

Threading Tool



Threading Tool - Content structure

- Products are listed by product series and thread shape to be machined.
- Inserts and toolholders in the catalog are our standard stock items.

How to use the page

Method ① Select the thread form/type described at the left end of each page, jump to the page on the left index, and choose a designation you need (5) in the dimension table (6). Applicable toolholders are shown in (7).

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.

[illegible]

- | | |
|---|--|
| ① : Screw shape | ⑤ : Designation (for external, for internal) |
| ② : Series name | ⑥ : Dimension table (conforming to ISO13399) |
| ③ : Drawing of thread, threading insert, threading toolholder | ⑦ : Applicable toolholder |
| ④ : Applicable pitch and the number of threads | ⑧ : Spare parts |
| | ⑨ : Reference page |

When ordering

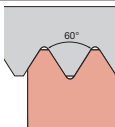
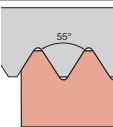
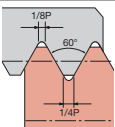
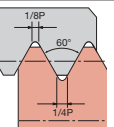
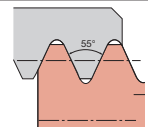
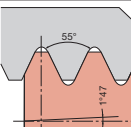
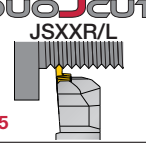
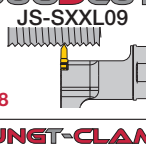
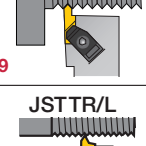
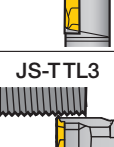
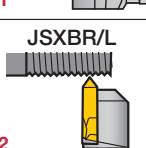
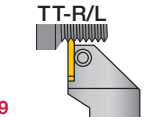
- Please specify the designation and quantity for threading toolholders.
e.g. **SIR0500M16B ... 1** (one threading toolholder per package)
- Please specify the designation, grade, and quantity for threading inserts.
e.g. **16IR175ISO AH725 ... 5** (five threading inserts per package)

Main products

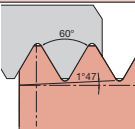
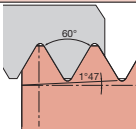
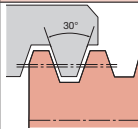
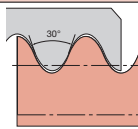
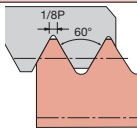
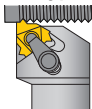
Thread form	
60°	E010
55°	E014
M (Metric)	E016
UN (Unified)	E018
W (Whitworth)	E020
BSPT (R, PT)	E021
NPT	E022
NPTF	E023
TR (Metric, 30° Trapezoidal)	E024
Round (DIN405)	E024
UNJ	E025
MJ	E025
ACME (29° Trapezoidal)	E026
STUB ACME (29° Trapezoidal)	E027
API Round	E028
API Butress	E029
API Rotary Shoulder Connection	E031

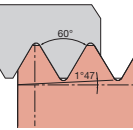
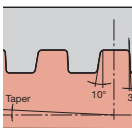
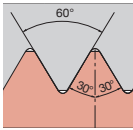
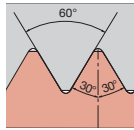
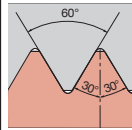
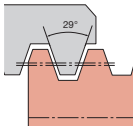
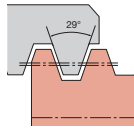
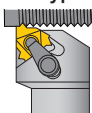
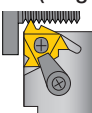
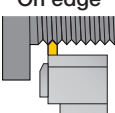
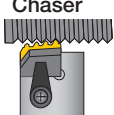
			Inch	Metric
	TUNGTHREAD Lay down insert, toolholder Standard items cover a wide variety of threading inserts. Standard tool series with double-clamp system for excellent insert stability in machining API-standard threads.	E004 - E007 E010 - E042 E053, E054	✓	✓
	On edge insert, toolholder ACME and STUB 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 - E007 E026 - E030 E040 - E041	✓	✓
	Chaser Threading tool with multiple cutting edges for highly efficient machining of API-standard round, buttress, and NPT.	E005 - E007 E023, E028 - E031 E042	✓	✓
	TETRAMCUT Reduced interference with tailstock in small diameter threading.	E004 - E008 E011 E042 - E043 E055	✓	✓
	DUOJUST Standard threading tool for Swiss machine. Shortest undercut possible between thread and workpiece face due to better accessibility.	E004 - E009 E011, E048 E055	✓	
	TUNG-CLAMP Tool with high clamp rigidity that firmly holds the insert with a clamp. Grooving insert and threading insert can be used with the same toolholder.	E004 - E006 E012 E049 - E050 E055	✓	
	J-SERIES Tool series with 3-cornered inserts. Subselection for threading on Swiss lathes. Standard tool also suitable for radial Swiss lathes.	E004 E012 - E013 E015 E051 - E052	✓	✓
	TINYMINI TURN Internal threading tool suitable for the minimum machining diameter ø4. All tools have oil holes that can supply coolant from the cutting edge.	E006, E052, E056		✓
	Other tool TT type	E004 - E006 E013, E015 E053 - E054	✓	✓

Applicable tool for each external thread type

Applicable tool for each external thread type	General purpose		General purpose		Pipe		
Thread type	National taper pipe		Full profile				
	60°	55°	ISO metric	Unified	Whitworth	Parallel pipe thread	Taper pipe thread
	-	-	M	UNC, UNF UNEF	BSW, BSF W	G BSP, PF	R, PT, BSPT
Thread form							
Tool type							
 E034	0.5 ~ 6 mm (0.020" ~ 0.250") 48 ~ 4TPI E010	0.020" ~ 0.200" 48 ~ 5TPI E014	0.020" ~ 0.250" E016	32 ~ 5TPI E018	28 ~ 5TPI E020	28 ~ 11TPI E021	
 E043	0.4 ~ 3 mm (0.016" ~ 0.125") 64 ~ 8TPI E011	—	—	—	—	—	
 E044	0.4 ~ 3 mm (0.016" ~ 0.125") 64 ~ 8TPI E011	—	—	—	—	—	
 E045	0.2 ~ 1.5 mm (0.008" ~ 0.0625") 127 ~ 16TPI E011	—	—	—	—	—	
 E048	0.2 ~ 1.5 mm (0.008" ~ 0.0625") 127 ~ 16TPI E011	—	—	—	—	—	
 E049	1.27 ~ 4.23 mm (0.050" ~ 0.167") 20 ~ 6TPI E012	—	—	—	—	—	
 E051	0.5 ~ 1 mm (0.021" ~ 0.025") 48 ~ 25TPI E012	0.021" ~ 0.025" 48 ~ 25TPI E015	—	—	—	—	
 E051	0.5 ~ 1 mm (0.021" ~ 0.025") 48 ~ 25TPI E012	0.021" ~ 0.025" 48 ~ 25TPI E015	—	—	—	—	
 E052	0.5 ~ 1 mm (0.021" ~ 0.025") 48 ~ 25TPI E013	—	—	—	—	—	
 E049	~ 3 mm (~ 0.125") ~ 8TPI E013	~ 0.125" ~ 8TPI E015	—	—	—	—	

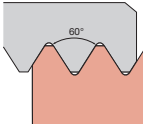
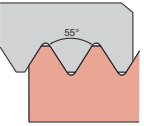
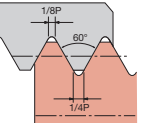
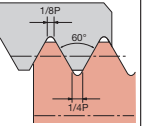
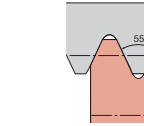
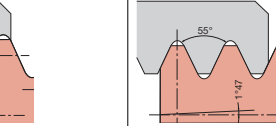
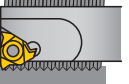
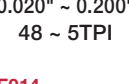
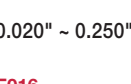
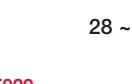
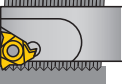
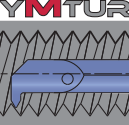
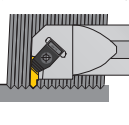
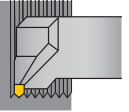
Please see the page E*** for the product details.

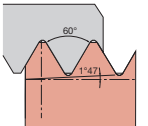
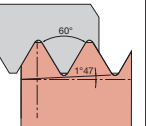
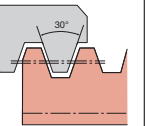
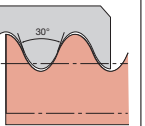
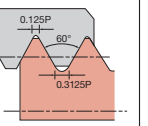
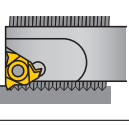
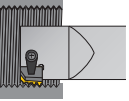
Applicable tool for each external thread type	Pipe		Machine parts	Aerospace		
Thread type	Full profile					
	National taper pipe		30° Trapezoidal	Round DIN405	UNJ	
	NPT	NPTF	TR	Rd	UNJC,UNJF	
Thread form						
Tool type						
ST type  E034	27 ~ 8TPI E022	27 ~ 8TPI E023	1.5 ~ 6 mm E024	8TPI, 6TPI E024	32 ~ 8TPI E025	
Chaser  E042	11.5TPI, 8TPI E023	—	—	—	—	

Applicable tool for each external thread type	Energy					Machine parts, Pipe	
Thread type	Full profile						
	API Tubing & Casing		API Rotary Shoulder Connection			ACME	STUB ACME
	Round	Buttress	V-0.038R	V-0.040	V-0.050		
Thread form							
Tool type							
ST type  E034	10TPI, 8TPI E027	5TPI (0.75TPF) E029	—	—	—	12 ~ 5TPI E026	—
Lay down (Single side)  E038	—	5TPI (0.75TPF) 5TPI (1TPF) E029	—	—	—	—	—
Lay down (Double side)  E039	—	—	4TPI (2TPF) 4TPI (3TPF) E031	5TPI (3TPF) E031	4TPI (2TPF) 4TPI (3TPF) E031	—	—
On edge  E040	10TPI, 8TPI E028	5TPI (0.75TPF) 5TPI (1TPF) E030	—	—	—	16 ~ 3TPI E026	16 ~ 3TPI E027
Chaser  E041	10TPI, 8TPI E028	5TPI (0.75TPF) E030	—	—	—	—	—

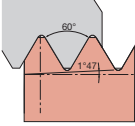
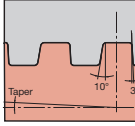
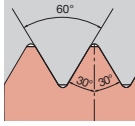
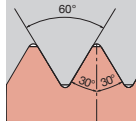
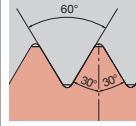
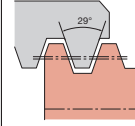
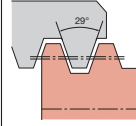
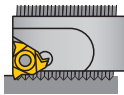
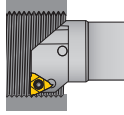
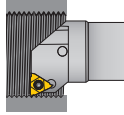
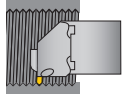
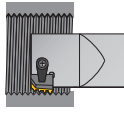
Please see the page E*** for the product details.

Applicable tool for each internal thread type

Applicable tool for each external thread type	General purpose		General purpose		Pipe		
Thread type	National taper pipe		Full profile				
	60°	55°	ISO metric	Unified	Whitworth	Parallel pipe thread	Taper pipe thread
	-	-	M	UNC, UNF UNEF	BSW, BSF W	G, Rp BSP, PF, PS	Rc, PT, BSPT
Thread form							
Tool type							
ST type  E036	0.5 ~ 6 mm (0.020" ~ 0.250") 48 ~ 4TPI E010	0.020" ~ 0.200" 48 ~ 5TPI E014	0.020" ~ 0.250" E016	32 ~ 5TPI E018	28 ~ 5TPI E020	19 ~ 11TPI E021	
TINY M TURN  E052	0.5 ~ 1.5 mm (0.021" ~ 0.0625") 48 ~ 16TPI E052	—	—	—	—	—	
TUNG-CLAMP  E049	1.27 ~ 4.23 mm 20 ~ 6TPI E012	—	—	—	—	—	
TT-R/L  E053	~ 3 mm (~ 0.125") ~ 8TPI E013	~ 0.125" ~ 8TPI E015	—	—	—	—	

Applicable tool for each external thread type	Pipe		Machine parts	Aerospace		
Thread type	Full profile					
	National taper pipe		30° Trapezoidal (DIN103)	Round (DIN405)	MJ	
	NPT	NPTF	TR	Rd	MJ	
Thread form						
Tool type						
ST type  E036	27 ~ 8TPI E022	14 ~ 8TPI E023	1.5 ~ 5 mm (0.059" ~ 0.197") E024	6TPI E024	0.039" E025	
Chaser  E042	11.5TPI, 8TPI E023	—	—	—	—	

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

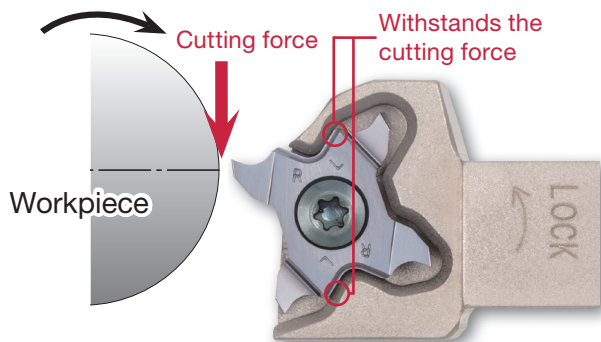
Applicable tool for each external thread type	Energy					Machine parts, Pipe	
Thread type	Full profile						
	API Tubing & Casing		API Rotary Shoulder Connection			ACME	STUB ACME
	Round	Buttress	V-0.038R	V-0.040	V-0.050		
Thread form							
Tool type							
ST type 	10TPI, 8TPI	5TPI (0.75TPF)	—	—	—	12 ~ 5TPI	—
E036	E027	E029				E026	
Lay down (Single side)		5TPI (0.75TPF) 5TPI (1TPF)	—	—	—	—	—
E039		E029					
Lay down (Double side)		—	4TPI (2TPF) 4TPI (3TPF)	5TPI (3TPF)	4TPI (2TPF) 4TPI (3TPF)	—	—
E040			E031	E031	E031		
On edge		10TPI, 8TPI	5TPI (0.75TPF) 5TPI (1TPF)	—	—	—	—
E041	E028	E030					
Chaser		10TPI, 8TPI	5TPI (0.75TPF)	—	—	—	—
E042	E028	E030					

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



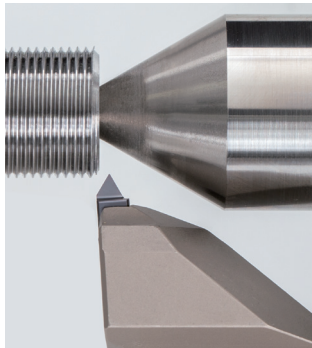
Unique clamping system

The unique pocket design provides accurate indexing repeatability of the cutting edge height.



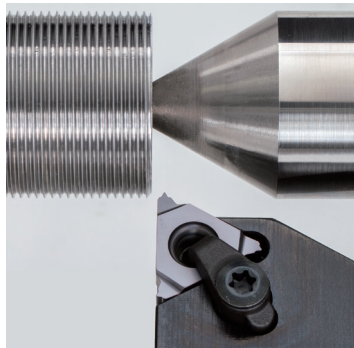
No tool interference with the tailstock when machining small parts

TETRAMCUT
M16x1



Insert: TCT18R-60N-020

Conventional
M24x1



Insert: 16ER10ISO

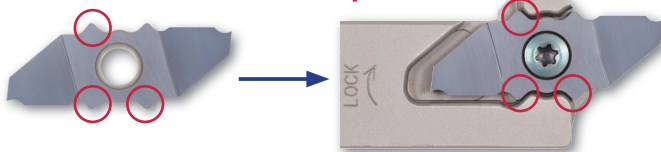
Reference pages: Inserts → **E011**, Toolholders → **E043 - E044**, Standard cutting conditions → **E055**



Unique clamping system for highly rigid clamping

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

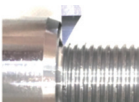


Excellent accessibility to the workpiece face

Utilizing various tools minimizes the length of undercut between the thread and work face.



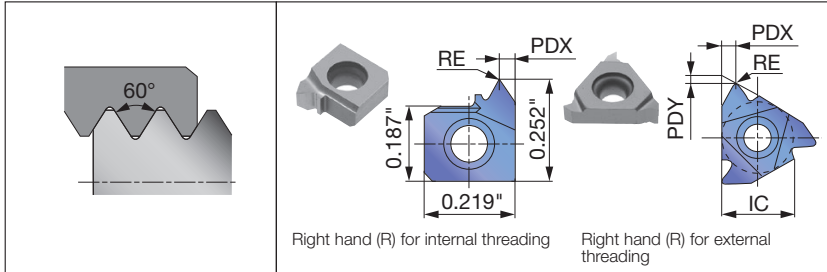
	Type A	Type B	Type N
Right hand	 $a > b$	 $a < b$	 $a = b$
Left hand	 $a > b$	 $a < b$	 $a = b$



Insert designation	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	0.25 (0.010)	Applicable area										
JXTG12FL-60A-000												
JXTG12FR-60B-000	2.25 (0.089)											
JXTG12FL-60B-000												
JXTG12FR-60A-005	0.6 (0.024)					Applicable area						
JXTG12FL-60A-005												
JXTG12FR-60B-005	1.9 (0.075)											
JXTG12FL-60B-005												
JXTG12FR-60N-010	1.25 (0.049)									Applicable area		
JXTG12FL-60N-010												
		127	72		52	32				16		
												Threads per inch (TPI)

Reference pages: Inserts → **E011**, Toolholders → **E045 - E048**, Standard cutting conditions → **E055**

60° thread angle



Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
11		SNR/L**11...
16	CER/L**16... JSER**16... JS**SEL16 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...	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 (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					
6	0.5 - 1.5	16 - 48	R									6IRA60	●		●	-	0.035	-	0.0016
11	0.5 - 1.5	16 - 48	R	11ERA60	●			0.250	0.035	0.031	0.0024	11IRA60	●	●		0.250	0.035	0.028	0.0016
11	0.5 - 1.5	16 - 48	L									11ILA60	●	●		0.250	0.035	0.028	0.0016
16	0.5 - 1.5	16 - 48	R	16ERA60	●	●		0.375	0.035	0.028	0.0024	16IRA60	●	●		0.375	0.035	0.028	0.0016
16	0.5 - 1.5	16 - 48	L	16ELA60	●	●		0.375	0.035	0.028	0.0024	16ILA60	●	●		0.375	0.035	0.028	0.0016
16	0.5	8 - 48	R	16ERAG60	●	●		0.375	0.063	0.047	0.0024	16IRAG60	●	●		0.375	0.063	0.047	0.0016
16	1.75	8 - 14	R	16ERG60	●	●		0.375	0.063	0.047	0.0087	16IRG60	●	●		0.375	0.063	0.047	0.0047
16	1.75	8 - 14	L	16ELG60	●	●		0.375	0.020	0.047	0.0087	16ILG60	●	●		0.375	0.063	0.047	0.0047
22	3.5 - 5	5 - 7	R	22ERN60	●	●		0.500	0.020	0.047	0.0173	22IRN60	●	●		0.500	0.098	0.067	0.0098
22	3.5 - 5	5 - 7	L	22ELN60	●	●		0.500	0.020	0.047	0.0173	22ILN60	●	●		0.500	0.098	0.067	0.0098
27	4 - 6	4 - 6	R	27ERZ60	●	●		0.625	0.035	0.028	0.0197	27IRZ60	●	●		0.625	0.125	0.087	0.0110

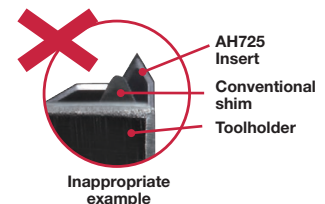
Partial-profile insert with chipbreaker

Insert size	Pitch (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						
					AH725	NS9530						AH725	NS9530						
11	0.5 - 1.5	16 - 48	R									11IRA60-B	●	0.250 0.035 0.028 0.0016					
11	0.5 - 1.5	16 - 48	R									11IRA60-M	●	0.250 0.035 0.028 0.0016					
16	0.5 - 1.5	16 - 48	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	16 - 48	R	16ERA60-M	●	0.375 0.035 0.028 0.0024				16IRA60-M	●	0.375 0.063 0.043 0.0016							
16	0.5 - 3	8 - 48	R	16ERAG60-B	●*	0.375 0.067 0.047 0.003				16IRAG60-B	●*	0.375 0.067 0.047 0.0020							
16	0.5 - 3	8 - 48	R	16ERAG60-M	●	●	0.375 0.063 0.043 0.0024				16IRAG60-M	●	●	0.375 0.063 0.047 0.0016					
16	1.75 - 3	8 - 14	R	16ERG60-B	●*	0.375 0.067 0.047 0.010				16IRG60-B	●*	0.375 0.067 0.047 0.0039							
16	1.75 - 3	8 - 14	R	16ERG60-M	●	0.375 0.063 0.047 0.0087				16IRG60-M	●	0.375 0.063 0.047 0.0055							
22	3.5 - 5	5 - 7	R	22ERN60-B	●	0.500 0.098 0.067 0.0126				22IRN60-B	●	0.500 0.098 0.067 0.0075							

The adjustment of the cutting edge position will be needed as the dimensions of PDX and PDY are different from other inserts.

● highlighted item requires changing shims.

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 E056.

