703**L...	0.9

Torque*: Recommended clamping torque (N·m) RE**: Standard corner radius
Use left-hand toolholders (L) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench
JS**-SDUXL07	SR34-514	T-7F

INSERT SELECTION

for Swiss lathes

P

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JSS	JS
Cutting conditions	G114	

M

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JSS	JS
Cutting conditions	G114	

for Small CNC lathes

P

Application areas	Finish cutting	Medium cutting
Grade	AH725	AH725
Breaker Shape	SS	TS
Cutting conditions	G114	

M

Application areas	Finish cutting	Medium cutting
Grade	AH8015	AH8015
Breaker Shape	SS	TS
Cutting conditions	G114	

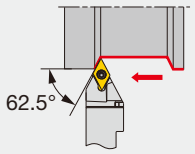
N

Application areas	Medium to finish cutting	
Grade	KS05F	KS05F
Breaker Shape	SS	TS
Cutting conditions	B022	

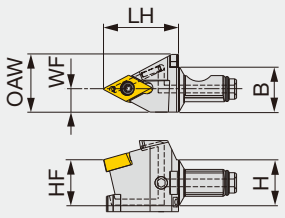
Reference pages : JS-SDUXL: Inserts → B126 -, Standard cutting conditions → G114

QC12-JSDNXR-CHP

Screw-on modular head with 62.5° approach angle, for DX*U inserts, with high pressure coolant capability



Cutting edge style **N**



Right hand (R) shown.

Metric	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSDNXR07-CHP	12 (0.750")	12 (0.750")	19.5 (0.768")	12 (0.472")	6 (0.236")	15 (0.591")	0.2 (0.008")	DX*U0703**L... (DX*U22**L...)	0.9 (0.66)

Torque*: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench	O-ring
QC12-JSDNXR07-CHP	SR34-508	T-7F	ORSS-0454.5X1.0NBR70

INSERT SELECTION

for Swiss lathes

P	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JSS	JS
	Cutting conditions	G114	

M	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JSS	JS
	Cutting conditions	G114	

for Small CNC lathes

P	Application areas	Finish cutting	Medium cutting
	Grade	AH725	AH725
	Breaker Shape	SS	TS
	Cutting conditions	G114	

M	Application areas	Finish cutting	Medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	SS	TS
	Cutting conditions	G114	

N	Application areas	Medium to finish cutting	
	Grade	KS05F	KS05F
	Breaker Shape	SS	TS
	Cutting conditions	B022	

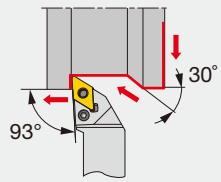
Reference pages : QC12-JSDNXR-CHP: Inserts → B126 -, Shank, Accessory → G115, G116
Standard cutting conditions → G114

DN FN

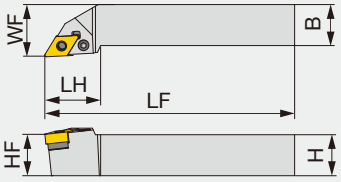
Rhombic, 55° with hole — **Rhombic, 45° with hole**

PDJNR/L

Lever-lock toolholder with 93° approach angle, for negative 55°/45° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
PDJNR/L1033	0.625	0.625	4.000	1.125	0.625	0.875	0.031	DN**/FNMG 33...	1.48
PDJNR/L1233	0.750	0.750	4.500	1.125	0.750	1.000	0.031	DN**/FNMG 33...	1.48

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PDJNR/L1616H1104	16	16	100	27	16	20	0.8	DN**/FNMG1104...	2
PDJNR/L2020K1104	20	20	125	27	20	25	0.8	DN**/FNMG1104...	2
PDJNR2020H15	20	20	100	32	20	25	0.8	DN**/FNGA1504...	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
RE**: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Lever	Spring pin	Wrench
PDJNR/L**33, PDJNR/L**1104	ELSD32	LCS3	LCL33L	LSP3	P-2.5
PDJNR2020H15	LSD42	LCS4	LCL4	LSP4	P-3

INSERT SELECTION

P

Application areas	Precision finishing	Finish cutting	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B004			

M

Application areas	Finish cutting	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Breaker Shape	SF	SM	SH
Cutting conditions	B006		

K

Application areas	Finish cutting	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

N

Application areas	Precision finishing	Finish cutting	Medium cutting	
Grade	DX110	DX140	TH10	KS05F
Breaker Shape	DIA with rake	DIA	P	28
Cutting conditions	B010			

S

Application areas	Precision finishing	Finish cutting	Medium cutting
Grade	BX950	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

H

Application areas	Precision finishing	Finish cutting
Grade	BXA10	BXA10
Breaker Shape	HP	HS
Cutting conditions	B014	

Reference pages : PDJNR/L: Inserts → B066 -, CBN → B172 -, PCD → B211

SC

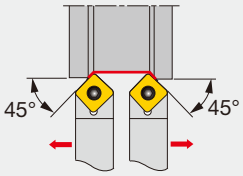
Square with hole Positive 7°

SP

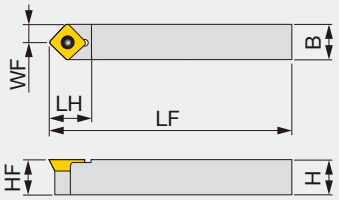
Square with hole Positive 11°

SSDC/PN

Screw-on toolholder with 45° approach angle, for positive square inserts



Cutting edge style **D**



Metric	H	B	LF	LH	HF	WF	RE**	Insert
SSDCN1010K07	10	10	125	12	10	5	0.4	SC**0702...
SSDPN1010H	10	10	100	12	10	5	0.4	SP*P042...
SSDCN1212K09	12	12	125	15	12	6	0.8	SC**09T3...
SSDPN1212H	12	12	100	12	12	6	0.4	SP*P042...
SSDCN1616H09	16	16	100	15	16	8	0.8	SC**09T3...
SSDPN1616H	16	16	100	14	16	8	0.8	SP*M322...

RE**: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SSDCN1010K07	CSTB-3	-	-	-	T-9F
SSDPN1010H	CSTA-NO3	-	-	-	T-9F
SSDCN1212K09	CSTB-4	-	-	-	T-15F
SSDPN1212H	CSTA-NO3	-	-	-	T-9F
SSDCN1616H09	CSTB-3.5L	DTS5-3.5	SSS32	P-3.5	T-15F
SSDPN1616H	CSTA-NO5	-	-	-	T-9F

INSERT SELECTION

P

Application areas	Medium to finish cutting	Medium cutting
Grade	AH725	AH725
Breaker Shape	PS 	PM 
Cutting conditions	B016	

M

Application areas	Medium cutting
Grade	AH725
Breaker Shape	PM 
Cutting conditions	B018

K

Application areas	Medium to finish cutting
Grade	T515
Breaker Shape	CM 
Cutting conditions	B020

Reference pages : SSDC/PN: Inserts → B134 -

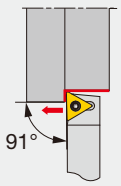
TC

Triangular with hole Positive 7°

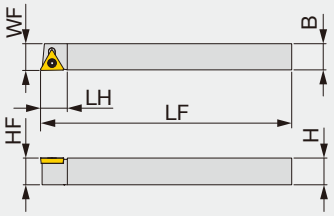
J-SERIES

JSTACR/L

Screw-on toolholder with 91° approach angle, for positive 60° triangular inserts



Cutting edge style **A**



Without offset

Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSTACR/L0808K08	8	8	125	10	8	8	0.2	TC**0802...	0.6
JSTACR/L1010K08	10	10	125	10	10	10	0.2	TC**0802...	0.6
JSTACR/L1212K11	12	12	125	12	12	12	0.4	TC**1102...	1.2
JSTACR/L1616H11	16	16	100	12	16	16	0.4	TC**1102...	1.2

Torque*: Recommended clamping torque (N·m) RE**: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSTACR/L**K08	CSTB-2L	T-6F	(T-6L)
JSTACR/L**11	CSTB-2.5	T-8F	(T-8L)

INSERT SELECTION

P

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

M

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

P

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	J10
Cutting conditions	G114

M

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	J10
Cutting conditions	G114

K

Application areas	Medium to finish cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application areas	Precision finishing	Medium cutting
Grade	DX120	KS05F
Breaker Shape	DIA with rake	AL
Cutting conditions	B022	

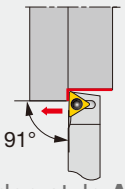
H

Application areas	Finish cutting
Grade	BXA10
Breaker Shape	CBN
Cutting conditions	B026

Reference pages : JSTACR/L: Inserts → B138 -, CBN → B198, PCD → B215 -

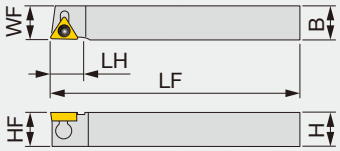
JTTACR/L

Back-clamp toolholder with 91° approach angle, for positive 60° triangular inserts



Cutting edge style **A**

Without offset



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JTTACL0810K08	8	10	125	10	8	10	0.2	TC**0802...	0.9
JTTACR/L1212M11	12	12	150	12	12	12	0.4	TC**1102...	0.9
JTTACR/L1616M11	16	16	150	12	16	16	0.4	TC**1102...	0.9

Torque*: Recommended clamping torque (N·m) RE**: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
JTTACL0810K08	JCP-1	JDS-3525	P-2F
JTTACR/L**M11	JCP-2	JDS-3525	P-2F

INSERT SELECTION

P

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

M

Application areas	Precision finishing		Finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	01	JP	JS	JS
Cutting conditions	G114			

P

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	J10
Cutting conditions	G114

M

Application areas	Medium to finish cutting
Grade	SH725
Breaker Shape	J10
Cutting conditions	G114

K

Application areas	Medium to finish cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

N

Application areas	Precision finishing	Medium cutting
Grade	DX120	KS05F
Breaker Shape	DIA with rake	AL
Cutting conditions	B022	

H

Application areas	Finish cutting
Grade	BXA10
Breaker Shape	CBN
Cutting conditions	B026

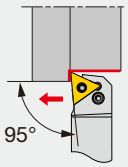
Reference pages : JTTACR/L: Inserts → B138 -, CBN → B198, PCD → B215 -

TN

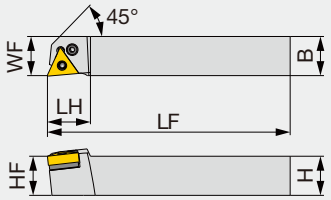
Triangular with hole

PTL2NR/L

Lever-lock toolholder with 95° approach angle, for negative 60° triangular inserts



Cutting edge style **L2**



Without offset

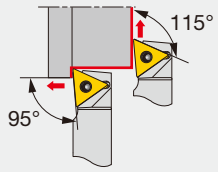
Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PTL2NR/L2020H16	20	20	100	22	20	20	0.4	TN**1604...	2

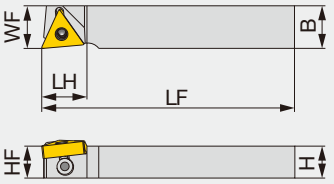
Torque*: Recommended clamping torque (N·m)
RE**: Standard corner radius

JTTLNR/L

Back-clamp toolholder with 95° approach angle, for negative 60° triangular inserts



Cutting edge style **L**



Without offset

Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JTTLNR/L1216F16	12	16	85	17	12	16	0.4	TN**1604...	1
JTTLNR/L1216X16	12	16	120	17	12	16	0.4	TN**1604...	1
JTTLNR/L1616X16	16	16	120	17	16	16	0.4	TN**1604...	1

Torque*: Recommended clamping torque (N·m)
RE**: Standard corner radius

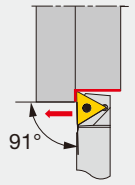
SPARE PARTS

Designation	Clamp	Shim	Clamping screw	Clamping screw 1	Wrench	Wrench 1	Spring pin	Lever
PTL2NR/L...	-	LST317 D30	-	LCS3	-	P-2.5	LSP3	LCL3
JTTLNR/L...	JCP-3N	-	JDS-5040	-	P-2.5F	-	-	-

Reference pages : PTL2NR/L, JTTLNR/L: Inserts → B087 -, CBN → B182 -, PCD → B212

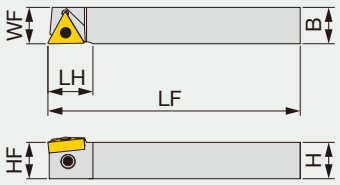
JTTANR/L

Back-clamp toolholder with 91° approach angle, for negative 60° triangular inserts



Cutting edge style **A**

Without offset



Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JTTANR/L1216K16	12	16	125	19.8	12	16	0.4	TN**1604...	1.2
JTTANR/L1616K16	16	16	125	19.8	16	16	0.4	TN**1604...	1.2

Torque*: Recommended clamping torque (N·m)
RE**: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
JTTANR/L...	JCP-3N	JDS-5040	P-2.5F

INSERT SELECTION

P

Application areas	Precision finishing	Finish cutting		Medium cutting
Grade	SH725	SH725	GT9530	T9215
Breaker Shape	01	JRP	TSF	TM
Cutting conditions	G114			B004

P

Application areas	Medium to heavy cutting
Grade	T9215
Breaker Shape	TH
Cutting conditions	B004

N

Application areas	Precision finishing	Finish cutting	Medium cutting	
Grade	DX110	DX140	TH10	KS05F
Breaker Shape	DIA with rake	DIA	P	28
Cutting conditions	B010			

H

Application areas	Precision finishing	Finish cutting
Grade	BXA10	BXA10
Breaker Shape	HP	HS
Cutting conditions	B014	

M

Application areas	Precision finishing	Finish cutting	Medium cutting
Grade	SH725	SH725	AH6225
Breaker Shape	01	JRP	SM
Cutting conditions	G114		B006

K

Application areas	Finish cutting	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B008		

S

Application areas	Precision finishing	Finish cutting	Medium cutting
Grade	BX950	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM
Cutting conditions	B012		

Reference pages : JTTANR/L: Inserts → B087 -, CBN → B182 -, PCD → B212

VB

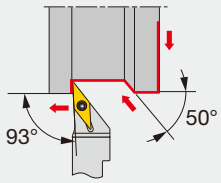


Rhombic, 35°
with hole
Positive 5°

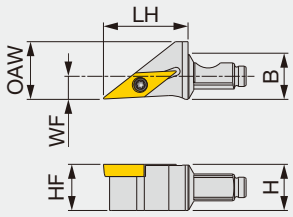
MODUMINI TURN

QC12-JSVJ2BR

Screw-on modular head with 93° approach angle, for positive 35° rhombic inserts



Cutting edge style **J2**



Without offset

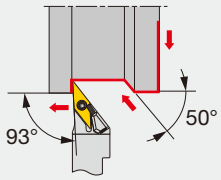
Right hand (R) shown.

Metric	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSVJ2BR11	12 (0.750")	12 (0.750")	22 (0.866")	12 (0.472")	6 (0.236")	15 (0.591")	0.2 (0.008")	VB**1103... (VB**22...)	1.2 (0.89)

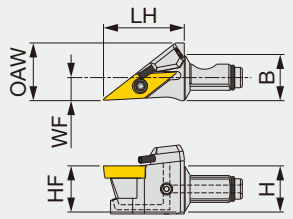
Torque: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius

QC12-JSVJ2BR-CHP

Screw-on modular head with 93° approach angle, for positive 35° rhombic inserts, with high pressure coolant capability



Cutting edge style **J2**



Without offset

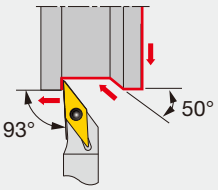
Right hand (R) shown.

Metric	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSVJ2BR11-CHP	12 (0.750")	12 (0.750")	21 (0.827")	12 (0.472")	6 (0.236")	15 (0.591")	0.2 (0.008")	VB**1103... (VB** 22...)	1.2 (0.89)

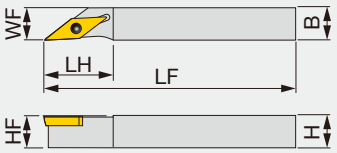
Torque: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius

JSVJ2BR/L

Screw-on toolholder with 93° approach angle, for positive 35° rhombic inserts



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
JSVJ2BR/L062	0.375	0.375	5.000	0.813	0.375	0.375	0.008	VB** 22...	0.89
JSVJ2BR/L082	0.500	0.500	5.000	0.813	0.500	0.500	0.008	VB** 22...	0.89
JSVJ2BR/L102	0.625	0.625	5.000	0.813	0.625	0.625	0.008	VB** 22...	0.89

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVJ2BR/L1010X11	10	10	120	21	10	10	0.2	VB**1103...	1.2
JSVJ2BR/L1212F11	12	12	85	21	12	12	0.2	VB**1103...	1.2
JSVJ2BR/L1212X11	12	12	120	21	12	12	0.2	VB**1103...	1.2
JSVJ2BR/L1616X11	16	16	120	21	16	16	0.2	VB**1103...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
RE**: Standard corner radius

SPARE PARTS





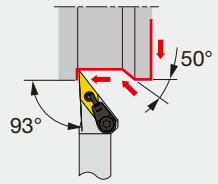



Designation	Clamping screw	Wrench 1	O-ring	Coolant nozzle	Screw	Wrench 2
QC12-JSVJ2BR11, JSVJ2BR/L...	CSTB-2.5	T-8F	-	-	-	-
QC12-JSVJ2BR11-CHP	CSTB-2.5	T-8F	ORSS-0454.5X1.0NBR70	NZ-1.10-7-CHP	SSHM4-4-TB	P-2

JSVJ2BR/L-CHP

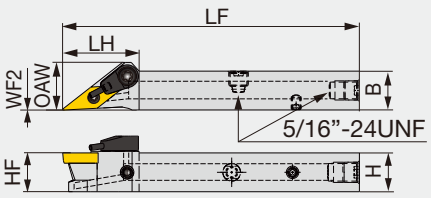
Direct connection

Screw-on toolholder without offset, 93° approach angle for positive 35° rhombic inserts, high pressure coolant compatible



Cutting edge style **J2**



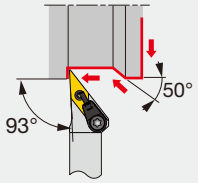


Without offset

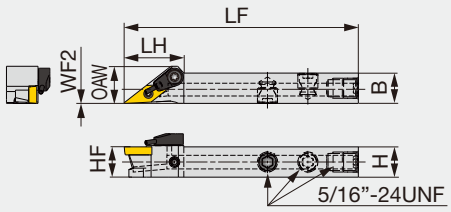
Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF2	OAW	RE	Insert	Torque*
JSVJ2BR1212X11-CHP	12	12	120	23.6	12	0	14.7	0.2	VB**1103	1.2
JSVJ2BR1616X11-CHP	16	16	120	23.6	16	0	16	0.2	VB**1103	1.2

Tube connection



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque
JSVJ2BR/L082-CHP	0.500	0.500	3.344	0.930	0.500	0	0.610	0.008	VB** 22...	0.89

Metric	H	B	LF	LH	HF	WF2	OAW	RE**	Insert	Torque*
JSVJ2BR/L1212F11-CHP	12	12	85	23.6	12	0	14.7	0.2	VB**1103...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
RE**: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSVJ2B**X11-CHP	CSTB-2.5	S-CU-CHP	T-8F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSVJ2BR/L082-CHP, JSVJ2B**F11-CHP	CSTB-2.5	S-CU-CHP	T-8F	SR5/16UNFTL360	P-4	-	-

INSERT SELECTION

P

Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	JP	JS	JS	J10
Cutting conditions	G114			

M

Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	JP	JS	JS	J10
Cutting conditions	G114			

K

Application areas	Medium to finish cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

S

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JS	JS
Cutting conditions	G114	

H

Application areas	Precision finishing	Finish cutting
Grade	BXA10	BXA10
Breaker Shape	HP	CBN
Cutting conditions	B026	

Reference pages : QC12-JSVJ2BR, QC12-JSVJ2BR-CHP, JSVJ2BR/L, JSVJ2BR/L-CHP:
Inserts → B150 -, CBN → B207 - , Shank, Accessory → G115, G116

VB

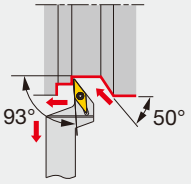


Rhombic, 35°
with hole
Positive 5°

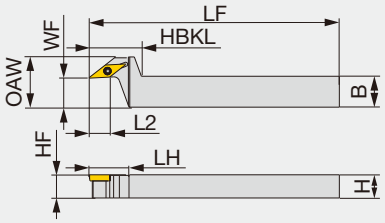
J-SERIES

JSVJBR-F

Screw-on stepped-head toolholder with 93° approach angle, for positive 35° rhombic inserts



Cutting edge style **J**



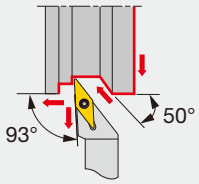
Right hand (R) shown.

Metric	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque*
JSVJBR1216F11-F15	12	16	85	12.6	27	21	12	15	26	0.2	VB**1103...	1.2
JSVJBR1216X11-F15	12	16	120	12.6	27	21	12	15	26	0.2	VB**1103...	1.2
JSVJBR1620X11-F15	16	20	120	12.6	27	21	16	15	26	0.2	VB**1103...	1.2

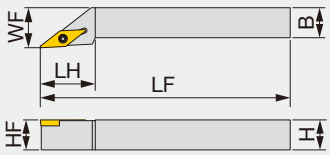
Torque*: Recommended clamping torque (N·m) RE**: Standard corner radius

JSVJBR/L

Screw-on toolholder with 93° approach angle, for positive 35° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
SVJBR/L122	0.750	0.750	4.500	1.063	0.750	1.000	0.0160	VB**22...	0.89
SVJBR/L123	0.750	0.750	4.500	1.181	0.750	1.000	0.0320	VB**33...	0.89
SVJBR/L163	1.000	1.000	6.000	1.575	1.000	1.250	0.0320	VB**33...	0.89

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVJBR/L1010H11	10	10	100	20	10	12	0.4	VB**1103...	1.2
JSVJBR/L1212H11	12	12	100	22	12	16	0.4	VB**1103...	1.2
JSVJBR/L1616H11	16	16	100	22	16	20	0.4	VB**1103...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m) RE**: Standard corner radius

SPARE PARTS



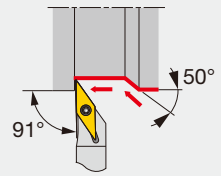


Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSVJBR**-F15, JSVJBR/L...	CSTB-2.5	T-8F	(T-8L)

Reference pages : JSVJBR-F, JSVJBR/L: Inserts → B150 -, CBN → B207 -

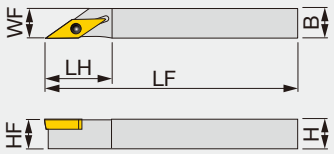
JSVABL

Screw-on toolholder with 91° approach angle, for positive 35° rhombic inserts



Cutting edge style **A**

Without offset



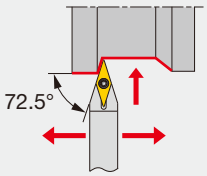
Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVABL1010K11	10	10	125	21	10	10	0.2	VB**1103...	1.2
JSVABL1212K11	12	12	125	21	12	12	0.2	VB**1103...	1.2

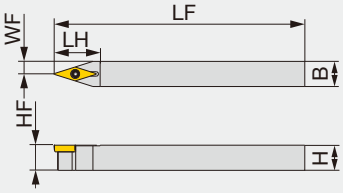
Torque*: Recommended clamping torque (N·m)
RE**: Standard corner radius

JSVNBN

Screw-on toolholder with 72.5° approach angle, for positive 35° rhombic inserts



Cutting edge style **N**



Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVNBN1010X11	10	10	120	22	10	5	0.2	VB**1103...	1.2
JSVNBN1212F11	12	12	85	22	12	6	0.2	VB**1103...	1.2
JSVNBN1212X11	12	12	120	22	12	6	0.2	VB**1103...	1.2
JSVNBN1616X11	16	16	120	22	16	8	0.2	VB**1103...	1.2

Torque*: Recommended clamping torque (N·m)
RE**: Standard corner radius

SPARE PARTS





Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSVNB...	CSTB-2.5	T-8F	(T-8L)

INSERT SELECTION

P

Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	JP	JS	JS	J10
Cutting conditions	G114			

M

Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
Grade	SH725	SH725	SH725	SH725
Breaker Shape	JP	JS	JS	J10
Cutting conditions	G114			

K

Application areas	Medium to finish cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

S

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JS	JS
Cutting conditions	G114	

H

Application areas	Precision finishing	Finish cutting
Grade	BXA10	BXA10
Breaker Shape	HP	CBN
Cutting conditions	B026	

Reference pages : JSVABL, JSVNBN: Inserts → B150 -, CBN → B207 -

VP

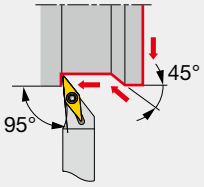
Rhombic, 35°
with hole
Positive 11°



J-SERIES

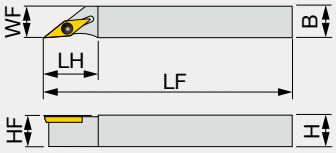
JSVL2PR/L

Screw-on toolholder with 95° approach angle, for positive 35° rhombic inserts



Cutting edge style **L2**

Without offset



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
JSVL2PR/L082	0.500	0.500	5.000	0.813	0.500	0.500	0.008	VP**22...	0.89
JSVL2PR/L102	0.625	0.625	5.000	0.813	0.625	0.625	0.008	VP**22...	0.89

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVL2PR/L1010X08	10	10	120	16	10	10	0.2	VP**0802...	0.6
JSVL2PR/L1010K08	10	10	125	16	10	10	0.2	VP**0802...	0.6
JSVL2PR/L1212F08	12	12	85	16	12	12	0.2	VP**0802...	0.6
JSVL2PR/L1212F11	12	12	85	21	12	12	0.2	VP**1103...	1.2
JSVL2PR/L1212X08	12	12	120	16	12	12	0.2	VP**0802...	0.6
JSVL2PR/L1212X11	12	12	120	21	12	12	0.2	VP**1103...	1.2
JSVL2PR/L1212K08	12	12	125	16	12	12	0.2	VP**0802...	0.6
JSVL2PR/L1616X08	16	16	120	16	16	16	0.2	VP**0802...	0.6
JSVL2PL1616K08	16	16	125	16	16	16	0.2	VP**0802...	0.6
JSVL2PR/L1616X11	16	16	120	21	16	16	0.2	VP**1103...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
RE**: Standard corner radius

SPARE PARTS





Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSVL2PR/L082/102	CSTB-2.5	T-8F	(T-8L)
JSVL2PR/L**08	CSTB-2L	T-6F	(T-6L)
JSVL2PR/L**11	CSTB-2.5	T-8F	(T-8L)

INSERT SELECTION

P

Application areas	Finish cutting	Finish cutting
Grade	SH725	SH725
Breaker Shape	JRP 	JSP 
Cutting conditions	G114	

M

Application areas	Finish cutting	Finish cutting
Grade	SH725	SH725
Breaker Shape	JRP 	JSP 
Cutting conditions	G114	

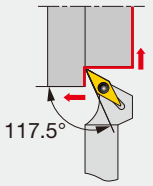
S

Application areas	Finish cutting	Finish cutting
Grade	SH725	SH725
Breaker Shape	JRP 	JSP 
Cutting conditions	G114	

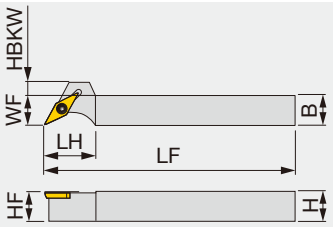
Reference pages : JSVL2PR/L: Inserts → B154

JSVP2PR/L

Screw-on toolholder with 117.5° approach angle, for positive 35° rhombic inserts



Cutting edge style **P2**



Without offset

Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	HBKW	RE**	Insert	Torque*
JSVP2PR/L1010K08	10	10	125	16	10	10	4	0.2	VP**0802...	0.6
JSVP2PR/L1010K11	10	10	125	20	10	10	8	0.2	VP**1103...	1.2
JSVP2PR/L1212K08	12	12	125	16	12	12	2	0.2	VP**0802...	0.6
JSVP2PR/L1212K11	12	12	125	20	12	12	6	0.2	VP**1103...	1.2
JSVP2PR/L1616K08	16	16	125	16	16	16	2	0.2	VP**0802...	0.6
JSVP2PR/L1616K11	16	16	125	20	16	16	6	0.2	VP**1103...	1.2

Torque*: Recommended clamping torque (N·m)
RE**: Standard corner radius

SPARE PARTS

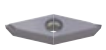




Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSVP2PR/L**08	CSTB-2L	T-6F	(T-6L)
JSVP2PR/L**11	CSTB-2.5	T-8F	(T-8L)

INSERT SELECTION

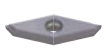
P

Application areas	Finish cutting	Finish cutting
Grade	SH725	SH725
Breaker Shape	JRP 	JSP 
Cutting conditions	G114	

M

Application areas	Finish cutting	Finish cutting
Grade	SH725	SH725
Breaker Shape	JRP 	JSP 
Cutting conditions	G114	

S

Application areas	Finish cutting	Finish cutting
Grade	SH725	SH725
Breaker Shape	JRP 	JSP 
Cutting conditions	G114	

Reference pages : JSVP2PR/L: Inserts → B154

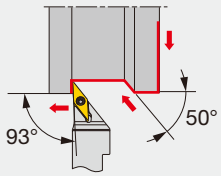
VX

Rhombic, 35° with hole

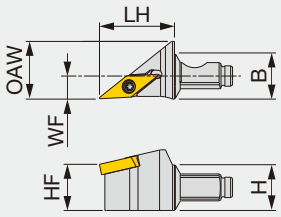
MINIFORCE TURN

QC12-JSVJ2XR

Screw-on modular head with 93° approach angle, for VXGU inserts



Cutting edge style **J2**



Without offset

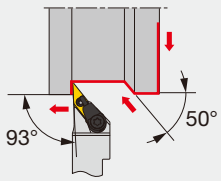
Right hand (R) shown.

Metric	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSVJ2XR09	12 (0.750")	12 (0.750")	19.5 (0.768")	12 (0.472")	6 (0.236")	15 (0.591")	0.2 (0.008")	VXGU09T2**L... (VXGU73.5**L...)	0.9 (0.66)

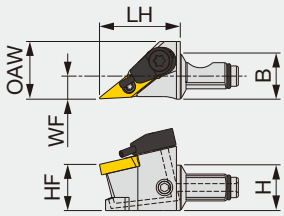
Torque: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).

QC12-JSVJ2XR-CHP

Screw-on modular head with 93° approach angle, for VXGU inserts, with high pressure coolant capability



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Metric	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSVJ2XR09-CHP	12 (0.750")	12 (0.750")	21 (0.827")	12 (0.472")	6 (0.236")	15 (0.591")	0.2 (0.008")	VXGU09T2**L... (VXGU73.5**L...)	0.9 (0.66)

Torque: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).

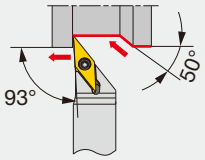
SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	O-ring	Lever	Pin	Clamping screw	Wrench
QC12-JSVJ2XR09	SR34-508	-	T-7F	-	SLLV-1	SL-PI-2	SR10400611	HW2.0/5RED
QC12-JSVJ2XR09-CHP	SR34-508	S-CU-CHP	T-7F	ORSS-0454.5X1.0NBR70	-	-	-	-

Reference pages : QC12-JSVJ2XR, QC12-JSVJ2XR-CHP: Inserts → B155, Shank, Accessory → G115, G116
Standard cutting conditions → G114

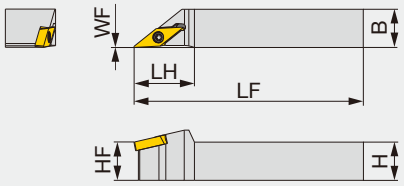
JSVJ2XR/L

Screw-on toolholder with 93° approach angle, for VXGU inserts



Cutting edge style **J2**

Without offset



Right hand (R) shown.

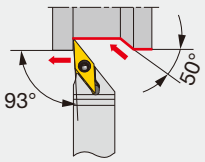
Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
JSVJ2XR/L067	0.375	0.375	4.750	0.669	0.375	0	0.008	VXGU73*L/R...	0.66
JSVJ2XR/L087	0.500	0.500	4.750	0.748	0.500	0	0.008	VXGU73*L/R...	0.66
JSVJ2XR/L107	0.625	0.625	4.750	0.748	0.625	0	0.008	VXGU73*L/R...	0.66

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVJ2XR/L1010X09	10	10	120	17	10	0	0.2	VXGU09T2**L/R...	0.9
JSVJ2XR/L1212F09	12	12	85	19	12	0	0.2	VXGU09T2**L/R...	0.9
JSVJ2XR/L1212X09	12	12	120	19	12	0	0.2	VXGU09T2**L/R...	0.9
JSVJ2XR/L1616X09	16	16	120	19	16	0	0.2	VXGU09T2**L/R...	0.9
JSVJ2XR/L2020H09	20	20	100	19	20	0	0.2	VXGU09T2**L/R...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m) RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).
Use left-hand toolholders (L) with right-hand inserts (R).

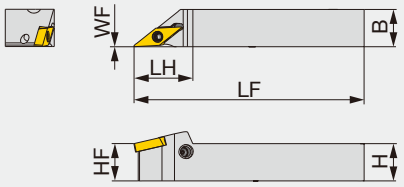
JPVJ2XR/L

Lever-lock toolholder with 93° approach angle, for VXGU inserts



Cutting edge style **J2**

Without offset



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
JPVJ2XR/L067	0.375	0.375	4.750	0.669	0.375	0	0.008	VXGU73*L/R...	0.66
JPVJ2XR/L087	0.500	0.500	4.750	0.748	0.500	0	0.008	VXGU73*L/R...	0.66
JPVJ2XR/L107	0.625	0.625	4.750	0.748	0.625	0	0.008	VXGU73*L/R...	0.66

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JPVJ2XR/L1010X09	10	10	120	19	10	0	0.2	VXGU09T2**L/R...	0.9
JPVJ2XR/L1212F09	12	12	85	19	12	0	0.2	VXGU09T2**L/R...	0.9
JPVJ2XR/L1212X09	12	12	120	19	12	0	0.2	VXGU09T2**L/R...	0.9
JPVJ2XR/L1616X09	16	16	120	19	16	0	0.2	VXGU09T2**L/R...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m) RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).
Use left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench	Lever	Pin	Clamping screw	Wrench
JSVJ2XR/L...	SR34-508	T-7F	-	-	-	-
JPVJ2XR/L...	-	-	SLLV-1	SL-PI-2	SR10400611	HW2.0/5RED

INSERT SELECTION

P

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JRP 	JS 
Cutting conditions	G114	

M

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JRP 	JS 
Cutting conditions	G114	

Reference pages : JSVJ2XR/L, JPVJ2XR/L: Inserts → B155, Standard cutting conditions → G114

VX

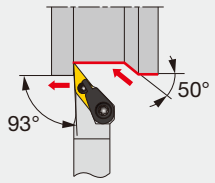
Rhombic, 35° with hole

MINIFORCE TURN

JSVJ2XR/L-CHP

Direct connection

Screw-on toolholder without offset, 93° approach angle, for VXGU inserts, high pressure coolant compatible



Cutting edge style **J2**

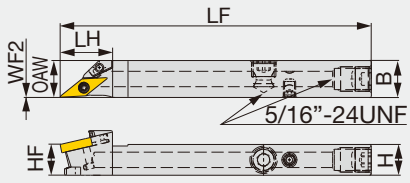


Fig.1

Without offset

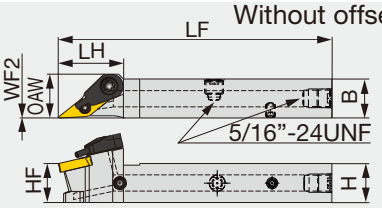


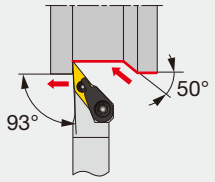
Fig.2

Right hand (R) shown.

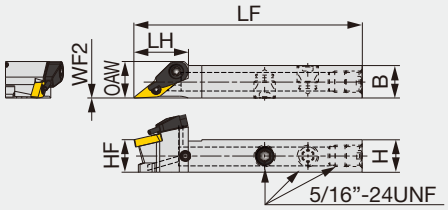
Inch	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque	Fig.
JSVJ2XR087X-CHP	0.500	0.500	4.750	0.768	0.500	0	0.528	0.008	VXGU73*L...	0.66	-
JSVJ2XR107X-CHP	0.625	0.625	4.750	0.768	0.625	0	0.625	0.008	VXGU73*L...	0.66	-

Metric	H	B	LF	LH	HF	WF2	OAW	RE**	Insert	Torque*	Fig.
JSVJ2XR1012H09-CHP	10	12	100	17	10	0	12	0.2	VXGU09T2**L	0.9	1
JSVJ2XR1212X09-CHP	12	12	120	19.5	12	0	13.4	0.2	VXGU09T2**L	0.9	2
JSVJ2XR1616X09-CHP	16	16	120	19.5	16	0	16	0.2	VXGU09T2**L	0.9	2

Tube connection



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque
JSVJ2XR/L087-CHP	0.500	0.500	4.750	0.748	0.500	0	0.020	0.008	VXGU73*L...	0.66

Metric	H	B	LF	LH	HF	WF2	OAW	RE**	Insert	Torque*
JSVJ2XR/L1212F09-CHP	12	12	85	20	12	0	13.5	0.2	VXGU09T2**L/R...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m) RE**: Standard corner radius
Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

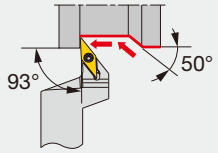
SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSVJ2XR1012H09-CHP	SR34-508	-	T-7F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSVJ2XR**X-CHP, JSVJ2XR**X09-CHP	SR34-508	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSVJ2XR/L087-CHP JSVJ2XR/L1212F09-CHP	SR34-508	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	-	-

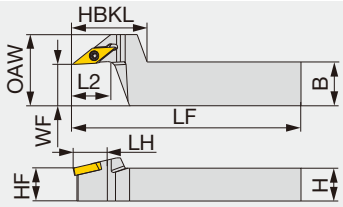
Reference pages : JSVJ2XR/L-CHP: Inserts → B155, Standard cutting conditions → G114

JSVJXR-F

Screw-on stepped-head toolholder with 93° approach angle, for VXGU inserts



Cutting edge style **J**



Right hand (R) shown.

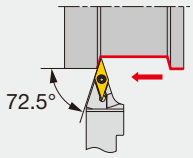
Inch	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque
JSVJXR087-F10	0.500	0.625	4.750	0.500	1.130	0.750	0.500	0.625	1.000	0.008	VXGU73**L...	0.66
JSVJXR107-F10	0.625	0.750	4.750	0.500	1.130	0.750	0.625	0.625	1.000	0.008	VXGU73**L...	0.66

Metric	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque*
JSVJXR1016X09-F15	10	16	120	12	27	19	10	15	26	0.2	VXGU09T2**L...	0.9
JSVJXR1216F09-F15	12	16	85	12	27	19	12	15	26	0.2	VXGU09T2**L...	0.9
JSVJXR1216X09-F15	12	16	120	12	27	19	12	15	26	0.2	VXGU09T2**L...	0.9
JSVJXR1620X09-F15	16	20	120	12	27	19	16	15	26	0.2	VXGU09T2**L...	0.9

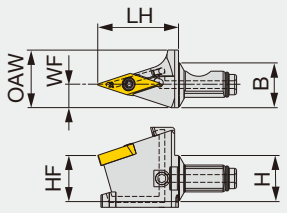
Torque: Recommended clamping torque: lbs·ft (*N·m) RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).

QC12-JSVVXR-CHP

Screw-on modular head with 72.5° approach angle, for VXGU inserts, with high pressure coolant capability



Cutting edge style **V**



Right hand (R) shown.

Metric	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSVVXR09-CHP	12 (0.750")	12 (0.750")	21 (0.827)	12 (0.472)	6 (0.236)	15 (0.591)	0.2 (0.008)	VXGU09T2**L... (VXGU73**L...)	0.9 (0.66)

Torque: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench	O-ring
JSVJXR**-F...	SR34-508	T-7F	-
QC12-JSVVXR09-CHP	SR34-508	T-7F	ORSS-0454.5X1.0NBR70

INSERT SELECTION

P

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JRP	JS
Cutting conditions	G114	

M

Application areas	Finish cutting	Medium to finish cutting
Grade	SH725	SH725
Breaker Shape	JRP	JS
Cutting conditions	G114	

Reference pages : JSVJXR-F, QC12-JSVVXR-CHP: Inserts → B155,
Shank, Accessory → G115, G116, Standard cutting conditions → G114

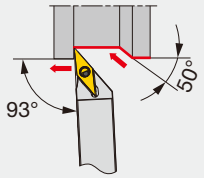
VN

Rhombic, 35° with hole

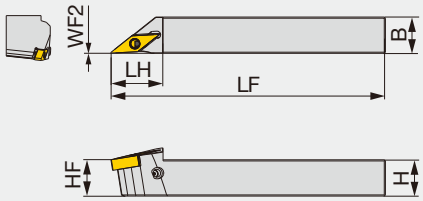
ISOTURN

JPVJ2NR/L

Back-clamp toolholder with 93° approach angle, for negative 35° rhombic inserts



Cutting edge style **J**



Without offset

Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
JPVJ2NR082.33	0.500	0.500	4.75	0.900	0.500	0	0.0078	VN**2.33...	0.66
JPVJ2NR102.33	0.625	0.625	4.75	0.900	0.625	0	0.0078	VN**2.33...	0.66

Metric	H	B	LF	LH	HF	WF2	RE**	Insert	Torque*
JPVJ2NR/L1212X1204	12	12	120	23	12	0	0.2	VN**1204...	0.9
JPVJ2NR/L1616X1204	16	16	120	23	16	0	0.2	VN**1204...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m)
RE**: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Lever	Pin	Clamping screw	Wrench
JPVJ2NR/L***.33 JPVJ2NR/L**1204	SLLV-4	SL-PI-2	SR10400611	HW2.0/5RED

INSERT SELECTION

P

Application	Finishing	Medium cutting
Grade	T9215	T9215
Chipbreaker shape	TSF	TM
Cutting conditions	B004	

M

Application	Finishing	Medium cutting
Grade	AH6225	AH6225
Chipbreaker shape	SS	SM
Cutting conditions	B006	

Reference pages : JPVJ2NR/L: Inserts → B098 -

WX

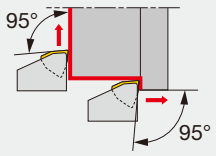


Trigon, 80°
with hole

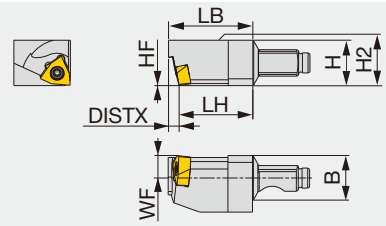
MINIFORCE TURN

QC12-JSWL2XR-Y

Screw-on Y-axis turning modular head with 95° approach angle, for WXGU inserts



Cutting edge style **L2**



Without offset

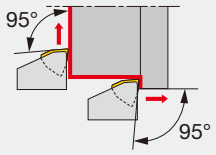
Right hand (R) shown.

Metric	H	B	LH	HF	WF	LB	H2	DISTX	RE**	Insert	Torque
QC12-JSWL2XR04-Y	12 (0.750")	12 (0.750")	19.5 (0.768")	0 (0")	6 (0.236")	22.3 (0.878")	12 (0.472")	2.8 (0.11")	0.2 (0.008")	WXGU0403**L... (WXGU22**L...)	0.9 (0.66)

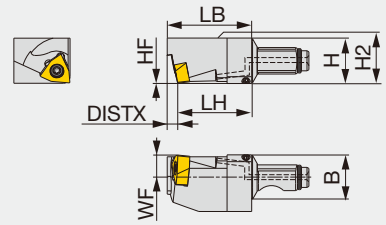
Torque: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).

QC12-JSWL2XR-Y-CHP

Screw-on Y-axis turning modular head with 95° approach angle, for WXGU inserts, with high pressure coolant capability



Cutting edge style **L2**



Without offset

Right hand (R) shown.

Metric	H	B	LH	HF	WF	LB	H2	DISTX	RE**	Insert	Torque
QC12-JSWL2XR04-Y-CHP	12 (0.750")	12 (0.750")	19.5 (0.768")	0 (0")	6 (0.236")	22.3 (0.878")	12 (0.472")	2.8 (0.11")	0.2 (0.008")	WXGU0403**L... (WXGU22**L...)	0.9 (0.66)

Torque: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).

SPARE PARTS





Designation	Clamping screw	Wrench	O-ring
QC12-JSWL2XR04-Y	SR34-514	T-7F	-
QC12-JSWL2XR04-Y-CHP	SR34-514	T-7F	ORSS-0454.5X1.0NBR70

INSERT SELECTION

For Swiss lathes

P	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JSS	JS
	Cutting conditions	G114	

M	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JSS	JS
	Cutting conditions	G114	

H	Application areas	Precision finishing
	Grade	BXA10
	Breaker Shape	HP
	Cutting conditions	B026

For Small CNC lathes

P	Application areas	Finish cutting	Medium cutting
	Grade	AH725	AH725
	Breaker Shape	SS	TS
	Cutting conditions	G114	

M	Application areas	Finish cutting	Medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	SS	TS
	Cutting conditions	G114	

N	Application areas	Medium to finish cutting	
	Grade	KS05F	KS05F
	Breaker Shape	SS	TS
	Cutting conditions	B022	

Reference pages : QC12-JSWL2XR-Y, QC12-JSWL2XR-Y-CHP: Inserts → B157 -, CBN → B210
Shank, Accessory → G115, G116, Standard cutting conditions → G114

WX

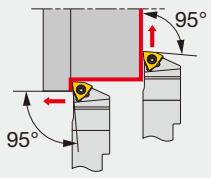


Trigon, 80°
with hole

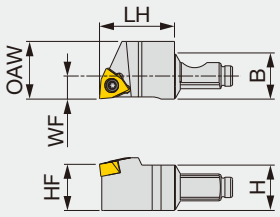
MINIFORCE TURN

QC12-JSWL2XR

Screw-on modular head with 95° approach angle, for WXGU inserts



Cutting edge style **L2**



Without offset

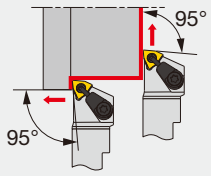
Right hand (R) shown.

Metric	H	B	LH	HF	WF	OAW	RE**	Insert	Torque
QC12-JSWL2XR04	12 (0.750")	12 (0.750")	19.5 (0.768")	12 (0.472")	6 (0.236")	15 (0.591")	0.2 (0.008")	WXGU0403**L... (WXGU22**L...)	0.9 (0.66)

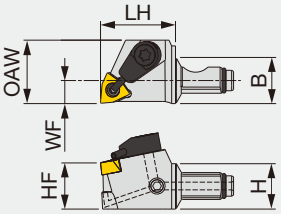
Torque: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).

QC12-JSWL2XR-CHP

Screw-on modular head with 95° approach angle, for WXGU inserts, with high pressure coolant capability



Cutting edge style **L2**



Without offset

Right hand (R) shown.

Metric	H	B	LH	HF	WF	OAW	RE**	Insert	Torque
QC12-JSWL2XR04-CHP	12 (0.750")	12 (0.750")	19.5 (0.768")	12 (0.472")	6 (0.236")	16.5 (0.650")	0.2 (0.008")	WXGU0403**L... (WXGU22**L...)	0.9 (0.66)

Torque: Recommended clamping torque: N·m (lbs·ft)
RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).

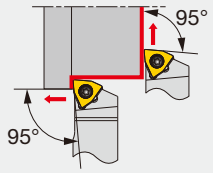
SPARE PARTS

Designation	Clamping screw 1	Coolant unit	Wrench 1	O-ring
QC12-JSWL2XR04	SR34-514	-	T-7F	-
QC12-JSWL2XR04-CHP	SR34-514	S-CU-CHP	T-7F	ORSS-0454.5X1.0NBR70

Reference pages : QC12-JSWL2XR, QC12-JSWL2XR-CHP: Inserts → B157 -, CBN → B210
Shank, Accessory → G115, G116, Standard cutting conditions → G114

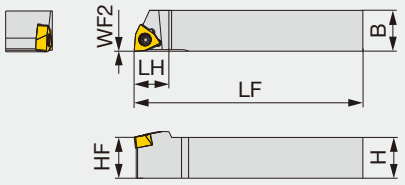
JSWL2XR/L

Screw-on toolholder with 95° approach angle, for WXGU inserts



Cutting edge style **L2**

Without offset



Right hand (R) shown.

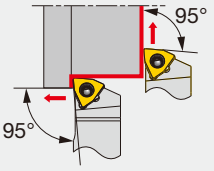
Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
JSWL2XR/L062	0.375	0.375	4.750	0.500	0.375	0	0.008	WXGU22**L/R...	0.66
JSWL2XR/L082	0.500	0.500	4.750	0.500	0.500	0	0.008	WXGU22**L/R...	0.66
JSWL2XR/L102	0.625	0.625	4.750	0.500	0.625	0	0.008	WXGU22**L/R...	0.66

Metric	H	B	LF	LH	HF	WF2	RE**	Insert	Torque*
JSWL2XR/L1010X04	10	10	120	11	10	0	0.2	WXGU0403**L/R...	0.9
JSWL2XR/L1212F04	12	12	85	11	12	0	0.2	WXGU0403**L/R...	0.9
JSWL2XR/L1212X04	12	12	120	11	12	0	0.2	WXGU0403**L/R...	0.9
JSWL2XR/L1616X04	16	16	120	13	16	0	0.2	WXGU0403**L/R...	0.9
JSWL2XR/L2020H04	20	20	100	13	20	0	0.2	WXGU0403**L/R...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m)
RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

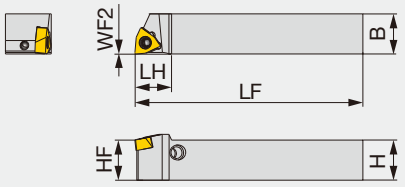
JPWL2XR/L

Lever-lock toolholder with 95° approach angle, for WXGU inserts



Cutting edge style **L2**

Without offset



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque
JPWL2XR/L062	0.375	0.375	4.750	0.500	0.375	0	0.008	WXGU22**L/R...	0.66
JPWL2XR/L082	0.500	0.500	4.750	0.500	0.500	0	0.008	WXGU22**L/R...	0.66
JPWL2XR/L102	0.625	0.625	4.750	0.500	0.625	0	0.008	WXGU22**L/R...	0.66

Metric	H	B	LF	LH	HF	WF2	RE**	Insert	Torque*
JPWL2XR/L1010X04	10	10	120	11	10	0	0.2	WXGU0403**L/R...	0.9
JPWL2XR/L1212F04	12	12	85	11	12	0	0.2	WXGU0403**L/R...	0.9
JPWL2XR/L1212X04	12	12	120	11	12	0	0.2	WXGU0403**L/R...	0.9
JPWL2XR/L1616X04	16	16	120	13	16	0	0.2	WXGU0403**L/R...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m)
RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS



Designation	Clamping screw 1	Lever	Pin	Clamping screw 2	Wrench 1	Wrench 2
JSWL2XR/L...	SR34-514	-	-	-	T-7F	-
JPWL2XR/L...	-	SLLV-2	SL-PI-2	SR10400611	-	HW2.0/5RED

INSERT SELECTION

For Swiss lathes

P	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JSS	JS
	Cutting conditions	G114	

M	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JSS	JS
	Cutting conditions	G114	

H	Application areas	Precision finishing
	Grade	BXA10
	Breaker Shape	HP
	Cutting conditions	B026

For Small CNC lathes

P	Application areas	Finish cutting	Medium cutting
	Grade	AH725	AH725
	Breaker Shape	SS	TS
	Cutting conditions	G114	

M	Application areas	Finish cutting	Medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	SS	TS
	Cutting conditions	G114	

N	Application areas	Medium to finish cutting	
	Grade	KS05F	KS05F
	Breaker Shape	SS	TS
	Cutting conditions	B022	

Reference pages : JSWL2XR/L, JPWL2XR/L: Inserts → B157 -, CBN → B210
Standard cutting conditions → G114

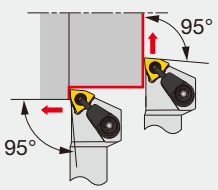
WX

Trigon, 80°
with hole

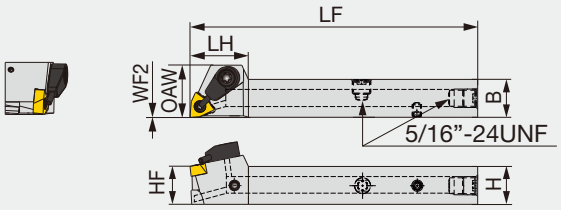
MINIFORCE TURN
JSWL2XR/L-CHP

Direct connection

Screw-on toolholder without offset, 95° approach angle, for WXGU inserts, high pressure coolant compatible



Cutting edge style **L2**



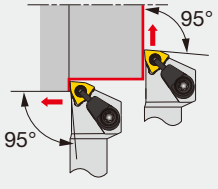
Without offset

Right hand (R) shown.

