



High functioning, High operating system

DIRECT^T_{UNG}JET system



Now offers 10x10 and 16x16 square shank toolholders



L12



L20



D25



M32

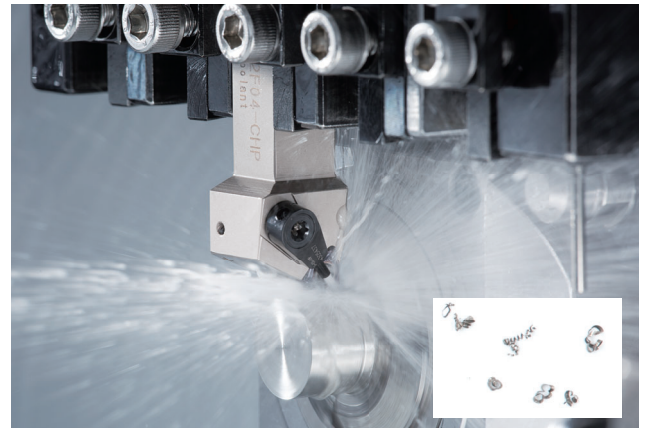
Cincom



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)

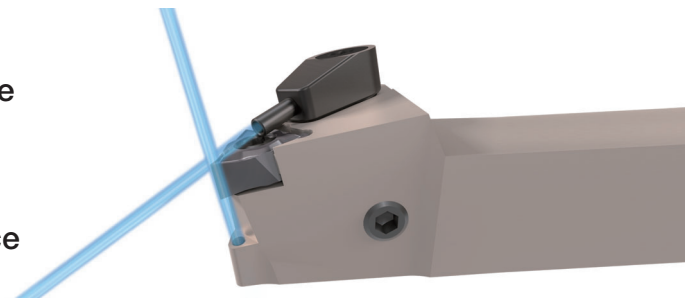


High pressure coolant (>7MPa)

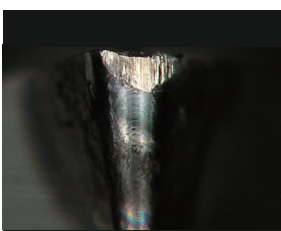
Coolant jets from two outlets ensure high cutting efficiency and extended tool life

- Directly to the cutting edge from side face
Reduces flank wears

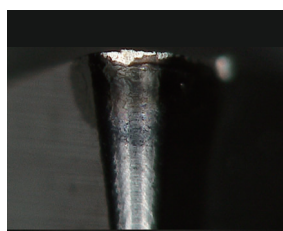
- Directly to the cutting edge from rake face
Reliable chip control
Reduces crater and notch wears



Frank wears

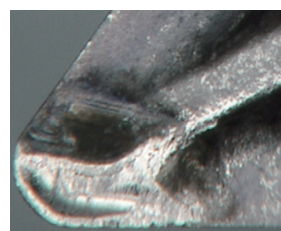


External coolant supply
(at normal pressure)

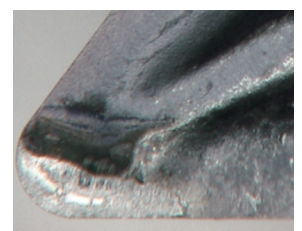


Through coolant supply
(>7MPa)

Crater wears



External coolant supply
(at normal pressure)

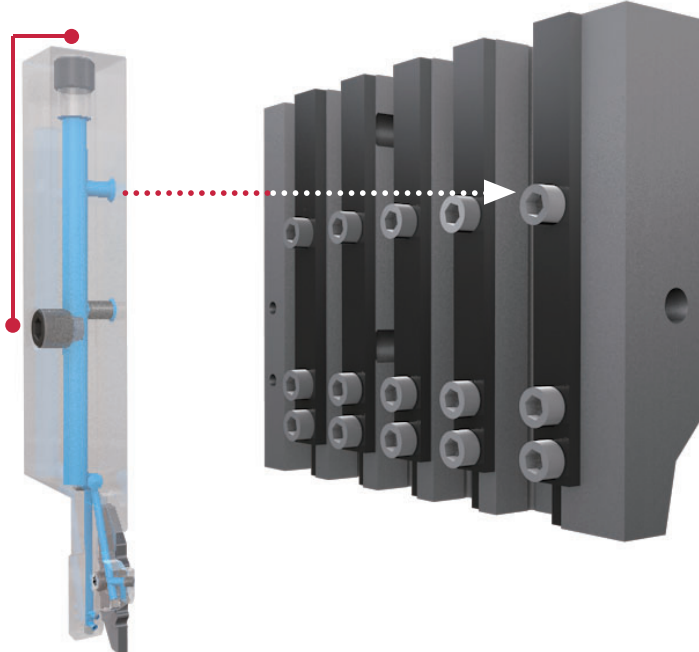


Through coolant supply
(>7MPa)

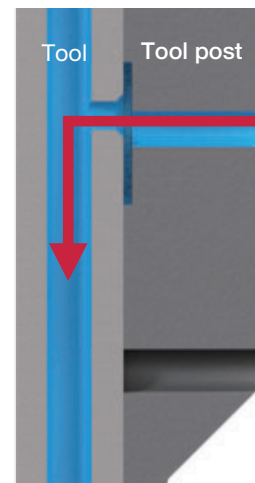
Tube-free design streamlines tool setup Through-coolant supply enables high productivity

Coolant is supplied from the tool post directly to the tools

Optional connection with
external coolant tube



Detailed view of the coolant
flow after connection



No need for coolant tube setup.
Eliminates chip entanglement on tubes and streamlines tool replacement.

L12



L20



D25



M32



DIRECTT^{UNO}JET
TUNGALOY



Machines for DirectTungJet system

DIRECT^{TUNG}JET system

TUNGALOY

Improvement of chip evacuation with DirectTungJet

M Stainless steel: External turning (SUS304)



Material : SUS304 / X5CrNi18-9
Holder : JSDJ2CR1212X11-CHP
Insert : DCGT11T302FN-JS SH725
Cutting speed : $V_c = 80$ m/min
Feed rate : $f = 0.03$ mm/rev
Depth of cut : $a_p = 1.5$ mm
Coolant type : Oil

DIRECT ^{TUNG} JET Through-coolant supply (at 7 MPa)	DIRECT ^{TUNG} JET Through-coolant supply (at 1.5 MPa)	External coolant at normal pressure

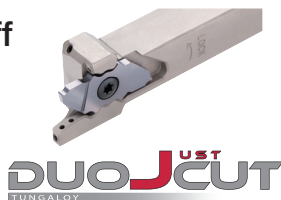
S Titanium alloy : Grooving (Ti-6Al-4V)



Material : Ti-6Al-4V
Holder : STCR1212X18-CHP
Insert : TCP18R200F-010 SH725
Cutting speed : $V_c = 100$ m/min
Feed rate : $f = 0.05$ mm/rev
Groove width : 2 mm
Groove depth : 2.5 mm
Coolant type : Oil

DIRECT ^{TUNG} JET Through-coolant supply (at 7 MPa)	DIRECT ^{TUNG} JET Through-coolant supply (at 1.5 MPa)	External coolant at normal pressure

M Stainless steel: Parting -off (SUS304)



Material : SUS304 / X5CrNi18-9
Holder : JSXXL1212X09-CHP
Insert : JXPG16L20F SH725
Cutting speed : $V_c = 100$ m/min
Feed rate : $f = 0.03$ mm/rev
Coolant type : Oil

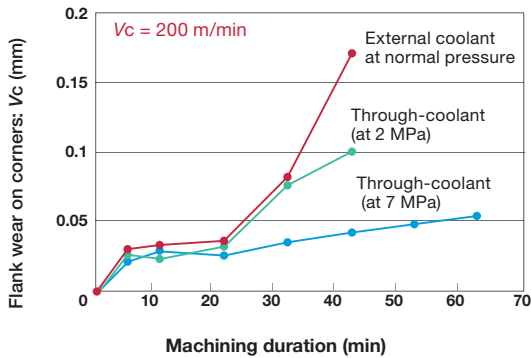
DIRECT ^{TUNG} JET Through-coolant supply (at 7 MPa)	DIRECT ^{TUNG} JET Through-coolant supply (at 1.5 MPa)	External coolant at normal pressure

Tool wear reduction with DirectTungJet

M Stainless steel: External turning (SUS304)

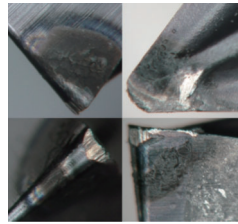


Material : SUS304 / X5CrNi18-9
Holder : JSDJ2CR1212X11-CHP
Insert : DCGT11T302FN-JS SH725
Cutting speed : $V_c = 200$ m/min
Feed rate : $f = 0.1$ mm/rev
Depth of cut : $a_p = 0.5$ mm
Coolant type : Oil

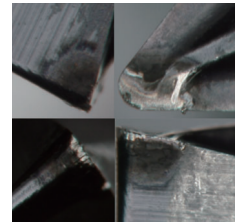


After machining for 40 min.

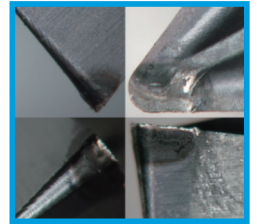
External coolant at normal pressure



DIRECTTJET
Through-coolant (at 2 MPa)



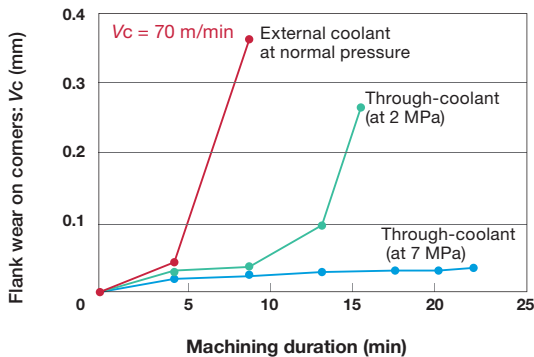
DIRECTTJET
Through-coolant (at 7 MPa)



S Titanium alloy: External turning (Ti-6Al-4V)

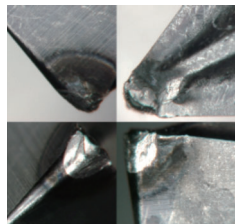


Material : Ti-6Al-4V
Holder : JSDJ2CR1212X11-CHP
Insert : DCGT11T302FN-JS SH725
Cutting speed : $V_c = 70$ m/min
Feed rate : $f = 0.1$ mm/rev
Depth of cut : $a_p = 0.5$ mm
Coolant type : Oil

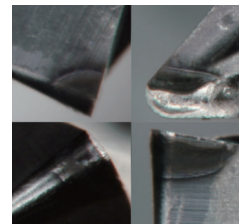


After machining for 10 min.