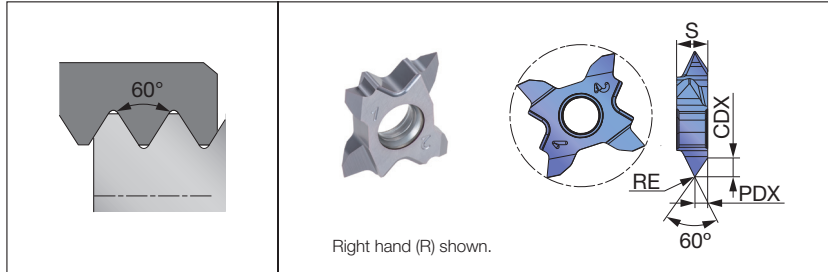


Reference pages: Toolholders → **E032 - E038**,

Standard cutting conditions → **E054, L044 - L060**

● : Line up / 5 pieces per package

60° thread angle



Applicable toolholder

External
STCR/L**-18
STCR/L**-18-CHP
JS**-STCL18

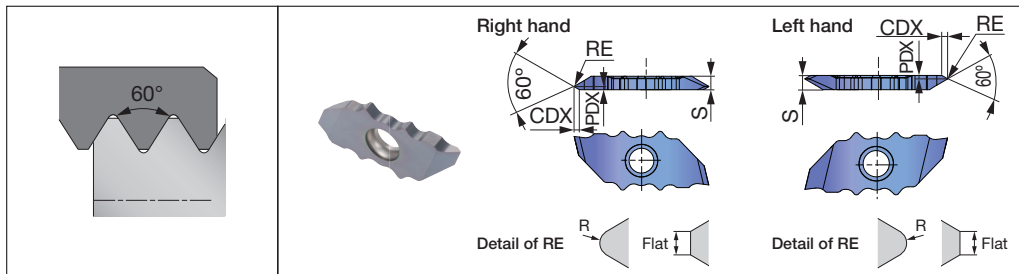
Partial-profile insert

Pitch (mm)	TPI	Hand of cut	External insert (in)						
			Designation	Grade		PDX	CDX	RE	S
				Coated					
				SH725	AH725				
0.4 - 1	25 - 64	R	TCT18FR-60A-005	●		0.024	0.039	0.002	0.157
1 - 2	12 - 25	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

DUOJUST CUT

INSERT

60° thread angle



Applicable toolholder

External
JSXXR/L**09
JSXXR/L**09-CHP
JS**-SXXL09

Partial-profile insert

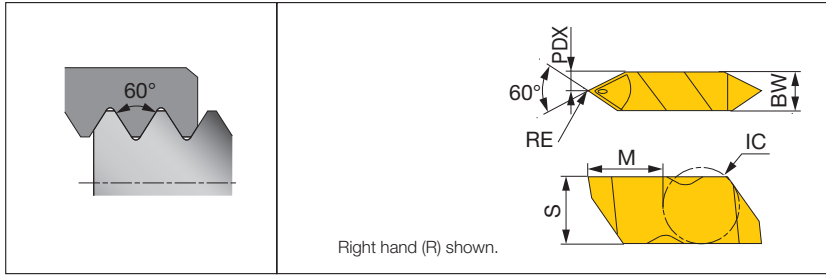
Insert size	Pitch (mm)	TPI	Hand of cut	External insert (in)						
				Designation	Grade		PDX	CDX	RE	S
					Coated					
					SH725					
				R	L					
12	0.2 - 0.4	64 - 127	R/L	JXTG12FR/L-60A-000	●	●	0.010	0.016	Flat 0.002 max	0.098
12	0.2 - 0.4	64 - 127	R/L	JXTG12FR/L-60B-000	●	●	0.089	0.016	Flat 0.002 max	0.098
12	0.4 - 1	25 - 64	R/L	JXTG12FR/L-60A-005	●	●	0.024	0.039	R 0.002	0.098
12	0.4 - 1	25 - 64	R/L	JXTG12FR/L-60B-005	●	●	0.075	0.039	R 0.002	0.098
12	1 - 1.5	16 - 25	R/L	JXTG12FR/L-60N-010	●	●	0.049	0.081	R 0.004	0.098

	Type A	Type B	Type N
Right hand			
Left hand			

Reference pages: TetraMini-Cut : Toolholders → **E043 - E044**,
Standard cutting conditions → **E055, L044 - L060**
DuoJust-Cut : Toolholders → **E045 - E048**,
Standard cutting conditions → **E055, L044 - L060**

● : Line up / 5 pieces per package

60° thread angle



Applicable toolholder

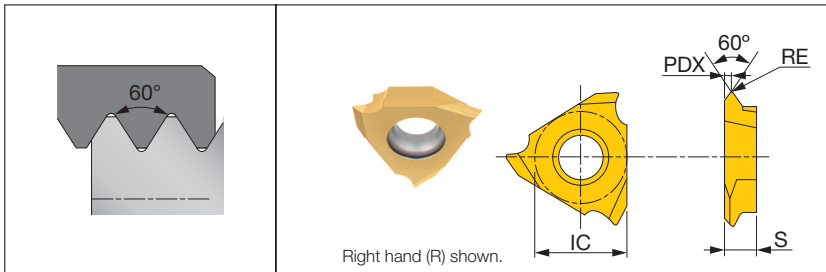
External	Internal
FLASR/L-1616M3	A**M-FLER/L3
FLSR/L...	HS**-FLER3W

Partial-profile insert for external and internal threads

External Pitch (mm)	Internal Pitch (mm)	TPI	Hand of cut	Designation	Grade Coated AH725	IC (in)	PDX (in)	BW (in)	RE (in)	S (in)	M (in)
1.27 - 4.23	2.11 - 5.08	6 - 20	R/L	FLT-3R/L-HCB	●	0.375	0.098	0.195	0.007	0.344	0.3999
2.31 - 4.23	3.175 - 5.08	11 - 20	R/L	FLT-3R/LC-HCB	●	0.375	0.098	0.195	0.014	0.344	0.3999
1.27 - 4.23	2.11 - 5.08	6 - 20	R/L	FLT-3R/L-CB	●	0.375	0.098	0.195	0.007	0.344	0.3999

J-SERIES INSERT

60° thread angle



Applicable toolholder

External
JSTTR/L**3
JS**-TTL3

Partial-profile insert

Pitch (mm)	TPI	Hand of cut	External insert (in)												
			Designation	Grade								IC	PDX	S	RE
				Coated				Cermet		Uncoated					
				SH725		J740		NS9530		TH10					
				R	L	R	L	R	L	R	L				
0.5 - 1	25 - 48	R/L	JTTR/L3005F	●	●	●		●		●		0.375	0.035	0.125	0.002
0.5 - 1	25 - 48	R/L	JTTR/L3010F	●	●	●		●		●		0.375	0.035	0.125	0.004

Reference pages: TungT-Clamp : Toolholders → **E049 - E050**,

Standard cutting conditions → **E055, L044 - L060**

J-Series : Toolholders → **E051 - E052**

● : Line up

60° thread angle



Applicable toolholder

External
JSXBR**K8
JSXBR**K8-C

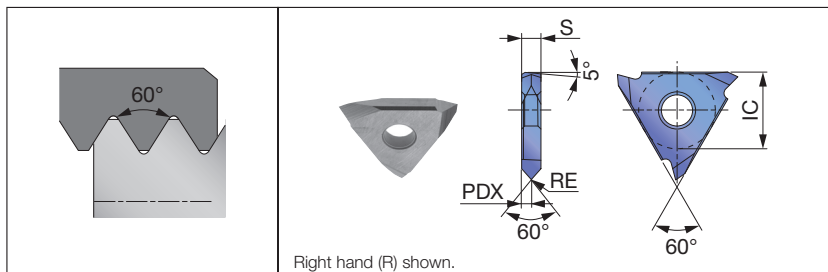
Partial-profile insert

Pitch (mm)	TPI	Hand of cut	External insert (in)					
			Designation	Grade		IC	S	RE
				Coated J740	Uncoated TH10			
0.5 - 1	25 - 48	R	JXT1R6000F	●	●	0.315	0.156	0.001
0.5 - 1	25 - 48	R	JXT2R6000F	●	●	0.315	0.156	0.001

TUNGTHREAD

INSERT

TT type / 60° thread angle



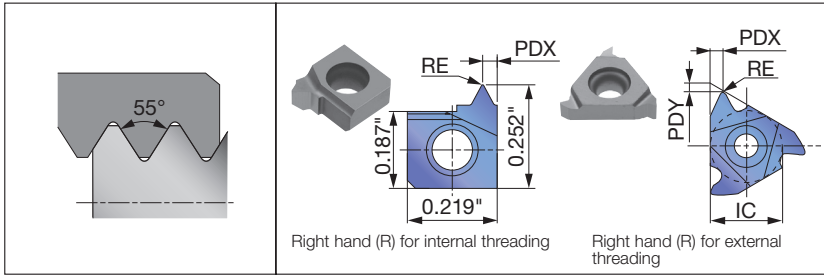
Applicable toolholder

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	TTR42M-005	●	●	0.500	0.063	0.126	0.002
≤ 3	≥ 8	L	TTL42M-005	●	●	0.500	0.063	0.126	0.002

55° thread angle (General purpose)



Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
11		SNR/L**11...
16	CER/L**16... JSER**16... JS**SEL16 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...	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...

Partial-profile insert

Insert size	Pitch (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				
					AH725	T313V	TH10						AH725	T313V	TH10				
6	0.020 - 0.063	16 - 48	R									6IRA55	●		●	-	0.035	-	0.0028
11	0.020 - 0.063	16 - 48	R	11ERA55	●			0.250	0.035	0.020	0.0020	11IRA55	●	●		0.250	0.035	0.028	0.0028
16	0.020 - 0.063	16 - 48	R	16ERA55	●	●		0.375	0.035	0.028	0.0028	16IRA55	●	●		0.375	0.035	0.028	0.0028
16	0.020 - 0.125	8 - 48	R	16ERAG55	●			0.375	0.067	0.047	0.0028	16IRAG55	●			0.375	0.067	0.047	0.0028
16	0.071 - 0.125	8 - 14	R	16ERG55	●	●		0.375	0.063	0.047	0.0110	16IRG55	●	●		0.375	0.067	0.047	0.0098
22	0.142 - 0.200	5 - 7	R	22ERN55	●	●		0.500	0.098	0.067	0.0197	22IRN55	●	●		0.500	0.098	0.067	0.0197

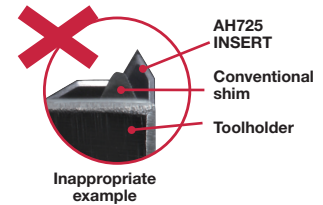
Partial-profile insert with chipbreaker

Insert size	Pitch (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						
					AH725								AH725						
16	0.020 - 0.063	16 - 48	R	16ERAG55-B	●*			0.375	0.067	0.047	0.0028	16IRAG55-B	●*			0.375	0.067	0.047	0.0020
16	0.071 - 0.125	8 - 14	R	16ERG55-B	●*			0.375	0.067	0.047	0.0091	16IRG55-B	●*			0.375	0.067	0.047	0.0079

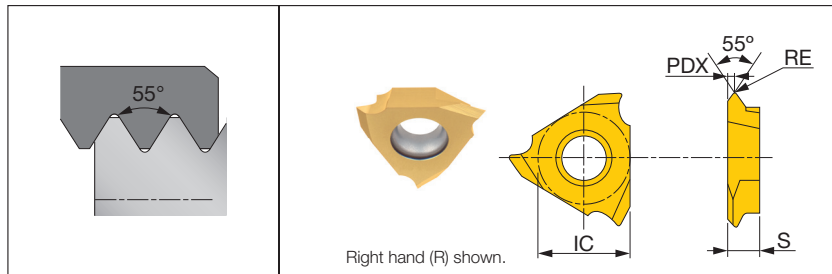
The adjustment of the cutting edge position will be needed as the dimensions of PDX and PDY are different from other inserts.

highlighted item requires changing shims.

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 E056.



55° thread angle (General purpose)



Applicable toolholder

External
JSTTR/L**3
JS**-TTL3

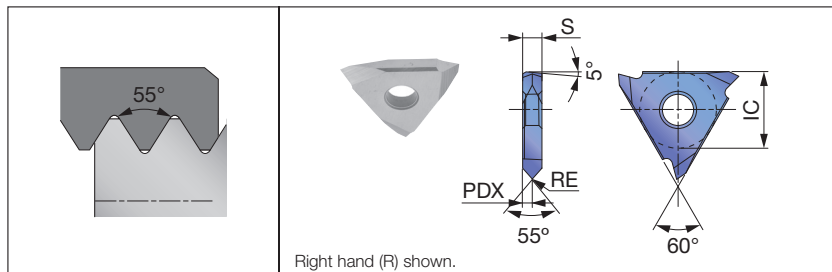
Partial-profile insert

Pitch (in)	TPI	Hand of cut	External insert (in)								
			Designation	Grade				IC	PDX	S	RE
				Coated							
				SH725		J740					
				R	L	R	L				
0.020-0.039	25 - 48	R/L	JTTR/L3005F-55	●		●		0.375	0.024	0.125	0.002

TUNGTHREAD

INSERT

TT type / 55° thread angle (General purpose)



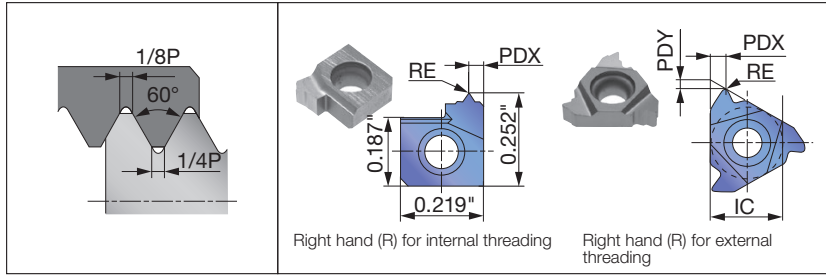
Applicable toolholder

External	Internal
TT-****RE/LI	TT-2525RI

Partial-profile insert for external and internal threads

Pitch (in)	TPI	Hand of cut	Designation	Grade		IC (in)	PDX (in)	S (in)	RE (in)
				Cermet	Uncoated				
				NS9530	TH10				
≤ 0.118	≥ 8	R	TTR42W-005	●	●	0.500	0.063	0.126	0.002
≤ 0.118	≥ 8	L	TTL42W-005	●	●	0.500	0.063	0.126	0.002

ISO metric (General purpose)



Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
11		SNR/L**11...
16	CER/L**16... JSER**16 JS**SEL16 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...	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 (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				
					AH725	AH8015	T313V							TH10	AH725					
6	0.75		R									6IR075ISO	●		●	-	0.02	-	0.002	
6	1		R									6IR10ISO	●		●	-	0.035	-	0.0028	
6	1.25		R									6IR125ISO	●		●	-	0.035	-	0.0035	
6	1.5		R									6IR15ISO	●		●	-	0.035	-	0.0043	
6	1.75		R									6IR175ISO	●		●	-	0.035	-	0.0047	
6	2		R									6IR20ISO	●		●	-	0.035	-	0.0055	
11	0.35		R	11ER035ISO	●				0.25	0.016	0.024	0.0016								
11	0.5		R	11ER05ISO	●				0.25	0.024	0.024	0.0024	11IR05ISO	●		●	0.25	0.02	0.047	0.0016
11	0.7		R	11ER07ISO	●				0.25	0.024	0.024	0.0043								
11	0.75		R	11ER075ISO	●				0.25	0.024	0.024	0.0043	11IR075ISO	●			0.25	0.02	0.047	0.002
11	0.8		R	11ER080ISO	●				0.25	0.024	0.024	0.0047								
11	1		R	11ER10ISO	●				0.25	0.028	0.028	0.006	11IR10ISO	●	●	●	0.25	0.035	0.028	0.0028
11	1		L									11IL10ISO	●			0.25	0.035	0.028	0.0028	
11	1.25		R	11ER125ISO	●				0.25	0.035	0.031	0.0063	11IR125ISO	●			0.25	0.035	0.028	0.0035
11	1.25		L									11IL125ISO	●			0.25	0.035	0.028	0.0035	
11	1.5		R	11ER15ISO	●				0.25	0.031	0.039	0.0075	11IR15ISO	●	●	●	0.25	0.035	0.028	0.0043
11	1.5		L									11IL15ISO	●			0.25	0.035	0.028	0.0043	
11	1.75		R									11IR175ISO	●	●		0.25	0.035	0.028	0.0047	
11	1.75		L									11IL175ISO	●			0.25	0.035	0.028	0.0047	
11	2		R									11IR20ISO	●	●		0.25	0.035	0.028	0.0055	
11	2		L									11IL20ISO	●			0.25	0.035	0.028	0.0055	
16	0.5		R	16ER05ISO	●			●	0.375	0.02	0.047	0.0024	16IR05ISO	●			0.375	0.02	0.047	0.0016
16	0.75		R	16ER075ISO	●		●	●	0.375	0.02	0.047	0.0035	16IR075ISO	●			0.375	0.02	0.047	0.002
16	1		R	16ER10ISO	●		●	●	0.375	0.035	0.028	0.0051	16IR10ISO	●	●	●	0.375	0.035	0.028	0.0028
16	1		L	16EL10ISO					0.375	0.035	0.028	0.0051	16IL10ISO	●			0.375	0.035	0.028	0.0028
16	1.25		R	16ER125ISO	●		●		0.375	0.035	0.028	0.0063	16IR125ISO	●			0.375	0.035	0.028	0.0035
16	1.25		L	16EL125ISO					0.375	0.035	0.028	0.0063	16IL125ISO	●			0.375	0.035	0.028	0.0035
16	1.5		R	16ER15ISO	●		●	●	0.375	0.035	0.028	0.0075	16IR15ISO	●	●	●	0.375	0.035	0.028	0.0043
16	1.5		L	16EL15ISO					0.375	0.035	0.028	0.0075	16IL15ISO	●			0.375	0.035	0.028	0.0043
16	1.75		R	16ER175ISO	●		●		0.375	0.063	0.047	0.0087	16IR175ISO	●	●		0.375	0.063	0.047	0.0047
16	2		R	16ER20ISO	●	●	●	●	0.375	0.063	0.047	0.0098	16IR20ISO	●	●	●	0.375	0.063	0.047	0.0055
16	2		L	16EL20ISO	●				0.375	0.063	0.047	0.0098	16IL20ISO	●			9.525	0.063	0.047	0.0055
16	2.5		R	16ER25ISO	●		●	●	0.375	0.063	0.047	0.0122	16IR25ISO	●	●	●	0.375	0.063	0.047	0.0071
16	3		R	16ER30ISO	●		●	●	0.375	0.063	0.047	0.015	16IR30ISO	●	●	●	0.375	0.063	0.047	0.0083
16	3		L	16EL30ISO					0.375	0.063	0.047	0.015	16IL30ISO	●			0.375	0.063	0.047	0.0083

Reference pages: Toolholders → E032 - E038,

Standard cutting conditions → E054, L044 - L060

● : Line up / 5 pieces per package

Insert size	Pitch (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				
					AH725	T313V							TH10	AH725					
22	3.5	R	22ER35ISO	●	●	0.500	0.098	0.067	0.0173	22IR35ISO	●	●	0.500	0.098	0.067	0.0098			
22	4	R	22ER40ISO	●	●	0.500	0.098	0.067	0.0197	22IR40ISO	●	●	0.500	0.098	0.067	0.0110			
22	4.5	R	22ER45ISO	●		0.500	0.098	0.067	0.0220	22IR45ISO	●		0.500	0.098	0.067	0.0126			
22	5	R	22ER50ISO	●	●	0.500	0.098	0.067	0.0248	22IR50ISO	●	●	0.500	0.098	0.067	0.0138			
27	6	R	27ER60ISO	●	●	0.625	0.126	0.087	0.0295	27IR60ISO	●	●	0.625	0.126	0.087	0.0165			

Full-profile insert with chipbreaker

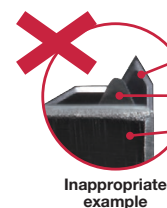
Insert size	Pitch (mm)	TPI	Hand of cut	External insert (in)								Internal insert (in)							
				Designation	Grade			IC	PDX	PDY	RE	Designation	Grade			IC	PDX	PDY	RE
					Coated	Cermet							Coated	Cermet					
					AH725	AH8015	NS9530						AH725	AH8015	NS9530				
11	0.5		R									11IR05ISO-B	●			0.250	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	0.0039
11	1.25		R									11IR125ISO-M		●		0.250	0.035	0.028	0.0039
11	1.5		R									11IR15ISO-B	●			0.250	0.035	0.028	0.0047
11	1.5		R									11IR15ISO-M		●		0.250	0.035	0.028	0.0047
11	1.75		R									11IR175ISO-B	●			0.250	0.035	0.028	0.0047
11	1.75		R									11IR175ISO-M		●		0.250	0.035	0.028	0.0047
11	2		R									11IR20ISO-B	●			0.250	0.035	0.028	0.0055
11	2		R									11IR20ISO-M		●		0.250	0.035	0.028	0.0055
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	0.0043	16IR10ISO-B	●*			0.375	0.028	0.024	0.0020
16	1		R	16ER10ISO-M	●		●	0.375	0.035	0.028	0.0051	16IR10ISO-M		●	●	0.375	0.035	0.028	0.0031
16	1.25		R	16ER125ISO-B	●*			0.375	0.035	0.031	0.0055	16IR125ISO-B	●*			0.375	0.035	0.031	0.002
16	1.25		R	16ER125ISO-M		●	●	0.375	0.035	0.028	0.0063	16IR125ISO-M		●		0.375	0.035	0.028	0.0039
16	1.5		R	16ER15ISO-B	●*			0.375	0.039	0.031	0.0075	16IR15ISO-B	●*			0.375	0.039	0.031	0.0031
16	1.5		R	16ER15ISO-M	●	●	●	0.375	0.035	0.028	0.0075	16IR15ISO-M	●	●	●	0.375	0.035	0.028	0.0047
16	1.75		R	16ER175ISO-B	●*			0.375	0.047	0.035	0.010	16IR175ISO-B	●*			0.375	0.047	0.035	0.0039
16	1.75		R	16ER175ISO-M			●	0.375	0.063	0.047	0.0087	16IR175ISO-M		●		0.375	0.063	0.047	0.0055
16	2		R	16ER20ISO-B	●*			0.375	0.051	0.039	0.011	16IR20ISO-B	●*			0.375	0.051	0.039	0.0043
16	2		R	16ER20ISO-M	●		●	0.375	0.063	0.047	0.0098	16IR20ISO-M		●		0.375	0.063	0.047	0.0055
16	2.5		R	16ER25ISO-B	●*			0.375	0.059	0.043	0.0118	16IR25ISO-B	●*			0.375	0.059	0.043	0.0055
16	2.5		R	16ER25ISO-M			●	0.375	0.063	0.047	0.0122	16IR25ISO-M		●		0.375	0.063	0.047	0.0071
16	3		R	16ER30ISO-B	●*			0.375	0.063	0.047	0.0150	16IR30ISO-B	●*			0.375	0.059	0.043	0.009
16	3		R	16ER30ISO-M			●	0.375	0.063	0.047	0.0150	16IR30ISO-M		●		0.375	0.063	0.047	0.0083
22	3.5		R	22ER35ISO-B	●			0.500	0.091	0.063	0.0189								
22	4		R	22ER40ISO-B	●			0.500	0.091	0.063	0.0205								

The adjustment of the cutting edge position will be needed as the dimensions of PDX and PDY are different from other inserts.

highlighted item requires changing shims.

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 E056.

