

PARTING & GROOVING



PARTING & GROOVING



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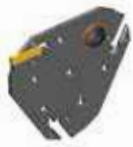
Tool Selection Guide

Parting and grooving holders

Series				CUT SPEED			
				SFGB	SFGB-TB	SFER/L	SFER/L-TB
Pages				B30	B31	B32	B33
Application	External	Parting		●	●	●	●
		Grooving		●	●	●	●
		Turning					
	Facing	Grooving					
		Turning					
	Internal	Grooving					
		Turning					
	Profiling						
	Threading						
	Undercut						

Tool Selection Guide

Parting and grooving holders

CUTSPEED		T-CLAMP PARTING & GROOVING		
COOLBURST SFTB SFTB-TB	TGB	COOLBURST TGB-TB	COOLBURST TGTB TGTB-TB	TGBR/L TGBR/L-D..R/L TGBR/L-TI-D..R/L
				
B34	B36	B37	B38	B39-B41
●	●	●	●	●
●	●	●	●	●

● Recommended, ○ Suitable

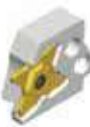
Tool Selection Guide

Parting and grooving holders

Series				T-CLAMP Parting & Grooving			
				TGBFR/L	TGER/L	TCAER/L	COOLBURST TCAER/L-TB
Pages				B42	B43	B47	B48
Application	External	Parting			●	●	●
		Grooving			●	●	●
		Turning				●	●
	Facing	Grooving		●			
		Turning					
	Internal	Grooving					
		Turning					
	Profiling					●	●
	Threading						
	Undercut						

Tool Selection Guide

Parting and grooving holders

T-CLAMP PARTING & GROOVING	QUAD RUSH	COOLBURST	FLEX TURN TURNING & GROOVING	FLEX TURN TURNING & GROOVING	T-CLAMP PARTING & GROOVING
<u>TCAFR/L</u>	<u>TCAQR/L</u>	<u>TCAQR/L-TB</u>	<u>QE1 TTER/L</u> <u>QE1 TTER/L-TB</u>	<u>QE1 TQHR</u> <u>QE1 TQHR-TB</u>	<u>TTER/L-SH</u>
					
B49	B50	B51	B58- B59	B60	B63
	●	●	●	●	●
	●	●	●	●	●
	○	○	●	●	●
●					
●					
	○	○	●	○	●
	●	●		●	

● Recommended, ○ Suitable

Tool Selection Guide

Parting and grooving holders

Series				T-CLAMP Parting & Grooving			
				COOLBURST TTER/L-SH-TB 	TTER/L-D 	TTER/L 	COOLBURST TTER/L-TB 
Pages				B64	B65-B66	B67-B68	B69
Application	External	Parting		•	•	•	•
		Grooving		•	•	•	•
		Turning		•	•	•	•
	Facing	Grooving					
		Turning					
	Internal	Grooving					
		Turning					
	Profiling			•	•	•	•
	Threading						
	Undercut						

Tool Selection Guide

Parting and grooving holders

T-CLAMP PARTING & GROOVING					
<u>TTSER/L</u>	<u>TGFR/L</u>	<u>TTFR/L</u>	<u>TTFR/L-RN</u>	<u>TGFPR/L</u>	<u>TTFPR/L</u>
					
B70	B71	B72	B73-B74	B75	B76
○					
●	●			●	
●	○			○	
	●	●	●	●	●
	○	●	●	○	●
○					

● Recommended, ○ Suitable

Tool Selection Guide

Parting and grooving holders

Series				T-CLAMP Parting & Grooving			
				TGIFR/L	TTFIR/L	TTIR/L-C TTIR/L	COOLBURST TTIR/L-TB
Pages				B77	B78	B79-B80	B81
Application	External	Parting					
		Grooving					
		Turning					
	Facing	Grooving		●	●		
		Turning		○	●		
	Internal	Grooving				●	●
		Turning				●	●
	Profiling						
	Threading						
	Undercut						

Tool Selection Guide

Parting and grooving holders

T-CLAMP PARTING & GROOVING					
TTSIR/L	TGSIR/L	TGEUR/L	TGIUR/L	TTER/L-15A	TGIUR/L-15A
					
B82	B83	B84	B85	B86	B87
●	●				
●			○		
				●	●
		●	●		

● Recommended, ○ Suitable

Tool Selection Guide

Parting and grooving holders

Series				FACE RUSH			
				TXFR/L	COOLBURST TXFR/L-TB	TXFPR/L	COOLBURST TXFPR/L-TB
Pages				B88	B89	B90	B91
Application	External	Parting					
		Grooving		○	○		
		Turning		○	○		
	Facing	Grooving		●	●	●	●
		Turning		●	●	●	●
	Internal	Grooving					
		Turning					
	Profiling						
	Threading			○	○		
	Undercut						

Tool Selection Guide

Parting and grooving holders

T <i>GROOVE</i>		TOP <i>CUT</i>		QUAD <i>RUSH</i>	
<u>TTLEN</u>	<u>TTVER/L</u>	<u>TTVBR/L</u>	<u>TQHR/L-20</u>	<i>COOLBURST</i> <u>TQHR/L-20-TB</u>	
					
B92	B93	B94	B95	B96	
	●		●	●	
●	●		●	●	
	●	●	●	●	
			○	○	
		●	●	●	

● Recommended, ○ Suitable

Tool Selection Guide

Parting and grooving holders

				QUAD RUSH			
Series				TQBR/L-27	TQHR/L-27	COOLBURST TQHR/L-27-TB	TQHPR/L-27
Pages				B97	B98	B99	B100
Application	External	Parting		●	●	●	●
		Grooving		●	●	●	●
		Turning			○	○	○
	Facing	Grooving					
		Turning					
	Internal	Grooving					
		Turning					
	Profiling				○	○	○
	Threading				●	●	●
	Undercut						

Tool Selection Guide

Parting and grooving holders

QUAD RUSH			QUAD RUSH	MINI RUSH
TQHR/L-34	COOLBURST TQHR/L-34-TB	TQHPR/L-34	TQHIR/L	TMIHN TMIHN-C
				
B101	B102	B103	B104	B105
●	●	●		
●	●	●		
○	○	○		
			●	●
			○	○
○	○	○		

● Recommended, ○ Suitable

Tool Selection Guide

Internal application by diameter

Internal diameter (mm)	TOPMICRO	MINIRUSH	TOPCAP	T-CLAMP	QUADIRUSH	T-CLAMP
	MIN	TMIHN	TCAP	TTSIR/L	TQHIR/L	TTIR/L
0						
0.6						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
12.5						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						

Tool Selection Guide

Parting and grooving inserts

Series			CUT SPEED		T-CLAMP PARTING & GROOVING		
			SFC	SFJ	TDC	TSC	
							
Material			P M K N S	P M N S	P M K N S	P M K N S	
Pages			B112	B112	B113	B114	
Application	External	Parting		●	●	●	●
		Grooving		●	●	●	●
		Turning					
	Facing	Grooving				○	○
		Turning					
	Internal	Grooving				○	○
		Turning					
	Profiling						
	Threading						
	Undercut						