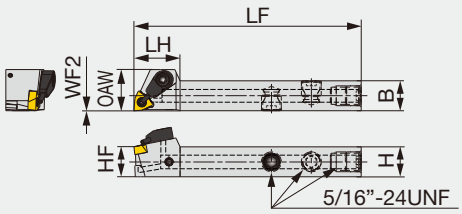
Inch	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque
JSWL2XR082X-CHP	0.500	0.500	4.750	0.728	0.500	0	0.650	0.008	WXGU22**L...	0.66
JSWL2XR102X-CHP	0.625	0.625	4.750	0.728	0.625	0	0.650	0.008	WXGU22**L...	0.66

Metric	H	B	LF	LH	HF	WF2	OAW	RE**	Insert	Torque*
JSWL2XR1212X04-CHP	12	12	120	18.5	12	0	16.5	0.2	WXGU0403**L	0.9
JSWL2XR1616X04-CHP	16	16	120	18.5	16	0	16.5	0.2	WXGU0403**L	0.9

Tube connection



Cutting edge style **L2**



Without offset

Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque
JSWL2XR/L082-CHP	0.500	0.500	3.344	0.750	0.500	0	0.650	0.008	WXGU22**L/R...	0.66

Metric	H	B	LF	LH	HF	WF2	OAW	RE**	Insert	Torque*
JSWL2XR/L1212F04-CHP	12	12	85	18	12	0	16.5	0.2	WXGU0403**L/R...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m)
RE**: Standard corner radius
Note: Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

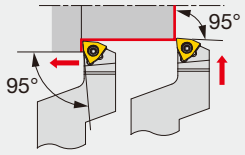
SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSWL2XR**-CHP	SR34-514	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSWL2XR/L**-CHP	SR34-514	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	-	-

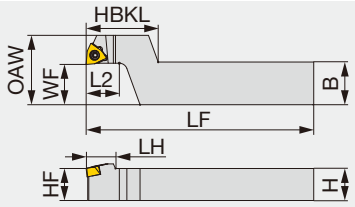
Reference pages : JSWL2XR/L-CHP: Inserts → B157 -, CBN → B210
Standard cutting conditions → G114

JSWLXR-F

Screw-on stepped-head toolholder with 95° approach angle, for WXGU inserts



Cutting edge style **L**



Right hand (R) shown.

Inch	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque
JSWLXR082-F10	0.500	0.625	4.750	0.500	1.100	0.500	0.500	0.625	1.000	0.008	WXGU22**L...	0.66
JSWLXR102-F10	0.625	0.750	4.750	0.500	1.100	0.500	0.625	0.625	1.000	0.008	WXGU22**L...	0.66

Metric	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque*
JSWLXR1016X04-F15	10	16	120	12	27	11	10	15	26	0.2	WXGU0403**L...	0.9
JSWLXR1216F04-F15	12	16	85	12	27	11	12	15	26	0.2	WXGU0403**L...	0.9
JSWLXR1216X04-F15	12	16	120	12	27	11	12	15	26	0.2	WXGU0403**L...	0.9
JSWLXR1620X04-F15	16	20	120	12	27	11	16	15	26	0.2	WXGU0403**L...	0.9

Torque: Recommended clamping torque: lbs·ft (*N·m) RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench
JSWLXR**-F10, JSWLXR**-F15	SR34-514	T-7F

INSERT SELECTION

For Swiss lathes

P	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JSS 	JS 
	Cutting conditions	G114	

M	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JSS 	JS 
	Cutting conditions	G114	

H	Application areas	Precision finishing
	Grade	BXA10
	Breaker Shape	HP 
	Cutting conditions	B026

For Small CNC lathes

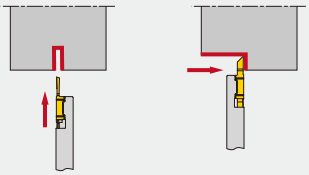
P	Application areas	Finish cutting	Medium cutting
	Grade	AH725	AH725
	Breaker Shape	SS 	TS 
	Cutting conditions	G114	

M	Application areas	Finish cutting	Medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	SS 	TS 
	Cutting conditions	G114	

N	Application areas	Medium to finish cutting	
	Grade	KS05F	KS05F
	Breaker Shape	SS 	TS 
	Cutting conditions	B022	

Reference pages : JSWLXR-F: Inserts → B157 -, CBN → B210, Standard cutting conditions → G114

Parting-off and front turning toolholders



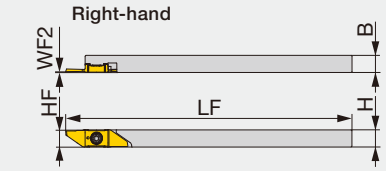


Fig. 1

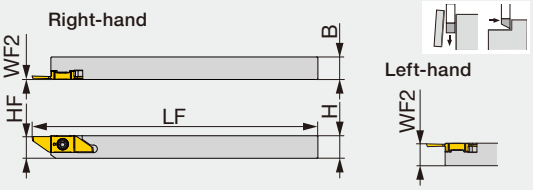


Fig. 2

Metric	H	B	LF	HF	WF2(1)	Insert	Torque*	Fig.
JSXXL0606X05	6	6	120	5.6	5.8	JV*N..., JVN...	1.3	1
JSXXR/L0707X05	7	7	120	6.6	0.2/6.8	JV*N..., JVN...	1.3	1
JSXXR/L0808F05	8	8	85	7.7	0.2/7.8	JV*N..., JVN...	1.3	2
JSXXR/L0808H05	8	8	100	7.7	0.2/7.8	JV*N..., JVN...	1.3	2
JSXXR/L1010H05	10	10	100	9.7	0.2/9.8	JV*N..., JVN...	1.3	2

SPARE PARTS

Designation	Clamping screw	Wrench
JSXXR...05	CSTB-2.5L054DL	T-7F
JSXXL...05	CSTB-2.5L054DR	T-7F

Torque*: Recommended clamping torque (N·m)
(1) The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.
Use the right-hand insert (JV****R...) for a right-hand holder (JSXXR...); the left-hand insert (JV****L...) for a left-hand holder (JSXXL...).

INSERT

JVFN45R/L (For front turning)



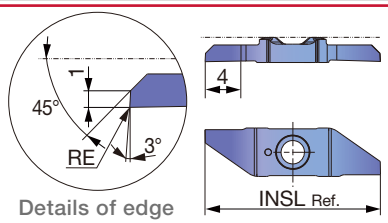


Fig. 1 Details of edge

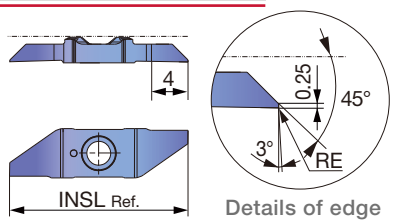


Fig. 2 Details of edge

P	Steel	★
M	Stainless	★
K	Cast iron	
N	Non-ferrous	★
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	HAND	RE	Coated SH725	INSL (in)	Fig.
JVFN45R0310F	R	0	●	0.827	1
JVFN45L0302FL	L	0	●	0.827	2

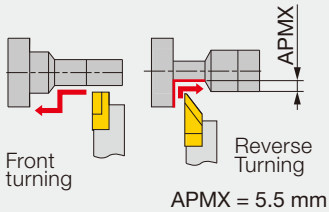
● : Line up

STANDARD CUTTING CONDITIONS

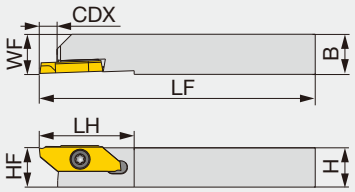
ISO	Workpiece materials	Grade	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Low carbon steels 1015, etc.	SH725	164 - 591	0.00039 - 0.0012
	Carbon steels, Alloy steels 1055, etc.	SH725	164 - 591	0.00039 - 0.0012
	Free cutting steels SUH22, SUH23, etc.	SH725	164 - 591	0.00039 - 0.0012
M	Stainless steels 304, etc.	SH725	164 - 394	0.00039 - 0.0012
N	Aluminum alloys 5056, 6061, etc.	SH725	492 - 656	0.00039 - 0.0012
	Copper alloys C2600, C280C, etc.	SH725	328 - 656	0.00039 - 0.0012
S	Titanium alloys Ti-6Al-4V, etc.	SH725	98 - 262	0.00039 - 0.0012
	Superalloys Inconel718, etc.	SH725	98 - 262	0.00039 - 0.0012

JSXGR/L

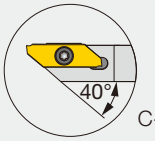
Screw-on toolholder for front/reverse turning and external grooving



APMX = 5.5 mm



Without offset



C-type

Right hand (R) shown.

Metric	H	B	LF	LH	CDX	HF	WF	Insert
JSXGR/L1010K8-C	10	10	125	29	6.7	10	10	JXFR/L8..., JXRR/L8...
JSXGR/L1212K8-C	12	12	125	29	6.7	12	12	JXFR/L8..., JXRR/L8...
JSXGR/L1616K8	16	16	125	29	6.5	16	16	JXFR/L8..., JXRR/L8...
JSXGR/L2020K8	20	20	125	29	6.5	20	20	JXFR/L8..., JXRR/L8...
JSXGR/L2525K8	25	25	125	29	6.5	25	25	JXFR/L8..., JXRR/L8...

Can be used with JXG insert for parting and grooving.
Can be wrenched also from the back with a double-head screw.

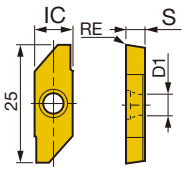
SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSXGR/L...	CSTB-4SD	T-8F	(T-8L)

INSERT

JXF (For front turning)





P	Steel	★
M	Stainless	★
K	Cast iron	
N	Non-ferrous	★
S	Superalloys	★
H	Hard materials	

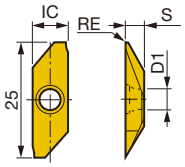
★ : First choice

Designation	HAND	RE	Coated J740	Uncoated TH10	IC	S	D1
JXFR8000F	R	0.001	●	●	0.315	0.156	0.173
JXFR8010F	R	0.004	●	●	0.315	0.156	0.173

● : Line up

JXR (For reverse turning)





P	Steel	★
M	Stainless	★
K	Cast iron	
N	Non-ferrous	★
S	Superalloys	★
H	Hard materials	

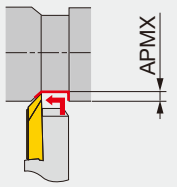
★ : First choice

Designation	HAND	RE	Coated J740	Uncoated TH10	IC	S	D1
JXRR8000F	R	0.001	●	●	0.315	0.156	0.173
JXRR8010F	R	0.004	●	●	0.315	0.156	0.173

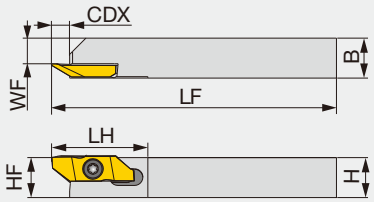
● : Line up

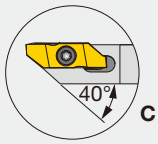
JSXBR/L

Screw-on toolholder for back turning and threading



APMX = 5.5 mm





C type

Right hand (R) shown.

Metric	H	B	LF	LH	CDX	HF	WF	Insert
JSXBR/L1010K8-C	10	10	125	29	6.7	10	5.7	JXBR/L8..., JXT*R...
JSXBR/L1212K8-C	12	12	125	29	6.7	12	7.7	JXBR/L8..., JXT*R...
JSXBR/L1616K8	16	16	125	29	6.4	16	11.7	JXBR/L8..., JXT*R...
JSXBR/L2020K8	20	20	125	29	6.4	20	15.7	JXBR/L8..., JXT*R...
JSXBR/L2525K8	25	25	125	29	6.4	25	20.7	JXBR/L8..., JXT*R...

Can be used with JXT insert for threading.
Can be wrenched also from the back with a double-head screw.

SPARE PARTS



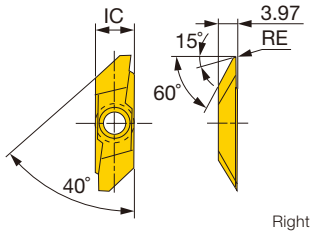


Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSXBR/L...	CSTB-4SD	T-8F	(T-8L)

INSERT

JXB (Sharp edge)





Right hand (R) shown.

		Coated		Uncoated	
P	Steel	★			
M	Stainless	★			
K	Cast iron	★		☆	
N	Non-ferrous			★	
S	Superalloys	☆		★	
H	Hard materials			★	

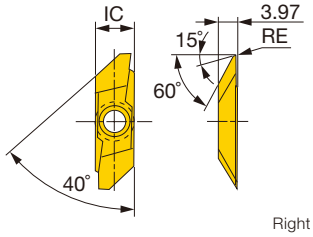
★ : First choice
☆ : Second choice

Designation	HAND	RE (mm)	Coated J740	Uncoated TH10	IC (mm)	Max. depth of cut (mm)
JXBR8000F	R	0.03	●	●	8	5.5
JXBL8000F	L	0.03	●	●	8	5.5
JXBR8005F	R	0.05	●	●	8	5.5
JXBL8005F	L	0.05	●	●	8	5.5
JXBR8010F	R	0.1	●	●	8	5.5
JXBL8010F	L	0.1	●	●	8	5.5
JXBR8015F	R	0.15	●	●	8	5.5
JXBL8015F	L	0.15	●	●	8	5.5

● : Line up

JXB (Honed edge)





Right hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	☆
H	Hard materials	

★ : First choice
☆ : Second choice

Designation	HAND	RE (mm)	Coated J740	IC (mm)	Max. depth of cut (mm)
JXBR/L8005	R	0.05	●	8	5.5
JXBR/L8005	L	0.05	●	8	5.5
JXBR/L8010	R	0.1	●	8	5.5
JXBR/L8010	L	0.1	●	8	5.5
JXBR/L8015	R	0.15	●	8	5.5
JXBR/L8015	L	0.15	●	8	5.5

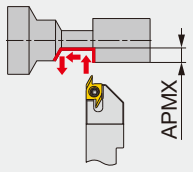
● : Line up

STANDARD CUTTING CONDITIONS (JXB type insert)

ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed: *f* (ipr) Grooving	Feed: *f* (ipr) Turning
P	General steel 1045, etc.	J740	33 - 328	0.0004 - 0.0012	0.0008 - 0.004
P	Free-cutting steel	J740	33 - 328	0.0004 - 0.0012	0.0008 - 0.004
M	Stainless steel 303, etc.	J740	33 - 328	0.0004 - 0.0008	0.0008 - 0.003
N	Aluminium alloys, Brass Si < 12%, 5056, 6061, etc.	TH10	164 - 656	0.0004 - 0.0020	0.0008 - 0.004
S	Difficult-to-machine material, Titanium alloys Ti-6Al-4V, etc.	TH10	33 - 98	0.0004 - 0.0008	0.0008 - 0.002

QC12-JSEGR

Screw-on modular head for back turning



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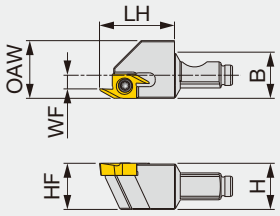


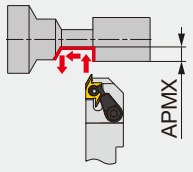
Right hand (R) shown.

Metric	H	B	LH	HF	WF	OAW	Insert	Torque*
QC12-JSEGR10	12 (0.750")	12 (0.750")	19.5 (0.768")	12 (0.472")	3.5 (0.138")	15 (0.591")	J10ER...	1.2 (0.89)

Torque* : Recommended clamping torque: N·m (lbs·ft)

QC12-JSEGR-CHP

Screw-on modular head for back turning, with high pressure coolant capability



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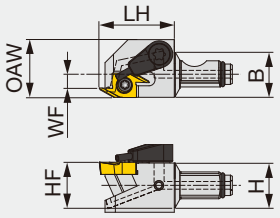


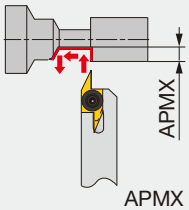
Right hand (R) shown.

Metric	H	B	LH	HF	WF	OAW	Insert	Torque*
QC12-JSEGR10-CHP	12 (0.750")	12 (0.750")	19.5 (0.768")	12 (0.472")	3.5 (0.138")	15 (0.591")	J10ER...	1.2 (0.89)

Torque* : Recommended clamping torque: N·m (lbs·ft)

JSEGR/L

Screw-on toolholder for back turning



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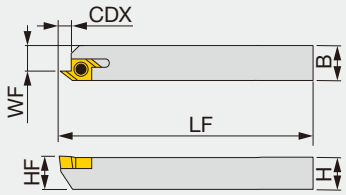


Metric	H	B	LF	CDX	HF	WF	Insert	Torque*
JSEGR/L1010K10	10	10	125	3.3	10	7.5	J10ER/L...	1.2
JSEGR/L1212K10	12	12	125	3.3	12	9.5	J10ER/L...	1.2
JSEGR/L1616K10	16	16	125	3.3	16	13.5	J10ER/L...	1.2

Torque*: Recommended clamping torque (N·m)

SPARE PARTS

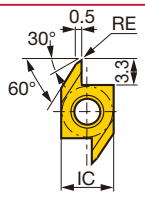
Designation	Clamping screw	Coolant unit	Wrench	Wrench 2 (Optional)	O-ring
QC12-JSEGR10	CSTB-2.5		T-8F		
QC12-JSEGR10-CHP	CSTB-2.5	S-CU-CHP	T-8F		ORSS-0454.5X1.0NBR70
JSEGR/L...	CSTB-2.5		T-8F	(T-8L)	

Reference pages : QC12-JSEGR, QC12-JSEGR-CHP, JSEGR/L: Inserts→ G079
Shank, Accessory → G115, G116, Standard cutting conditions → G080

INSERT

J10E (Sharp edge)





Right hand (R) shown.

P	Steel	★	☆			★					
M	Stainless	★	☆								
K	Cast iron	★				☆			☆		
N	Non-ferrous								★		
S	Superalloys	☆							★		
H	Hard materials								★		

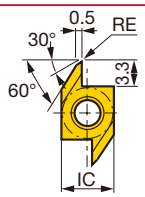
★ : First choice
☆ : Second choice

Designation	HAND	RE (mm)	Coated				Cermet				Uncoated				IC (mm)	Max. depth of cut (mm)
			SH725	J740			NS9530				TH10					
J10ER/L005BF	R	0.05	●	●							●				6.35	3
J10ER/L005BF	L	0.05	●	●							●				6.35	3
J10ER/L010BF	R	0.1	●	●							●				6.35	3
J10ER/L010BF	L	0.1	●	●							●				6.35	3
J10ER/L015BF	R	0.15	●				●								6.35	3
J10ER/L015BF	L	0.15	●				●								6.35	3

● : Line up

J10E (Honed edge)





Right hand (R) shown.

P	Steel	★			★						
M	Stainless	★									
K	Cast iron	★			☆						
N	Non-ferrous										
S	Superalloys	☆									
H	Hard materials										

★ : First choice
☆ : Second choice

Designation	HAND	RE (mm)	Coated			Coated cermet								IC (mm)	Max. depth of cut (mm)
			J740			J9530									
J10ER005B	R	0.05	●			●								6.35	3
J10EL005B	L	0.05	●											6.35	3
J10ER010B	R	0.1	●			●								6.35	3
J10EL010B	L	0.1	●											6.35	3

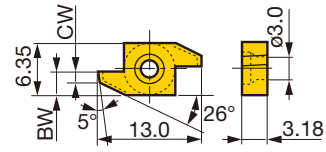
● : Line up

STANDARD CUTTING CONDITIONS (J10E type insert)

ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Steel 1045, etc.	SH725	164 - 656	0.0004 - 0.004
		J740	33 - 328	0.0004 - 0.004
		NS9530	164 - 492	0.0004 - 0.004
		J9530	164 - 492	0.0004 - 0.004
	Free-cutting steel	SH725	164 - 656	0.0004 - 0.004
		J740	33 - 328	0.0004 - 0.004
M	Stainless steel 303, etc.	SH725	164 - 656	0.0004 - 0.004
		J740	33 - 328	0.0004 - 0.004
		NS9530	164 - 492	0.0004 - 0.004
		J9530	164 - 492	0.0004 - 0.004
N	Aluminum alloys, Brass Si < 12%, 5056, 6061, etc.	TH10	33 - 656	0.0004 - 0.004
S	Difficult-to-machine material, Titanium alloys Ti-6Al-4V, etc.	TH10	33 - 98	0.0004 - 0.004

INSERT

10E (Insert blank)



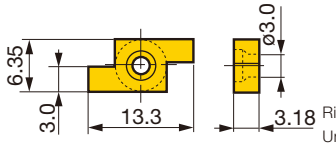
Right hand (R) shown.
Unit: mm

Designation	HAND	Uncoated TH10		
10ER100B	R	●		
10EL100B	L	●		
10ER150B	R	●		
10EL150B	L	●		

● : Line up

Note: Right hand holder (JSEGR...) use right hand insert (10ER...) and left hand holder (JSEGL...) use left hand insert (10EL...)

10E (Insert blank)



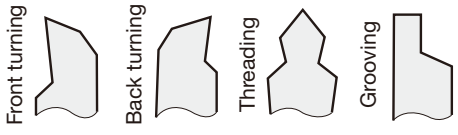
Right hand (R) shown.
Unit: mm

Designation	HAND	Uncoated TH10		
10ER300	R	●		
10EL300	L	●		

● : Line up

Note: Right hand holder (JSEGR...) use right hand insert (10ER...) and left hand holder (JSEGL...) use left hand insert (10EL...)

Formed examples of insert blanks



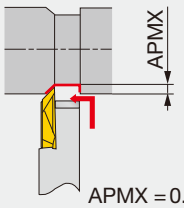
Notes:
- Front relief angle, side relief angle, edge width can be ground depending on the application.
- Insert blanks can be formed to a profiling tool which has a width up to 0.118".

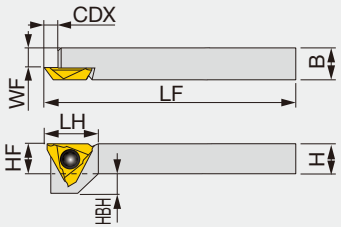
Standard cutting conditions

Operations			Carbon steel	Stainless steel	Brass
Lateral feed (external turning)	Cutting speed (sfm)		~ 330	~ 160	~ 650
	Feed (ipr)	Roughing	~ 0.002	~ 0.001	~ 0.004
		Medium	~ 0.001	~ 0.001	~ 0.002
		Finishing	~ 0.0007	~ 0.0006	~ 0.0016
Parting-off Grooving Forming	Cutting speed (sfm)		~ 260	~ 100	~ 500
	Feed (ipr)	Roughing	~ 0.0007	~ 0.0006	~ 0.002
		Medium	~ 0.0006	~ 0.0004	~ 0.001
		Finishing	~ 0.0004	~ 0.0003	~ 0.0006

JSTBR/L

Screw-on toolholder for back turning





Right hand (R) shown.

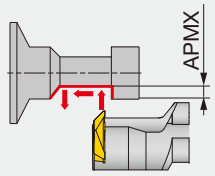
Inch	H	B	LF	LH	CDX	HF	WF	HBH	Insert	Torque
JSTBR/L063	0.375	0.375	5.000	0.625	0.197	0.375	0.219	0.250	JTBR/L3...	0.89
JSTBR/L083	0.500	0.500	5.000	0.625	0.197	0.500	0.313	0.125	JTBR/L3...	0.89
JSTBR/L103	0.625	0.625	5.000	0.625	0.197	0.625	0.469	-	JTBR/L3...	0.89

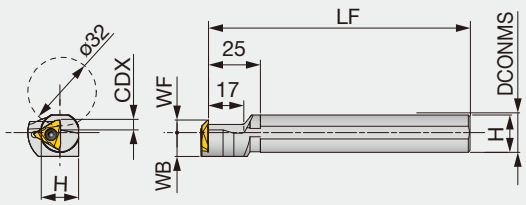
Metric	H	B	LF	LH	CDX	HF	WF	HBH	Insert	Torque*
JSTBR/L1010X3	10	10	120	15	5	10	6	5	JTBR/L3...	1.2
JSTBL1010K3	10	10	125	15	5	10	6	5	JTBR/L3...	1.2
JSTBR/L1212F3	12	12	85	15	5	12	8	3	JTBR/L3...	1.2
JSTBR/L1212X3	12	12	120	15	5	12	8	3	JTBR/L3...	1.2
JSTBR/L1616X3	16	16	120	15	5	16	12	-	JTBR/L3...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)

JS-TBL3

Screw-on toolholder for back turning





Metric	H	H	LF	CDX	WF	WB	Insert	Torque*
JS19K-TBL3	19.05	18	125	4.5	6	11.5	JTBR3...	3
JS20K-TBL3	20	19	125	4.5	6	11.5	JTBR3...	3
JS22K-TBL3	22	21	125	4.5	6	11.5	JTBR3...	3
JS25K-TBL3	25.4	24	125	4.5	10	12.7	JTBR3...	3

Torque*: Recommended clamping torque (N·m)

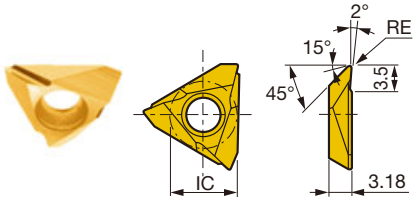
SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSTBR/L...	CSTB-4SD	T-8F	(T-8L)
JS**-TBL3	CSTB-4S	T-15F	-

Reference pages : JSTBR/L, JS-TBL3: Inserts, Standard cutting conditions → G082

INSERT

JTB (Sharp edge)



Right hand (R) shown.

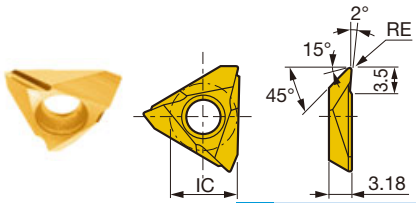
P	Steel	★ ☆ ★
M	Stainless	★ ☆
K	Cast iron	★ ☆ ☆
N	Non-ferrous	★
S	Superalloys	☆ ☆ ★
H	Hard materials	★

★ : First choice
☆ : Second choice

Designation	HAND	RE (in)	Coated		Cermet	Uncoated	IC (mm)	Max. depth of cut (mm)
			SH725	J740	NS9530	TH10		
JTBR3000F	R	0.001	●	●		●	9.438	2.5
JTBL3000F	L	0.001	●	●		●	9.438	2.5
JTBR3005F	R	0.002	●	●		●	9.438	2.5
JTBL3005F	L	0.002	●	●		●	9.438	2.5
JTBR3010F	R	0.004	●	●	●	●	9.438	2.5
JTBL3010F	L	0.004	●	●	●	●	9.438	2.5
JTBR3015F	R	0.006	●	●			9.438	2.5
JTBL3015F	L	0.006	●				9.438	2.5

● : Line up

JTBR/L (Honed edge)



Right hand (R) shown.

P	Steel	★ ★
M	Stainless	★
K	Cast iron	★ ☆
N	Non-ferrous	
S	Superalloys	☆
H	Hard materials	

★ : First choice
☆ : Second choice

Designation	HAND	RE (in)	Coated	Coated cermet	IC (mm)	Max. depth of cut (mm)
			J740	J9530		
JTBR3005	R	0.002	●	●	9.438	2.5
JTBL3005	L	0.002	●		9.438	2.5
JTBR3010	R	0.004	●	●	9.438	2.5
JTBL3010	L	0.004	●		9.438	2.5

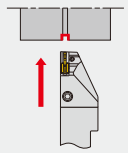
● : Line up

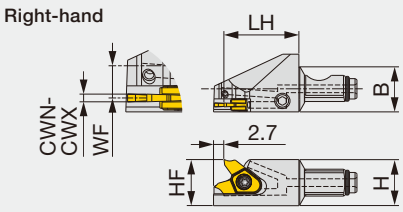
STANDARD CUTTING CONDITIONS (JTB type insert)

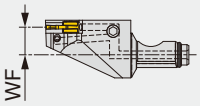
ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Steel 1045, etc.	SH725	164 - 656	0.0004 - 0.004
		J740	33 - 328	0.0004 - 0.004
		NS9530	164 - 492	0.0004 - 0.004
		J9530	164 - 492	0.0004 - 0.004
	Free-cutting steel	SH725	164 - 656	0.0004 - 0.004
		J740	33 - 328	0.0004 - 0.004
M	Stainless steel 303, etc.	SH725	164 - 656	0.0004 - 0.004
		J740	33 - 328	0.0004 - 0.004
		NS9530	164 - 492	0.0004 - 0.004
		J9530	164 - 492	0.0004 - 0.004
N	Aluminum alloys, Brass Si < 12%, 5056, 6061, etc.	TH10	33 - 656	0.0004 - 0.004
S	Difficult-to-machine material, Titanium alloys Ti-6Al-4V, etc.	TH10	33 - 98	0.0004 - 0.004

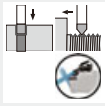
MINI LOCK VGROOVE
QC12-SVER/L-CHP

Modular head for external grooving and threading, with high pressure coolant capability







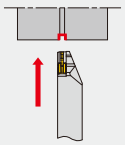


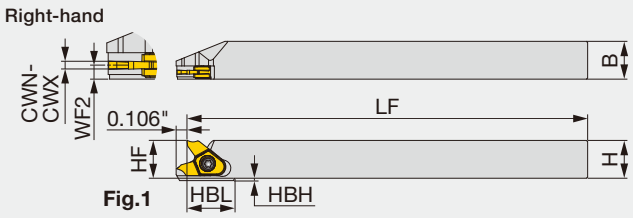
Metric	CWN	CWX	H	B	LH	HF	WF (1)	Insert	Torque
QC12-SVER/L10-CHP	0.5 (0.020")	1 (0.039")	12 (0.750")	12 (0.750")	19.5 (0.768")	12 (0.472")	4.19/7.19 (0.165"/0.283")	VG*10...	1.3 (0.96)

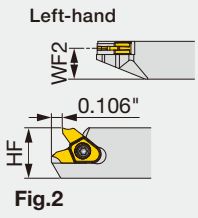
Torque: Recommended clamping torque: N·m (lbs·ft)
(1) "WF" indicates the distance from the reference position to the center of the cutting edge width. The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

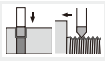
SVER/L

External grooving and threading toolholder









Inch	CWN	CWX	H	B	LF	HF	WF2 (1)	HBL	HBH	Insert	Torque	Fig.
SVER/L06-10	0.020	0.039	0.375	0.375	4.750	0.375	0.070/0.304	0.472	0.024	VG*10...	0.96	1
SVER/L08-10	0.020	0.039	0.500	0.500	4.750	0.500	0.070/0.430	-	-	VG*10...	0.96	2

Metric	CWN	CWX	H	B	LF	HF	WF2 (1)	HBL	HBH	Insert	Torque*	Fig.
SVER/L0808H08	0.33	1	8	8	100	8	1.23/6.78	-	-	VGP08...	1.1	2
SVER/L1010H10	0.5	1	10	10	100	10	1.78/8.23	-	-	VG*10...	1.3	1
SVER/L1212X10	0.5	1	12	12	120	12	1.78/10.23	-	-	VG*10...	1.3	1

Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) "WF" indicates the distance from the reference position to the center of the cutting edge width. The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

SPARE PARTS



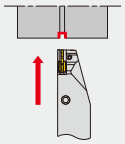


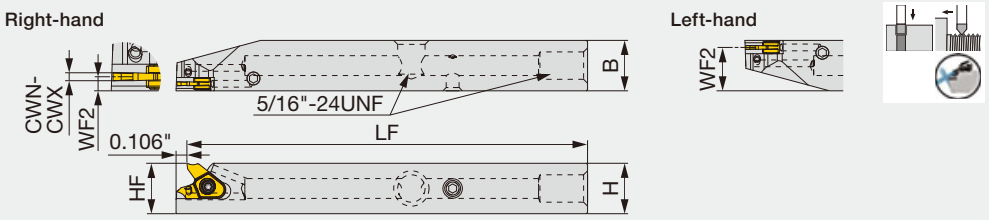
Designation	Clamping screw	Wrench	O-ring
QC12-SVER10-CHP	CSTB-2.5L054DL	T-7F	ORSS-0454.5X1.0NBR70
QC12-SVEL10-CHP	CSTB-2.5L054DR	T-7F	ORSS-0454.5X1.0NBR70
SVER0808...	CSTB-2.2L053DL	T-7F	-
SVEL0808...	CSTB-2.2L053DR	T-7F	-
SVER06/08-10, SVER1010/1212...	CSTB-2.5L054DL	T-7F	-
SVEL06/08-10, SVEL1010/1212...	CSTB-2.5L054DR	T-7F	-

Reference pages : QC12-SVER/L-CHP, SVER/L: Inserts → G084
Shank, Accessory → G115, G116, Standard cutting conditions → G085

SVER/L-CHP

External grooving and threading toolholder, with high pressure coolant capability





Inch	CWN	CWX	H	B	LF	HF	WF2 (1)	Insert	Torque
SVER/L08-10-CHP	0.020	0.039	0.500	0.500	4.750	0.500	0.070/0.430	VG*10...	0.96

Metric	CWN	CWX	H	B	LF	HF	WF2 (1)	Insert	Torque*
SVER/L1012H10-CHP	0.5	1	10	12	100	10	1.78/10.23	VG*10...	1.3
SVER/L1212X10-CHP	0.5	1	12	12	120	12	1.78/10.23	VG*10...	1.3

Compatible to the direct internal coolant supply system without the use of external coolant hose.
Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) "WF" indicates the distance from the reference position to the center of the cutting edge width. The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

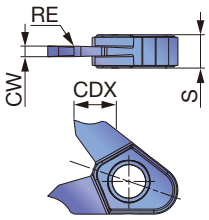
SPARE PARTS

Designation	Clamping screw	Coolant plug	DirectJet plug	Wrench	Wrench 1	Wrench 2
SVER...	CSTB-2.5L054DL	SR5/16UNFTL360	SSHM4-6-TB	T-7F	P-4	P-2
SVEL...	CSTB-2.5L054DR	SR5/16UNFTL360	SSHM4-6-TB	T-7F	P-4	P-2

INSERTS

VGP08/10 (For grooving / sharp edge)





P	Steel	★
M	Stainless	★
K	Cast iron	
N	Non-ferrous	★
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated SH725	CDX* (in)	CUTDIA (in)	S (in)
VGP08-033F-000	0.33	0.013	0	●	0.079	0.157	0.087
VGP08-050F-000	0.5	0.020	0	●	0.079	0.157	0.087
VGP08-075F-000	0.75	0.030	0	●	0.098	0.197	0.087
VGP08-100F-000	1	0.039	0	●	0.098	0.197	0.087
VGP10-050F-000	0.5	0.020	0	●	0.098	0.197	0.124
VGP10-050F-005	0.5	0.020	0.002	●	0.098	0.197	0.124
VGP10-075F-000	0.75	0.030	0	●	0.118	0.236	0.124
VGP10-075F-005	0.75	0.030	0.002	●	0.118	0.236	0.124
VGP10-100F-000	1	0.039	0	●	0.157	0.315	0.124
VGP10-100F-005	1	0.039	0.002	●	0.157	0.315	0.124

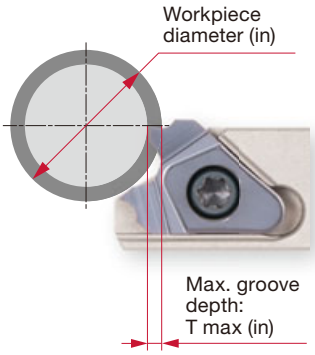
*Max grooving depth varies depending on workpiece diameters.
See below for details.

● : Line up

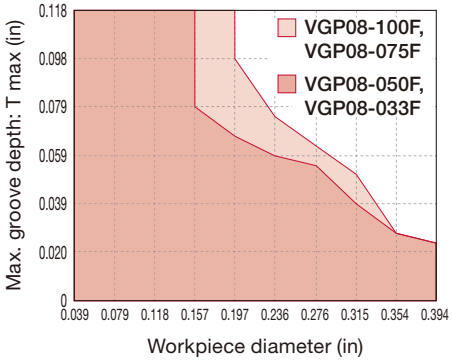
Reference pages : Toolholders → G083 - G084

Note: Max grooving depths vs workpiece diameters

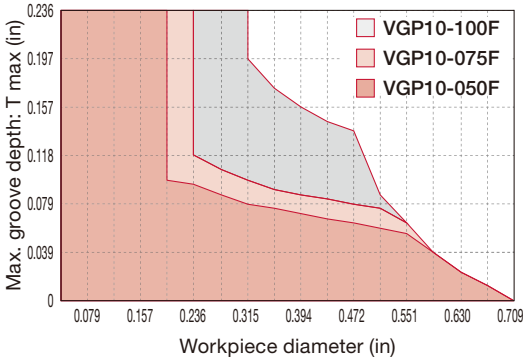
To avoid tool interference with the workpiece, max grooving depths (T max) for the insert used may be smaller than the CDX values listed above depending on the workpiece diameter.



VGP08



VGP10



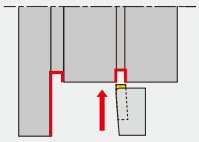
STANDARD CUTTING CONDITIONS

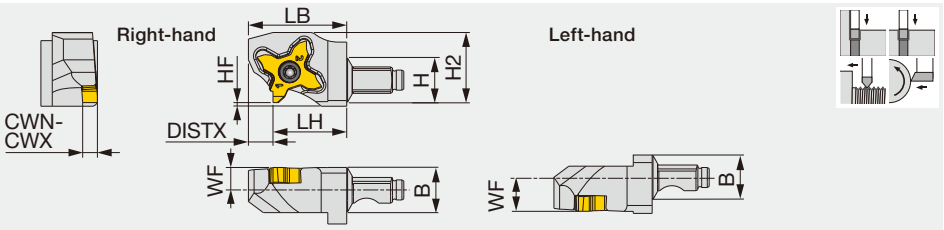
Grooving

ISO	Workpiece materials	Grade	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Low carbon steels 1015, 1020, etc.	SH725	164 - 492	0.0002 - 0.004
P	Carbon steels, Alloy steels 1055, 4140, etc.	SH725	164 - 492	0.0002 - 0.004
P	Free cutting steels SUH22, SUH23, etc.	SH725	164 - 492	0.0002 - 0.004
M	Stainless steels 304, etc.	SH725	164 - 328	0.0002 - 0.004
N	Aluminum alloys 5056, 6061, etc.	SH725	492 - 722	0.0002 - 0.004
N	Copper alloy C2600, C280C, etc.	SH725	328 - 656	0.0002 - 0.004
S	Titanium alloys Ti-6Al-4V, etc.	SH725	98 - 262	0.0002 - 0.004
S	Superalloys Inconel718, etc.	SH725	98 - 262	0.0002 - 0.004

QC12-STCR/L-Y

Y-axis turning modular head for external grooving and threading



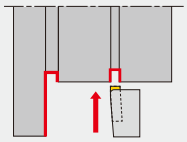


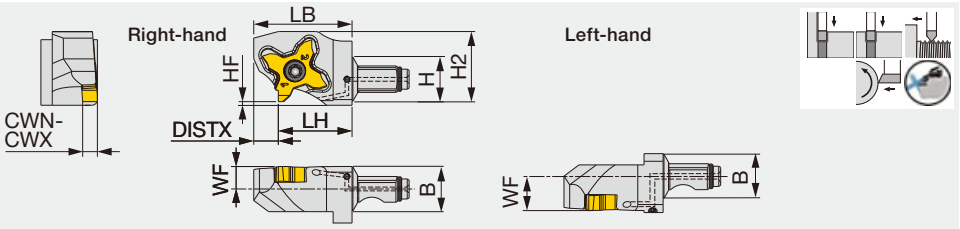
Metric	CWN	CWX	H	B	LH	HF	WF**	LB	H2	DISTX	Insert	Torque*
QC12-STCR/L18-Y	0.33 (0.013")	3.18 (0.125")	12 (0.472")	12 (0.472")	19.5 (0.768")	0 (0")	6/9 (0.236" / 0.354")	26 (1.024")	18.6 (0.732")	6.5 (0.256")	TC*18...	1.2 (0.89)

Torque* : Recommended clamping torque: N·m (lbs·ft)
WF** : The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.
Note: Use the right-hand insert (TC*18R...) for a right-hand holder (QC12-STCR...); the left-hand insert (TC*18L...) for a left-hand holder (QC12-STCL...).

QC12-STCR/L-Y-CHP

Y-axis turning modular head for external grooving and threading, with high pressure coolant capability





Metric	CWN	CWX	H	B	LH	HF	WF**	LB	H2	DISTX	Insert	Torque*
QC12-STCR/L18-Y-CHP	0.33 (0.013")	3.18 (0.125")	12 (0.472")	12 (0.472")	19.5 (0.768")	0 (0")	6 (0.236")	26 (1.024")	18.6 (0.732")	6.5 (0.256")	TC*18...	1.2 (0.89)

Torque* : Recommended clamping torque: N·m (lbs·ft)
WF** : The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.
Through-coolant head
Note: Use the right-hand insert (TC*18R...) for a right-hand holder (QC12-STCR...); the left-hand insert (TC*18L...) for a left-hand holder (QC12-STCL...).

SPARE PARTS



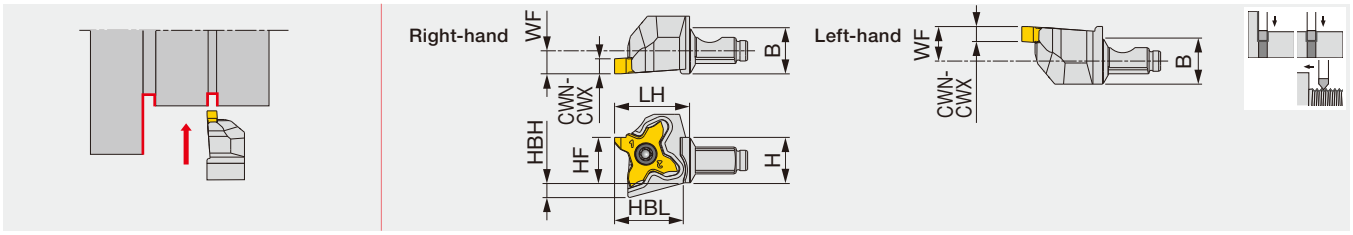


Designation	Clamping screw	Wrench	O-ring
QC12-STCR18-Y, QC12-STCR18	CSTC-4L100DL	T-1008/5	-
QC12-STCL18-Y, QC12-STCL18	CSTC-4L100DR	T-1008/5	-
QC12-STCR18-Y-CHP	CSTC-4L100DL	T-1008/5	ORSS-0454.5X1.0NBR70
QC12-STCL18-Y-CHP	CSTC-4L100DR	T-1008/5	ORSS-0454.5X1.0NBR70

Reference pages : QC12-STCR/L-Y, QC12-STCR/L-Y-CHP: Inserts → G091 -
Shank, Accessory → G115, G116, Standard cutting conditions → G097

QC12-STCR/L

Modular head for external grooving and threading

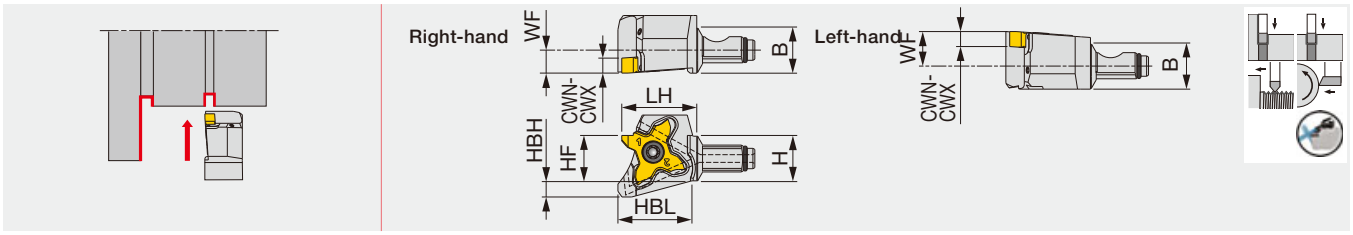


Metric	CWN	CWX	H	B	LH	HF	HBH	HBL	WF	Insert	Torque*
QC12-STCR18	0.33 (0.013")	3.18 (0.125")	12 (0.472")	12 (0.472")	19.5 (0.768")	12 (0.472")	3.9 (0.154")	17.9 (0.705")	6 (0.236")	TC*18R...	1.2 (0.89)
QC12-STCL18	0.33 (0.013")	3.18 (0.125")	12 (0.472")	12 (0.472")	21 (0.827")	12 (0.472")	3.9 (0.154")	18.3 (0.720")	9 (0.354")	TC*18L...	1.2 (0.89)

Torque* : Recommended clamping torque: N·m (lbs·ft)
The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

QC12-STCR/L-CHP

Modular head for external grooving and threading, with high pressure coolant capability



Metric	CWN	CWX	H	B	LH	HF	HBH	HBL	WF	Insert	Torque*
QC12-STCR18-CHP	0.33 (0.013")	3.18 (0.125")	12 (0.472")	12 (0.472")	19.5 (0.768")	12 (0.472")	4.2 (0.165")	19.3 (0.760")	6 (0.236")	TC*18R...	1.2 (0.89)
QC12-STCL18-CHP	0.33 (0.013")	3.18 (0.125")	12 (0.472")	12 (0.472")	21 (0.827")	12 (0.472")	4.2 (0.165")	19.3 (0.760")	9 (0.354")	TC*18L...	1.2 (0.89)

Torque* : Recommended clamping torque: N·m (lbs·ft)
Through-coolant head
Note: Use the right-hand insert (TC*18R...) for a right-hand holder (QC12-STCR...); the left-hand insert (TC*18L...) for a left-hand holder (QC12-STCL...).

SPARE PARTS



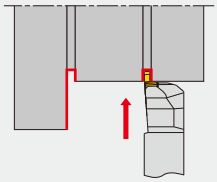


Designation	Clamping screw	Wrench	O-ring
QC12-STCR18	CSTC-4L100DL	T-1008/5	-
QC12-STCL18	CSTC-4L100DR	T-1008/5	-
QC12-STCR18-CHP	CSTC-4L100DL	T-1008/5	ORSS-0454.5X1.0NBR70
QC12-STCL18-CHP	CSTC-4L100DR	T-1008/5	ORSS-0454.5X1.0NBR70

Reference pages : QC12-STCR/L, QC12-STCR/L-CHP: Inserts → G091 -
Shank, Accessory → G115, G116, Standard cutting conditions → G097

STCR/L-18

External grooving and threading toolholder



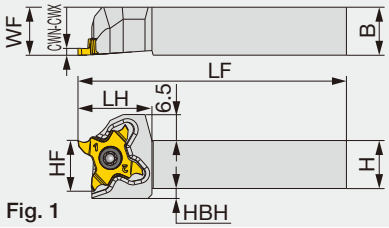


Fig. 1

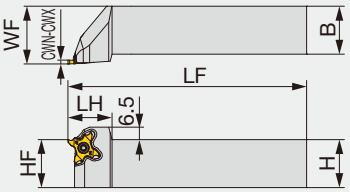
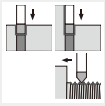


Fig. 2



Right-hand (R) shown.

Inch	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque	Fig.
STCR/L06-18	0.013	0.125	0.375	0.375	4.750	0.730	0.375	0.375	0.177	TC*18...	0.89	1
STCR/L08-18	0.013	0.125	0.500	0.500	4.750	0.730	0.500	0.500	0.098	TC*18...	0.89	1
STCR/L10-18	0.013	0.125	0.625	0.625	4.750	0.730	0.625	0.625	-	TC*18...	0.89	1
STCR/L12-18	0.013	0.125	0.750	0.750	4.750	0.900	0.750	1.000	-	TC*18...	0.89	2
STCR/L16-18	0.013	0.125	1.000	1.000	5.500	0.900	1.000	1.250	-	TC*18...	0.89	2

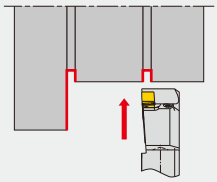
Metric	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque*	Fig.
STCR/L1010X18	0.33	3.18	10	10	120	18.5	10	10	4.5	TC*18...	1.2	1
STCR/L1212F18	0.33	3.18	12	12	85	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1212X18	0.33	3.18	12	12	120	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1616X18	0.33	3.18	16	16	120	18.5	16	16	-	TC*18...	1.2	1
STCR/L2020H18	0.33	3.18	20	20	100	18.5	20	20	-	TC*18...	1.2	1
STCR/L2020X18	0.33	3.18	20	20	120	23	20	25	-	TC*18...	1.2	2

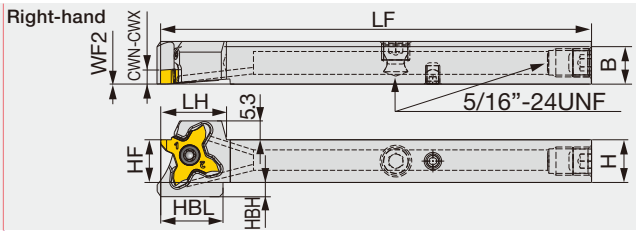
Torque: Recommended clamping torque: lbs·ft (*N·m)
Note: Use the right-hand insert (TC*18R...) for a right-hand holder (STCR...); the left-hand insert (TC*18L...) for a left-hand holder (STCL...).

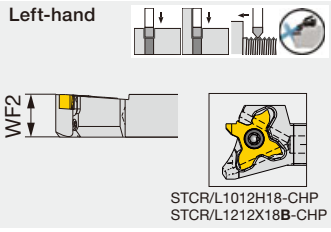
STCR/L-H/X18-CHP

Direct connection

External grooving and threading toolholder, with high pressure coolant capability







STCR/L1012H18-CHP
STCR/L1212X18**B**-CHP

Inch	CWN	CWX	H	B	LF	LH	HBL	HF	WF2	HBH	Insert	Torque
STCR/L08X18-CHP	0.013	0.125	0.500	0.500	4.750	0.728	0.689	0.500	0.500	0.130	TC**18...	0.89
STCR/L10X18-CHP	0.013	0.125	0.625	0.625	4.75	0.728	-	0.625	-	0	TC**18...	0.89

Metric	CWN	CWX	H	B	LF	LH	HBL	HF	WF2	HBH	Insert	Torque*
STCR/L1012H18-CHP	0.33	3.18	10	12	100	17.1	17.1	10	0/12	4	TC**18...	1.2
STCR/L1212X18B-CHP	0.33	3.18	12	12	120	18.5	17.5	12	0/12	4	TC**18...	1.2
STCR/L1616X18-CHP	0.33	3.18	16	16	120	18.5	-	16	0/16	0	TC**18...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
The right hand insert (TC*18R...) is used for the right hand toolholders (STCR...), and the left hand insert (TC*18L...) is used for the left hand toolholders (STCL...).

SPARE PARTS








Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
STCR**18	CSTC-4L100DL	T-1008/5	-	-	-	-
STCL**18	CSTC-4L100DR	T-1008/5	-	-	-	-
STCL**18-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
STCR**18-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

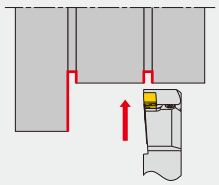
Threading pitch range: 0.8 ~ 3.0 mm

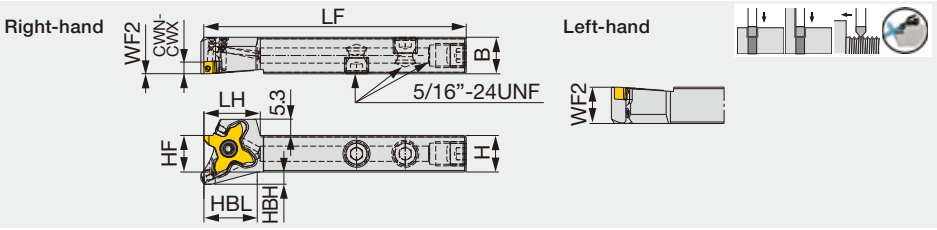
Reference pages : STCR/L-18, STCR/L-H/X18-CHP: Inserts → G091 -, Standard cutting conditions → G097

STCR/L-18-CHP

Tube connection

External grooving and threading toolholder, with high pressure coolant capability





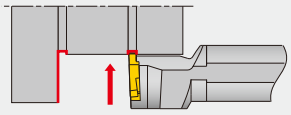
Inch	CWN	CWX	H	B	LF	LH	HBL	HF	WF2(1)	HBH	Insert	Torque*
STCR/L08F18-CHP	0.013	0.125	0.500	0.500	3.344	0.728	0.689	0.500	0/0.5	0.130	TC**18	0.89

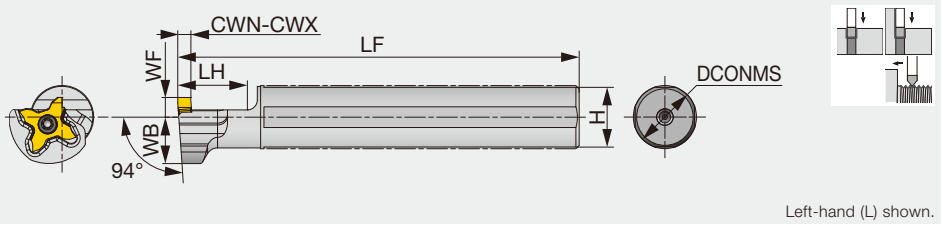
Metric	CWN	CWX	H	B	LF	LH	HBL	HF	WF2(1)	HBH	Insert	Torque*
STCR/L1212F18B-CHP	0.33	3.18	12	12	85	18.5	17.5	12	0/12	4	TC**18	1.2

The right hand insert (TC*18R***) is used for the right hand toolholders (STCR***), and the left hand insert (TC*18L***) is used for the left hand toolholders (STCL***).
WF2(1) : The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
Torque: Recommended clamping torque: lbs·ft (*N·m)

JS-STCL18

External grooving and threading toolholder with round shank, for Swiss lathes





Left-hand (L) shown.