Reference pages: Toolholders → E032 - E038,
Standard cutting conditions → E054, L044 - L060

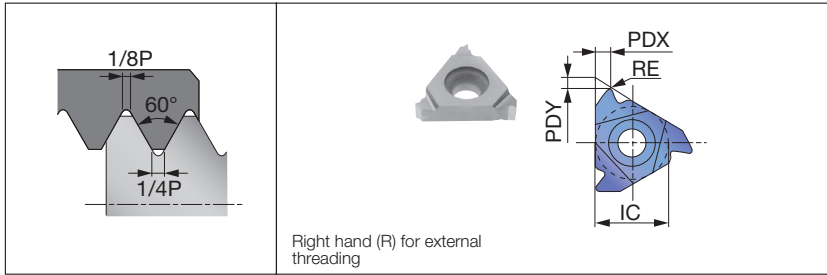


● : Line up / 5 pieces per package

AH725
Insert
Conventional shim
Toolholder

Inappropriate
example

Unified (General purpose)



Applicable toolholder

Insert size	External	Internal
11		SNR/L**11...
16	CER/L**16... JSER**16 JS**SEL16 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...	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					
					AH725	T313V						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	0.0039	
11 (0.063)	16	R								11IR16UN	●		0.250	0.035	0.028	0.0043	
11 (0.071)	14	R								11IR14UN	●		0.250	0.035	0.028	0.0051	
16 (0.031)	32	R	16ER32UN	●		0.375	0.020	0.047	0.0039	16IR32UN	●		0.375	0.020	0.047	0.0024	
16 (0.036)	28	R	16ER28UN	●		0.375	0.020	0.047	0.0043	16IR28UN	●		0.375	0.020	0.047	0.0024	
16 (0.042)	24	R	16ER24UN	●		0.375	0.035	0.028	0.0051	16IR24UN	●		0.375	0.035	0.028	0.0028	
16 (0.050)	20	R	16ER20UN	●		0.375	0.035	0.028	0.0063	16IR20UN	●		0.375	0.035	0.028	0.0035	
16 (0.056)	18	R	16ER18UN	●		0.375	0.035	0.028	0.0071	16IR18UN	●		0.375	0.035	0.028	0.0039	
16 (0.063)	16	R	16ER16UN	●	●	0.375	0.035	0.028	0.0079	16IR16UN	●	●	0.375	0.035	0.028	0.0043	
16 (0.071)	14	R	16ER14UN	●	●	0.375	0.063	0.047	0.0091	16IR14UN	●	●	0.375	0.063	0.047	0.0051	
16 (0.077)	13	R	16ER13UN	●		0.375	0.063	0.047	0.0094	16IR13UN	●		0.375	0.063	0.047	0.0055	
16 (0.083)	12	R	16ER12UN	●	●	0.375	0.063	0.047	0.0106	16IR12UN	●	●	0.375	0.063	0.047	0.0059	
16 (0.091)	11	R	16ER11UN	●		0.375	0.063	0.047	0.0114	16IR11UN	●		0.375	0.063	0.047	0.0063	
16 (0.100)	10	R	16ER10UN	●		0.375	0.063	0.047	0.0126	16IR10UN	●		0.375	0.063	0.047	0.0071	
16 (0.111)	9	R	16ER9UN	●		0.375	0.063	0.047	0.0138	16IR9UN	●		0.375	0.063	0.047	0.0079	
16 (0.125)	8	R	16ER8UN	●	●	0.375	0.063	0.047	0.0157	16IR8UN	●	●	0.375	0.063	0.047	0.0087	
22 (0.143)	7	R	22ER7UN	●		0.500	0.098	0.067	0.0177	22IR7UN	●		0.500	0.098	0.067	0.0098	
22 (0.167)	6	R	22ER6UN	●		0.500	0.098	0.067	0.0209	22IR6UN	●		0.500	0.098	0.067	0.0118	
22 (0.200)	5	R	22ER5UN	●		0.500	0.098	0.067	0.0252	22IR5UN	●		0.500	0.098	0.067	0.0142	

Reference pages: Toolholders → **E032 - E038**,
Standard cutting conditions → **E054, L044 - L060**

● : Line up / 5 pieces per package

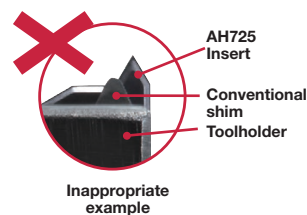
Full-profile insert with chipbreaker

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						
					AH725	NS9530						AH725	NS9530						
16 (0.042)	24	R	16ER24UN-B	●*		0.375	0.031	0.028	0.0043										
16 (0.042)	24	R	16ER24UN-M		●	0.375	0.035	0.028	0.0051										
16 (0.050)	20	R	16ER20UN-B	●*		0.375	0.035	0.031	0.0055	16IR20UN-B	●*		0.375	0.035	0.031	0.0024			
16 (0.050)	20	R	16ER20UN-M		●	0.375	0.035	0.028	0.0063	16IR20UN-M		●	0.375	0.035	0.028	0.0035			
16 (0.056)	18	R	16ER18UN-B	●*		0.375	0.039	0.031	0.0059	16IR18UN-B	●*		0.375	0.039	0.031	0.0031			
16 (0.056)	18	R	16ER18UN-M		●	0.375	0.035	0.028	0.0071	16IR18UN-M		●	0.375	0.035	0.028	0.0039			
16 (0.063)	16	R	16ER16UN-B	●*		0.375	0.043	0.035	0.0071	16IR16UN-B	●*		0.375	0.043	0.035	0.0035			
16 (0.063)	16	R	16ER16UN-M		●	0.375	0.035	0.028	0.0079	16IR16UN-M		●	0.375	0.035	0.028	0.0043			
16 (0.071)	14	R	16ER14UN-B	●*		0.375	0.047	0.039	0.0087	16IR14UN-B	●*		0.375	0.047	0.035	0.0043			
16 (0.071)	14	R	16ER14UN-M		●	0.375	0.063	0.047	0.0091	16IR14UN-M		●	0.375	0.063	0.047	0.0043			
16 (0.077)	13	R	16ER13UN-B	●*		0.375	0.051	0.039	0.0094										
16 (0.083)	12	R	16ER12UN-B	●*		0.375	0.055	0.043	0.0098	16IR12UN-B	●*		0.375	0.055	0.043	0.0047			
16 (0.083)	12	R	16ER12UN-M		●	0.375	0.063	0.047	0.0106	16IR12UN-M		●	0.375	0.063	0.047	0.0059			
16 (0.125)	8	R	16ER8UN-B	●*		0.375	0.063	0.047	0.0161	16IR8UN-B	●*		0.375	0.059	0.043	0.008			
16 (0.125)	8	R	16ER8UN-M		●	0.375	0.063	0.047	0.0157	16IR8UN-M		●	0.375	0.063	0.047	0.0087			

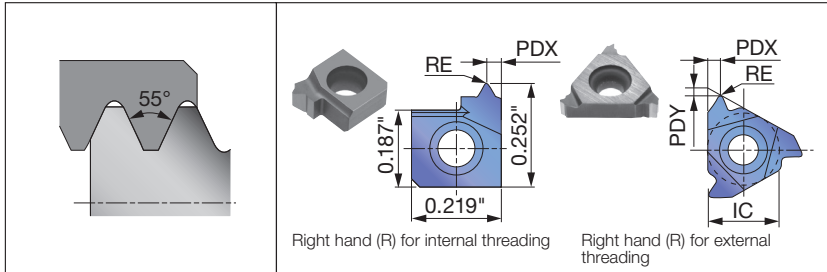
The adjustment of the cutting edge position will be needed as the dimensions of PDX and PDY are different from other inserts.

highlighted item requires changing shims.

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 E056.



Whitworth, Parallel pipe thread



Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
11		SNR/L**11...
16	CER/L**16... JSER**16 JSE**SEL16 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...	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		Uncoated						Coated		Uncoated				
					AH725	T313V	TH10						AH725	T313V	TH10				
6	(0.053)	19	R									6IR19W	●		●	-	0.035	-	0.0067
11	(0.053)	19	R									11IR19W	●	●	●	0.250	0.035	0.028	0.0067
11	(0.071)	14	R									11IR14W	●	●	●	0.250	0.035	0.028	0.23
16	(0.036)	28	R	16ER28W	●	●		0.375	0.035	0.028	0.0043	16IR28W	●			0.375	0.035	0.028	0.0043
16	(0.038)	26	R	16ER26W	●			0.375	0.035	0.028	0.0047	16IR26W	●			0.375	0.035	0.028	0.0047
16	(0.050)	20	R	16ER20W	●			0.375	0.035	0.028	0.0063	16IR20W	●			0.375	0.035	0.028	0.0063
16	(0.053)	19	R	16ER19W	●	●		0.375	0.035	0.028	0.0067	16IR19W	●			0.375	0.035	0.028	0.0067
16	(0.056)	18	R	16ER18W	●			0.375	0.035	0.028	0.0071	16IR18W	●			0.375	0.035	0.028	0.0071
16	(0.063)	16	R	16ER16W	●	●		0.375	0.035	0.028	0.0079	16IR16W	●	●		0.375	0.035	0.028	0.0079
16	(0.071)	14	R	16ER14W	●	●	●	0.375	0.063	0.047	0.0091	16IR14W	●	●	●	0.375	0.063	0.047	0.0091
16	(0.071)	14	L	16EL14W	●			0.375	0.063	0.047	0.0091								
16	(0.083)	12	R	16ER12W	●	●		0.375	0.063	0.047	0.0106	16IR12W	●	●		0.375	0.063	0.047	0.0106
16	(0.091)	11	R	16ER11W	●	●	●	0.375	0.063	0.047	0.0114	16IR11W	●	●	●	0.375	0.063	0.047	0.0114
16	(0.100)	10	R	16ER10W	●	●		0.375	0.063	0.047	0.0126	16IR10W	●	●		0.375	0.063	0.047	0.0126
16	(0.111)	9	R	16ER9W	●			0.375	0.063	0.047	0.0138	16IR9W	●			0.375	0.063	0.047	0.0138
16	(0.125)	8	R	16ER8W	●	●		0.375	0.063	0.047	0.0157	16IR8W	●	●		0.375	0.063	0.047	0.0157
22	(0.143)	7	R	22ER7W	●			0.500	0.098	0.067	0.0177	22IR7W	●			0.500	0.098	0.067	0.0177
22	(0.167)	6	R	22ER6W	●			0.500	0.098	0.067	0.0209	22IR6W	●			0.500	0.098	0.067	0.0209
22	(0.200)	5	R	22ER5W	●			0.500	0.098	0.067	0.0252	22IR5W	●			0.500	0.098	0.067	0.0252

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						
					AH725	NS9530						AH725	AH8015	NS9530					
16	(0.053)	19	R	16ER19W-B	●*		0.375	0.039	0.031	0.0063									
16	(0.053)	19	R	16ER19W-M		●	0.375	0.035	0.028	0.0067	16IR19W-M		●		0.375	0.035	0.028	0.0067	
16	(0.063)	16	R	16ER16W-B	●*		0.375	0.043	0.035	0.0079	16IR16W-B	●*			0.375	0.043	0.035	0.0071	
16	(0.071)	14	R	16ER14W-B	●*		0.375	0.047	0.039	0.0094	16IR14W-B	●*			0.375	0.047	0.039	0.0083	
16	(0.071)	14	R	16ER14W-M		●	0.375	0.063	0.047	0.0091	16IR14W-M		●	●	0.375	0.063	0.047	0.0091	
16	(0.091)	11	R	16ER11W-B	●*		0.375	0.059	0.043	0.0106	16IR11W-B	●*			0.375	0.059	0.043	0.0106	
16	(0.091)	11	R	16ER11W-M		●	0.375	0.063	0.047	0.0114	16IR11W-M		●		0.375	0.063	0.047	0.0114	

The adjustment of the cutting edge position will be needed as the dimensions of PDX and PDY are different from other inserts.

highlighted item requires changing shims.

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 E056.

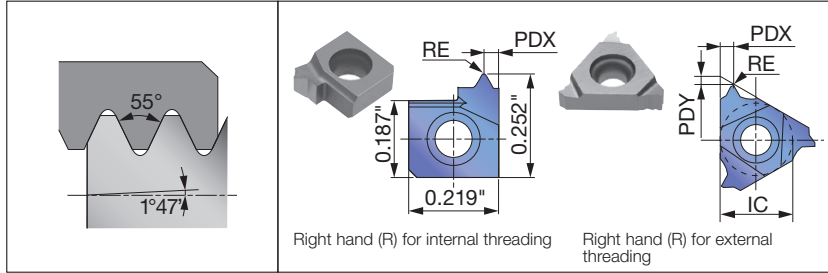
Reference pages: Toolholders → **E032 - E038**,

Standard cutting conditions → **E054, L044 - L060**



● : Line up / 5 pieces per package

BSPT (for Pipe)



Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
11		SNR/L**11...
16	CER/L**16... JSER**16 JSE**SEL16 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					
					AH725	T313V	TH10						AH725	T313V	TH10				
6	(0.053)	19	R									61R19PT	●	●	-	0.035	-	0.0055	
11	(0.053)	19	R									111R19PT	●	●	●	0.250	0.035	0.028	0.0055
11	(0.071)	14	R									111R14PT	●	●	●	0.250	0.035	0.028	0.0063
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	0.0055	161R19PT	●			0.375	0.035	0.028	0.0055
16	(0.071)	14	R	16ER14PT	●	●		0.375	0.063	0.047	0.0063	161R14PT	●	●	●	0.375	0.063	0.047	0.0063
16	(0.091)	11	R	16ER11PT	●	●		0.375	0.063	0.047	0.0102	161R11PT	●	●	●	0.375	0.063	0.047	0.0102

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						
					AH725	NS9530						AH725	NS9530						
16 (0.053)	19	R	16ER19PT-M		●	0.375	0.035	0.028	0.0071	161R19PT-M		●	0.375	0.035	0.028	0.0071			
16 (0.071)	14	R	16ER14PT-B	●*		0.375	0.047	0.039	0.0083	161R14PT-B	●*		0.375	0.039	0.047	0.0083			
16 (0.071)	14	R	16ER14PT-M		●	0.375	0.063	0.047	0.0098	161R14PT-M		●	0.375	0.063	0.047	0.0098			
16 (0.091)	11	R	16ER11PT-B	●*		0.375	0.059	0.043	0.012	161R11PT-B	●*		0.375	0.059	0.043	0.0110			
16 (0.091)	11	R	16ER11PT-M		●	0.375	0.063	0.047	0.0126	161R11PT-M		●	0.375	0.063	0.047	0.0126			

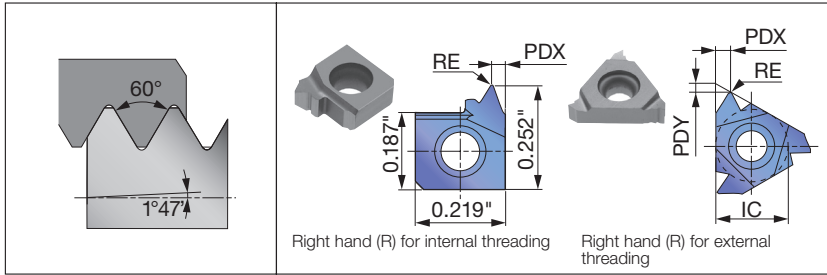
The adjustment of the cutting edge position will be needed as the dimensions of PDX and PDY are different from other inserts.

highlighted item requires changing shims.

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 **E056**.



NPT (for Pipe)



Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
16	CER/L**16... JSER**16 JS**SEL16 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				
					AH725	T313V	TH10						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

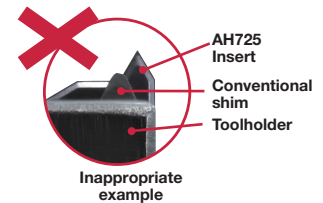
Full-profile insert with chipbreaker

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						
					AH725	NS9530						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	0.9	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	0.0047	16IR8NPT-B	●*		0.375	0.071	0.051	0.0047		

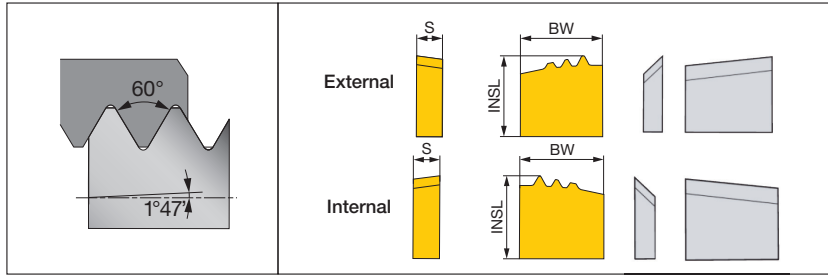
The adjustment of the cutting edge position will be needed as the dimensions of PDX and PDY are different from other inserts.

highlighted item requires changing shims.

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 E056.



NPT (for Pipe)



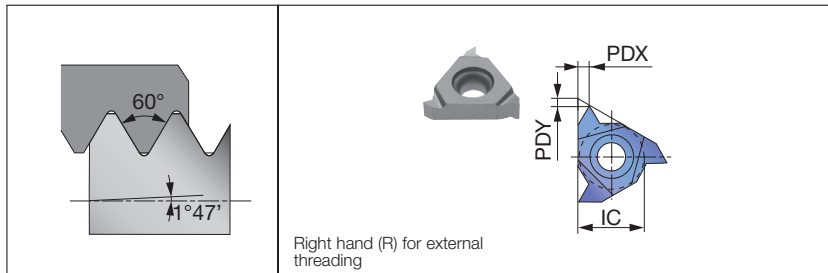
Applicable toolholder

External	Internal
CLVOR...	SI-CLHOR...

Full-profile insert (chaser)

Pitch (Reference) (mm)	TPI	External insert (mm)							Internal insert (mm)				
		Designation	Grade	BW	INSL	S	Breakerpiece	Designation	Grade	BW	INSL	S	Breakerpiece
			Coated						Coated				
			AH725						AH725				
(2.209)	11.5	CR-11.5NPT-4E	●	16	15.7	5.2	CR-8R / 10R-3E / 4E-CB	CR-11.5NPT-4I	●	16	15.7	5.2	CR-8R / 10R-3I / 4I-CB
(3.175)	8	CR-8NPT-4E	●	16	15.7	5.2	CR-8R / 10R-3E / 4E-CB	CR-8NPT-4I	●	16	15.7	5.2	CR-8R / 10R-3I / 4I-CB

NPTF (for Pipe)



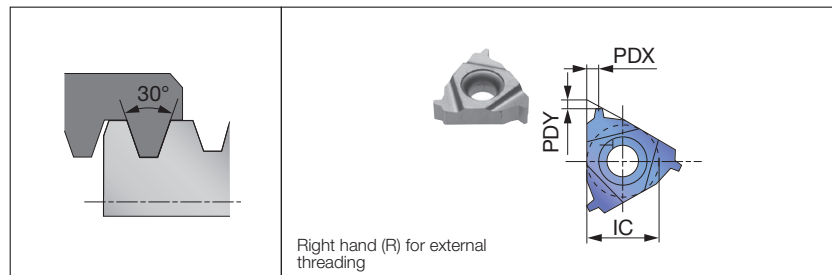
Applicable toolholder

Insert size	External	Internal
16	CER/L**16... JSER**16 JSE**SEL16 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						Coated					
					AH725						AH725					
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	-		

30° Trapezoidal / DIN103 (for Machine parts)



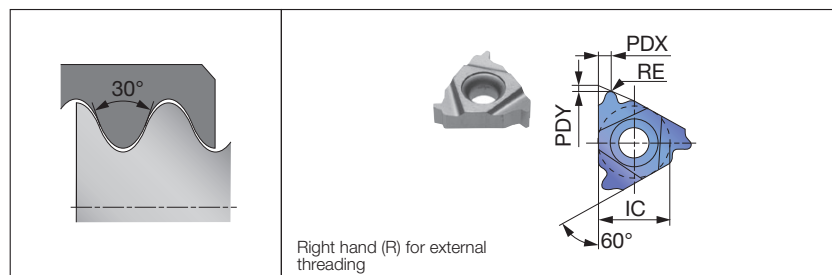
Applicable toolholder

Insert size	External	Internal
16	CER/L**16... JSER**16 JS**SEL16 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...	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 (Please see the page L044)

Insert size	Pitch (mm)	TPI	Hand of cut	External insert (in)					Internal insert (in)						
				Designation	Grade		IC	PDX	PDY	Designation	Grade		IC	PDX	PDY
					Coated						Coated				
					AH725	T313V					AH725	T313V			
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							

Round / DIN405 (for Machine parts)



Applicable toolholder

Insert size	External	Internal
16	CER/L**16... JSER**16 JS**SEL16 B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...

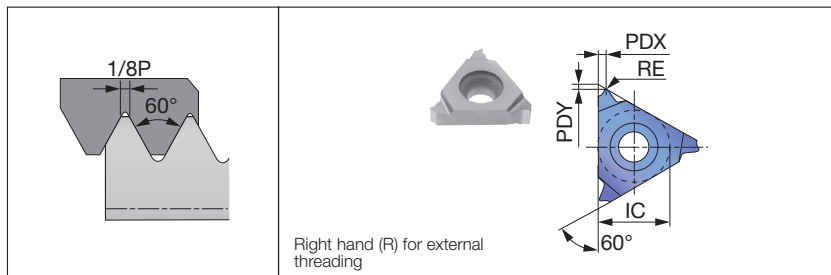
Full-profile insert

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						Coated						
					AH725						AH725						
16 (0.125)	8	R	16ER8RD-B	●	0.375	0.051	0.055	0.030									
16 (0.125)	6	R	16ER6RD-B	●	0.375	0.067	0.059	0.040	16IR6RD-B	●	0.375	0.059	0.055	0.037			

Reference pages: Toolholders → **E032 - E042**,
Standard cutting conditions → **E054, L044 - L060**

● : Line up / 5 pieces per package

UNJ (for Aerospace industry)



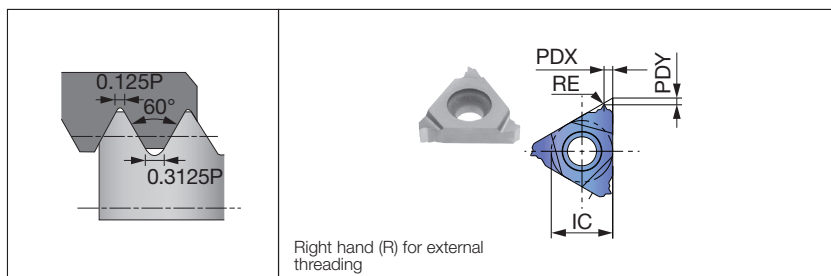
Applicable toolholder

Insert size	External
16	CER/L**16... JSER**16 JS**SEL16 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	IC	PDX	PDY
					Coated			
					AH725			
16 (0.031)	32	R		16ER32UNJ	●	0.375	0.020	0.047
16 (0.036)	28	R		16ER28UNJ	●	0.375	0.020	0.047
16 (0.042)	24	R		16ER24UNJ	●	0.375	0.035	0.028
16 (0.050)	20	R		16ER20UNJ	●	0.375	0.035	0.028
16 (0.056)	18	R		16ER18UNJ	●	0.375	0.035	0.028
16 (0.063)	16	R		16ER16UNJ	●	0.375	0.035	0.028
16 (0.071)	14	R		16ER14UNJ	●	0.375	0.063	0.047
16 (0.083)	12	R		16ER12UNJ	●	0.375	0.063	0.047
16 (0.100)	10	R		16ER10UNJ	●	0.375	0.063	0.047
16 (0.125)	8	R		16ER8UNJ	●	0.375	0.063	0.047

MJ (for Aerospace industry)



Applicable toolholder

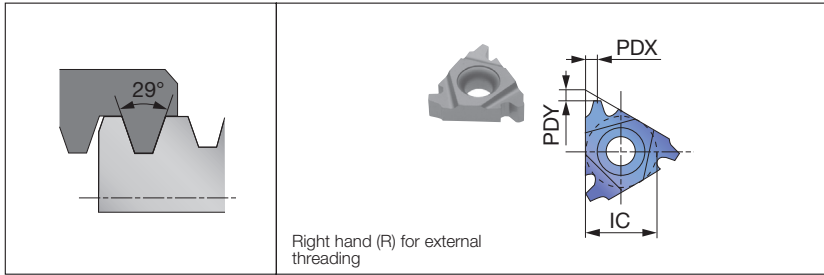
Insert size	External	Internal
11		SNR**11...