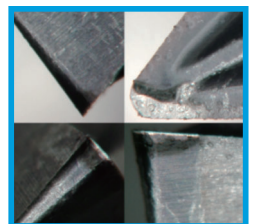
External coolant at normal pressure



DIRECTTJET
Through-coolant (at 2 MPa)



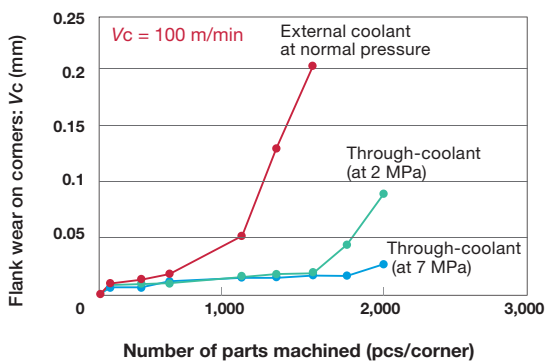
DIRECTTJET
Through-coolant (at 7 MPa)



M Stainless steel: Parting-off (SUS304)

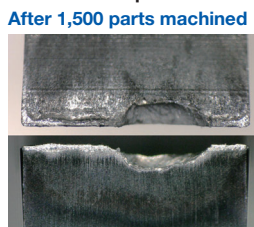


Material : SUS304 / X5CrNi18-9
Holder : JSXXL1212X09-CHP
Insert : JXPG16L20F SH725
Cutting speed : $V_c = 100$ m/min
Feed rate : $f = 0.03$ mm/rev
Coolant type : Oil

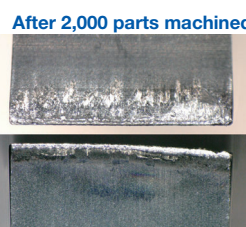


DUOJUST
TUNGALOY

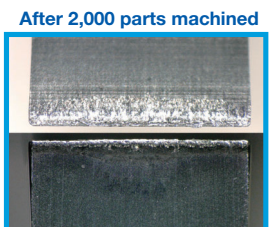
External coolant at normal pressure



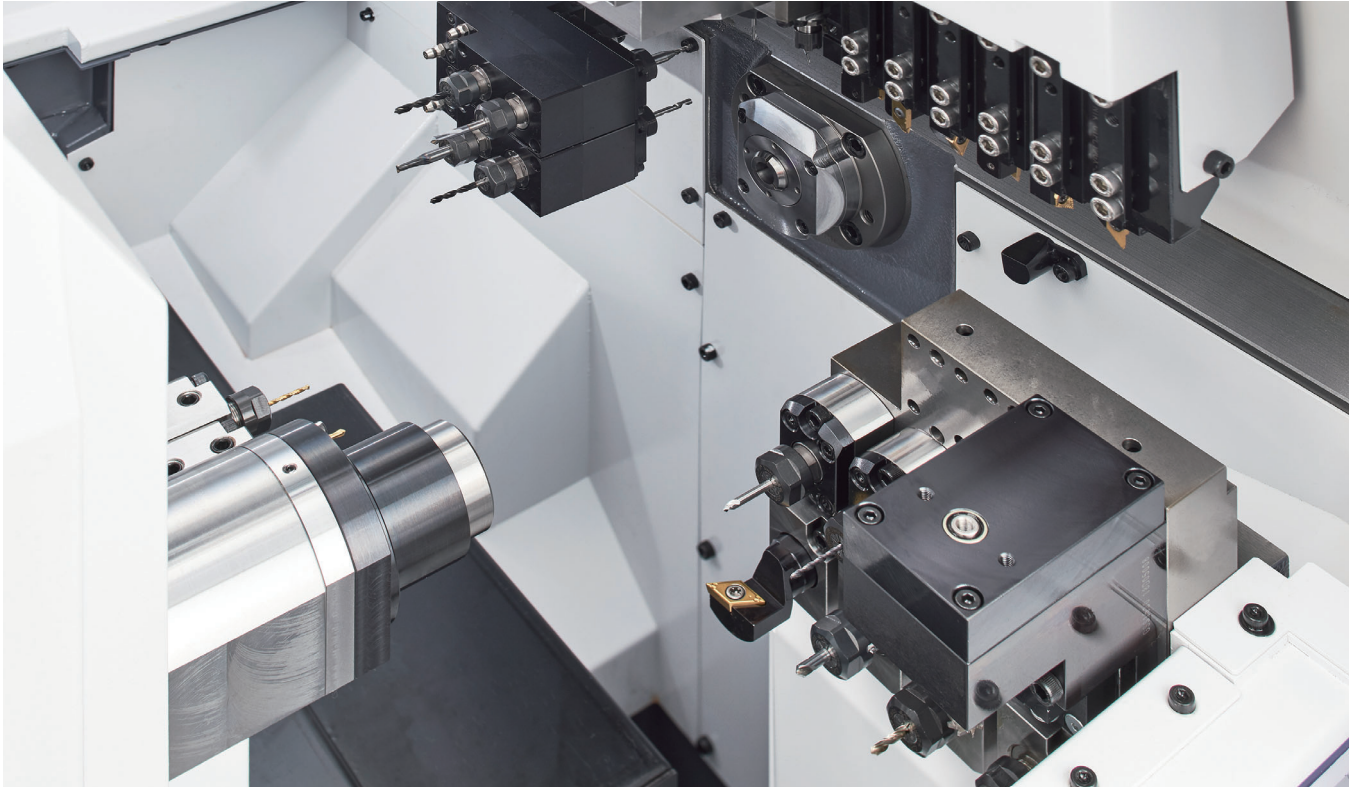
DIRECTTJET
Through-coolant (at 2 MPa)



DIRECTTJET
Through-coolant (at 7 MPa)



Modular Tooling System Adopted Y2 Axis Added for Greater Functionality



Sliding Headstock Type
CNC Automatic Lathe

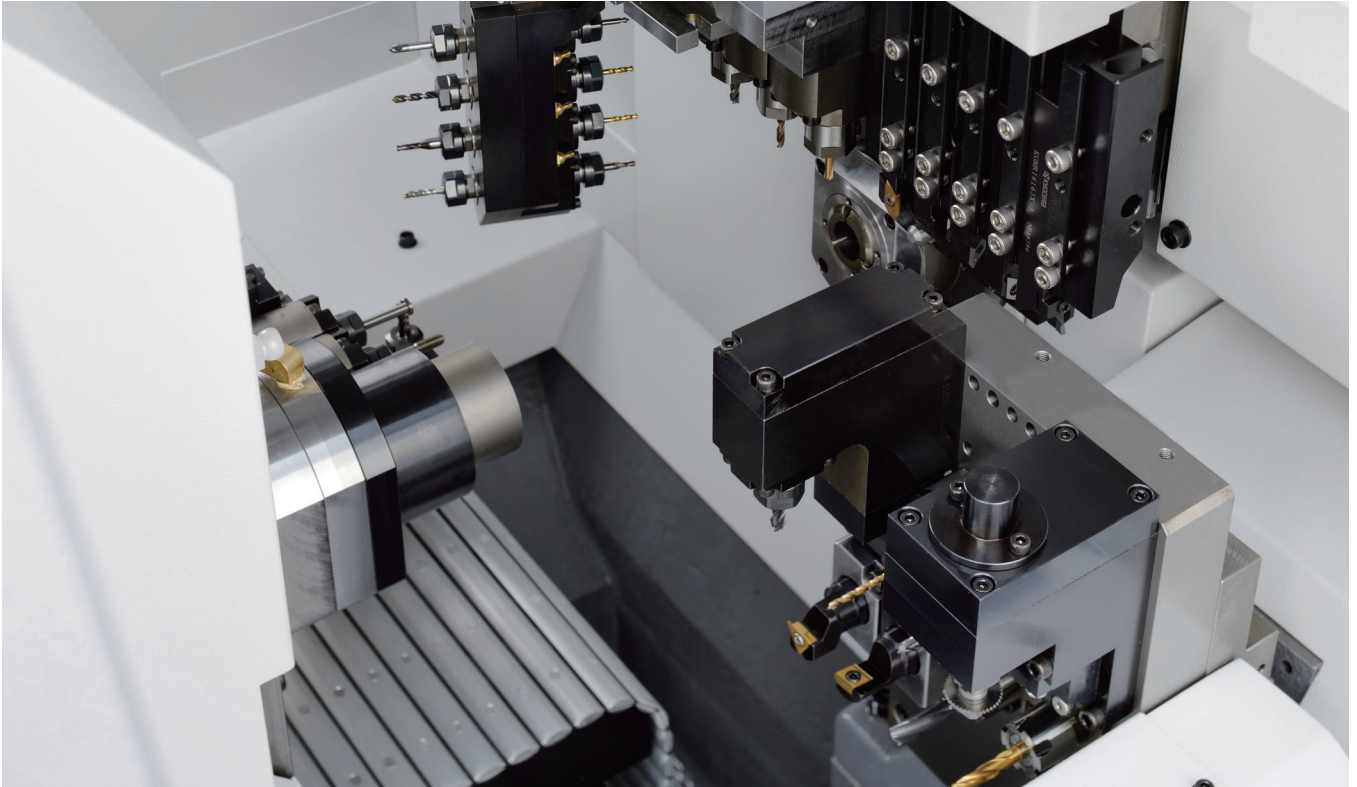
L12

Machine model	L12 X
Num. of axes/paths	6 axes, 2 path control systems
Maximum diameter machineable (mm)	ø12
Maximum length machineable (mm)	135 (GB)
	30 (GBL)
Spindle speed (min ⁻¹)	15,000
	12,000
Tool positions	38
Motor, spindle drive (kW)	2.2 / 3.7
Mountable tool sizes (mm)	□ 10 (Parting □ 12)
Sleeve diameter (mm)	ø19.05