Metric	CWN	CWX	DCONMS	LF	LH	H	WB	WF	Insert	Torque*
JS14H-STCL18	0.33	3.18	14	100	20	13	14	6	TC*18R...	1.2
JS159F-STCL18	0.33	3.18	15.875	85	20	15	14	6	TC*18R...	1.2
JS16F-STCL18	0.33	3.18	16	85	20	15	14	6	TC*18R...	1.2
JS19G-STCL18	0.33	3.18	19.05	90	20	18	14	6	TC*18R...	1.2
JS19X-STCL18	0.33	3.18	19.05	120	20	18	14	6	TC*18R...	1.2
JS20G-STCL18	0.33	3.18	20	90	20	19	14	6	TC*18R...	1.2
JS20X-STCL18	0.33	3.18	20	120	20	19	14	6	TC*18R...	1.2
JS22X-STCL18	0.33	3.18	22	120	20	21	12.25	10	TC*18R...	1.2
JS25H-STCL18	0.33	3.18	25	100	20	24	12.25	10	TC*18R...	1.2
JS254X-STCL18	0.33	3.18	25.4	120	20	24	12.25	10	TC*18R...	1.2

The left hand toolholder (STCL...) is used with the right hand inserts (TC*18R...)
*Torque: Recommended clamping torque: N·m

SPARE PARTS






Designation	Clamping screw	Wrench	Coolant plug	Wrench
STCL**F18B-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4
STCR**F18B-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4
JS...STCL18	CSTC-4L100DL	T-1008/5	-	-

Threading pitch range: 0.8 - 3.0 mm

Reference pages : STCR/L-18-CHP, JS-STCL18: Inserts → G091 -, Standard cutting conditions → G097

Selection guide for TetraMini-Cut inserts

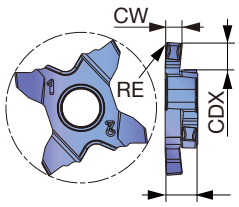
Groove width		Corner rad.		TCL18R/L (G091 page)	TCS18R/L (G091 page -)	TCG18R/L (G093 page -)	TCP18R/L (G095 page)	TCP18R/L-F (G096 page)
CW (in)	CW (mm)	RE (in)	RE (mm)	AH7025	AH7025	AH7025	AH725	SH725
0.013	0.33	0.002	0.05				●	●
0.017	0.43	0.002	0.05				●	●
0.020	0.50	0.002	0.05				●	●
0.030	0.75	0.002	0.05				●	●
0.037	0.95	0.002	0.05				●	●
0.039	1.00	0.002	0.05					●
		0.004	0.1		●	●	●	●
		0.020	0.5			●		
0.047	1.20	0.002	0.05					●
		0.004	0.1		●	●	●	●
0.049	1.25	0.002	0.05					●
		0.004	0.1		●	●	●	●
		0.008	0.2		●	●		
0.051	1.30	0.008	0.2		●	●		
0.055	1.40	0.004	0.1		●	●	●	●
		0.008	0.2		●	●		
0.057	1.45	0.002	0.05					●
		0.004	0.1		●	●	●	●
		0.008	0.2			●		
0.059	1.50	0.002	0.05					●
		0.004	0.1	●	●	●	●	●
		0.008	0.2	●	●	●		
0.062	1.58	0.031	0.79			●		
0.063	1.60	0.008	0.2		●	●		
0.067	1.70	0.008	0.2		●	●		
0.069	1.75	0.002	0.05					●
		0.004	0.1		●	●	●	●
		0.008	0.2	●	●	●		
0.073	1.85	0.008	0.2		●	●		
0.077	1.95	0.008	0.2		●	●		
0.079	2.00	0.002	0.05					●
		0.004	0.1	●	●	●	●	●
		0.008	0.2	●	●	●		
		0.039	1.0			●		
0.089	2.25	0.008	0.2		●	●		
0.091	2.30	0.008	0.2		●	●		
0.094	2.39	0.047	1.2			●		
0.098	2.50	0.004	0.1		●	●	●	●
		0.008	0.2		●	●		
		0.012	0.3	●	●	●		
0.104	2.65	0.012	0.3		●	●		
0.110	2.80	0.012	0.3		●	●		
0.118	3.00	0.004	0.1	●	●	●	●	●
		0.008	0.2	●	●	●		
		0.012	0.3	●	●	●		
		0.059	1.5			●		
0.125	3.18	0.063	1.59			●		

● : Line up

INSERT

TCL18R/L (3D chipbreaker, honed edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)
TCL18R150-010	R	1.5	0.059	0.004	●	0.138
TCL18L150-010	L	1.5	0.059	0.004	●	0.138
TCL18R150-020	R	1.5	0.059	0.008	●	0.138
TCL18L150-020	L	1.5	0.059	0.008	●	0.138
TCL18R175-020	R	1.75	0.069	0.008	●	0.138
TCL18L175-020	L	1.75	0.069	0.008	●	0.138
TCL18R200-010	R	2	0.079	0.004	●	0.138
TCL18L200-010	L	2	0.079	0.004	●	0.138
TCL18R200-020	R	2	0.079	0.008	●	0.138
TCL18L200-020	L	2	0.079	0.008	●	0.138
TCL18R250-030	R	2.5	0.098	0.012	●	0.138
TCL18L250-030	L	2.5	0.098	0.012	●	0.138
TCL18R300-010	R	3	0.118	0.004	●	0.138
TCL18L300-010	L	3	0.118	0.004	●	0.138
TCL18R300-020	R	3	0.118	0.008	●	0.138
TCL18L300-020	L	3	0.118	0.008	●	0.138
TCL18R300-030	R	3	0.118	0.012	●	0.138
TCL18L300-030	L	3	0.118	0.012	●	0.138

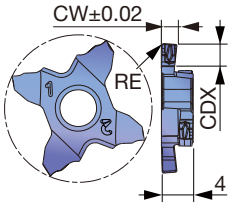
Please see page G098 for precautions of processing.

5 pieces per package

● : Line up

TCS18R (honed edge) (3D chipbreaker, honed edge)





P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

☆ : Second choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)
TCS18R100-010	R	1	0.039	0.004	●	0.079
TCS18L100-010	L	1	0.039	0.004	●	0.079
TCS18R120-010	R	1.2	0.047	0.004	●	0.079
TCS18L120-010	L	1.2	0.047	0.004	●	0.079
TCS18R125-010	R	1.25	0.049	0.004	●	0.079
TCS18L125-010	L	1.25	0.049	0.004	●	0.079

Please see page G098 for precautions of processing.

5 pieces per package

● : Line up

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated	CDX (in)
					AH7025	
TCS18R125-020	R	1.25	0.049	0.008	●	0.079
TCS18L125-020	L	1.25	0.049	0.008	●	0.079
TCS18R130-020	R	1.3	0.051	0.008	●	0.138
TCS18L130-020	L	1.3	0.051	0.008	●	0.138
TCS18R140-010	R	1.4	0.055	0.004	●	0.138
TCS18L140-010	L	1.4	0.055	0.004	●	0.138
TCS18R140-020	R	1.4	0.055	0.008	●	0.138
TCS18L140-020	L	1.4	0.055	0.008	●	0.138
TCS18R145-010	R	1.45	0.057	0.004	●	0.138
TCS18L145-010	L	1.45	0.057	0.004	●	0.138
TCS18R150-010	R	1.5	0.059	0.004	●	0.138
TCS18L150-010	L	1.5	0.059	0.004	●	0.138
TCS18R150-020	R	1.5	0.059	0.008	●	0.138
TCS18L150-020	L	1.5	0.059	0.008	●	0.138
TCS18R160-020	R	1.6	0.063	0.008	●	0.138
TCS18L160-020	L	1.6	0.063	0.008	●	0.138
TCS18R170-020	R	1.7	0.067	0.008	●	0.138
TCS18L170-020	L	1.7	0.067	0.008	●	0.138
TCS18R175-010	R	1.75	0.069	0.004	●	0.138
TCS18L175-010	L	1.75	0.069	0.004	●	0.138
TCS18R175-020	R	1.75	0.069	0.008	●	0.138
TCS18L175-020	L	1.75	0.069	0.008	●	0.138
TCS18R185-020	R	1.85	0.073	0.008	●	0.138
TCS18L185-020	L	1.85	0.073	0.008	●	0.138
TCS18R195-020	R	1.95	0.077	0.008	●	0.138
TCS18L195-020	L	1.95	0.077	0.008	●	0.138
TCS18R200-010	R	2	0.079	0.004	●	0.138
TCS18L200-010	L	2	0.079	0.004	●	0.138
TCS18R200-020	R	2	0.079	0.008	●	0.138
TCS18L200-020	L	2	0.079	0.008	●	0.138
TCS18R225-020	R	2.25	0.089	0.008	●	0.138
TCS18L225-020	L	2.25	0.089	0.008	●	0.138
TCS18R230-020	R	2.3	0.091	0.008	●	0.138
TCS18L230-020	L	2.3	0.091	0.008	●	0.138
TCS18R250-010	R	2.5	0.098	0.004	●	0.138
TCS18L250-010	L	2.5	0.098	0.004	●	0.138
TCS18R250-020	R	2.5	0.098	0.008	●	0.138
TCS18L250-020	L	2.5	0.098	0.008	●	0.138
TCS18R250-030	R	2.5	0.098	0.012	●	0.138
TCS18L250-030	L	2.5	0.098	0.012	●	0.138
TCS18R265-030	R	2.65	0.104	0.012	●	0.138
TCS18L265-030	L	2.65	0.104	0.012	●	0.138
TCS18R280-030	R	2.8	0.110	0.012	●	0.138
TCS18L280-030	L	2.8	0.110	0.012	●	0.138
TCS18R300-010	R	3	0.118	0.004	●	0.138
TCS18L300-010	L	3	0.118	0.004	●	0.138
TCS18R300-020	R	3	0.118	0.008	●	0.138
TCS18L300-020	L	3	0.118	0.008	●	0.138
TCS18R300-030	R	3	0.118	0.012	●	0.138
TCS18L300-030	L	3	0.118	0.012	●	0.138

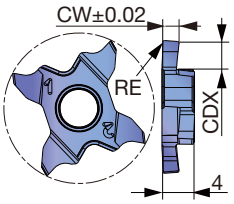
Please see page G098 for precautions of processing.

5 pieces per package
● : Line up

Reference pages : Toolholders → G086 - G089, Standard cutting conditions → G097

TCG18R/L (honed edge)





P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)
TCG18R100-010	R	1	0.039	0.004	●	0.079
TCG18L100-010	L	1	0.039	0.004	●	0.079
TCG18R120-010	R	1.2	0.047	0.004	●	0.079
TCG18L120-010	L	1.2	0.047	0.004	●	0.079
TCG18R125-010	R	1.25	0.049	0.004	●	0.079
TCG18L125-010	L	1.25	0.049	0.004	●	0.079
TCG18R125-020	R	1.25	0.049	0.008	●	0.079
TCG18L125-020	L	1.25	0.049	0.008	●	0.079
TCG18R130-020	R	1.3	0.051	0.008	●	0.079
TCG18L130-020	L	1.3	0.051	0.008	●	0.079
TCG18R140-010	R	1.4	0.055	0.004	●	0.138
TCG18L140-010	L	1.4	0.055	0.004	●	0.138
TCG18R140-020	R	1.4	0.055	0.008	●	0.138
TCG18L140-020	L	1.4	0.055	0.008	●	0.138
TCG18R145-010	R	1.45	0.057	0.004	●	0.138
TCG18L145-010	L	1.45	0.057	0.004	●	0.138
TCG18R145-020	R	1.45	0.057	0.008	●	0.138
TCG18L145-020	L	1.45	0.057	0.008	●	0.138
TCG18R150-010	R	1.5	0.059	0.004	●	0.138
TCG18L150-010	L	1.5	0.059	0.004	●	0.138
TCG18R150-020	R	1.5	0.059	0.008	●	0.138
TCG18L150-020	L	1.5	0.059	0.008	●	0.138
TCG18R160-020	R	1.6	0.063	0.008	●	0.138
TCG18L160-020	L	1.6	0.063	0.008	●	0.138
TCG18R170-020	R	1.7	0.067	0.008	●	0.138
TCG18L170-020	L	1.7	0.067	0.008	●	0.138
TCG18R175-010	R	1.75	0.069	0.004	●	0.138
TCG18L175-010	L	1.75	0.069	0.004	●	0.138
TCG18R175-020	R	1.75	0.069	0.008	●	0.138
TCG18L175-020	L	1.75	0.069	0.008	●	0.138
TCG18R185-020	R	1.85	0.073	0.008	●	0.138
TCG18L185-020	L	1.85	0.073	0.008	●	0.138
TCG18R195-020	R	1.95	0.077	0.008	●	0.138
TCG18L195-020	L	1.95	0.077	0.008	●	0.138
TCG18R200-010	R	2	0.079	0.004	●	0.138
TCG18L200-010	L	2	0.079	0.004	●	0.138
TCG18R200-020	R	2	0.079	0.008	●	0.138
TCG18L200-020	L	2	0.079	0.008	●	0.138
TCG18R225-020	R	2.25	0.089	0.008	●	0.138
TCG18L225-020	L	2.25	0.089	0.008	●	0.138
TCG18R230-020	R	2.3	0.091	0.008	●	0.138
TCG18L230-020	L	2.3	0.091	0.008	●	0.138
TCG18R250-010	R	2.5	0.098	0.004	●	0.138
TCG18L250-010	L	2.5	0.098	0.004	●	0.138

Please see page G098 for precautions of processing.

5 pieces per package
● : Line up

Reference pages : Toolholders → G086 - G089, Standard cutting conditions → G097

P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	★	
H	Hard materials		

★ : First choice
☆ : Second choice

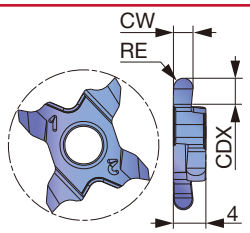
Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)
TCG18R250-020	R	2.5	0.098	0.008	●	0.138
TCG18L250-020	L	2.5	0.098	0.008	●	0.138
TCG18R250-030	R	2.5	0.098	0.012	●	0.138
TCG18L250-030	L	2.5	0.098	0.012	●	0.138
TCG18R265-030	R	2.65	0.104	0.012	●	0.138
TCG18L265-030	L	2.65	0.104	0.012	●	0.138
TCG18R280-030	R	2.8	0.110	0.012	●	0.138
TCG18L280-030	L	2.8	0.110	0.012	●	0.138
TCG18R300-010	R	3	0.118	0.004	●	0.138
TCG18L300-010	L	3	0.118	0.004	●	0.138
TCG18R300-020	R	3	0.118	0.008	●	0.138
TCG18L300-020	L	3	0.118	0.008	●	0.138
TCG18R300-030	R	3	0.118	0.012	●	0.138
TCG18L300-030	L	3	0.118	0.012	●	0.138

Please see page G098 for precautions of processing.

5 pieces per package
● : Line up

TCG18R/L (Full R, honed edge)





Right-hand (R) shown.

P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	★	
H	Hard materials		

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025	CDX (in)
TCG18R100-050	R	1	0.039	0.020	●	0.079
TCG18L100-050	L	1	0.039	0.020	●	0.079
TCG18R158-079	R	1.58	0.062	0.031	●	0.138
TCG18L158-079	L	1.58	0.062	0.031	●	0.138
TCG18R200-100	R	2	0.079	0.039	●	0.138
TCG18L200-100	L	2	0.079	0.039	●	0.138
TCG18R239-120	R	2.39	0.094	0.047	●	0.138
TCG18L239-120	L	2.39	0.094	0.047	●	0.138
TCG18R300-150	R	3	0.118	0.059	●	0.138
TCG18L300-150	L	3	0.118	0.059	●	0.138
TCG18R318-159	R	3.18	0.125	0.063	●	0.138
TCG18L318-159	L	3.18	0.125	0.063	●	0.138

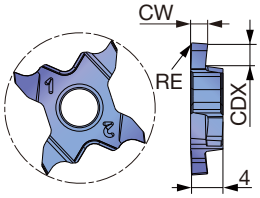
Please see page G098 for precautions of processing.

5 pieces per package
● : Line up

Reference pages : Toolholders → G086 - G089, Standard cutting conditions → G097

TCP18R/L (lightly honed edge)





P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH725	CDX (in)
TCP18R033-005	R	0.33	0.013	0.002	●	0.031
TCP18L033-005	L	0.33	0.013	0.002	●	0.031
TCP18R043-005	R	0.43	0.017	0.002	●	0.047
TCP18L043-005	L	0.43	0.017	0.002	●	0.047
TCP18R050-005	R	0.50	0.020	0.002	●	0.047
TCP18L050-005	L	0.50	0.020	0.002	●	0.047
TCP18R075-005	R	0.75	0.030	0.002	●	0.079
TCP18L075-005	L	0.75	0.030	0.002	●	0.079
TCP18R095-005	R	0.95	0.037	0.002	●	0.079
TCP18L095-005	L	0.95	0.037	0.002	●	0.079
TCP18R100-010	R	1	0.039	0.004	●	0.079
TCP18L100-010	L	1	0.039	0.004	●	0.079
TCP18R120-010	R	1.2	0.047	0.004	●	0.079
TCP18L120-010	L	1.2	0.047	0.004	●	0.079
TCP18R125-010	R	1.25	0.049	0.004	●	0.079
TCP18L125-010	L	1.25	0.049	0.004	●	0.079
TCP18R140-010-35	R	1.4	0.055	0.004	●	0.138
TCP18L140-010-35	L	1.4	0.055	0.004	●	0.138
TCP18R145-010	R	1.45	0.057	0.004	●	0.079
TCP18L145-010	L	1.45	0.057	0.004	●	0.079
TCP18R145-010-35	R	1.45	0.057	0.004	●	0.138
TCP18L145-010-35	L	1.45	0.057	0.004	●	0.138
TCP18R150-010	R	1.5	0.059	0.004	●	0.079
TCP18L150-010	L	1.5	0.059	0.004	●	0.079
TCP18R150-010-35	R	1.5	0.059	0.004	●	0.138
TCP18L150-010-35	L	1.5	0.059	0.004	●	0.138
TCP18R175-010	R	1.75	0.069	0.004	●	0.079
TCP18L175-010	L	1.75	0.069	0.004	●	0.079
TCP18R175-010-35	R	1.75	0.069	0.004	●	0.138
TCP18L175-010-35	L	1.75	0.069	0.004	●	0.138
TCP18R200-010	R	2	0.079	0.004	●	0.098
TCP18L200-010	L	2	0.079	0.004	●	0.098
TCP18R200-010-35	R	2	0.079	0.004	●	0.138
TCP18L200-010-35	L	2	0.079	0.004	●	0.138
TCP18R250-010	R	2.5	0.098	0.004	●	0.098
TCP18L250-010	L	2.5	0.098	0.004	●	0.098
TCP18R250-010-35	R	2.5	0.098	0.004	●	0.138
TCP18L250-010-35	L	2.5	0.098	0.004	●	0.138
TCP18R300-010	R	3	0.118	0.004	●	0.098
TCP18L300-010	L	3	0.118	0.004	●	0.098
TCP18R300-010-35	R	3	0.118	0.004	●	0.138
TCP18L300-010-35	L	3	0.118	0.004	●	0.138

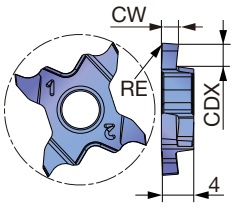
Please see page G098 for precautions of processing.

5 pieces per package
● : Line up

Reference pages : Toolholders → G086 - G089, Standard cutting conditions → G097

TCP18R/L-F (sharp edge)





P	Steel	★			
M	Stainless	★			
K	Cast iron	★			
N	Non-ferrous				
S	Superalloys	★			
H	Hard materials				

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated	CDX (in)
					SH725	
TCP18R033F-005	R	0.33	0.013	0.002	●	0.031
TCP18L033F-005	L	0.33	0.013	0.002	●	0.031
TCP18R043F-005	R	0.43	0.017	0.002	●	0.047
TCP18L043F-005	L	0.43	0.017	0.002	●	0.047
TCP18R050F-005	R	0.5	0.020	0.002	●	0.047
TCP18L050F-005	L	0.5	0.020	0.002	●	0.047
TCP18R075F-005	R	0.75	0.030	0.002	●	0.079
TCP18L075F-005	L	0.75	0.030	0.002	●	0.079
TCP18R095F-005	R	0.95	0.037	0.002	●	0.079
TCP18L095F-005	L	0.95	0.037	0.002	●	0.079
TCP18R100F-005	R	1	0.039	0.002	●	0.079
TCP18R100F-010	R	1	0.039	0.004	●	0.079
TCP18L100F-010	L	1	0.039	0.004	●	0.079
TCP18R120F-005	R	1.2	0.047	0.002	●	0.079
TCP18R120F-010	R	1.2	0.047	0.004	●	0.079
TCP18L120F-010	L	1.2	0.047	0.004	●	0.079
TCP18R125F-005	R	1.25	0.049	0.002	●	0.079
TCP18R125F-010	R	1.25	0.049	0.004	●	0.079
TCP18L125F-010	L	1.25	0.049	0.004	●	0.079
TCP18R140F-010-35	R	1.4	0.055	0.004	●	0.138
TCP18R145F-005-35	R	1.45	0.057	0.002	●	0.138
TCP18R145F-010	R	1.45	0.057	0.004	●	0.079
TCP18L145F-010	L	1.45	0.057	0.004	●	0.079
TCP18R145F-010-35	R	1.45	0.057	0.004	●	0.138
TCP18L145F-010-35	L	1.45	0.057	0.004	●	0.138
TCP18R150F-005-35	R	1.5	0.059	0.002	●	0.138
TCP18R150F-010	R	1.5	0.059	0.004	●	0.079
TCP18L150F-010	L	1.5	0.059	0.004	●	0.079
TCP18R150F-010-35	R	1.5	0.059	0.004	●	0.138
TCP18L150F-010-35	L	1.5	0.059	0.004	●	0.138
TCP18R175F-005-35	R	1.75	0.069	0.002	●	0.138
TCP18R175F-010	R	1.75	0.069	0.004	●	0.079
TCP18L175F-010	L	1.75	0.069	0.004	●	0.079
TCP18R175F-010-35	R	1.75	0.069	0.004	●	0.138
TCP18L175F-010-35	L	1.75	0.069	0.004	●	0.138
TCP18R200F-005-35	R	2	0.079	0.002	●	0.138
TCP18R200F-010	R	2	0.079	0.004	●	0.098
TCP18L200F-010	L	2	0.079	0.004	●	0.098
TCP18R200F-010-35	R	2	0.079	0.004	●	0.138
TCP18L200F-010-35	L	2	0.079	0.004	●	0.138
TCP18R250F-010	R	2.5	0.098	0.004	●	0.098
TCP18L250F-010	L	2.5	0.098	0.004	●	0.098
TCP18R250F-010-35	R	2.5	0.098	0.004	●	0.138
TCP18L250F-010-35	L	2.5	0.098	0.004	●	0.138
TCP18R300F-010	R	3	0.118	0.004	●	0.098
TCP18L300F-010	L	3	0.118	0.004	●	0.098
TCP18R300F-010-35	R	3	0.118	0.004	●	0.138
TCP18L300F-010-35	L	3	0.118	0.004	●	0.138

Please see page G098 for precautions of processing.

5 pieces per package
● : Line up

Reference pages : Toolholders → G086 - G089, Standard cutting conditions → G097

STANDARD CUTTING CONDITIONS

TCS18R (3D chipbreaker) , TCG18R/L (honed edge)

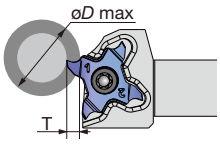
ISO	Workpiece materials	Grades	Cutting speed *Vc* (sfm)	Feed: *f* (ipr)	
				TCG	TCS
P	Low carbon steel 1015, 1020, etc.	AH7025	262 - 591	0.001 - 0.005	0.001 - 0.006
P	Carbon steels, Alloy steel 1055, 4140, etc.	AH7025	262 - 591	0.001 - 0.005	0.001 - 0.006
P	Prehardened steel NAK80, PX5, etc.	AH7025	262 - 591	0.001 - 0.005	0.001 - 0.006
M	Stainless steel 304SS, 316SS, etc.	AH7025	164 - 394	0.001 - 0.005	0.001 - 0.006
K	Gray cast iron Class 25, Class 30, etc.	AH7025	164 - 591	0.001 - 0.005	0.001 - 0.006
K	Ductile cast iron 60-40-18, 80-55-06, etc.	AH7025	164 - 591	0.001 - 0.005	0.001 - 0.006
S	Titanium alloys Ti-6Al-4V, etc.	AH7025	98 - 262	0.001 - 0.005	0.001 - 0.006
S	Superalloys Inconel718, etc.	AH7025	66 - 197	0.001 - 0.005	0.001 - 0.006

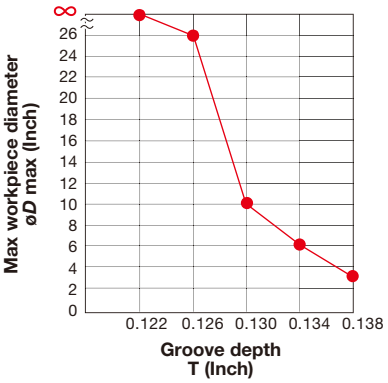
TCL18R (3D chipbreaker), TCG18R/L (Full R, honed edge)

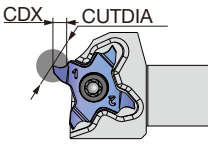
ISO	Workpiece materials	Grades	Cutting speed *Vc* (sfm)	Feed: *f* (ipr)	
				TCL18	TCG18
P	Low carbon steel 1015, 1020, etc.	AH7025	262 - 591	0.001 - 0.005	0.002 - 0.006
P	Carbon steels, Alloy steel 1055, 4140, etc.	AH7025	262 - 591	0.001 - 0.005	0.002 - 0.006
P	Prehardened steel NAK80, PX5, etc.	AH7025	262 - 591	0.001 - 0.005	0.002 - 0.006
M	Stainless steel 304SS, 316SS, etc.	AH7025	164 - 394	0.001 - 0.005	0.002 - 0.006
K	Gray cast iron Class 25, Class 30, etc.	AH7025	164 - 591	0.001 - 0.005	0.002 - 0.006
K	Ductile cast iron 60-40-18, 80-55-06, etc.	AH7025	164 - 591	0.001 - 0.005	0.002 - 0.006
S	Titanium alloys Ti-6Al-4V, etc.	AH7025	98 - 262	0.001 - 0.005	0.002 - 0.006
S	Superalloys Inconel718, etc.	AH7025	66 - 197	0.001 - 0.005	0.002 - 0.006

TCP18R/L (lightly honed edge) / TCP18R/L-F (sharp edge)

ISO	Workpiece materials	Priority	Grades	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Low carbon steel 1015, 1020, etc.	First choice	SH725	262 - 591	0.001 - 0.004
P	Low carbon steel 1015, 1020, etc.	Toughness	AH725	262 - 591	0.001 - 0.004
P	Carbon steels, Alloy steel 1055, 4140, etc.	First choice	SH725	262 - 591	0.001 - 0.004
P	Carbon steels, Alloy steel 1055, 4140, etc.	Toughness	AH725	262 - 591	0.001 - 0.004
P	Prehardened steel NAK80, PX5, etc.	First choice	SH725	262 - 591	0.001 - 0.004
P	Prehardened steel NAK80, PX5, etc.	Toughness	AH725	262 - 591	0.001 - 0.004
M	Stainless steel 304SS, 316SS, etc.	First choice	SH725	164 - 394	0.001 - 0.004
M	Stainless steel 304SS, 316SS, etc.	Toughness	AH725	164 - 394	0.001 - 0.004
K	Gray cast iron Class 25, Class 30, etc.	First choice	AH725	164 - 591	0.001 - 0.004
K	Gray cast iron Class 25, Class 30, etc.	Sharpness	SH725	164 - 591	0.001 - 0.004
K	Ductile cast iron 60-40-18, 80-55-06, etc.	First choice	AH725	164 - 591	0.001 - 0.004
K	Ductile cast iron 60-40-18, 80-55-06, etc.	Sharpness	SH725	164 - 591	0.001 - 0.004
S	Titanium alloys Ti-6Al-4V, etc.	First choice	SH725	98 - 262	0.001 - 0.004
S	Titanium alloys Ti-6Al-4V, etc.	Toughness	AH725	98 - 262	0.001 - 0.004
S	Superalloys Inconel718, etc.	First choice	SH725	66 - 197	0.001 - 0.004
S	Superalloys Inconel718, etc.	Toughness	AH725	66 - 197	0.001 - 0.004







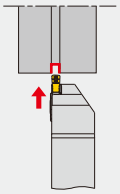
Max workpiece diameter CUTDIA (Inch)
0.276

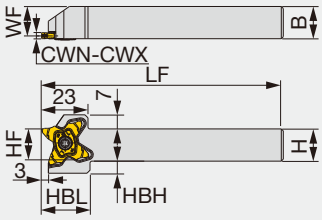
*Groove depth and max workpiece diameter (øDmax)

Maximum workpiece diameter is limited relative to depth of cut in order to avoid collision between insert and workpiece.

STCR/L-27

External grooving toolholder







Right-hand (R) shown.

Inch	CWN	CWX	H	B	LF	HF	WF	HBH	HBL	Insert	Torque
STCR/L06-27	0.020	0.125	0.375	0.375	5.000	0.375	0.315	0.374	0.945	TC*27...	1.84
STCR/L08-27	0.020	0.125	0.500	0.500	5.000	0.500	0.440	0.287	0.945	TC*27...	1.84
STCR/L10-27	0.020	0.125	0.625	0.625	5.000	0.625	0.570	0.236	0.945	TC*27...	1.84
STCR/L12-27	0.020	0.125	0.750	0.750	5.000	0.75	0.690	0.118	0.945	TC*27...	1.84
STCR/L16-27	0.020	0.125	1.000	1.000	5.500	1.000	0.940	-	-	TC*27...	1.84

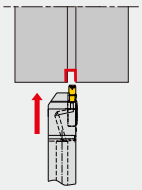
Metric	CWN	CWX	H	B	LF	HF	WF	HBH	HBL	Insert	Torque*
STCR/L1010-27	0.5	3.18	10	10	120	10	8.5	9.5	24	TC*27...	2.5
STCR/L1212-27	0.5	3.18	12	12	120	12	10.5	8	24	TC*27...	2.5
STCR/L1616-27	0.5	3.18	16	16	120	16	14.5	6	24	TC*27...	2.5
STCR/L2020-27	0.5	3.18	20	20	120	20	18.5	2	24	TC*27...	2.5

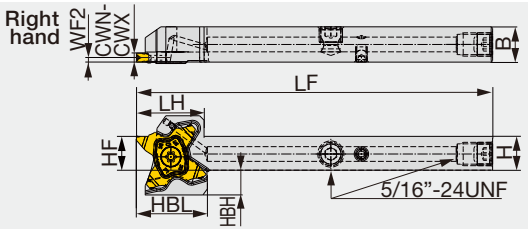
Torque: Recommended clamping torque: lbs·ft (*N·m)

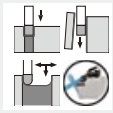
STCR/L1212-27-CHP

Direct connection

Grooving and parting-off toolholder. High pressure coolant capability.







Inch	CWN	CWX	H	B	LF	LH	HF	WF2(1)	HBH	HBL	Insert	Torque
STCR/L08-27-CHP	0.020	0.125	0.500	0.500	4.750	0.906	0.500	0.059/0.413	0.287	0.945	TC*27...	1.84

Metric	CWN	CWX	H	B	LF	LH	HF	WF2(1)	HBH	HBL	Insert	Torque*
STCR/L1212-27-CHP	0.5	3.18	12	12	120	23	12	1.5/10.5	8	24	TC*27...	2.5

(1) The above WF value is valid when an insert width of CW = 0.118" is mounted.
Torque: Recommended clamping torque: lbs·ft (*N·m)
Make sure to avoid tool interferences when used on Swiss machines

SPARE PARTS





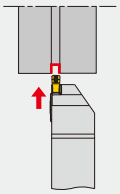
Designation	Screw	Wrench
STCR****-27, STCR...-27-CHP	SR16-212-01397L	T-2010/5
STCL****-27, STCL...-27-CHP	SR16-212-01397	T-2010/5

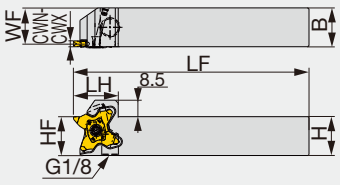
Reference pages : STCR/L-27, STCR/L1212-27-CHP:
Inserts → G100 - G104, Standard cutting conditions → G104

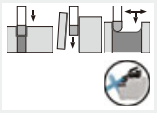
STCR/L2020-27-CHP

Tube connection

External grooving and parthing-off toolholder with high pressure coolant supply







Right-hand (R) shown.

Inch	CWN	CWX	H	B	LF	LH	HF	WF	Insert	Torque
STCR/L12-27-CHP	0.020	0.125	0.750	0.750	5.000	0.906	0.750	0.690	TC*27...	1.84

Metric	CWN	CWX	H	B	LF	LH	HF	WF	Insert	Torque*
STCR/L2020-27-CHP	0.5	3.18	20	20	120	23	20	18.5	TC*27...	2.5

Torque: Recommended clamping torque: lbs·ft (*N·m)

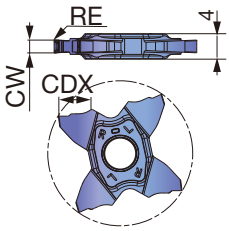
SPARE PARTS

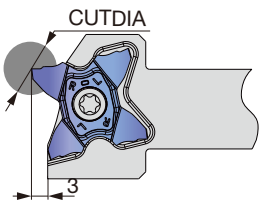


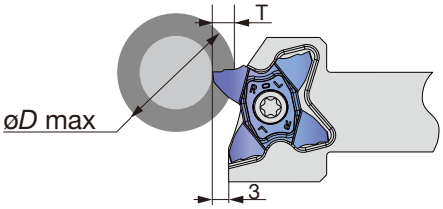

Designation	Screw	Wrench
STCR...-27-CHP	SR16-212-01397L	T-2010/5
STCL...-27-CHP	SR16-212-01397	T-2010/5

INSERT - FOR GROOVING AND PARTING OFF

TCL27







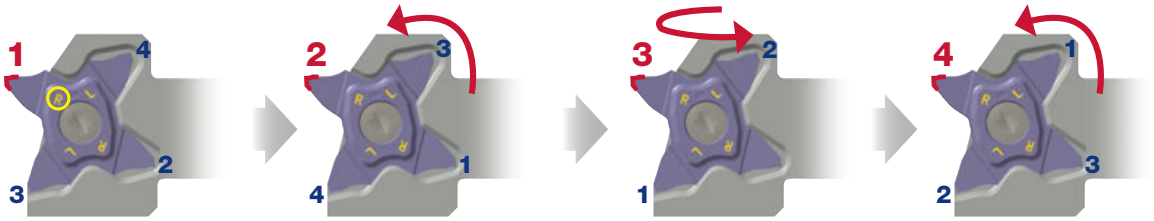
P	Steel	★			
M	Stainless	★			
K	Cast iron	★			
N	Non-ferrous				
S	Superalloys	★			
H	Hard materials				

★ : First choice
☆ : Second choice

Designation	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH725			CDX (in)	CUTDIA (in)	Relation of groove depth (T) and Max. diameter (øD max) (in)									
									T≤0.118	T≤0.138	T≤0.157	T≤0.177	T≤0.197	T≤0.217	T≤0.224	T≤0.236	T≤0.244	T≤0.252
TCL27-150-015	1.5	0.059	0.006	●			0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCL27-200-020	2	0.079	0.008	●			0.252	0.504	∞	23.622	11.024	7.087	5.118	4.134	3.346	2.362	1.969	1.181
TCL27-250-020	2.5	0.098	0.008	●			0.252	0.504	∞	23.622	11.024	7.087	5.118	4.134	3.346	2.362	1.969	1.181
TCL27-300-020	3	0.118	0.008	●			0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165

5 pieces per package
● : Line up

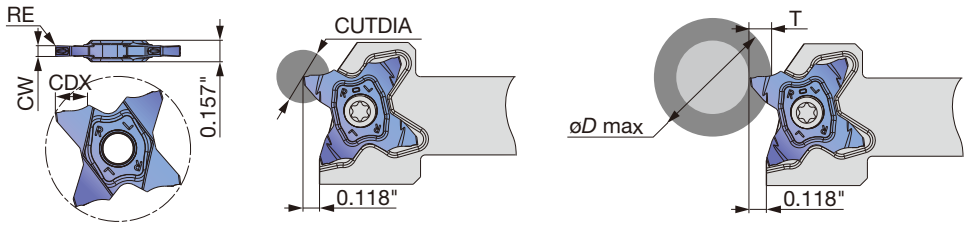
HOW TO INDEX INSERTS



1. Right-hand edge (R) is used for the right- hand toolholders.
2. Rotate the insert
3. Flip over the insert
4. Rotate the insert

INSERT - FOR GROOVING AND PARTING OFF

TCS27



P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	★	
H	Hard materials		

★ : First choice
☆ : Second choice

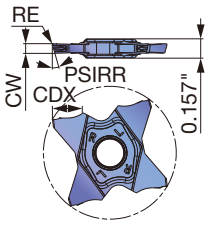
Designation	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH725	CDX (in)	CUTDIA (in)	Relation of groove depth (T) and Max. diameter (øD max) (in)											
							T≤0.039	T≤0.079	T≤0.118	T≤0.138	T≤0.157	T≤0.177	T≤0.197	T≤0.217	T≤0.224	T≤0.236	T≤0.244	T≤0.252
TCS27-050-000	0.5	0.020	0	●	0.039	0.079	∞	-	-	-	-	-	-	-	-	-	-	-
TCS27-050-004	0.5	0.020	0.0016	●	0.098	0.197	∞	∞	-	-	-	-	-	-	-	-	-	-
TCS27-075-010	0.75	0.030	0.004	●	0.098	0.197	∞	∞	-	-	-	-	-	-	-	-	-	-
TCS27-080-000	0.8	0.031	0	●	0.063	0.126	∞	-	-	-	-	-	-	-	-	-	-	-
TCS27-100-006	1	0.039	0.0024	●	0.138	0.276	∞	∞	∞	23.622	-	-	-	-	-	-	-	-
TCS27-100-010	1	0.039	0.004	●	0.138	0.276	∞	∞	∞	23.622	-	-	-	-	-	-	-	-
TCS27-104-000	1.04	0.041	0	●	0.079	0.157	∞	∞	-	-	-	-	-	-	-	-	-	-
TCS27-120-000	1.2	0.047	0	●	0.079	0.157	∞	∞	-	-	-	-	-	-	-	-	-	-
TCS27-125-010	1.25	0.049	0.004	●	0.138	0.276	∞	∞	∞	23.622	-	-	-	-	-	-	-	-
TCS27-125-020	1.25	0.049	0.008	●	0.138	0.276	∞	∞	∞	23.622	-	-	-	-	-	-	-	-
TCS27-140-000	1.4	0.055	0	●	0.079	0.157	∞	∞	-	-	-	-	-	-	-	-	-	-
TCS27-147-000	1.47	0.058	0	●	0.098	0.197	∞	∞	-	-	-	-	-	-	-	-	-	-
TCS27-150-010	1.5	0.059	0.004	●	0.224	0.449	∞	∞	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCS27-150-020	1.5	0.059	0.008	●	0.224	0.449	∞	∞	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCS27-157-015	1.57	0.062	0.006	●	0.118	0.236	∞	∞	∞	-	-	-	-	-	-	-	-	-
TCS27-170-010	1.7	0.067	0.004	●	0.118	0.236	∞	∞	∞	-	-	-	-	-	-	-	-	-
TCS27-175-010	1.75	0.069	0.004	●	0.118	0.236	∞	∞	∞	-	-	-	-	-	-	-	-	-
TCS27-175-020	1.75	0.069	0.008	●	0.118	0.236	∞	∞	∞	-	-	-	-	-	-	-	-	-
TCS27-178-018	1.78	0.070	0.007	●	0.118	0.236	∞	∞	∞	-	-	-	-	-	-	-	-	-
TCS27-185-020	1.85	0.073	0.008	●	0.118	0.236	∞	∞	∞	-	-	-	-	-	-	-	-	-
TCS27-196-015	1.96	0.077	0.006	●	0.118	0.236	∞	∞	∞	-	-	-	-	-	-	-	-	-
TCS27-200-010	2	0.079	0.004	●	0.252	0.504	∞	∞	∞	23.622	11.024	7.087	5.118	4.134	3.346	2.362	1.969	1.181
TCS27-200-020	2	0.079	0.008	●	0.252	0.504	∞	∞	∞	23.622	11.024	7.087	5.118	4.134	3.346	2.362	1.969	1.181
TCS27-222-015	2.22	0.087	0.006	●	0.138	0.276	∞	∞	∞	23.622	-	-	-	-	-	-	-	-
TCS27-230-020	2.3	0.091	0.008	●	0.138	0.276	∞	∞	∞	23.622	-	-	-	-	-	-	-	-
TCS27-239-015	2.39	0.094	0.006	●	0.224	0.449	∞	∞	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCS27-247-020	2.47	0.097	0.008	●	0.224	0.449	∞	∞	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCS27-250-010	2.5	0.098	0.004	●	0.224	0.449	∞	∞	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCS27-250-030	2.5	0.098	0.012	●	0.224	0.449	∞	∞	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCS27-270-010	2.7	0.106	0.004	●	0.244	0.488	∞	∞	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	-
TCS27-287-020	2.87	0.113	0.008	●	0.244	0.488	∞	∞	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	-
TCS27-300-000	3	0.118	0	●	0.252	0.504	∞	∞	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCS27-300-020	3	0.118	0.008	●	0.252	0.504	∞	∞	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCS27-300-030	3	0.118	0.012	●	0.252	0.504	∞	∞	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCS27-300-040	3	0.118	0.016	●	0.252	0.504	∞	∞	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCS27-315-015	3.15	0.124	0.006	●	0.252	0.504	∞	∞	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.677
TCS27-318-020	3.18	0.125	0.008	●	0.252	0.504	∞	∞	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.677

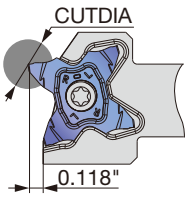
5 pieces per package
● : Line up

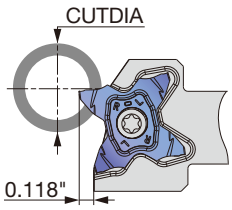
Reference pages : Toolholders → G099 - G100, Standard cutting conditions → G104

INSERT- FOR PARTING OFF

TCS27-R/L







Right hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

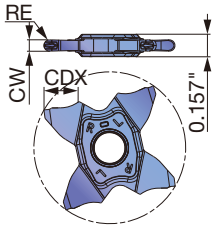
★ : First choice
☆ : Second choice

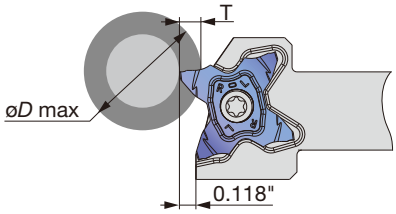
Designation	HAND	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH725	CDX (in)	PSIRL	PSIRR	Max. parting off dia. CUTDIA (in) Solid bar	Max. parting off dia. CUTDIA (in) Tube
TCS27-100-15R	R	1	0.039	0.0024	●	0.138	0°	15°	0.276	23.622
TCS27-100-15L	L	1	0.039	0.0024	●	0.138	15°	0°	0.276	23.622
TCS27-150-6R	R	1.5	0.059	0.0024	●	0.224	0°	6°	0.449	1.378
TCS27-150-6L	L	1.5	0.059	0.0024	●	0.224	6°	0°	0.449	1.378
TCS27-150-15R	R	1.5	0.059	0.0024	●	0.224	0°	15°	0.449	1.378
TCS27-150-15L	L	1.5	0.059	0.0024	●	0.224	15°	0°	0.449	1.378
TCS27-200-6R	R	2	0.079	0.004	●	0.252	0°	6°	0.504	1.181
TCS27-200-6L	L	2	0.079	0.004	●	0.252	6°	0°	0.504	1.181
TCS27-200-15R	R	2	0.079	0.004	●	0.252	0°	15°	0.504	1.181
TCS27-200-15L	L	2	0.079	0.004	●	0.252	15°	0°	0.504	1.181

5 pieces per package
● : Line up

INSERT- FOR GROOVING AND PROFILING

TCS27 (Full R)





P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice
☆ : Second choice

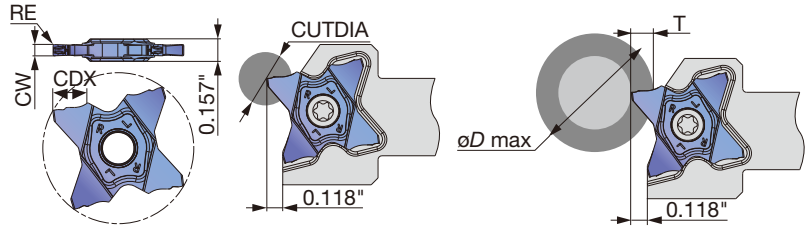
Designation	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH725	CDX (in)	Relation of groove depth (T) and Max. diameter (øD max) (in) T≤0.039 T≤0.079 T≤0.118	T≤0.138	T≤0.157	T≤0.177	T≤0.197	T≤0.217	T≤0.224	T≤0.236	T≤0.244	T≤0.252
TCS27-157-079	1.57	0.062	0.031	●	0.118	∞	-	-	-	-	-	-	-	-	-
TCS27-200-100	2	0.079	0.039	●	0.118	∞	-	-	-	-	-	-	-	-	-
TCS27-239-120	2.39	0.094	0.047	●	0.224	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCS27-300-150	3	0.118	0.059	●	0.252	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165

5 pieces per package
● : Line up

Reference pages : Toolholders → G099 - G100, Standard cutting conditions → G104

INSERT- FOR GROOVING AND PARTING OFF

TCM27



P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous			
S	Superalloys	★		
H	Hard materials			

★ : First choice
☆ : Second choice

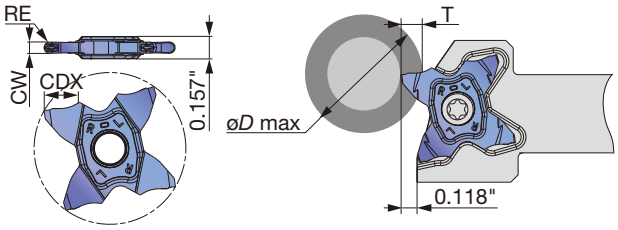
Designation	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH725			CDX (in)	CUTDIA (in)	Relation of groove depth (T) and Max. diameter (øD max) (in)									
									T≤0.039 T≤0.079 T≤0.118	T≤0.138	T≤0.157	T≤0.177	T≤0.197	T≤0.217	T≤0.224	T≤0.236	T≤0.244	T≤0.252
TCM27-150-010	1.5	0.059	0.004	●			0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCM27-150-020	1.5	0.059	0.008	●			0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCM27-157-015	1.57	0.062	0.006	●			0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-170-010	1.7	0.067	0.004	●			0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-175-010	1.75	0.069	0.004	●			0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-175-020	1.75	0.069	0.008	●			0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-178-018	1.78	0.070	0.007	●			0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-185-020	1.85	0.073	0.008	●			0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-196-015	1.96	0.077	0.006	●			0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-200-010	2	0.079	0.004	●			0.252	0.504	∞	23.622	11.024	7.087	5.118	4.134	3.346	2.362	1.969	1.181
TCM27-200-020	2	0.079	0.008	●			0.252	0.504	∞	23.622	11.024	7.087	5.118	4.134	3.346	2.362	1.969	1.181
TCM27-222-015	2.22	0.087	0.006	●			0.138	0.276	∞	23.622	-	-	-	-	-	-	-	-
TCM27-230-020	2.3	0.091	0.008	●			0.138	0.276	∞	23.622	-	-	-	-	-	-	-	-
TCM27-239-015	2.39	0.094	0.006	●			0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCM27-247-020	2.47	0.097	0.008	●			0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCM27-250-010	2.5	0.098	0.004	●			0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCM27-250-030	2.5	0.098	0.012	●			0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCM27-270-010	2.7	0.106	0.004	●			0.244	0.488	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	-
TCM27-287-020	2.87	0.113	0.008	●			0.244	0.488	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	-
TCM27-300-000	3	0.118	0	●			0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCM27-300-020	3	0.118	0.008	●			0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCM27-300-030	3	0.118	0.012	●			0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCM27-300-040	3	0.118	0.016	●			0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCM27-315-015	3.15	0.124	0.006	●			0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.677
TCM27-318-020	3.18	0.125	0.008	●			0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.677

5 pieces per package
● : Line up

Reference pages : Toolholders → G099 - G100, Standard cutting conditions → G104

INSERT - FOR GROOVING AND PROFILING

TCM27 (Full R)



P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous			
S	Superalloys	★		
H	Hard materials			

★ : First choice
☆ : Second choice

Designation	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH725	CDX (in)	CUTDIA (in)	Relation of groove depth (T) and Max. diameter (øD max) (in)									
							T≤0.039 T≤0.079 T≤0.118	T≤0.138	T≤0.157	T≤0.177	T≤0.197	T≤0.217	T≤0.224	T≤0.236	T≤0.244	T≤0.252
TCM27-157-079	1.57	0.059	0.031	●	0.118	0.236	∞	-	-	-	-	-	-	-	-	-
TCM27-200-100	2	0.059	0.039	●	0.118	0.236	∞	23.622	-	-	-	-	-	-	-	-
TCM27-239-120	2.39	0.062	0.047	●	0.224	0.449	∞	23.622	11.024	7.087	5.118	1.969	1.378	-	-	-
TCM27-300-150	3	0.125	0.059	●	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165

5 pieces per package
● : Line up

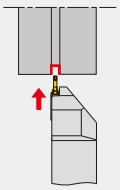
STANDARD CUTTING CONDITIONS

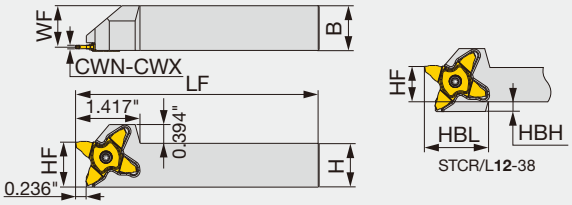
ISO	Workpiece material	Grades	Cutting speed *Vc* (sfm)	Feed: *f* (ipr)						Depth of cut for profiling (with full radius insert)
				Grooving, parting-off			Parting-off (with hand)	Profiling (with full radius insert)		
				TCL27	TCS27	TCM27	TCS27	TCS27	TCM27	
P	Steel 1045, etc.	AH725	328 - 656	0.001 - 0.005	0.002 - 0.006	0.002 - 0.010	0.002 - 0.005	0.002 - 0.004	0.002 - 0.006	0.020
	Alloy steel 4137, etc.	AH725	164 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.010	0.002 - 0.005	0.002 - 0.004	0.002 - 0.006	0.020
M	Stainless steel 304, etc.	AH725	328 - 492	0.001 - 0.005	0.002 - 0.006	0.002 - 0.008	0.002 - 0.005	0.002 - 0.004	0.002 - 0.006	0.020
K	Gray cast iron No.250, etc.	AH725	164 - 591	0.001 - 0.005	0.002 - 0.006	0.002 - 0.010	0.002 - 0.005	0.002 - 0.004	0.002 - 0.006	0.020
	Ductile cast iron 60-40-18, etc.	AH725	164 - 394	0.001 - 0.005	0.002 - 0.006	0.002 - 0.008	0.002 - 0.005	0.002 - 0.004	0.002 - 0.006	0.020
S	Titanium alloys Ti-6Al-4V, etc.	AH725	98 - 197	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006	0.002 - 0.005	0.002 - 0.004	0.002 - 0.004	0.020
	Superalloys Inconel718, etc.	AH725	66 - 164	0.001 - 0.005	0.002 - 0.006	0.002 - 0.006	0.002 - 0.005	0.002 - 0.004	0.002 - 0.004	0.020

Reference pages : Toolholders → G099 - G100

STCR/L-38

External grooving and parting toolholder







Right hand (R) shown.