Insert size	Pitch (in)	TPI	Hand of cut	Internal insert (in)				
				Designation	Grade	IC	PDX	PDY
					Coated			
					AH8015			
11	0.039	R		11IR10MJ	●	0.250	0.035	0.028

Reference pages: Toolholders → **E032 - E042**,
Standard cutting conditions → **E054, L044 - L060**

● : Line up / 5 pieces per package

29° Trapezoidal / ACME (for Machine parts, Pipe)



Applicable toolholder

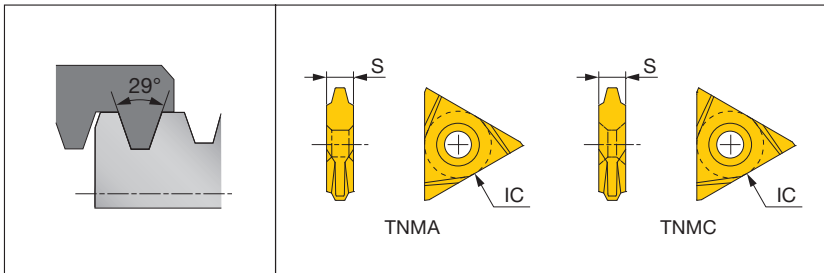
Insert size	External	Internal
16	CER/L**16... JSER**16 JS**SEL16 B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22...	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...

With the special full-profile insert (Please see the page L044)

Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in)						Internal insert (in)					
				Designation	Grade		IC	PDX	PDY	Designation	Grade		IC	PDX	PDY
					Coated						Coated				
					AH725	T313V					AH725	T313V			
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
16	(0.100)	10	R	16ER10STACME (STACME)	●		0.375	0.063	0.051	16IR8STACME (STACME)	●		0.375	0.063	0.051
16	(0.125)	8	R	16ER8TPI29	●		0.375	0.063	0.051	16IR8TPI29	●		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	22ER6TPI29 (STACME)	●		0.500	0.098	0.079	22IR6TPI29 (STACME)	●		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
22	(0.200)	5	R	22ER5TPI29 (STACME)	●		0.500	0.098	0.079	22IR5TPI29 (STACME)	●		0.500	0.098	0.079

TPI29 inserts are semi-topping insert. STACME inserts are full-topping insert.

29° Trapezoidal / ACME (for Machine parts, Pipe)



Applicable toolholder

External
MTVOR...
STVOR...

On edge

Pitch	TPI	External insert (in)			
		Designation	Grade	IC	S
			Coated AH725		
	16	TNMA43NT16PEXT-PT	●	0.500	0.189
	14	TNMA43NT14PEXT-PT	●	0.500	0.189
	12	TNMA43NT12PEXT-PT	●	0.500	0.189
	10	TNMA43NT10PEXT-PT	●	0.500	0.189
	8	TNMA43NT8PEXT-PT	●	0.500	0.189
	6	TNMA43NT6PEXT-PT	●	0.500	0.189
	5	TNMA54NT5PEXT-PT	●	0.625	0.252
	4	TNMA54NT4PEXT-PT	●	0.625	0.252
	3	TNMA54NT3PEXT-PT	●	0.625	0.252
	16	TNMC43NT16PEXT-PT	●	0.500	0.189
	14	TNMC43NT14PEXT-PT	●	0.500	0.189
	12	TNMC43NT12PEXT-PT	●	0.500	0.189
	10	TNMC43NT10PEXT-PT	●	0.500	0.189
	8	TNMC43NT8PEXT-PT	●	0.500	0.189
	6	TNMC43NT6PEXT-PT	●	0.500	0.189
	5	TNMC54NT5PEXT-PT	●	0.625	0.252
	4	TNMC54NT4PEXT-PT	●	0.625	0.252
	3	TNMC54NT3PEXT-PT	●	0.625	0.252

● : Line up / 5 pieces per package

29° Trapezoidal/ STUB ACME (for Machine parts, Pipe)

On edge

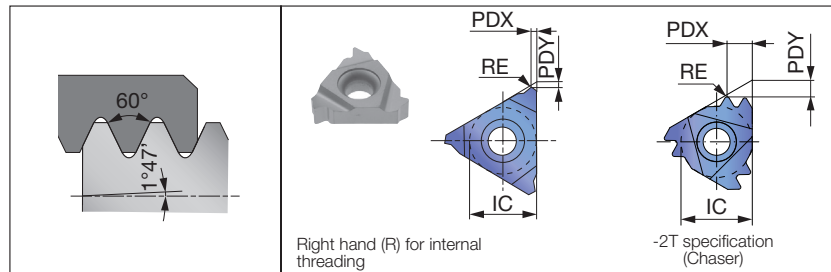
Pitch	TPI	External insert (in)			
		Designation	Grade	IC	S
			Coated AH725		
16		TNMA43NT16PSTUBE-PT	●	0.500	0.189
14		TNMA43NT14PSTUBE-PT	●	0.500	0.189
12		TNMA43NT12PSTUBE-PT	●	0.500	0.189
10		TNMA43NT10PSTUBE-PT	●	0.500	0.189
8		TNMA43NT8PSTUBE-PT	●	0.500	0.189
6		TNMA43NT6PSTUBE-PT	●	0.500	0.189
5		TNMA54NT5PSTUBE-PT	●	0.625	0.252
4		TNMA54NT4PSTUBE-PT	●	0.625	0.252
3		TNMA54NT3PSTUBE-PT	●	0.625	0.252
16		TNMC43NT16PSTUBE-PT	●	0.500	0.189
14		TNMC43NT14PSTUBE-PT	●	0.500	0.189
12		TNMC43NT12PSTUBE-PT	●	0.500	0.189
10		TNMC43NT10PSTUBE-PT	●	0.500	0.189
8		TNMC43NT8PSTUBE-PT	●	0.500	0.189
6		TNMC43NT6PSTUBE-PT	●	0.500	0.189
5		TNMC54NT5PSTUBE-PT	●	0.625	0.252
4		TNMC54NT4PSTUBE-PT	●	0.625	0.252
3		TNMC54NT3PSTUBE-PT	●	0.625	0.252

Applicable toolholder

External
MTVOR...
STVOR...

ACME and STUB ACME can cut crest radius. Crest flat of ACME and STUB ACME need to be cut by another tool.

API Round (for Energy)



Applicable toolholder

Insert size	External	Internal
16	CER/L**16... JSER**16 JS**SEL16 B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
		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							
					AH725	T313V						AH725	T313V						
16 (0.100)	10	R	16ER10RAPI	●		0.375	0.063	0.047	0.0142	16IR10RAPI	●	●	0.375	0.063	0.047	0.0142			
16 (0.125)	8	R	16ER8RAPI	●		0.375	0.063	0.047	0.0169	16IR8RAPI	●	●	0.375	0.063	0.047	0.0169			
22 (0.125)	8	R									22IR8RAPI-2T	●		0.500	0.177	0.118	0.0169		

Full-profile insert with chipbreaker

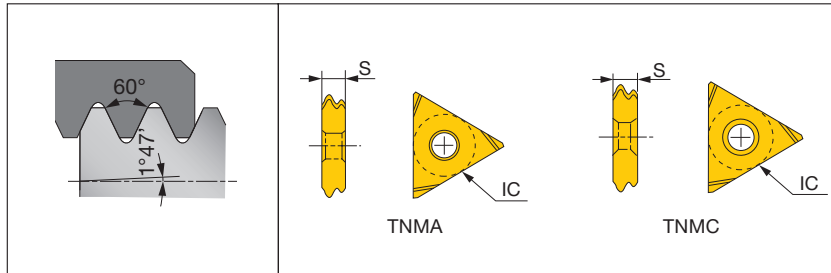
Insert size	Pitch (Reference) (in)	TPI	Hand of cut	External insert (in)								Internal insert (in)							
				Designation	Grade	IC	PDX	PDY	RE	Designation	Grade	IC	PDX	PDY	RE				
					Coated						Coated								
					AH725						AH725								
16 (0.100)	10	R	16ER10RD-CB	●	0.375	0.047	0.059	0.0142	16IR10RD-CB	●	0.375	0.047	0.059	0.0142					
16 (0.125)	8	R	16ER8RD-CB	●	0.375	0.051	0.059	0.0169	16IR8RD-CB	●	0.375	0.051	0.059	0.0169					

Reference pages: Toolholders → **E032 - E042**,
 Standard cutting conditions → **E054, L044 - L060**

● : Line up / 5 pieces per package



API Round (for Energy)

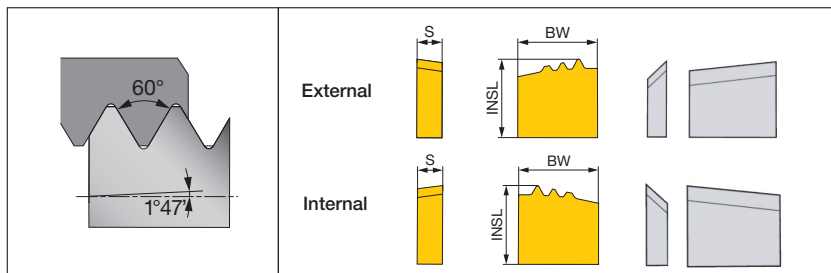


Applicable toolholder

External	Internal
MTHOR...	SI-MTHOR...
MTVOR...	SI-STHOR...
STVOR...	H**-MTHOR...
GTB...	H**M-MTHOR...

On edge

Pitch (Reference) (in)	TPI	External insert (in)				Internal insert (in)			
		Designation	Grade	IC	S	Designation	Grade	IC	S
			Coated AH725				Coated AH725		
(0.100)	10	TNMA4310RDEXT	●	0.500	0.189	TNMA4310RDINT	●	0.500	0.189
(0.125)	8	TNMA438RDEXT	●	0.500	0.189	TNMA438RDINT	●	0.500	0.189
(0.100)	10	TNMC4310RDEXT	●	0.500	0.189	TNMC4310RDINT	●	0.500	0.189
(0.125)	8	TNMC438RDEXT	●	0.500	0.189	TNMC438RDINT	●	0.500	0.189

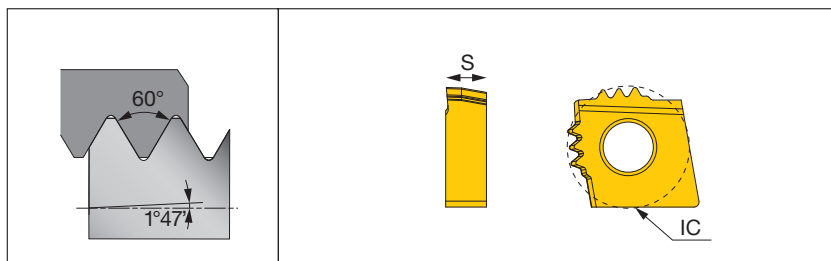


Applicable toolholder

External	Internal
CLVOR...	SI-CLHOR...

Full-profile insert (chaser)

Pitch (Reference) (mm)	TPI	External insert (mm)						Internal insert (mm)					
		Designation	Grade	BW	INSL	S	Breakerpiece	Designation	Grade	BW	INSL	S	Breakerpiece
			Coated AH725						Coated AH725				
(3.175)	8	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	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



Applicable toolholder

External
PCFNR...

Full-profile insert (chaser)

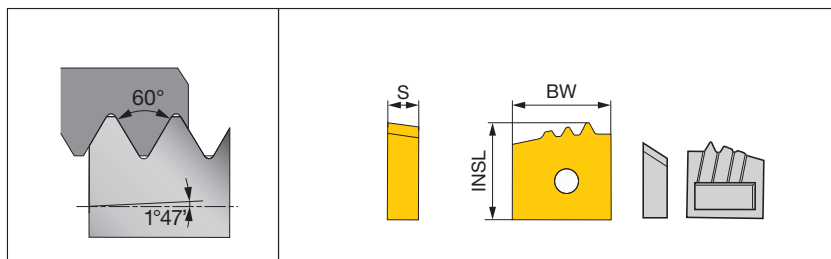
Pitch (Reference) (mm)	TPI	External insert (mm)			
		Designation	Grade	IC	S
			Coated AH725		
(2.54)	10	CNGA-10R-3E	●	19.05	6.4
(3.175)	8	CNGA-8R-3E	●	19.05	6.4

Toolholders need to be customized for these types of inserts.

Reference pages: Toolholders → **E032 - E042**,
Standard cutting conditions → **E054**

● : Line up / 5 pieces per package

API Round (for Energy) For tool-rotating machines



Applicable toolholder

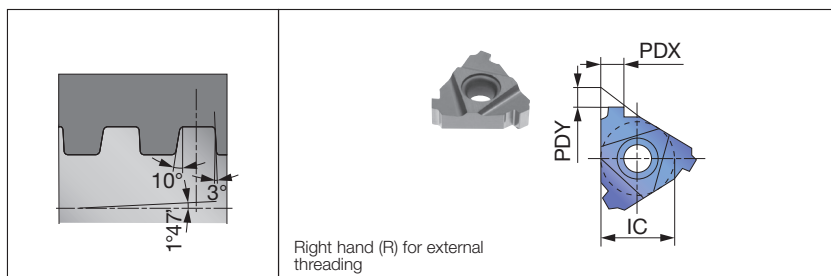
External
CLVOR...

Full-profile insert (chaser)

Pitch (Reference) (mm)	TPI	External insert (mm)					
		Designation	Grade	BW	INSL	S	Breakerpiece
			Coated AH725				
(3.175)	8	CR-8R-3E #1	●	16	14.7	5.2	TD39318R-1-CBW/CAVITY
(3.175)	8	CR-8R-3E #2	●	16	14.9	5.2	TD39328R-2-CBW/CAVITY
(3.175)	8	CR-8R-3E #3	●	16	15	5.2	TD39338R-3-CBW/CAVITY

Toolholders need to be customized for these types of inserts.

API Buttress (for Energy industry)

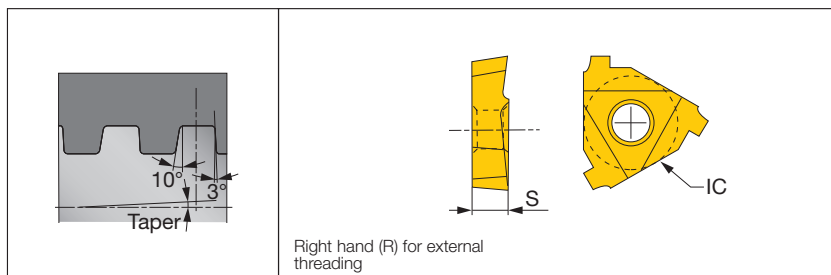


Applicable toolholder

Insert size	External	Internal
22	CER/L**22...	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		Designation	Grade	IC	PDX	PDY	
					Coated AH725						Coated AH725				
22 (0.200)	5	R	R	22ER5BAPI	●	0.500	0.146	0.087		22IR5BAPI	●	0.500	0.136	0.087	



Applicable toolholder

External	Internal
MTVNR...	H**-LNFR... H**M-LNFR... HS**-LNFR...

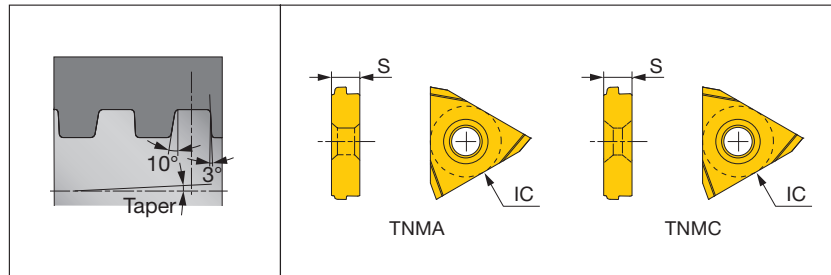
Full-profile insert (single side)

Pitch (Reference) (mm)	TPI	Taper	External insert (mm)						Internal insert (mm)					
			Designation	Grade	IC	S			Designation	Grade	IC	S		
				Coated AH725						Coated AH725				
(5.08)	5	0.75	L535B75EXT-FC	●	15.875	4.8			L535B75INT-FC	●	15.875	4.8		
(5.08)	5	1	L535B1EXT-FC	●	15.875	4.8			L535B1INT-FC	●	15.875	4.8		

Reference pages: Toolholders → **E032 - E042**,
Standard cutting conditions → **E054**

● : Line up / 5 pieces per package

API Buttress (for Energy industry)

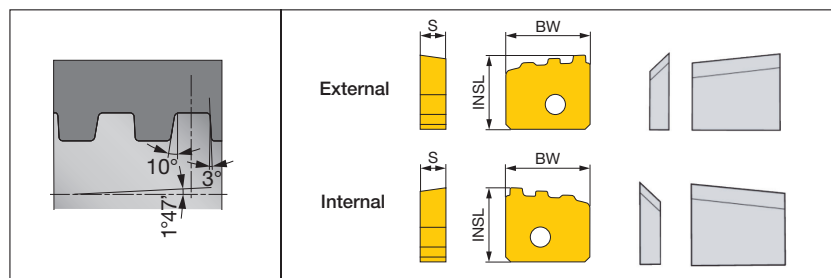


Applicable toolholder

External	Internal
MTHOR...	SI-MTHOR...
MTVOR...	SI-STHOR...
STVOR...	H**-MTHOR...
GTB...	H**M-MTHOR...

On edge

Pitch (Reference) (in)	TPI	Taper TPF	External insert (in)				Internal insert (in)			
			Designation	Grade	IC	S	Designation	Grade	IC	S
				Coated AH725				Coated AH725		
(0.200)	5	1	TNMA545B1EXT-FC	●	0.625	0.252	TNMA545B1INT-FC	●	0.625	0.252
(0.200)	5	0.75	TNMA545B75EXT-FC	●	0.625	0.252	TNMA545B75INT-FC	●	0.625	0.252
(0.200)	5	1	TNMC545B1EXT-FC	●	0.625	0.252	TNMC545B1INT-FC	●	0.625	0.252
(0.200)	5	0.75	TNMC545B75EXT-FC	●	0.625	0.252	TNMC545B75INT-FC	●	0.625	0.252

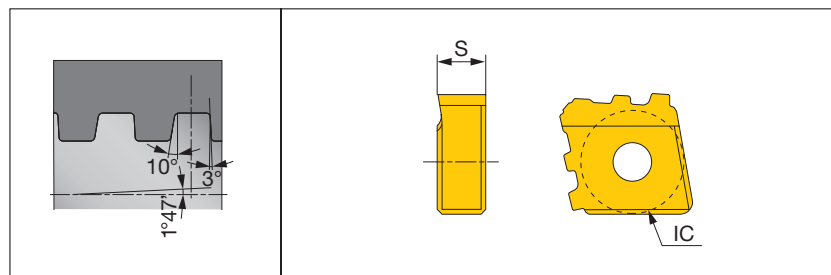


Applicable toolholder

External	Internal
CLVOR...	SI-CLHOR...

Full-profile insert (chaser)

Pitch (Reference) (mm)	TPI	External insert (mm)						Internal insert (mm)					
		Designation	Grade	BW	INSL	S	Breakerpiece	Designation	Grade	BW	INSL	S	Breakerpiece
			Coated AH725						Coated AH725				
(5.08)	5	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



Applicable toolholder

External
PCFNR...

Full-profile insert (chaser)

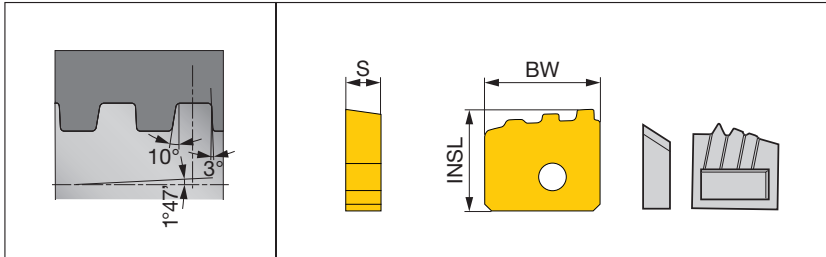
Pitch (Reference) (mm)	TPI	External insert (mm)			
		Designation	Grade	IC	S
			Coated AH725		
(5.08)	5	CNGA-5B75-3E	●	19.05	6.4

Toolholders need to be customized for these types of inserts.

Reference pages: Toolholders → [E032 - E042](#),
Standard cutting conditions → [E054](#)

● : Line up / 5 pieces per package

API Buttress (for Energy industry) For tool-rotating machines



Applicable toolholder

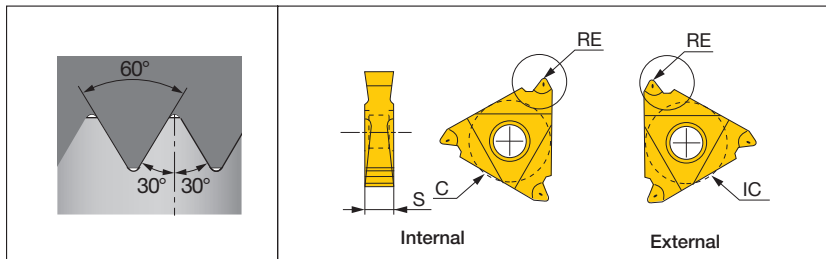
External
CLVOR...

Full-profile insert (chaser)

Pitch (Reference) (mm)	TPI	External insert (mm)							
		Designation	Grade	BW	INSL	S	RE	Breakerpiece	
			Coated						
			AH725						
(5.08)	5	CR-5B75-3E #1	●	17	14.6	5.2		TD46015B75-1-CBW/CAVITY	
(5.08)	5	CR-5B75-3E #2	●	17	14.8	5.2		TD46025B75-2-CBW/CAVITY	
(5.08)	5	CR-5B75-3E #3	●	17	15	5.2		TD46035B75-3-CBW/CAVITY	

Toolholders need to be customized for these types of inserts.