- Versatile tooling layout achieved, including slanted hole machining with the angle adjustable end face spindle.
- Back machining capability enhanced by equipping the back spindle with a Y2 axis (Type X).
- Built-in motor adopted as the drive system for the back spindle: realizes a maximum spindle speed of 12,000 min⁻¹ (Type X)



Enhanced Tool Modularity



Sliding Headstock
Automatic CNC Lathe with
convertible guide bushing

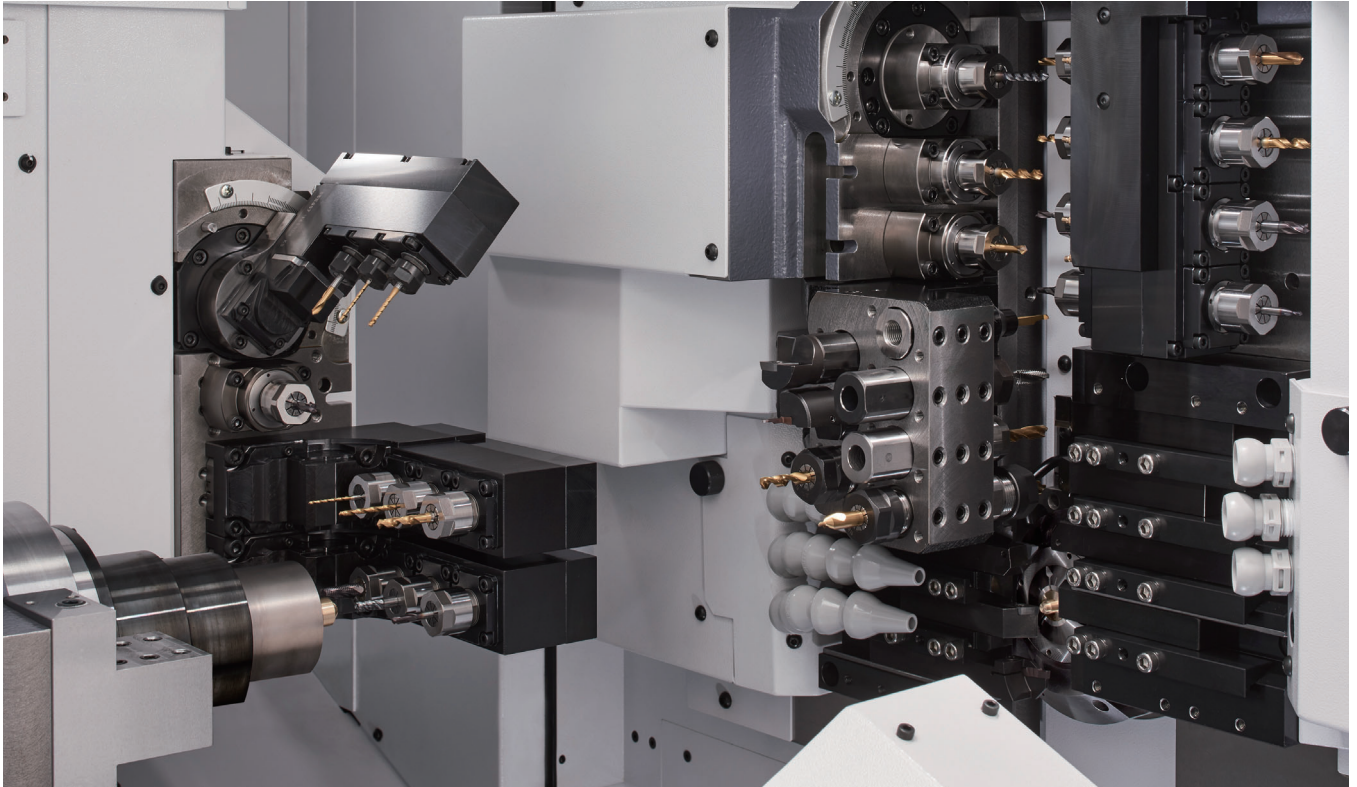
L20

Machine model	L20 VIII	L20 IX	L20X	L20 XII
Num. of axes/paths	5 axes, 2 path control systems	6 axes, 2 path control systems	6 axes, 2 path control systems	7 axes, 2 path control systems
Maximum diameter machineable (mm)	ø20 (ø25 optional)	ø20 (ø25 optional)	ø20 (ø25 optional)	ø20 (ø25 optional)
Maximum length machineable (mm)	200 (GB)	200 (GB)	200 (GB)	200 (GB)
	50 (GBL)	50 (GBL)	50 (GBL)	50 (GBL)
Spindle speed (min ⁻¹)	10,000	10,000	10,000	10,000
Tool positions	37	33	44	40
Motor, spindle drive (kW)	2.2 / 3.7	2.2 / 3.7	2.2 / 3.7	2.2 / 3.7
Mountable tool sizes (mm)	□ 12	□ 12	□ 12	□ 12
	(Parting □ 13, □ 16)	(Parting □ 13, □ 16)	(Parting □ 13, □ 16)	(Parting □ 13, □ 16)
Sleeve diameter (mm)	ø25 (GS107, 210) ø19.05	ø25 (GS107, 210) ø19.05	ø25 (GS107, 210) ø19.05	ø25 (GS107, 210) ø19.05

- 4 types of the L20 model are available, ranging from the cost-efficient 5-axis machine to the high-end type incorporating B-axis and Y-axis opposing tool post
- A convertible model : May be run with or without the guide bushing.



Double gang tool posts and B-axis Optimized tool setup for maximum productivity



Sliding Headstock Automatic CNC Lathe
with convertible guide bushing

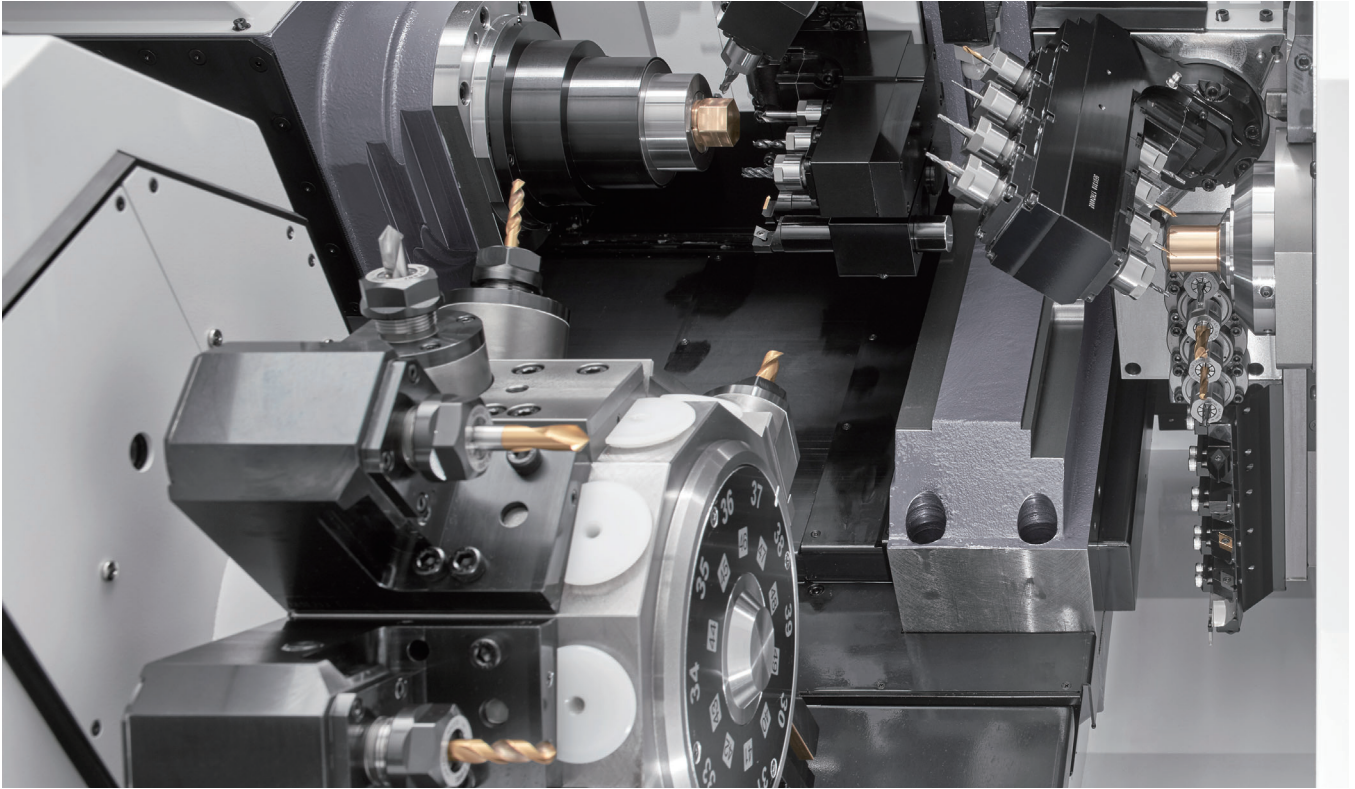
D25

Machine model	D25 VII	D25 VIII
Num. of axes/paths	9 axes, 3 path control systems	10 axes, 3 path control systems
Maximum diameter machineable (mm)	ø25	ø25
Maximum length machineable (mm)	250 (GB)	250 (GB)
	2.5D (GBL)	2.5D (GBL)
Spindle speed (min ⁻¹)	10,000	10,000
Tool positions	59	43
Motor, spindle drive (kW)	3.7 / 5.5	3.7 / 5.5
Mountable tool sizes (mm)	□ 16 (Parting □ 20)	□ 16 (Parting □ 20)
Sleeve diameter (mm)	ø25.4	ø25.4

- Incorporates double gang tool posts to minimize non-machining intervals.
- A maximum of 59 tools can be mounted on the multiple tool posts, enabling seamless machining.
- Three live tool posts minimizes total machining time.
- B-axis can be utilized to machine either front or back of the workpiece.
- Simultaneous 5-axis control abilities allow for contour-profiling, enhancing the flexibility of the automatic CNC lathe capability.