● Recommended, ○ Suitable

Tool Selection Guide

Parting and grooving inserts

				T-CLAMP Parting & Grooving																
Series				TDJ 				TSJ 				TDUF 				TDV 				
Material				P	M	N	S	P	M	N	S	P					P	M	N	S
Pages				B115				B116				B117				B117				
Application	External	Parting		●				●				●				●				
		Grooving		●				●				●				●				
		Turning																		
	Facing	Grooving		○				○				○				○				
		Turning																		
	Internal	Grooving		○				○				○				○				
		Turning																		
	Profiling																			
	Threading																			
	Undercut																			

Tool Selection Guide

Parting and grooving inserts

T-CLAMP PARTING & GROOVING						
TDXU	TDXT	TDXY	TDT	TDT (Round Type)	TDT - RS (Round Type)	TDT - RU (Round Type)
						
P M K N S	P M K N S	P M K S	P M K N S	P M K N S	P M K N S	P M K S
B118	B118	B119	B120-B121	B122	B122	B123
○	○	○	○			
●	●	●	●	●	●	●
●	●	●	●	●	●	●
●	●	●	○			
●	●	●	○			
●	●	●	○			
●	●	●	○			
				●	●	●
				●	●	●

● Recommended, ○ Suitable

Tool Selection Guide

Parting and grooving inserts

Series			T-CLAMP PARTING & GROOVING			
			TDFT	TDIT	TDIM	TDIP
Material			P M K N S	P M K N S	P M K N	P M K N S
Pages			B123	B124	B125	B125
Application	External	Parting				
		Grooving			●	●
		Turning			○	○
	Facing	Grooving		●	○	○
		Turning		●		
	Internal	Grooving		●	●	●
		Turning		●	●	●
	Profiling					○
	Threading					
	Undercut			○		

Tool Selection Guide

Parting and grooving inserts

T-CLAMP PARTING & GROOVING										FACE RUSH					T-GROOVE					TOP MICRO				
TDA			TSA (PCD)			TSG-HF (CBN)				TDFX			TDGX			TGUX			MIN.					
																								
		N			N					H	P	M	K	N	S	P	M	N	S	P	M	K	N	S
B126			B126			B126				B127			B127			B128			B132-B141					
○						○				○						●								
●						●				○														
										●														
										●														
																			●					
																			●					
●			●																●					
													●						●					
○																								

● Recommended, ○ Suitable

Tool Selection Guide

Parting and grooving inserts

Series			TOPCUT	QUADRUSH			
			TV..	TQJ 20	TQS 20	TQS 20-MT	
							
Material			P M N S	P M N S	P M K N S	P M N S	
Pages			B143-B145	B147	B147	B148	
Application	External	Parting		●	●	●	
		Grooving		●	●	●	
		Turning		●	●	●	
	Facing	Grooving					
		Turning					
	Internal	Grooving					
		Turning					
	Profiling					○	
	Threading			●			●
	Undercut						

Tool Selection Guide

Parting and grooving inserts

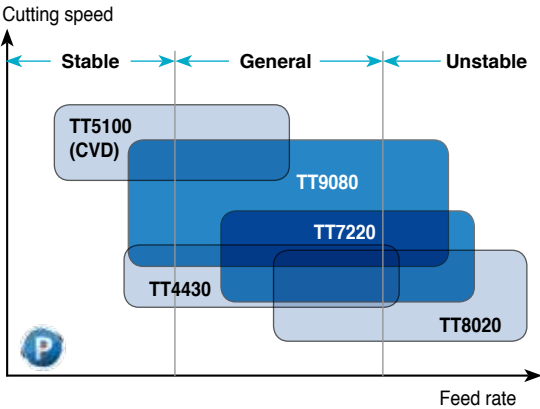
QUAD RUSH					QUAD RUSH	MINI RUSH	
TQJ 27	TQC 27	TQS 27	TQS 27-MT TQS 27-WT	TQS 27-ISO TQS 27-UN TQS 27-W	TQC 34	TQIS 14	TMIS 8
							
P M K N S	P M K N S	P M K N S	P M K N S	P M K N S	P M K N S	P M K N S	P M K N S
B149-B151	B152-B153	B154	B155	B156-B157	B157-B159	B160	B161
●	●	●			●		
●	●	●			●		
●	●	●			●		
						●	●
						○	○
○	○	○			○		
			●	●			

● Recommended, ○ Suitable

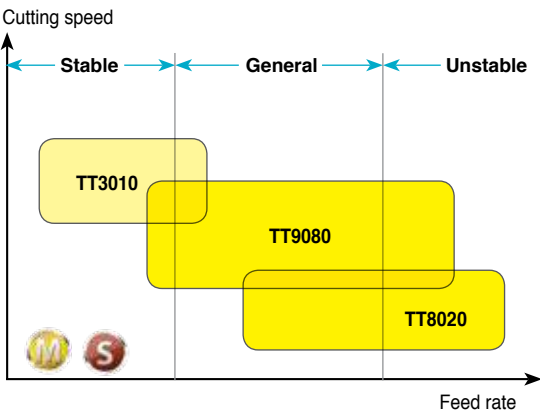
Grades

Selection guide for parting and grooving grades

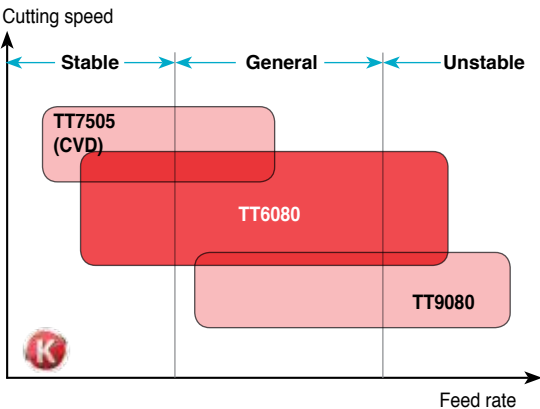
For steel (PVD & CVD coated)



For stainless steel & super alloy (PVD coated)



For cast iron (PVD & CVD coated)



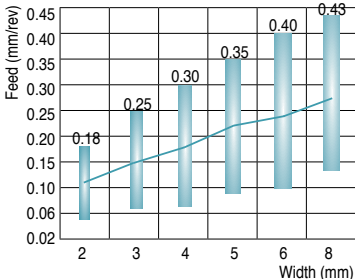
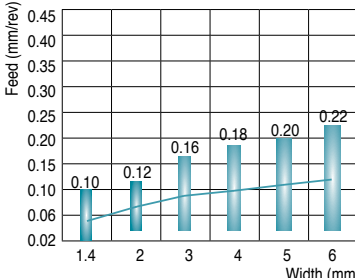
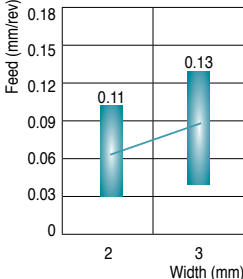
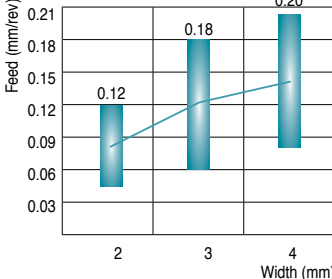
Grades