API Rotary shoulder connection (for Energy industry)

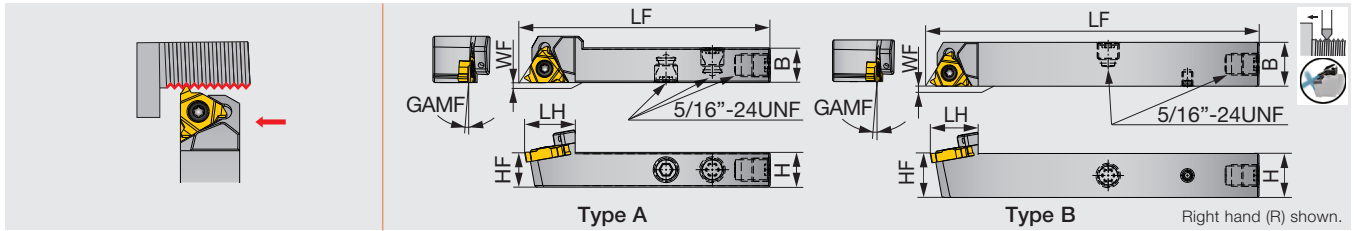


Applicable toolholder

External	Internal
MTVNR...	H**-LNFR...
	H**M-LNFR...
	HS**-LNFR...

Full-profile insert (Double side)

Pitch (Reference) (in)	TPI	Connection	Taper	Designation	Grade	IC (in)	S (in)	RE (in)
			TPF		Coated AH725			
(0.250)	4	V-0.038R	2	LDS54428FT-CB #1	●	0.625	0.252	0.038
(0.250)	4	V-0.038R	3	LDS54438FT-CB #2	●	0.625	0.252	0.038
(0.250)	4	V-0.050	2	LDS54425FT-CB #3	●	0.625	0.252	0.025
(0.250)	4	V-0.050	3	LDS54435FT-CB #4	●	0.625	0.252	0.025
(0.200)	5	V-0.040	3	LDS54530FT-CB #5	●	0.625	0.252	0.020



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°	A	16ER...
JSE2R08X16-CHP	0.500	0.500	4.750	0.748	0.500	0.000	1°	B	16ER...
JSE2R10X16-CHP	0.625	0.625	4.750	0.748	0.625	0.000	1°	B	16ER...
Metric	H	B	LF	LH	HF	WF	GAMF	Type	Insert
JSE2R1212F16-CHP ※	12	12	85	19	12	0	1°	A	16ER...
JSE2R1212X16-CHP	12	12	120	19	12	0	1°	B	16ER...
JSE2R1616X16-CHP	16	16	120	19	16	0	1°	B	16ER...

※ Connection with external coolant tube

SPARE PARTS

Designation	Clamping screw	Wrench
JSE2R**16-CHP	CSTB-3.5	T-15F

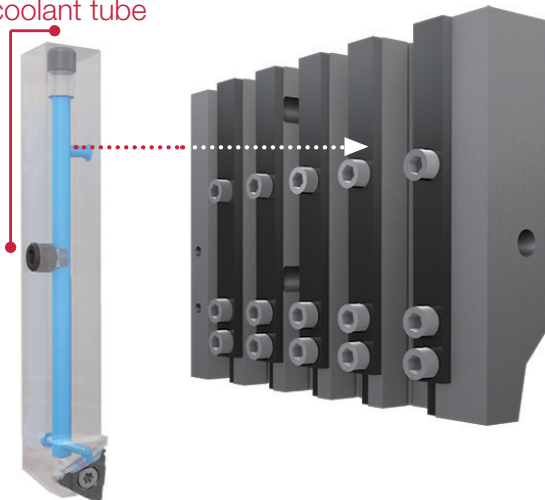
No need for coolant tube setup.

Eliminates chip entanglement on tubes and streamlines tool replacement.

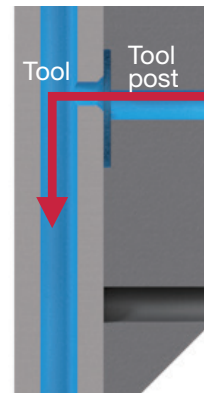
Coolant is supplied from the tool post directly to the tools

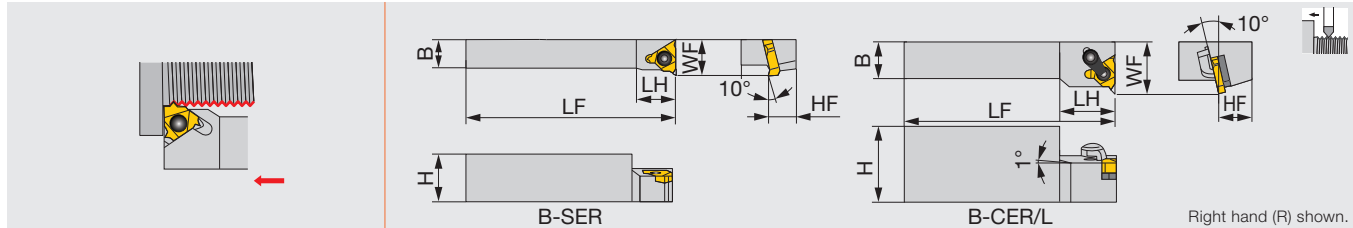
Internal thread

Optional connection with external coolant tube



Detailed view of the coolant flow after connection





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...

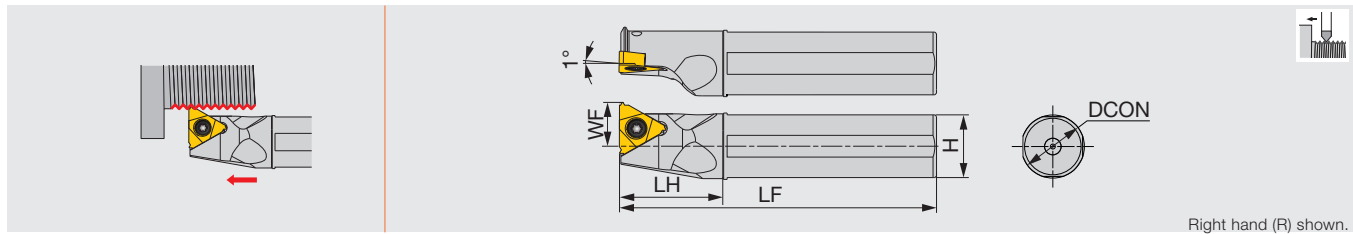
SPARE PARTS

Designation	Clamp set	Shim set	Clamping screw	Wrench
B-SER**16	-	-	CSTB-3.5	T-15F
B-CER/L16M16	CSP16	A16-1	-	T-15F

TUNGTHREAD

JS-SEL16

External threading toolholder for Swiss lathes



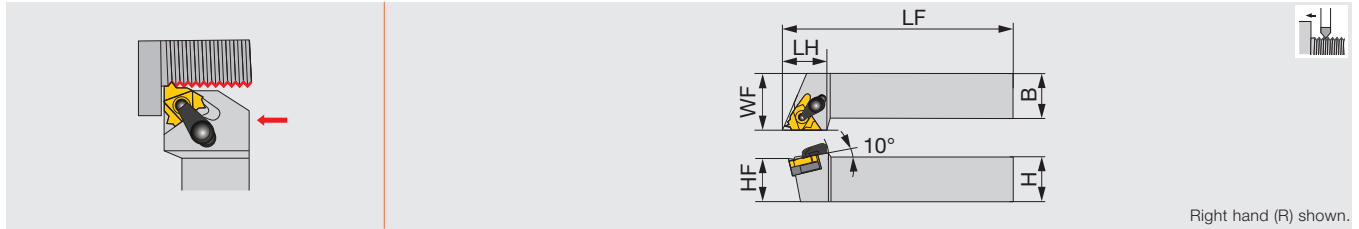
Inch	DCON	H	LF	LH	WF	Insert
JS16F-SEL16	0.630	0.591	3.346	0.984	0.433	16ER...
JS19G-SEL16	0.750	0.709	3.543	1.181	0.492	16ER...
JS19X-SEL16	0.750	0.709	4.724	1.181	0.492	16ER...
JS20G-SEL16	0.787	0.748	3.543	1.181	0.512	16ER...
JS20X-SEL16	0.787	0.748	4.724	1.181	0.512	16ER...
JS25HSEL16	0.984	0.945	3.937	1.181	0.61	16ER...
JS254X-SEL16	1.000	0.945	4.724	1.181	0.618	16ER...

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...
JS25HSEL16	25	24	100	30	15.5	16ER...
JS254X-SEL16	25.4	24	120	30	15.7	16ER...

Use left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
JS***-SEL16	CSTB-3.5	T-15F



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...

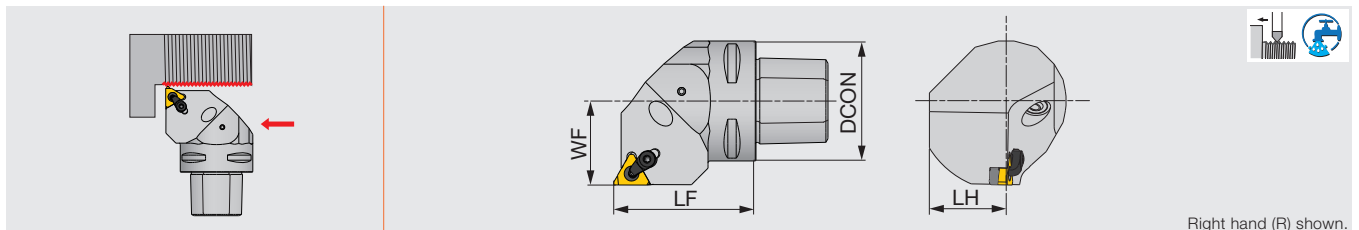
A clamp set consists of a clamp and a clamping screw. A shim set consists of a shim and a shim screw to secure the shim to the shank. Standard shims can be used on both right- and left-hand toolholders. Please use either of the sides depending on the tool hand. When using DT type, please remove either the clamp set or the insert clamping screw.

Designation	Clamp set	Clamping screw	Shim screw	Shim	Shim set	Wrench 1	Wrench 2	Wrench 3
CER/L 123-DT	CSP16	CSTB-3.5ST	DTS5 - 3.5	A16 - 1DT	-	P-3.5	T-15F	-
CER/L 163-DT	CSP16	CSTB-3.5ST	DTS5 - 3.5	A16 - 1DT	-	P-3.5	T-15F	-
CER 203-DT	CSP22	CSTB-4ST	DTS6-4	GX22-1DT	-	P-3.5	T-15F	-
CER164-DT	CSP22	CSTB-4ST	DTS6-4	GX22-1DT	-	P-4	T-20F	-
CER 204-DT	CSP22	CSTB-4ST	DTS6-4	GX22-1DT	-	P-4	T-20F	-
CER/L**16DT	CSP22	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	-	-

TUNGCAP

C-CER/L

Clamp-on external threading toolholder

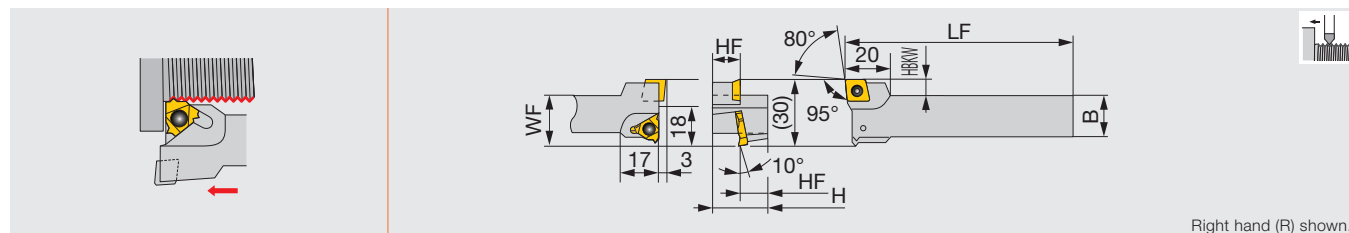


Right hand (R) shown.

Metric	DCON	LF	LH	WF	RE	Insert
C4CER/L27050-16ERN(2)	40	50	25	27	0.8	16ER/L...
C5CER/L35060-16ER(1)	50	60	32	35	0.8	16ER/L...
C5CER/L35060-16ERN(2)	50	60	32	35	0.8	16ER/L...
C6CER/L45065-16ER(1)	63	65	41	45	0.8	16ER/L...
C6CER/L45065-16ERN(2)	63	65	41	45	0.8	16ER/L...

(1) Applicable for 3 MPa coolant (2) Applicable for 7 MPa coolant

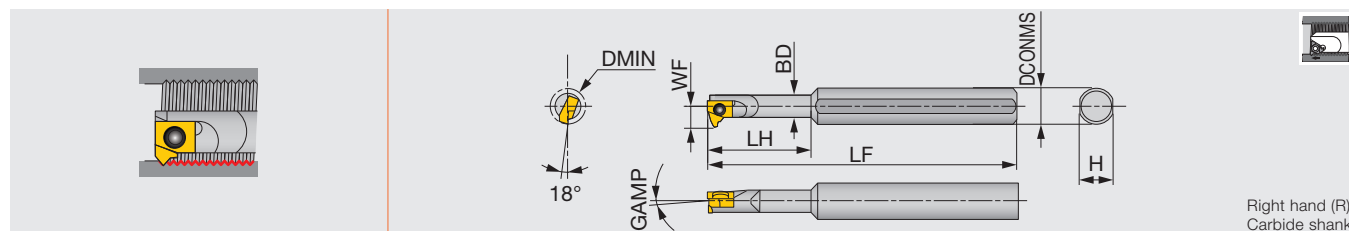
Designation	Clamp set	Clamping screw	Coolant parts	Shim screw	Shim	Wrench 1	Wrench 2
C5CE*35060-16ER	CSP16	CSTB-3.5ST	EZ104	DTS5-3.5	A16-1DT	P-3.5	T-15F
C5CE*35060-16ERN	CSP16	CSTB-3.5ST	SATZ-M10X1-M5	DTS5-3.5	A16-1DT	P-3.5	T-15F
C6CE*45065-16ER	CSP16	CSTB-3.5ST	EZ104	DTS5-3.5	A16-1DT	P-3.5	T-15F
C6CE*45065-16ERN	CSP16	CSTB-3.5ST	SATZ-M10X1-M5	DTS5-3.5	A16-1DT	P-3.5	T-15F



Metric	H	B	LF	HF	WF	HBKW	Insert
BC-SER12K16	24	16	125	12	23	7	16ER..., CC*T09T3...

SPARE PARTS

Designation	Clamping screw	Wrench
BC-SER12K16	CSTB-3.5	T-15F



Metric	Material	DMIN	DCONMS	BD	WF	LF	LH	H	GAMP	Insert
SNR0006H06-2	Steel	8	8	6	4.7	100	18	7	2°	6IR...
SNR0006H06-3	Steel	8	8	6	4.7	100	18	7	3°	6IR...
SNR0008H06-2	Steel	10	8	7.8	5.7	100	18	7	2°	6IR...
SNR0008H06-3	Steel	10	8	7.8	5.7	100	18	7	3°	6IR...
SNR0006K06SC-2	Carbide	8	8	6	4.7	125	30	7	2°	6IR...
SNR0006K06SC-3	Carbide	8	8	6	4.7	125	30	7	3°	6IR...
SNR0008K06SC-2	Carbide	10	8	7.8	5.7	125	18	7	2°	6IR...
SNR0008K06SC-3	Carbide	10	8	7.8	5.7	125	18	7	3°	6IR...

Use right-hand toolholders (R) with right-hand inserts (R).

SPARE PARTS

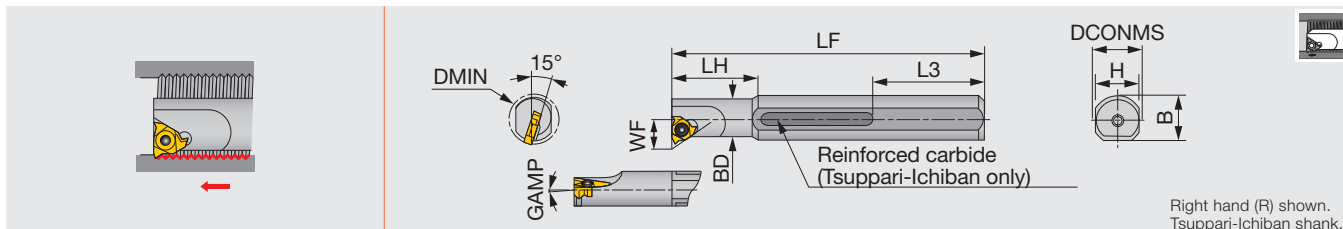
Designation	Clamping screw	Wrench
SNR0006H06...	CSTB-2L040	T-6F
SNR0008H06...	CSTB-2L	T-6F
SNR0006K06SC...	CSTB-2L040	T-6F
SNR0008K06SC...	CSTB-2L	T-6F

Reference pages: C-CER/L: Inserts → [E010](#), [E014](#), [E016](#) - [E027](#)

BC-SER/L: Inserts → [B111](#) - (CC*T09T3...), [E010](#), [E014](#), [E016](#) - [E027](#) (16ER...)

SNR/L-2/3: Inserts → [E016](#), [E020](#) - [E022](#)

Standard cutting conditions → [E054](#)



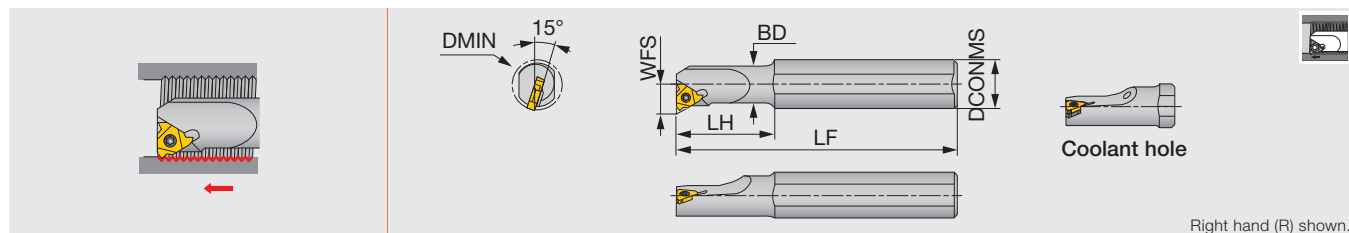
Metric	Material	DMIN	DCONMS	BD	WF	LF	LH	L3	H	B	GAMP	Insert
TSNR0016Q16	Reinforced	19	16	15.5	10.6	180	40	59	15	-	1°	16IR...
TSNR0020R22	Reinforced	24	20	19.5	13.9	200	50	49	18	-	1°	22IR...
SNR/L0010K11	Steel	12	16	10	6.6	125	25	-	15	15.5	1°	11IR/L...
SNR0010K11-2	Steel	12	16	10	6.6	125	25	-	15	15.5	2°	11IR...
SNR0010K11-3	Steel	12	16	10	6.6	125	25	-	15	15.5	3°	11IR...
SNR/L0013L11	Steel	15	16	13	8.2	140	32.5	-	15	15.5	1°	11IR/L...
SNR0013L11-2	Steel	15	16	13	8.2	140	32.5	-	15	15.5	2°	11IR...
SNR0013L11-3	Steel	15	16	13	8.2	140	32.5	-	15	15.5	3°	11IR...
SNR/L0016M16	Steel	19	16	15.5	10.6	150	40	-	15	15.5	1°	16IR/L...
SNR0016M16-2	Steel	19	16	15.5	10.6	150	40	-	15	15.5	2°	16IR...
SNR0016M16-3	Steel	19	16	15.5	10.6	150	40	-	15	15.5	3°	16IR...
SNR/L0020Q22	Steel	24	20	19.5	13.9	180	50	-	18	19	1°	22IR/L...
SNR0020Q22-2	Steel	24	20	19.5	13.9	180	50	-	18	19	2°	22IR...
SNR0020Q22-3	Steel	24	20	19.5	13.9	180	50	-	18	19	3°	22IR...
SNR0010M11SC	Carbide	13	10	10.5	7.4	150	24	-	9	-	1°	11IR...
SNR0010M11SC-2	Carbide	13	10	10.5	7.4	150	24	-	9	-	2°	11IR...
SNR0010M11SC-3	Carbide	13	10	10.5	7.4	150	24	-	9	-	3°	11IR...
SNR0012P11SC	Carbide	15	12	12.4	8.5	170	28	-	11	-	1°	11IR...
SNR0012P11SC-2	Carbide	15	12	12.4	8.5	170	28	-	11	-	2°	11IR...
SNR0012P11SC-3	Carbide	15	12	12.4	8.5	170	28	-	11	-	3°	11IR...
SNR/L0016R16SC	Carbide	20	16	16.2	11.9	200	35	-	15	-	1°	16IR/L...
SNR0016R16SC-2	Carbide	20	16	16.2	11.9	200	35	-	15	-	2°	16IR...

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
TSNR0016Q16	CSTB-3.5	T-15F
TSNR0020R22	CSTB-4	T-15F
SNR/L00**11...	CSTB-2.5	T-8F
SNR/L0016M16...	CSTB-3.5	T-15F
SNR/L0020Q22...	CSTB-4	T-15F
SNR00**11SC...	CSTB-2.5	T-8F
SNR/L0016R16SC...	CSTB-3.5	T-15F

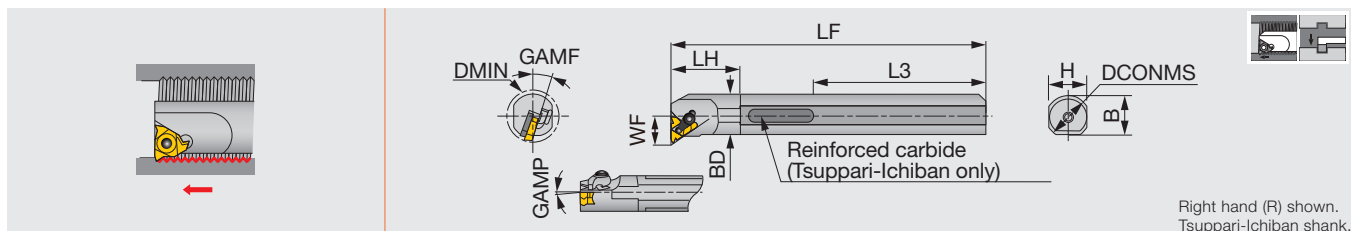


Right hand (R) shown.