The new L32 -an 'icon' reinvented



Sliding Headstock Type
CNC Automatic Lathe

M32

Machine model	M32 V	M32 VII	M32 VIII
Num. of axes / paths	8 axes, 3 path control systems	9 axes, 3 path control systems	10 axes, 3 path control systems
Maximum diameter machineable (mm)	ø32 (ø38 optional)	ø32 (ø38 optional)	ø32 (ø38 optional)
Maximum length machineable (mm)	320 (GB) 2.5D (GBL)	320 (GB) 2.5D (GBL)	320 (GB) 2.5D (GBL)
Spindle speed (min ⁻¹)	8,000	8,000	8,000
Tool positions	31 + α	35 + α	36 + α
Motor, spindle drive (kW)	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5
Mountable tool sizes (mm)	☐ 16 (Parting ☐ 20)	☐ 16 (Parting ☐ 20)	☐ 16 (Parting ☐ 20)
Sleeve diameter (mm)	ø25.4	ø25.4	ø25.4

- Ranging from a 5-axis machine with excellent cost performance to a high-end machine equipped with B axis and back tool post Y axis.
- Workpiece conveyor equipped as standard.

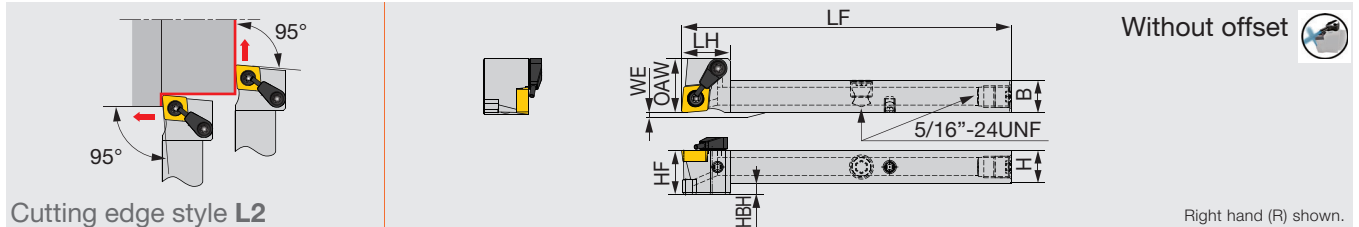


● For Turning / Facing

J-SERIES

JSCL2CR-CHP

Screw-on toolholder without offset, 95° approach angle for positive 80° rhombic inserts, high pressure coolant compatible



Designation	H	B	LF	LH	HF	HBH	WF	OAW	RE**	Insert	Torque*
JSCL2CR1212X09-CHP***	12	12	120	18	12	4	0	20	0.2	CC**09T3	1.2
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	0	20	0.2	CC**09T3	1.2

*Torque: Recommended torque (N-m) for clamping **RE: Standard corner radius

Note: Right-hand toolholders (R) are used with right-hand inserts (R). Left-hand toolholders (L) are used with left-hand inserts (L).

***: To be replaced with the new design

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSCL2CR**-CHP	CSTB-4SD	S-CU-CHP	T-8F	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

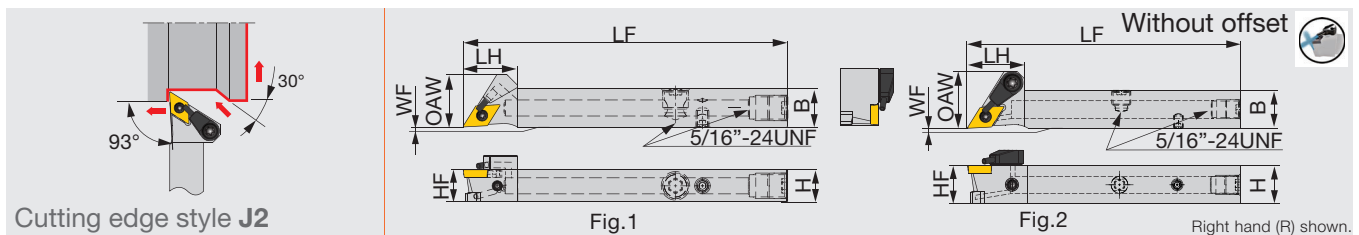
See page 16 for the proper tool overhang and plug settings.

● For External Turning

J-SERIES

JSDJ2CR-CHP

Screw-on toolholder without offset, 93° approach angle for positive 55° rhombic inserts, high pressure coolant compatible



	Designation	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque*	Fig.
New	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 torque (N-m) for clamping **RE: Standard corner radius

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	SSH4-4-TB	T-8F	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

SPARE PARTS

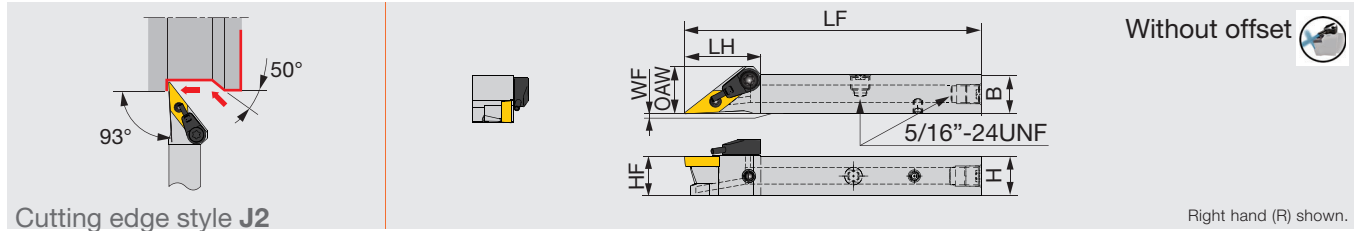
Designation	Clamping screw	Coolant unit	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSDJ2CR**11-CHP	CSTB-4SD	S-CU-CHP	T-8F	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

See page 16 for the proper tool overhang and plug settings.

J-SERIES

JSVJ2BR-CHP

Screw-on toolholder without offset, 93° approach angle for positive 35° rhombic inserts, high pressure coolant compatible



Designation	H	B	LF	LH	HF	WF	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

*Torque: Recommended torque (N-m) for clamping **RE: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSVJ2B**11-CHP	CSTB-2.5	S-CU-CHP	T-8F	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

See page 16 for the proper tool overhang and plug settings.

● For Turning / Facing

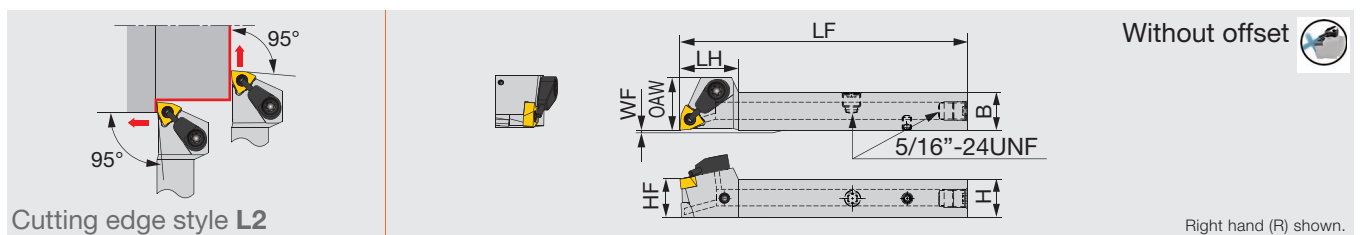
MINIFORCE

JSWL2XR-CHP

For more information



Screw-on toolholder without offset, 95° approach angle, for WXGU inserts, high pressure coolant compatible



Designation	H	B	LF	LH	HF	WF	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

*Torque: Recommended torque (N-m) for clamping **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**04-CHP	SR34-514	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

See page 16 for the proper tool overhang and plug settings.

● For External Turning

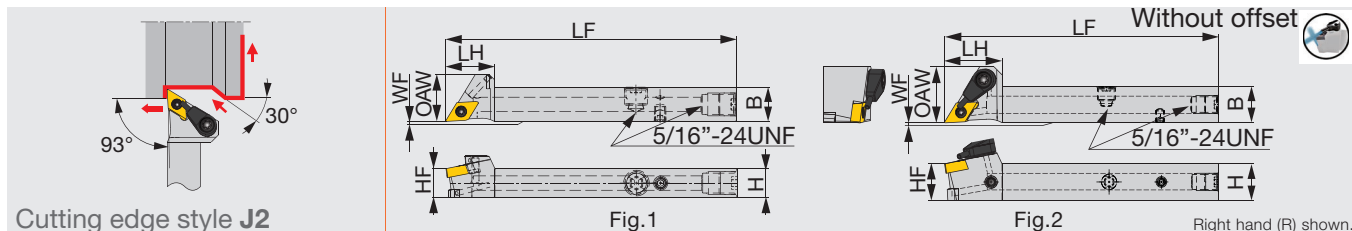
MINIFORCE

JSDJ2XR-CHP

For more information



Screw-on toolholder without offset, 93° approach angle, for DXGU inserts, high pressure coolant compatible



Designation	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque*	Fig.
New JSDJ2XR1012H07-CHP	10	12	100	17	10	0	16.4	0.2	DXGU0703**L	0.9	1
JSDJ2XR1212X07-CHP	12	12	120	19	12	0	18.5	0.2	DXGU0703**L	0.9	2
JSDJ2XR1616X07-CHP	16	16	120	19	16	0	18.5	0.2	DXGU0703**L	0.9	2

*Torque: Recommended torque (N-m) for clamping **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	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSDJ2XR1012H07-CHP	SR34-514	T-7F	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSDJ2XR**07-CHP	SR34-514	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

See page 16 for the proper tool overhang and plug settings.