Parting and grooving grades

Grades	ISO	Characteristics & applications
TT7505 CVD coated	K05 — K15	• High speed grooving and turning of gray and ductile cast iron
TT6080 PVD coated	K05 — K25 H05 — H25	• General machining of gray and ductile cast iron for grooving and turning • Finish and medium machining of hardened steel
TT3010 PVD coated	S05 — S20	• High speed grooving and turning of heat-resistant super alloy
TT5100 CVD coated	P20 — P35 M20 — M35	• Medium grooving and turning of mild steel, low carbon steel and low carbon alloy steel • Low to medium speed machining of stainless steel
TT9080 PVD coated	P20 — P40 M20 — M40 S20 — S40	• General machining of steel, stainless steel and heat-resistant super alloy for parting, grooving and turning • Continuous cut and medium cutting speed
TT4430 PVD coated	P20 — P40 M20 — M40 S20 — S40	• General machining of steel, stainless steel and heat-resistant super alloy for small parts • Grooving, turning and parting
TT7220 PVD coated	P25 — P45 M25 — M45	• Rough machining of steel and stainless steel for parting, grooving and turning
TT8020 PVD coated	P30 — P50 M30 — M50 S30 — S50	• Low speed or rough and interrupted machining of steel, stainless steel and heat-resistant super alloy for parting, grooving and turning
CT3000 Cermet	P10 — P20 M10 — M20 K10 — K20	• Good surface finish turning of steel, stainless steel and cast iron
K10 Carbide	K05 — K15 N05 — N15 S05 — S15	• General machining of cast iron, aluminum alloys, non-ferrous materials and titanium alloys
TB2015 CBN	H10 — H20	• Continuous and light interrupted machining of hardened steel
KP300 PCD	N10 — N25	• General machining of aluminum alloys

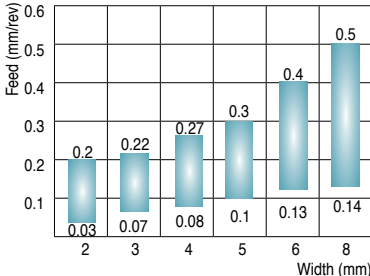
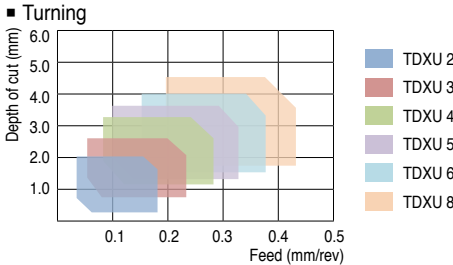
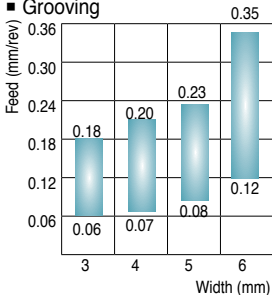
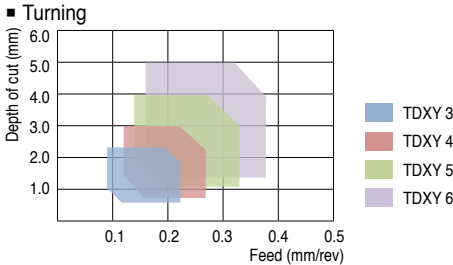
Chip Breakers

Parting and grooving

Chip breakers	Applications and features
C-Type 	 • 1st choice for general use in parting and deep grooving • Stable cutting edge & interrupted cut • Medium-to-high feed • For carbon steel, alloy steel and cast iron • For hard materials
J-Type 	 • 1st choice for soft materials in parting and deep grooving • Sharp cutting edge & low cutting force • Low-to-medium feed • Tubes, small diameter and thin-wall parts • For stainless steel & low carbon steel • For heat resistant super alloy
UF-Type 	 • Narrow chip breaker • Good chip control in low feed of ductile materials and low carbon steel • For Cr-Ni alloy steel and bearing steel
V-Type 	 • Sharp cutting edge and wide groove with minimized burrs • For tubes of small size workpieces • For stainless steel and mild steel

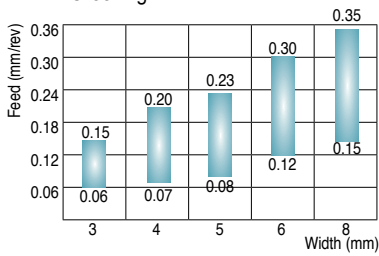
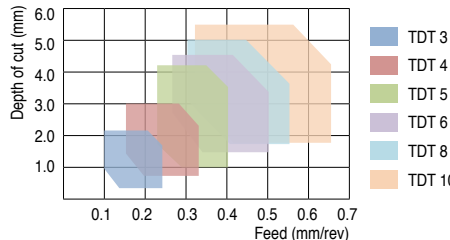
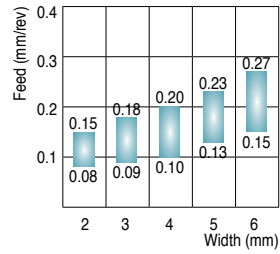
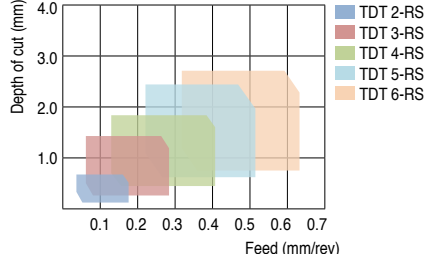
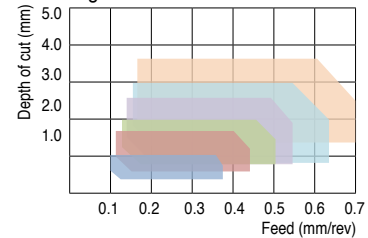
Chip Breakers

Groove-Turn

Chip breakers	Applications and features	
XU-Type 	■ Grooving  ■ Turning  • 1st choice for general use in groove-turn • Multi functional chip breaker for external, internal and face machining • Low cutting force and good chip control • Medium-to-high feed grooving, low-to-medium feed turning • Steel, stainless steel and heat resistant alloy	
XY-Type 	■ Grooving  ■ Turning  • For external and internal grooving as well as turning applications • Good chip control when external face grooving and turning • Flat bottom surface machining • Low-to-medium feed grooving, medium-to-high feed turning • Ideal for steel, stainless steel, cast iron and super alloys machining	