Inch	CWN	CWX	H	B	LF	HF	WF	HBH	HBL	Insert	Torque
STCR/L12-38	0.059	0.157	0.750	0.750	5.000	0.750	0.670	0.234	1.378	TCL38...	1.84
STCR/L16-38	0.059	0.157	1.000	1.000	5.500	1.000	0.920	-	-	TCL38...	1.84
STCR/L20-38	0.059	0.157	1.250	1.250	5.500	1.250	1.170	-	-	TCL38...	1.84

Metric	CWN	CWX	H	B	LF	HF	WF	HBH	HBL	Insert	Torque*
STCR/L2020-38	1.5	4	20	20	120	20	18.1	5	35	TCL38...	2.5
STCR/L2525-38	1.5	4	25	25	135	25	23.1	-	-	TCL38...	2.5
STCR/L3232-38	1.5	4	32	32	135	32	30.1	-	-	TCL38...	2.5

Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS

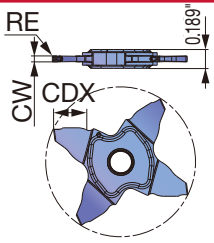


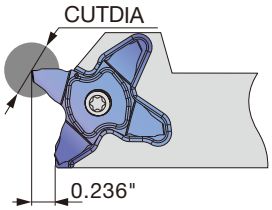


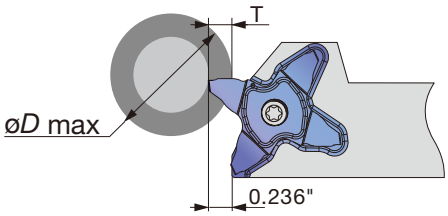
Designation	Screw	Wrench
STCR****-38 (-CHP)	SR16-212-01397L	T-2010/5
STCL****-38 (-CHP)	SR16-212-01397	T-2010/5

INSERT - FOR GROOVING AND PARTING OFF

TCL38







P	Steel	★			
M	Stainless	★			
K	Cast iron	★			
N	Non-ferrous				
S	Superalloys	★			
H	Hard materials				

★ : First choice

Designation	CW±0.02 (mm)	CW±0.001 (in)	RE (in)	Coated AH7025			CDX (in)	CUTDIA (in)	Relation of groove depth (T) and Max. diameter (øD max)					
									T ≤ 0.197"	T ≤ 0.236"	T ≤ 0.276"	T ≤ 0.315"	T ≤ 0.354"	T ≤ 0.394"
TCL38-150-020	1.5	0.059	0.008	●			0.354	0.709	∞	37.402	12.402	7.480	1.772	-
TCL38-200-020	2	0.079	0.008	●			0.354	0.709	∞	37.402	12.402	7.480	1.772	-
TCL38-300-020	3	0.118	0.008	●			0.394	0.787	∞	37.402	12.402	7.480	5.118	1.969
TCL38-400-030	4	0.157	0.012	●			0.394	0.787	∞	37.402	12.402	7.480	5.118	1.969

5 pieces per package

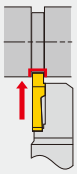
● : Line up

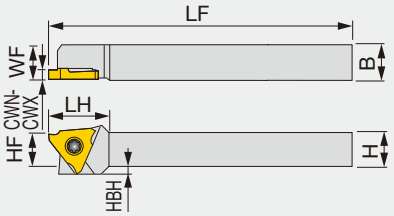
STANDARD CUTTING CONDITIONS

ISO	Workpiece materials	Grades	Cutting speed Vc (sfm)	Feed: f (ipr) Grooving, Parting TCL38
P	Carbon steel (1045, etc.)	AH7025	262 - 591	0.001 - 0.007
	Alloy steel (4140, etc.)	AH7025	164 - 591	0.001 - 0.007
M	Alloy steel (304SS, etc.)	AH7025	164 - 492	0.001 - 0.006
K	Grey cast iron (Class 25, etc.)	AH7025	164 - 591	0.001 - 0.006
	Ductile cast iron (60-40-18, etc.)	AH7025	164 - 394	0.001 - 0.006
S	Titanium alloys (Ti-6Al-4V, etc.)	AH7025	98 - 197	0.001 - 0.006
	Superalloys (Inconel718, etc.)	AH7025	66 - 164	0.001 - 0.006

JSTGR/L

Screw-on external grooving toolholder, for Swiss lathes





Without offset

Right-hand (R) shown.

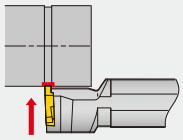
Inch	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque
JSTGR/L063	0.013	0.118	0.375	0.375	5	0.75	0.375	0.375	0.100	JTGR/L3...	0.89
JSTGR/L083	0.013	0.118	0.500	0.500	5	0.75	0.500	0.500	-	JTGR/L3...	0.89
JSTGR/L103	0.013	0.118	0.625	0.625	5	0.75	0.625	0.625	-	JTGR/L3...	0.89

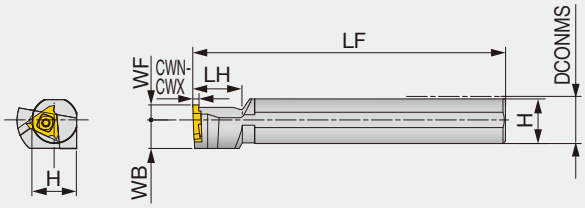
Metric	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque*
JSTGR/L1010X3	0.33	3	10	10	120	18.5	10	10	2	JTGR/L3...	1.2
JSTGR/L1212F3	0.33	3	12	12	85	18.5	12	12	-	JTGR/L3...	1.2
JSTGR/L1212X3	0.33	3	12	12	120	18.5	12	12	-	JTGR/L3...	1.2
JSTGR/L1616X3	0.33	3	16	16	120	18.5	16	16	-	JTGR/L3...	1.2
JSTGL1616K3	0.33	3	16	16	125	18.5	16	16	-	JTGR/L3...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)

JS-TGL3

Screw-on external grooving toolholder, for Swiss lathes





Left-hand (L) shown.

Metric	CWN	CWX	DCONMS	WF	LF	LH	H	WB	Insert	Torque*
JS19K-TGL3	0.33	3	19.05	6	125	20	18	11.5	JTGR3...	3.0
JS20K-TGL3	0.33	3	20	6	125	20	19	11.5	JTGR3...	3.0
JS22K-TGL3	0.33	3	22	6	125	20	21	11.5	JTGR3...	3.0
JS25K-TGL3	0.33	3	25.4	10	125	20	24	12.7	JTGR3...	3.0

Torque*: Recommended clamping torque (N·m)
Use left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS





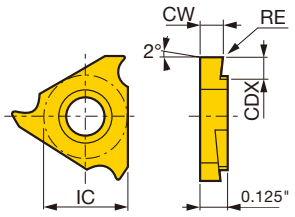
Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSTGR/L...	CSTB-4SD	T-8F	(T-8L)
JS**-TGL3	CSTB-4S	T-15F	-

Reference pages : JSTGR/L, JS-TGL3: Inserts → G107 - G108
Standard cutting conditions → G108

INSERT

JTG (Sharp edge)





Right hand (R) shown.

		Coated			Cermet	Uncoated
P	Steel	★	★		★	☆
M	Stainless	★	★			
K	Cast iron				☆	★
N	Non-ferrous					★
S	Superalloys					★
H	Hard materials					

★ : First choice
☆ : Second choice

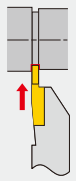
Designation	HAND	$CW^{+0.05}_{0}$ (mm)	$CW^{+0.002}_{0}$ (in)	RE (in)	SH725	J740	NS9530	TH10	CDX (in)	IC (mm)	Max. groove depth
JTGR3033F	R	0.33	0.013	0.001	●	●		●	0.028	9.53	0.028
JTGL3033F	L	0.33	0.013	0.001		●		●	0.028	9.53	0.028
JTGR3033F-005	R	0.33	0.013	0.002	●				0.028	9.53	0.028
JTGR3043F	R	0.43	0.017	0.001		●			0.043	9.53	0.028
JTGR3050F	R	0.5	0.020	0.001	●	●	●	●	0.043	9.53	0.043
JTGL3050F	L	0.5	0.020	0.001	●	●		●	0.043	9.53	0.043
JTGR3050F-005	R	0.5	0.020	0.002	●				0.043	9.53	0.043
JTGL3050F-005	L	0.5	0.020	0.002	●				0.043	9.53	0.043
JTGR3065F	R	0.65	0.026	0.001	●	●			0.075	9.53	0.043
JTGR3065F-010	R	0.65	0.026	0.004	●				0.075	9.53	0.043
JTGR3075F	R	0.75	0.030	0.001	●	●	●	●	0.075	9.53	0.075
JTGL3075F	L	0.75	0.030	0.001	●	●	●	●	0.075	9.53	0.075
JTGR3075F-010	R	0.75	0.030	0.004	●				0.075	9.53	0.075
JTGL3075F-010	L	0.75	0.030	0.004	●				0.075	9.53	0.075
JTGR3080F	R	0.8	0.031	0.001	●	●			0.075	9.53	0.075
JTGR3080F-010	R	0.8	0.031	0.004	●				0.075	9.53	0.075
JTGR3085F	R	0.85	0.033	0.001	●	●			0.075	9.53	0.075
JTGR3095F	R	0.95	0.037	0.001	●	●	●	●	0.075	9.53	0.075
JTGL3095F	L	0.95	0.037	0.001	●	●		●	0.075	9.53	0.075
JTGR3095F-010	R	0.95	0.037	0.004	●				0.075	9.53	0.075
JTGL3095F-010	L	0.95	0.037	0.004	●				0.075	9.53	0.075
JTGR3100F	R	1	0.039	0.002	●	●	●	●	0.083	9.53	0.075
JTGL3100F	L	1	0.039	0.002	●	●		●	0.083	9.53	0.075
JTGR3100F-010	R	1	0.039	0.004	●				0.083	9.53	0.075
JTGL3100F-010	L	1	0.039	0.004	●				0.083	9.53	0.075
JTGR3110F	R	1.1	0.043	0.002	●	●			0.083	9.53	0.075
JTGR3120F	R	1.2	0.047	0.002	●	●			0.083	9.53	0.075
JTGR3120F-010	R	1.2	0.047	0.004	●				0.083	9.53	0.075
JTGR3125F	R	1.25	0.049	0.002	●	●	●	●	0.083	9.53	0.083
JTGL3125F	L	1.25	0.049	0.002	●	●		●	0.083	9.53	0.083
JTGR3125F-010	R	1.25	0.049	0.004	●				0.083	9.53	0.083
JTGL3125F-010	L	1.25	0.049	0.004	●				0.083	9.53	0.083
JTGR3130F	R	1.3	0.051	0.002	●	●			0.083	9.53	0.083
JTGR3140F	R	1.4	0.055	0.002	●	●			0.083	9.53	0.083
JTGR3140F-010	R	1.4	0.055	0.004	●				0.083	9.53	0.083
JTGR3145F	R	1.45	0.057	0.002	●	●	●	●	0.083	9.53	0.083
JTGL3145F	L	1.45	0.057	0.002		●		●	0.083	9.53	0.083
JTGR3145F-010	R	1.45	0.057	0.004	●				0.083	9.53	0.083
JTGR3150F	R	1.5	0.059	0.002	●	●	●	●	0.083	9.53	0.083
JTGL3150F	L	1.5	0.059	0.002	●	●		●	0.083	9.53	0.083
JTGR3150F-010	R	1.5	0.059	0.004	●				0.083	9.53	0.083
JTGL3150F-010	L	1.5	0.059	0.004	●				0.083	9.53	0.083
JTGR3175F	R	1.75	0.069	0.002	●	●	●	●	0.083	9.53	0.083
JTGL3175F	L	1.75	0.069	0.002		●	●	●	0.083	9.53	0.083
JTGR3175F-010	R	1.75	0.069	0.004	●				0.083	9.53	0.083

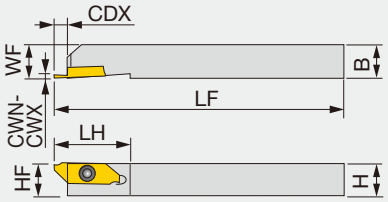
●: Line up

| | | |

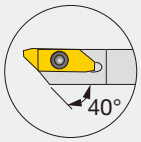
JSXGR/L

Screw-on toolholder without offset for front / reverse turning & external grooving





Without offset



C-type

Right hand (R) shown.

Metric	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Insert
JSXGR/L1010K8-C	0.7	2	6.7	10	10	125	29	10	10	JX*R/L8...
JSXGR/L1212K8-C	0.7	2	6.7	12	12	125	29	12	12	JX*R/L8...
JSXGR/L1616K8	0.7	2	6.5	16	16	125	29	16	16	JX*R/L8...
JSXGR/L2020K8	0.7	2	6.5	20	20	125	29	20	20	JX*R/L8...

Can be wrenched also from the back with a double-head screw.
This toolholders can be used for JXG insert (grooving), JFX insert (front-turning), JXK insert (reverse-turning)

SPARE PARTS



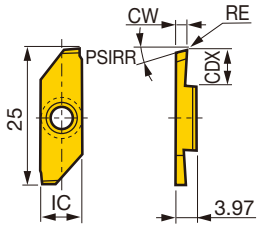


Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSXGR/L	CSTB-4SD	T-8F	(T-8L)

INSERT

JXG (handed insert with sharp edge)





Right hand (R) shown.

P	Steel	★	☆	
M	Stainless	★		
K	Cast iron		★	
N	Non-ferrous		★	
S	Superalloys	☆	★	
H	Hard materials			

★ : First choice
☆ : Second choice

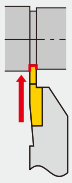
Designation	HAND	CW±0.001 (in)	CW±0.025 (mm)	RE (mm)	Coated J740	Uncoated TH10	CDX (mm)	IC (mm)	PSIRR (mm)
JXGR8070FA	R	0.028	0.7	0	●		4.5	8	15
JXGL8070FA	L	0.028	0.7	0	●	●	4.5	8	15
JXGR8070FA-005	R	0.028	0.7	0.05	●	●	4.5	8	15
JXGR8100FA	R	0.039	1	0	●		6	8	15
JXGL8100FA	L	0.039	1	0	●	●	6	8	15
JXGR8100FA-005	R	0.039	1	0.05	●	●	6	8	15
JXGR8100FA45	R	0.039	1	0	●		4.5	8	15
JXGR8100FA45-005	R	0.039	1	0.05	●	●	4.5	8	15
JXGR8150FA	R	0.059	1.5	0	●		6	8	15
JXGL8150FA	L	0.059	1.5	0	●	●	6	8	15
JXGR8150FA-005	R	0.059	1.5	0.05	●	●	6	8	15
JXGR8150FA50	R	0.059	1.5	0	●		5	8	15
JXGR8150FA50-005	R	0.059	1.5	0.05	●	●	5	8	15
JXGR8180FA	R	0.071	1.8	0	●		6	8	15
JXGR8180FA-005	R	0.071	1.8	0.05	●	●	6	8	15
JXGR8200FA	R	0.079	2	0	●		6	8	15
JXGL8200FA	L	0.079	2	0	●	●	6	8	15
JXGR8200FA-005	R	0.079	2	0.05	●	●	6	8	0
JXGR8200FN	R	0.079	2	0	●		6	8	0
JXGL8200FN	L	0.079	2	0	●	●	6	8	0
JXGR8200FN-005	R	0.079	2	0.05	●	●	6	8	0

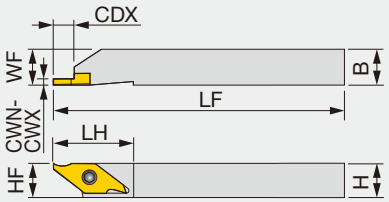
●: Line up

Reference pages: JSXGR/L: Standard cutting conditions → G111

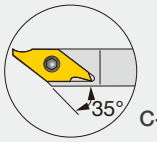
JSVGR/L

Screw-on external grooving toolholder, for Swiss lathes





Without offset



C-type

Right hand (R) shown.

Inch	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Insert	Torque
JSVGR/L062.5	0.013	0.079	0.028 - 0.217	0.375	0.375	5	0.875	0.375	0.375	JVGR/L...	1.70
JSVGR/L082.5	0.013	0.079	0.028 - 0.217	0.500	0.500	5	0.875	0.500	0.500	JVGR/L...	1.70
JSVGR/L102.5	0.013	0.079	0.028 - 0.217	0.625	0.625	5	0.875	0.625	0.625	JVGR/L...	1.70

Metric	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Insert	Torque*
JSVGR/L1010K-C	0.33	2	6.2	10	10	125	23	10	10	JVGR/L...	2.3
JSVGR/L1212K-C	0.33	2	6.2	12	12	125	23	12	12	JVGR/L...	2.3
JSVGR/L1616K	0.33	2	6.2	16	16	125	23	16	16	JVGR/L...	2.3

Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS





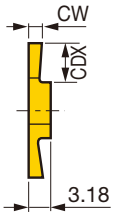
Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSVGR/L	CSTB-3S	T-9F	(T-9L)

INSERT

JVG (with hand, sharp edge)







Right hand (R) shown.

| | | Coated | | | Cermet | Uncoated | | |

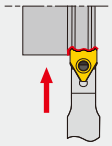
STANDARD CUTTING CONDITIONS (JXG and JVG inserts)

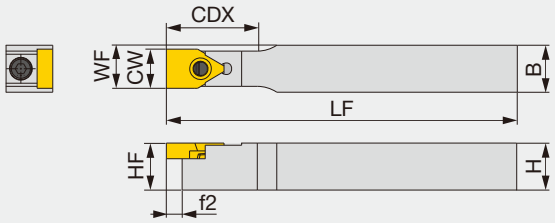
ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Steel 1045, etc.	SH725	164 - 656	0.0004 - 0.0039
		J740	33 - 328	0.0004 - 0.0039
		NS9530	164 - 492	0.0004 - 0.0039
	Free-cutting steel	SH725	164 - 656	0.0004 - 0.0039
		J740	33 - 328	0.0004 - 0.0039
M	Stainless steel 303SS, etc.	SH725	164 - 656	0.0004 - 0.0039
		J740	33 - 328	0.0004 - 0.0039
		NS9530	164 - 492	0.0004 - 0.0039
N	Aluminum alloys, Brass Si < 12%, etc.	TH10	33 - 656	0.0004 - 0.0039
S	Difficult-to-machine material, Titanium alloys Ti-6Al-4V, etc.	TH10	33 - 98	0.0004 - 0.0039

TUNGHEAVY GROOVE

FPGN

Lever-lock toolholder for external wide grooving and profiling





Inch	CW	CDX	H	B	LF	HF	WF	f2	Insert	Torque
FPGN08-10T20	0.394	0.984	0.500	0.500	4.946	0.500	0.450	0.216	PSGB10...	1.62
FPGN10-10T20	0.394	0.984	0.625	0.625	4.946	0.625	0.510	0.216	PSGB10...	1.62
FPGN12-10T20	0.394	0.984	0.750	0.750	5.196	0.750	0.570	0.216	PSGB10...	1.62
FPGN10-15T25	0.590	1.181	0.625	0.625	4.946	0.625	0.610	0.216	PSGB15...	1.62
FPGN12-15T25	0.590	1.181	0.750	0.750	5.196	0.750	0.670	0.216	PSGB15...	1.62
FPGN12-20T32	0.787	1.456	0.750	0.750	5.196	0.750	0.770	0.216	PSGB20...	6.27

Metric	CW	CDX	H	B	LF	HF	WF	f2	Insert	Torque*
FPGN1212X-10T20	10	25	12	12	125	12	11	5.5	PSGB10...	2.2
FPGN1616X-10T20	10	25	16	16	125	16	13	5.5	PSGB10...	2.2
FPGN2020K-10T20	10	25	20	20	130	20	15	5.5	PSGB10...	2.2
FPGN1616X-15T25	15	30	16	16	125	16	15.5	5.5	PSGB15...	2.2
FPGN2020K-15T25	15	30	20	20	130	20	17.5	5.5	PSGB15...	2.2
FPGN2020K-20T32	20	37	20	20	130	20	20	5.5	PSGB20...	8.5

PSGB insert blank is available for tailored inserts.
Torque: Recommended clamping torque: lbs·ft (*N·m)

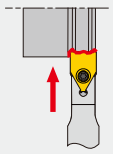
SPARE PARTS

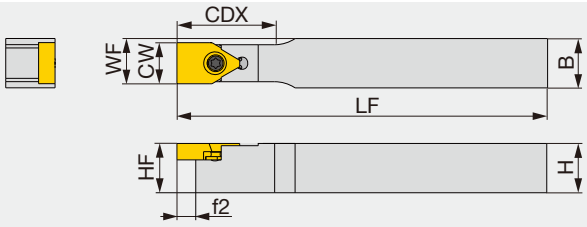
Designation	Lever	Clamping screw	Spring	Wrench
FPGN*****-10T..., 15T...	FCL4	FCS3	BP-5	P-2.5
FPGN*****-20T..., 25T...	FCL8	FCS6	BP-9	P-5

Reference pages: FPGN: Inserts → G112, Standard cutting conditions → G113

SPGN

Screw-on toolholder for external wide grooving and profiling





Inch	CW	CDX	H	B	LF	HF	WF	f2	Insert	Torque
SPGN08-10T20	0.394	0.984	0.500	0.500	4.946	0.500	0.450	0.216	PSGB10	0.96
SPGN10-10T20	0.394	0.984	0.625	0.625	4.946	0.625	0.510	0.216	PSGB10	0.96
SPGN12-10T20	0.394	0.984	0.750	0.750	5.196	0.750	0.570	0.216	PSGB10	0.96
SPGN10-15T25	0.590	1.181	0.625	0.625	4.946	0.625	0.610	0.216	PSGB15	2.58
SPGN12-15T25	0.590	1.181	0.750	0.750	5.196	0.750	0.670	0.216	PSGB15	2.58
SPGN12-20T32	0.787	1.456	0.750	0.750	5.196	0.750	0.770	0.216	PSGB20	3.69

Metric	CW	CDX	H	B	LF	HF	WF	f2	Insert	Torque*
SPGN1212X-10T20	10	25	12	12	125	12	11	5.5	PSGB10	2.3
SPGN1616X-10T20	10	25	16	16	125	16	13	5.5	PSGB10	2.3
SPGN2020K-10T20	10	25	20	20	130	20	15	5.5	PSGB10	2.3
SPGN1616X-15T25	15	30	16	16	125	16	15.5	5.5	PSGB15	3.5
SPGN2020K-15T25	15	30	20	20	130	20	17.5	5.5	PSGB15	3.5
SPGN2020K-20T32	20	37	20	20	130	20	20	5.5	PSGB20	5

PSGB insert blank is available for tailored inserts. Can be used with profile grooving inserts, only
Torque: Recommended clamping torque: lbs·ft (*N·m)

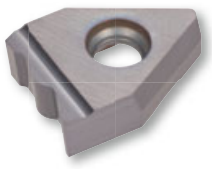
SPARE PARTS

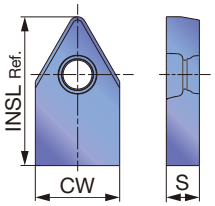
Designation	Clamping screw	Wrench
SPGN*****-10T20	CSTB-3L081	T-8F
SPGN*****-15T25	CSTB-4	T-15F
SPGN*****-20T..., 25T...	CSTB-5	T-20F

INSERT

PSGB (Blank for wide profile grooving inserts*)

Specially tailored profile insert





P	Steel	☆	★			
M	Stainless		★			
K	Cast iron	★				
N	Non-ferrous	★				
S	Superalloys	☆				
H	Hard materials					

★ : First choice
☆ : Second choice

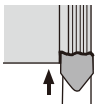
Designation	CW±0.025 (mm)	CW±0.001 (in)	Uncoated TH10	Uncoated UX30					INSL (in)	S (in)
PSGB10	10.2	0.402	●	●					0.709	0.157
PSGB15	15.2	0.598	●	●					0.787	0.197
PSGB20	20.2	0.795	●	●					1.063	0.256
PSGB25	25.2	0.992	●	●					1.063	0.256

These are blanks (semi-finished products) for wide profile grooving inserts that can be tailored.

Package quantity = 5pcs.
● : Line up

Reference pages : Toolholders → G111 - G112

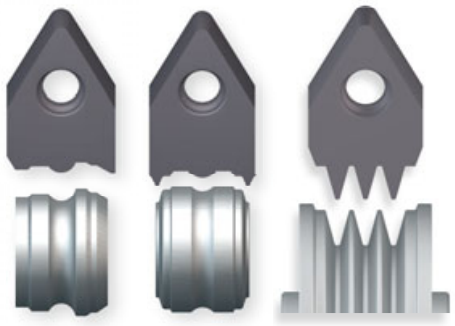
STANDARD CUTTING CONDITIONS



Wide profile grooving

ISO	Workpiece material	Hardness (HB)	Grade	Cutting speed *Vc* (sfm)
P	Steel 1045, 1055, etc.	< 200	UX30	165 - 490
	Alloy steel 4140, 8620, etc.	< 300	UX30	165 - 390
M	Stainless steel 304SS, 316SS, 17-4 PH, etc.	< 200	UX30	165 - 390
K	Gray cast iron Class 25, Class 30, etc.	-	TH10	165 - 490
	Ductile cast iron 60-40-18, 60-55-06, etc.	-	TH10	165 - 390
N	Aluminum alloys Si < 12%, etc.	-	TH10	330 - 1640

- Custom shaped inserts can be supplied on customer's request, according to the designated final shape on part drawing.
- Semi-finished blanks PSGB types are offered for purchase.



External
Grooving
Internal
Parting-off
Threading

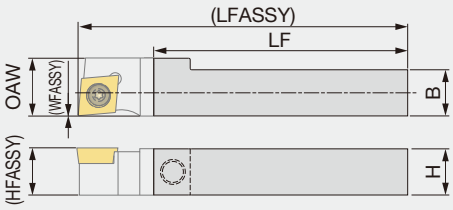
MINIFORCE TURN
STANDARD CUTTING CONDITIONS
FOR EXTERNAL TURNING

Applications	ISO	Workpiece material	Priority	Chip breaker	Grade	Cutting speed *Vc* (sfm)	Depth of cut *ap* (in)	Feed *f* (ipr)
For swiss type automatic lathes	P	Low carbon steels Carbon steels 1045, etc. Low alloy steels Alloy steels 4140, etc.	First choice	JS	SH725	164 - 591	0.004 - 0.118	0.001 - 0.004
			With high sharpness	JSS	SH725	164 - 591	0.004 - 0.059	0.001 - 0.004
	M	Stainless steels (Austenitic) 304, etc. Stainless steels (Martensitic and ferritic) 430, etc. Stainless steels (Precipitation hardened 174, etc.	First choice	JS	SH725	164 - 591	0.004 - 0.049	0.001 - 0.004
			With high sharpness	JSS	SH725	164 - 591	0.004 - 0.059	0.001 - 0.004
For small size CNC lathes	P	Low carbon steels Carbon steels 1045, etc. Low alloy steels Alloy steels 4140, etc.	First choice	SS	AH725	164 - 591	0.006 - 0.059	0.002 - 0.008
				TS	AH725	164 - 591	0.012 - 0.079	0.003 - 0.012
			For improved surface finish	SS	NS9530	164 - 656	0.006 - 0.059	0.002 - 0.008
				TS	NS9530	164 - 656	0.012 - 0.079	0.003 - 0.012
			For wear resistance	SS	GT9530	164 - 820	0.006 - 0.059	0.002 - 0.008
				TS	GT9530	164 - 820	0.012 - 0.079	0.003 - 0.012
	M	Stainless steels (Austenitic) 304, etc. Stainless steels (Martensitic and ferritic) 430, etc. Stainless steels (Precipitation hardened 174, etc.	First choice	SS	AH8015	164 - 492	0.006 - 0.059	0.002 - 0.008
			For impact resistance	TS	AH8015	164 - 492	0.012 - 0.079	0.003 - 0.012

J-SERIES
STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Priority	Grade	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Low carbon steels Carbon steels 1045, etc. Low alloy steels Alloy steels 4140, etc.	First choice	SH725	164 - 656	0.0004 - 0.008
		For impact resistance	AH725	164 - 656	0.0004 - 0.008
M	Stainless steels (Austenitic) 304, etc. Stainless steels (Martensitic and ferritic) 430, etc. Stainless steels (Precipitation hardened 174, etc.	First choice	SH725	164 - 656	0.0004 - 0.008
		For impact resistance	AH725	164 - 656	0.0004 - 0.008
S	Titanium alloys Ti-6Al-4V, etc. Superalloys Inconel718, etc.	First choice	SH725	66 - 262	0.0004 - 0.008
		For impact resistance	AH725	66 - 262	0.0004 - 0.008

Shank for modular heads



Inch	H	B	WFASSY	LF	OAW	HFASSY	LFASSY(1)	Torque
QC-08F	0.500	0.500	0	2.560	0.590	0.500	3.346	2.21
QC-08X	0.500	0.500	0	3.940	0.590	0.500	4.724	2.21
Metric	**H**	**B**	**WFASSY**	**LF**	**OAW**	**HFASSY**	**LFASSY(1)**	**Torque***
QC-1212F	12	12	0	65	15	12	85	3
QC-1212X	12	12	0	100	15	12	120	3

Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) The size is true when the modular head with LH = 19.5 mm is mounted.

QC-08-CHP and QC-1212-CHP

Shank for modular heads, with high pressure coolant capability

Tube connection

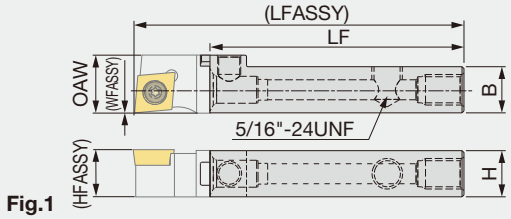


Fig.1

Direct connection

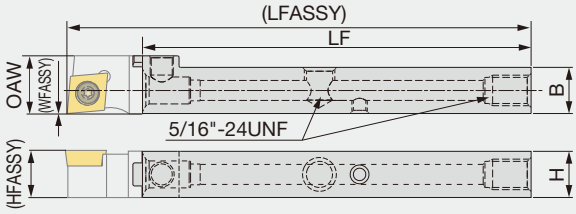


Fig.2

Inch	H	B	LF	WFASSY	OAW	HFASSY	LFASSY(1)	Torque	Fig.
QC-08F-CHP	0.500	0.500	2.560	0	0.590	0.500	3.346	2.21	1
QC-08X-CHP (*)	0.500	0.500	3.940	0	0.590	0.500	4.724	2.21	2
Metric	**H**	**B**	**LF**	**WFASSY**	**OAW**	**HFASSY**	**LFASSY(1)**	**Torque***	**Fig.**
QC-1212F-CHP	12	12	65	0	15	12	85	3	1
QC-1212X-CHP (*)	12	12	100	0	15	12	120	3	2

Torque: Recommended clamping torque: lbs·ft (*N·m)
Through-coolant shank
(*) : Compatible to the direct internal coolant supply system without the use of external coolant hose.
(1) The size is true when the modular head with LH = 19.5 mm is mounted.

QC-08-F10-CHP and QC-1216-F15-CHP

Stepped-head shank for modular heads, with high pressure coolant capability

Tube connection

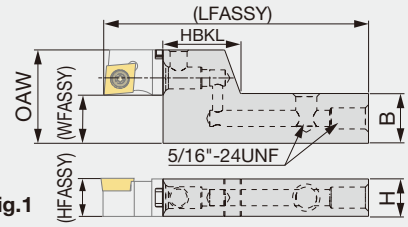


Fig.1

Direct connection

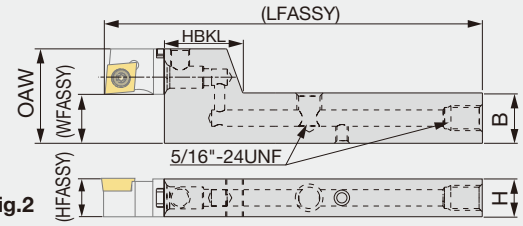


Fig.2

Inch	H	B	LF	OAW	WFASSY	HFASSY	LFASSY(1)	HBKL	Torque	Fig.
QC-08F-F10-CHP	0.500	0.625	2.559	1.220	0.625	0.500	3.346	0.980	2.21	1
QC-08X-F10-CHP (1)	0.500	0.625	3.937	1.220	0.625	0.500	4.724	0.980	2.21	2
Metric	**H**	**B**	**LF**	**OAW**	**WFASSY**	**HFASSY**	**LFASSY(1)**	**HBKL**	**Torque***	**Fig.**
QC-1216F-F15-CHP	12	16	65	30	15	12	85	25	3	1
QC-1216X-F15-CHP (1)	12	16	100	30	15	12	120	25	3	2

Torque: Recommended clamping torque: lbs·ft (*N·m)
QC12 heads only can be mounted on these shanks.
(*) : Compatible to the direct internal coolant supply system without the use of external coolant hose.
(1) The size is true when the modular head with LH = 19.5 mm is mounted.

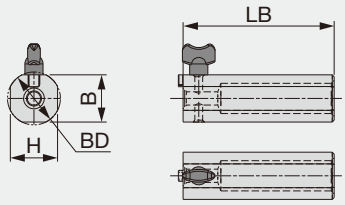
SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
QC-**F/X	SRM6X0.5-26977	P-3	-	-	-	-
QC-**F-...	SRM6X0.5-26977	P-3	SR5/16UNFTL360	P-4	-	-
QC-**X-...	SRM6X0.5-26977	P-3	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

QC-12D28EXC

Modular head holder for insert change





Metric	BD	LB	H	B
QC-12D28EXC	28	80	25	25

Note: This is a dedicated modular-head holder designed to facilitate insert changes. Do not use this holder for machining as it may cause damages to tool, workpiece, machine, and possible human injury.

SPARE PARTS



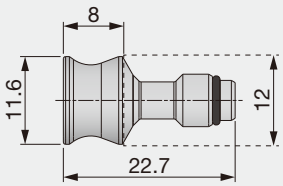
Designation	Fixing screw
QC-12D28EXC	KNOBM5X10



ModuMini-Turn modular heads are small. When it is difficult to change inserts while holding the modular head with fingers, use the dedicated holder to facilitate insert changes.

QC12-STOPPER

Protective plug for shank



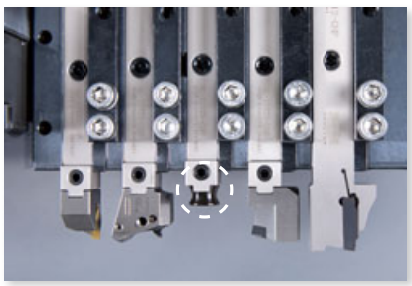
Unit: mm

Designation
QC12-STOPPER

SPARE PARTS



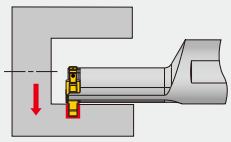
Designation	O-ring
QC12-STOPPER	ORSS-0454.5X1.0NBR70

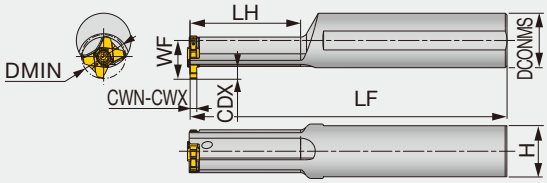


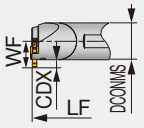
The cutting head located in the feed direction of the Y-axis tool can be removed to make room for machining larger-sized barstock. If this is the case, attach the plug to the shank to protect the coupling surface from chips, as well as prevent coolant leakage during machining.

A/E-STCIR/L

Internal grooving toolholder







Right hand (R) shown.

Inch	Material	CWN	CWX	DMIN	DCONMS	LH	LF	WF	H	Insert	Torque*
A08-STCIR/L10-D07U	Steel	0.059	0.118	0.438	0.500	0.984	4.000	0.339	0.475	TCIG10...	0.74
A08-STCIR/L10-D08U	Steel	0.059	0.118	0.500	0.500	1.220	4.000	0.339	0.475	TCIG10...	0.74
E08-STCIR/L10-D10U	Carbide	0.059	0.118	0.625	0.500	-	5.000	0.339	0.475	TCIG10...	0.74
A10-STCIR/L12-D09U	Steel	0.059	0.118	0.563	0.625	1.299	4.500	0.441	0.600	TCIG12...	0.96
A10-STCIR/L12-D11U	Steel	0.059	0.118	0.688	0.625	1.614	4.500	0.441	0.600	TCIG12...	0.96
E10-STCIR/L12-D13U	Carbide	0.059	0.118	0.813	0.625	-	6.000	0.441	0.600	TCIG12...	0.96

Metric	Material	CWN	CWX	DMIN	DCONMS	LH	LF	WF	H	Insert	Torque*
A12H-STCIR/L10-D105	Steel	1.5	3	10.5	12	25	100	8.3	11	TCIG10...	1
A12H-STCIR/L10-D120	Steel	1.5	3	12	12	31	100	8.3	11	TCIG10...	1
E12K-STCIR/L10-D150	Carbide	1.5	3	15	12	-	125	8.3	11	TCIG10...	1
A16J-STCIR/L12-D130	Steel	1.5	3	13	16	33	110	11.3	15	TCIG12...	1.3
A16J-STCIR/L12-D160	Steel	1.5	3	16	16	41	110	11.3	15	TCIG12...	1.3
E16M-STCIR/L12-D200	Carbide	1.5	3	20	16	-	150	11.3	15	TCIG12...	1.3

Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS

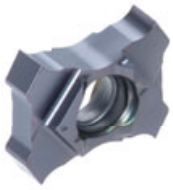


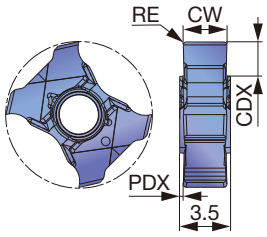
Designation	Clamping screw
A/E-STCIR10-...	CSTB-2.2L053DR
A/E-STCIL10-...	CSTB-2.2L053DL
A/E-STCIR12-...	CSTB-2.5L054DR
A/E-STCIL12-...	CSTB-2.5L054DL

Reference pages: A/E-STCIR/L: Inserts, Standard cutting conditions → G118

INSERTS

TCIG





P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

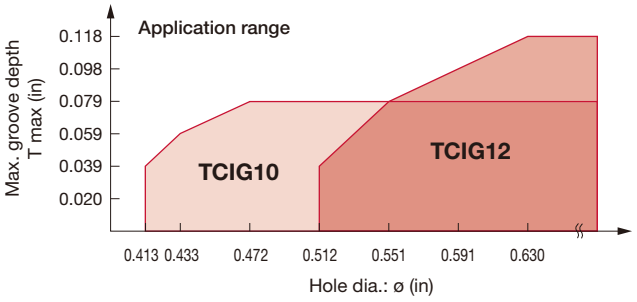
★ : First choice

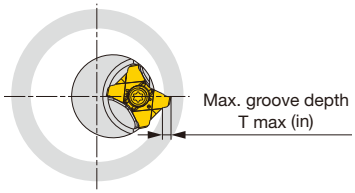
Designation	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated AH725	CDX (in)	PDX (in)
TCIG10-050-005	0.5	0.020	0.05	●	0.039	0.059
TCIG10-122-008	1.22	0.048	0.08	●	0.079	0.045
TCIG10-142-008	1.42	0.056	0.08	●	0.079	0.041
TCIG10-150-010	1.5	0.059	0.1	●	0.079	0.039
TCIG10-172-008	1.72	0.068	0.08	●	0.079	0.035
TCIG10-200-010	2	0.079	0.1	●	0.079	0.030
TCIG10-250-020	2.5	0.098	0.2	●	0.079	0.020
TCIG10-300-020	3	0.118	0.2	●	0.079	0.010
TCIG12-100-010	1	0.039	0.1	●	0.098	0.049
TCIG12-150-010	1.5	0.059	0.1	●	0.118	0.039
TCIG12-197-008	1.97	0.078	0.08	●	0.118	0.030
TCIG12-200-020	2	0.079	0.2	●	0.118	0.030
TCIG12-224-008	2.24	0.088	0.08	●	0.118	0.025
TCIG12-250-020	2.5	0.098	0.2	●	0.118	0.020
TCIG12-277-015	2.77	0.109	0.15	●	0.118	0.015
TCIG12-300-020	3	0.118	0.2	●	0.118	0.010

● : Line up

Shallower groove depths (T max) for smaller bores

Maximum groove depths (T max) for TCIG10 inserts are smaller than the CDX value shown above when the grooving bore diameter is < 0.472" ; and for TCIG12, when the bore diameter is < 0.63".
See the chart below for T max values in relation to the given bore diameter.





STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Steel 1045,4140, etc.	< 300 HB	First choice	98 - 262	0.0004 - 0.002
M	Stainless steel 303SS, etc.	< 200 HB	First choice	98 - 164	0.0004 - 0.002
S	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	First choice	33 - 164	0.0004 - 0.002

Toolholders for internal grooving, with through coolant

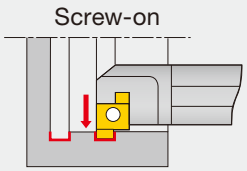
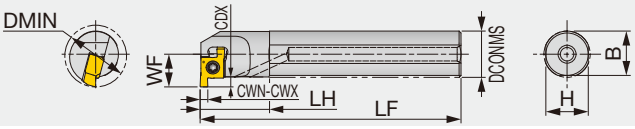


Fig. 1



Fig. 2



Right hand (R) shown.

Metric	Material	CWN	CWX	DMIN	CDX	DCONMS	H	B	LF	LH	WF	Insert	Torque*	Fig.
A08H-SNGR06-D080	Steel	1	2	8	1.5	8	7	-	100	18	4.73	6GMR..., 6GR...	0.7	1
A08H-SNGR07-D100	Steel	1	2	10	1.5	8	7	-	100	23	5.8	7GMR..., 7GR...	1.0	1
A10K-SNGR07-D120	Steel	1	2	12	1.5	10	9	-	125	29	6.8	7GMR..., 7GR...	1.0	1
A10K-SNGR08-D140	Steel	1.5	3.5	14	2	10	9	-	125	15	7.6	8GMR..., 8GR...	1.0	2
A12M-SNGR08-D160	Steel	1.5	3.5	16	2	12	11	11.5	150	18	8.6	8GMR..., 8GR...	1.0	2
A16Q-SNGR09-D200	Steel	1.5	3.5	20	3	16	15	15.5	180	20	11.6	9GMR..., 9GR...	1.3	2
A20R-SNGR09-D240	Steel	1.5	3.5	24	3	20	18	19	200	25	13.6	9GMR..., 9GR...	1.3	2
E08X-SNGR07-D100	Carbide	1	2	10	1.5	8	7.5	-	120.5	35	5.8	7GMR..., 7GR...	1.0	1
E10X-SNGR07-D120	Carbide	1	2	12	1.5	10	9	-	143.5	45	6.8	7GMR..., 7GR...	1.0	1
E10X-SNGR08-D140	Carbide	1.5	3.5	14	2	10	9	-	146	-	7.6	8GMR..., 8GR...	1.0	2
E12X-SNGR08-D160	Carbide	1.5	3.5	16	2	12	11	-	174.8	-	8.6	8GMR..., 8GR...	1.0	2
E16X-SNGR09-D200	Carbide	1.5	3.5	20	3	16	15	-	194.6	-	11.6	9GMR..., 9GR...	1.5	2

Note: Use the right-hand insert (☐GR) with the right-hand holder (☐NGR).
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

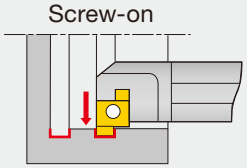


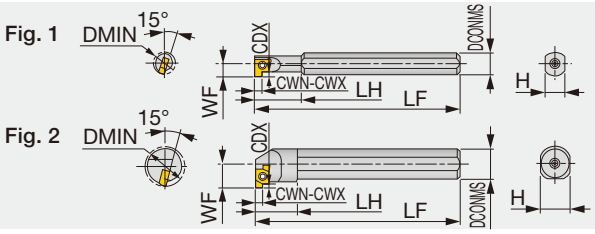

Designation	Clamping screw	Wrench
A**-SNGR06-D...	CSTB-2L040	T-6F
A**-SNGR07-D...	CSTB-2.2S	T-7F
A**-SNGR08-D...	CSTB-2.2	T-7F
A**-SNGR09-D...	CSTB-2.5L080	T-8F
E**-SNGR07-D...	CSTB-2.2S	T-7F
E**-SNGR08-D...	CSTB-2.2	T-7F
E**-SNGR09-D...	CSTB-2.5L080	T-8F

Reference pages: A/E-SNGR: Inserts → G121, G122, Standard cutting conditions → G123

SNGR/L

Toolholders for internal grooving





Right hand (R) shown.

Metric	Material	CWN	CWX	DMIN	CDX	DCONMS	H	LF	LH	WF	Insert	Torque*	Fig.
SNGR/L08H06	Steel	1	2	8	1.5	8	7	100	18	4.7	6GMR..., 6GR/L...	0.7	1
SNGR/L08H07	Steel	1	2	10	1.5	8	7	100	23	5.8	7GMR..., 7GR/L...	1.0	1
SNGR/L10K07	Steel	1	2	12	1.5	10	9	125	29	6.8	7GMR..., 7GR/L...	1.0	1
SNGR/L10K08	Steel	1.5	3.5	14	2	10	9	125	15	7.6	8GMR..., 8GR/L...	1.0	2
SNGR/L12M08	Steel	1.5	3.5	16	2	12	11	150	18	8.6	8GMR..., 8GR/L...	1.0	2
SNGR/L16Q09	Steel	1.5	3.5	20	3	16	15	180	20	11.6	9GMR..., 9GR/L...	1.3	2
SNGR/L20R09	Steel	1.5	3.5	24	3	20	18	200	25	13.6	9GMR..., 9GR/L...	1.3	2
SNGR/L08K06SC	Carbide	1	2	8	1.5	8	7	125	28	4.7	6GMR..., 6GR/L...	0.7	1
SNGR/L08K07SC	Carbide	1	2	10	1.5	8	7	125	35	5.8	7GMR..., 7GR/L...	1.0	1
SNGR/L10M07SC	Carbide	1	2	12	1.5	10	9	150	45	6.8	7GMR..., 7GR/L...	1.0	1
SNGR/L10M08SC	Carbide	1.5	3.5	14	2	10	9	150	45	7.6	8GMR..., 8GR/L...	1.0	2
SNGR/L12Q08SC	Carbide	1.5	3.5	16	2	12	11	180	-	8.6	8GMR..., 8GR/L...	1.0	2
SNGR/L16R09SC	Carbide	1.5	3.5	20	3	16	15	200	-	11.6	9GMR..., 9GR/L...	1.5	2

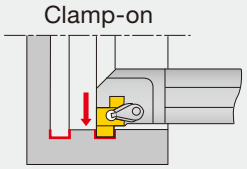
Note: Use the right-hand insert (☐GR) with the right-hand holder (☐NGR), and use the left-hand insert (☐GL) with the left-hand holder (☐NGL).
Torque*: Recommended clamping torque (N·m)

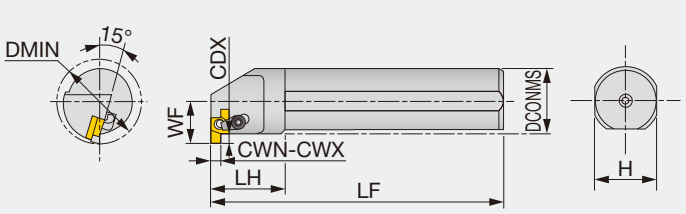
SPARE PARTS

Designation	Clamping screw	Wrench
SNGR/L***06	CSTB-2L040	T-6F
SNGR/L***07	CSTB-2.2S	T-7F
SNGR/L***08	CSTB-2.2	T-7F
SNGR/L***09	CSTB-2.5L080	T-8F
SNGR/L***06SC	CSTB-2L040	T-6F
SNGR/L***07SC	CSTB-2.2S	T-7F
SNGR/L***08SC	CSTB-2.2	T-7F
SNGR/L***09SC	CSTB-2.5L080	T-8F

CNGR/L

Toolholders for internal grooving





Right hand (R) shown.

Metric	CWN	CWX	DMIN	CDX	DCONMS	H	LF	LH	WF	Insert	Torque*
CNGR/L25S15	2	5	32	5	25	23	250	30	18.1	15GR/L...	7
CNGR/L32T15	2	5	40	5	32	30	300	35	22.1	15GR/L...	7
CNGR/L40U15	2	5	48	5	40	38	350	45	26.1	15GR/L...	7

Note: Use the right-hand insert (☐GR) with the right-hand holder (☐NGR),
and use the left-hand insert (☐GL) with the left-hand holder (☐NGL).
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamp set	Screw	Shim	Wrench
CNGR...	CSP22	DTS5-3.5	SGSR151	T-20F
CNGL...	CSP22	DTS5-3.5	SGSL151	T-20F

Optional parts for CNG holders

Use the following parts for screw clamp options.



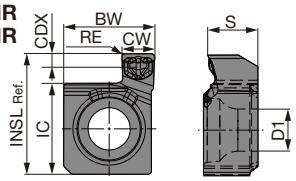
Designation	Clamping screw	Wrench
CNGR/L...	CSTB-3.5L	T-15F

Reference pages: SNGR/L, CNGR/L: Inserts → G121, G122, Standard cutting conditions → G123

INSERTS

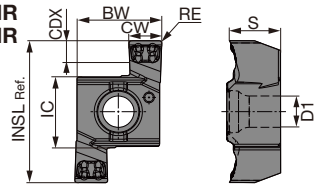
**GMR/L

6GMR
7GMR



Single edge

8GMR
9GMR



Double edge

Right hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice
☆ : Second choice

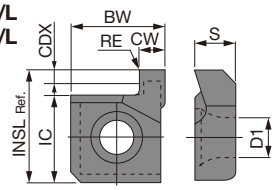
Designation	HAND	CW±0.001 (in)	CW±0.025 (mm)	RE (mm)	Coated AH7025	CDX (mm)	BW (in)	S (in)	IC (in)	INSL (in)	D1 (in)
6GMR100-015	R	0.039	1	0.15	●	1.5	0.219	0.092	0.187	0.254	0.091
7GMR200-020	R	0.079	2	0.2	●	1.5	0.219	0.121	0.219	0.290	0.102
8GMR150-020	R	0.059	1.5	0.2	●	2	0.242	0.152	0.219	0.400	0.102
9GMR200-020	R	0.079	2	0.2	●	3	0.305	0.183	0.250	0.510	0.113
9GMR300-020	R	0.118	3	0.2	●	3	0.305	0.183	0.250	0.510	0.113

● : Line up

Reference pages: Toolholder → G119, G120, Standard cutting conditions → G123

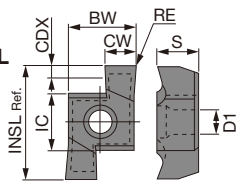
**GR/L

6GR/L
7GR/L



Single edge

8GR/L
9GR/L
15GR/L



Double edge

Right hand (R) shown.

		Cermet	Uncoated	
P	Steel	★		★
M	Stainless			★
K	Cast iron	☆	★	
N	Non-ferrous		★	
S	Superalloys		☆	
H	Hard materials			

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.001 (in)	CW±0.025 (mm)	RE (mm)	Cermet NS9530	Uncoated TH10	Uncoated UX30	CDX (mm)	BW (in)	S (in)	IC (in)	INSL (in)	D1 (in)
6GR100	R	0.039	1	0.2	●	●	●	1.5	0.220	0.092	0.187	0.254	0.091
6GL100	L	0.039	1	0.2			●	1.5	0.220	0.092	0.187	0.254	0.091
6GR150	R	0.059	1.5	0.2	●	●	●	1.5	0.220	0.092	0.187	0.254	0.091
6GL150	L	0.059	1.5	0.2		●	●	1.5	0.220	0.092	0.187	0.254	0.091
6GR200	R	0.079	2	0.2	●	●	●	1.5	0.220	0.092	0.187	0.254	0.091
6GL200	L	0.079	2	0.2		●	●	1.5	0.220	0.092	0.187	0.254	0.091
7GR100	R	0.039	1	0.2	●	●	●	1.5	0.220	0.121	0.219	0.290	0.102
7GR150	R	0.059	1.5	0.2	●	●	●	1.5	0.220	0.121	0.219	0.290	0.102
7GR200	R	0.079	2	0.2	●	●	●	1.5	0.220	0.121	0.219	0.290	0.102
7GL200	L	0.079	2	0.2		●	●	1.5	0.220	0.121	0.219	0.290	0.102
8GR150	R	0.059	1.5	0.2	●	●	●	2	0.244	0.152	0.219	0.400	0.102
8GR200	R	0.079	2	0.2	●	●	●	2	0.244	0.152	0.219	0.400	0.102
8GL200	L	0.079	2	0.2		●		2	0.244	0.152	0.219	0.400	0.102
8GR250	R	0.098	2.5	0.2	●	●	●	2	0.244	0.152	0.219	0.400	0.102
8GL250	L	0.098	2.5	0.2		●	●	2	0.244	0.152	0.219	0.400	0.102
8GR300	R	0.118	3	0.2	●	●	●	2	0.244	0.152	0.219	0.400	0.102
8GL300	L	0.118	3	0.2		●	●	2	0.244	0.152	0.219	0.400	0.102
8GR350	R	0.138	3.5	0.2		●	●	2	0.244	0.152	0.219	0.400	0.102
9GR150	R	0.059	1.5	0.2	●	●	●	2	0.303	0.183	0.250	0.510	0.113
9GL150	L	0.059	1.5	0.2	●		●	2	0.303	0.183	0.250	0.510	0.113
9GR200	R	0.079	2	0.2	●	●	●	3	0.303	0.183	0.250	0.510	0.113
9GL200	L	0.079	2	0.2	●	●	●	3	0.303	0.183	0.250	0.510	0.113
9GR250	R	0.098	2.5	0.2	●	●	●	3	0.303	0.183	0.250	0.510	0.113
9GL250	L	0.098	2.5	0.2	●		●	3	0.303	0.183	0.250	0.510	0.113
9GR300	R	0.118	3	0.2	●	●	●	3	0.303	0.183	0.250	0.510	0.113
9GL300	L	0.118	3	0.2	●	●	●	3	0.303	0.183	0.250	0.510	0.113
9GR350	R	0.138	3.5	0.2	●	●	●	3	0.303	0.183	0.250	0.510	0.113
9GL350	L	0.138	3.5	0.2	●		●	3	0.303	0.183	0.250	0.510	0.113
15GR200	R	0.079	2	0.2	●	●	●	3	0.425	0.201	0.362	0.819	0.189
15GR250	R	0.098	2.5	0.2	●	●	●	3	0.425	0.201	0.362	0.819	0.189
15GR300	R	0.118	3	0.2	●	●	●	3	0.425	0.201	0.362	0.819	0.189
15GL300	L	0.118	3	0.2			●	3	0.425	0.201	0.362	0.819	0.189
15GR350	R	0.138	3.5	0.2	●	●	●	3	0.425	0.201	0.362	0.819	0.189
15GR400	R	0.157	4	0.2	●	●	●	4	0.425	0.201	0.362	0.819	0.189
15GR450	R	0.177	4.5	0.2		●	●	4	0.425	0.201	0.362	0.819	0.189
15GL450	L	0.177	4.5	0.2		●		4	0.425	0.201	0.362	0.819	0.189
15GR500	R	0.197	5	0.2		●	●	5	0.425	0.201	0.362	0.819	0.189

Note: Use the right-hand insert (☐GR) with the right-hand holder (☐NGR), and use the left-hand insert (☐GL) with the left-hand holder (☐NGL).