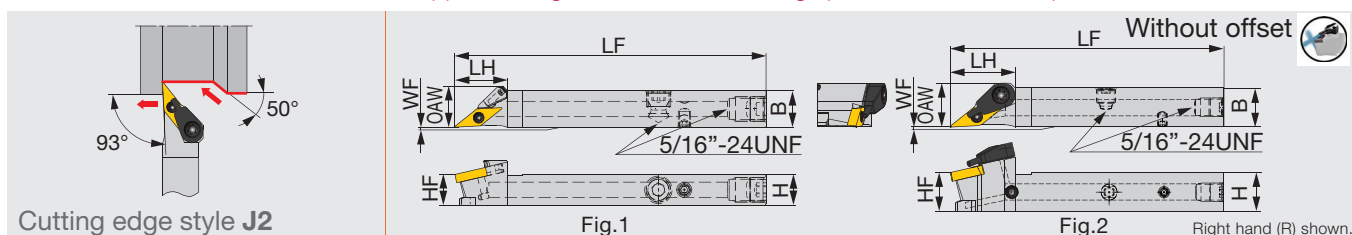


MINIFORCE

JSVJ2XR-CHP

For more information

Screw-on toolholder without offset, 93° approach angle, for VXGU inserts, high pressure coolant compatible



Designation	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque*	Fig.
New JSVJ2XR1012H07-CHP	10	12	100	17	10	0	13.4	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

*Torque: Recommended torque (N-m) for clamping **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	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSVJ2XR1012H07-CHP	SR34-508	T-7F	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSVJ2XR**F09-CHP	SR34-508	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

See page 16 for the proper tool overhang and plug settings.

● For Grooving and Threading

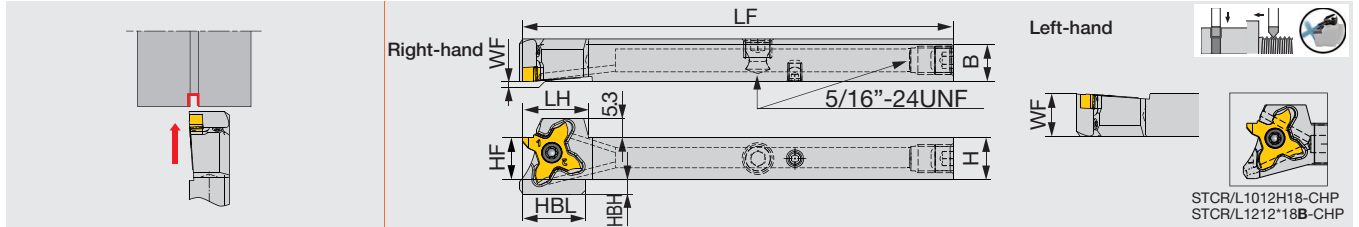
TETRAMCUT

STCR/L-18-CHP

For more information



External grooving and threading toolholder, high pressure coolant compatible



Designation	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque*
New STCR/L1012H18-CHP	10	12	100	17.1	17.1	10	0/12	4	TC**18	1.2
STCR/L1212X18-CHP***	12	12	120	18.5	17.5	12	0/12	4	TC**18	1.2
STCR/L1212X18B-CHP	12	12	120	18.5	17.5	12	0/12	4	TC**18	1.2
STCR/L1616X18-CHP	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 torque (N-m) for clamping

***: To be replaced with the new design

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

Groove width range : 0.33 ~ 3.0 mm

Threading pitch range : 0.8 ~ 3.0 mm

See page 16 for the proper tool overhang and plug settings.

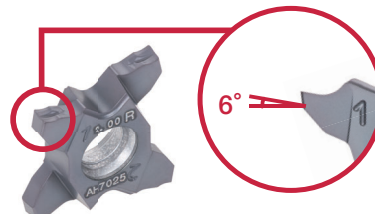
Grooving

TCS type (3D chipbreaker)



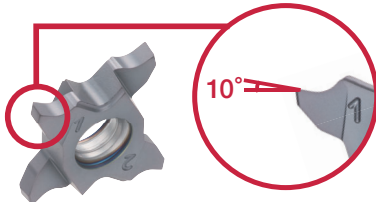
- The chipbreaker incorporates a dimple-like recess on the rake face to facilitate smooth chip flow with light cutting action
- The chipbreaker ensures low cutting force, providing reliable chip flow at low feed rates

TCS type (3D chipbreaker)



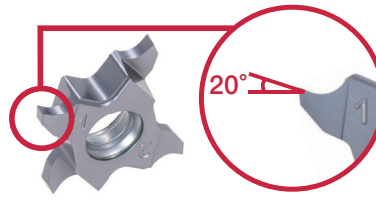
- The chipbreaker incorporates a dimple-like recess on the rake face to facilitate smooth chip flow with light cutting action

TCG type (Honed edge)



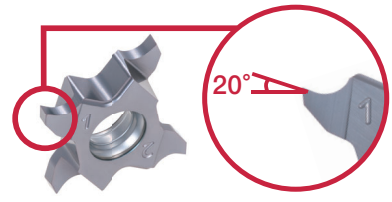
- Optimized rake angle and edge preparation enhances fracture resistance, allowing for smooth cutting
- AH7025 grade features a superior combination of wear and fracture resistances

TCP type (Lightly honed edge)



- A large rake angle ensures smooth cutting for excellent surface finish
- The insert in grade AH725 features a tough edge preparation for high resistance to fracture

TCP-F type (Sharp edge)



- High quality surface finish and precision thanks to the sharp cutting edge
- A quality level equivalent to that with cermet is achievable
- An extremely hard coating layer on grade SH725 provides sharp cutting edges, making it perfect for small part grooving

Threading

TCT type



Full-profile insert

- Full profile inserts for burr-less threading are newly added.
Pitch : 0.5 - 1.5 mm.
- Sharp cutting edge for reduced cutting load, improving thread surface quality
- Suitable for thread pitches ranging from 0.4 mm to 3 mm

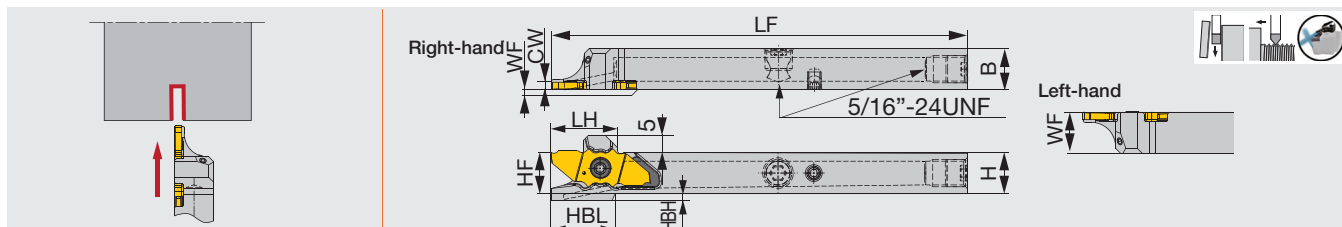
● For Parting-off and Threading

DUOJUST
JSXXR/L-CHP

For more information



Parting and threading toolholder, high pressure coolant compatible



	Designation	CW	H	B	WF	LF**	HF	HBH	LH**	HBL**	Insert	Torque*
New	JSXXR/L1012H09-CHP	1 - 2	10	12	0.2/11.8	≤ 102	10	3	≤ 19.2	18.7	JX**06...,12...,16..., 20...	1.2
	JSXXR/L1212X09-CHP	1 - 2	12	12	0.2/11.8	≤ 120	12	2	≤ 19.4	18.8	JX**06...,12...,16..., 20...	1.2
	JSXXR/L1616X09-CHP**	1 - 2	16	16	0.2/15.8	≤ 120	16	2.5	≤ 19.4	18.7	JX**06...,12...,16..., 20...	1.2
	JSXXR/L1616X09B-CHP	1 - 2	16	16	0.2/15.8	≤ 120	16	0	≤ 19.4	18.7	JX**06...,12...,16..., 20...	1.2

*Torque: Recommended torque (N-m) for clamping

LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JX16... insert. LF, LH, and HBL will all be 2 mm shorter than the above values with JX**12... and JX**20... inserts, and 4 mm shorter for JX**06... insert.

***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	Coolant plug	Wrench	DirectTungJet plug	Wrench
JSXXR...	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2
JSXXL...	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

Parting-off widths : 1.0 mm and 1.5 mm (for a max parting diameter of ø6 mm)

: 1.5 mm and 2.0 mm (for max parting diameters of ø12 mm, ø16 mm, ø20 mm)

Threading pitch range : 0.2 ~ 1.5 mm

See page 16 for the proper tool overhang and plug settings.

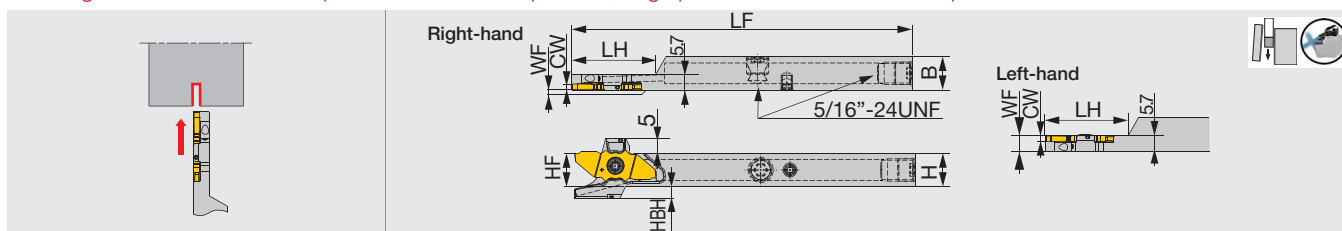
● For Parting-off

DUOJUST
JSXXR/L-S-CHP

For more information



Parting-off toolholder, capable with sub spindle, highpressure coolant compatible



	Designation	CW	H	B	WF	LF**	HF	HBH	LH**	Insert	Torque*
	JSXXR/L1212X09-S-CHP***	1 - 2	12	12	0.2/5.5	≤ 120	12	4	26	JX**06...,12...,16..., 20...	1.2
	JSXXR/L1212X09B-S-CHP	1 - 2	12	12	0.2/5.5	≤ 120	12	2	26	JX**06...,12...,16..., 20...	1.2
	JSXXR/L1616X09-S-CHP***	1 - 2	16	16	0.2/5.5	≤ 120	16	1.5	30	JX**06...,12...,16..., 20...	1.2
	JSXXR/L1616X09B-S-CHP	1 - 2	16	16	0.2/5.5	≤ 120	16	0	30	JX**06...,12...,16..., 20...	1.2

*Torque: Recommended torque (N-m) for clamping

LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JX16... insert. LF, LH, and HBL will all be 2 mm shorter than the above values with JX**12... and JX**20... inserts, and 4 mm shorter for JX**06... insert.