Inch	Material	DMIN	DCONMS	BD	WFS	LF	LH	Coolant	Insert
SIR0500M16B	Steel	0.640	0.625	0.500	0.390	6.000	1.260	Y	16IR...
SIR0625P16B	Steel	0.750	0.750	0.625	0.450	7.000	1.570	Y	16IR...
SIR0750P16	Steel	1.000	0.750	0.750	0.510	7.000	-	N	16IR...
SIR0750P16B	Steel	0.900	0.750	0.750	0.900	7.000	-	Y	16IR...
SIR0750P22	Steel	0.950	0.750	0.750	0.510	7.000	-	N	22IR...
SIR1000R16B	Steel	1.160	1.000	1.000	0.650	8.000	-	Y	16IR...
SIR1000R22	Steel	1.200	1.000	1.000	0.710	8.000	-	N	22IR...
SIR1250S16	Steel	1.420	1.250	1.250	0.770	10.000	-	N	16IR...
SIR1250S22	Steel	1.500	1.250	1.250	0.850	10.000	-	N	22IR...
SIR 1500 T27	Steel	1.800	1.500	1.500	1.000	12.000	-	N	27IR...

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	-



Metric	Material	DMIN	DCONMS	BD	WF	LF	LH	L3	H	B	GAMF	GAMP	Insert
TCNR0020R16DT	Reinforced	24	20	19.5	14	200	30	49	18	-	15°	1°	16IR...
TCNR0025S16DT	Reinforced	29	25	24.5	16.5	250	38	64	23	-	15°	1°	16IR...
TCNR0025S22DT	Reinforced	30	25	24.5	18.2	250	38	64	23	-	15°	1°	22IR...
CNR/L0020P16	Steel	24	20	19.5	14	170	30	-	18	19	15°	1°	16IR/L...
CNR/L0025R16	Steel	29	25	24.5	16.5	200	38	-	23	24	15°	1°	16IR/L...
CNR/L0032S16	Steel	37	32	31.5	20.1	250	48	-	30	31	15°	1°	16IR/L...
CNR/L0025R22	Steel	30	25	24.5	18.2	200	38	-	23	24	15°	1°	22IR/L...
CNR/L0032S22	Steel	38	32	31.5	21.9	250	48	-	30	31	15°	1°	22IR/L...
CNR0040T27	Steel	46	40	39.5	26.9	300	60	-	37	38.5	10°	1°	27IR ...

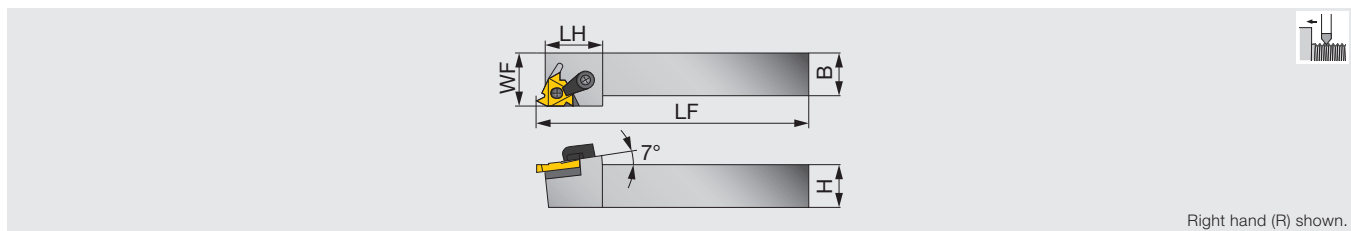
A clamp set consists of a clamp and a clamping screw.

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.

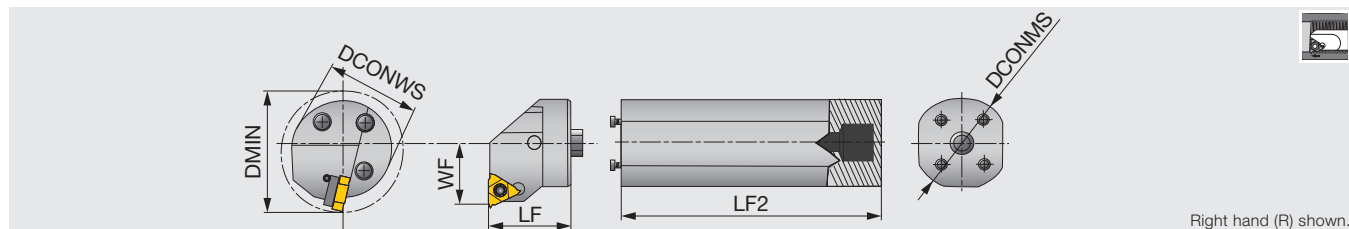
When using DT type, please remove either the clamp set or the insert clamping screw.

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	-	-



Inch	B	H	LF	LH	WF	Insert
MTVNR-2054	1-1/4	1-1/4	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	B	H	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

SPARE PARTS					
Designation	Shim	Lock pin	Clamp	Clamping screw	Wrench
MTVNR...	LS53NOFORMEXT	NL-58	TC-250	STC-11	1/8HEX



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

SPARE PARTS

Designation	Lock pin	Clamp	Clamping screw	Wrench
HS**-LNFR-53	NL-56	TC-250	STC-11	1/8HEX

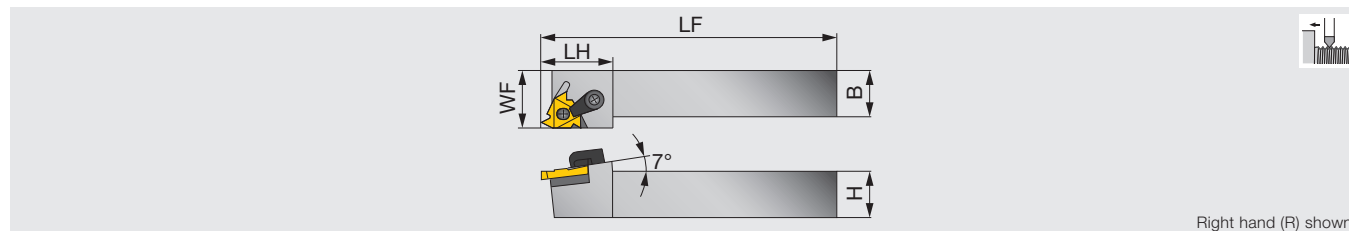
Shank

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

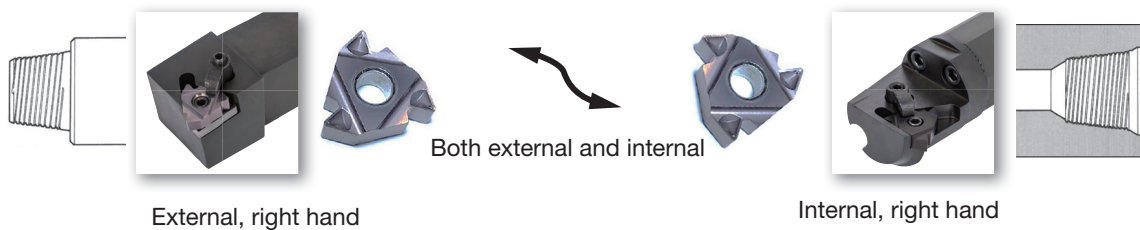
Designation	Clamping screw	Wrench
S-570-40M-40	SS100	5/32HEX
S-570-50M-50	SS94	1/4EX

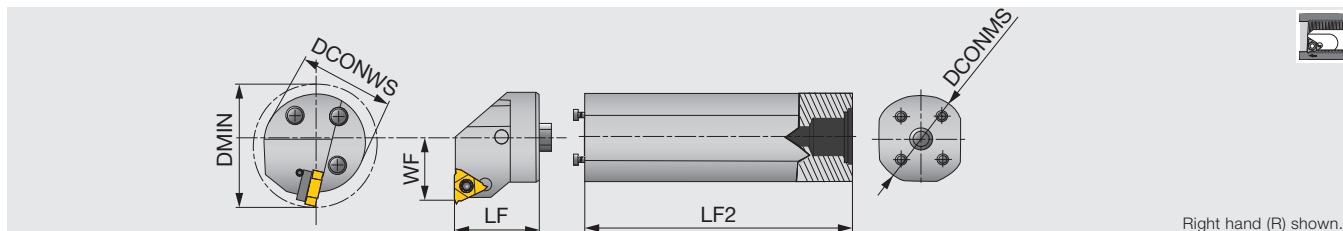


Metric	H	B	LF	LH	WF	Insert
MTVNR-3232M54	32	32	178	39	38.1	LDS54**FT-CB#...

SPARE PARTS

Designation	Shim	Lock pin	Clamp	Clamping screw	Wrench
MTVNR-3232M54	LS53NOFORMEXT	NL-58	TC-250	STC-11	1/8HEX





Right hand (R) shown.

Inch	DMIN	DCONWS	WF	LF	Insert
HS40-LNFR-54API	1.970	1.57	1.063	1.26	LDS54**FT-CB#...
HS50-LNFR-54API	2.480	1.97	1.378	1.57	LDS54**FT-CB#...

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

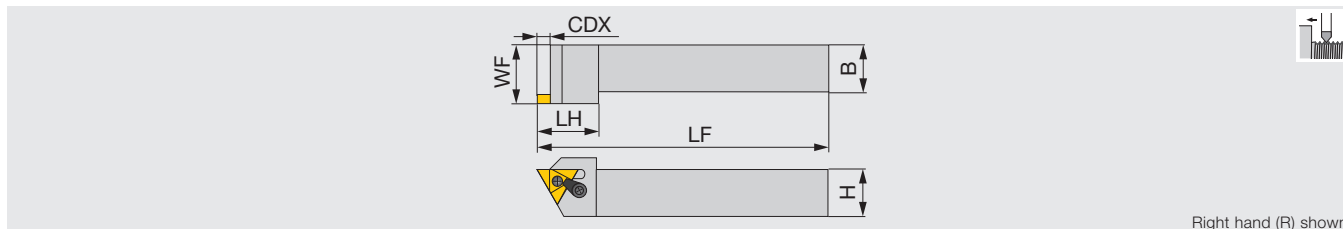
Shank

Inch	DCONMS	LF2
S-570-32-50	2.000	14.410
S-570-40M-40	1.575	10.750
S-570-50M-50	1.969	14.410

SPARE PARTS



Designation	Clamping screw	Wrench
S-570-40M-40	SS100	5/32HEX
S-570-50M-50	SS94	1/4EX



Right hand (R) shown.

Inch	H	B	LF	LH	WF	CDX	Insert
MTVOR-164	1.000	1.000	6.000	1.230	1.250	0.230	TNM*43...
MTVOR-204	1-1/4	1-1/4	7.000	1.230	1.500	0.230	TNM*43...
MTVOR-205	1-1/4	1-1/4	7.000	1.430	1.500	0.290	TNM*54...
MTVOR-206	1-1/4	1-1/4	7.000	1.620	1.500	0.370	TNM*66...
MTVOR-2069	1-1/4	1-1/4	7.000	1.620	1.500	0.370	TNM*69...

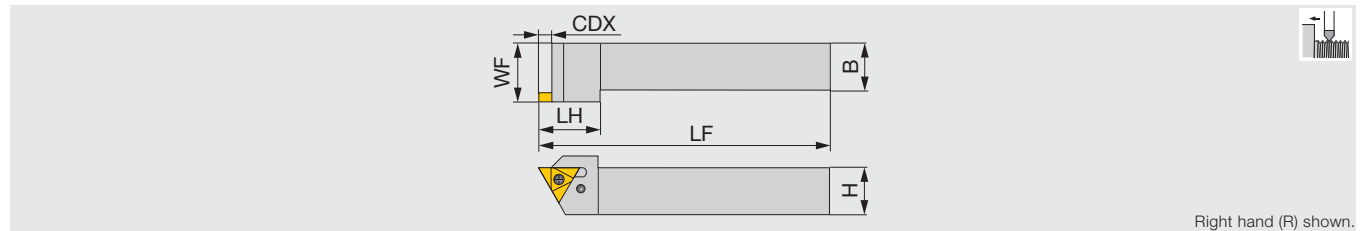
Metric	H	B	LF	LH	WF	CDX	Insert
MTVOR-2525M4	25	25	150	31	31.7	5.8	TNM*43...
MTVOR-3232M4	32	32	178	31	38.1	5.8	TNM*43...
MTVOR-2525M5	25	25	150	36	31.7	7.3	TNM*54...
MTVOR-3232M5	32	32	178	36	38.1	7.3	TNM*54...

STVOR/L is recommended for TNMC insert although the insert can be used on multi-clamp (M type) toolholder.

SPARE PARTS



Designation	Lock pin	Clamp	Clamping screw	Wrench
MTVOR-164/204, MTVOR-**M4	NL-44	TC-190	STC-5	3/32HEX
MTVOR-205, MTVOR-**M5	NL-56	TC-250	STC-11	1/8HEX
MTVOR-206	NL-66L	TC-310	STC-4	5/32HEX
MTVOR-2069	NL-66L	TC-311	STC-4	5/32HEX



Right hand (R) shown.

Inch	H	B	LF	LH	WF	CDX	Insert
STVOR-165	1.000	1.000	6.000	1.430	1.250	0.290	TNMC54...
STVOR-206	1-1/4	1-1/4	7.000	1.620	1.500	0.370	TNMC66...

Metric	H	B	LF	LH	WF	CDX	Insert
STVOR-2525M4	25	25	150	31	31.7	5.8	TNMC43...
STVOR-3232M4	32	32	178	31	38.1	5.8	TNMC43...
STVOR-2525M5	25	25	150	36	31.7	7.3	TNMC54...
STVOR-3232M5	32	32	178	36	38.1	7.3	TNMC54...

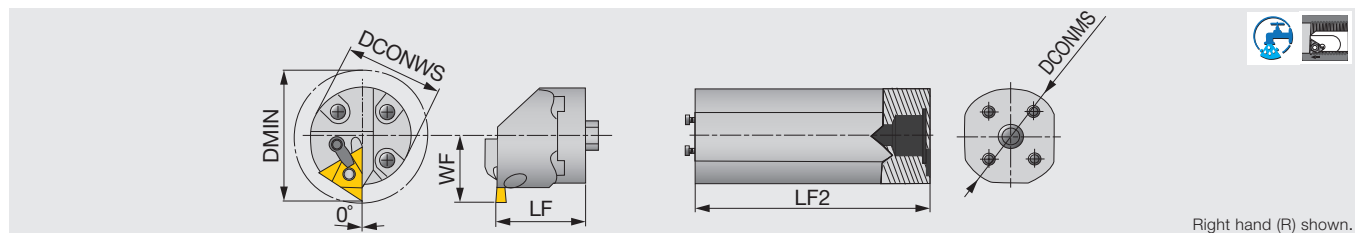
SPARE PARTS

Designation	Clamping screw	Clamp (Optional parts)	Clamping screw (Optional parts)	Wrench
STVOR-**M4	SD2	TC-190	STC-9	T-20TORX
STVOR-165	SD3	TC-250	STC-11	T-20TORX
STVOR-**M5	SD4	TC-310	STC-8	1/8HEX, 5/32HEX

TUNGTHREAD

HS-MTHOR/L

Multi-clamp internal threading toolholder, for on edge inserts



Right hand (R) shown.

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...

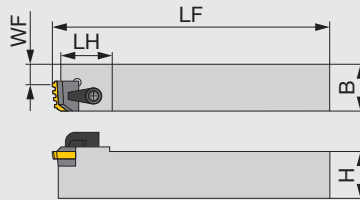
SPARE PARTS

Designation	Lock pin	Clamp	Clamping screw	Wrench
HS**-MTHOR-4	NL-44	TC-190	STC-5	3/32HEX
HS**-MTHOR-5	NL-56	TC-250	STC-11	1/8HEX

Shank

Designation	DCONMS	LF2
S-570-40M-40	40	273
S-570-50M-50	50	366

Designation	Clamping screw	Wrench
S-570-40M-40	SS100	5/32HEX
S-570-50M-50	SS94	1/4EX



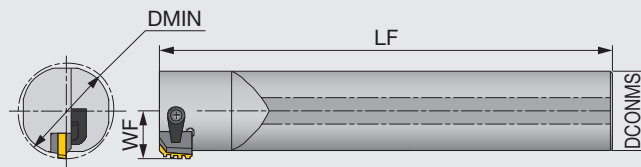
Right hand (R) shown.

Inch	WF	LF	LH	H	B	Insert
CLVOR-208	0.800	7.000	1.250	1-1/4	1-1/4	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	29.8	179	32	40	40	CR-5B75-4E

SPARE PARTS



Designation	Shim	Shim screw	Clamp	Clamping screw	Wrench
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	TF8132-E	SF60	TC-311	STC-4	T-20TORX 5/32HEX
CLVOR-40M8	TF8132-E	SF60	TC-311	STC-4	T-20TORX 5/32HEX



Right hand (R) shown.

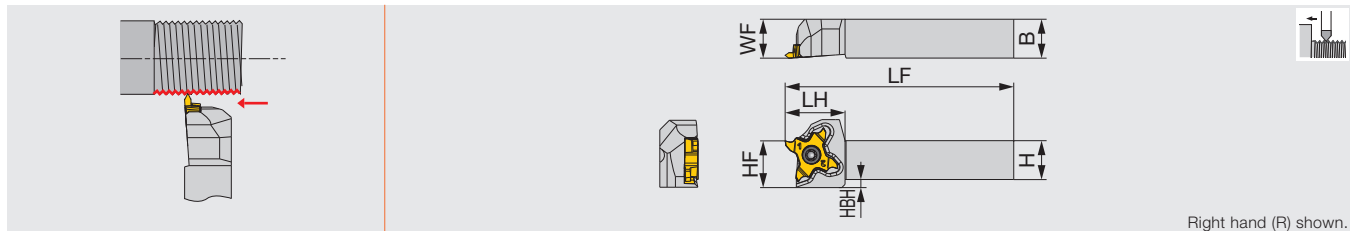
Inch	DMIN	DCONMS	WF	LF	Insert
SI-CLHOR-326	2.250	2.000	1.125	14.000	CR-**I
Metric	DMIN	DCONMS	WF	LF	Insert
SI-CLHOR-40M6	50.8	40	23.16	400	CR-**I

SPARE PARTS



Designation	Clamp	Clamping screw	Wrench
SI-CLHOR-40M6	TC-311	STC-8	5/32HEX

External grooving and threading toolholder



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	HBH	Insert
STCR/L06-18	0.375	0.375	4.750	0.730	0.375	0.375	0.177	TC*18...
STCR/L08-18	0.500	0.500	4.750	0.730	0.500	0.500	0.098	TC*18...
STCR/L10-18	0.625	0.625	4.750	0.730	0.625	0.625	-	TC*18...
STCR/L12-18	0.750	0.750	4.750	0.900	0.750	1.000	-	TC*18...
STCR/L16-18	1.000	1.000	5.500	0.900	1.000	1.250	-	TC*18...

Metric	H	B	LF	LH	HF	WF	HBH	Insert
STCR/L1010X18	10	10	120	18.5	10	10	4.5	TC*18...
STCR/L1212F18	12	12	85	18.5	12	12	2.5	TC*18...
STCR/L1212X18	12	12	120	18.5	12	12	2.5	TC*18...
STCR/L1616X18	16	16	120	18.5	16	16	-	TC*18...
STCR/L2020H18	20	20	100	18.5	20	20	-	TC*18...
STCR/L2020X18	20	20	120	23	20	25	-	TC*18...
STCR/L2525Z18	25	25	135	23	25	30	-	TC*18...

Use right-hand toolholders (R) with right-hand inserts (R); and left-hand toolholders (L) with left-hand inserts (L).

SPARE PARTS

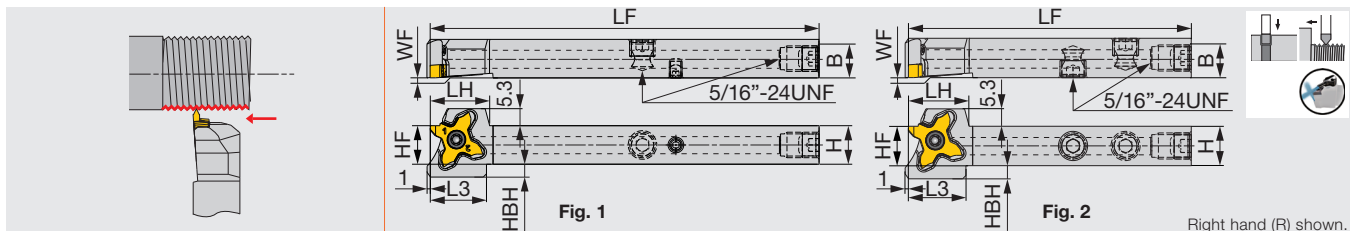
Designation	Clamping screw	Wrench
STCR...	CSTC-4L100DL	T-1008/5
STCL...	CSTC-4L100DR	T-1008/5

TETRAMCUT

STCR/L-18-CHP

TUNG T JET

External grooving and threading toolholder, with high pressure coolant capability



Right hand (R) shown.

Inch	H	B	LF	LH	L3	HF	WF	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...	0.890
STCR/L08X18-CHP ⁽¹⁾	0.500	0.500	4.750	0.728	0.689	0.500	0/0.500	0.130	1	TC*18...	0.890
STCR/L10X18-CHP ⁽¹⁾	0.625	0.625	4.750	0.728	-	0.625	0/0.625	-	1	TC*18...	0.890
STCR/L12-18-CHP	0.750	0.750	4.750	0.900	-	0.750	-	-	2	TC*18...	0.890
STCR/L16-18-CHP	1.000	1.000	5.500	0.900	-	1.000	-	-	2	TC*18...	0.890

Metric	H	B	LF	LH	L3	HF	WF	HBH	Fig.	Insert	Torque*
STCR/L1212F18-CHP	12	12	85	18.5	17.5	12	0/12	4	2	TC*18...	1.2
STCR/L1212X18-CHP	12	12	120	18.5	17.5	12	0/12	4	1	TC*18...	1.2
STCR/L1616X18-CHP	16	16	120	18.5	-	16	0/16	0	1	TC*18...	1.2

This toolholder can be used with threading and grooving inserts.