● : Line up

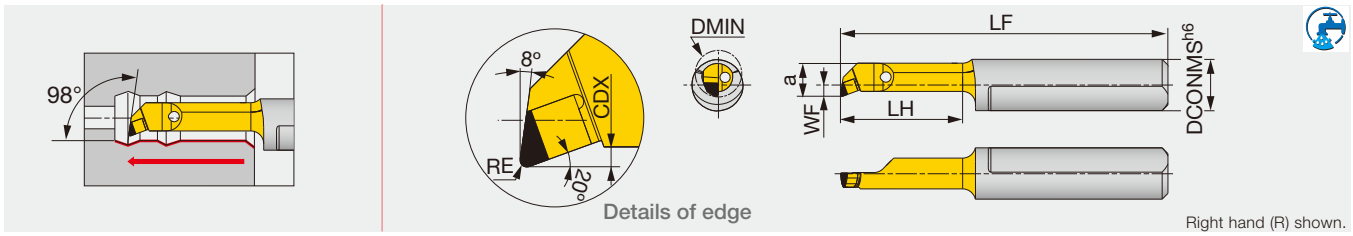
Reference pages: Toolholder → G119, G120, Standard cutting conditions → G123

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Feed rate: *f* (ipr) **GMR...	Feed rate: *f* (ipr) **GR/L...
P	Carbon steel 1045, etc.	AH7025	262 - 591	0.0012 - 0.0047	-
		NS9530	262 - 656	-	0.002 - 0.0059
		UX30	131 - 492	-	0.002 - 0.0059
	Alloy steel 4137, etc.	AH7025	262 - 591	0.0012 - 0.0047	-
		NS9530	262 - 656	-	0.002 - 0.0059
		UX30	131 - 492	-	0.002 - 0.0059
M	Stainless steel 304SS, etc.	AH7025	164 - 394	0.0012 - 0.0047	-
		UX30	131 - 328	-	0.0012 - 0.0039
K	Gray cast irons Class 25, etc.	AH7025	164 - 722	0.0012 - 0.0047	-
		TH10	197 - 656	-	0.002 - 0.0059
	Ductile cast irons 60-40-18, etc.	AH7025	164 - 591	0.0012 - 0.0047	-
		TH10	131 - 525	-	0.002 - 0.0059
S	Titanium alloys Ti-6Al-4V, etc.	AH7025	98 - 262	0.0012 - 0.0047	-
		TH10	66 - 164	-	0.002 - 0.0031
	Superalloys Inconel718, etc.	AH7025	66 - 197	0.0012 - 0.0047	-
		TH10	33 - 98	-	0.0012 - 0.0031

TINYMINITURN
JBTR

For boring, profiling, and chamfering

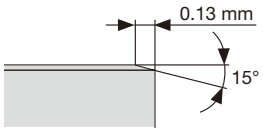


Metric	BX310	DMIN	DCONMS	WF	a	LF	LH	CDX	RE $^{+0.05}_{0}$
JBTR04060010-D028ST	●	2.8	4	0.9	2.6	22	6	0.3	0.1
JBTR04095010-D028ST	●	2.8	4	0.9	2.6	25.5	9.5	0.3	0.1
JBTR04070015-D040ST	●	4	4	1.5	3.5	23	7	0.5	0.15
JBTR04110015-D040ST	●	4	4	1.5	3.5	27	11	0.5	0.15
JBTR07090020-D050ST	●	5	7	0.6	4.15	25	9	0.4	0.2
JBTR07140020-D050ST	●	5	7	0.6	4.15	30	14	0.4	0.2

● : Line up

Edge preparation

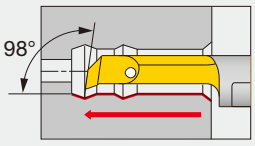
ST: T01315



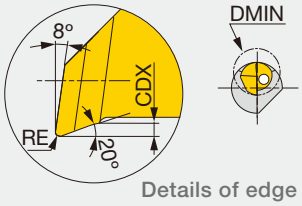
Reference pages : JBTR: Standard cutting conditions → G136

JBTR/L

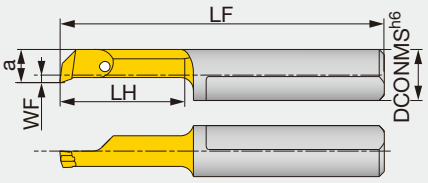
Solid boring bar for boring, profiling, and chamfering



with coolant hole



Details of edge



Right hand (R) shown.

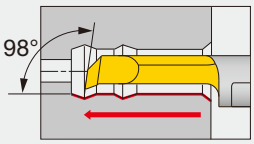
Metric	SH725	SH730	DMIN	DCONMS	WF	a	LF	LH	CDX	RE +0.05 0
JBTR04020004-D006	●	▲	0.6	4	-1.5	0.5	18.5	2	0.08	0.04
JBTR04030004-D006	●	▲	0.6	4	-1.5	0.5	19.5	3	0.08	0.04
JBTR04045005-D010	●	▲	1	4	-1.1	0.9	21	4.5	0.1	0.05
JBTR04065005-D010	●	▲	1	4	-1.1	0.9	23	6.5	0.1	0.05
JBTR04040005-D020	●	▲	2	4	-0.3	1.7	20.5	4	0.1	0.05
JBTR04090005-D020	●	▲	2	4	-0.3	1.7	25.5	9	0.1	0.05
JBTR04140005-D020	●	▲	2	4	-0.3	1.7	30.5	14	0.1	0.05
JBTR/L04090010-D028	●	▲	2.8	4	0.9	2.6	25.5	9	0.2	0.1
JBTR/L04150010-D028	●	▲	2.8	4	0.9	2.6	31.5	15	0.2	0.1
JBTR/L04190010-D028	●	▲	2.8	4	0.9	2.6	35.5	19	0.2	0.1
JBTR/L04090010-D040	●	▲	4	4	1.5	3.5	25.5	9	0.3	0.1
JBTR/L04150010-D040	●	▲	4	4	1.5	3.5	31.5	15	0.3	0.1
JBTR/L04190010-D040	●	▲	4	4	1.5	3.5	35.5	19	0.3	0.1
JBTR04230010-D040	●	▲	4	4	1.5	3.5	39.5	23	0.3	0.1
JBTR04270010-D040	●	▲	4	4	1.5	3.5	43.5	27	0.3	0.1
JBTR/L07090015-D050	●	▲	5	7	0.9	4.4	25	9	0.5	0.15
JBTR/L07140015-D050	●	▲	5	7	0.9	4.4	30	14	0.5	0.15
JBTR/L07190015-D050	●	▲	5	7	0.9	4.4	35	19	0.5	0.15
JBTR/L07240015-D050	●	▲	5	7	0.9	4.4	40	24	0.5	0.15
JBTR07290015-D050	●	▲	5	7	0.9	4.4	45	29	0.5	0.15
JBTL07290015-D050		▲	5	7	0.9	4.4	45	29	0.5	0.15
JBTR07340015-D050	●	▲	5	7	0.9	4.4	50	34	0.5	0.15
JBTL07340015-D050	●		5	7	0.9	4.4	50	34	0.5	0.15
JBTR/L07140015-D060	●	▲	6	7	1.8	5.3	30	14	0.5	0.15
JBTR/L07210015-D060	●	▲	6	7	1.8	5.3	37	21	0.5	0.15
JBTR/L07240015-D060	●	▲	6	7	1.8	5.3	40	24	0.5	0.15
JBTR/L07290015-D060	●	▲	6	7	1.8	5.3	45	29	0.5	0.15
JBTR07340015-D060	●	▲	6	7	1.8	5.3	50	34	0.5	0.15
JBTR07410015-D060	●	▲	6	7	1.8	5.3	57	41	0.5	0.15
JBTR/L07190015-D068	●	▲	6.8	7	2.8	6.3	35	19	0.6	0.15
JBTR07240015-D068	●	▲	6.8	7	2.8	6.3	40	24	0.6	0.15
JBTR/L07290015-D068	●	▲	6.8	7	2.8	6.3	45	29	0.6	0.15
JBTR/L07340015-D070	●	▲	7	7	2.8	6.3	50	34	0.6	0.15
JBTR07390015-D070	●	▲	7	7	2.8	6.3	55	39	0.6	0.15
JBTR07440015-D070	●	▲	7	7	2.8	6.3	60	44	0.6	0.15
JBTR07490015-D070	●	▲	7	7	2.8	6.3	65	49	0.6	0.15

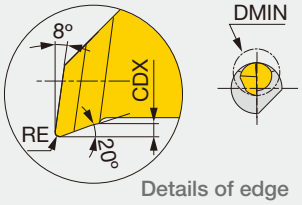
● : Line up
▲ : To be discontinued in April 2025

Reference pages : JBTR/L: Standard cutting conditions → G136

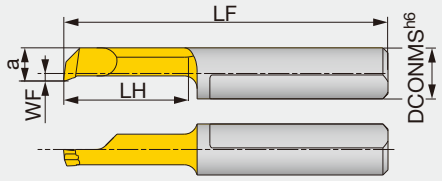
TBTR/L

Solid boring bar for boring, profiling, and chamfering





Details of edge



Right hand (R) shown.

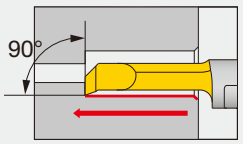
Metric	SH725	DMIN	DCONMS	WF	a	LF	LH	CDX	RE $^{+0.05}_{0}$
TBTR04045005-D010	●	1	4	-1.1	0.9	21	4.5	0.1	0.05
TBTR04065005-D010	●	1	4	-1.1	0.9	23	6.5	0.1	0.05
TBTR04040005-D020	●	2	4	-0.3	1.7	20.5	4	0.1	0.05
TBTR04090005-D020	●	2	4	-0.3	1.7	25.5	9	0.1	0.05
TBTR04140005-D020	●	2	4	-0.3	1.7	30.5	14	0.1	0.05
TBTR/L04090010-D028	●	2.8	4	0.9	2.6	25.5	9	0.2	0.1
TBTR04150010-D028	●	2.8	4	0.9	2.6	31.5	15	0.2	0.1
TBTR04190010-D028	●	2.8	4	0.9	2.6	35.5	19	0.2	0.1
TBTR04090010-D040	●	4	4	1.5	3.5	25.5	9	0.3	0.1
TBTR04150010-D040	●	4	4	1.5	3.5	31.5	15	0.3	0.1
TBTR04190010-D040	●	4	4	1.5	3.5	35.5	19	0.3	0.1
TBTR04230010-D040	●	4	4	1.5	3.5	39.5	23	0.3	0.1
TBTR04270010-D040	●	4	4	1.5	3.5	43.5	27	0.3	0.1
TBTR07090015-D050	●	5	7	0.9	4.4	25	9	0.5	0.15
TBTR07140015-D050	●	5	7	0.9	4.4	30	14	0.5	0.15
TBTR07190015-D050	●	5	7	0.9	4.4	35	19	0.5	0.15
TBTR07240015-D050	●	5	7	0.9	4.4	40	24	0.5	0.15
TBTR07290015-D050	●	5	7	0.9	4.4	45	29	0.5	0.15
TBTR07340015-D050	●	5	7	0.9	4.4	50	34	0.5	0.15
TBTR07140015-D060	●	6	7	1.8	5.3	30	14	0.5	0.15
TBTR/L07210015-D060	●	6	7	1.8	5.3	37	21	0.5	0.15
TBTR07240015-D060	●	6	7	1.8	5.3	40	24	0.5	0.15
TBTR07290015-D060	●	6	7	1.8	5.3	45	29	0.5	0.15
TBTR07340015-D060	●	6	7	1.8	5.3	50	34	0.5	0.15
TBTR07410015-D060	●	6	7	1.8	5.3	57	41	0.5	0.15
TBTR07190015-D068	●	6.8	7	2.8	6.3	35	19	0.6	0.15
TBTR07240015-D068	●	6.8	7	2.8	6.3	40	24	0.6	0.15
TBTR07290015-D068	●	6.8	7	2.8	6.3	45	29	0.6	0.15
TBTR07340015-D070	●	7	7	2.8	6.3	50	34	0.6	0.15
TBTR07390015-D070	●	7	7	2.8	6.3	55	39	0.6	0.15
TBTR07440015-D070	●	7	7	2.8	6.3	60	44	0.6	0.15
TBTR07490015-D070	●	7	7	2.8	6.3	65	49	0.6	0.15

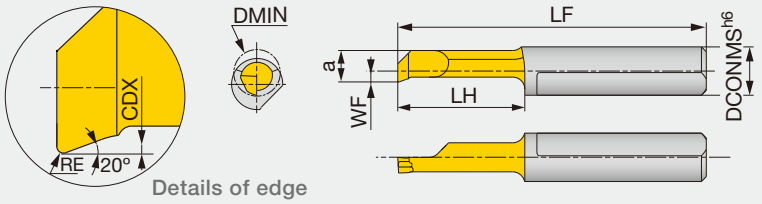
● : Line up

Reference pages : TBTR/L: Standard cutting conditions → G136

TBPR

Solid boring bar for boring and chamfering



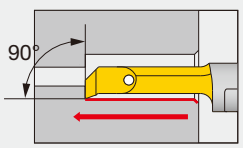


Metric	SH725	DMIN	DCONMS	WF	a	LF	LH	CDX	RE $^{+0.05}_{0}$
TBPR04090010-D028	●	2.8	4	0.9	2.6	25.5	9	0.2	0.1
TBPR04150010-D040	●	4	4	1.5	3.5	31.5	15	0.3	0.1
TBPR07140015-D050	●	5	7	0.9	4.4	30	14	0.5	0.15
TBPR07190015-D050	●	5	7	0.9	4.4	35	19	0.5	0.15

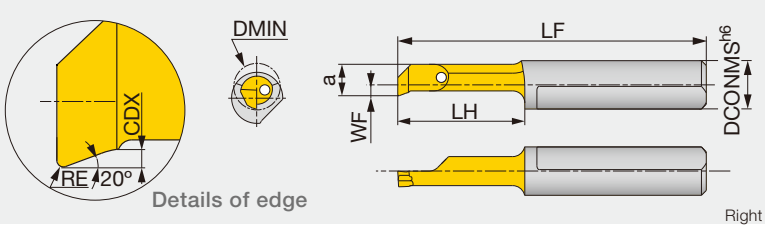
● : Line up

JBPR

Solid boring bar for boring and chamfering



with coolant hole



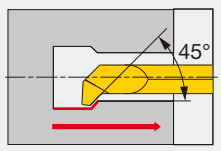
Right hand (R) shown.

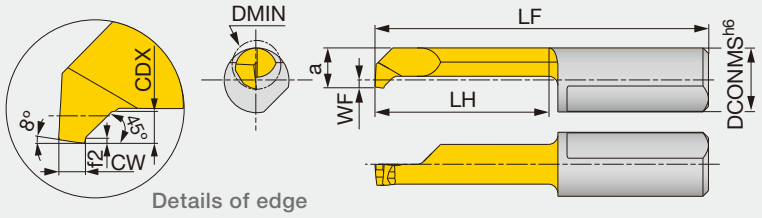
Metric	SH725	SH730	DMIN	DCONMS	WF	a	LF	LH	CDX	RE $^{+0.05}_{0}$
JBPR04090010-D028	●	▲	2.8	4	0.9	2.6	25.5	9	0.2	0.1
JBPR04150010-D028	●	▲	2.8	4	0.9	2.6	31.5	15	0.2	0.1
JBPR04090010-D040	●	▲	4	4	1.5	3.5	25.5	9	0.3	0.1
JBPR04150010-D040	●	▲	4	4	1.5	3.5	31.5	15	0.3	0.1
JBPR07140015-D050	●	▲	5	7	0.9	4.4	30	14	0.5	0.15
JBPR07190015-D050	●	▲	5	7	0.9	4.4	35	19	0.5	0.15

● : Line up
▲ : To be discontinued in April 2025

TBUR

Solid boring bar for back boring and chamfering





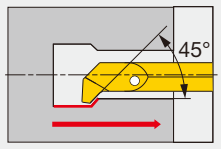
Metric	SH725	DMIN	DCONMS	WF	a	LF	LH	f2	CDX	CW $^{+0.05}_{0}$
TBUR07140010-D050	●	5	7	0.9	4.4	30	14	0.2	1	1
TBUR07190010-D050	●	5	7	0.9	4.4	35	19	0.2	1	1

● : Line up

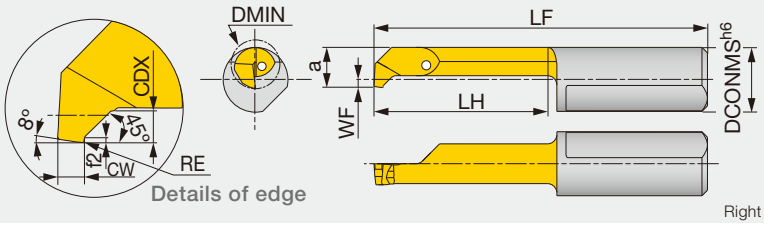
Reference pages : TBPR, JBPR, TBUR: Standard cutting conditions → G136

JBUR

Solid boring bar for back boring and chamfering



with coolant hole



Details of edge

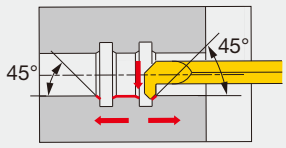
Right hand (R) shown.

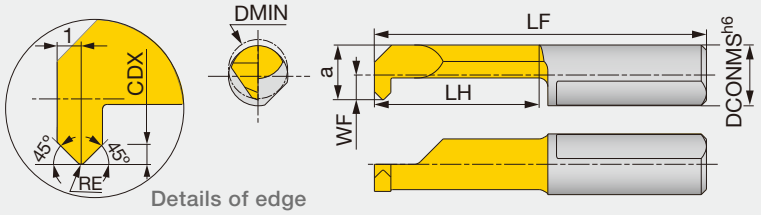
Metric	SH725	SH730	DMIN	DCONMS	WF	a	LF	LH	f2	CDX	CW $^{+0.05}_{0}$	RE
JBUR07140010-D050	●	▲	5	7	0.9	4.4	30	14	0.2	1	1	0.1
JBUR07190010-D050	●	▲	5	7	0.9	4.4	35	19	0.2	1	1	0.1

● : Line up
▲ : To be discontinued in April 2025

TBCR

Solid boring bar for boring and 45° chamfering





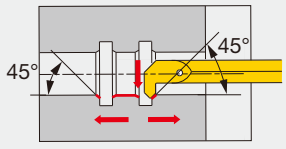
Details of edge

Metric	SH725	DMIN	DCONMS	WF	a	LF	LH	CDX	RE $^{+0.05}_{0}$
TBCR07140020-D050	●	5	7	0.9	4.4	30	14	0.7	0.2
TBCR07190020-D068	●	6.8	7	2.8	6.3	35	19	0.7	0.2

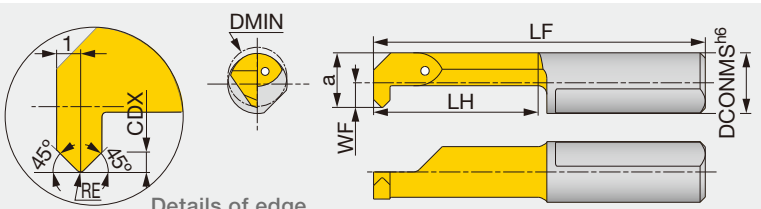
● : Line up

JBCR

Solid boring bar for boring and 45° chamfering



with coolant hole



Details of edge

Right hand (R) shown.

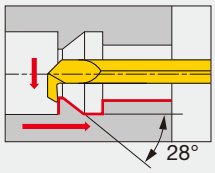
Metric	SH725	SH730	DMIN	DCONMS	WF	a	LF	LH	CDX	RE $^{\pm 0.05}$
JBCR07140020-D050	●	▲	5	7	0.9	4.4	30	14	0.7	0.2
JBCR07190020-D050	●	▲	5	7	0.9	4.4	35	19	0.7	0.2
JBCR07190020-D068	●	▲	6.8	7	2.8	6.3	35	19	0.7	0.2

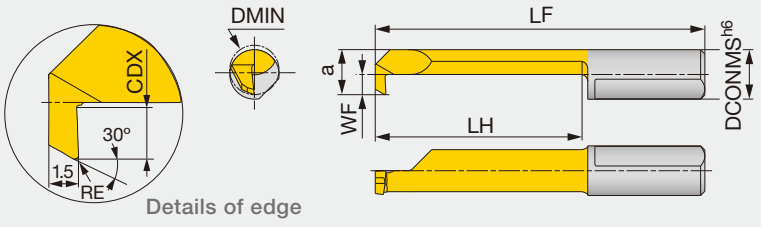
● : Line up
▲ : To be discontinued in April 2025

Reference pages : JBUR, TBCR, JBCR: Standard cutting conditions → G136

TBBR

Solid boring bar for back boring



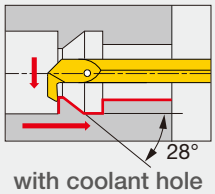


Metric	SH725	DMIN	DCONMS	WF	a	LF	LH	CDX	RE $^{+0.05}_{0}$
TBBR04140020-D030	●	3	4	0.6	2.6	30	14	0.5	0.2
TBBR04140015-D040	●	4	4	1.5	3.5	30	14	0.8	0.15
TBBR07190020-D050	●	5	7	0.9	4.4	35	19	1	0.2

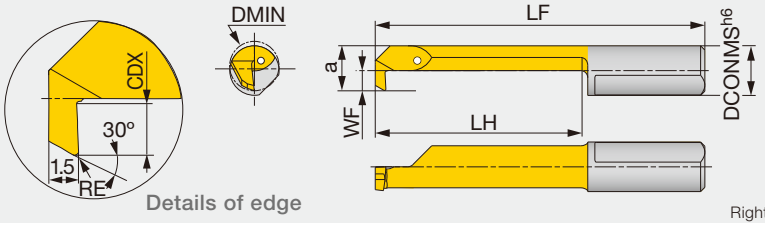
● : Line up

JBBR

Solid boring bar for back boring



with coolant hole



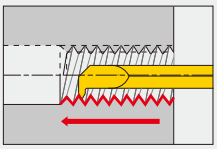
Right hand (R) shown.

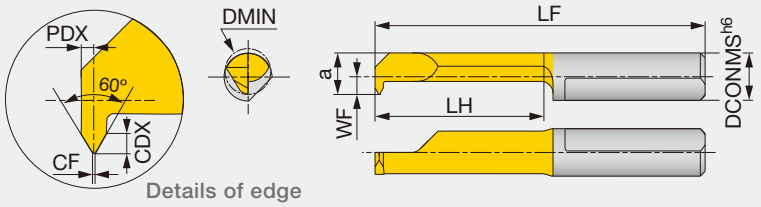
Metric	SH725	SH730	DMIN	DCONMS	WF	a	LF	LH	CDX	RE $^{+0.05}$
JBBR04140020-D030	●	▲	3	4	0.6	2.6	30	14	0.5	0.2
JBBR04190020-D030	●	▲	3	4	0.6	2.6	35	19	0.5	0.2
JBBR04140015-D040	●	▲	4	4	1.5	3.5	30	14	0.8	0.15
JBBR04240015-D040	●	▲	4	4	1.5	3.5	40	24	0.8	0.15
JBBR07190020-D050	●	▲	5	7	0.9	4.4	35	19	1	0.2
JBBR07290020-D050	●	▲	5	7	0.9	4.4	45	29	1	0.2
JBBR07190020-D060	●	▲	6	7	1.8	5.3	35	19	1.8	0.2
JBBR07290020-D060	●	▲	6	7	1.8	5.3	45	29	1.8	0.2
JBBR07190020-D070	●	▲	7	7	2.8	6.3	35	19	2.5	0.2
JBBR07290020-D070	●	▲	7	7	2.8	6.3	45	29	2.5	0.2

● : Line up
▲ : To be discontinued in April 2025

TBIR

Solid boring bar for threading (metric)





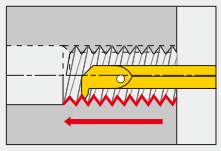
Metric	SH725	Pitch	DMIN	CF $^{0}_{-0.02}$	DCONMS	WF	a	LF	LH	CDX	PDX
TBIR04140050-D040	●	0.5	4	0.06	4	1.5	3.5	30	14	0.3	0.35
TBIR07140050-D050	●	0.5	5	0.06	7	0.9	4.4	30	14	0.3	0.35
TBIR07140075-D050	●	0.75	5	0.09	7	0.9	4.4	30	14	0.4	0.45
TBIR07140100-D048	●	1	4.8	0.12	7	0.9	4.4	30	14	0.6	0.55
TBIR07140100-D060	●	1	6	0.12	7	1.8	5.3	30	14	0.6	0.55
TBIR07140150-D060	●	1.5	6	0.18	7	1.8	5.3	30	14	0.8	0.75

● : Line up

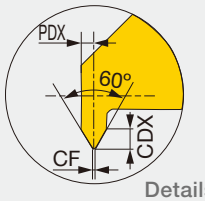
Reference pages : TBBR, JBBR, TBIR: Standard cutting conditions → G136

JBIR

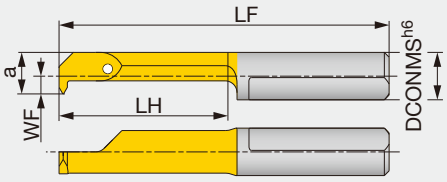
Solid boring bar for threading (metric)



with coolant hole



Details of edge



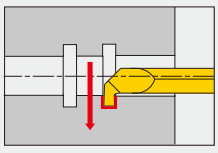
Right hand (R) shown.

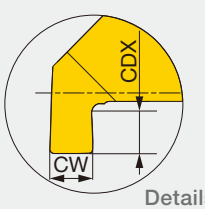
Metric	SH725	SH730	Pitch	DMIN	CF $^{0}_{-0.02}$	DCONMS	WF	a	LF	LH	CDX	PDX
JBIR04140050-D040	●	▲	0.5	4	0.06	4	1.5	3.5	30	14	0.3	0.35
JBIR07140050-D050	●	▲	0.5	5	0.06	7	0.9	4.4	30	14	0.3	0.35
JBIR07140075-D050	●	▲	0.75	5	0.09	7	0.9	4.4	30	14	0.4	0.45
JBIR07140100-D048	●	▲	1	4.8	0.12	7	0.9	4.4	30	14	0.6	0.55
JBIR07140100-D060	●	▲	1	6	0.12	7	1.8	5.3	30	14	0.6	0.55
JBIR07140125-D060	●	▲	1.25	6	0.15	7	1.8	5.3	30	14	0.7	0.65
JBIR07140150-D060	●	▲	1.5	6	0.18	7	1.8	5.3	30	14	0.8	0.75
JBIR07140150-D070	●	▲	1.5	7	0.18	7	2.8	6.3	30	14	0.8	0.75

● : Line up
▲ : To be discontinued in April 2025

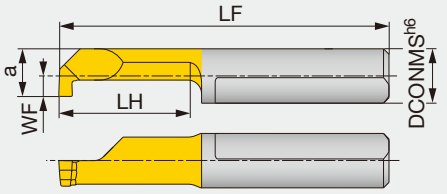
TBGR

Solid boring bar for internal grooving





Details of edge



Metric	SH725	CW $^{+0.05}_{0}$	DMIN	DCONMS	WF	a	LF	LH	CDX
TBGR04100050-D020	●	0.5	2	4	-0.2	1.8	26	10	0.4
TBGR04090100-D040	●	1	4	4	1.5	3.5	25.5	9	0.8
TBGR04150100-D040	●	1	4	4	1.5	3.5	31.5	15	0.8
TBGR07090200-D050	●	2	5	7	0.9	4.4	25	9	1
TBGR07090100-D060	●	1	6	7	1.8	5.3	25	9	1.8
TBGR07140100-D060	●	1	6	7	1.8	5.3	30	14	1.8
TBGR07090150-D060	●	1.5	6	7	1.8	5.3	25	9	1.8
TBGR07090200-D060	●	2	6	7	1.8	5.3	25	9	1.8
TBGR07140200-D060	●	2	6	7	1.8	5.3	30	14	1.8
TBGR07090100-D068	●	1	6.8	7	2.7	6.2	25	9	2.5
TBGR07090150-D068	●	1.5	6.8	7	2.7	6.2	25	9	2.5
TBGR07140150-D068	●	1.5	6.8	7	2.7	6.2	30	14	2.5
TBGR07090200-D068	●	2	6.8	7	2.7	6.2	25	9	2.5
TBGR07140200-D068	●	2	6.8	7	2.7	6.2	30	14	2.5
TBGR07210200-D068	●	2	6.8	7	2.7	6.2	37	21	2.5
TBGR07290200-D068	●	2	6.8	7	2.7	6.2	45	29	2.5

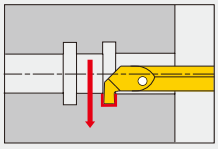
Corner radius : less than 0.1 mm.

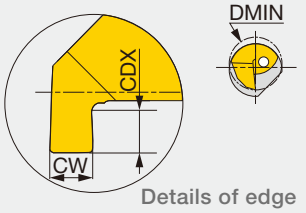
● : Line up

Reference pages : JBIR, TBGR: Standard cutting conditions → G136

JBGR/L

Solid boring bar for internal grooving





Right hand (R) shown.

Metric	SH725	SH730	CW $^{+0.05}_{0}$	DMIN	DCONMS	WF	a	LF	LH	CDX
JBGR04050050-D020	●	▲	0.5	2	4	-0.2	1.8	21	5	0.4
JBGR04100050-D020	●	▲	0.5	2	4	-0.2	1.8	26	10	0.4
JBGR04050070-D030	●	▲	0.7	3	4	0.7	2.7	21	5	0.6
JBGR04100070-D030	●	▲	0.7	3	4	0.7	2.7	26	10	0.6
JBGR04090100-D040	●	▲	1	4	4	1.5	3.5	25.5	9	0.8
JBGR04150100-D040	●	▲	1	4	4	1.5	3.5	31.5	15	0.8
JBGR07090100-D050	●	▲	1	5	7	0.9	4.4	25	9	1
JBGR07140100-D050	●	▲	1	5	7	0.9	4.4	30	14	1
JBGR07090150-D050	●	▲	1.5	5	7	0.9	4.4	25	9	1
JBGR07140150-D050	●	▲	1.5	5	7	0.9	4.4	30	14	1
JBGR07090200-D050	●	▲	2	5	7	0.9	4.4	25	9	1
JBGR07190200-D050	●	▲	2	5	7	0.9	4.4	35	19	1
JBGR/L07090100-D060	●	▲	1	6	7	1.8	5.3	25	9	1.8
JBGR07140100-D060	●	▲	1	6	7	1.8	5.3	30	14	1.8
JBGR07210100-D060	●	▲	1	6	7	1.8	5.3	37	21	1.8
JBGR07290100-D060	●	▲	1	6	7	1.8	5.3	45	29	1.8
JBGR/L07090150-D060	●	▲	1.5	6	7	1.8	5.3	25	9	1.8
JBGR07140150-D060	●	▲	1.5	6	7	1.8	5.3	30	14	1.8
JBGR07210150-D060	●	▲	1.5	6	7	1.8	5.3	37	21	1.8
JBGR07240150-D060	●	▲	1.5	6	7	1.8	5.3	40	24	1.8
JBGR07290150-D060	●	▲	1.5	6	7	1.8	5.3	45	29	1.8
JBGR07090200-D060	●	▲	2	6	7	1.8	5.3	25	9	1.8
JBGR07140200-D060	●	▲	2	6	7	1.8	5.3	30	14	1.8
JBGR07210200-D060	●	▲	2	6	7	1.8	5.3	37	21	1.8
JBGR07240200-D060	●	▲	2	6	7	1.8	5.3	40	24	1.8
JBGR07290200-D060	●	▲	2	6	7	1.8	5.3	45	29	1.8
JBGR07090100-D068	●	▲	1	6.8	7	2.7	6.2	25	9	2.5
JBGR07140100-D068	●	▲	1	6.8	7	2.7	6.2	30	14	2.5
JBGR07210100-D068	●	▲	1	6.8	7	2.7	6.2	37	21	2.5
JBGR07090150-D068	●	▲	1.5	6.8	7	2.7	6.2	25	9	2.5
JBGR07140150-D068	●	▲	1.5	6.8	7	2.7	6.2	30	14	2.5
JBGR07210150-D068	●	▲	1.5	6.8	7	2.7	6.2	37	21	2.5
JBGR07290150-D068	●	▲	1.5	6.8	7	2.7	6.2	45	29	2.5
JBGR07090200-D068	●	▲	2	6.8	7	2.7	6.2	25	9	2.5
JBGR/L07140200-D068	●	▲	2	6.8	7	2.7	6.2	30	14	2.5
JBGR07210200-D068	●	▲	2	6.8	7	2.7	6.2	37	21	2.5
JBGR07250200-D068	●	▲	2	6.8	7	2.7	6.2	40	24	2.5
JBGR07290200-D068	●	▲	2	6.8	7	2.7	6.2	45	29	2.5

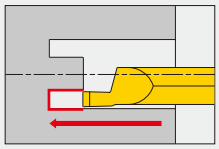
Corner radius: less than 0.1 mm

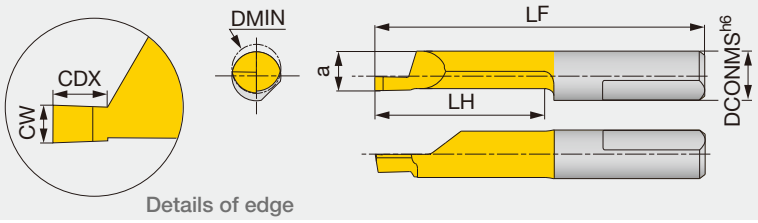
● : Line up
▲ : To be discontinued in April 2025

Reference pages : JBGR/L: Standard cutting conditions → G136

TBFR

Solid boring bar for face grooving





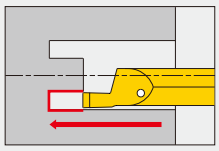
Metric	SH725	CW $^{+0.05}_{0}$	DMIN	DCONMS	a	LF	LH	CDX
TBFR07110100-D060	●	1	6	7	5.2	26	10	1.5
TBFR07110200-D060	●	2	6	7	5.2	26	10	3
TBFR07110100-D080	●	1	8	7	5.9	27	11	1.5
TBFR07110250-D080	●	2.5	8	7	5.9	27	11	3.5
TBFR07300300-D080	●	3	8	7	5.9	46	30	3.5
TBFR07200250-D150	●	2.5	15	7	5.9	36	20	20
TBFR07200300-D150	●	3	15	7	5.9	36	20	20
TBFR07300300-D150	●	3	15	7	5.9	46	30	30

Corner radius : less than 0.1 mm.

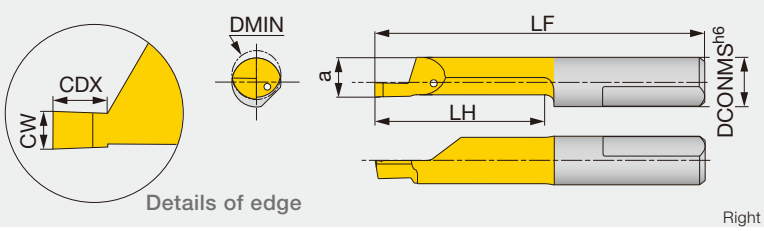
● : Line up

JBFR/L

Solid boring bar for face grooving



with coolant hole



Right hand (R) shown.

Metric	SH725	SH730	CW $^{+0.05}_{0}$	DMIN	DCONMS	a	LF	LH	CDX
JBFR07110100-D060	●	▲	1	6	7	5.2	27	10	1.5
JBFR07110150-D060	●	▲	1.5	6	7	5.2	27	10	2
JBFR07110200-D060	●	▲	2	6	7	5.2	27	10	3
JBFR07110100-D080	●	▲	1	8	7	5.9	27	11	1.5
JBFR07110150-D080	●	▲	1.5	8	7	5.9	27	11	2.5
JBFR07110200-D080	●	▲	2	8	7	5.9	27	11	3
JBFR07110250-D080	●	▲	2.5	8	7	5.9	27	11	3.5
JBFR07110300-D080	●	▲	3	8	7	5.9	27	11	3.5
JBFR/L07210150-D080	●	▲	1.5	8	7	5.9	36	21	2.5
JBFR07210200-D080	●	▲	2	8	7	5.9	36	21	3
JBFR07210250-D080	●	▲	2.5	8	7	5.9	36	21	3.5
JBFR07210300-D080	●	▲	3	8	7	5.9	36	21	3.5
JBFR/L07300200-D080	●	▲	2	8	7	5.9	46	30	3
JBFR07300300-D080	●	▲	3	8	7	5.9	46	30	3.5
JBFR07200200-D080	●	▲	2	8	7	5.9	36	20	3
JBFR07200250-D150	●	▲	2.5	15	7	5.9	36	20	20
JBFR07200300-D150	●	▲	3	15	7	5.9	36	20	20
JBFR07300300-D150	●	▲	3	15	7	5.9	46	30	30

Corner radius: less than 0.1 mm

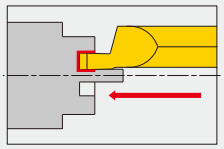
● : Line up

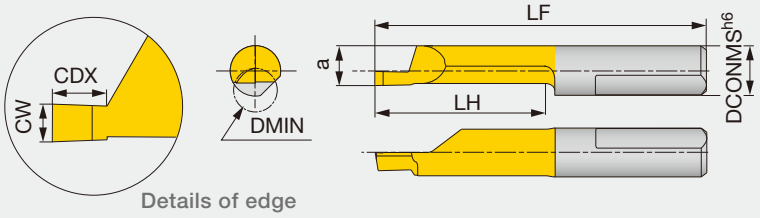
▲ : To be discontinued in April 2025

Reference pages : TBFR, JBFR/L: Standard cutting conditions → G136

TBSR

Solid boring bar for face grooving (for shaft)





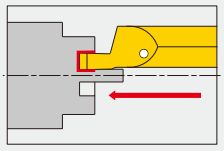
Metric	SH725	CW $^{+0.05}_{0}$	DMIN	DCONMS	a	LF	LH	CDX
TBSR07200200-D060	●	2	6	7	5.2	36	20	4

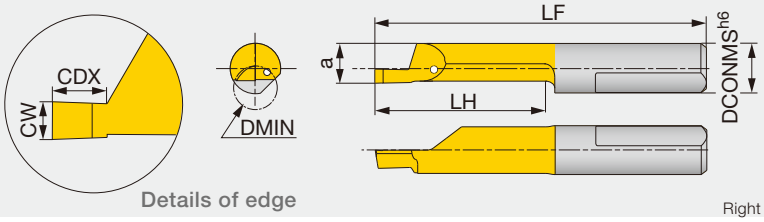
Corner radius : less than 0.1 mm.

● : Line up

JBSR

Solid boring bar for face grooving (for shaft)





Right hand (R) shown.

Metric	SH725	SH730	CW $^{+0.05}_{0}$	DMIN	DCONMS	a	LF	LH	CDX
JBSR07200200-D060	●	▲	2	6	7	5.2	36	20	4

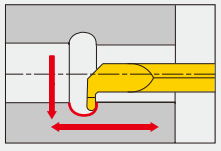
Corner radius: less than 0.1 mm

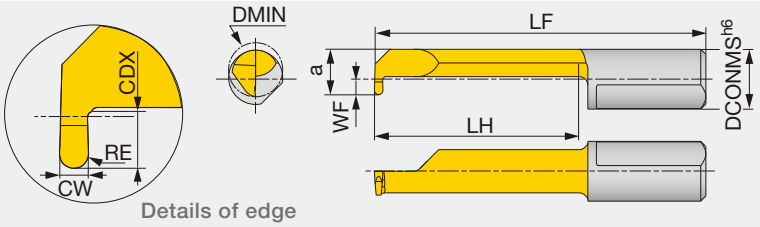
● : Line up

▲ : To be discontinued in April 2025

TBRR

Solid boring bar for boring and profiling



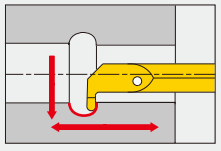


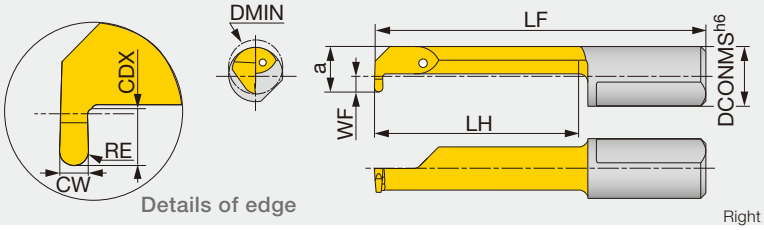
Metric	SH725	CW $^{+0.05}_{0}$	DMIN	DCONMS	WF	a	LF	LH	CDX	RE
TBRR07190050-D050	●	1	5	7	0.9	4.4	35	19	1	0.5
TBRR07240050-D060	●	1	6	7	1.8	5.3	40	24	1.8	0.5
TBRR07290050-D068	●	1	6.8	7	2.8	6.3	45	29	2.5	0.5

● : Line up

JBRR

Solid boring bar for boring and profiling





Right hand (R) shown.

Metric	SH725	SH730	CW $^{+0.05}_{0}$	DMIN	DCONMS	WF	a	LF	LH	CDX	RE
JBRR07190050-D050	●	▲	1	5	7	0.9	4.4	35	19	1	0.5
JBRR07240050-D060	●	▲	1	6	7	1.8	5.3	40	24	1.8	0.5
JBRR07290050-D068	●	▲	1	6.8	7	2.8	6.3	45	29	2.5	0.5

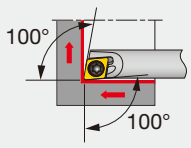
● : Line up

▲ : To be discontinued in April 2025

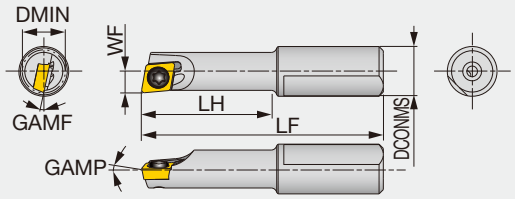
Reference pages : TBSR, JBSR, TBRR, JBRR: Standard cutting conditions → G136

A/E-SEXPR

Screw-on boring bar, for positive 75° rhombic inserts



Cutting edge style **X**

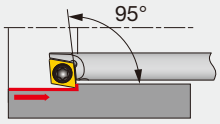


Metric	Material	DMIN	DCONMS	WF	LF	LH	GAMP	GAMF	RE**	Insert	Torque*
A07050-SEXPR03-3	Steel	5	7	2.5	31	15	0°	-13°	0.2	EPGT03X1...	0.6
A07060-SEXPR04-3	Steel	6	7	3.1	34	18	0°	-12°	0.2	EPGT0401...	0.6
E07050-SEXPR03-4	Carbide	5	7	2.5	37	20	0°	-13°	0.2	EPGT03X1...	0.6
E07050-SEXPR03-5	Carbide	5	7	2.5	42	25	0°	-13°	0.2	EPGT03X1...	0.6
E07060-SEXPR04-5	Carbide	6	7	3.1	46	30	0°	-12°	0.2	EPGT0401...	0.6

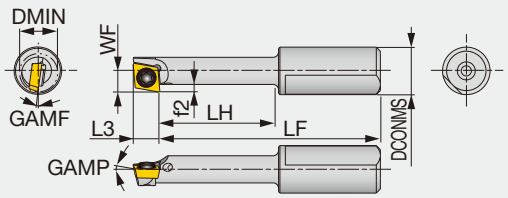
*Torque: Recommended clamping torque (N·m)
**RE : Standard corner radius
Note: Use right-hand toolholders (SEXPR**) with left-hand inserts (L).

A/E-SEZPR

Screw-on boring bar, for positive 75° rhombic inserts



Cutting edge style **Z**



Metric	Material	DMIN	DCONMS	WF	LF	LH	f2	L3	GAMP	GAMF	RE**	Insert	Torque*
A07055-SEZPR03-3	Steel	5.5	7	3.2	32.5	16.5	1.2	3.9	0°	-8°	0.2	EPGT03X1...	0.6
E07055-SEZPR03-5	Carbide	5.5	7	3.2	44.7	27.5	1.2	3.9	0°	-8°	0.2	EPGT03X1...	0.6

*Torque: Recommended clamping torque (N·m)
**RE : Standard corner radius
Note: Use right-hand toolholders (SEZPR**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A/E070**03-...	CSTA-1.6	T-6F
A/E070**04-...	CSTB-2	T-6F

INSERT SELECTION

P

Application	Finishing
Grade	SH725
Breaker Shape	JS
Cutting conditions	B016

M

Application	Finishing
Grade	SH725
Breaker Shape	JS
Cutting conditions	B018

K

Application	Finishing
Grade	SH725
Breaker Shape	JS
Cutting conditions	B020

S

Application	Finishing
Grade	SH725
Breaker Shape	JS
Cutting conditions	B024

N

Application	Precision finishing	Finishing
Grade	DX140	SH725
Breaker Shape	DIA	JS
Cutting conditions	B022	

H

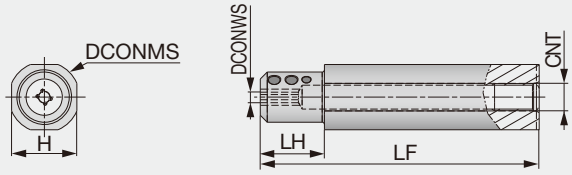
Application	Precision finishing
Grade	BX310
Breaker Shape	CBN
Cutting conditions	B026

Reference pages: A/E-SEXPR, A/E-SEZPR: Insert → B128 -, CBN → B195, PCD → B214

JBBS-4N

Sleeve for internal coolant supply with 4 coolant holes



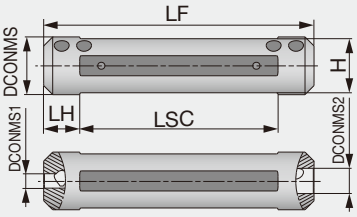


Metric	DCONMS	DCONWS	LF	LH	H	CNT
JBBS12-4-L80C-4N	12	4	80	10	10.3	Rc1/16
JBBS127-4-L80C-4N	12.7	4	80	10	11.6	Rc1/16
JBBS14-4-L80C-4N	14	4	80	10	12	Rc1/8
JBBS159-4-L100C-4N	15.875	4	100	10	14.58	Rc1/8
JBBS159-7-L100C-4N	15.875	7	100	10	14.58	Rc1/8
JBBS16-4-L100C-4N	16	4	100	10	15	Rc1/8
JBBS16-7-L100C-4N	16	7	100	10	15	Rc1/8
JBBS19-4-L100C-4N	19.05	4	100	20	17.2	Rc1/8
JBBS19-7-L100C-4N	19.05	7	100	20	17.2	Rc1/8
JBBS20-4-L100C-4N	20	4	100	20	18	Rc1/8
JBBS20-7-L100C-4N	20	7	100	20	18	Rc1/8
JBBS22-4-L100C-4N	22	4	100	20	20	Rc1/8
JBBS22-7-L100C-4N	22	7	100	20	20	Rc1/8
JBBS25-4-L100C-4N	25	4	100	23	23	Rc1/8
JBBS25-7-L100C-4N	25	7	100	23	23	Rc1/8
JBBS254-4-L100C-4N	25.4	4	100	23	23.4	Rc1/8
JBBS254-7-L100C-4N	25.4	7	100	23	23.4	Rc1/8

JBBS

Sleeve for external coolant supply





Metric	DCONMS	DCONWS1	DCONWS2	LF	LH	LSC	H
JBBS12-4-4	12	4	4	75	10	55	10.3
JBBS127-4-4	12.7	4	4	76.2	10	56.2	11.6
JBBS14-4-4	14	4	4	75	10	55	12
JBBS159-4-7	15.875	4	7	76.2	10	56.2	14
JBBS16-4-7	16	4	7	75	10	55	15
JBBS19-4-7	19.05	4	7	89	10	69	17.2
JBBS20-4-7	20	4	7	90	10	70	18
JBBS22-4-7	22	4	7	90	10	70	20
JBBS25-4-7	25	4	7	100	10	80	23
JBBS254-4-7	25.4	4	7	90	10	70	23.4

SPARE PARTS





Designation	Clamping screw	Wrench
JBBS**-4-L***C-4N, JBBS127-4-4, JBBS**-4-7	SSHM5-6PF-S	P-2.5
JBBS**-7-L***C-4N, JBBS12-4-4, JBBS14-4-4	SSHM5-4PF-S	P-2.5

JBBS-C

Sleeve for internal coolant supply



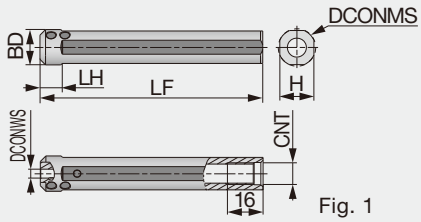


Fig. 1

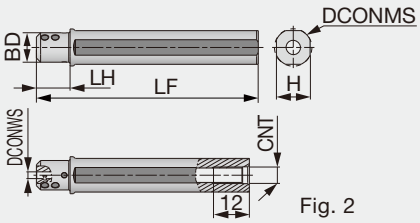


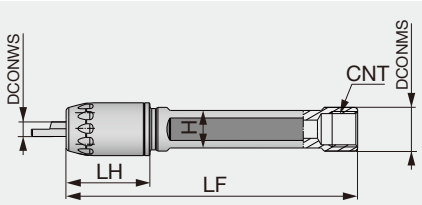
Fig. 2

Metric	DCONMS	BD	DCONWS	LF	LH	H	CNT	Fig.
JBBS159-4-L100C	15.875	15.875	4	100	10	14.58	Rc1/8	1
JBBS159-7-L100C	15.875	15.875	7	100	10	14.58	Rc1/8	1
JBBS16-4-L100C	16	16	4	100	10	15	Rc1/8	1
JBBS16-7-L100C	16	16	7	100	10	15	Rc1/8	1
JBBS19-4-L100C	19.05	17.5	4	100	20	17.2	Rc1/8	2
JBBS19-7-L100C	19.05	17.5	7	100	20	17.2	Rc1/8	2
JBBS20-4-L100C	20	17.5	4	100	20	18	Rc1/8	2
JBBS20-7-L100C	20	17.5	7	100	20	18	Rc1/8	2
JBBS22-4-L100C	22	17.5	4	100	20	20	Rc1/8	2
JBBS22-7-L100C	22	17.5	7	100	20	20	Rc1/8	2
JBBS25-4-L100C	25	18	4	100	23	23	Rc1/8	2
JBBS25-7-L100C	25	18	7	100	23	23	Rc1/8	2
JBBS254-4-L100C	25.4	18	4	100	23	23.4	Rc1/8	2
JBBS254-7-L100C	25.4	18	7	100	23	23.4	Rc1/8	2

JBBSA-C

Collet chuck sleeve for solid carbide bars





Metric	DCONMS	DCONWS	LF	LH	H	CNT
JBBSA16-4-L100C	16	4	100	23	14	Rc1/8
JBBSA16-7-L100C	16	7	100	23	14	Rc1/8
JBBSA20-4-L120C	20	4	120	23	18	Rc1/8
JBBSA20-7-L120C	20	7	120	23	18	Rc1/8

SPARE PARTS

Designation	Clamping screw	Cap	Wrench	Wrench 1
JBBS**-4-L100C	SSHM5-6PF-S		P-2.5	-
JBBS**-7-L100C	SSHM5-4PF-S		P-2.5	-
JBBSA**-4-L100C	-	CAP-A-4	-	WRENCH-A-4
JBBSA**-7-L100C	-	CAP-A-7	-	WRENCH-A-7

STANDARD CUTTING CONDITIONS

Boring, profiling, chamfering, back boring

ISO	Workpiece material	Grade	Cutting speed *Vc* (m/min)	Cutting speed *Vc* (sfm)	Feed *f* (mm/rev)	Feed *f* (ipr)
P	Low carbon steel 1015, 1025, etc.	SH730, SH725	40 - 140	131 - 459	0.01 - 0.08 *	0.0004 - 0.003 *
P	Carbon steel, Alloy steel 1055, 4140, etc.	SH730, SH725	40 - 140	131 - 459	0.01 - 0.08 *	0.0004 - 0.003 *
P	Prehardened steels NAK80, PX5, etc.	SH730, SH725	40 - 140	131 - 459	0.01 - 0.08 *	0.0004 - 0.003 *
M	Stainless steel 304, 316, etc.	SH730, SH725	40 - 140	131 - 459	0.01 - 0.08 *	0.0004 - 0.003 *
K	Gray cast iron No.250B, No.300B, etc.	SH730, SH725	30 - 100	98 - 328	0.01 - 0.08 *	0.0004 - 0.003 *
K	Ductile cast iron 65-45-12, 80-55-06, etc.	SH730, SH725	30 - 100	98 - 328	0.01 - 0.08 *	0.0004 - 0.003 *
N	Aluminum alloys, Copper alloys Si < 12%	SH730, SH725	90 - 200	295 - 656	0.01 - 0.08 *	0.0004 - 0.003 *
S	Titanium alloys Ti-6Al-4V, etc.	SH730, SH725	30 - 100	98 - 328	0.01 - 0.08 *	0.0004 - 0.003 *
S	Superalloys Inconel718, etc.	SH730, SH725	30 - 100	98 - 328	0.01 - 0.08 *	0.0004 - 0.003 *

* JBTR/L04020004-D006, JBTR/L04030004-D006 : Max. f = 0.0004 ipr (0.01 mm/rev)

Threading (metric thread)

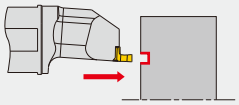
ISO	Workpiece material	Grade	Cutting speed *Vc* (m/min)	Cutting speed *Vc* (sfm)	Number of passes Pitch (mm) 0.5 (0.020")	0.75 (0.030")	1 (0.039")	1.25 (0.049")	1.5 (0.059")
P	Low carbon steel 1015, 1025, etc.	SH730, SH725	40 - 140	131 - 459	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
P	Carbon steel, Alloy steel 1055, 4140, etc.	SH730, SH725	40 - 140	131 - 459	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
P	Prehardened steels NAK80, PX5, etc.	SH730, SH725	40 - 140	131 - 459	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
M	Stainless steel 304, 316, etc.	SH730, SH725	40 - 140	131 - 459	8	10	12	15	18
K	Gray cast iron No.250B, No.300B, etc.	SH730, SH725	30 - 100	98 - 328	7	9	12	14	17
K	Ductile cast iron 65-45-12, 80-55-06, etc.	SH730, SH725	30 - 100	98 - 328	7	9	12	14	17
N	Aluminum alloys, Copper alloys Si < 12%	SH730, SH725	90 - 200	295 - 656	6	8	10	12	15

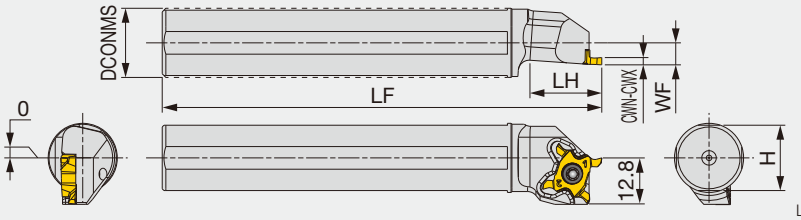
Internal and face grooving

ISO	Workpiece material	Grade	Cutting speed *Vc* (m/min)	Cutting speed *Vc* (sfm)	Internal grooving Feed: *f* (mm/rev)	Internal grooving Feed: *f* (ipr)	Face grooving Feed: *f* (mm/rev)	Face grooving Feed: *f* (ipr)
P	Low carbon steel 1015, 1025, etc.	SH730, SH725	40 - 140	131 - 459	0.01 - 0.03	0.0004 - 0.001	0.01 - 0.05	0.0004 - 0.002
P	Carbon steel, Alloy steel 1055, 4140, etc.	SH730, SH725	40 - 140	131 - 459	0.01 - 0.03	0.0004 - 0.001	0.01 - 0.05	0.0004 - 0.002
P	Prehardened steels NAK80, PX5, etc.	SH730, SH725	40 - 140	131 - 459	0.01 - 0.03	0.0004 - 0.001	0.01 - 0.05	0.0004 - 0.002
M	Stainless steel 304, 316, etc.	SH730, SH725	40 - 140	131 - 459	0.01 - 0.03	0.0004 - 0.001	0.01 - 0.05	0.0004 - 0.002
K	Gray cast iron No.250B, No.300B, etc.	SH730, SH725	30 - 100	98 - 328	0.01 - 0.03	0.0004 - 0.001	0.01 - 0.05	0.0004 - 0.002
K	Ductile cast iron 65-45-12, 80-55-06, etc.	SH730, SH725	30 - 100	98 - 328	0.01 - 0.03	0.0004 - 0.001	0.01 - 0.05	0.0004 - 0.002
N	Aluminum alloys, Copper alloys Si < 12%	SH730, SH725	90 - 200	295 - 656	0.01 - 0.03	0.0004 - 0.001	0.01 - 0.05	0.0004 - 0.002
S	Titanium alloys Ti-6Al-4V, etc.	SH730, SH725	30 - 100	98 - 328	0.01 - 0.03	0.0004 - 0.001	0.01 - 0.05	0.0004 - 0.002
S	Superalloys Inconel718, etc.	SH730, SH725	30 - 100	98 - 328	0.01 - 0.03	0.0004 - 0.001	0.01 - 0.05	0.0004 - 0.002

JS-STCFL18

Face grooving toolholder with round shank





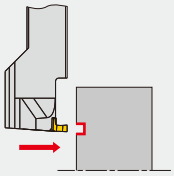
Left-hand (L) shown.