Chip Breakers

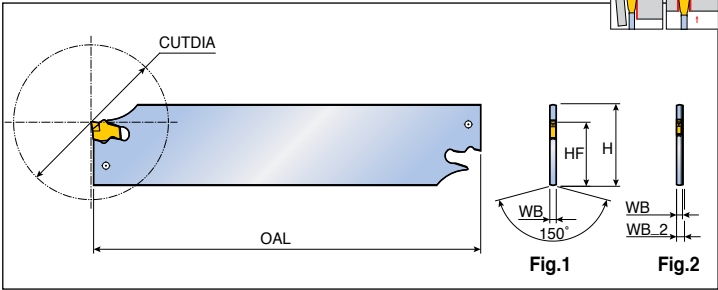
Groove-Turn

Chip breakers		Applications and features																																			
T-Type 	■ Grooving  <table><caption>Grooving Performance Data (T-Type)</caption><tr><th>Width (mm)</th><th>Feed (mm/rev)</th><th>Depth of cut (mm)</th></tr><tr><td>3</td><td>0.06</td><td>0.15</td></tr><tr><td>4</td><td>0.07</td><td>0.20</td></tr><tr><td>5</td><td>0.08</td><td>0.23</td></tr><tr><td>6</td><td>0.12</td><td>0.30</td></tr><tr><td>8</td><td>0.15</td><td>0.35</td></tr></table>	Width (mm)	Feed (mm/rev)	Depth of cut (mm)	3	0.06	0.15	4	0.07	0.20	5	0.08	0.23	6	0.12	0.30	8	0.15	0.35	■ Turning  <table><caption>Turning Performance Data (T-Type)</caption><tr><th>Feed (mm/rev)</th><th>Depth of cut (mm)</th></tr><tr><td>0.1</td><td>1.0 - 2.0</td></tr><tr><td>0.2</td><td>1.0 - 3.0</td></tr><tr><td>0.3</td><td>1.0 - 4.0</td></tr><tr><td>0.4</td><td>1.0 - 5.0</td></tr><tr><td>0.5</td><td>1.0 - 5.5</td></tr><tr><td>0.6</td><td>1.0 - 5.5</td></tr><tr><td>0.7</td><td>1.0 - 5.0</td></tr></table> TDT 3 TDT 4 TDT 5 TDT 6 TDT 8 TDT 10	Feed (mm/rev)	Depth of cut (mm)	0.1	1.0 - 2.0	0.2	1.0 - 3.0	0.3	1.0 - 4.0	0.4	1.0 - 5.0	0.5	1.0 - 5.5	0.6	1.0 - 5.5	0.7	1.0 - 5.0	• 1st choice for side turning of cast iron • Turning and grooving with various geometry • Steel and cast iron • High feed rate
Width (mm)	Feed (mm/rev)	Depth of cut (mm)																																			
3	0.06	0.15																																			
4	0.07	0.20																																			
5	0.08	0.23																																			
6	0.12	0.30																																			
8	0.15	0.35																																			
Feed (mm/rev)	Depth of cut (mm)																																				
0.1	1.0 - 2.0																																				
0.2	1.0 - 3.0																																				
0.3	1.0 - 4.0																																				
0.4	1.0 - 5.0																																				
0.5	1.0 - 5.5																																				
0.6	1.0 - 5.5																																				
0.7	1.0 - 5.0																																				
RS-Type 	■ Grooving  <table><caption>Grooving Performance Data (RS-Type)</caption><tr><th>Width (mm)</th><th>Feed (mm/rev)</th><th>Depth of cut (mm)</th></tr><tr><td>2</td><td>0.08</td><td>0.15</td></tr><tr><td>3</td><td>0.09</td><td>0.18</td></tr><tr><td>4</td><td>0.10</td><td>0.20</td></tr><tr><td>5</td><td>0.13</td><td>0.23</td></tr><tr><td>6</td><td>0.15</td><td>0.27</td></tr></table>	Width (mm)	Feed (mm/rev)	Depth of cut (mm)	2	0.08	0.15	3	0.09	0.18	4	0.10	0.20	5	0.13	0.23	6	0.15	0.27	■ Turning  <table><caption>Turning Performance Data (RS-Type)</caption><tr><th>Feed (mm/rev)</th><th>Depth of cut (mm)</th></tr><tr><td>0.1</td><td>0.5 - 1.5</td></tr><tr><td>0.2</td><td>0.5 - 2.0</td></tr><tr><td>0.3</td><td>0.5 - 2.5</td></tr><tr><td>0.4</td><td>0.5 - 3.0</td></tr><tr><td>0.5</td><td>0.5 - 3.0</td></tr><tr><td>0.6</td><td>0.5 - 3.0</td></tr><tr><td>0.7</td><td>0.5 - 2.5</td></tr></table> TDT 2-RS TDT 3-RS TDT 4-RS TDT 5-RS TDT 6-RS	Feed (mm/rev)	Depth of cut (mm)	0.1	0.5 - 1.5	0.2	0.5 - 2.0	0.3	0.5 - 2.5	0.4	0.5 - 3.0	0.5	0.5 - 3.0	0.6	0.5 - 3.0	0.7	0.5 - 2.5	• 1st choice for medium to finishing machining of heat-resistant super alloys • For external and internal profiling, turning and grooving applications • Low cutting force and good surface finish due to the sharp edge • Precision machining and excellent repeatability
Width (mm)	Feed (mm/rev)	Depth of cut (mm)																																			
2	0.08	0.15																																			
3	0.09	0.18																																			
4	0.10	0.20																																			
5	0.13	0.23																																			
6	0.15	0.27																																			
Feed (mm/rev)	Depth of cut (mm)																																				
0.1	0.5 - 1.5																																				
0.2	0.5 - 2.0																																				
0.3	0.5 - 2.5																																				
0.4	0.5 - 3.0																																				
0.5	0.5 - 3.0																																				
0.6	0.5 - 3.0																																				
0.7	0.5 - 2.5																																				
RU-Type 	■ Turning  <table><caption>Turning Performance Data (RU-Type)</caption><tr><th>Feed (mm/rev)</th><th>Depth of cut (mm)</th></tr><tr><td>0.1</td><td>0.5 - 1.5</td></tr><tr><td>0.2</td><td>0.5 - 2.0</td></tr><tr><td>0.3</td><td>0.5 - 2.5</td></tr><tr><td>0.4</td><td>0.5 - 3.0</td></tr><tr><td>0.5</td><td>0.5 - 3.5</td></tr><tr><td>0.6</td><td>0.5 - 4.0</td></tr><tr><td>0.7</td><td>0.5 - 4.5</td></tr></table> TDT 2-RU TDT 3-RU TDT 4-RU TDT 6-RU TDT 8-RU	Feed (mm/rev)	Depth of cut (mm)	0.1	0.5 - 1.5	0.2	0.5 - 2.0	0.3	0.5 - 2.5	0.4	0.5 - 3.0	0.5	0.5 - 3.5	0.6	0.5 - 4.0	0.7	0.5 - 4.5	• Profiling in steel and cast iron • Tough cutting edge • Good chip control even in low depth • Good surface finish • High feed rate and low depth of cut																			
Feed (mm/rev)	Depth of cut (mm)																																				
0.1	0.5 - 1.5																																				
0.2	0.5 - 2.0																																				
0.3	0.5 - 2.5																																				
0.4	0.5 - 3.0																																				
0.5	0.5 - 3.5																																				
0.6	0.5 - 4.0																																				
0.7	0.5 - 4.5																																				