***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	Coolant plug	Wrench	DirectTungJet plug	Wrench
JSXXR***-S-CHP	CSTC-4L055DL	T-1008/5	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2
JSXXL***-S-CHP	CSTC-4L055DR	T-1008/5	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

Parting-off widths : 1.0 mm and 1.5 mm (for a max parting diameter of ø6 mm)

: 1.5 mm and 2.0 mm (for max parting diameters of ø12 mm, ø16 mm, ø20 mm)

See page 16 for the proper tool overhang and plug settings.

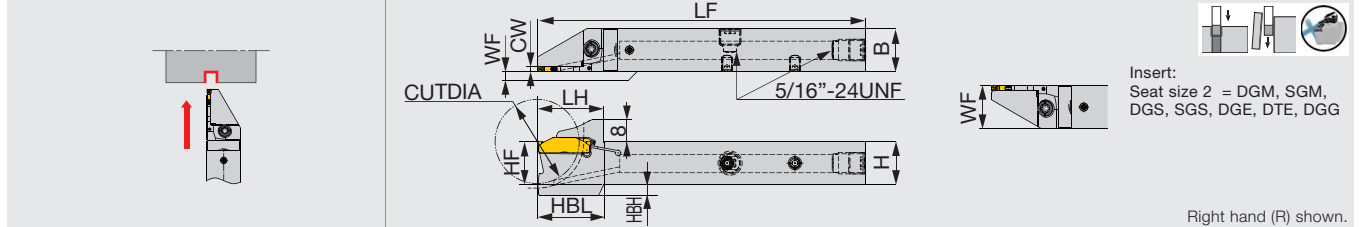


TUNGALLOY

JCTER/L-CHP

For more information

External grooving and parting-off toolholder, high pressure coolant compatible



Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HBL	HF	WF ⁽¹⁾	HBH	Torque*
JCTER/L1212X2T12-CHP	2	2	25	12	12	120	24.5	25.4	12	0/12	5	3.0
JCTER/L1616X2T12-CHP	2	2	25	16	16	120	24.5	25.4	16	0/16	1	3.0
JCTER/L1616X2T16-CHP	2	2	32	16	16	120	24.5	25.4	16	0/16	4	3.0
JCTER/L2020X2T16-CHP	2	2	32	20	20	120	24.5	25.4	20	0/20	0	3.0

(1) "WF" value is calculated with groove width "WF" shown in the table. • CUTDIA: Max. parting off dia.

*Torque: Recommended torque (N·m) for clamping

SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JCTER/L...	CSHB-4-A	T-15F	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

Groove width: 2.0 mm

See page 16 for the proper tool overhang and plug settings.

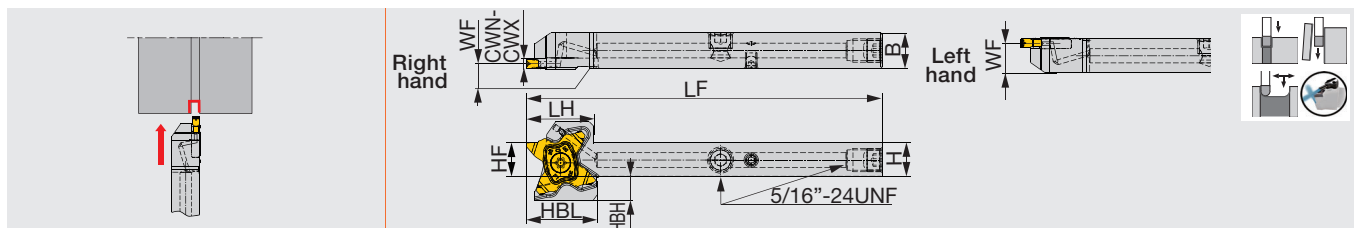
TETRAFORCE

STCR/L-27-CHP

For more information



Grooving and parting-off toolholder. High pressure coolant capability.



Designation	CWN	CWX	H	B	LF	LH	HF	WF ⁽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

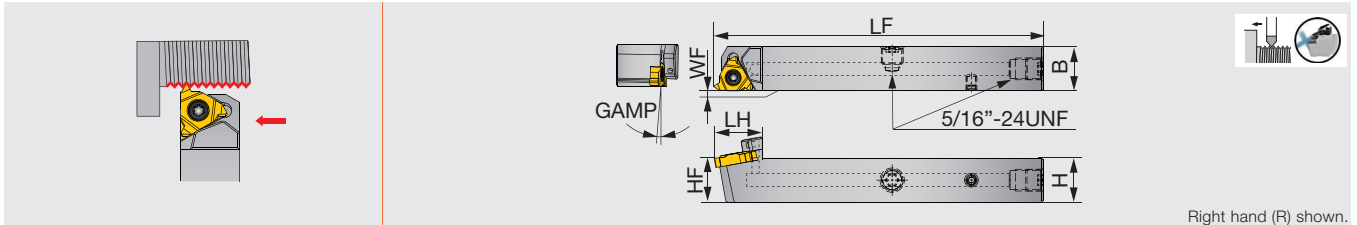
*Torque: Recommended torque (N·m) for clamping

(1) The above WF value is valid when an insert width of CW=3 is mounted.

SPARE PARTS

Designation	Screw	Wrench	Coolant plug	Wrench	DirectTungJet plug	Wrench
STCR...-27-CHP	SR16-212-01397L	T-2010/5	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2
STCL...-27-CHP	SR16-212-01397	T-2010/5	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

See page 16 for the proper tool overhang and plug settings.



Right hand (R) shown.

Designation	H	B	LF	LH	HF	WF	GAMP	Insert
JSE2R1212X16-CHP	12	12	120	19	12	0	1°	16ER...
JSE2R1616X16-CHP	16	16	120	19	16	0	1°	16ER...

SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectTungJet plug	Wrench
JSE2R**16-CHP	CSTB-3.5	T-15F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

See page 16 for the proper tool overhang and plug settings.

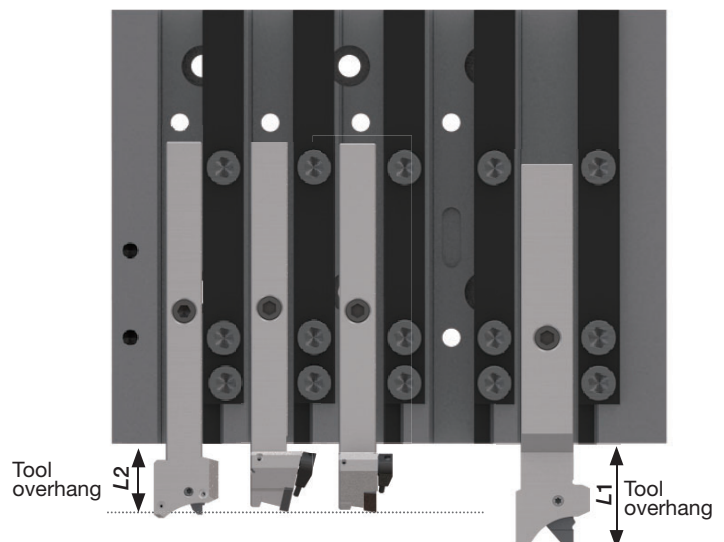
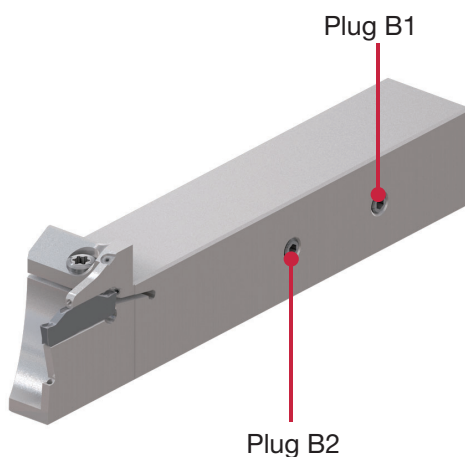
Tool settings on the tool post

- When using through-coolant, always set the tool to a proper overhang as specified in the table below.
- Remove the plug as specified below for proper through-coolant usage.