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

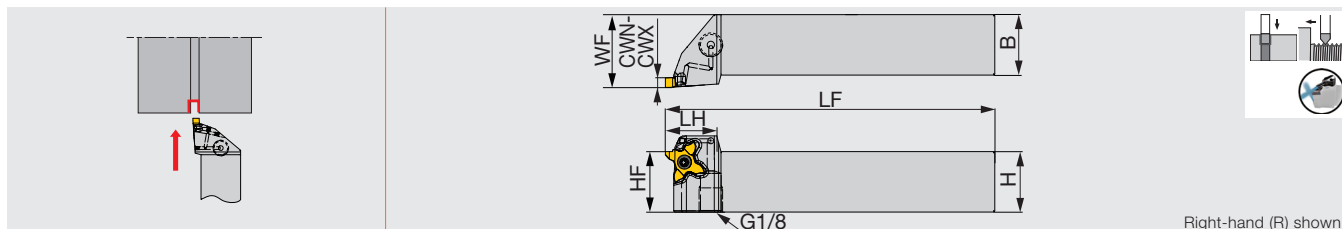
Designation	Clamping screw	Wrench
STCL**18-CHP	CSTC-4L100DR	T-1008/5
STCR**18-CHP	CSTC-4L100DL	T-1008/5

Groove width : 0.013" - 0.118"

Pitch : 0.031" - 0.118"

Reference pages: Inserts → **E011**, Standard cutting conditions → **E055**

Threading tool - for external threading with high pressure coolant capability



Inch	CWN	CWX	H	B	LF	LH	HB	HF	WF	HBH	Insert	Torque
STCR/L12-18-CHP	0.013	0.118	0.750	0.750	4.750	0.900	-	0.750	1.000	-	TC*18...	0.890
STCR/L16-18-CHP	0.013	0.118	1.000	1.000	5.500	.900	-	1.000	1.250	-	TC*18...	0.890

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

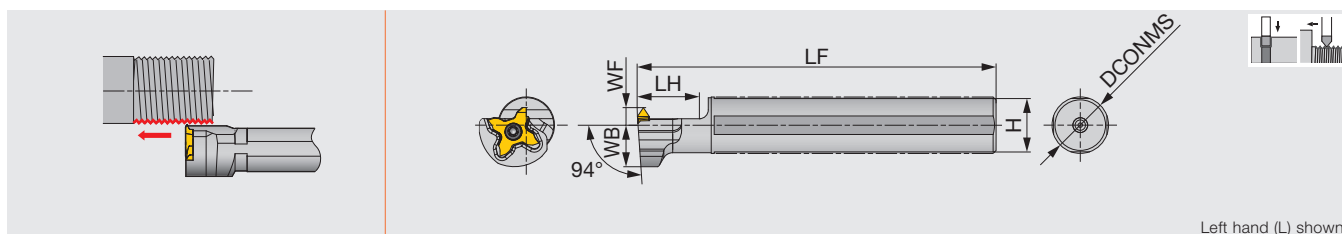
SPARE PARTS

Designation	Clamping screw	Wrench
STCL**18-CHP	CSTC-4L100DR	T-1008/5
STCR**18-CHP	CSTC-4L100DL	T-1008/5

TETRAMCUT

JS-STCL18

External grooving and threading toolholder with round shank

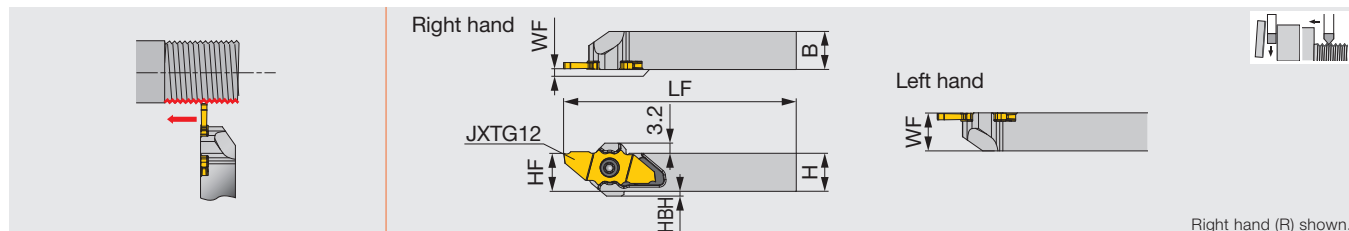


Metric	DCONMS	LF	LH	H	WB	WF	Insert
JS14H-STCL18	14	100	20	13	14	6	TC*18R...
JS159F-STCL18	15.875	85	20	15	14	6	TC*18R...
JS16F-STCL18	16	85	20	15	14	6	TC*18R...
JS19G-STCL18	19.05	90	20	18	14	6	TC*18R...
JS19X-STCL18	19.05	120	20	18	14	6	TC*18R...
JS20G-STCL18	20	90	20	19	14	6	TC*18R...
JS20X-STCL18	20	120	20	19	14	6	TC*18R...
JS22X-STCL18	22	120	20	21	12.25	10	TC*18R...
JS25H-STCL18	25	100	20	24	12.25	10	TC*18R...
JS254X-STCL18	25.4	120	20	24	12.25	10	TC*18R...

Use left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
JS**STCL18	CSTC-4L100DL	T-1008/5



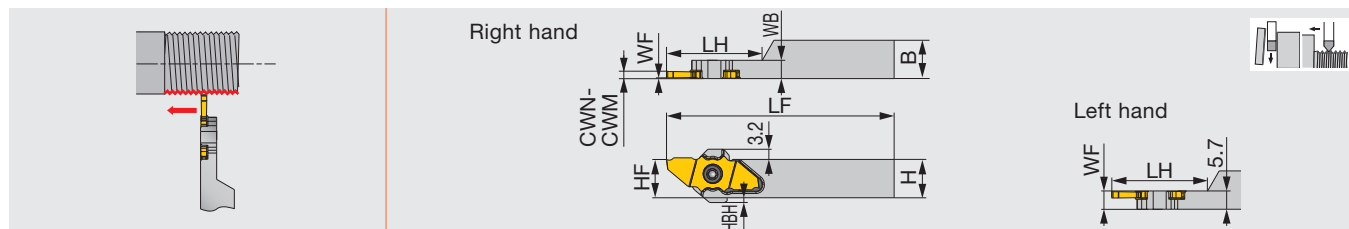
Inch	H	B	WF (R/L)	LF*	HF	HBH	Insert
JSXXR/L063	0.375	0.375	0.008 / 0.386	4.646	0.375	0.12	JX...
JSXXR/L083	0.500	0.500	0.008 / 0.386	3.268	0.500	0.06	JX...
JSXXR/L103	0.625	0.625	0.008 / 0.386	4.646	0.625	0.06	JX...

Metric	H	B	WF (R/L)	LF*	HF	HBH	Insert
JSXXR/L1010X09	10	10	0.2 / 9.8	118	10	3	JX...
JSXXR/L1212F09	12	12	0.2 / 9.8	83	12	1.5	JX...
JSXXR/L1212X09	12	12	0.2 / 9.8	118	12	1.5	JX...
JSXXR/L1616X09	16	16	0.2 / 9.8	118	16	0	JX...
JSXXR/L2020H09	20	20	0.2 / 9.8	98	20	0	JX...

*This toolholder can be used with threading and grooving inserts. With parting inserts, the dimension of LF will be different depending on the insert shape. 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
JSXXR*****	CSTC-4L100DL	T-1008/5
JSXXL*****	CSTC-4L100DR	T-1008/5



Inch	CWN	CWM	H	B	LF**	LH**	HF	WF	HBH	Insert	Torque
JSXXR/L063-S	0.039	0.079	0.375	0.375	4.750	1.030	0.383	0.008/0.217	0.120	JX*G06...,12...,16..., 20...	0.89
JSXXR/L083-S	0.039	0.079	0.500	0.500	4.750	1.030	0.500	0.008/0.217	0.060	JX*G06...,12...,16..., 20...	0.89

Metric	CWN	CWM	H	B	LF**	LH**	HF	WF	HBH	Insert	Torque*
JSXXR/L1010X09-S	1	2	10	10	120	26	10	0.2/5.5	3	JX*G06...,12...,16...	1.2
JSXXR/L1212F09-S	1	2	12	12	85	26	12	0.2/5.5	1.5	JX*G06...,12...,16...	1.2
JSXXR/L1212X09-S	1	2	12	12	120	30	12	0.2/5.5	1.5	JX*G06...,12...,16...	1.2
JSXXR/L1616X09-S	1	2	16	16	120	30	16	0.2/5.5	-	JX*G06...,12...,16...,20...	1.2

**LF (Functional Length) and LH (Head Length) values shown above are true with JXPG16... insert. LF and LH will be 0.079" shorter than the above values with JX*G12... insert, and 0.157" shorter for JXPG06... insert. LF, LH, and HBL will all be 0.079" shorter with JXPG20... insert.

JXPG20... insert will not fit.

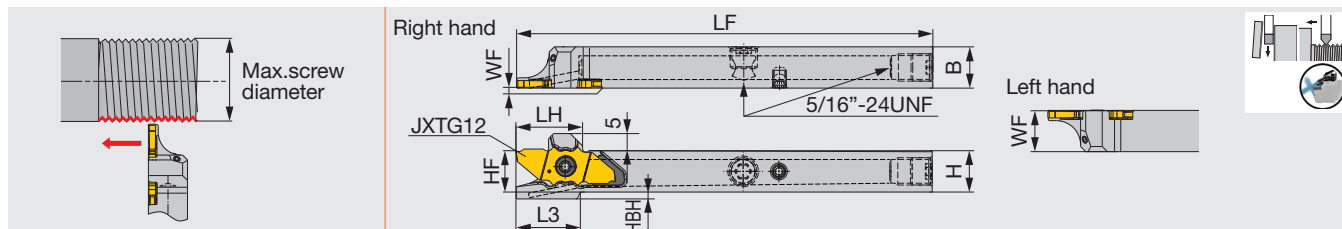
Use the right-hand insert (JX*G**R...) for a right-hand holder (JSXXR...); the left-hand insert (JX*G**L...) for a left-hand holder (JSXXL...).

Torque: Recommended clamping torque: lbs-ft (*N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
JSXXR***-S	CSTC-4L055DL	T-1008/5
JSXXL***-S	CSTC-4L055DR	T-1008/5

Parting and threading toolholder, with high pressure coolant capability



Inch	H	B	WF (R/L)	LF*	HF	HBH	LH*	L3	Insert
JSXXR/L083X-CHP	0.500	0.500	0.008/0.492	4.750	0.500	0.051	≤ 0.764	0.740	JX**06...,12...,16...
JSXXR/L103X-CHP	0.625	0.625	0.008/0.617	4.750	0.625	0	≤ 0.764	0.736	JX**06...,12...,16...
Metric	H	B	WF (R/L)	LF*	HF	HBH	LH*	L3	Insert
JSXXR/L1212X09-CHP	12	12	0.2/11.8	118	12	2	≤ 19.4	18.8	JX**06...,12...,16...
JSXXR/L1616X09-CHP***	16	16	0.2/15.8	118	16	2.5	≤ 19.4	18.7	JX**06...,12...,16...
JSXXR/L1616X09B-CHP	16	16	0.2/15.8	118	16	-	≤ 19.4	-	JX**06...,12...,16...

*This toolholder can be used with threading and grooving inserts. With parting inserts, the dimensions of LF and LH will be different depending on the insert shape.

***To be replaced with the new design

Use right-hand toolholders (R) with right-hand inserts (R); and left-hand toolholders (L) with left-hand inserts (L)

SPARE PARTS

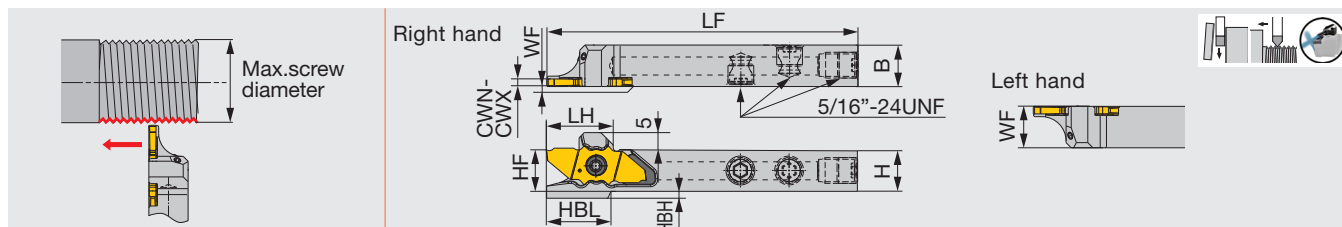
Designation	Clamping screw	Wrench
JSXXR...	CSTC-4L100DL	T-1008/5
JSXXL...	CSTC-4L100DR	T-1008/5

Parting-off widths : 0.039" and 0.059" (for a max parting diameter of ø0.236")
: 0.059" and 0.079" (for max parting diameters of ø0.472", ø0.630" and ø0.787")

DUO^{UST}CUT

JSXXR/L-F-CHP

Parting-off tool for swiss lathes



Inch	CWN	CWX	H	B	LF**	LH**	HF	WF	HBL**	HBH	Insert	Torque
JSXXR/L083F-CHP	0.039	0.079	0.500	0.500	3.344	≤ 0.764	0.5	0.008/0.492	0.736	0.051	JX*G06...,12...,16..., 20...	0.890
Metric	CWN	CWX	H	B	LF**	LH**	HF	WF	HBL**	HBH	Insert	Torque*
JSXXR/L1212F09-CHP	1	2	12	12	85	≤ 19.4	12	0.2/11.8	-	2	JX*G06...,12...,16..., 20...	1.2

**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" shorter than the above values with JX*G12... and JXPG20... inserts, and 0.157" shorter for JXPG06... insert.

Use the right-hand insert (JX*G**R...) for a right-hand holder (JSXXR...); the left-hand insert (JX*G**L...) for a left-hand holder (JSXXL...).

Torque: Recommended clamping torque: lb-ft (*N-m)

SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench
JSXXR...	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4
JSXXL...	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4

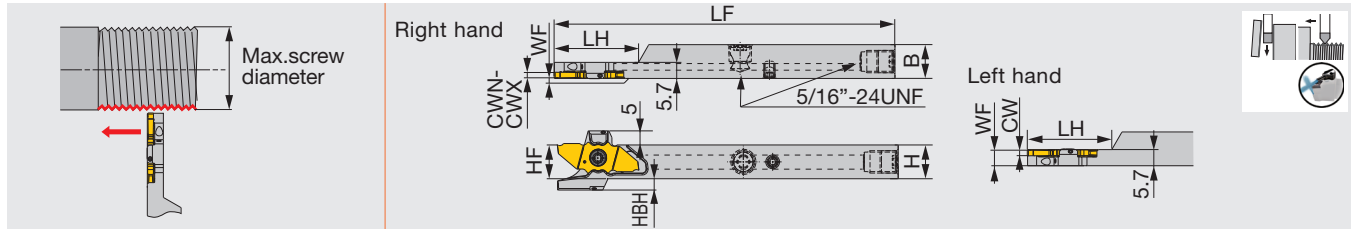
Parting-off widths:
0.039" and 0.059" (for a max parting diameter of ø0.236")
0.059" and 0.079" (for max parting diameters of ø0.472", ø0.630" and ø0.787")

Range of threads machined pitch

Insert designation	Pitch (in)	Max.screw diameter
JXTG12FR/L-60A-000	0.008 - 0.016	Metric: M26, Unified: 1"
JXTG12FR/L-60B-000	0.008 - 0.016	Metric: M26, Unified: 1"
JXTG12FR/L-60A-005	0.016 - 0.039	Metric: M24, Unified: 15/16"
JXTG12FR/L-60B-005	0.016 - 0.039	Metric: M24, Unified: 15/16"
JXTG12FR/L-60N-010	0.039 - 0.059	Metric: M22, Unified: 7/8"

Reference pages: Inserts → **E011**, Standard cutting conditions → **E055**

Parting-off tool for sub spindle in swiss lathes with high pressure coolant capability



Inch	CWN	CWX	H	B	LF**	LH**	HF	WF	HBH	Insert	Torque
JSXXR/L083X-S-CHP	0.039	0.079	0.500	0.500	4.750	1.181	0.500	0.008/0.217	0.051	JX*G06...,12...,16..., 20...	0.890
JSXXR/L103X-S-CHP	0.039	0.079	0.625	0.625	4.750	1.181	0.625	0.008/0.217	0	JX*G06...,12...,16..., 20...	0.890

Metric	CWN	CWX	H	B	LF**	LH**	HF	WF	HBH	Insert	Torque*
JSXXR/L1212X09-S-CHP***	1	2	12	12	120	30	12	0.2/5.5	4	JX*G06...,12...,16..., 20...	1.2
JSXXR/L1212X09B-S-CHP	1	2	12	12	120	30	12	0.2/5.5	2	JX*G06...,12...,16..., 20...	1.2
JSXXR/L1616X09-S-CHP***	1	2	16	16	120	30	16	0.2/5.5	1.5	JX*G06...,12...,16..., 20...	1.2
JSXXR/L1616X09B-S-CHP	1	2	16	16	120	30	16	0.2/5.5	-	JX*G06...,12...,16..., 20...	1.2

**LF (Overall Tool Length) and LH (Head Length) values shown above are true with JXPG16... insert. Both LF and LH will be 0.079" shorter than the above value with JX*G12... and JXPG20... inserts; 0.157" shorter with JXPG06... insert.

***To be replaced with the new design

Use the right-hand insert (JX*G**R...) for a right-hand holder (JSXXR...); the left-hand insert (JX*G**L...) for a left-hand holder (JSXXL...).

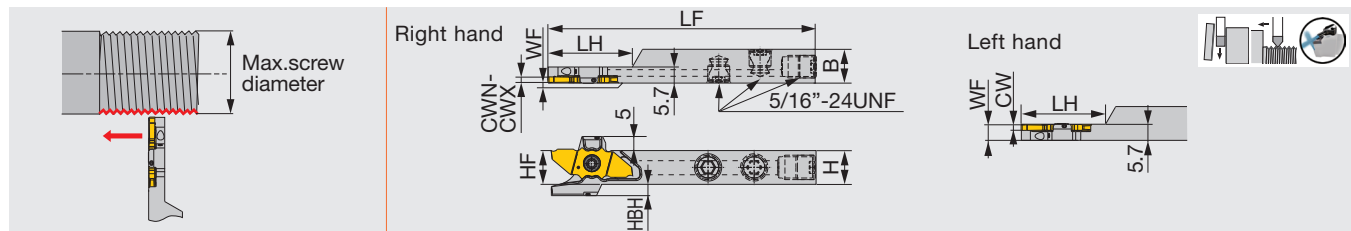
Torque: Recommended clamping torque: lbs-ft (*N·m)

SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSXXR***-S-CHP	CSTC-4L055DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSXXL***-S-CHP	CSTC-4L055DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

Parting-off widths : 0.039" and 0.059" (for a max parting diameter of ø0.236")
: 0.059" and 0.079" (for max parting diameters of ø0.472", ø0.630" and ø0.787")

Parting-off tool for sub spindle in swiss lathes



Inch	CWN	CWX	H	B	LF**	LH**	HF	WF	HBH	Insert	Torque
JSXXR/L083F-S-CHP	0.039	0.079	0.500	0.500	3.344	1.024	0.500	0.008/0.217	0.051	JX*G06...,12...,16..., 20...	0.890

Metric	CWN	CWX	H	B	LF**	LH**	HF	WF	HBH	Insert	Torque*
JSXXR/L1212F09-S-CHP***	1	2	12	12	85	26	12	0.2/5.5	4	JX*G06...,12...,16..., 20...	1.2
JSXXR/L1212F09B-S-CHP	1	2	12	12	85	30	12	0.2/5.5	2	JX*G06...,12...,16..., 20...	1.2

**LF (Overall Tool Length) and LH (Head Length) values shown above are true with JXPG16... insert. Both LF and LH will be 0.079" shorter than the above value with JX*G12... and JXPG20... inserts; 0.157" shorter with JXPG06... insert.

***To be replaced with the new design

Use the right-hand insert (JX*G**R...) for a right-hand holder (JSXXR...); the left-hand insert (JX*G**L...) for a left-hand holder (JSXXL...).

Torque: Recommended clamping torque: lb-ft (*N·m)

SPARE PARTS

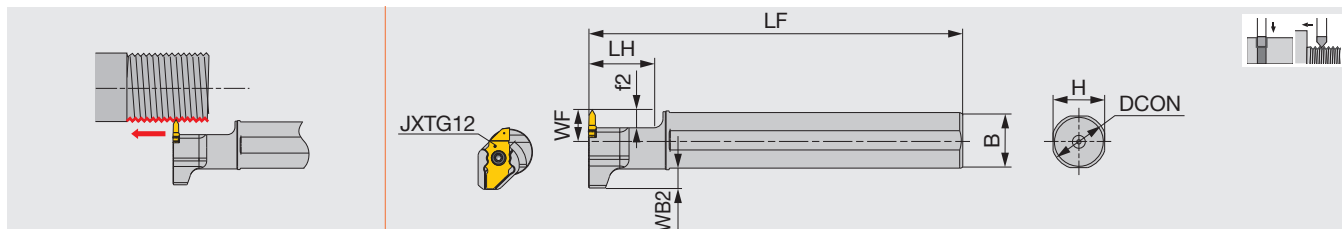
Designation	Clamping screw	Wrench
JSXXR/L083F-S-CHP	CSTC-4L055DL	T-1008/5

Parting-off widths : 0.039" and 0.059" (for a max parting diameter of ø0.236")
: 0.059" and 0.079" (for max parting diameters of ø0.472", ø0.630" and ø0.787")

Range of threads machined pitch

Insert designation	Pitch (in)	Max.screw diameter
JXTG12FR/L-60A-000	0.008 - 0.016	Metric: M26, Unified: 1"
JXTG12FR/L-60B-000	0.008 - 0.016	Metric: M26, Unified: 1"
JXTG12FR/L-60A-005	0.016 - 0.039	Metric: M24, Unified: 15/16"
JXTG12FR/L-60B-005	0.016 - 0.039	Metric: M24, Unified: 15/16"
JXTG12FR/L-60N-010	0.039 - 0.059	Metric: M22, Unified: 7/8"

Reference pages: Inserts → **E011**, Standard cutting conditions → **E055**



Metric	DCON	H	B	WB2	LF	LH	WF**	f2**	Insert
JS19G-SXXL09	19.05	18	18	5.9	90	21	10	6	JX*G06,12°R
JS19X-SXXL09	19.05	18	18	5.9	120	21	10	6	JX*G06,12°R
JS20G-SXXL09	20	19	19	5.4	90	21	10	6	JX*G06,12°R
JS20X-SXXL09	20	19	19	5.4	120	21	10	6	JX*G06,12°R
JS22X-SXXL09	22	21	21	4.4	120	21	10	6	JX*G06,12°R
JS25H-SXXL09	25	24	24	2.9	100	21	10	6	JX*G06,12°R
JS254X-SXXL09	25.4	24	24	2.7	120	21	10	6	JX*G06,12°R

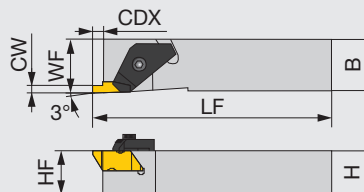
This toolholder can be used with threading and parting inserts.

** 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-4L055L	T-1008/5



Right hand (R) shown.