Parting & Grooving Toolholders



Blades for parting and deep grooving



Designation	Insert seat size	Dimension (mm)						Fig.	Block	Insert
		H	HF	OAL	WB	WB_2	CUTDIA			
SFGB 32-1.6	1*	32	24.8	150	1.3	2.5	38	2	TTBN/U..32 B44-B45	SFC
32-2	2	32	24.8	150	1.8	2.5	50	2		SFJ
32-3	3	32	24.8	150	2.5	-	100	1		B112

• *: SFC 1.6 insert only

Spare parts

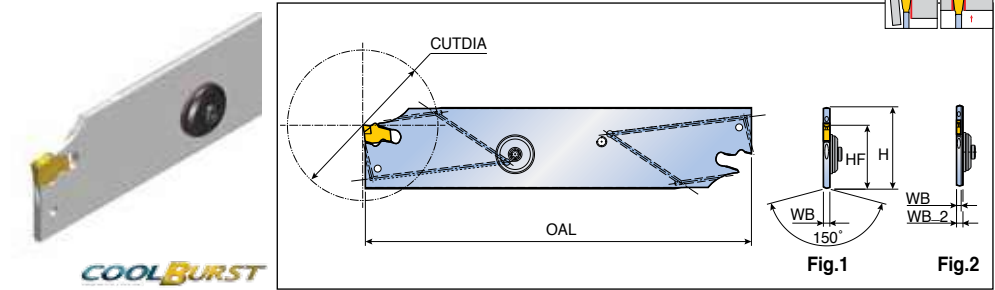
Designation	Extractor			
				
SFGB	ETG 3-4			

• Extractor should be ordered separately

SFGB-TB



Blades for parting and deep grooving with high pressure coolant

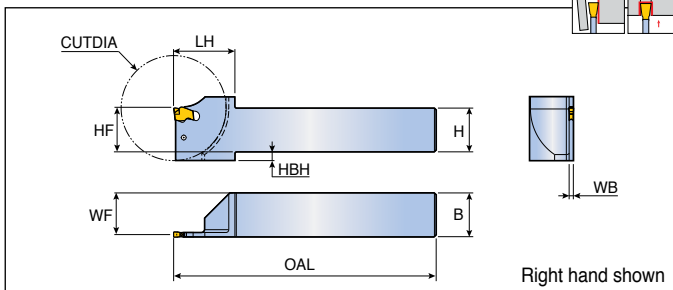


Designation	Insert seat size	Dimension (mm)						Fig.	Block	Insert
		H	HF	OAL	WB	WB_2	CUTDIA			
SFGB 32-2-TB	2	32	24.8	150	1.8	2.5	50	2	TTBU...TB B46	SFC SFJ B112
32-3-TB	3	32	24.8	150	2.5	-	90	1		

Spare parts

Designation	Sealing screw set	Extractor		
SFGB -TB	SGC 340	ETG 3-4		

- Extractor should be ordered separately

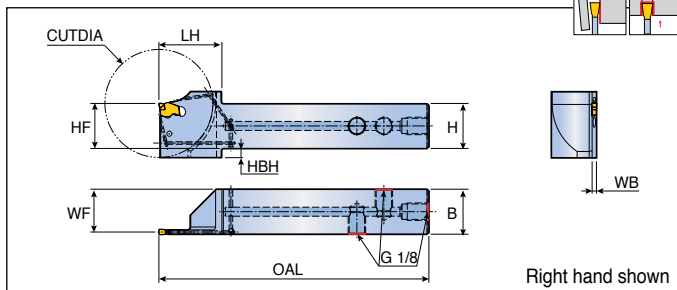
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- ## Spare parts

Designation	Extractor			
				
SFER/L	ETG 3-4			

- Extractor should be ordered separately

CUTSPEED
ALU-FEEDPARTING

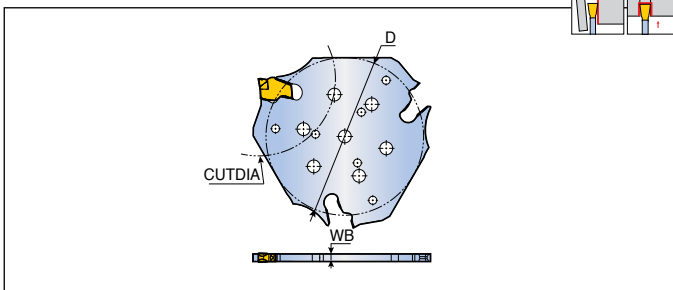
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- ## Spare parts

Designation	Plug	Wrench	Extractor	
				
SFER/L-TB	PLG G1/8-L6.5	L-W 5	ETG 3-4	

- Extractor should be ordered separately

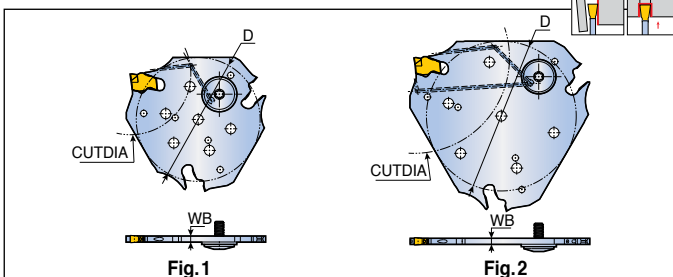
Triangular blades for parting and deep grooving



Designation	Insert seat size	Dimension (mm)			Block	Insert
		D	WB	CUTDIA		
SFTB D52-2	2	53.2	1.8	52	THTBR/L-TB B35	SFC SFJ B112
D52-3	3	53.2	2.5	52		
D82-2	2	64.3	1.8	82		
D82-3	3	64.3	2.5	82		
D120-2	2	85.5	1.8	120		
D120-3	3	85.5	2.5	120		

SFTB-TB

Triangular blades for parting and deep grooving with high pressure coolant



Designation	Insert seat size	Dimension (mm)			Fig.	Block	Insert
		D	WB	CUTDIA			
SFTB D52-2-TB	2	53.2	1.8	52	1	THTBR/L-TB B35	SFC SFJ B112
D52-3-TB	3	53.2	2.5	52	1		
D82-2-TB	2	64.3	1.8	82	2		
D82-3-TB	3	64.3	2.5	82	2		
D120-2-TB	2	85.5	1.8	120	2		
D120-3-TB	3	85.5	2.5	120	2		