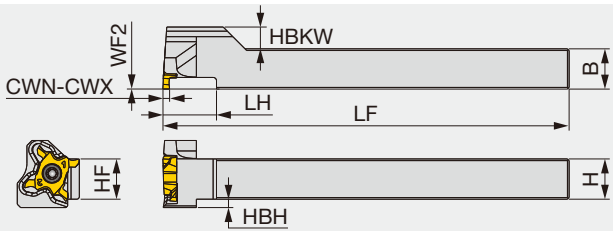
Metric	CWN	CWX	DCONMS	LF	LH	H	WF	Insert	Torque*
JS16F-STCFL18	0.5	2.5	16	85	20	15	6	TCF18L...	1.2
JS19G-STCFL18	0.5	2.5	19.05	90	20	18	6	TCF18L...	1.2
JS19X-STCFL18	0.5	2.5	19.05	120	20	18	6	TCF18L...	1.2
JS20G-STCFL18	0.5	2.5	20	90	20	19	6	TCF18L...	1.2
JS20X-STCFL18	0.5	2.5	20	120	20	19	6	TCF18L...	1.2
JS22X-STCFL18	0.5	2.5	22	120	20	21	6	TCF18L...	1.2
JS25H-STCFL18	0.5	2.5	25	100	20	24	6	TCF18L...	1.2
JS254X-STCFL18	0.5	2.5	25.4	120	20	24.5	6	TCF18L...	1.2

Note: The left hand insert (L) is used for the left hand toolholders (L).
Torque*: Recommended clamping torque (N·m)

STCFVR-18

Face grooving toolholder with square shank, for Swiss lathes





Right-hand (R) shown.

Inch	CWN	CWX	H	B	LF	LH	HF	WF	HBKW	HBH	Insert	Torque
STCFVR06-18	0.020	0.098	0.375	0.375	4.016	0.472	0.375	0	0.354	0.177	TCF18L...	0.89
STCFVR08-18	0.020	0.098	0.500	0.500	4.764	0.630	0.500	0	0.228	0.098	TCF18L...	0.89
STCFVR10-18	0.020	0.098	0.625	0.625	4.764	0.787	0.625	0	0.106	-	TCF18L...	0.89

Metric	CWN	CWX	H	B	LF	LH	HF	WF2	HBKW	HBH	Insert	Torque*
STCFVR1010H18	0.5	2.5	10	10	100	12	10	0	8.5	4.5	TCF18L...	1.2
STCFVR1212F18	0.5	2.5	12	12	85	16	12	0	6.5	2.5	TCF18L...	1.2
STCFVR1212X18	0.5	2.5	12	12	120	16	12	0	6.5	2.5	TCF18L...	1.2
STCFVR1616X18	0.5	2.5	16	16	120	20	16	0	2.5	0	TCF18L...	1.2

Note: The left hand insert (L) is used for the left hand toolholders (L).
Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS





Designation	Clamping screw	Wrench
JS**-STCFL18, STCFVR**18	CSTC-4L100DR	T-1008/5

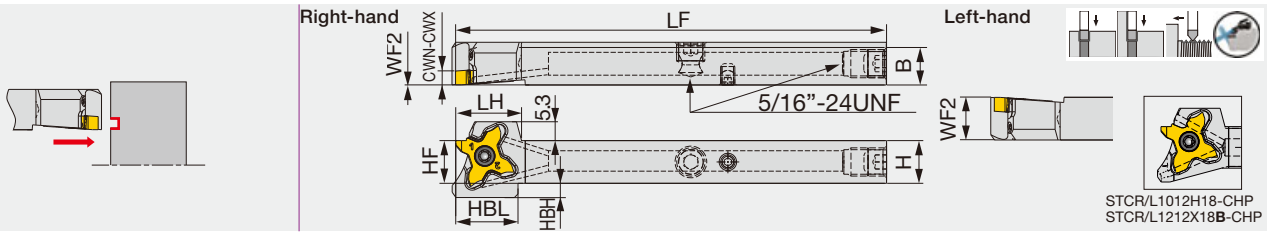
Threading pitch range: 0.8 ~ 3 mm

Reference pages: JS-STCFL18,STCFVR-18: Inserts, Standard cutting conditions → G139

STCR/L-H/X18-CHP

Direct connection

External grooving and threading toolholder, high pressure coolant compatible



Inch	CWN	CWX	H	B	LF	LH	HBL	HF	WF2**	HBH	Insert	Torque
STCR/L08X18-CHP (1)	0.013	0.118	0.500	0.500	4.750	0.728	0.689	0.500	0/0.500	0.130	TC*18...	0.89
STCR/L10X18-CHP (1)	0.013	0.118	0.625	0.625	4.750	0.728	-	0.625	0/0.625	-	TC*18...	0.89

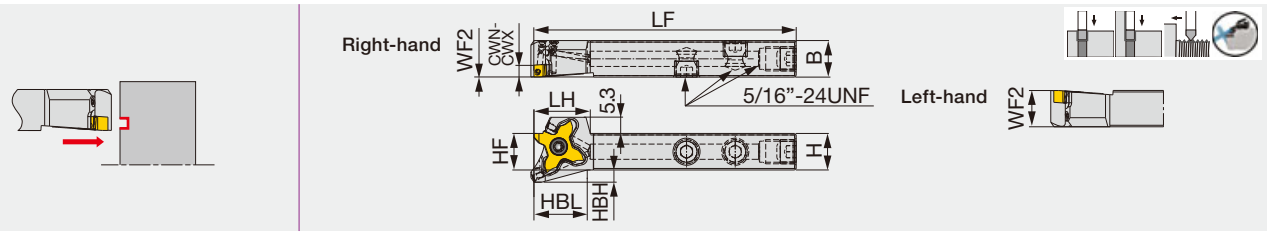
Metric	CWN	CWX	H	B	LF	LH	HBL	HF	WF2**	HBH	Insert	Torque*
STCR/L1012H18-CHP	0.33	3.18	10	12	100	17.1	17.1	10	0/12	4	TC**18	1.2
STCR/L1212X18B-CHP	0.33	3.18	12	12	120	18.5	17.5	12	0/12	4	TC**18	1.2
STCR/L1616X18-CHP	0.33	3.18	16	16	120	18.5	-	16	0/16	0	TC**18	1.2

The right hand insert (TC*18R***) is used for the right hand toolholders (STCR***), and the left hand insert (TC*18L***) is used for the left hand toolholders (STCL***).
WF2** : The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
Torque: Recommended clamping torque: lbs·ft (*N·m)

STCR/L-18-CHP

Tube connection

External grooving and threading toolholder. High pressure coolant capability.



Inch	CWN	CWX	H	B	LF	LH	HBL	HF	WF2**	HBH	Insert	Torque
STCR/L08F18-CHP	0.013	0.118	0.500	0.500	3.344	0.728	0.689	0.500	0/0.500	0.130	TC*18...	0.89

Metric	CWN	CWX	H	B	LF	LH	HBL	HF	WF2**	HBH	Insert	Torque*
STCR/L1212F18B-CHP	0.33	3.18	12	12	85	18.5	17.5	12	0/12	4	TC**18	1.2

The right hand insert (TC*18R***) is used for the right hand toolholders (STCR***), and the left hand insert (TC*18L***) is used for the left hand toolholders (STCL***).
WF2** : The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS

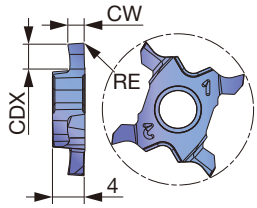
Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
STCL**18-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
STCR**18-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
STCL**F18B-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	-	-
STCR**F18B-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	-	-

Threading pitch range: 0.8 ~ 3.0 mm 0.8 ~ 3.0 mm

INSERT

TCF18L (Face grooving)





Left-hand (L) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★: First choice

Designation	HAND	CW±0.02 (mm)	CW±0.02 (in)	RE (in)	Coated SH725	CDX (in)	DAXN (in)
TCF18L050F-005	L	0.5	0.020	0.002	●	0.039	0.236
TCF18L100F-005	L	1	0.039	0.002	●	0.098	0.236
TCF18L150F-005	L	1.5	0.059	0.002	●	0.098	0.236
TCF18L200F-005	L	2	0.079	0.002	●	0.118	0.236
TCF18L250F-005	L	2.5	0.098	0.002	●	0.118	0.236

5 pieces per package
● : Line up

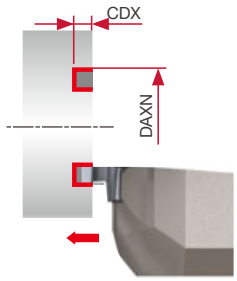
STANDARD CUTTING CONDITIONS

TCF18L (Face grooving)

ISO	Workpiece materials	Grades	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Low carbon steel 1015, 1020, etc.	SH725	98 - 328	0.0004 - 0.0016
	Carbon steels, Alloy steel 1055, 4140, etc.	SH725	98 - 328	0.0004 - 0.0016
	Prehardened steel NAK80, PX5, etc.	SH725	98 - 328	0.0004 - 0.0016
M	Stainless steel 304SS, 316SS, etc.	SH725	98 - 328	0.0004 - 0.0016
K	Gray cast iron Class25, Class30, etc.	SH725	98 - 328	0.0004 - 0.0016
	Ductile cast iron 60-40-18, 80-55-06, etc.	SH725	98 - 328	0.0004 - 0.0016
S	Titanium alloys Ti-6Al-4V, etc.	SH725	66 - 131	0.0004 - 0.0016
	Superalloys Inconel718, etc.	SH725	33 - 98	0.0004 - 0.0016

PRECAUTIONS OF PROCESSING

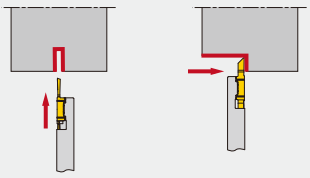
Minimum diameter for face grooving



Minimum face diameter DAXN (in)	Maximum groove depth CDX (in)
2.559	0.118

Reference pages: Toolhoders → G137 - G138

Parting-off and front turning toolholders



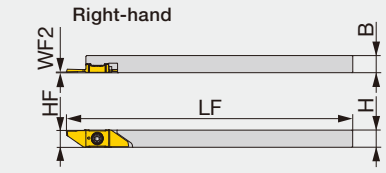


Fig. 1

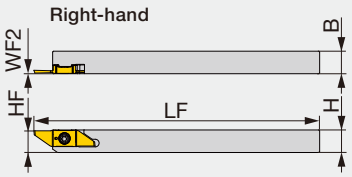


Fig. 2



Metric	H	B	LF	HF	WF2(1)	Insert	Torque*	Fig.
JSXXL0606X05	6	6	120	5.6	5.8	JV*N..., JVN...	1.3	1
JSXXR/L0707X05	7	7	120	6.6	0.2/6.8	JV*N..., JVN...	1.3	1
JSXXR/L0808F05	8	8	85	7.7	0.2/7.8	JV*N..., JVN...	1.3	2
JSXXR/L0808H05	8	8	100	7.7	0.2/7.8	JV*N..., JVN...	1.3	2
JSXXR/L1010H05	10	10	100	9.7	0.2/9.8	JV*N..., JVN...	1.3	2

Torque*: Recommended clamping torque (N·m)
(1) The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.
Use the right-hand insert (JV****R...) for a right-hand holder (JSXXR...); the left-hand insert (JV****L...) for a left-hand holder (JSXXL...).

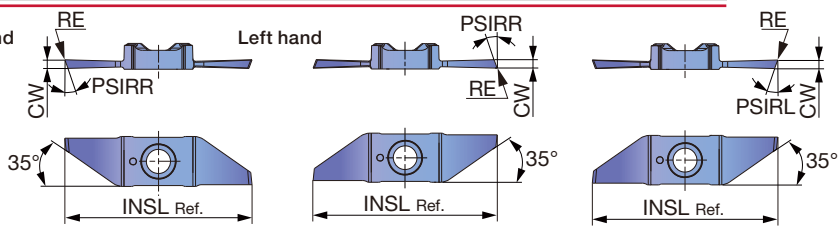
SPARE PARTS

Designation	Clamping screw	Wrench
JSXXR...05	CSTB-2.5L054DL	T-7F
JSXXL...05	CSTB-2.5L054DR	T-7F

INSERTS

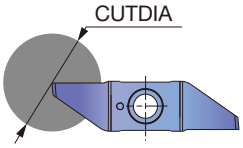
JVPN**R/L (For parting-off)





JVPN12L10F000-20L

P	Steel	★
M	Stainless	★
K	Cast iron	
N	Non-ferrous	★
S	Superalloys	★
H	Hard materials	



★ : First choice

Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated SH725	CUTDIA (in)	INSL (in)	PSIRR	PSIRL
JVPN04R05F000-20	R	0.5	0.020	0	●	0.157	1.685	20°	-
JVPN04L05F000-20	L	0.5	0.020	0	●	0.157	1.685	20°	-
JVPN04R05F005-20	R	0.5	0.020	0.002	●	0.157	1.677	20°	-
JVPN04L05F005-20	L	0.5	0.020	0.002	●	0.157	1.677	20°	-
JVPN07R06F000-20	R	0.6	0.024	0	●	0.276	1.685	20°	-
JVPN07L06F000-20	L	0.6	0.024	0	●	0.276	1.685	20°	-
JVPN07R06F005-20	R	0.6	0.024	0.002	●	0.276	1.685	20°	-
JVPN07L06F005-20	L	0.6	0.024	0.002	●	0.276	1.685	20°	-
JVPN12R08F000-20	R	0.8	0.031	0	●	0.472	1.701	20°	-
JVPN12L08F000-20	L	0.8	0.031	0	●	0.472	1.701	20°	-
JVPN12R08F005-20	R	0.8	0.031	0.002	●	0.472	1.693	20°	-
JVPN12L08F005-20	L	0.8	0.031	0.002	●	0.472	1.693	20°	-
JVPN12R10F000-20	R	1	0.039	0	●	0.472	1.709	20°	-
JVPN12L10F000-20	L	1	0.039	0	●	0.472	1.709	20°	-
JVPN12R10F005-20	R	1	0.039	0.002	●	0.472	1.709	20°	-
JVPN12L10F005-20	L	1	0.039	0.002	●	0.472	1.709	20°	-
JVPN12L10F000-20L	L	1	0.039	0	●	0.472	1.709	-	20°

● : Line up

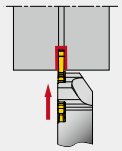
STANDARD CUTTING CONDITIONS

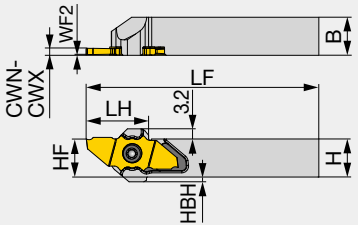
Parting-off

ISO	Workpiece materials	Grade	Cutting speed *Vc* (m/min)	Feed *f* (mm/rev)
P	Low carbon steels 1015, etc.	SH725	164 - 591	0.00039 - 0.0020
P	Carbon steels, Alloy steels 1055, etc.	SH725	164 - 591	0.00039 - 0.0020
P	Free cutting steels SUH22, SUH23, etc.	SH725	164 - 591	0.00039 - 0.0020
M	Stainless steels 304, etc.	SH725	164 - 394	0.00039 - 0.0020
N	Aluminum alloys 5056, 6061, etc.	SH725	492 - 656	0.00039 - 0.0020
N	Copper alloys C2600, C280C, etc.	SH725	328 - 656	0.00039 - 0.0020
S	Titanium alloys Ti-6Al-4V, etc.	SH725	98 - 262	0.00039 - 0.0020
S	Superalloys Inconel718, etc.	SH725	98 - 262	0.00039 - 0.0020

JSXXR/L

Parting toolholder, for Swiss lathes





Right hand (R) shown.

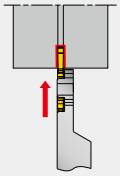
Inch	CWN	CWX	H	B	LF**	LH**	HF	WF2(1)	HBL	HBH	Insert	Torque	Fig.
JSXXR/L063	0.024	0.098	0.375	0.375	4.646	0.774	0.375	0.008 / 0.386	0.748	0.12	JX...	0.89	1
JSXXR/L083	0.024	0.098	0.500	0.500	3.268	0.774	0.500	0.008 / 0.386	0.748	0.06	JX...	0.89	1
JSXXR/L103	0.024	0.098	0.625	0.625	4.646	0.774	0.625	0.008 / 0.386	-	0.06	JX...	0.89	1
JSXXR/L123	0.024	0.098	0.750	0.750	3.950	0.886	0.750	0.008 / 0.742	-	-	JX...	0.89	1
JSXXR/L163	0.024	0.098	1.000	1.000	5.350	1.339	1.000	1.250 / 1.250	-	-	JX...	0.89	2

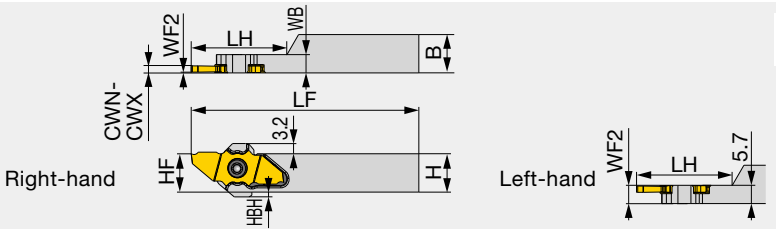
Metric	CWN	CWX	H	B	LF**	LH**	HF	WF2(1)	HBL**	HBH	Insert	Torque*	Fig.
JSXXR/L1010X09	0.6	2.5	10	10	120	19.65	10	0.2/9.8	19	3	JX...	1.2	1
JSXXR/L1212F09	0.6	2.5	12	12	85	19.65	12	0.2/11.8	19	1.5	JX...	1.2	1
JSXXR/L1212X09	0.6	2.5	12	12	120	19.65	12	0.2/11.8	19	1.5	JX...	1.2	1
JSXXR/L1616X09	0.6	2.5	16	16	120	19.65	16	0.2/15.8	-	-	JX...	1.2	1
JSXXR/L2020H09	0.6	2.5	20	20	100	22.5	20	0.2/19.8	-	-	JX...	1.2	1

Torque: Recommended clamping torque: lbs·ft (*N·m)
**LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JXPG16... insert. LF, LH, and HBL will all be 0.079" (2 mm) shorter than the above values with JX*G12... and JXPG20...inserts, and 0.157" (4 mm) shorter for JXPG06... insert.
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

JSXXR/L-S

Parting toolholder, for Swiss lathes (for sub spindle)





Inch	CWN	CWX	H	B	LF**	LH**	HF	WF	HBH	Insert	Torque*
JSXXR/L063-S	0.024	0.098	0.375	0.375	4.750	1.030	0.383	0.008/0.217	0.120	JX*G06...,12...,16...	0.890
JSXXR/L083-S	0.024	0.098	0.500	0.500	4.750	1.030	0.500	0.008/0.217	0.060	JX*G06...,12...,16...	0.890

Metric	CWN	CWX	H	B	LF**	LH**	HF	WF2	HBH	Insert	Torque*
JSXXR/L1010X09-S	0.6	2.5	10	10	120	26	10	0.2/5.5	3	JX**06...,12...,16...	1.2
JSXXR/L1212F09-S	0.6	2.5	12	12	85	26	12	0.2/5.5	1.5	JX**06...,12...,16...	1.2
JSXXR/L1212X09-S	0.6	2.5	12	12	120	30	12	0.2/5.5	1.5	JX**06...,12...,16...	1.2
JSXXR/L1616X09-S	0.6	2.5	16	16	120	30	16	0.2/5.5	-	JX**06...,12...,16...,20...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
**LF (Functional Length) and LH (Head Length) values shown above are true with JXPG16... insert. LF and LH will be 2 mm shorter than the above values with JX*G12... insert, and 0.157" (4 mm) shorter for JXPG06... insert. LF, LH, and HBL will all be 0.079" (2 mm) shorter with JXPG20... insert.
***JXPG20... insert will not fit.
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

SPARE PARTS



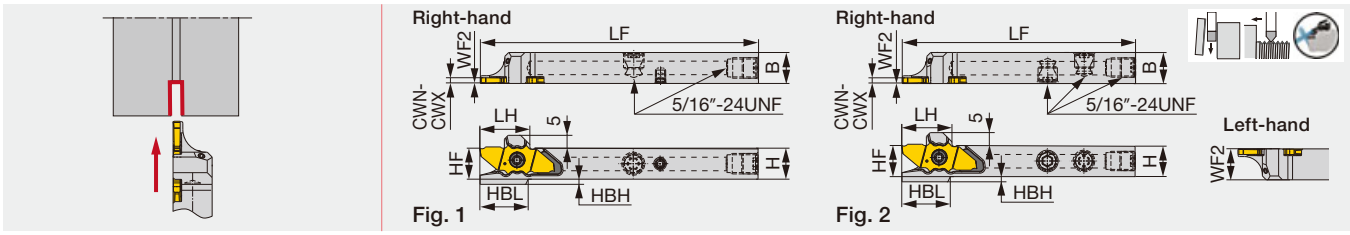


Designation	Clamping screw	Wrench
JSXXR..., JSXXR*****-S	CSTC-4L055DL	T-1008/5
JSXXL..., JSXXL*****-S	CSTC-4L055DR	T-1008/5

Reference pages: JSXXR/L, JSXXR/L-S: Inserts → G145 - G147, Standard cutting conditions → G148

JSXXR/L-F/H/X-CHP

Parting-off toolholders with high pressure coolant capability, for swiss lathes



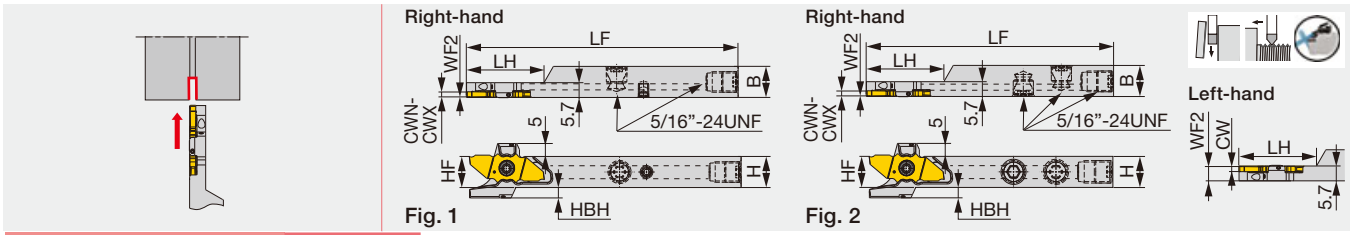
Inch	CWN	CWX	H	B	WF	LF**	HF	HBH	LH**	HBL**	Insert	Torque	Fig.
JSXXR/L083X-CHP	0.024	0.098	0.500	0.500	0.008/0.492	4.750	0.500	0.051	0.764	0.736	JX*G06...,12...,16..., 20...	0.890	1
JSXXR/L103X-CHP	0.024	0.098	0.625	0.625	0.008/0.617	4.750	0.625	-	0.764	-	JX*G06...,12...,16..., 20...	0.890	1
JSXXR/L083F-CHP	0.024	0.098	0.500	0.500	0.008/0.492	3.344	0.500	0.051	≤ 0.764	0.736	JX*G06...,12...,16..., 20...	0.890	1

Metric	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBL(1)	HBH	Insert	Torque*	Fig.
JSXXR/L1012H09-CHP(3)	0.6	2.5	10	12	102	19.2	10	0.2/11.8	18.7	3	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212F09-CHP	0.6	2.5	12	12	85	19.4	12	0.2/11.8	18.8	2	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212X09-CHP(3)	0.6	2.5	12	12	120	19.4	12	0.2/11.8	18.8	2	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09B-CHP(3)	0.6	2.5	16	16	120	19.4	16	0.2/15.8	18.7	-	JX**06...,12...,16..., 20...	1.2	1

Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JX**16... insert. LF, LH, and HBL will all be 0.079" (2 mm) shorter than the above values with JX**12... and JX**20... inserts, and 4 mm shorter for JX**06... insert.
(2) The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.
(3) Compatible to the direct internal coolant supply system without the use of external coolant hose.
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

JSXXR/L-F/X-S-CHP

Parting-off toolholders with high pressure coolant capability, for swiss lathes (for sub spindle)



Inch	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBH	Insert	Torque*	Fig.
JSXXR/L083F-S-CHP	0.024	0.098	0.5	0.5	3.344	1.024	0.5	0.008/0.217	0.051	JX**06...,12...,16..., 20...	0.89	2
JSXXR/L083X-S-CHP	0.024	0.098	0.5	0.5	4.75	1.181	0.5	0.008/0.217	0.051	JX**06...,12...,16..., 20...	0.89	1
JSXXR/L103X-S-CHP	0.024	0.098	0.625	0.625	4.75	1.181	0.625	0.008/0.217	-	JX**06...,12...,16..., 20...	0.89	1

Metric	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBH	Insert	Torque*	Fig.
JSXXR1212F09-S-CHP(4)	0.6	2.5	12	12	85	26	12	0.2	4	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212F09B-S-CHP	0.6	2.5	12	12	85	30	12	0.2/5.5	2	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212X09-S-CHP(3),(4)	0.6	2.5	12	12	120	30	12	0.2/5.5	4	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212X09B-S-CHP(3)	0.6	2.5	12	12	120	30	12	0.2/5.5	2	JX**06...,12...,16..., 20...	1.2	1
JSXXR1616X09-S-CHP(3),(4)	0.6	2.5	16	16	120	30	16	0.2	1.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09B-S-CHP(3)	0.6	2.5	16	16	120	30	16	0.2/5.5	-	JX**06...,12...,16..., 20...	1.2	1

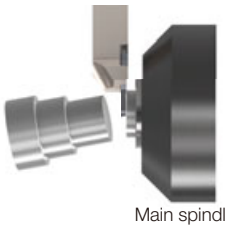
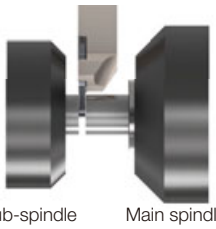
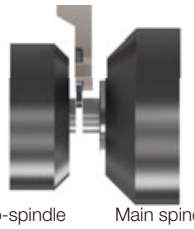
Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JX**16... insert. LF, LH, and HBL will all be 0.079" (2 mm) shorter than the above values with JX**12... and JX**20... inserts, and 4 mm shorter for JX**06... insert.
(2) The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.
(3) Compatible to the direct internal coolant supply system without the use of external coolant hose.
(4) To be replaced with the new design
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

SPARE PARTS

Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JSXXR**F...	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXL**F...	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXR**H/X...	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSXXL**H/X...	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

Reference pages: JSXXR/L-F/H/X-CHP, JSXXR/L-F/X-S-CHP:
Inserts → G145 - G147, Standard cutting conditions → G148

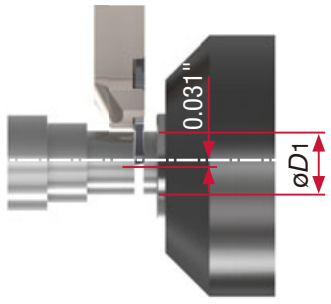
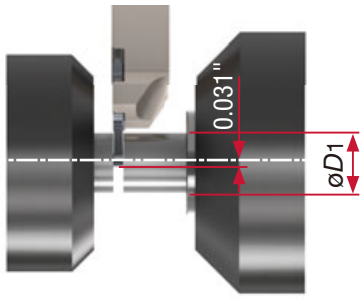
HOW TO SELECT TOOLS

	Large-diameter machining of workpiece with rigidity		Small-diameter machining of workpiece with short overhang	
			Sub-spindle tooling	
	Main-spindle tooling	Sub-spindle tooling	Workpiece with long overhang at the side of sub-spindle for the process after parting-off	Short workpiece with low rigidity
Application	 Main spindle Position of parting-off is at the side of the main spindle	 Sub-spindle Main spindle Position of parting-off is at the side of the sub-spindle	 Sub-spindle Main spindle Position of parting-off is at the side of the main spindle	 Sub-spindle Main spindle Position of parting-off is at the side of the sub-spindle
Toolholder	R-hand (JSXXR type)	L-hand (JSXXL type)	R-hand (JSXXR-S type)	L-hand (JSXXL-S type)
Insert	Right-hand insert with lead angle to remove center core (JXPG**R***-15 type)	Left-hand insert (JXPG**L*** type)	Right-hand insert (JXPG**R*** type)	Left-hand insert (JXPG**L*** type)

HOW TO SELECT TOOLHOLDERS FOR SUB-SPINDLE

Sub-spindle dia.	Parting-off dia.	B	LF	Insert	Toolholder
ø1.575	- ø0.236	0.375	4.514	JXPG06*	JSXXR/L063-S
ø1.575	- ø0.236	0.500	4.514	JXPG06*	JSXXR/L083-S
ø1.575	- ø0.472	0.375	4.593	JXPG12*	JSXXR/L063-S
ø1.575	- ø0.472	0.500	4.593	JXPG12*	JSXXR/L083-S
ø1.575	- ø0.630	0.375	4.750	JXPG16*	JSXXR/L063-S
ø1.575	- ø0.630	0.500	4.750	JXPG16*	JSXXR/L083-S
ø1.575	- ø0.787	0.500	3.423	JXPG20*	JSXXR/L083F-S-CHP
ø1.969	- ø0.236	0.500	4.514	JXPG06*	JSXXR/L083-S
ø1.969	- ø0.236	0.625	4.514	JXPG06*	JSXXR/L103X-S-CHP
ø1.969	- ø0.472	0.500	4.593	JXPG12*	JSXXR/L083-S
ø1.969	- ø0.472	0.625	4.593	JXPG12*	JSXXR/L103X-S-CHP
ø1.969	- ø0.630	0.500	4.750	JXPG16*	JSXXR/L083-S
ø1.969	- ø0.630	0.500	4.750	JXPG16*	JSXXR/L083-S
ø1.969	- ø0.630	0.625	4.750	JXPG16*	JSXXR/L103X-S-CHP
ø1.969	- ø0.787	0.500	3.423	JXPG20*	JSXXR/L083F-S-CHP
ø1.969	- ø0.787	0.500	4.829	JXPG20*	JSXXR/L083X-S-CHP
ø1.969	- ø0.787	0.625	4.829	JXPG20*	JSXXR/L103X-S-CHP

MAX. PARTING-OFF DIA. & DEPTH

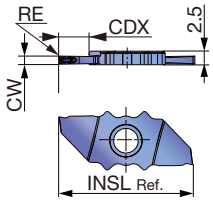
Main-spindle tooling	Sub-spindle tooling
 Main spindle	 Sub-spindle Main spindle

There will be no tool-workpiece interference when parting off the workpiece with the cutting edge position apart from the workpiece center by 0.031" or more.

INSERT

JXPS**R/L-F (with 3D chipbreaker, sharp edge)





Right-hand (R) shown.

P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

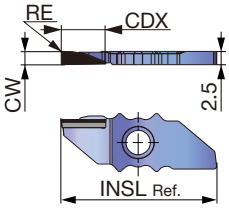
Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated SH725	CUTDIA (in)	CDX* (in)	INSL (in)
JXPS06R06F	R	0.6	0.024	0.002	●	0.236	0.138	0.827
JXPS06L06F	L	0.6	0.024	0.002	●	0.236	0.138	0.827
JXPS12R08F	R	0.8	0.031	0.002	●	0.472	0.256	0.984
JXPS12L08F	L	0.8	0.031	0.002	●	0.472	0.256	0.984
JXPS12R10F	R	1	0.039	0.002	●	0.472	0.256	0.984
JXPS12L10F	L	1	0.039	0.002	●	0.472	0.256	0.984
JXPS12R15F	R	1.5	0.059	0.002	●	0.472	0.256	0.984
JXPS12L15F	L	1.5	0.059	0.002	●	0.472	0.256	0.984
JXPS16R15F	R	1.5	0.059	0.002	●	0.630	0.335	1.142
JXPS16L15F	L	1.5	0.059	0.002	●	0.630	0.335	1.142
JXPS20R20F	R	2	0.079	0.002	●	0.787	0.413	1.299
JXPS20L20F	L	2	0.079	0.002	●	0.787	0.413	1.299

*Max grooving depth (CDX) varies depending on workpiece diameters.

● : Line up

JXDX**R-F (PCD insert)





P	Steel	
M	Stainless	
K	Cast iron	
N	Non-ferrous	★
S	Superalloys	
H	Hard materials	

★ : First choice

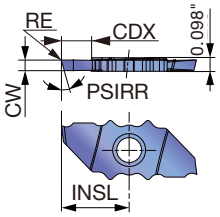
Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	PCD DX110	CDX (in)	INSL (in)
JXDX12R20F	R	2	0.079	< 0.004	●	0.236	0.492
JXDX12R25F	R	2.5	0.098	< 0.004	●	0.256	0.492
JXDX16R25F	R	2.5	0.098	< 0.004	●	0.276	0.571

● : Line up

Reference pages: Toolholders → G142 - G143, Standard cutting conditions → G148

JXPG**R/L-F (sharp edge)





Right hand (R) shown.

P	Steel	★			
M	Stainless	★			
K	Cast iron	★			
N	Non-ferrous	★			
S	Superalloys	★			
H	Hard materials	★			

★ : First choice
☆ : Second choice

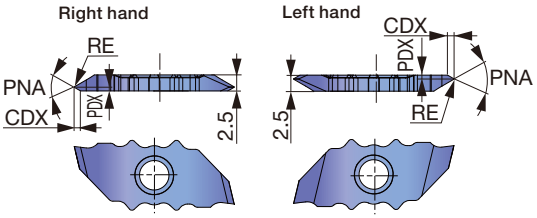
Designation	HAND	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	Coated								CUTDIA (in)	CDX* (in)	INSL (in)	PSIRR/L
					SH725											
JXPG06R10F	R	1	0.039	0.05	●								6	0.138	0.827	0°
JXPG06L10F	L	1	0.039	0.05	●								6	0.138	0.827	0°
JXPG06R15F	R	1.5	0.059	0.05	●								6	0.138	0.827	0°
JXPG06L15F	L	1.5	0.059	0.05	●								6	0.138	0.827	0°
JXPG06R10F-15	R	1	0.039	0.05	●								6	0.138	0.827	15°
JXPG06L10F-15	L	1	0.039	0.05	●								6	0.138	0.827	15°
JXPG06R15F-15	R	1.5	0.059	0.05	●								6	0.138	0.827	15°
JXPG06L15F-15	L	1.5	0.059	0.05	●								6	0.138	0.827	15°
JXPG12R15F	R	1.5	0.059	0.05	●								12	0.256	0.984	0°
JXPG12L15F	L	1.5	0.059	0.05	●								12	0.256	0.984	0°
JXPG12R20F	R	2	0.079	0.05	●								12	0.256	0.984	0°
JXPG12L20F	L	2	0.079	0.05	●								12	0.256	0.984	0°
JXPG12R15F-15	R	1.5	0.059	0.05	●								12	0.256	0.984	15°
JXPG12L15F-15	L	1.5	0.059	0.05	●								12	0.256	0.984	15°
JXPG12R20F-15	R	2	0.079	0.05	●								12	0.256	0.984	15°
JXPG12L20F-15	L	2	0.079	0.05	●								12	0.256	0.984	15°
JXPG16R15F	R	1.5	0.059	0.05	●								16	0.335	1.142	0°
JXPG16L15F	L	1.5	0.059	0.05	●								16	0.335	1.142	0°
JXPG16R20F	R	2	0.079	0.05	●								16	0.335	1.142	0°
JXPG16L20F	L	2	0.079	0.05	●								16	0.335	1.142	0°
JXPG16R15F-15	R	1.5	0.059	0.05	●								16	0.335	1.142	15°
JXPG16L15F-15	L	1.5	0.059	0.05	●								16	0.335	1.142	15°
JXPG16R20F-15	R	2	0.079	0.05	●								16	0.335	1.142	15°
JXPG16L20F-15	L	2	0.079	0.05	●								16	0.335	1.142	15°
JXPG20R15F	R	1.5	0.059	0.05	●								20	0.413	1.299	0°
JXPG20L15F	L	1.5	0.059	0.05	●								20	0.413	1.299	0°
JXPG20R20F	R	2	0.079	0.05	●								20	0.413	1.299	0°
JXPG20L20F	L	2	0.079	0.05	●								20	0.413	1.299	0°
JXPG20R15F-15	R	1.5	0.059	0.05	●								20	0.413	1.299	15°
JXPG20L15F-15	L	1.5	0.059	0.05	●								20	0.413	1.299	15°
JXPG20R20F-15	R	2	0.079	0.05	●								20	0.413	1.299	15°
JXPG20L20F-15	L	2	0.079	0.05	●								20	0.413	1.299	15°

● : Line-up
CUTDIA: Max. parting-off dia.
Packing quantity = 5 pcs.

Reference pages: Toolholders → G142 - G143, Standard cutting conditions → G148

JXTG12FR/L-60 (For Threading / Sharp edge)





P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	★
S	Superalloys	★
H	Hard materials	★

★ : First choice

Designation	HAND	RE (in)	Coated SH725	TPI Thread per inch	PDX (in)	CDX (in)	PNA
JXTG12FR-60A-000	R	Flat 0.002 max	●	64 - 127	0.010	0.016	60°
JXTG12FL-60A-000	L	Flat 0.002 max	●	64 - 127	0.010	0.016	60°
JXTG12FR-60B-000	R	Flat 0.002 max	●	64 - 127	0.089	0.016	60°
JXTG12FL-60B-000	L	Flat 0.002 max	●	64 - 127	0.089	0.016	60°
JXTG12FR-60A-005	R	R 0.002	●	25 - 64	0.024	0.039	60°
JXTG12FL-60A-005	L	R 0.002	●	25 - 64	0.024	0.039	60°
JXTG12FR-60B-005	R	R 0.002	●	25 - 64	0.075	0.039	60°
JXTG12FL-60B-005	L	R 0.002	●	25 - 64	0.075	0.039	60°
JXTG12FR-60N-010	R	R 0.004	●	16 - 25	0.049	0.081	60°
JXTG12FL-60N-010	L	R 0.004	●	16 - 25	0.049	0.081	60°

● : Line-up
Packing quantity = 5 pcs.

Reference pages: Toolholders → G142 - G143, Standard cutting conditions → G148

DUOJCUT UST

STANDARD CUTTING CONDITIONS

Parting, Grooving

ISO	Workpiece materials	Grades	Cutting speed *Vc* (sfm)	Feed *f* (ipr)
P	Low carbon steels 1015, etc.	SH725	164 - 656	0.00039 - 0.0020
P	Carbon steels, Alloy steels 1055, etc.	SH725	164 - 656	0.00039 - 0.0020
P	Free cutting steels SUH22, SUH23, etc.	SH725	164 - 656	0.00039 - 0.0020
M	Stainless steels 304, etc.	SH725	164 - 656	0.00039 - 0.0020
N	Aluminum alloys 5056, 6061, etc.	SH725	492 - 656	0.00039 - 0.0020
N	Copper alloy C2600, C280C, etc.	SH725	328 - 656	0.00039 - 0.0020
S	Titanium alloys Ti-6Al-4V, etc.	SH725	98 - 262	0.00039 - 0.0020
S	Superalloys Inconel718, etc.	SH725	98 - 262	0.00039 - 0.0020

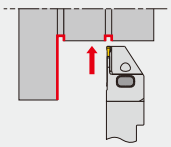
For aluminium and non-ferrous metal PCD insert

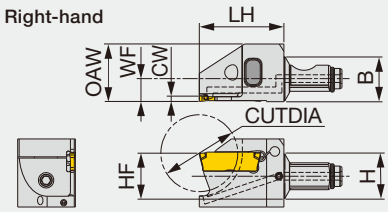
ISO	Workpiece materials	Grades	Operation	Cutting speed *Vc* (sfm)	Feed *f* (ipr)	Depth of cut *ap* (in)
N	Aluminum alloys 5056, 6061, etc.	DX110	Grooving	328 - 984	0.0012 - 0.0059	-
N		DX110	Turning	328 - 984	0.0012 - 0.0059	< 0.236"

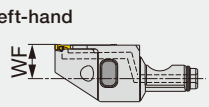
TUNGCUT

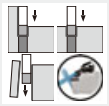
QC12-JTTER/L-CHP

Modular head for external grooving and parting, with high pressure coolant capability









Metric	CW	Seat size	CUTDIA	H	B	LH	HF	WF (1)	OAW	Torque*
QC12-JTTER/L1.2D20-CHP	1.2 (0.047")	0.9	20 (0.787")	12 (0.472")	12 (0.472")	22 (0.866")	12 (0.472")	6/9 (0.236/0.354")	15 (0.591")	1.5 (1.11)
QC12-JTTER/L1.4D20-CHP	1.4 (0.055")	1	20 (0.787")	12 (0.472")	12 (0.472")	22 (0.866")	12 (0.472")	6/9 (0.236/0.354")	15 (0.591")	1.5 (1.11)
QC12-JTTER/L2D20-CHP	2 (0.079")	2	20 (0.787")	12 (0.472")	12 (0.472")	22 (0.866")	12 (0.472")	6/9 (0.236/0.354")	15 (0.591")	1.5 (1.11)

(1) "WF" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.
Torque*: Recommended clamping torque: N·m (lbs·ft)

SPARE PARTS



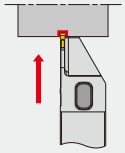


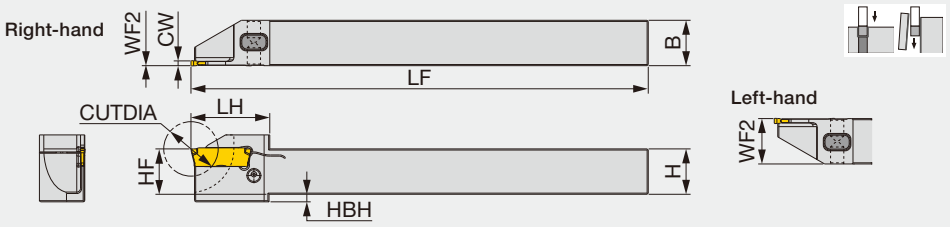

Designation	Clamping screw	Clamping pin	Wrench	O-ring
QC12-JTTER/L...	SSM3.5x0.35	PIN-SL-TC	P-2F	ORSS-0454.5X1.0NBR70

Reference pages: QC12-JTTER/L-CHP: Inserts → G154 - G161
Shank, Accessory → G115 - G116, Standard cutting conditions → G162

JTTER/L

External grooving and parting toolholder, for Swiss lathes



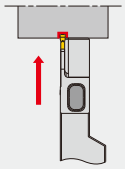


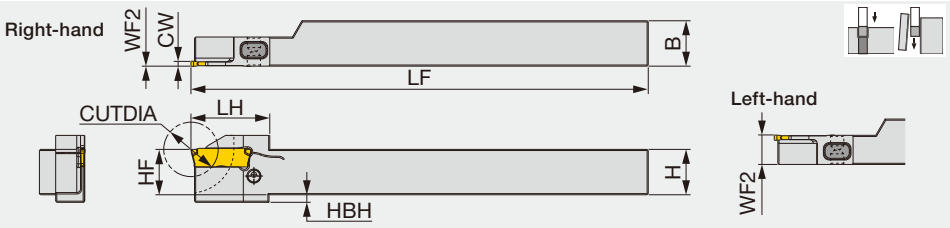
Metric	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	Torque*
JTTER/L1010H1.2D12	1.2	0.9	12	10	10	100	17	10	0/10	-	1.5
JTTER/L1212F1.2D16	1.2	0.9	16	12	12	85	19	12	0/12	-	1.5
JTTER/L1212X1.2D16	1.2	0.9	16	12	12	120	19	12	0/12	-	1.5
JTTER/L1212X1.2D20	1.2	0.9	20	12	12	120	21	12	0/12	2	1.5
JTTER/L1616X1.2D20	1.2	0.9	20	16	16	120	21	16	0/16	-	2

(1) "WF" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.
Torque*: Recommended clamping torque (N·m)

JTTER/L-S

External grooving and parting toolholder, for Swiss lathes (for sub spindle)





Metric	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	Torque*
JTTER/L1010H1.2D12-S	1.2	0.9	12	10	10	100	17	10	0/7.7	-	1.5
JTTER1212F1.2D16-S (2)	1.2	0.9	16	12	12	85	19	12	0	-	1.5
JTTER/L1212X1.2D16-S	1.2	0.9	16	12	12	120	21	12	0/7.7	-	1.5
JTTER/L1212X1.2D20-S	1.2	0.9	20	12	12	120	21	12	0/7.7	2	1.5
JTTER/L1616X1.2D20-S	1.2	0.9	20	16	16	120	21	16	0/7.7	-	1.5

(1) "WF" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.
(2) No clamping screw from the insert side.
Torque*: Recommended clamping torque (N·m)

SPARE PARTS



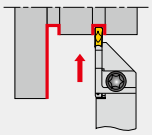


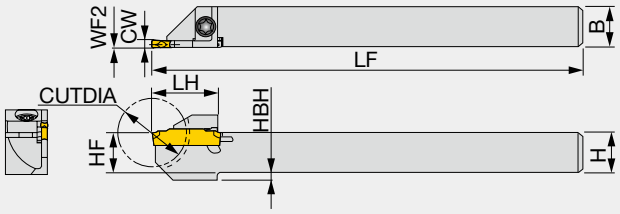
Designation	Clamping screw	Clamping pin	Wrench
JTTER/L1010, 1212..., JTTER/L**-S	SSM3.5x0.35	PIN-SL-TC	P-2F
JTTER/L1616...	SRM5-24145-RL	PIN-32121	P-2.5F

Reference pages: JTTER/L, JTTER/L-S: Inserts → G154 - G161, Standard cutting conditions → G162

JCTER/L

External grooving and parting toolholder, for Swiss lathes





Right hand (R) shown.

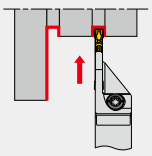
Inch	CW (in)	CW (mm)	Seat size	CUTDIA	H	B	LF	LH	HF	WF2 (1)	HBH	Torque
JCTER/L08-2T12	0.079	2	2	0.945	0.500	0.500	4.750	0.748	0.500	0.005/0.505	0.079	2.21
JCTER/L08-3T12	0.118	3	3	0.945	0.500	0.500	4.750	0.748	0.500	0.012/0.512	0.079	2.21
JCTER/L10-2T16	0.079	2	2	1.260	0.625	0.625	4.750	0.945	0.625	0.005/0.630	-	2.21
JCTER/L10-3T16	0.118	3	3	1.260	0.625	0.625	4.750	0.945	0.625	0.012/0.637	-	2.21

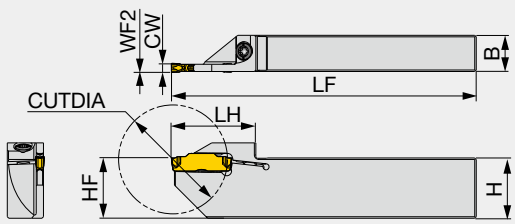
Metric	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	Torque*
JCTER/L1010X1.4T10	1.4	1	20	10	10	120	18	10	0.2/10.2	-	3
JCTER/L1212F1.4T12	1.4	1	24	12	12	85	19.5	12	0.2/12.2	-	3
JCTER/L1212X1.4T12	1.4	1	24	12	12	120	19.5	12	0.2/12.2	-	3
JCTER/L1414-1.4T12	1.4	1	24	14	14	125	19.5	14	0.2/14.2	-	3
JCTER/L1616X1.4T16	1.4	1	32	16	16	120	24	16	0.2/16.2	-	3
JCTER/L1010X2T10	2	2	20	10	10	120	19	10	0.1/10.1	2	3
JCTER/L1212F2T12	2	2	24	12	12	85	19	12	0.1/12.1	2	3
JCTER/L1212X2T12	2	2	24	12	12	120	19	12	0.1/12.1	2	3
JCTER/L1414-2T12	2	2	24	14	14	125	19	14	0.1/14.1	-	3
JCTER/L1616X2T16	2	2	32	16	16	120	24	16	0.1/16.1	-	3
JCTER/L1212F3T12	3	3	24	12	12	85	19	12	0.3/12.3	2	3
JCTER/L1212X3T12	3	3	24	12	12	120	19	12	0.3/12.3	2	3
JCTER/L1616X3T16	3	3	32	16	16	120	24	16	0.3/16.3	-	3
JCTER/L2020H3T16	3	3	32	20	20	100	24	20	0.3/20.3	-	3

(1) The value for "WF2" is true when the insert with the width, indicated in "CW" in the table is mounted. • CUTDIA: Maximum parting-off diameter
Torque: Recommended clamping torque: lbs·ft (*N·m)

JCTER/L2012

External grooving and parting toolholder, for Swiss lathes





Right hand (R) shown.

Metric	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	Torque*
JCTER/L2012H2T18	2	2	36	20	12	100	25	20	0.1/12.1	3
JCTER/L2012H3T21	3	3	42	20	12	100	28	20	0.3/12.3	3

(1) "WF2" value is calculated with groove width "CW" shown in the table. • CUTDIA: Max. parting diameter
Torque*: Recommended clamping torque (N·m)

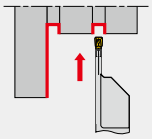
SPARE PARTS

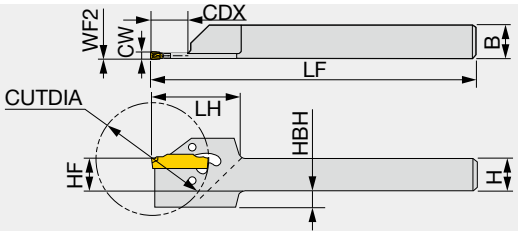
Designation	Clamping screw	Wrench
JCTER/L...,JCTER/L2012...	CSHB-4-A	T-15F

Reference pages: JCTER/L, JCTER/L2012: Inserts → G154 - G161, Standard cutting conditions → G162

CGER/L

External deep grooving and parting toolholder, for Swiss lathes





Right hand (R) shown.