Inch	CW	CDX	HF	H	B	LF	WF	Insert	Torque
FLASR/L-082B	0.031 - 0.125	0.138	1/2	1/2	1/2	6.000	0.500	FL*-3**R/L...	2.21
FLASR-102B	0.031 - 0.125	0.138	5/8	5/8	5/8	4-1/2	0.625	FL*-3**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	CW	CDX	HF	H	B	LF	WF	Insert	Torque*
FLASR/L-1212M2	1 - 3.25	3.51	12	12	12	150	12	FL*-2**R/L...	3
FLASR/L-1616M2	1 - 3.25	5.31	16	16	16	125	16	FL*-3**R/L...	3
FLASR/L-1616M3	1 - 4	5.31	16	16	16	125	16	FL*-3**R/L...	3

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-102B, FLASR-103B	TF-184	S-412	5/32HEX
FLASL-103B	TF-185	S-412	5/32HEX

Metric

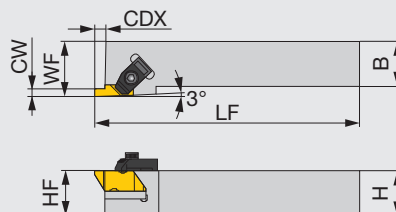
SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
FLASR-1212M2	TF-182	S-310	7/64HEX
FLASL-1212M2	TF-183	S-310	7/64HEX
FLASR-1616M2, FLASR-1616M3	TF-184	S-412	5/32HEX
FLASL-1616M2, FLASL-1616M3	TF-185	S-412	5/32HEX

TUNGST-CLAMP

FLSR/L

External grooving and threading toolholder



Right hand (R) shown.

Inch	CW	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
FLSR/L-164D	0.125 - 0.312	0.210	1.000	1.000	1.000	6.000	1.250	FL*-4**R/L...	2.21
FLSR/L-203D	0.031 - 0.250	0.290	1.250	1.250	1.250	6.000	1.500	FL*-3**R/L...	2.21
FLSR/L-204D	0.125 - 0.312	0.290	1.250	1.250	1.250	6.000	1.500	FL*-4**R/L...	2.21
FLSR/L-206D	0.281 - 0.375	0.290	1.250	1.250	1.250	6.000	1.500	FL*-6**R/L...	2.21
FLSR/L-82V	0.031 - 0.128	0.140	0.750	1/2	1/2	3-1/2	0.750	FL*-2**R/L...	2.21
Metric	CW	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

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

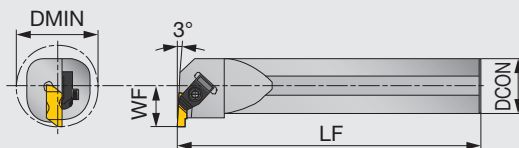
Designation	Clamp	Clamping screw	Wrench
FLSR-122B, FLSR-162C, FLSR-82V	TF-74	S-310	7/64HEX
FLSL-122B, FLSL-162C, FLSL-82V	TF-75	S-310	7/64HEX
FLSR-123B, FLSR-163C, FLSR-164D, FLSR-204D	TF-72	S-412	5/32HEX
FLSL-123B, FLSL-163C, FLSR-203D	TF-73	S-412	5/32HEX

Metric

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
FLSR-****M3	TF-72	S-412	5/32HEX
FLSL-****M3	TF-73	S-412	5/32HEX

Reference pages: Inserts → **E012**, Standard cutting conditions → **E051**



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...

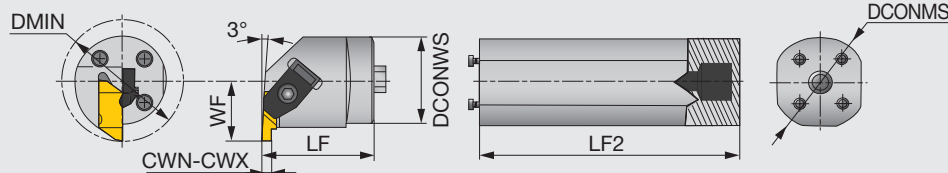
Metric	Pitch	DMIN	DCON	LF	WF	Insert
A25M-FLER/L3	2.11 - 5.08	34.9	25	300	17.7	FL*-3**L/R...
A32M-FLER/L3	2.11 - 5.08	44.5	32	350	22.1	FL*-3**L/R...
A40M-FLER3	2.11 - 5.08	50.8	40	350	24.5	FL*-3**L...

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



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

Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).
Torque: Recommended clamping torque: N·m

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
HS40-FLER3W	TF-73	S-412	5/32HEX
HS50-FLER3W	TF-73	S-412	5/32HEX

Shank

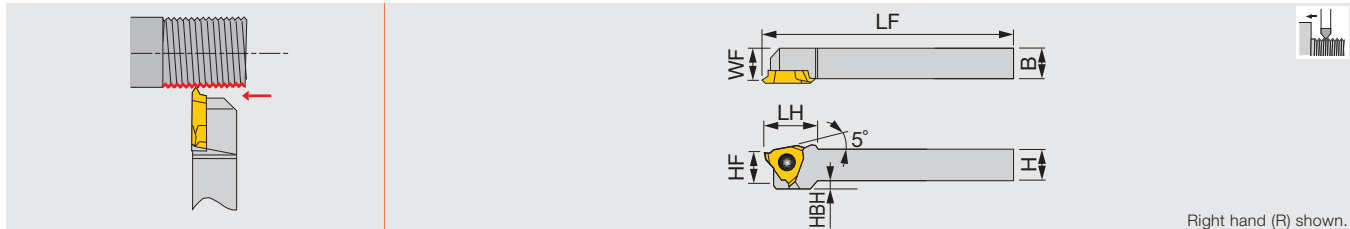
Inch	DCONMS	LF2
S-570-32-50	2.000	14.410

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: Inserts → **E012**, Standard cutting conditions → **E055**



Right hand (R) shown.

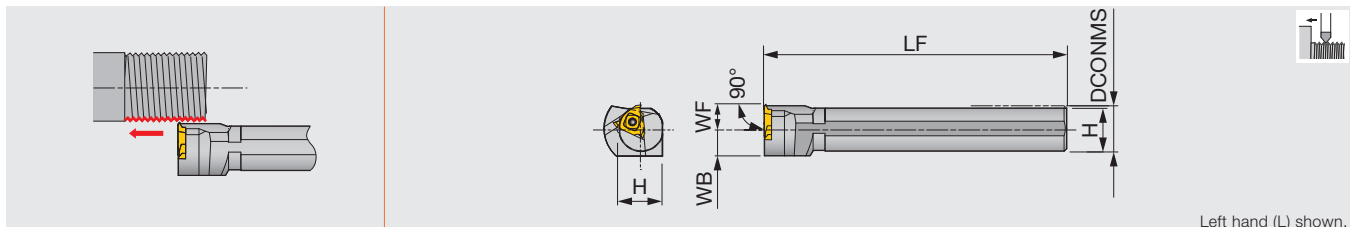
Inch	H	B	LF	LH	HF	WF	HBH	Insert
JSTTR/L063	0.375	0.375	5.000	0.6875	0.375	0.375	0.100	JTTR/L30...
JSTTR/L083	0.500	0.500	5.000	0.6875	0.500	0.500	-	JTTR/L30...
JSTTR/L103	0.625	0.625	5.000	0.6875	0.625	0.625	-	JTTR/L30...

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	Wrench
JSTTR/L...	CSTB-4SD	T-8F



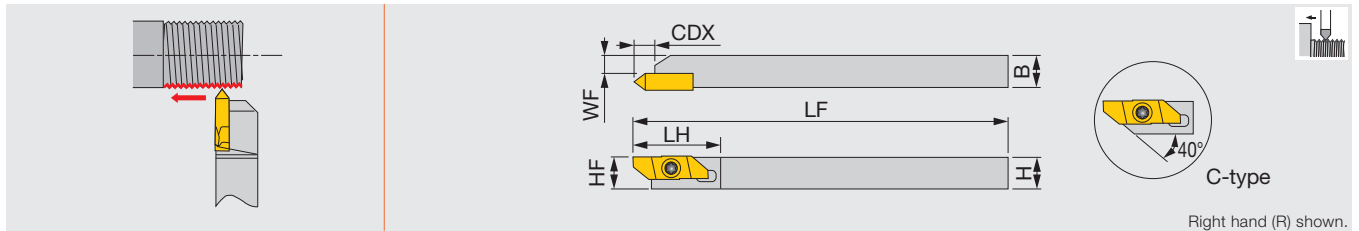
Left hand (L) shown.

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
JS*-TTL3	CSTB-4S	T-15F



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...

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

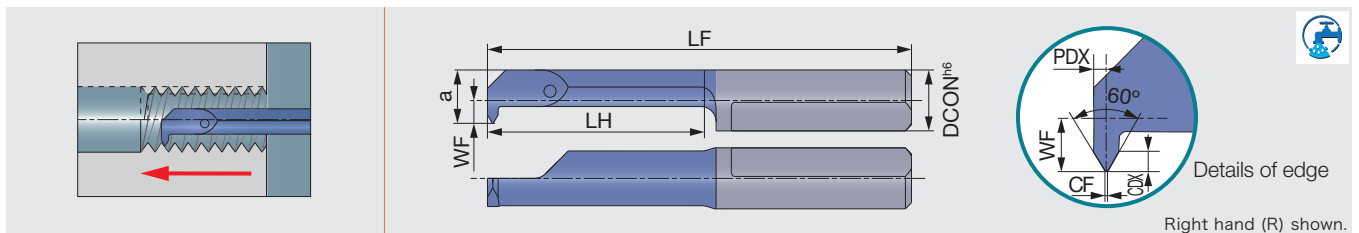


Designation	Clamping screw	Wrench 1	Wrench 2 (Optional parts)
JSXBR...	CSTB-4SD	T-8F	(T-8L)

TINY^{INI}TURN

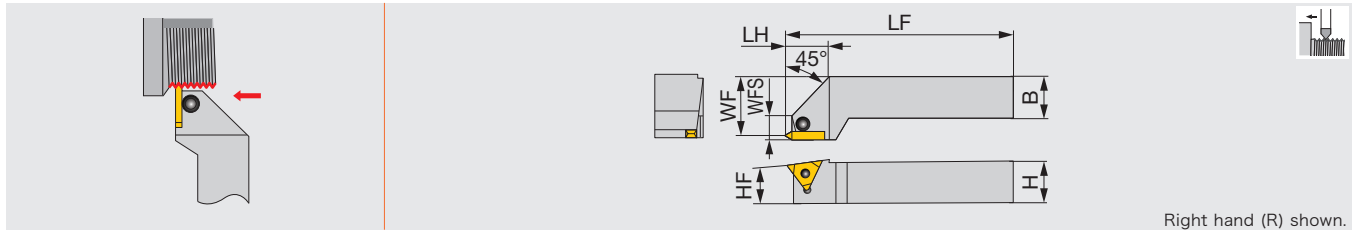
TinyMini-Turn JBIR

Solid boring bar for internal threading



Metric	Grade SH730	Pitch	DMIN	CF-0.02	DCON	WF	a	LF	LH	CDX	PDX
JBIR04140050-D040	●	0.8 - 0.5	4	0.06	4	1.5	3.5	30	14	0.3	0.35
JBIR07140050-D050	●	1.0 - 0.5	5	0.06	7	0.9	4.4	30	14	0.3	0.35
JBIR07140075-D050	●	1.0 - 0.75	5	0.09	7	0.9	4.4	30	14	0.4	0.45
JBIR07140100-D048	●	1.0	4.8	0.12	7	0.9	4.4	30	14	0.6	0.55
JBIR07140100-D060	●	1.5 - 1.0	6	0.12	7	1.8	5.3	30	14	0.6	0.55
JBIR07140125-D060	●	1.5 - 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 - 1.0	7	0.18	7	2.8	6.3	30	14	0.8	0.75

● : Line up

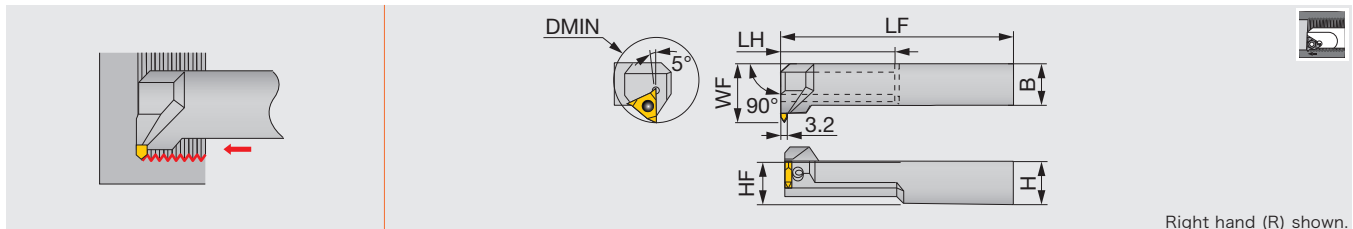


Right hand (R) shown.

Metric	H	B	LF	LH	HF	WF	WFS	Insert
TT-2525R/LE	25	25	150	25	25	32	15	TTR/L42...

SPARE PARTS

Designation	Clamp	Right-left screw	Wrench
TT-2525R/LE	CP91	DS-6	P-3



Right hand (R) shown.

Metric	DMIN	H	B	LF	LH	HF	WF	Insert
TT-2525RI	50	25	25	200	70	25	35	TTL42...

Use left-hand toolholders (L) with right-hand inserts (R).

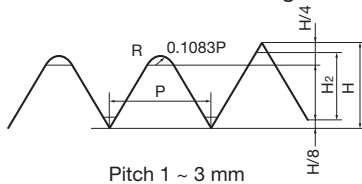
SPARE PARTS

Designation	Clamp	Right-left screw	Wrench
TT-2525RI	CP91	DS-6	P-3

Reference pages: TungThread : Inserts → **E013, E015**
Standard cuttings → **E054**

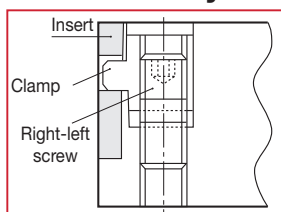
Technical Guide

- Relationship between pitch, depth of cut and number of passes for external metric threading



Note: Maximum machinable pitch is 3 mm.

Part assembly



	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

Technical Guide

Designation system for TT-type insert

Insert

TT	R	42	M	-005
	①	②	③	④
	① Hand	② Insert size (mm)	③ Thread type	④ Corner radius (mm)
	R Right	Inscribed circle 12.7	M 60° thread angle	Blank 0
	L Left	Thickness 3.2	W 55° thread angle	-005 0.05

Toolholder

TT-	20	20	R	E
	①	②	③	④
	① Shank height (mm)	② Shank width (mm)	③ Hand	④ External or Internal
			R Right	E External
			L Left	I Internal

Designation system for ST-type insert

16	I	R	175	ISO	-	B
①	②	③	④	⑤		⑥
① Insert size	② External or Internal	③ Hand of cut	④ Thread type	⑤ Thread type		⑥ Chipbreaker
Symbol I. C. dia (mm)	E External I Internal	R Right hand L Left hand	Partial-profile inserts	Partial-profile inserts		B With (Basic selection)
6 -			A Pitch: 0.5 ~ 1.5 mm TPI: 48 ~ 16	60° 60° thread angle		M With
11 6.35			AG Pitch: 0.5 ~ 3 mm TPI: 48 ~ 8	55° 55° thread angle		CB With
16 9.525			G Pitch: 1.75 ~ 3 mm TPI: 14 ~ 8	TR 30° trapezoidal		- Without
22 12.7			N Pitch: 3.5 ~ 5 mm TPI: 7 ~ 5	ACME 29° trapezoidal		
27 15.875			Z Pitch: 4 ~ 6 mm TPI: 6 ~ 4	Full-profile inserts		
			Full-profile inserts	ISO Metric		
			Pitch (mm)×10 or 100	UN Unified		
			TPI (Thread Per Inch)	W Whitworth		
			(Examples)	PT Taper pipe		
			05: 0.5 mm pitch×10	NPT National taper pipe		
			175: 1.75 mm pitch×100	NPTF National taper pipe		
			14: 14 TPI	RAPI API round		
				RD		
				BAPI API buttress		
				RD Round (DIN405)		
				UNJ UNJ		
				MJ		

Note: Please identify new designation system for internal inserts.

-i.e. "N" "I"

(Example) Conventional: 16NR15ISO

New: 16IR15ISO

TUNGTHREAD

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Cutting speed: Vc (sfm)			
			AH725	T313V	NS9530	TH10
P	Carbon steel	< 200HB	262 - 591	328 - 656	492 - 656	-
		> 200HB	197 - 525	328 - 492	656 - 558	-
M	Stainless steel	-	164 - 427	230 - 427	-	-
K	Cast iron	-	-	230 - 492	-	70 - 90
N	Non-ferrous metals	-	-	-	-	100 - 500
S	Heat-resistant alloys	-	-	-	-	10 - 40
H	Hard materials	50 ~ 60HRC	-	-	-	10 - 30

TUNG T-CLAMP

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Application	Cutting speed Vc (sfm)	Pitch (in)	Threads per inch (TPI)
P	High carbon steel 1045, etc.	AH725	Threading	262 - 591	Internal 0.083 - 0.200 External 0.050 - 0.167	Internal 5 - 12 External 6 - 20
	Alloy steel 4140, etc.	AH725	Threading	197 - 525	Internal 0.083 - 0.200 External 0.050 - 0.167	Internal 5 - 12 External 6 - 20
M	Stainless steel S30400, etc.	AH725	Threading	164 - 427	Internal 0.083 - 0.200 External 0.050 - 0.167	Internal 5 - 12 External 6 - 20

TETRAMCUT

STANDARD CUTTING CONDITIONS

TCT18R/L / TCT18FR

ISO	Workpiece material	Priority	Grade	Cutting speed Vc (sfm)	Pitch (in)	Threads per inch (TPI)
P	Low carbon steel 1015, etc.	First choice	SH725	197 - 492	0.016 - 0.079	64 - 12
		Fracture resistance	AH725	197 - 492	0.031 - 0.118	32 - 8
	Carbon steel, Alloy steel 1055, etc.	First choice	SH725	197 - 492	0.016 - 0.079	64 - 12
		Fracture resistance	AH725	197 - 492	0.031 - 0.118	32 - 8
M	Prehardened steel NAK80, PX5, etc.	First choice	SH725	197 - 492	0.016 - 0.079	64 - 12
		Fracture resistance	AH725	197 - 492	0.031 - 0.118	32 - 8
K	Stainless steel S30400, etc.	First choice	SH725	164 - 262	0.016 - 0.079	64 - 12
		Fracture resistance	AH725	164 - 262	0.031 - 0.118	32 - 8
S	Gray cast iron No.250B, No.300B, etc.	First choice	AH725	164 - 328	0.031 - 0.118	32 - 8
		Sharpness	SH725	164 - 328	0.016 - 0.079	64 - 12
	Ductile cast iron 60-40-18, 80-55-06, etc.	First choice	AH725	164 - 328	0.031 - 0.118	32 - 8
		Sharpness	SH725	164 - 328	0.016 - 0.079	64 - 12
S	Titanium alloys Ti-6Al-4V, etc.	First choice	SH725	98 - 328	0.016 - 0.079	64 - 12
		Fracture resistance	AH725	98 - 328	0.031 - 0.118	32 - 8
	Heat-resistant alloys Inconel718, etc.	First choice	SH725	98 - 328	0.016 - 0.079	64 - 12
		Fracture resistance	AH725	98 - 328	0.031 - 0.118	32 - 8

DUOJUST CUT

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed Vc (sfm)	Pitch (in)	Threads per inch (TPI)
P	Low carbon steel 1015, etc.	SH725	164 - 656	0.008 - 0.059	127 - 16
	Carbon steel, Alloy steel 1055, etc.	SH725	164 - 656	0.008 - 0.059	127 - 16
	Prehardened steel NAK80, PX5, etc.	SH725	164 - 656	0.008 - 0.059	127 - 16
M	Stainless steel S30400, etc.	SH725	164 - 656	0.008 - 0.059	127 - 16
N	Aluminum alloys 5056, 6061, etc.	SH725	490 - 660	0.008 - 0.059	127 - 16
	Copper alloys C2600, C280C, etc.	SH725	330 - 660	0.008 - 0.059	127 - 16
S	Titanium alloys Ti-6Al-4V, etc.	SH725	98 - 262	0.008 - 0.059	127 - 16
	Superalloys Inconel718, etc.	SH725	98 - 262	0.008 - 0.059	127 - 16

Reference pages: TungThread : Inserts → **E010, E013 - E031**, Toolholders → **E032 - E042**
 TungT-Clamp : Inserts → **E012**, Toolholders → **E049 - E050**
 TetraMini-Cut: Inserts → **E011**, Toolholders → **E043 - E044**
 DuoJust-Cut : Inserts → **E011**, Toolholders → **E045 - E048**

Technical Guide

TINYMINI TURN

STANDARD CUTTING CONDITIONS

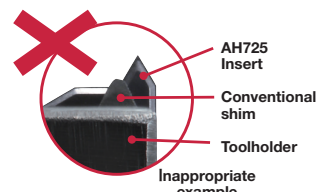


Internal threading

ISO	Workpiece materia	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	Low carbon steel C15, C20, etc.	SH730	40 - 140	131 - 459	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
	Carbon steel, Alloy steel C55, 42CrMoS4, etc.	SH730	40 - 140	131 - 459	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
	Prehardened steel NAK80, PX5, etc.	SH730	40 - 140	131 - 459	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
M	Stainless steel X5CrNi18-9, X5CrNiMo17-12-2, etc.	SH730	40 - 140	131 - 459	8	10	12	15	18
K	Gray cast iron 250, 300, etc.	SH730	30 - 100	98 - 328	7	9	12	14	17
	Ductile cast iron 400-15, 600-3, etc.	SH730	30 - 100	98 - 328	7	9	12	14	17
N	Aluminum alloys, copper alloys Si < 12%	SH730	90 - 200	295 - 656	6	8	10	12	15

IMPORTANT - Replacement of shim

AH 725 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.



Interchangeable shim (Insert size: 16)

Toolholder screw type	Lead angle	External		Internal	
		① Conventional shim	① Standard (New)	② Conventional shim	② 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)	GXE16-1DT	A16-1DT	GXN16-1DT	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 ② Standard (New)	16IR15ISO-B	AH725	② Conventional shim ③ Standard (New)
				16IR17ISO-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	
W				16IR14UN-B	AH725	
				16IR16W-B	AH725	
PT				16IR14W-B	AH725	
				16IR14PT-B	AH725	
NPT	16ER8NPT-B	AH725		16IR14NPT-B	AH725	
				16IR115NPT-B	AH725	

Reference pages: TinyMini-Turn: Toolholders → E052, Replacement of shim → E010, E014, E017 - E022