Spare parts

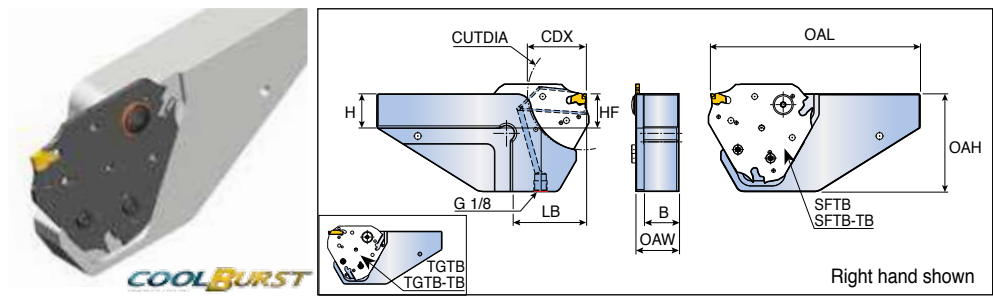
Designation	Sealing screw set	Extractor		
SFTB	-	ETG 3-4		
SFTB-TB	SGC 340-Q	ETG 3-4		

• Extractor should be ordered separately

THTBR/L-TB



Blocks for triangular blade



Designation	Dimension (mm)								Blade
	H	HF	B	OAL	OAH	OAW	LB	CUTDIA	
THTBR/L 20-D52-TB	20	20	17.5	125	52	23.5	40	52	SFTB/SFTB-TB TGTB/TGTB-TB B34, B38
25-D52-TB	25	25	22.5	135	52	28.5	40	52	
20-D82-TB	20	20	17.5	140	72	23.5	51.5	82	
25-D82-TB	25	25	22.5	150	72	28.5	51.5	82	
25-D120-TB	25	25	22.5	165	95	28.5	67	120	
32-D120-TB	32	32	29.0	165	95	35.0	67	120	

• Please refer to B106 page for COOL-BURST accessories

Table determining depth of cut for grooving as function of workpiece diameter

Designation CDX	CUTDIA										
	5	6	7	8	9	10	11	12	13	14	15
SFTB/TGTB D52	240	164	137	118	105	94	86	80	74	70	66
D82	N.L.	N.L.	3686	1126	734	524	408	335	284	247	219
SFTB D120	N.L.	N.L.	7752	2581	1548	1105	860	704	597	518	458

• N.L.: No limit

Designation CDX	CUTDIA										
	16	17	18	19	20	21	22	23	24	25	26
SFTB/TGTB D52	64	61	59	57	56	55	54	53	52	52	52
D82	197	180	166	154	144	135	128	122	116	112	108
SFTB D120	411	373	342	316	294	276	259	245	233	222	212

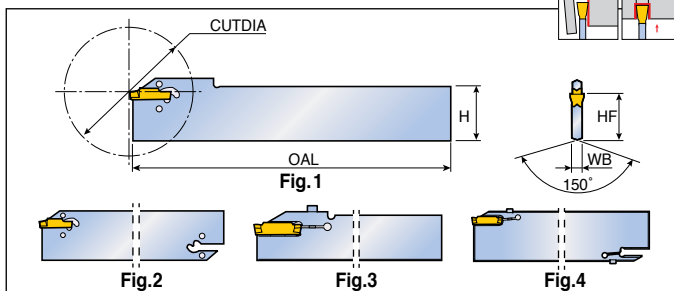
Designation CDX	CUTDIA													
	27	28	29	30	31	32	33	34	35	36	37	38	39	40
SFTB/TGTB D82	104	101	98	96	93	91	90	88	87	86	85	84	83	82
SFTB D120	203	195	188	182	176	171	166	162	158	154	151	148	145	143

Designation CDX	CUTDIA													
	42	43	44	45	46	47	48	49	51	52	55	54-53	57-56	58-60
SFTB D120	136	134	133	131	130	128	127	126	125	124	122	123	121	120

Spare parts

Designation	Locating pin	Screw	O-Ring	Wrench
THTBR/L-TB	SIDE THRUST PIN 3MM	SH M4X0.7X10-TX	O-RING ID10X2	T 20

Blades for parting and deep grooving



Designation	Insert seat size	Dimension (mm)					Fig.	Block	Insert
		H	HF	OAL	WB	CUTDIA			
TGB 26-1.4S⁽¹⁾	1 *	26	21.4	150	1.0 ⁽²⁾	26	1	TTBN/U...-26	TDC / J / T TDXU / XT / XY TSC / J TDUF / TDV B113-B121
26-2S⁽¹⁾	2	26	21.4	150	1.8 ⁽²⁾	40	1	TTBN/U...-26	
26-3S⁽¹⁾	3	26	21.4	150	2.4	50	1	TTBN/U...-26	
26-4S⁽¹⁾	4	26	21.4	150	3.2	80	1	TTBN/U...-26	
32-1.4	1 *	32	24.9	150	1.0 ⁽²⁾	26	2	TTBN/U...-32	
32-2	2	32	24.9	150	1.8 ⁽²⁾	50	2	TTBN/U...-32	
32-3	3	32	24.9	150	2.4	100	2	TTBN/U...-32	
32-4	4	32	24.9	150	3.2	100	2	TTBN/U...-32	
32-5	5	32	24.9	150	4.0	120	2	TTBN/U...-32	
32-6	6	32	24.9	150	5.2	120	2	TTBN/U...-32	
45-4	4	45	38.1	150	3.2	120	2	TTBN/U...-45	
32-8S-CL⁽¹⁾	8	32	24.9	150	6.2	80	3	TTBN/U...-32	
52-8-CL	8	52	45.2	250	7.4	200	4	TTBN/U...-52	
								B44-B45	

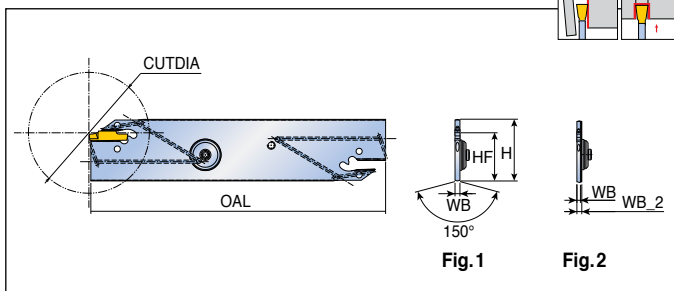
- ⁽¹⁾ Single ended blade
- ⁽²⁾ Thickness at DOC area only. Overall thickness is 2.4mm
- * TDJ 1.4 insert only

Spare parts

Designation	Extractor	Screw	Wrench	
TGB 26-1.4S / 32-1.4	EDG 23B	-	-	
TGB 26 / 32 / 45	EDG 33B	-	-	
TGB 32-8S-CL	-	SH M4x0.7x20-MO	L-W 3	
TGB 52-8-CL	-	SH M4x0.7x20-MO	L-W 3	