Machine model	Grooving tool		Other stationary tools	
	Overhang L1 (mm)	Coolant plug to remove	Overhang L2 (mm)	Coolant plug to remove
L12	17.5 (for 10X12 mm shank)	1*	17.5 (for 10X12 mm shank)	1*
L20	30 (for 16X16 mm shank)	B1	20 (for 12X12 mm shank)	1*
D25, M32	25 (for 20X20 mm shank)	B1	25 (for 16X16 mm shank, JSXX and JCTE styles)	B1
			25 (for 16X16 mm shank, other styles than above)	1*

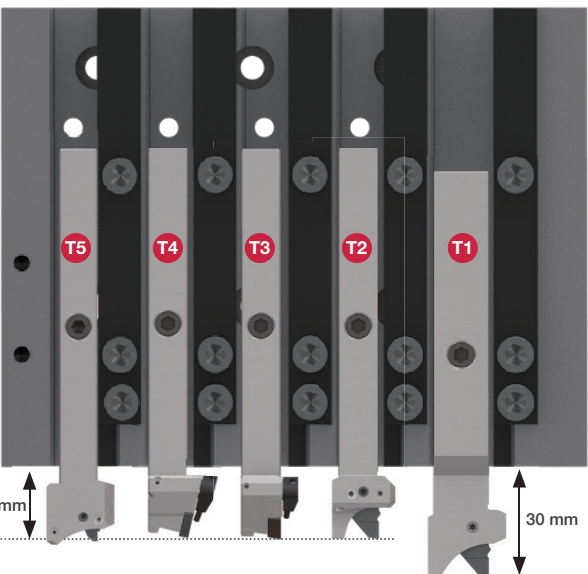
* Only one coolant inlet on the toolholder

** 12x12 holder can also be used by shimming with a 4 mm shim



Tooling Examples

For Model L20 (compatible with the DirectTung-Jet system)



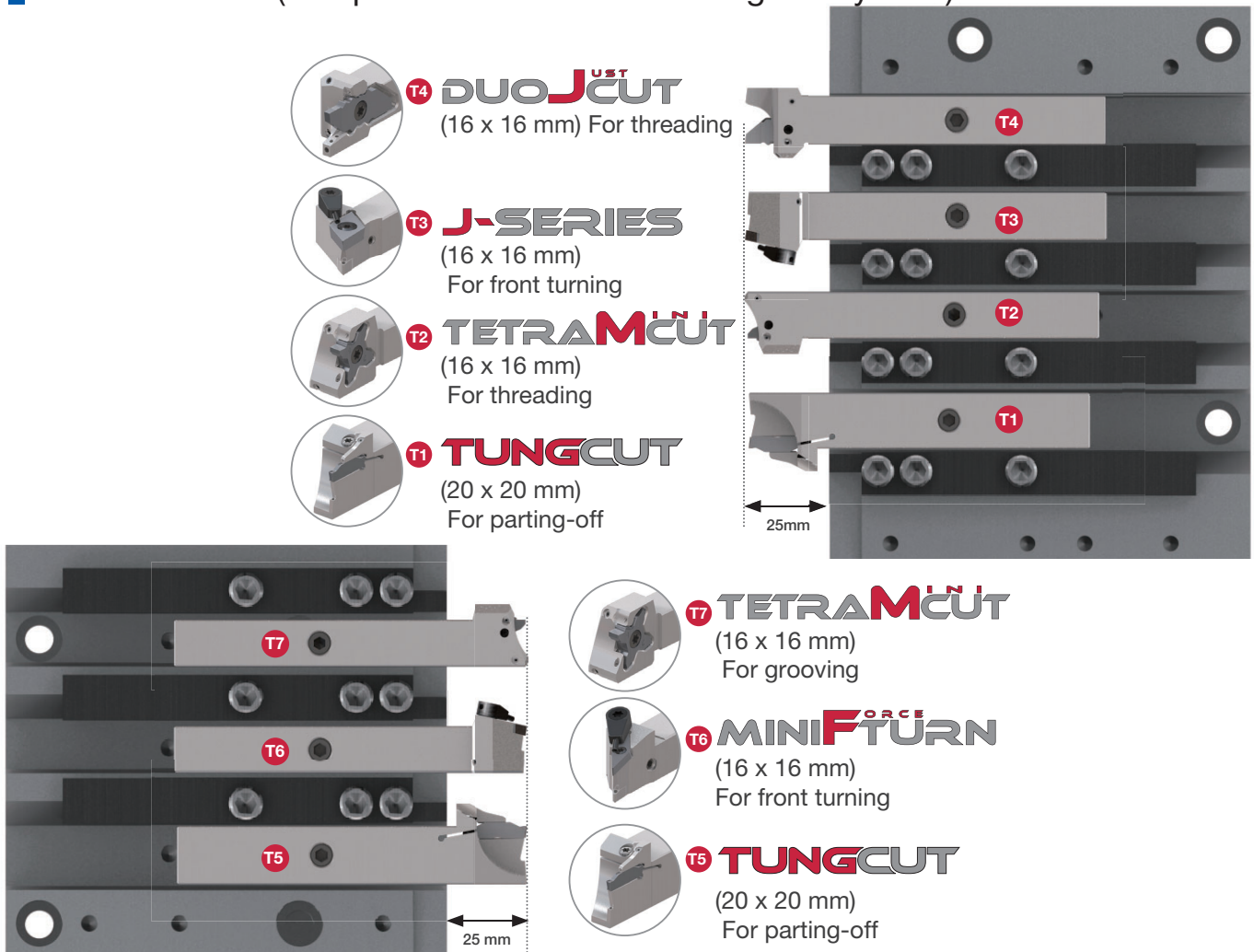
20 mm

30 mm

Coolant is supplied to Post T1 through Post T5 in a single system. If more than two coolant supply systems are required, please consult your Cincom agent.

- T1 DUOJ^{UST}CUT**
(16 x 16 mm) For parting-off (for sub spindle)
- T2 DUOJ^{UST}CUT**
(12 x 12 mm) For threading
- T3 J-SERIES**
(12 x 12 mm) For front turning
- T4 MINIF^{ORCE}TURN**
(12 x 12 mm) For front turning
- T5 TETRAM^{IN}CUT**
(12 x 12 mm) For grooving

For Model D25 (compatible with the DirectTung-Jet system)



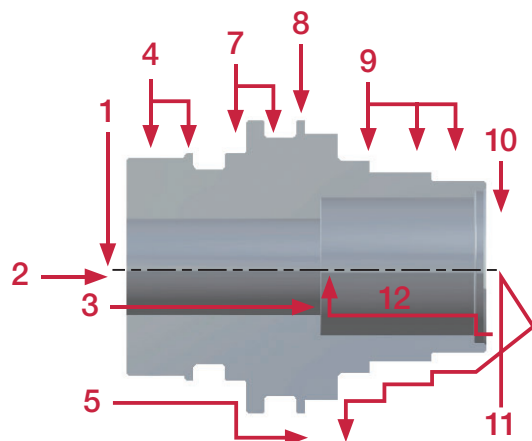
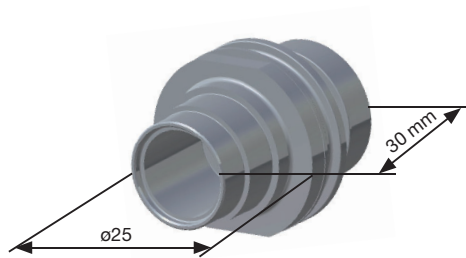
25mm

25 mm

- T4 DUOJ^{UST}CUT**
(16 x 16 mm) For threading
- T3 J-SERIES**
(16 x 16 mm) For front turning
- T2 TETRAM^{IN}CUT**
(16 x 16 mm) For threading
- T1 TUNG^{IN}CUT**
(20 x 20 mm) For parting-off
- T7 TETRAM^{IN}CUT**
(16 x 16 mm) For grooving
- T6 MINIF^{ORCE}TURN**
(16 x 16 mm) For front turning
- T5 TUNG^{IN}CUT**
(20 x 20 mm) For parting-off

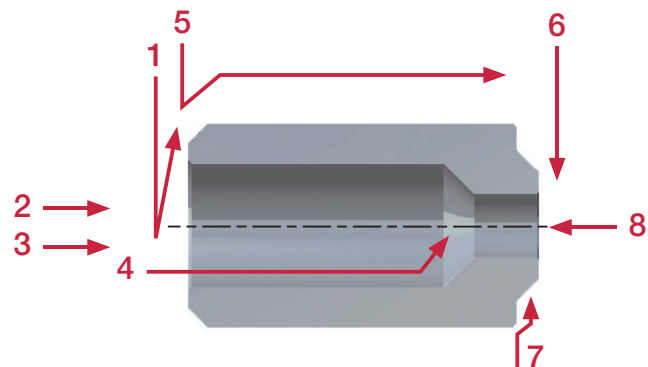
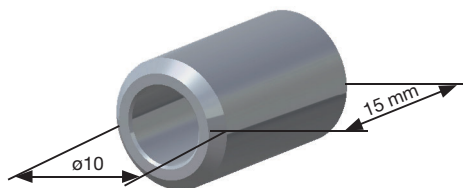
Coolant is supplied in a single system to Post T1 through Post T4 in a single system.

■ Shaft (stainless steel)



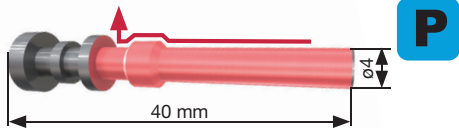
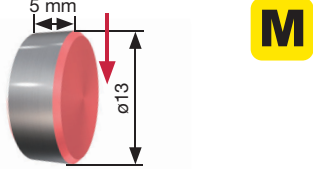
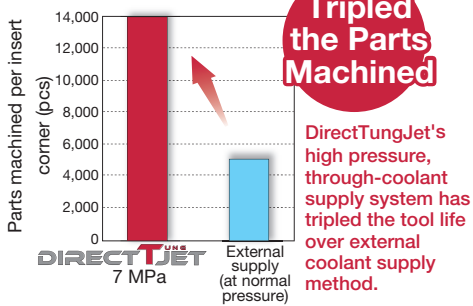
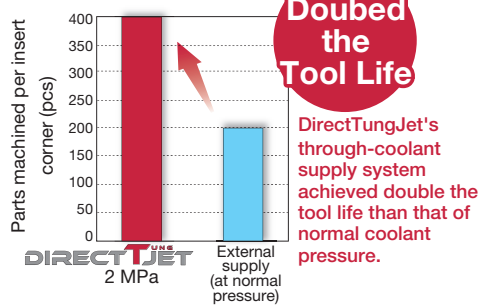
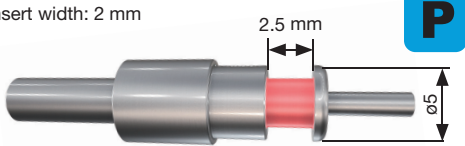
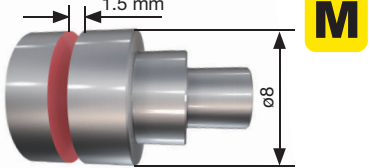
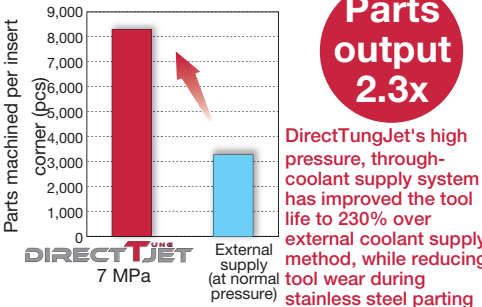
MINIFORCE TURN 1 and 5: Facing and OD turning, ø16 mm 11: Facing and OD turning, ø15 mm	SOLIDDRILL 2: Drilling, ø7 mm STREAMJETBAR 3 and 12: Boring, ø8 mm	TUNG CUT 4 and 9: Groove-turning, w/4 mm thick insert 10: Cutting off, w/2 mm insert
TUNG M^{INI} THREAD 6: Threading, M18 x 1.0	TETRAMCUT 7: Facing and grooving, 3 mm thick	TUNGMEISTER 8: Spotfacing flats