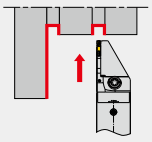
Metric	CW	Seat size	CUTDIA(1)	CDX	H	B	LF	LH	HF	WF2 (2)	HBH
CGER/L2020-1.4T14	1.4	1	29/29	9.7	20	20	125	31	20	0.2/20.2	-
CGER/L1212-2T17	2	2	35/35	11.8	12	12	150	31	12	0.1/12.1	6
CGER/L1616-2T17	2	2	35/35	11.8	16	16	150	31	16	0.1/16.1	2
CGER/L2020-2T17	2	2	35/35	9.8	20	20	125	31	20	0.1/20.1	-
CGER/L1212-3T19	3	3	38/40	12	12	12	150	31	12	0.3/12.3	6
CGER/L1616-3T19	3	3	38/45	14.9	16	16	150	31	16	0.3/16.3	2
CGER/L2020-3T19	3	3	38/45	13.2	20	20	125	31	20	0.3/20.3	-
CGER/L2020-4T19	4	4	38/55	20.3	20	20	125	33	20	0.4/20.4	-

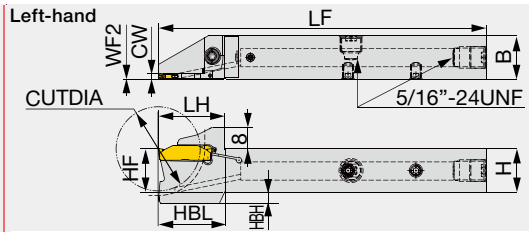
(1) DG*/SG* Maximum diameter of parting off Dmax, can be increased by using SG* insert for some toolholders. (2) "WF2" value is calculated with groove width "CW" shown in the table.
Wrench, CRW**, should be ordered separately. Insert is clamped by the elastic deformation of upper jaw.

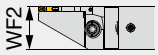
JCTER/L-CHP

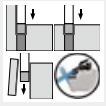
Direct connection

External grooving and parting-off toolholder, high pressure coolant compatible









Inch	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	HBL	Torque
JCTER/L08X2T12-CHP	0.079	2	0.980	0.500	0.500	4.750	0.972	0.500	0 / 0.500	0.169	0.965	2.21
JCTER/L10X2T12-CHP	0.079	2	0.980	0.625	0.625	4.750	0.972	0.625	0 / 0.625	0.039	0.965	2.21
JCTER/L10X2T16-CHP	0.079	2	1.260	0.625	0.625	4.750	0.972	0.625	0 / 0.625	0.157	0.965	2.21
JCTER/L12X2T16-CHP	0.079	2	1.260	0.750	0.750	4.750	0.972	0.750	0 / 0.750	0.037	0.965	2.21

Metric	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	HBL	Torque*
JCTER/L1212X2T12-CHP	2	2	25	12	12	120	24.7	12	0/12	5	24.7	3
JCTER/L1616X2T12-CHP	2	2	25	16	16	120	24.7	16	0/16	1	24.5	3
JCTER/L1616X2T16-CHP	2	2	32	16	16	120	24.7	16	0/16	4	24.7	3
JCTER/L2020X2T16-CHP	2	2	32	20	20	120	24.7	20	0/20	-	-	3

(1) "WF2" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
Torque: Recommended clamping torque: lbs·ft (*N·m)

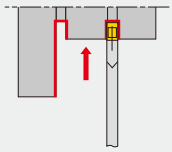
SPARE PARTS

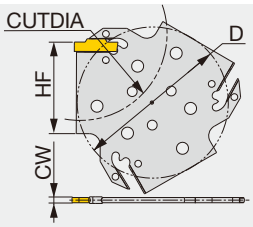
Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench	Wrench (Option)
CGER/L2020-1.4T14	-	-	-	-	-	-	CRW23
CGER/L****-2T17 - 4T19	-	-	-	-	-	-	CRW33
JCTER/L...	CSHB-4-A	T-15F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2	-

Reference pages: CGER/L, JCTER/L-CHP: Inserts → G154 - G161, Standard cutting conditions → G162

CHGP

Parting-off and external grooving blade





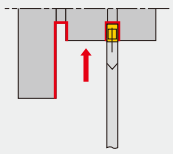


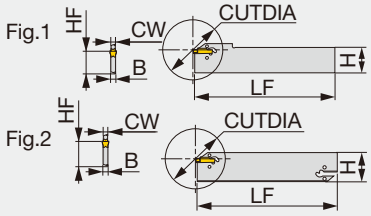
Metric	CW	Seat size	CUTDIA	HF	D
CHGP52-2T	2	2	52	27	48.3
CHGP52-3T	3	3	52	27	48.3
CHGP82-3T	3	3	82	42	69.3
CHGP82-4T	4	4	82	42	69.3

.When depth is deeper than insert length - 1.5mm, 1 corner type is recommended

CGP

External deep grooving and parting blade





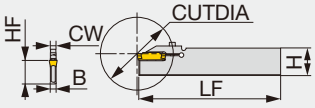
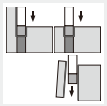


Fig.3



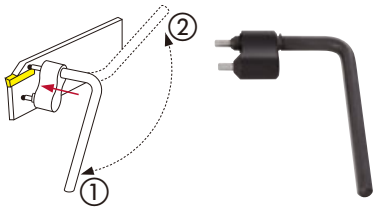
Metric	CW	Seat size	CUTDIA	H	B	LF	HF	Fig.	Torque*
CGP26-1.4S	1.4	1	26	26	1	150	21.4	1	-
CGP32-1.4D	1.4	1	26	32	1	150	24.8	2	-
CGP26-2S	2	2	40	26	1.8	150	21.4	1	-
CGP32-2D	2	2	50	32	1.8	150	24.8	2	-
CGP26-3S	3	3	50	26	2.4	150	21.4	1	-
CGP32-3D	3	3	100	32	2.4	150	24.8	2	-
CGP26-4S	4	4	80	26	3.2	150	21.4	1	-
CGP32-4D	4	4	100	32	3.2	150	24.9	2	-
CGP45-4D	4	4	120	45	3.2	150	38.1	2	-
CGP32-5D	5	5	120	32	4	150	24.9	2	-
CGP32-6D	6	6	120	32	5.2	150	24.9	2	-
CGP32-8S-CL	8	8	80	32	6.2	150	24.9	3	3

When depth is deeper than (insert length - 1.5mm), 1 corner type is recommended.
Wrench (CRW...) is not included. Please order it separately.
*Torque: Recommended clamping torque (N·m)

Caution

Newly developed clamp

Insert is clamped by the elastic deformation of upper jaw.
Low clamping stress increases the stability and tool life.



unclamp :①→②
clamp :②→①

SPARE PARTS



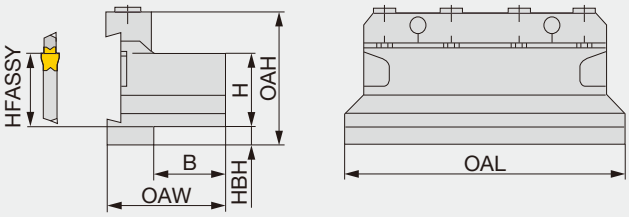



Designation	Clamp	Clamping screw	Wrench	Wrench (Optional)
CGP**-1.4*	-	-	-	CRW23
CHGP..., CGP**-2/3/4/5/6	-	-	-	CRW33
CGP32-8S-CL	-	CM4X0.7X20-M0-A	P-3	-

Reference pages: CHGP: Inserts → G154 - G161, Toolblock → G165
CGP: Inserts → G154 - G161, Toolblock → F252 - F253, G153
Standard cutting conditions → G162

CTBU

Tool blocks for CGP blade

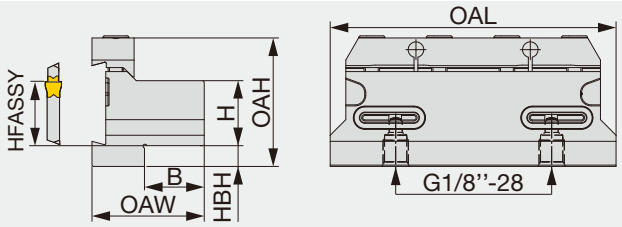


Inch	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU12-26-U	0.750	0.827	3.386	0.750	0.354	1.693	1.496	CGP26...
CTBU16-26-U	1.000	0.906	4.331	1.000	0.197	1.772	1.654	CGP26...
CTBU12-32-U	0.750	0.748	3.937	0.750	0.512	1.969	1.496	CGP32...
CTBU16-32-U	1.000	0.906	4.331	1.000	0.315	1.969	1.654	CGP32...
CTBU20-32-U	1.250	1.142	4.331	1.250	0.197	2.126	1.890	CGP32...

Metric	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU20-26	20	21	86	20	9	43	38	CGP26...
CTBU25-26	25	23	110	25	5	45	43	CGP26...
CTBU20-32	20	19	100	20	13	50	38	CGP32...
CTBU25-32	25	23	110	25	8	50	42	CGP32...
CTBU32-32	32	29	110	32	5	54	48	CGP32...

CTBU-CHP

Tool block for CGP-CHP blade with high pressure internal coolant capacity



Inch	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU16-32-U-CHP	1.000	0.906	4.331	1.000	0.315	1.97	1.654	CGP32-*D-CHP

Metric	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU25-32-CHP	25	23	110	25	8	50	43.2	CGP32-*D-CHP

Applicable for 14 MPa coolant

SPARE PARTS

Designation	Clamping screw	Clamp	Wrench	O-ring
CTBU12-26-U , CTBU20-26	CM6X30-S	CT-86	P-5	-
CTBU12-32-U, CTBU25-26	CM6X30-S	CT-105	P-5	-
CTBU16-26-U, CTBU20-32	CM6X30-S	CT-100	P-5	-
CTBU16-32-U, CTBU20-32-U , CTBU25-32, CTBU32-32	CM6X30-S	CT-110	P-5	-
CTBU16-32-U-CHP, CTBU25-32-CHP	SRM6X16DIN912-12.9	CT-110	P-5	OR14X2.5NN

Reference pages: CTBU: Blade → G152, CTBU-CHP: Blade → F254

External grooving and parting

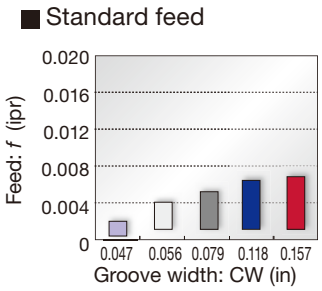
DGS type (2 corners) SGS type (1 corner)

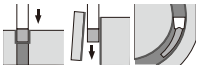


G156, G159

For Swiss lathes

Unique-designed edge and chipbreaker
Handed insert available
CW = 0.047" - 0.157"





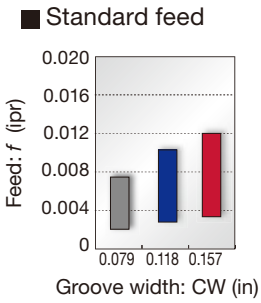
DGM type (2 corners) SGM type (1 corner)

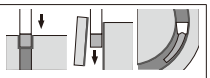


G157, G158

High fracture resistance

Smooth chip evacuation
Well-designed edge with high strength
Handed insert available
CW = 0.079" - 0.157"





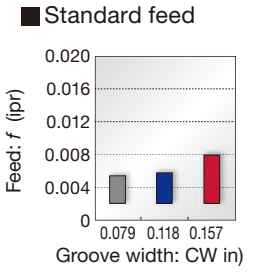
DGL type (2 corners)

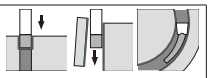


G161

1st choice for mild steel

Chipbreaker with excellent chip control at low feed
Suitable for mild steel that often has difficulties in chip control
CW = 0.079" - 0.157"





Please see page G*** for the product details.

External grooving

DGE type (2 corners)



G160

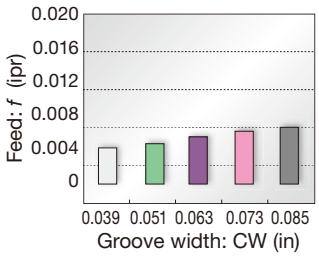
For shallow grooves with high accuracy

Excellent chip control

CW = 1 - 2.15 mm
(0.039" - 0.085")



■Standard feed



DGG type (2 corners)



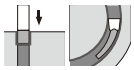
G160

For non-ferrous materials and titanium alloys

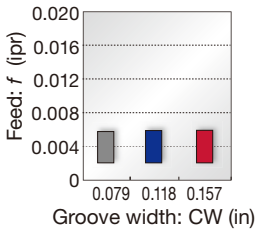
Chipbreaker with low cutting force

Sharp cutting edge that prevents vibration and delivers fine surface finish

CW = 0.079" - 0.157"

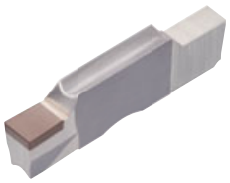


■Standard feed



External grooving of hardened steels

SGN-CBN type (1 corner)



G161

For hardened steel cutting

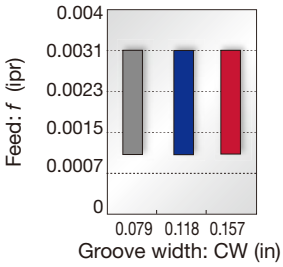
Optimum cutting edge shape for grooving of hardened steels

Close tolerance width for finishing (W = ±0.001")

CW = 0.079" - 0.157"



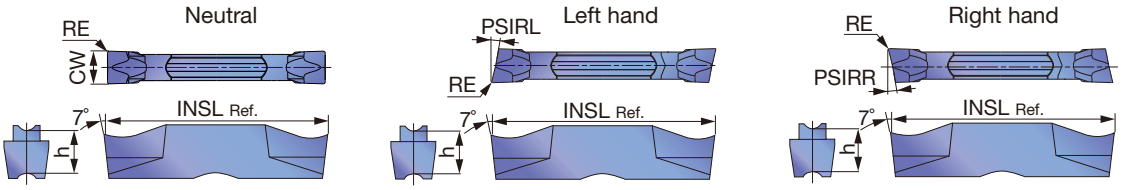
■Standard feed



Please see page G*** for the product details.

DGS

External grooving and parting



		Coated						Cermet		Uncoated					
		T9225	AH7025	AH725	AH8005	GH130	AH6235	NS9530		KS05F					
P	Steel	★	★	☆	★	☆	★	★							
M	Stainless		★	☆	★	★	★								
K	Cast iron		★		★	☆	★	☆		☆					
N	Non-ferrous									☆					
S	Superalloys		★	☆	★					★					
H	Hard materials														

★ : First choice
☆ : Second choice

Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated T9225	Coated AH7025	Coated AH725	Coated AH8005	Coated GH130	Coated AH6235	Cermet NS9530	Uncoated KS05F	INSL (in)	h (in)	PSIRL	PSIRR
DGS1.2-003	0.9	N	1.2	0.047	0.001			●						0.630	0.185	0°	0°
DGS1.4-005	1	N	1.4	0.055	0.002			●						0.630	0.169	0°	0°
DGS1.4-010	1	N	1.4	0.055	0.004			●						0.630	0.169	0°	0°
DGS1.4-016	1	N	1.4	0.055	0.006		●	●		●				0.630	0.169	0°	0°
DGS2-005	2	N	2	0.079	0.002			●						0.787	0.197	0°	0°
DGS2-010	2	N	2	0.079	0.004			●						0.787	0.197	0°	0°
DGS2-020	2	N	2	0.079	0.008	●	●	●	●	●	●	●	●	0.787	0.197	0°	0°
DGS2-020-6R	2	R	2	0.079	0.008		●	●		●				0.787	0.197	0°	6°
DGS2-020-6L	2	L	2	0.079	0.008		●	●		●				0.787	0.197	6°	0°
DGS2-002-6R	2	R	2	0.079	0.001			●		●				0.768	0.197	0°	6°
DGS2-002-6L	2	L	2	0.079	0.001			●		●				0.768	0.197	6°	0°
DGS2-020-15R	2	R	2	0.079	0.008		●	●		●				0.787	0.197	0°	15°
DGS2-020-15L	2	L	2	0.079	0.008		●	●		●				0.787	0.197	15°	0°
DGS2-002-15R	2	R	2	0.079	0.001			●		●				0.768	0.197	0°	15°
DGS2-002-15L	2	L	2	0.079	0.001			●		●				0.768	0.197	15°	0°
DGS2.39-020	2	N	2.39	0.094	0.008		●		●		●			0.787	0.197	0°	0°
DGS3-020	3	N	3	0.118	0.008	●	●	●	●	●	●	●	●	0.787	0.197	0°	0°
DGS3-020-6R	3	R	3	0.118	0.008		●	●		●				0.787	0.197	0°	6°
DGS3-020-6L	3	L	3	0.118	0.008		●	●		●				0.787	0.197	6°	0°
DGS3-002-6R	3	R	3	0.118	0.001			●		●				0.766	0.197	0°	6°
DGS3-002-6L	3	L	3	0.118	0.001			●		●				0.766	0.197	6°	0°
DGS3-020-15R	3	R	3	0.118	0.008		●	●		●				0.787	0.197	0°	15°
DGS3-020-15L	3	L	3	0.118	0.008		●	●		●				0.787	0.197	15°	0°
DGS3-002-15R	3	R	3	0.118	0.001			●		●				0.766	0.197	0°	15°
DGS3-002-15L	3	L	3	0.118	0.001			●		●				0.766	0.197	15°	0°
DGS3.18-020	3	N	3.18	0.125	0.008		●		●		●			0.787	0.197	0°	0°
DGS4-030	4	N	4	0.157	0.012	●	●	●	●	●	●	●	●	0.787	0.197	0°	0°
DGS4-030-4R	4	R	4	0.157	0.012		●	●		●				0.787	0.197	0°	4°
DGS4-030-4L	4	L	4	0.157	0.012		●	●		●				0.787	0.197	4°	0°
DGS4.76-040	5	N	4.76	0.187	0.016		●		●		●			0.984	0.217	0°	0°
DGS5-030	5	N	5	0.197	0.012	●	●	●	●	●	●	●	●	0.984	0.217	0°	0°
DGS6-030	6	N	6	0.236	0.012	●	●	●	●	●	●		●	0.984	0.217	0°	0°
DGS6.35-040	6	N	6.35	0.250	0.016		●		●		●			0.984	0.217	0°	0°
DGS8-040	8	N	8	0.315	0.016		●		●		●		●	1.181	0.264	0°	0°

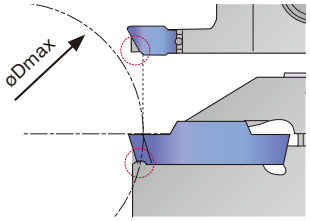
● : Line up

Caution

The tool will interfere with the workpiece when grooving larger diameters than øDmax.

Designation	øDmax (in)
DGM2-002-15R/L	1.102
DGM3-002-15R/L	1.142
DGM4-030-15R/L	1.181
SGM3-020-15R/L	4.055

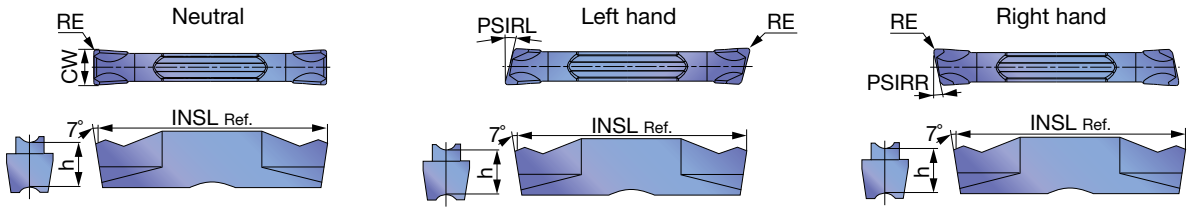
Designation	øDmax (in)
DGS2-002-15R/L	1.102
DGS3-002-15R/L	1.142
SGS3-020-15R/L	4.055
SGS3-002-15R/L	1.339



Reference pages: Toolhoders → G149 - G153, Standard cutting conditions → G162

DGM

External grooving and parting



P	Steel	★	★	☆	★		☆	★		★					
M	Stainless		★	☆	★		★	★							
K	Cast iron		★		★	☆	☆	★		☆			☆		
N	Non-ferrous												☆		
S	Superalloys		★	☆	★	★							★		
H	Hard materials														

★ : First choice
☆ : Second choice

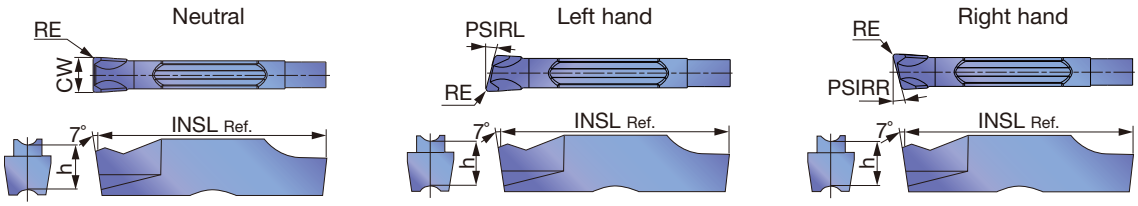
Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated							Cermet		Uncoated		INSL (in)	h (in)	PSIRL	PSIRR
						T9225	AH7025	AH725	AH8005	AH905	GH130	AH6235	NS9530		KS05F					
DGM2-020	2	N	2	0.079	0.008	●	●	●	●		●	●	●		●		0.787	0.197	0°	0°
DGM2-020-6R	2	R	2	0.079	0.008		●	●			●						0.787	0.197	0°	6°
DGM2-020-6L	2	L	2	0.079	0.008		●	●			●						0.787	0.197	6°	0°
DGM2-020-8R	2	R	2	0.079	0.008		●	●			●						0.787	0.197	0°	8°
DGM2-020-8L	2	L	2	0.079	0.008		●	●			●						0.787	0.197	8°	0°
DGM2-020-15R	2	R	2	0.079	0.008		●	●			●						0.787	0.197	0°	15°
DGM2-020-15L	2	L	2	0.079	0.008		●	●			●						0.787	0.197	15°	0°
DGM2-002-15R	2	R	2	0.079	0.001			●			●						0.762	0.197	0°	15°
DGM2-002-15L	2	L	2	0.079	0.001			●			●						0.762	0.197	15°	0°
DGM2.39-020	2	N	2.39	0.094	0.008		●		●			●					0.787	0.197	0°	0°
DGM3-020	3	N	3	0.118	0.008	●	●	●	●	●	●	●	●		●		0.787	0.197	0°	0°
DGM3-020-6R	3	R	3	0.118	0.008		●	●			●						0.787	0.197	0°	6°
DGM3-020-6L	3	L	3	0.118	0.008		●	●			●						0.787	0.197	6°	0°
DGM3-002-6R	3	R	3	0.118	0.001			●			●						0.766	0.197	0°	6°
DGM3-002-6L	3	L	3	0.118	0.001			●			●						0.766	0.197	6°	0°
DGM3-020-15R	3	R	3	0.118	0.008		●	●			●						0.787	0.197	0°	15°
DGM3-020-15L	3	L	3	0.118	0.008		●	●			●						0.787	0.197	15°	0°
DGM3.18-020	3	N	3.18	0.125	0.008		●		●			●					0.787	0.197	0°	0°
DGM4-030	4	N	4	0.157	0.012	●	●	●	●	●	●	●	●		●		0.787	0.197	0°	0°
DGM4-030-4R	4	R	4	0.157	0.012		●	●			●						0.787	0.197	0°	4°
DGM4-030-4L	4	L	4	0.157	0.012		●	●			●						0.787	0.197	4°	0°
DGM4-030-15R	4	R	4	0.157	0.012		●	●			●						0.787	0.197	0°	15°
DGM4-030-15L	4	L	4	0.157	0.012		●	●			●						0.787	0.197	15°	0°
DGM4.76-040	5	N	4.76	0.187	0.016		●		●			●					0.984	0.217	0°	0°
DGM5-030	5	N	5	0.197	0.012	●	●	●	●	●	●	●	●		●		0.984	0.217	0°	0°
DGM5-030-4R	5	R	5	0.197	0.012		●	●			●						0.984	0.217	0°	4°
DGM6-030	6	N	6	0.236	0.012	●	●	●	●	●	●	●			●		0.984	0.217	0°	0°
DGM6.35-040	6	N	6.35	0.250	0.016		●		●			●					0.984	0.217	0°	0°
DGM8-040	8	N	8	0.315	0.016	●	●	●	●		●	●			●		1.181	0.264	0°	0°

● : Line up

Reference pages: Toolhoders → G149 - G153, Standard cutting conditions → G162

SGM

External deep grooving and parting



P	Steel	★	☆	★	☆	★						
M	Stainless	★	☆	★	★	★						
K	Cast iron	★		★	☆	★		☆				
N	Non-ferrous							☆				
S	Superalloys	★	☆	★				★				
H	Hard materials											

★ : First choice
☆ : Second choice

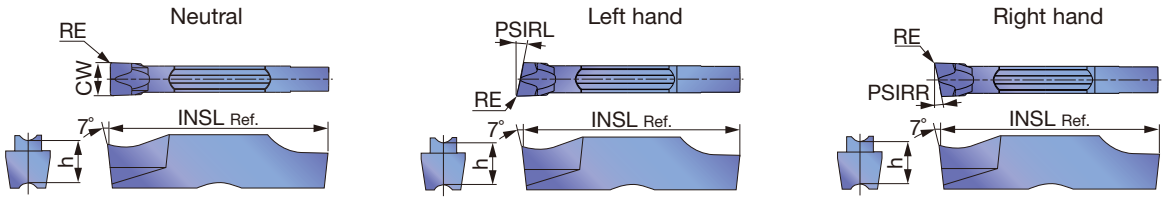
Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated					Uncoated				INSL (in)	h (in)	PSIRL	PSIRR
						AH7025	AH725	AH8005	GH130	AH6235	KS05F							
SGM2-020	2	N	2	0.079	0.008	●	●	●	●	●	●				0.787	0.197	0°	0°
SGM2-020-6R	2	R	2	0.079	0.008	●	●		●						0.787	0.197	0°	6°
SGM2-020-6L	2	L	2	0.079	0.008	●	●		●						0.787	0.197	6°	0°
SGM3-020	3	N	3	0.118	0.008	●	●	●	●	●	●				0.787	0.197	0°	0°
SGM3-020-6R	3	R	3	0.118	0.008	●	●		●						0.787	0.197	0°	6°
SGM3-020-6L	3	L	3	0.118	0.008	●	●		●						0.787	0.197	6°	0°
SGM3-020-15R	3	R	3	0.118	0.008	●	●		●						0.787	0.197	0°	15°
SGM3-020-15L	3	L	3	0.118	0.008	●	●		●						0.787	0.197	15°	0°
SGM4-030	4	N	4	0.157	0.012	●	●	●	●	●	●				0.787	0.197	0°	0°
SGM4-030-4R	4	R	4	0.157	0.012	●	●		●						0.787	0.197	0°	4°
SGM4-030-4L	4	L	4	0.157	0.012	●	●		●						0.787	0.197	4°	0°
SGM5-030	5	N	5	0.197	0.012	●	●	●	●	●	●				0.984	0.217	0°	0°
SGM6-030	6	N	6	0.236	0.012	●	●	●	●	●	●				0.984	0.217	0°	0°
SGM8-040	8	N	8	0.315	0.016	●		●		●	●				1.181	0.264	0°	0°

● : Line up

Reference pages: Toolhoders → G149 - G153, Standard cutting conditions → G162

SGS

External deep grooving and parting



		AH7025	AH725	AH8005	GH130	AH6235	KS05F
P	Steel	★	☆	★	☆	★	
M	Stainless	★	☆	★	★	★	
K	Cast iron	★		★	☆	★	☆
N	Non-ferrous						☆
S	Superalloys	★	☆	★			★
H	Hard materials						

★ : First choice
☆ : Second choice

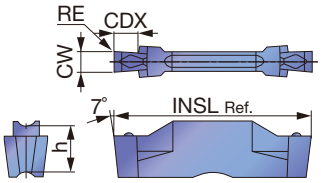
Designation	Seat size	HAND	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	Coated AH725	Coated AH8005	Coated GH130	Coated AH6235	Uncoated KS05F	INSL (in)	h (in)	PSIRL	PSIRR
SGS2-020	2	N	2	0.079	0.008	●	●	●	●	●	●	0.787	0.197	0°	0°
SGS2-020-6R	2	R	2	0.079	0.008	●	●		●			0.787	0.197	0°	6°
SGS2-020-6L	2	L	2	0.079	0.008	●	●		●			0.787	0.197	6°	0°
SGS2-020-15R	2	R	2	0.079	0.008	●	●		●			0.787	0.197	0°	15°
SGS2-020-15L	2	L	2	0.079	0.008	●	●		●			0.787	0.197	15°	0°
SGS3-020	3	N	3	0.118	0.008	●	●	●	●	●	●	0.787	0.197	0°	0°
SGS3-020-6R	3	R	3	0.118	0.008	●	●		●			0.787	0.197	0°	6°
SGS3-020-6L	3	L	3	0.118	0.008	●	●		●			0.787	0.197	6°	0°
SGS3-002-6R	3	R	3	0.118	0.001		●		●			0.780	0.197	0°	6°
SGS3-002-6L	3	L	3	0.118	0.001		●		●			0.780	0.197	6°	0°
SGS3-020-15R	3	R	3	0.118	0.008	●	●		●			0.787	0.197	0°	15°
SGS3-020-15L	3	L	3	0.118	0.008	●	●		●			0.787	0.197	15°	0°
SGS3-002-15R	3	R	3	0.118	0.001		●		●			0.780	0.197	0°	15°
SGS3-002-15L	3	L	3	0.118	0.001		●		●			0.780	0.197	15°	0°
SGS4-030	4	N	4	0.157	0.012	●	●	●	●	●	●	0.787	0.197	0°	0°
SGS5-030	5	N	5	0.197	0.012	●	●	●	●	●	●	0.984	0.217	0°	0°
SGS6-030	6	N	6	0.236	0.012	●	●	●	●	●	●	0.984	0.217	0°	0°
SGS8-040	8	N	8	0.315	0.016	●		●		●		1.181	0.264	0°	0°

● : Line up

Reference pages: Toolhoders → G149 - G153, Standard cutting conditions → G162

DGE

External grooving (for high precision)



P	Steel	★	☆	☆			★		
M	Stainless	★	☆	★					
K	Cast iron	★		☆			☆		
N	Non-ferrous								
S	Superalloys	★	☆						
H	Hard materials								

★ : First choice
☆ : Second choice

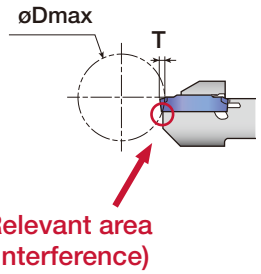
Designation	Seat size	CW±0.05 (mm)	CW±0.0008 (in)	RE (in)	Coated			Cermet		CDX (in)	INSL (in)	h (in)
					AH7025	AH725	GH130	NS9530				
DGE100-000	2	1	0.039	0		●	●	●		0.098	0.787	0.197
DGE130-000	2	1.3	0.051	0		●	●	●		0.098	0.787	0.197
DGE160-010	2	1.6	0.063	0.004	●	●	●	●		0.098	0.787	0.197
DGE185-010	2	1.85	0.073	0.004	●	●	●	●		0.138	0.787	0.197
DGE215-015	2	2.15	0.085	0.006	●	●	●	●		0.138	0.787	0.197

● : Line up

Caution

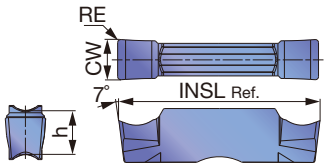
øDmax is limited as shown in the picture to the right according to the groove depth, G.D. Please refer to the following table. G.D = Groove depth

Designation	Max. groove depth (in)	øDmax (in)				
		T = 0.039	T = 0.059	T = 0.079	T = 0.098	T = 0.118
DGE100-000	0.079	∞	0.73	0.45	-	-
DGE130-000						
DGE160-010						
DGE185-010	0.118				0.35	0.28
DGE215-015						



DGG

External grooving (for high precision)



P	Steel	★			★					
M	Stainless	★								
K	Cast iron	★			☆		☆			
N	Non-ferrous						★			
S	Superalloys	★					☆			
H	Hard materials									

★ : First choice
☆ : Second choice

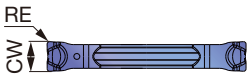
Designation	Seat size	CW±0.02 (mm)	CW±0.0008 (in)	RE (in)	Coated	Cermet	Uncoated			INSL (in)	h (in)
					AH7025	NS9530	KS05F				
DGG200-020	2	2	0.079	0.008	●	●	●			0.787	0.197
DGG300-020	3	3	0.118	0.008	●	●	●			0.787	0.197
DGG400-040	4	4	0.157	0.016	●	●	●			0.787	0.197
DGG500-040	5	5	0.197	0.016	●	●	●			0.984	0.217
DGG600-040	6	6	0.236	0.016	●	●	●			0.984	0.217

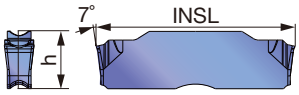
● : Line up

Reference pages: Toolholders → G149 - G153, Standard cutting conditions → G162

DGL

External grooving and parting





P	Steel	★	★	★
M	Stainless	★	★	★
K	Cast iron	★	★	★
N	Non-ferrous			
S	Superalloys	★	★	
H	Hard materials			

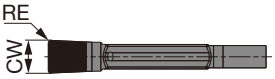
★ : First choice
☆ : Second choice

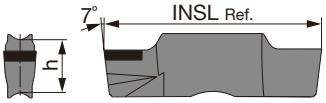
Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	Coated AH8005	Coated AH6235	INSL (in)	h (in)
DGL2-020	2	2	0.079	0.008	●	●	●	0.787	0.197
DGL3-025	3	3	0.118	0.010	●	●	●	0.787	0.197
DGL4-030	4	4	0.157	0.012	●	●	●	0.787	0.197
DGL5-030	5	5	0.197	0.012	●	●	●	0.984	0.217
DGL6-080	6	6	0.236	0.031	●	●	●	0.984	0.217

● : Line up

SGN

External grooving





P	Steel	
M	Stainless	
K	Cast iron	
N	Non-ferrous	
S	Superalloys	
H	Hard materials	★

★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.025 (mm)	CW±0.001 (in)	RE (in)	CBN BX360	INSL (in)	h (in)	Edge prep. No symbol	Edge prep. S	Edge prep. H
SGN200-020	2	2	0.079	0.008	●	0.787	0.197	○		
SGN200-020-S	2	2	0.079	0.008	●	0.787	0.197		○	
SGN200-020-H	2	2	0.079	0.008	●	0.787	0.197			○
SGN300-020	3	3	0.118	0.008	●	0.787	0.197	○		
SGN300-020-S	3	3	0.118	0.008	●	0.787	0.197		○	
SGN300-020-H	3	3	0.118	0.008	●	0.787	0.197			○
SGN400-020	4	4	0.157	0.008	●	0.787	0.197	○		
SGN400-020-S	4	4	0.157	0.008	●	0.787	0.197		○	
SGN400-020-H	4	4	0.157	0.008	●	0.787	0.197			○
SGN500-020-S	5	5	0.197	0.008	●	0.984	0.217		○	
SGN500-020-H	5	5	0.197	0.008	●	0.984	0.217			○

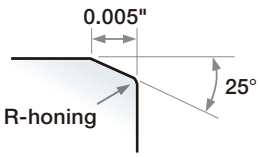
●: Line up

Edge preparations

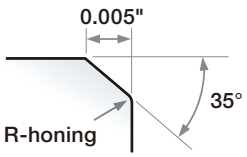
No symbol



-S



-H



Reference pages: Toolhoders → G149 - G153, Standard cutting conditions → G162

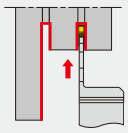
STANDARD CUTTING CONDITIONS

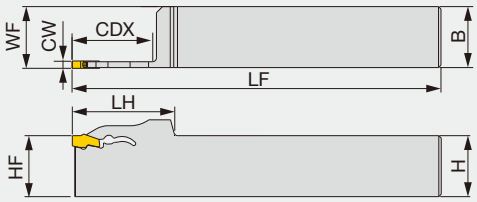
ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed *Vc* (sfm)
P	Steel 1045, 4135, etc.	< 300 HB	First choice	AH7025, AH725	164 - 591
		< 300 HB	Wear resistance	T9225, AH8005	262 - 984
		< 300 HB	Impact resistance	AH6235, GH130	164 - 394
		< 300 HB	Surface quality	NS9530	262 - 722
M	Stainless steel 304SS, 316SS, 17-4 PH, etc.	< 200 HB	First choice	AH7025, AH725	164 - 394
		< 200 HB	Wear resistance	AH8005	164 - 394
		< 200 HB	Impact resistance	AH6235, GH130	164 - 394
K	Gray cast iron Class 25, Class 30, etc.	-	First choice	T515	492 - 2297
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	164 - 591
	Ductile cast iron 60-40-18, 80-55-06, etc.	-	First choice	T515	492 - 984
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	164 - 394
N	Aluminum alloys Si < 12%	-	First choice	TH10	328 - 1640
		-	First choice	KS05F	328 - 1969
S	Superalloys Inconel718, etc.	< HRC 40	First choice	AH8005	66 - 197
		< HRC 40	Impact resistance	AH7025, AH725, AH6235	66 - 131
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	First choice	KS05F	66 - 328
		< HRC 40	Impact resistance	AH7025, AH725	66 - 262
H	Hardened steel 4137, etc.	> HRC 50	First choice	BX360	262 - 492

Please see page G154, G155 for feed: *f* (mm/rev).

QSER/L

External toolholders for grooving and parting







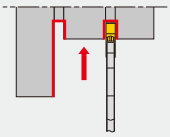
Right hand (R) shown.

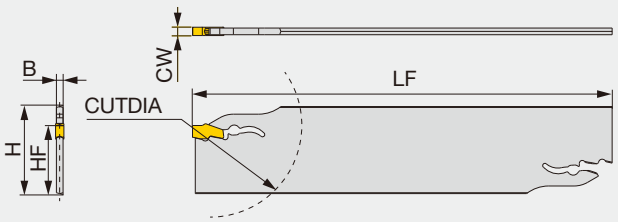
Inch	CW	CDX	Seat size	H	B	LF	LH	HF	WF
QSER/L12-2T26	0.079	1.024	2	0.750	0.750	5.000	1.417	0.750	0.756
QSER/L12-2T33	0.079	1.299	2	0.750	0.750	5.000	1.654	0.750	0.756
QSER/L16-2T26	0.079	1.024	2	1.000	1.000	6.000	1.417	1.000	1.004
QSER/L16-2T33	0.079	1.299	2	1.000	1.000	6.000	1.654	1.000	1.004
QSER/L12-3T26	0.118	1.024	3	0.750	0.750	5.000	1.417	0.750	0.764
QSER/L12-3T33	0.118	1.299	3	0.750	0.750	5.000	1.654	0.750	0.764
QSER/L16-3T26	0.118	1.024	3	1.000	1.000	6.000	1.417	1.000	1.012
QSER/L16-3T33	0.118	1.299	3	1.000	1.000	6.000	1.654	1.000	1.012
QSER/L12-4T33	0.157	1.299	4	0.750	0.750	5.000	1.654	0.750	0.768
QSER/L16-4T33	0.157	1.299	4	1.000	1.000	6.000	1.654	1.000	1.016
QSER/L16-5T33	0.197	1.299	5	1.000	1.000	6.000	1.654	1.000	1.020

Metric	CW	CDX	Seat size	H	B	LF	LH	HF	WF
QSER/L2020-2T26	2	26	2	20	20	125	36	20	20.1
QSER/L2020-2T33	2	33	2	20	20	125	42	20	20.1
QSER/L2020-3T26	3	26	3	20	20	125	36	20	20.3
QSER/L2020-3T33	3	33	3	20	20	125	42	20	20.3
QSER/L2020-4T33	4	33	4	20	20	125	42	20	20.4

QSP

Blades for external deep grooving and parting







Metric	CW	CUTDIA	Seat size	H	B	LF	HF
QSP26-2D	2	50	2	26	1.8	150	21.4
QSP32-2D	2	66	2	32	1.8	150	24.8
QSP26-3D	3	75	3	26	2.4	150	21.4
QSP32-3D	3	120	3	32	2.4	150	24.8
QSP26-4D	4	80	4	26	3.2	150	21.4
QSP32-4D	4	120	4	32	3.2	150	24.9
QSP32-5D	5	120	5	32	4	150	24.9

SPARE PARTS

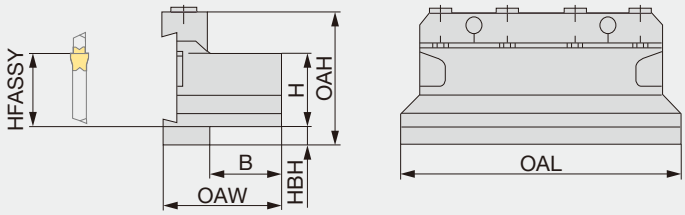


Designation	Wrench
QSER/L..., QSP...	QL-39

Reference pages: QSER/L: Inserts → G166
QSP: Inserts → G166, Toolblock → G164
Standard cutting conditions → G167

CTBU

Tool block for QSP blades



Inch	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU12-26-U	0.750	0.827	3.386	0.750	0.354	1.690	1.496	QSP26...
CTBU16-26-U	1.000	0.906	4.331	1.000	0.197	1.770	1.654	QSP26...
CTBU12-32-U	0.750	0.748	3.937	0.750	0.512	1.970	1.496	QSP32...
CTBU16-32-U	1.000	0.906	4.331	1.000	0.315	1.970	1.654	QSP32...
CTBU20-32-U	1.250	1.142	4.331	1.250	0.197	2.130	1.890	QSP32...

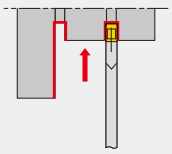
Metric	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU20-26	20	21	86	20	9	43	38	QSP26...
CTBU20-32	20	19	100	20	13	50	38	QSP32...

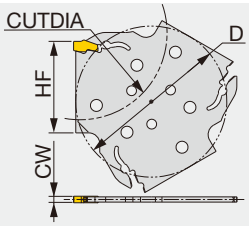
SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
CTBU12-26-U,CTBU20-26	CT-86	CM6X30-S	P-5
CTBU16-26-U,CTBU20-32	CT-100	CM6X30-S	P-5
CTBU12-32-U,CTBU25-26	CT-105	CM6X30-S	P-5
CTBU16-32-U,CTBU20-32-U, CTBU25-32, CTBU32-32	CT-110	CM6X30-S	P-5

QSG

Parting-off and external grooving blade





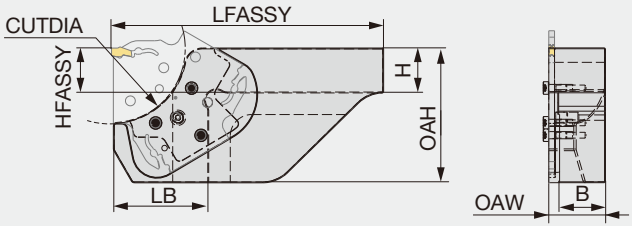


Metric	CW	Seat size	CUTDIA	HF	D
QSG52-2T	2	2	52	27	48.3
QSG82-2T	2	2	82	42	69.3
QSG52-3T	3	3	52	27	48.3
QSG82-3T	3	3	82	42	69.3
QSG52-4T	4	4	52	27	69.3
QSG82-4T	4	4	82	42	69.3

Reference pages: CTBU: Blade → G163
QSG: Inserts → G166, Toolblock → G165
Standard cutting conditions → G167

CHTBR/L

Tool block for QSG blade



Right hand (R) shown.

Inch	CUTDIA	H	B	LFASSY	HFASSY	OAH	OAW	LB	Blade
CHTBR/L12-52	2.047	0.750	0.770	4.000	0.750	1.970	1.000	1.457	QSG52 / CHGP52
CHTBR/L12-82	3.228	0.750	0.770	5.500	0.750	2.950	1.000	2.087	QSG82 / CHGP82
Metric	**CUTDIA**	**H**	**B**	**LFASSY**	**HFASSY**	**OAH**	**OAW**	**LB**	**Blade**
CHTBR/L2020-52	52	20	20.5	100	20	50	26.5	37	QSG52 / CHGP52
CHTBR/L2020-82	82	20	20.5	140	20	75	26.5	53	QSG82 / CHGP82

The blade clamping screw heads protrude out for as much as 0.122" (3.1 mm) over the insert cutting edge point.
Maintain the clearance from the chucking device to avoid interference.

SPARE PARTS

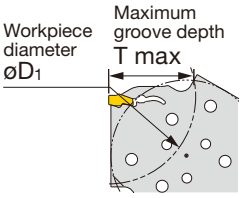





Designation	Clamping screw	Grip	Torx bit	Wrench
CHTBR/L...	SR-ISO14580M4X10	SW6-SD	BLDT20/S7	-

Maximum groove depth (T max) as function of workpiece diameter (øD1)

Designation	øD1 (in)																	
CHTBR/L****-52	2.087	2.126	2.165	2.205	2.283	2.362	2.441	2.559	2.677	2.835	3.071	3.307	3.622	4.016	4.528	5.236	6.260	7.795
CHTBR/L****-82	4.094	4.252	4.409	4.567	4.764	5.000	5.276	5.591	5.945	6.378	6.929	7.559	8.346	9.331	10.630	12.323	14.764	18.425
T max	0.827	0.787	0.748	0.709	0.669	0.630	0.591	0.551	0.512	0.472	0.433	0.394	0.354	0.315	0.276	0.236	0.197	0.157



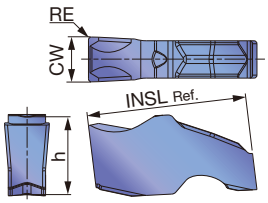
Designation	øD1 (in)												
CHTBR/L****-82	3.268	3.307	3.307	3.346	3.386	3.425	3.504	3.543	3.622	3.701	3.780	3.858	3.976
T max	1.339	1.299	1.260	1.220	1.181	1.142	1.102	1.063	1.024	0.984	0.945	0.906	0.866

Reference pages: CHTBR/L: Blade → G164
Standard cutting conditions → G167

QGM

External deep grooving and parting





P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

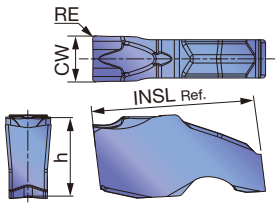
Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	INSL (in)	h (in)
QGM2-020	2	2	0.079	0.008	●	0.433	0.209
QGM3-020	3	3	0.118	0.008	●	0.433	0.209
QGM4-030	4	4	0.157	0.012	●	0.512	0.287
QGM5-030	5	5	0.197	0.012	●	0.512	0.287

●: Line up

QGS

External deep grooving and parting





P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated AH7025	INSL (in)	h (in)
QGS2-020	2	2	0.079	0.008	●	0.433	0.209
QGS3-020	3	3	0.118	0.008	●	0.433	0.209
QGS4-030	4	4	0.157	0.012	●	0.512	0.287
QGS5-030	5	5	0.197	0.012	●	0.512	0.287

●: Line up

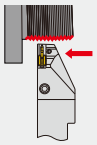
Reference pages: Toolhoders → G163 - G165

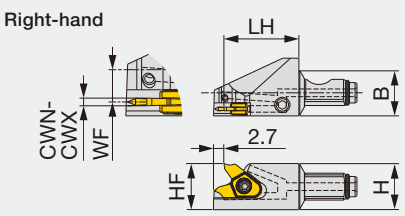
STANDARD CUTTING CONDITIONS

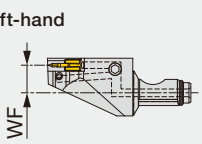
ISO	Workpiece material	Hardness	Grade	Cutting speed *Vc* (sfm)
P	Steels 1045, 4140, etc.	< 300 HB	AH7025	164 - 591
M	Stainless steel 304, etc.	< 200 HB	AH7025	164 - 394
K	Gray cast iron No.250B, etc.	-	AH7025	164 - 591
	Ductile cast irons 65-45-12, etc.	-	AH7025	164 - 394
S	Superalloys Inconel718, etc.	< HRC 40	AH7025	66 - 197
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	AH7025	66 - 262

MINI LOCK GROOVE
QC12-SVER/L-CHP

Modular head for external grooving and threading, with high pressure coolant capability





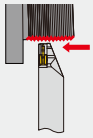


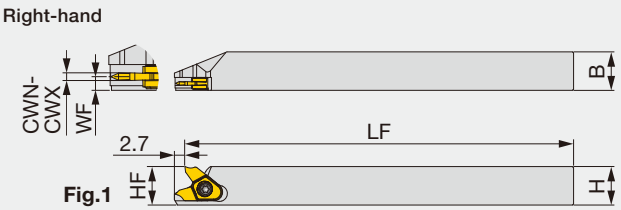
Metric	Pitch (mm)	TPI	H	B	LH	HF	WF (1)	Insert	Torque*
QC12-SVER/L10-CHP	0.4 - 1.5	64 - 12	12 (0.750")	12 (0.750")	19.5 (0.768")	12 (0.472")	4.19/7.19 (0.165"/0.283")	VG*10...	1.3 (0.96)

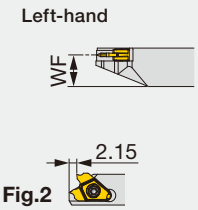
Torque*: Recommended clamping torque: N·m (lbs·ft)
(1) "WF" indicates the distance from the reference position to the center of the cutting edge width.
The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

SVER/L

External grooving and threading toolholder







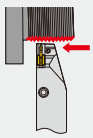
Inch	Pitch (mm)	TPI	H	B	LF	HF	WF (1)	Insert	Torque	Fig.
SVER/L06-10	0.4 - 1.5	64 - 12	0.375	0.375	4.750	0.375	0.070/0.304	VG*10...	0.96	1
SVER/L08-10	0.4 - 1.5	64 - 12	0.500	0.500	4.750	0.500	0.070/0.430	VG*10...	0.96	2

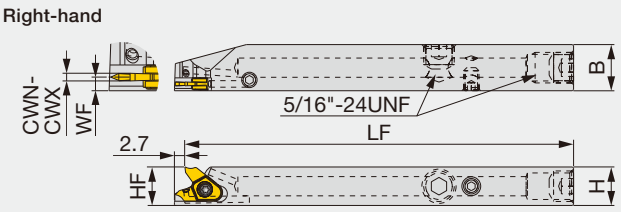
Metric	Pitch	TPI	H	B	LF	HF	WF (1)	Insert	Torque*	Fig.
SVER/L1010H10	0.4 - 1.5	64 - 12	10	10	100	10	1.78/8.23	VG*10...	1.3	1
SVER/L1212X10	0.4 - 1.5	64 - 12	12	12	120	12	1.78/10.23	VG*10...	1.3	1

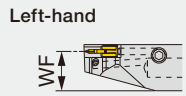
Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) "WF" indicates the distance from the reference position to the center of the cutting edge width.
The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

SVER/L-CHP

External grooving and threading toolholder, with high pressure coolant capability







Inch	Pitch (mm)	TPI	H	B	LF	HF	WF (1)	Insert	Torque
SVER/L08-10-CHP	0.4 - 1.5	64 - 12	0.500	0.500	4.750	0.500	0.070/0.430	VG*10...	0.96

Metric	Pitch	TPI	H	B	LF	HF	WF (1)	Insert	Torque*
SVER/L1012H10-CHP	0.4 - 1.5	64 - 12	10	12	100	10	1.78/10.23	VG*10...	1.3
SVER/L1212X10-CHP	0.4 - 1.5	64 - 12	12	12	120	12	1.78/10.23	VG*10...	1.3

Compatible to the direct internal coolant supply system without the use of external coolant hose.
Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) "WF" indicates the distance from the reference position to the center of the cutting edge width.
The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

SPARE PARTS







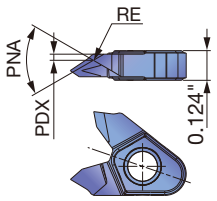


Designation	Clamping screw	Wrench 1	O-ring	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
QC12-SVER...	CSTB-2.5L054DL	T-7F	ORSS-0454.5X1.0NBR70	-	-	-	-
QC12-SVEL...	CSTB-2.5L054DR	T-7F	ORSS-0454.5X1.0NBR70	-	-	-	-
SVER08-10-CHP, 1012/1212**-CHP...	CSTB-2.5L054DL	T-7F	-	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
SVEL08-10-CHP, 1012/1212**-CHP...	CSTB-2.5L054DR	T-7F	-	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
SVER06/08-10..., SVER1010/1212...	CSTB-2.5L054DL	T-7F	-	-	-	-	-
SVEL06/08-10..., SVEL1010/1212...	CSTB-2.5L054DR	T-7F	-	-	-	-	-

INSERT

VGT10 (For threading / sharp edge)





P	Steel	★
M	Stainless	★
K	Cast iron	
N	Non-ferrous	★
S	Superalloys	★
H	Hard materials	

★ : First choice

Designation	RE (in)	Coated SH725	Pitch (mm)	TPI	PDX (in)	PNA
VGT10F-60A-005	0.002	●	0.4 - 1	64 - 25	0.026	60°
VGT10F-60A-010	0.004	●	1 - 2	25 - 12	0.038	60°
VGT10F-55A-005	0.002	●	0.6 - 1.5	40 - 16	0.033	55°

● : Line up

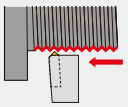
STANDARD CUTTING CONDITIONS

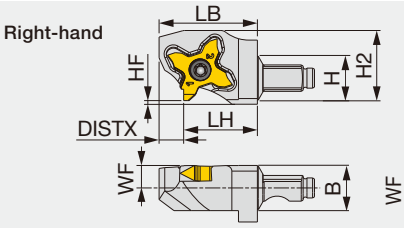
Threading

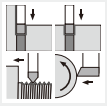
ISO	Workpiece materials	Grade	Cutting speed *Vc* (sfm)	Pitch (mm)	TPI
P	Low carbon steels 1015, 1020, etc.	SH725	164 - 492	0.4 - 2	64 - 12
	Carbon steels, Alloy steels 1055, 4140, etc.	SH725	164 - 492	0.4 - 2	64 - 12
	Free cutting steels SUH22, SUH23, etc.	SH725	164 - 492	0.4 - 2	64 - 12
M	Stainless steels 304, etc.	SH725	164 - 328	0.4 - 2	64 - 12
N	Aluminum alloys 5056, 6061, etc.	SH725	492 - 656	0.4 - 2	64 - 12
	Copper alloy C2600, C280C, etc.	SH725	328 - 656	0.4 - 2	64 - 12
S	Titanium alloys Ti-6Al-4V, etc.	SH725	98 - 262	0.4 - 2	64 - 12
	Superalloys Inconel718, etc.	SH725	98 - 262	0.4 - 2	64 - 12

QC12-STCR/L-Y

Y-axis turning modular head for external grooving and threading





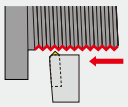


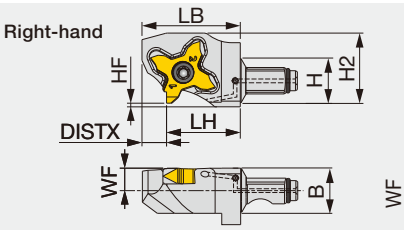
Metric	Pitch	H	B	LH	HF	WF**	LB	H2	DISTX	Insert	Torque*
QC12-STCR/L18-Y	0.4 - 3	12 (0.472")	12 (0.472")	19.5 (0.768")	0 (0")	6/9 (0.236" / 0.354")	26 (1.024")	18.6 (0.732")	6.5 (0.256")	TC*18...	1.2 (0.89)

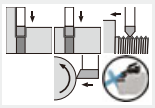
Torque*: Recommended clamping torque: N·m (lbs·ft)
The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

QC12-STCR/L-Y-CHP

Y-axis turning modular head for external grooving and threading, with high pressure coolant capability







Metric	Pitch	H	B	LH	HF	WF	LB	H2	DISTX	Insert	Torque*
QC12-STCR/L18-Y-CHP	0.4 - 3	12 (0.472")	12 (0.472")	19.5 (0.768")	0 (0")	6 (0.236")	26 (1.024")	18.6 (0.732")	6.5 (0.256")	TC*18...	1.2 (0.89)

Torque*: Recommended clamping torque: N·m (lbs·ft)
The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).
Through-coolant head

SPARE PARTS



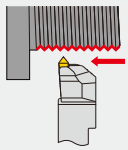


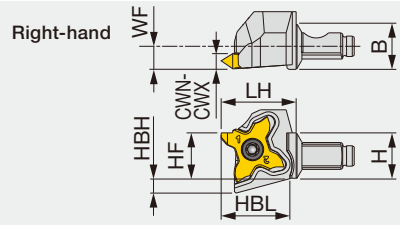
Designation	Clamping screw	Wrench	O-ring
QC12-STCR18-Y	CSTC-4L100DL	T-1008/5	-
QC12-STCL18-Y	CSTC-4L100DR	T-1008/5	-
QC12-STCR18-Y-CHP	CSTC-4L100DL	T-1008/5	ORSS-0454.5X1.0NBR70
QC12-STCL18-Y-CHP	CSTC-4L100DR	T-1008/5	ORSS-0454.5X1.0NBR70

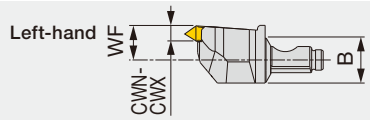
Reference pages: QC12-STCR/L-Y, QC12-STCR/L-Y-CHP: Inserts → G174, G175
Shank, Accessory → G115, G116, Standard cutting conditions → G175

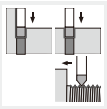
QC12-STCR/L

Modular head for external grooving and threading







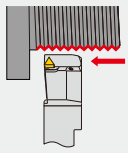


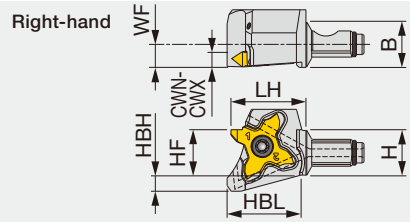
Metric	Pitch	H	B	LH	HF	HBH	HBL	WF	Insert	Torque*
QC12-STCR18	0.4 - 3	12 (0.472")	12 (0.472")	19.5 (0.768")	12 (0.472")	3.9 (0.154")	17.9 (0.705")	6 (0.236")	TC*18R...	1.2 (0.89)
QC12-STCL18	0.4 - 3	12 (0.472")	12 (0.472")	21 (0.827")	12 (0.472")	3.9 (0.154")	18.3 (0.720")	9 (0.354")	TC*18L...	1.2 (0.89)

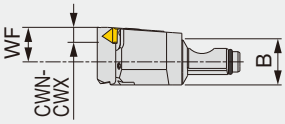
Torque*: Recommended clamping torque: N·m (lbs·ft)
The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

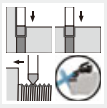
QC12-STCR/L-CHP

Modular head for external grooving and threading, with high pressure coolant capability









Metric	Pitch	H	B	LH	HF	HBH	HBL	WF	Insert	Torque*
QC12-STCR18-CHP	0.4 - 3	12 (0.472")	12 (0.472")	19.5 (0.768")	12 (0.472")	4.2 (0.165")	19.3 (0.760")	6 (0.236")	TC*18R...	1.2 (0.89)
QC12-STCL18-CHP	0.4 - 3	12 (0.472")	12 (0.472")	21 (0.827")	12 (0.472")	4.2 (0.165")	19.3 (0.760")	9 (0.354")	TC*18L...	1.2 (0.89)

Torque*: Recommended clamping torque: N·m (lbs·ft)
Through-coolant head
Note: Use the right-hand insert (TC*18R...) for a right-hand holder (QC12-STCR...); the left-hand insert (TC*18L...) for a left-hand holder (QC12-STCL...).