- Extractor should be ordered separately

T-CLAMP
PARTING & GROOVING

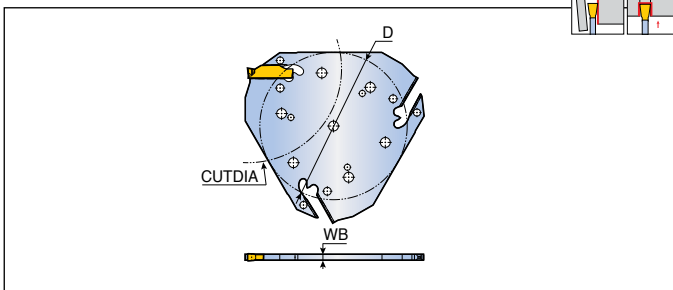
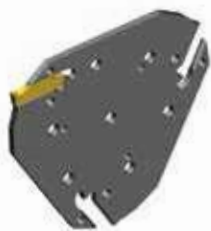


Spare parts

Designation	Sealing screw set	Extractor		
				
TGB-TB	SGC 340	EDG 33B		

- Extractor should be ordered separately

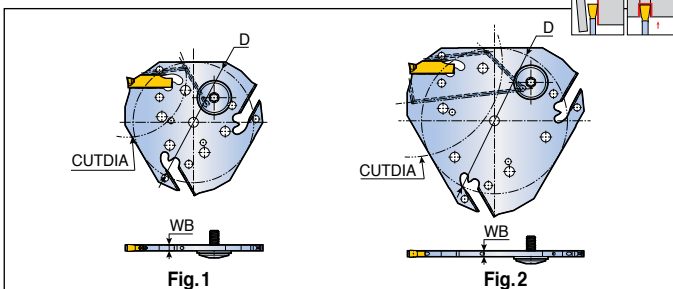
Triangular blades for parting and deep grooving



Designation	Insert seat size	Dimension (mm)			Block	Insert
		D	WB	CUTDIA		
TGTB D52-2	2	53.2	1.8	52	THTBR/L-TB B35	TDC / J / T
D52-3	3	53.2	2.5	52		TDXU / XT / XY
D82-2	2	64.3	1.8	82		TSC / J / TDUF / TDV
D82-3	3	64.3	2.5	82		B113-B121

TGTB-TB

Triangular blades for parting and deep grooving with high pressure coolant



Designation	Insert seat size	Dimension (mm)			Fig.	Block	Insert
		D	WB	CUTDIA			
TGTB D52-2-TB	2	53.2	1.8	52	1	THTBR/L-TB B35	TDC / J / T
D52-3-TB	3	53.2	2.5	52	1		TDXU / XT / XY
D82-2-TB	2	64.3	1.8	82	2		TSC / J / TDUF / TDV
D82-3-TB	3	64.3	2.5	82	2		B113-B121

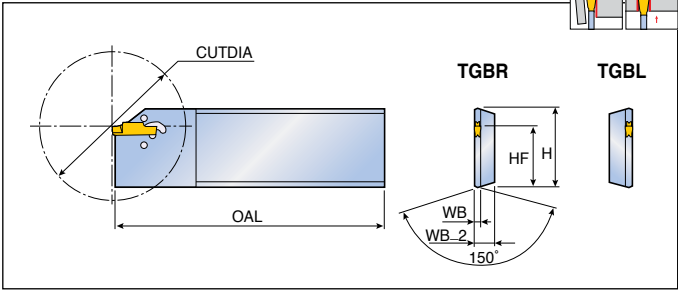
Spare parts

Designation	Sealing screw set	Extractor		
TGTB	-	EDG 33B		
TGTB-TB	SGC 340-Q	EDG 33B		

• Extractor should be ordered separately

TGBR/L

Reinforced blades for parting and deep grooving



Designation	Insert seat size	Dimension (mm)						Block	Insert
		H	HF	OAL	WB	WB_2	CUTDIA		
TGBR/L 32T24-2	2	32	24.9	110	1.8	8.0	42	TTBN/U..32 B44-B45	TDC / J / T
32T33-3	3	32	24.9	110	2.4	8.0	60		TDXU / XT / XY
32T41-4	4	32	24.9	110	3.2	10.0	80		TSC / J
									TDUF / TDV
									B113-B121

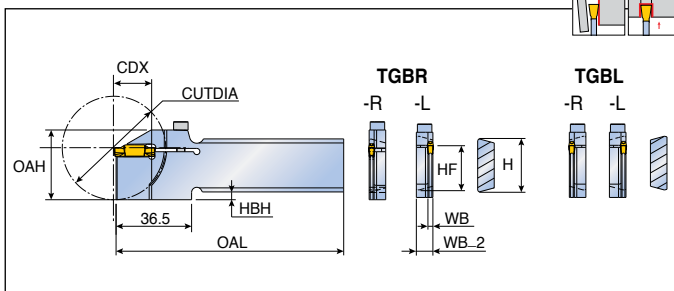
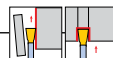
Spare parts

Designation	Extractor			
				
TGBR/L	EDG 33B			

- Extractor should be ordered separately

TGBR/L -D..R/L

Reinforced blades for parting and deep grooving with screw clamping



Designation	Insert seat size	Dimension (mm)										Block	Insert
		H	HF	OAL	OAH	WB	WB_2	HBH	CDX	CUTDIA			
TGBR 26-2-D50R ⁽¹⁾	2	26	21.4	110	33.7	1.8	8	3.6	18	50	TTBN/U...-26	TDC / J / T TDXU / XT / XY TSC / J TDUF / TDV  B113-B121	
26-2-D50L ⁽²⁾	2	26	21.4	110	33.7	1.8	8	3.6	18	50	TTBN/U...-26		
TGBL 26-2-D50R ⁽²⁾	2	26	21.4	110	33.7	1.8	8	3.6	18	50	TTBN/U...-26		
26-2-D50L ⁽¹⁾	2	26	21.4	110	33.7	1.8	8	3.6	18	50	TTBN/U...-26		
TGBR 26-3-D50R ⁽¹⁾	3	26	21.4	110	33.7	2.4	8	3.6	18	50	TTBN/U...-26		
26-3-D50L ⁽²⁾	3	26	21.4	110	33.7	2.4	8	3.6	18	50	TTBN/U...-26		
TGBL 26-3-D50R ⁽²⁾	3	26	21.4	110	33.7	2.4	8	3.6	18	50	TTBN/U...-26		
26-3-D50L ⁽¹⁾	3	26	21.4	110	33.7	2.4	8	3.6	18	50	TTBN/U...-26		
TGBR 32-2-D50R ⁽³⁾	2	32	24.9	120	33.7	1.8	8	-	18	50	TTBN/U...-32		
32-2-D50L ⁽²⁾	2	32	24.9	120	33.7	1.8	8	-	18	50	TTBN/U...-32		
TGBL 32-2-D50R ⁽²⁾	2	32	24.9	120	33.7	1.8	8	-	18	50	TTBN/U...-32		
32-2-D50L ⁽³⁾	2	32	24.9	120	33.7	1.8	8	-	18	50	TTBN/U...-32		
TGBR 32-3-D50R ⁽³⁾	3	32	24.9	120	33.7	2.4	8	-	18	50	TTBN/U...-32		
32-3-D50L ⁽²⁾	3	32	24.9	120	33.7	2.4	8	-	18	50	TTBN/U...-32		
TGBL 32-3-D50R ⁽²⁾	3	32	24.9	120	33.7	2.4	8	-	18	50	TTBN/U...-32		
32-3-D50L ⁽³⁾	3	32	24.9	120	33.7	2.4	8	-	18	50	TTBN/U...-32		
											 B44-B45		