■ Plunger (stainless steel)



MINIFORCE TURN 1 and 5: Facing and OD turning, ø10 mm	SOLIDDRILL 2: Drilling, ø7 mm	GIGAMINIDRILL 3: Drilling, ø2.9 mm
DUOJUST CUT 6: Cutting off, ø10 mm	MINIFORCE TURN 7: Facing, ø10 mm	TINY M^{INI} TURN 4: Boring, ø4.5 mm 8: Boring, ø3 mm

Practical examples

Workpiece type		Shaft	Valve part
Toolholder		JSDJ2CR1212X11-CHP	JSDJ2CR1212X11-CHP
Insert		DCGT11T301FN-JS	DCMT11T304-PSS
Grade		SH730	AH905
Workpiece material		S45C / C45	SUH660
			
Cutting conditions	Cutting speed : V_c (m/min)	100	50
	Feed : f (mm/rev)	0.02	0.05
	Depth of cut : a_p (mm)	2	0.15
	Machining	External turning	Face turning
	Coolant	Oil	Oil
Results		 Tripled the Parts Machined DirectTungJet's high pressure, through-coolant supply system has tripled the tool life over external coolant supply method.	 Doubled the Tool Life DirectTungJet's through-coolant supply system achieved double the tool life than that of normal coolant pressure.
Workpiece type		Shaft	Injection part
Toolholder		STCR1212X18-CHP	JSXXR1212X09-CHP
Insert		TCP18R200F-010	JXPG16R15F
Grade		SH725	SH725
Workpiece material		S15C / C15E / C15E4	SUS304 / X5CrNi18-9
			
Cutting conditions	Cutting speed : V_c (m/min)	95	120
	Feed : f (mm/rev)	0.03	0.08
	Depth of cut : a_p (mm)	2.5	Part-off diameter: $\phi 8$ mm
	Machining	External grooving	Parting off
	Coolant	Oil	Oil
Results		 External supply (at normal pressure)  DirectTungJet 1.5 MPa No chip packing in the workpiece Thanks to its high pressure coolant jet system, DirectTungJet has improved the chip evacuation, eliminating the post-work chip cleaning process.	 Parts output 2.3x DirectTungJet's high pressure, through-coolant supply system has improved the tool life to 230% over external coolant supply method, while reducing tool wear during stainless steel parting operation.

Tungaloy Corporation (Head office)

11-1 Yoshima-Kogyodanchi
Iwaki-city, Fukushima 970-1144 Japan
Phone: +81-246-36-8501
Fax: +81-246-36-8542
www.tungaloy.co.jp

Tungaloy America, Inc.

3726 N Ventura Drive
Arlington Heights, IL 60004, U.S.A.
Phone: +1-888-554-8394
Fax: +1-888-554-8392
www.tungaloy.com/us

Tungaloy Canada

432 Elgin St. Unit 3
Brantford, Ontario N3S 7P7, Canada
Phone: +1-519-758-5779
Fax: +1-519-758-5791
www.tungaloy.com/ca

Tungaloy de Mexico S.A.

C Los Arellano 113,
Parque Industrial Siglo XXI
Aguascalientes, AGS, Mexico 20290
Phone: +52-449-929-5410
Fax: +52-449-929-5411
www.tungaloy.com/mx

Tungaloy do Brasil Ltda.

Avd. Independencia N4158 Residencial Flora
13280-000 Vinhedo, São Paulo, Brasil
Phone: +55-19-38262757
Fax: +55-19-38262757
www.tungaloy.com/br

Tungaloy Germany GmbH

An der Alten Ziegelei 1
D-40789 Monheim, Germany
Phone: +49-2173-90420-0
Fax: +49-2173-90420-19
www.tungaloy.com/de

Tungaloy France S.A.S.

ZA Courtaboeuf - Le Rio
1 rue de la Terre de feu
F-91952 Courtaboeuf Cedex, France
Phone: +33-1-6486-4300
Fax: +33-1-6907-7817
www.tungaloy.com/fr

Tungaloy Italia S.r.l.

Via E. Andolfato 10
I-20126 Milano, Italy
Phone: +39-02-252012-1
Fax: +39-02-252012-65
www.tungaloy.com/it

Tungaloy Czech s.r.o.

Turanka 115
CZ-627 00 Brno, Czech Republic
Phone: +420-532 123 391
Fax: +420-532 123 392
www.tungaloy.com/cz

Tungaloy Ibérica S.L.

C/Miquel Servet, 43B, Nau 7
Pol. Ind. Bufalvent
ES-08243 Manresa (BCN), Spain
Phone: +34 93 113 1360
Fax: +34 93 876 2798
www.tungaloy.com/es

Tungaloy Scandinavia AB

Bultgatan 38
442 40 Kungälv, Sweden
Phone: +46-462119200
Fax: +46-462119207
www.tungaloy.com/se

Tungaloy Rus, LLC

Andropova avenue, h.18/7,
11 floor, office 3, 115432,
Moscow, Russia
Phone: +7-499-683-01-80
Fax: +7-499-683-01-81
www.tungaloy.com/ru

Tungaloy Polska Sp. z o.o.

Ul. Irysowa 1, 55-040 Bielany
Wrocławskie, Poland
Phone: +48 607 907 237
www.tungaloy.com/pl

Tungaloy U.K. Ltd

Gallan Park, Watling Street,
Cannock, WS110XG, UK
Phone: +44 121 4000 231
Fax: +44 121 270 9694
www.tungaloy.com/uk

Tungaloy Hungary Kft

Erzsébet királyné útja 125
H-1142 Budapest, Hungary
Phone: +36 1 781-6846
Fax: +36 1 781-6866
www.tungaloy.com/hu

Tungaloy Turkey

Serifali Mah. bayraktar Bulvarı Kule Sk. No:26
34775 Umraniye / Istanbul / Turkey
Phone: +90 216 540 04 67
Fax: +90 216 540 04 87
www.tungaloy.com/tr

Tungaloy Benelux b.v.

Tjalk 70
NL-2411 NZ Bodegraven, Netherlands
Phone: +31 172 630 420
Fax: +31 172 630 429
www.tungaloy.com/nl

Tungaloy Croatia

Ulica bana Josipa Jelačića 87,
10430, Samobor, Croatia
Phone: +385 1 3326 604
Fax: +385 1 3327 683
www.tungaloy.com/hr

Tungaloy Cutting Tool (Shanghai) Co., Ltd.

Rm No 401 No.88 Zhabei
Jiangchang No.3 Rd
Shanghai 200436, China
Phone: +86-21-3632-1880
Fax: +86-21-3621-1918
www.tungaloy.com/cn

Tungaloy Cutting Tools (Taiwan) Co., Ltd.

9F. No.293, Zhongyang Rd,
Xinzhuang Dist, New Taipei City,
24251 Taiwan
Phone: +886-2-8521-9986
Fax: +886-2-8521-8935
www.tungaloy.com/tw

Tungaloy Cutting Tools (Thailand) Co., Ltd.

Interlink tower 4th Fl.
1858/5-7 Bangna-Trad Road
km.5 Bangna, Bangna, Bangkok 10260
Thailand
Phone: +66-2-751-5711
Fax: +66-2-751-5715
www.tungaloy.com/th

Tungaloy Singapore (Pte.), Ltd.

62 Ubi Road 1, #06-11 Oxley BizHub 2
Singapore 408734
Phone: +65-6391-1833
Fax: +65-6299-4557
www.tungaloy.com/sing

Tungaloy Vietnam

LE04.38, Lexington Residence
67 Mai Chi Tho St., Dist. 2,
Ho Chi Minh City, Vietnam
Phone: +84-2837406660
www.tungaloy.com/sing

Tungaloy India Pvt. Ltd.

Indiabulls Finance Centre,
Unit # 902-A, 9th Floor,
Tower 1, Senapati Bapat Marg,
Elphinstone Road (West),
Mumbai -400013, India
Phone: +91-22-6124-8804
Fax: +91-22-6124-8899
www.tungaloy.com/in

Tungaloy Korea Co., Ltd

#1312, Byucksan Digital Valley 5-cha
Beotkot-ro 244, Geumcheon-gu
153-788 Seoul, Korea
Phone: +82-2-2621-6161
Fax: +82-2-6393-8952
www.tungaloy.com/kr

Tungaloy Malaysia Sdn Bhd

50 K-2, Kelana Mall, Jalan SS6/14
Kelana Jaya, 47301
Petaling Jaya, Selangor Darul Ehsan
Malaysia
Phone: +603-7805-3222
Fax: +603-7804-8563
www.tungaloy.com/my

Tungaloy Australia Pty Ltd

Unit 68 1470 Ferntree Gully Road
Knoxfield 3180 Victoria, Australia
Phone: +61-3-9755-8147
Fax: +61-3-9755-6070
www.tungaloy.com/au

PT. Tungaloy Indonesia

Kompleks Grand Wisata Block AA-10 No.3-5
Cibitung
Bekasi 17510, Indonesia
Phone: +62-21-8261-5808
Fax: +62-21-8261-5809
www.tungaloy.com/id



www.tungaloy.com

follow us at:

facebook.com/tungaloyjapan
twitter.com/tungaloyjapan
www.youtube.com/tungaloycorporation



AS9100 Certified
78006
2015.11.04
ISO14001 Certified
EC97J1123
1997.11.26

Distributed by:



FIND US ON THE CLOUD!
machiningcloud.com