SPARE PARTS



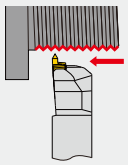


Designation	Clamping screw	Wrench	O-ring
QC12-STCR18-CHP	CSTC-4L100DL	T-1008/5	ORSS-0454.5X1.0NBR70
QC12-STCL18-CHP	CSTC-4L100DR	T-1008/5	ORSS-0454.5X1.0NBR70
QC12-STCR18	CSTC-4L100DL	T-1008/5	-
QC12-STCL18	CSTC-4L100DR	T-1008/5	-

Reference pages: QC12-STCR/L, QC12-STCR/L-CHP: Inserts → G174, G175
Shank, Accessory → G115, G116, Standard cutting conditions → G175

STCR/L-18

External grooving and threading toolholder



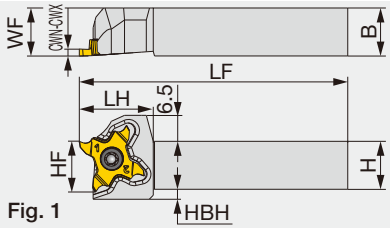


Fig. 1

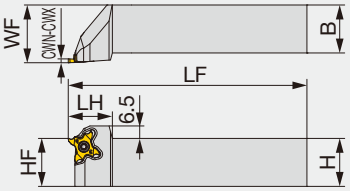
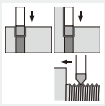


Fig. 2



Right-hand (R) shown.

Inch	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque	Fig.
STCR/L06-18	0.013	0.118	0.375	0.375	4.750	0.740	0.375	0.375	0.177	TC*18...	0.89	1
STCR/L08-18	0.013	0.118	0.500	0.500	4.750	0.740	0.500	0.500	0.098	TC*18...	0.89	1
STCR/L10-18	0.013	0.118	0.625	0.625	4.750	0.740	0.625	0.625	-	TC*18...	0.89	1
STCR/L12-18	0.013	0.118	0.750	0.750	4.750	0.900	0.750	1.000	-	TC*18...	0.89	2
STCR/L16-18	0.013	0.118	1.000	1.000	5.500	0.900	1.000	1.250	-	TC*18...	0.89	2

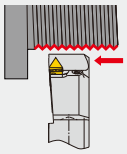
Metric	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque*	Fig.
STCR/L1010X18	0.33	3.18	10	10	120	18.5	10	10	4.5	TC*18...	1.2	1
STCR/L1212F18	0.33	3.18	12	12	85	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1212X18	0.33	3.18	12	12	120	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1616X18	0.33	3.18	16	16	120	18.5	16	16	-	TC*18...	1.2	1
STCR/L2020H18	0.33	3.18	20	20	100	18.5	20	20	-	TC*18...	1.2	1
STCR/L2020X18	0.33	3.18	20	20	120	23	20	25	-	TC*18...	1.2	2

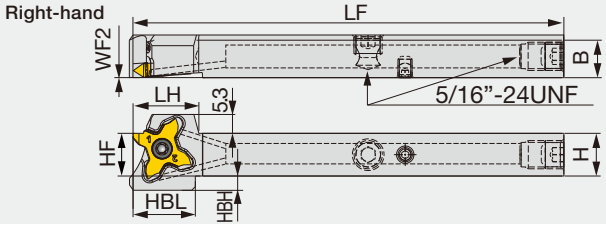
The right hand insert (TC*18R...) is used for the right hand toolholders (STCR...), and the left hand insert is used for the left hand toolholders
Torque: Recommended clamping torque: lbs·ft (*N·m)

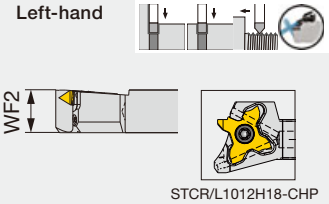
STCR/L-H/X18-CHP

Direct connection

External grooving and threading toolholder, high pressure coolant compatible







STCR/L1012H18-CHP
STCR/L1212*18**B**-CHP

Inch	Pitch (mm)	H	B	LF	LH	HBL	HF	WF2**	HBH	Insert	Torque
STCR/L08X18-CHP	0.4 - 3	0.500	0.500	4.750	0.728	0.689	0.500	0/0.500	0.130	TC*18...	0.89
STCR/L10X18-CHP	0.4 - 3	0.625	0.625	4.750	0.728	-	0.625	0/0.625	-	TC*18...	0.89

Metric	Pitch	H	B	LF	LH	HBL	HF	WF2**	HBH	Insert	Torque*
STCR/L1012H18-CHP	0.4 - 3	10	12	100	17.1	17.1	10	0/12	4	TC**18	1.2
STCR/L1212X18B-CHP	0.4 - 3	12	12	120	18.5	17.5	12	0/12	4	TC**18	1.2
STCR/L1616X18-CHP	0.4 - 3	16	16	120	18.5	-	16	0/16	0	TC**18	1.2

The right hand insert (TC*18R***) is used for the right hand toolholders (STCR***), and the left hand insert (TC*18L***) is used for the left hand toolholders (STCL***).
WF2** : The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
Torque: Recommended clamping torque: lbs·ft (*N·m)

SPARE PARTS





Designation	Clamping screw	Wrench
STCFVR**18,STCL**18	CSTC-4L100DR	T-1008/5
STCR**18	CSTC-4L100DL	T-1008/5

Threading pitch range: 0.8 ~ 3 mm

SPARE PARTS













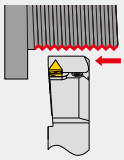
Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
STCR...18	CSTC-4L100DL	T-1008/5	-	-	-	-
STCL...18	CSTC-4L100DR	T-1008/5	-	-	-	-
STCL**18-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
STCR**18-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

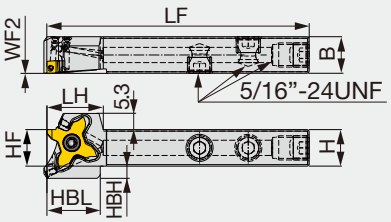
Reference pages : STCR/L-18, STCR/L-H/X18-CHP: Inserts → G174, G175, Standard cutting conditions → G175

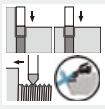
STCR/L-F18-CHP

Tube connection

External grooving and threading toolholder. High pressure coolant capability.







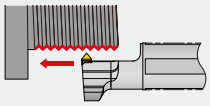
Inch	Pitch (mm)	H	B	LF	LH	HBL	HF	WF2**	HBH	Insert	Torque
STCR/L08F18-CHP	0.4 - 3	0.500	0.500	3.344	0.728	0.689	0.500	0/0.500	0.130	TC*18...	0.89

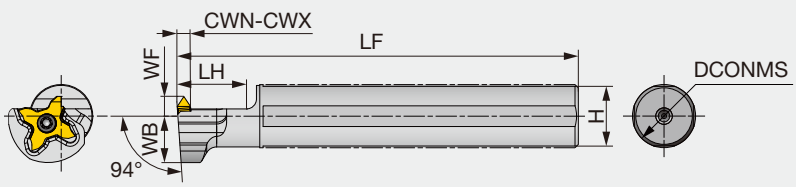
Metric	Pitch	H	B	LF	LH	HBL	HF	WF2**	HBH	Insert	Torque*
STCR/L1212F18B-CHP	0.4 - 3	12	12	85	18.5	17.5	12	0/12	4	TC**18	1.2

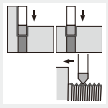
The right hand insert (TC*18R***) is used for the right hand toolholders (STCR***), and the left hand insert (TC*18L***) is used for the left hand toolholders (STCL***).
WF2** : The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
Torque: Recommended clamping torque: lbs·ft (*N·m)

JS-STCL18

External grooving and threading toolholder with round shank, for Swiss lathes







Left-hand (L) shown.

Metric	Pitch	DCONMS	H	LF	LH	WB	WF	Insert	Torque*
JS14H-STCL18	0.4 - 3	14	13	100	20	14	6	TC*18R...	1.2
JS159F-STCL18	0.4 - 3	15.875	15	85	20	14	6	TC*18R...	1.2
JS16F-STCL18	0.4 - 3	16	15	85	20	14	6	TC*18R...	1.2
JS19G-STCL18	0.4 - 3	19.05	18	90	20	14	6	TC*18R...	1.2
JS19X-STCL18	0.4 - 3	19.05	18	120	20	14	6	TC*18R...	1.2
JS20G-STCL18	0.4 - 3	20	19	90	20	14	6	TC*18R...	1.2
JS20X-STCL18	0.4 - 3	20	19	120	20	14	6	TC*18R...	1.2
JS22X-STCL18	0.4 - 3	22	21	120	20	12.25	10	TC*18R...	1.2
JS25H-STCL18	0.4 - 3	25	24	100	20	12.25	10	TC*18R...	1.2
JS254X-STCL18	0.4 - 3	25.4	24	120	20	12.25	10	TC*18R...	1.2

- The left hand toolholder (STCL...) is used with the right hand inserts (TC*18R...)
Torque*: Recommended torque (N·m) for clamping

SPARE PARTS





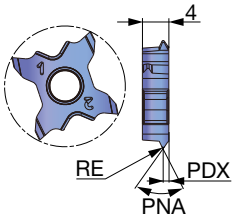

Designation	Clamping screw	Wrench	Coolant plug	Wrench
STCL**18-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4
STCR**18-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4
JS...STCL18	CSTC-4L100DL	T-1008/5	-	-

Reference pages : STCR/L-F18-CHP, JS-STCL18: Inserts → G174, G175, Standard cutting conditions → G175

INSERT

TCT18FR/R-ISO (Full profile threading insert)





Right-hand (R) shown.

P	Steel	★	★
M	Stainless	★	★
K	Cast iron	★	★
N	Non-ferrous		
S	Superalloys	★	★
H	Hard materials		

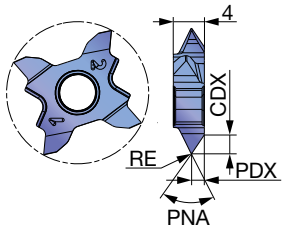
★ : First choice
☆ : Second choice

Designation	HAND	RE (in)	Coated		Pitch (mm)	PDX (in)	PNA
			SH725	AH725			
TCT18FR-05ISO	R	0.002	●		0.5	0.014	60°
TCT18FR-07ISO	R	0.004	●		0.7	0.018	60°
TCT18FR-075ISO	R	0.004	●		0.75	0.020	60°
TCT18FR-08ISO	R	0.004	●		0.8	0.020	60°
TCT18R-10ISO	R	0.005		●	1	0.024	60°
TCT18R-125ISO	R	0.007		●	1.25	0.028	60°
TCT18R-15ISO	R	0.008		●	1.5	0.031	60°

● : Line up

TCT18R/L (for threading)





P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	★	
H	Hard materials		

★ : First choice
☆ : Second choice

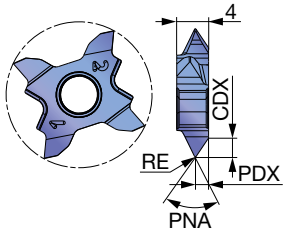
Designation	HAND	RE (in)	Coated	Pitch min (mm)	Pitch max (mm)	PDX (in)	CDX (in)	PNA
			AH725					
TCT18R-60N-010	R	0.004	●	0.8	3	0.063	0.105	60°
TCT18L-60N-010	L	0.004	●	0.8	3	0.063	0.105	60°
TCT18R-60N-020	R	0.008	●	1.5	3	0.063	0.101	60°
TCT18L-60N-020	L	0.008	●	1.5	3	0.063	0.101	60°

● : Line up

Reference pages: Toolholder → G170 - G173

TCT18FR (sharp edge for threading)





Right-hand (R) shown.

P	Steel	★			
M	Stainless	★			
K	Cast iron	★			
N	Non-ferrous				
S	Superalloys	★			
H	Hard materials				

★ : First choice
☆ : Second choice

Designation	HAND	RE (in)	Coated	Pitch min (mm)	Pitch max (mm)	PDX (in)	CDX (in)	PNA
			SH725					
TCT18FR-60A-005	R	0.002	●	0.4	1	0.024	0.039	60°
TCT18FR-60A-010	R	0.004	●	1	2	0.039	0.064	60°

● : Line up

STANDARD CUTTING CONDITIONS

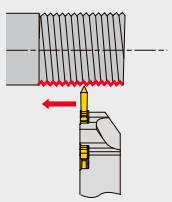
TCT18FR/R-ISO (Full profile threading insert) / TCT18FR (Threading insert)

ISO	Workpiece materials	Priority	Grades	Cutting speed *Vc* (sfm)	Pitch (mm)	TPI
P	Low carbon steel 1015, 1020, etc.	First choice	SH725	197 - 492	0.4 - 2.0	64 - 18
		Toughness	AH725	197 - 492	0.8 - 3.0	32 - 8
	Carbon steels, Alloy steel 1045, 1055 etc.	First choice	SH725	197 - 492	0.4 - 2.0	64 - 18
		Toughness	AH725	197 - 492	0.8 - 3.0	32 - 8
	Prehardened steel NAK80, PX5, etc.	First choice	SH725	197 - 492	0.4 - 2.0	64 - 18
		Toughness	AH725	197 - 492	0.8 - 3.0	32 - 8
M	Stainless steel 304SS, etc	First choice	SH725	164 - 262	0.4 - 2.0	64 - 18
		Toughness	AH725	164 - 262	0.8 - 3.0	32 - 8
K	Gray cast iron Class 25, etc.	First choice	AH725	164 - 328	0.8 - 3.0	32 - 8
		Sharpness	SH725	164 - 328	0.4 - 2.0	64 - 18
	Ductile cast iron 60-40-18, 80-55-06, etc.	First choice	AH725	164 - 328	0.8 - 3.0	32 - 8
		Sharpness	SH725	164 - 328	0.4 - 2.0	64 - 18
S	Titanium alloys Ti-6Al-4V, etc.	First choice	SH725	98 - 328	0.4 - 2.0	64 - 18
		Toughness	AH725	98 - 328	0.8 - 3.0	32 - 8
	Superalloys Inconel718, etc.	First choice	SH725	98 - 328	0.4 - 2.0	64 - 18
		Toughness	AH725	98 - 328	0.8 - 3.0	32 - 8

Reference pages: Toolholder → G170 - G173

JSXXR/L

Parting toolholder, for Swiss lathes



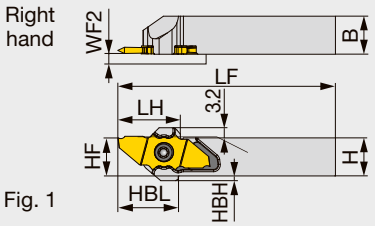


Fig. 1

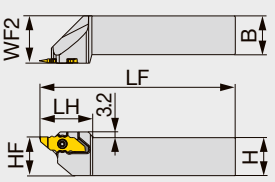
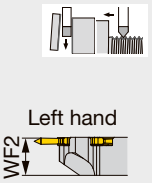


Fig. 2



Right hand (R) shown.

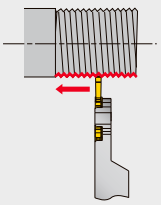
Inch	CWN	CWX	H	B	LF**	LH**	HF	WF2(1)	HBL	HBH	Insert	Torque	Fig.
JSXXR/L063	0.024	0.098	0.375	0.375	4.646	0.774	0.375	0.008 / 0.386	0.748	0.12	JX...	0.89	1
JSXXR/L083	0.024	0.098	0.500	0.500	3.268	0.774	0.500	0.008 / 0.386	0.748	0.06	JX...	0.89	1
JSXXR/L103	0.024	0.098	0.625	0.625	4.646	0.774	0.625	0.008 / 0.386	-	0.06	JX...	0.89	1
JSXXR/L123	0.024	0.098	0.750	0.750	3.950	0.886	0.750	0.008 / 0.742	-	-	JX...	0.89	1
JSXXR/L163	0.024	0.098	1.000	1.000	5.350	1.339	1.000	1.250 / 1.250	-	-	JX...	0.89	2

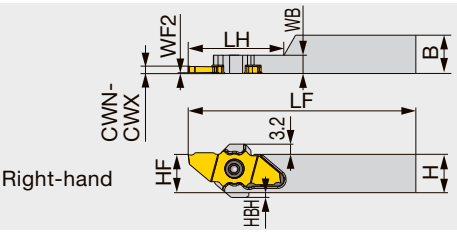
Metric	CWN	CWX	H	B	LF**	LH**	HF	WF2(1)	HBL**	HBH	Insert	Torque*	Fig.
JSXXR/L1010X09	0.6	2.5	10	10	120	19.65	10	0.2/9.8	19	3	JX...	1.2	1
JSXXR/L1212F09	0.6	2.5	12	12	85	19.65	12	0.2/11.8	19	1.5	JX...	1.2	1
JSXXR/L1212X09	0.6	2.5	12	12	120	19.65	12	0.2/11.8	19	1.5	JX...	1.2	1
JSXXR/L1616X09	0.6	2.5	16	16	120	19.65	16	0.2/15.8	-	-	JX...	1.2	1
JSXXR/L2020H09	0.6	2.5	20	20	100	22.5	20	0.2/19.8	-	-	JX...	1.2	1

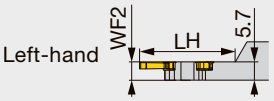
Torque: Recommended clamping torque: lbs·ft (*N·m)
**LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JXPG16... insert. LF, LH, and HBL will all be 0.079" (2 mm) shorter than the above values with JX*G12... and JXPG20...inserts, and 0.157" (4 mm) shorter for JXPG06... insert.
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

JSXXR/L-S

Parting toolholder, for Swiss lathes (for sub spindle)







Inch	CWN	CWX	H	B	LF**	LH**	HF	WF	HBH	Insert	Torque*
JSXXR/L063-S	0.024	0.098	0.375	0.375	4.750	1.030	0.383	0.008/0.217	0.120	JX*G06...,12...,16...	0.890
JSXXR/L083-S	0.024	0.098	0.500	0.500	4.750	1.030	0.500	0.008/0.217	0.060	JX*G06...,12...,16...	0.890

Metric	CWN	CWX	H	B	LF**	LH**	HF	WF2	HBH	Insert	Torque*
JSXXR/L1010X09-S	0.6	2.5	10	10	120	26	10	0.2/5.5	3	JX**06...,12...,16...	1.2
JSXXR/L1212F09-S	0.6	2.5	12	12	85	26	12	0.2/5.5	1.5	JX**06...,12...,16...	1.2
JSXXR/L1212X09-S	0.6	2.5	12	12	120	30	12	0.2/5.5	1.5	JX**06...,12...,16...	1.2
JSXXR/L1616X09-S	0.6	2.5	16	16	120	30	16	0.2/5.5	-	JX**06...,12...,16...,20...	1.2

Torque: Recommended clamping torque: lbs·ft (*N·m)
**LF (Functional Length) and LH (Head Length) values shown above are true with JXPG16... insert. LF and LH will be 2 mm shorter than the above values with JX*G12... insert, and 0.157" (4 mm) shorter for JXPG06... insert. LF, LH, and HBL will all be 0.079" (2 mm) shorter with JXPG20... insert.
***JXPG20... insert will not fit.
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

SPARE PARTS





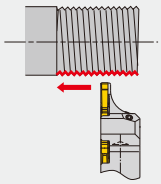
Designation	Clamping screw	Wrench
JSXXR..., JSXXR*****-S	CSTC-4L055DL	T-1008/5
JSXXL..., JSXXL*****-S	CSTC-4L055DR	T-1008/5

Reference pages: JSXXR/L, JSXXR/L-S: Inserts → G178, Standard cutting conditions → G179

JSXXR/L-F/H/X-CHP

Parting-off toolholders with high pressure coolant capability, for swiss lathes

Direct connection **Tube connection**



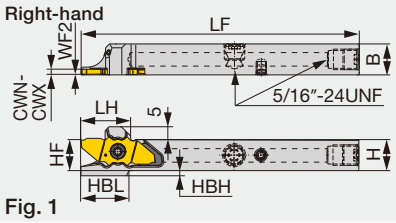


Fig. 1

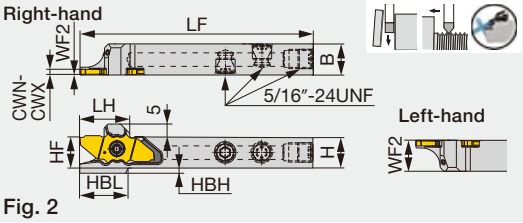


Fig. 2

Inch	CWN	CWX	H	B	WF	LF**	HF	HBH	LH**	HBL**	Insert	Torque	Fig.
JSXXR/L083X-CHP	0.024	0.098	0.500	0.500	0.008/0.492	4.750	0.500	0.051	0.764	0.736	JX*G06...,12...,16..., 20...	0.890	1
JSXXR/L103X-CHP	0.024	0.098	0.625	0.625	0.008/0.617	4.750	0.625	-	0.764	-	JX*G06...,12...,16..., 20...	0.890	1
JSXXR/L083F-CHP	0.024	0.098	0.500	0.500	0.008/0.492	3.344	0.500	0.051	≤ 0.764	0.736	JX*G06...,12...,16..., 20...	0.890	1

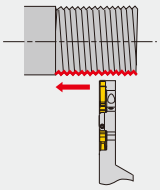
Metric	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBL(1)	HBH	Insert	Torque*	Fig.
JSXXR/L1012H09-CHP(3)	0.6	2.5	10	12	102	19.2	10	0.2/11.8	18.7	3	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212F09-CHP	0.6	2.5	12	12	85	19.4	12	0.2/11.8	18.8	2	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212X09-CHP(3)	0.6	2.5	12	12	120	19.4	12	0.2/11.8	18.8	2	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09B-CHP(3)	0.6	2.5	16	16	120	19.4	16	0.2/15.8	18.7	-	JX**06...,12...,16..., 20...	1.2	1

Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JX**16... insert. LF, LH, and HBL will all be 0.079" (2 mm) shorter than the above values with JX**12... and JX**20... inserts, and 4 mm shorter for JX**06... insert.
(2) The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.
(3) Compatible to the direct internal coolant supply system without the use of external coolant hose.
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

JSXXR/L-F/X-S-CHP

Parting-off toolholders with high pressure coolant capability, for swiss lathes (for sub spindle)

Direct connection **Tube connection**



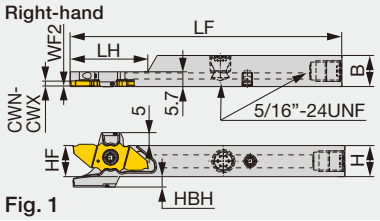


Fig. 1

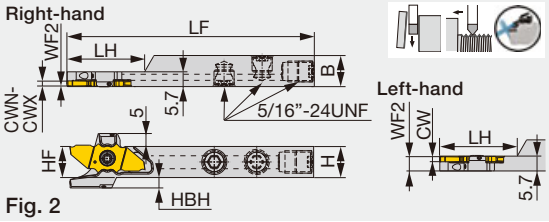


Fig. 2

Inch	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBH	Insert	Torque*	Fig.
JSXXR/L083F-S-CHP	0.024	0.098	0.5	0.5	3.344	1.024	0.5	0.008/0.217	0.051	JX**06...,12...,16..., 20...	0.89	2
JSXXR/L083X-S-CHP	0.024	0.098	0.5	0.5	4.75	1.181	0.5	0.008/0.217	0.051	JX**06...,12...,16..., 20...	0.89	1
JSXXR/L103X-S-CHP	0.024	0.098	0.625	0.625	4.75	1.181	0.625	0.008/0.217	-	JX**06...,12...,16..., 20...	0.89	1

Metric	CWN	CWX	H	B	LF(1)	LH(1)	HF	WF2(2)	HBH	Insert	Torque*	Fig.
JSXXR1212F09-S-CHP(4)	0.6	2.5	12	12	85	26	12	0.2	4	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212F09B-S-CHP	0.6	2.5	12	12	85	30	12	0.2/5.5	2	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212X09-S-CHP(3),(4)	0.6	2.5	12	12	120	30	12	0.2/5.5	4	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212X09B-S-CHP(3)	0.6	2.5	12	12	120	30	12	0.2/5.5	2	JX**06...,12...,16..., 20...	1.2	1
JSXXR1616X09-S-CHP(3),(4)	0.6	2.5	16	16	120	30	16	0.2	1.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09B-S-CHP(3)	0.6	2.5	16	16	120	30	16	0.2/5.5	-	JX**06...,12...,16..., 20...	1.2	1

Torque: Recommended clamping torque: lbs·ft (*N·m)
(1) LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JX**16... insert. LF, LH, and HBL will all be 0.079" (2 mm) shorter than the above values with JX**12... and JX**20... inserts, and 4 mm shorter for JX**06... insert.
(2) The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.
(3) Compatible to the direct internal coolant supply system without the use of external coolant hose.
(4) To be replaced with the new design
Note: Use the right-hand insert (JX****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

SPARE PARTS



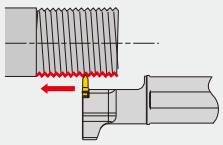


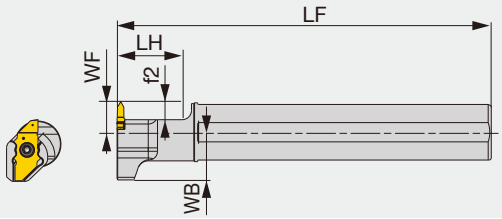



Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JSXXR**F...	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXL**F...	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXR**H/X...	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSXXL**H/X...	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

Reference pages: JSXXR/L-F/H/X-CHP, JSXXR/L-F/X-S-CHP:
Inserts → G178, Standard cutting conditions → G179

Round shanks, for threading





Metric	DCONMS	H	B	LF	LH	WB	WF(1)	f2(1)	Insert	Torque*
JS19G-SXXL09	19.05	18	18	90	21	15.43	10	6	JX**06,12*R	1.2
JS19X-SXXL09	19.05	18	18	120	21	15.43	10	6	JX**06,12*R	1.2
JS20G-SXXL09	20	19	19	90	21	15.4	10	6	JX**06,12*R	1.2
JS20X-SXXL09	20	19	19	120	21	15.4	10	6	JX**06,12*R	1.2
JS22X-SXXL09	22	21	21	120	21	15.4	10	6	JX**06,12*R	1.2
JS25H-SXXL09	25	24	24	100	21	15.4	10	6	JX**06,12*R	1.2
JS254X-SXXL09	25.4	24	24	120	21	15.4	10	6	JX**06,12*R	1.2

Torque*: Recommended clamping torque (N·m)
(1) When using JX..06... insert, both WF and f2 sizes will be 2 mm shorter than the values provided above.

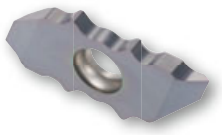
SPARE PARTS

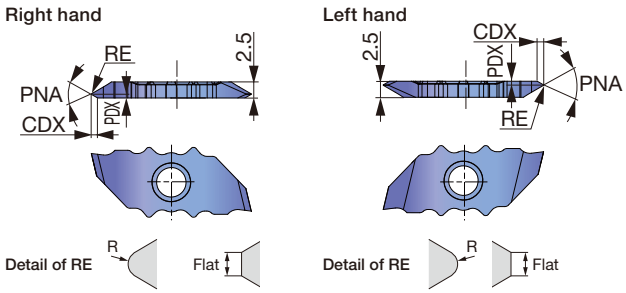



Designation	Clamping screw	Wrench
JS***-SXXL09	CSTC-4L100DL	T-1008/5

INSERT

JXTG12FR/L-60 (For Threading / Sharp edge)





P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous	★	
S	Superalloys	★	
H	Hard materials	★	

★ : First choice

Designation	HAND	RE (mm)	Coated	Pitches (mm)	PDX (mm)	CDX (mm)	PNA
			SH725				
JXTG12FR-60A-000	R	Flat 0.05 max	●	0.2 - 0.4	0.25	0.4	60°
JXTG12FL-60A-000	L	Flat 0.05 max	●	0.2 - 0.4	0.25	0.4	60°
JXTG12FR-60B-000	R	Flat 0.05 max	●	0.2 - 0.4	0.25	0.4	60°
JXTG12FL-60B-000	L	Flat 0.05 max	●	0.2 - 0.4	0.25	0.4	60°
JXTG12FR-60A-005	R	R 0.05	●	0.4 - 1	0.6	0.99	60°
JXTG12FL-60A-005	L	R 0.05	●	0.4 - 1	0.6	0.99	60°
JXTG12FR-60B-005	R	R 0.05	●	0.4 - 1	1.9	0.99	60°
JXTG12FL-60B-005	L	R 0.05	●	0.4 - 1	1.9	0.99	60°
JXTG12FR-60N-010	R	R 0.1	●	1 - 1.5	1.25	2.07	60°
JXTG12FL-60N-010	L	R 0.1	●	1 - 1.5	1.25	2.07	60°

● : Line-up

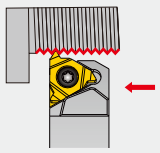
Reference pages: Toolholder → G176 - G178

STANDARD CUTTING CONDITIONS

ISO	Workpiece materials	Grades	Cutting speed *Vc* (sfm)
P	Low carbon steels 1015, etc.	SH725	164 - 656
	Carbon steels, Alloy steels 1055, etc.	SH725	164 - 656
	Free cutting steels SUH22, SUH23, etc.	SH725	164 - 656
M	Stainless steels 304, etc.	SH725	164 - 656
N	Aluminum alloys 5056, 6061, etc.	SH725	492 - 656
	Copper alloy C2600, C280C, etc.	SH725	328 - 656
S	Titanium alloys Ti-6Al-4V, etc.	SH725	98 - 262
	Superalloys Inconel718, etc.	SH725	98 - 262

JSE2R16-CHP

Screw-on external threading toolholders-High-pressure coolant capability with tube and direct connection



Tube connection

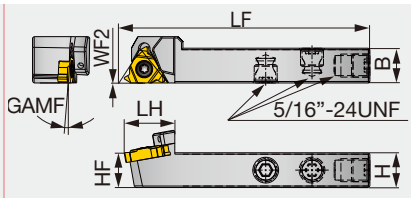


Fig.1

Direct connection

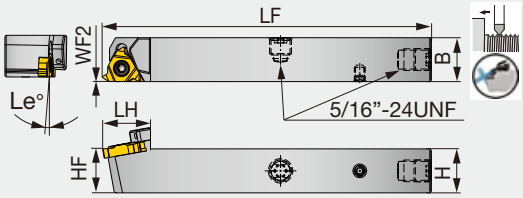


Fig.2

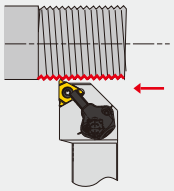
Right hand (R) shown.

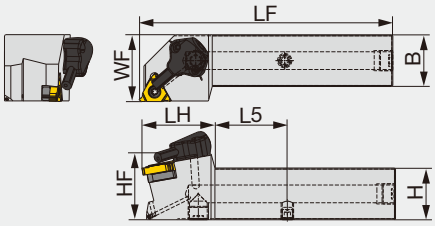
Inch	H	B	LF	LH	HF	WF	GAMF	Insert	Fig.
JSE2R08F16-CHP	0.500	0.500	3.344	0.748	0.500	0.000	1°	16ER...	1
JSE2R08X16-CHP	0.500	0.500	4.750	0.748	0.500	0.000	1°	16ER...	2
JSE2R10X16-CHP	0.625	0.625	4.750	0.748	0.625	0.000	1°	16ER...	2

Metric	H	B	LF	LH	HF	WF2	GAMF	Insert	Fig.
JSE2R1212F16-CHP	12	12	85	19	12	0	1°	16ER...	1
JSE2R1212X16-CHP	12	12	120	19	12	0	1°	16ER...	2
JSE2R1616X16-CHP	16	16	120	19	16	0	1°	16ER...	2

SER-X-CHP-MC

Screw-on external threading toolholders-High-pressure coolant capability with tube and direct connection





Metric	H	B	LF	LH	HF	WF	L5	Insert
SER2020X16-CHP-MC	20	20	107	36	20	25	27.9	16ER...

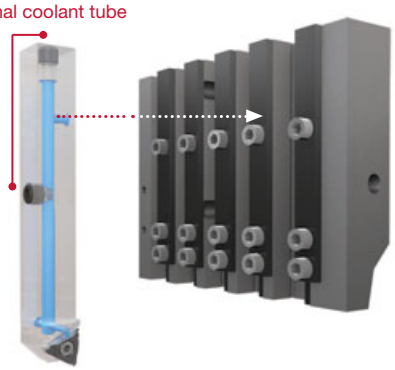
SPARE PARTS

Designation	Clamping screw	Wrench	Shim screw	Shim	Coolant unit	Coolant plug	Wrench
JSE2R**16-CHP	CSTB-3.5	T-15F	-	-	-	SR5/16UNFTL360	P-4
SER**X16-CHP-MC	CSTB-3.5ST	T-15F	DTS5-3.5	A16-1DT	CU-V-CHP	PLUGG1/8-6.5TL360	P-3.5

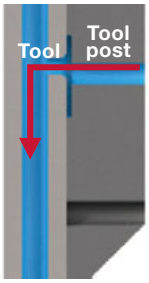
No need for coolant tube setup.
Eliminates chip entanglement on tubes and streamlines tool replacement.

Coolant is supplied from the tool post directly to the tools

Internal thread
Optional connection with external coolant tube



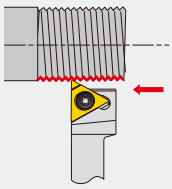
Detailed view of the coolant flow after connection

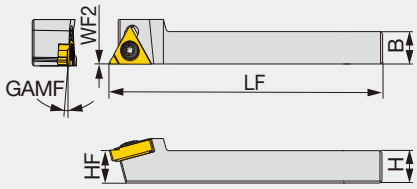


Reference pages: JSE2R16-CHP, SER-X-CHP-MC: Inserts → E010 -, Standard cutting conditions → E068

SER

Screw-on external threading toolholders

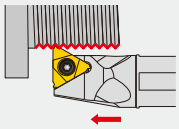


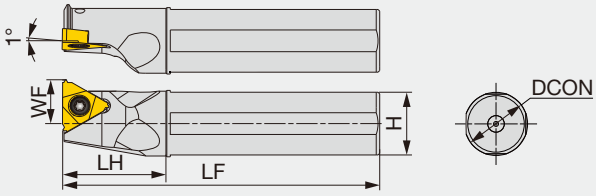


Metric	H	B	LF	HF	WF2	GAMF	Insert
SER0808H11	8	8	100	8	0	1.5°	11ER...
SER1010H11	10	10	100	10	0	1.5°	11ER...

JS-SEL16

External threading toolholder, for Swiss lathes





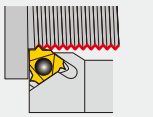
Right hand (R) shown.

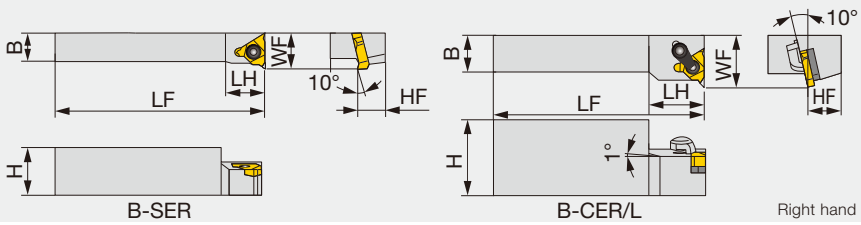
Metric	DCON	H	LF	LH	WF	Insert
JS16F-SEL16	16	15	85	25	11	16ER...
JS19G-SEL16	19.05	18	90	30	12.5	16ER...
JS19X-SEL16	19.05	18	120	30	12.5	16ER...
JS20G-SEL16	20	19	90	30	13	16ER...
JS20X-SEL16	20	19	120	30	13	16ER...
JS25H-SEL16	25	24	100	30	15.5	16ER...
JS254X-SEL16	25.4	24	120	30	15.7	16ER...

Note: Use left-hand toolholders (L) with right-hand inserts (R).

B-S/CER/L

External threading toolholder, for Swiss lathes





Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	Insert
B-SER10H16	20	10	100	15	10	16	16ER...
B-SER12K16	24	12	125	18	12	18	16ER...
B-CER/L16M16	32	16	150	24	16	22	16ER/L...

SPARE PARTS





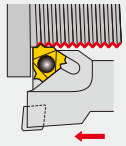
Designation	Clamping screw	Wrench 1
SER**H11	SR M2.6-L6.7-S11	T-8/5
JS***-SEL16, B-SER**16, BC-SER12K16	CSTB-3.5	T-15F

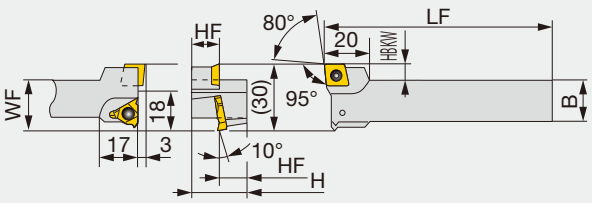
Reference pages: SER, JS-SEL16, B-S/CER/L:
Inserts → E010 -, Standard cutting conditions → E068

TUNGTHREAD

BC-SER/L

External threading toolholder, for multi-functional Swiss lathes





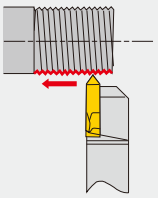
Right hand (R) shown.

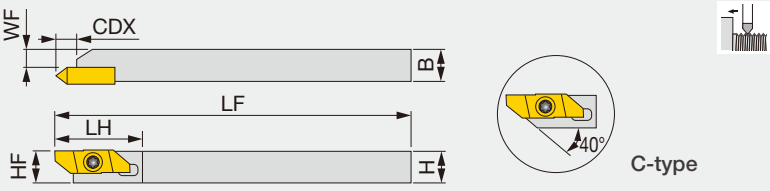
Metric	H	B	LF	HF	WF	HBKW	Insert
BC-SER12K16	24	16	125	12	23	7	16ER..., CC*T09T3...

J-SERIES

JSXBR/L

Screw-on external threading toolholder, for Swiss lathes





Right hand (R) shown.

Metric	H	B	LF	LH	CDX	HF	WF	Insert
JSXBR/L1010K8-C	10	10	125	29	6.7	10	5.7	JXT*R...
JSXBR/L1212K8-C	12	12	125	29	6.7	12	7.7	JXT*R...
JSXBR/L1616K8	16	16	125	29	6.4	16	11.7	JXT*R...
JSXBR/L2020K8	20	20	125	29	6.4	20	15.7	JXT*R...
JSXBR/L2525K8	25	25	125	29	6.4	25	20.7	JXT*R...

Can be wrenched from back side with both end torx screw.
This toolholder is compatible with JXB-type inserts and JXT-type inserts.

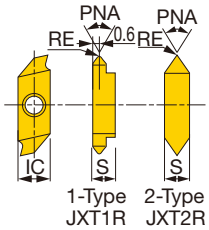
SPARE PARTS

Designation	Clamp set	Shim set	Clamping screw	Wrench	Wrench 2 (Optional)
BC-SER12K16	-	-	CSTB-3.5	T-15F	-
JSXBR...	CSP16	A16-1	CSTB-4SD	T-8F	(T-8L)

INSERT

JXT (sharp edge)





		Coated		Uncoated	
		J740		TH10	
P	Steel	★			
M	Stainless	★			
K	Cast iron				
N	Non-ferrous			☆	
S	Superalloys	☆		☆	
H	Hard materials			☆	

★ : First choice
☆ : Second choice

Designation	RE (mm)	Coated J740	Uncoated TH10	PNA	IC (mm)	S (mm)
JXT1R6000F	0.03	●	●	60°	8	3.97
JXT2R6000F	0.03	●	●	60°	8	3.97

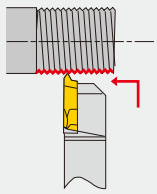
Machinable pitch range: 0.5 to 1 mm

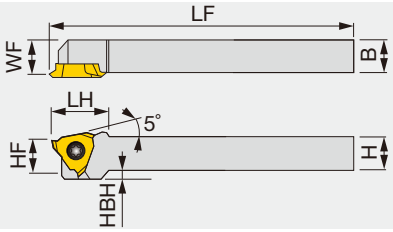
● : Line up

Reference pages: BC-SER/L: Inserts → B112 - (CC*T09T3...), E010 - (16ER...),
Standard cutting conditions → E068

JSTTR/L

Screw-on external threading toolholder, for Swiss lathes





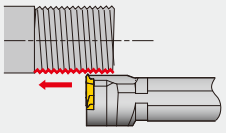
Right hand (R) shown.

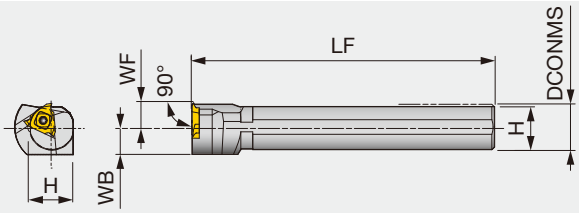
Inch	H	B	LF	LH	HF	WF	HBH	Insert
JSTTR/L063	0.375	0.375	5.000	0.6875	0.375	0.375	0.100	JTTR/L30...
JSTTR/L083	0.500	0.500	5.000	0.6875	0.500	0.500	-	JTTR/L30...
JSTTR/L103	0.625	0.625	5.000	0.6875	0.625	0.625	-	JTTR/L30...
Metric	**H**	**B**	**LF**	**LH**	**HF**	**WF**	**HBH**	**Insert**
JSTTR/L1010X3	10	10	120	18.5	10	9.5	2	JTTR/L3...
JSTTR/L1212F3	12	12	85	18.5	12	11.5	-	JTTR/L3...
JSTTR/L1212X3	12	12	120	18.5	12	11.5	-	JTTR/L3...
JSTTR/L1616X3	16	16	120	18.5	16	15.5	-	JTTR/L3...

Recommended clamping torque: 0.89 lbs·ft, 1.2 N·m

JS-TTL3

Screw-on external threading toolholder, for Swiss lathes





Left hand (L) shown.

Metric	DCONMS	WF	LF	H	WB	Insert
JS19K-TTL3	19.05	10	125	18	11.5	JTTR30...
JS20K-TTL3	20	10	125	19	11.5	JTTR30...
JS22K-TTL3	22	10	125	21	11.5	JTTR30...
JS25K-TTL3	25.4	10	125	24	12.7	JTTR30...

Recommended clamping torque: 3.5 N·m

SPARE PARTS





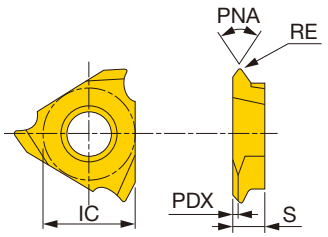
Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSTTR/L...	CSTB-4SD	T-8F	(T-8L)
JS**-TTL3	CSTB-4S	T-15F	-

Reference pages: JSTTR/L, JS-TTL3: Inserts, Standard cutting conditions → G184

INSERT

JTT (sharp edge)





Right hand (R) shown.

P	Steel	★	☆			★			★		
M	Stainless	★	☆								
K	Cast iron	★				☆			★		
N	Non-ferrous								★		
S	Superalloys	☆							★		
H	Hard materials	☆							★		

★ : First choice
☆ : Second choice

Designation	RE (in)	Coated			Cermet		Uncoated			PNA	IC (mm)	S (mm)	PDX (mm)
		SH725	J740		NS9530		TH10						
JTTR3005F-55	0.002	●	●							55°	9.525	3.18	0.6
JTTL3005F-55	0.002									55°	9.525	3.18	0.6
JTTR3005F	0.002	●	●		●		●			60°	9.525	3.18	0.9
JTTL3005F	0.002	●								60°	9.525	3.18	0.9
JTTR3010F	0.004	●	●		●		●			60°	9.525	3.18	0.9
JTTL3010F	0.004	●								60°	9.525	3.18	0.9

Machinable pitch range: 0.020" to 0.039" (0.5 to 1 mm)

● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed *Vc* (sfm)	Pitch (in)	TPI
P	Low carbon steel 1025, etc.	SH725	197 - 492	0.020 - 0.039	50 - 25
	Carbon steel, Alloy steel 1045, 4140, etc.	SH725	197 - 492	0.020 - 0.039	50 - 25
	Pre-hardened steel NAK80, PX5, etc.	SH725	197 - 492	0.020 - 0.039	50 - 25
M	Stainless steel 304SS, 316SS, 17-4 PH, etc.	SH725	164 - 262	0.020 - 0.039	50 - 25
K	Gray cast iron Class 25, Class 30, etc.	TH10	164 - 328	0.020 - 0.039	50 - 25
	Ductile cast iron 60-40-18, etc.	TH10	164 - 328	0.020 - 0.039	50 - 25
S	Titanium alloy Ti-6Al-4V, etc.	SH725	98 - 328	0.020 - 0.039	50 - 25
	Heat resistant alloy Inconel 718, etc.	SH725	98 - 328	0.020 - 0.039	50 - 25

Reference pages: Toolholder → G183

MEMO

Alphanumeric Index

Turning Grooving

Designation	Product name	Page
06IR□□ISO	ISO metric threading insert	E017
06IRA55	55° angle threading insert	E015
06IRA60	60° angle threading insert	E010
08IRA55	55° angle threading insert	E015
08IRA60	60° angle threading insert	E010
10ER/L□□□B	Positive insert for back turning	B162, G080
10ER/L300	Positive insert for back turning	B162, G080
11ER□□ISO	ISO metric threading insert	E017
11ERA55	55° angle threading insert	E015
11ERA60	60° angle threading insert	E010
11IR/L□□ISO	ISO metric threading insert	E017
11IR/LA60	60° angle threading insert	E010
11IR□□ISO-B	ISO metric threading insert	E019
11IR□□ISO-M	ISO metric threading insert	E019
11IR□□PT	BSPT threading insert	E024
11IR□□UN	Unified threading insert	E021
11IR□□W	Whitworth threading insert	E023
11IR10MJ	MJ threading insert	E028
11IRA55	55° angle threading insert	E015
11IRA60-B	60° angle threading insert	E011
11IRA60-M	60° angle threading insert	E011
15GR/L...	Internal grooving insert	F185, G122
16ELA60	60° angle threading insert	E010
16ER/L□□ISO	ISO metric threading insert	E018
16ER/L□□W	Whitworth threading insert	E023
16ER/LG60	60° angle threading insert	E010
16ER□□□ISO	ISO metric threading insert	E018
16ER□□□ISO-B	ISO metric threading insert	E019
16ER□□□ISO-M	ISO metric threading insert	E019
16ER□□ACME	29° Trapezoidal threading insert	E029
16ER□□ISO-B	ISO metric threading insert	E019
16ER□□ISO-M	ISO metric threading insert	E019
16ER□□NPT	NPT threading insert	E025
16ER□□NPT-B	NPT threading insert	E025
16ER□□NPTF	NPTF threading insert	E026
16ER□□NPT-M	NPT threading insert	E025
16ER□□PT	BSPT threading insert	E024
16ER□□PT-B	BSPT threading insert	E024
16ER□□PT-M	BSPT threading insert	E024
16ER□□TR	30° Trapezoidal threading insert	E027
16ER□□UN	Unified threading insert	E021
16ER□□UN-B	Unified threading insert	E022
16ER□□UNJ	UNJ threading insert	E028
16ER□□UN-M	Unified threading insert	E022
16ER□□W-B	Whitworth threading insert	E023
16ER□□W-M	Whitworth threading insert	E023
16ER□RD-B	Round threading insert	E027
16ER□UN	Unified threading insert	E021
16ER□W	Whitworth threading insert	E023
16ER10RAPI	API Round threading insert	E030
16ER10RD-CB	API Round threading insert	E030

Designation	Product name	Page
16ER115NPT	NPT threading insert	E025
16ER115NPT-B	NPT threading insert	E025
16ER115NPTF	NPTF threading insert	E026
16ER115NPT-M	NPT threading insert	E025
16ER8ACME	29° Trapezoidal threading insert	E029
16ER8NPT	NPT threading insert	E025
16ER8NPT-B	NPT threading insert	E025
16ER8NPTF	NPTF threading insert	E026
16ER8RAPI	API Round threading insert	E030
16ER8RD-CB	API Round threading insert	E030
16ER8UN-B	Unified threading insert	E022
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VNMG□□-SM	35° rhombic, negative, ISO insert	B100
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VNMG□□-TS	35° rhombic, negative, ISO insert	B098
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YWMT□□-ZM	25° rhombic, positive insert	B159

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