• ⁽¹⁾ for Traub machines, model TNC 30, TNM 28, TNS 26/30/42/112, TNA 300, TNK 260

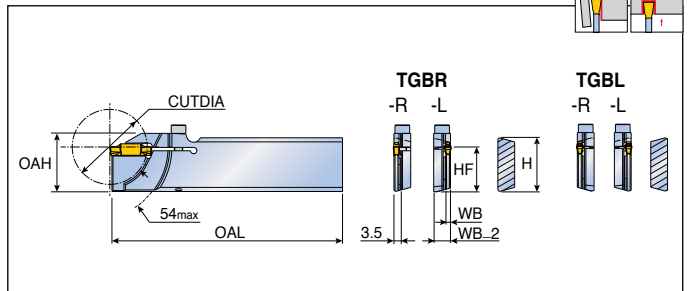
• ⁽²⁾ for Tornos Bechler, model Emco 2000/20, 2000/26

• ⁽³⁾ for Traub machines, model TNC 42/65, TNM 42/65, TNS 42/60/65, TNA 300/400

Spare parts

Designation	Screw	Wrench		
	SH M4x0.7x16	L-W 3		
TGBR/L -DR/L				

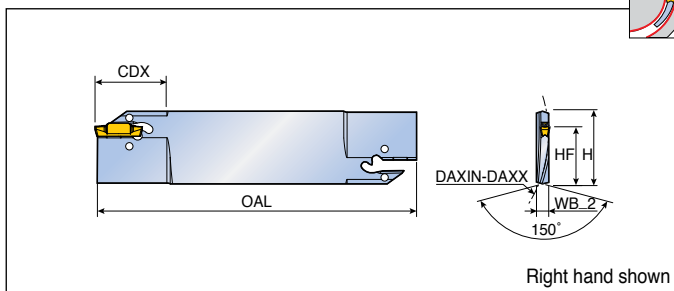
T-CLAMP
PARTING & GROOVING



Spare parts

Designation	Screw	Wrench		
				
TGBR/L -TI-DR/L	SH M4x0.7x16	L-W 3		

Blades for face grooving



Designation	Insert seat size	Dimension (mm)								Block	Insert
		H	HF	OAL	WB_2	CDX	DAXIN	DAXX			
TGBFR/L	32T 20-40-60-3	3	32	24.9	150	5.2	20	40	60	TTBN/U...32  B44-B45	TDC / J / T TDXU / XT / XY TDFT TSC / J TDUF / TDV  B113-B121
	32T 20-54-80-3	3	32	24.9	150	5.2	20	54	80		
	32T25-74-120-3	3	32	24.9	150	5.2	25	74	120		
	32T25-114-180-3	3	32	24.9	150	5.2	25	114	180		
	32T25-40-60-4	4	32	24.9	150	5.2	25	40	60		
	32T25-50-80-4	4	32	24.9	150	5.2	25	50	80		
	32T30-70-130-4	4	32	24.9	150	5.2	30	70	130		
	32T30-120-200-4	4	32	24.9	150	5.2	30	120	200		
	32T30-200-4	4	32	24.9	150	5.2	30	200	∞		
	32T32-60-95-5	5	32	24.9	150	5.2	32	60	95		
	32T35-85-140-5	5	32	24.9	150	5.2	35	85	140		
	32T35-130-250-5	5	32	24.9	150	5.2	35	130	250		
	32T35-250-5	5	32	24.9	150	5.2	35	250	∞		
	32T32-80-180-6	6	32	24.9	150	5.2	32	80	180		
	32T38-168-300-6	6	32	24.9	150	5.2	38	168	300		
	32T38-300-6	6	32	24.9	150	5.2	38	300	∞		

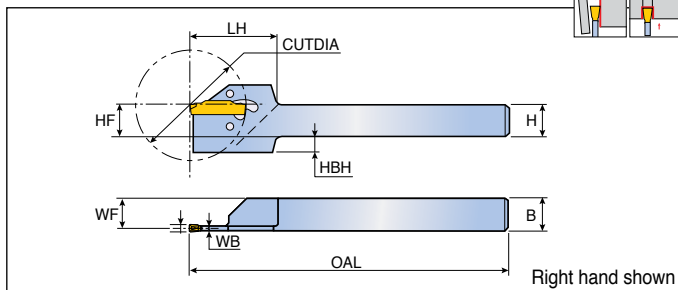
• Please check insert min. dia for face grooving B74 page

Spare parts

Designation	Extractor			
				
TGBFR/L	EDG 33B			

• Extractor should be ordered separately

Holders for parting and deep grooving



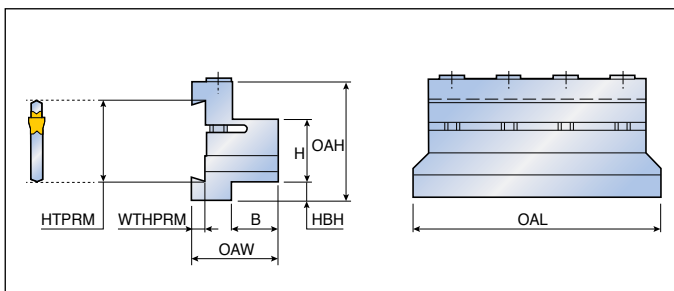
Designation	Insert seat size	Dimension (mm)								CUTDIA		Insert
		H	HF	B	OAL	LH	WF	WB	HBH	TDJ/C	TSJ/C	
TGER/L 2020-1.4T10	1 *	20	20	20	125	31	19.5	1.0	-	20	20	TDC / J / T
1010-2	2	10	10	10	150	31	9.1	1.8	8	33	33	TDXU / XT / XY
1212-2	2	12	12	12	150	31	11.1	1.8	6	35	35	TSC / J
1616-2	2	16	16	16	150	31	15.1	1.8	2	35	35	TDUF / TDV
2012-2	2	20	20	12	150	31	11.1	1.8	-	35	35	B113-B121
2020-2	2	20	20	20	125	31	19.1	1.8	-	35	35	
1212-3	3	12	12	12	150	31	10.8	2.4	6	38	40	
1616-3	3	16	16	16	150	31	14.8	2.4	2	38	45	
2020-3	3	20	20	20	125	31	18.8	2.4	-	38	45	
2525-3	3	25	25	25	150	31	23.8	2.4	-	38	45	
2020-4	4	20	20	20	125	33	18.4	3.2	-	38	55	
2525-4	4	25	25	25	150	33	23.4	3.2	-	38	55	

- * TDJ 1.4 insert only

Spare parts

Designation	Extractor			
				
TGER/L.....-1.4T10	EDG 23B			
TGER/L.....-2	EDG 33B			
TGER/L.....-3	EDG 33B			
TGER/L.....-4	EDG 33B			

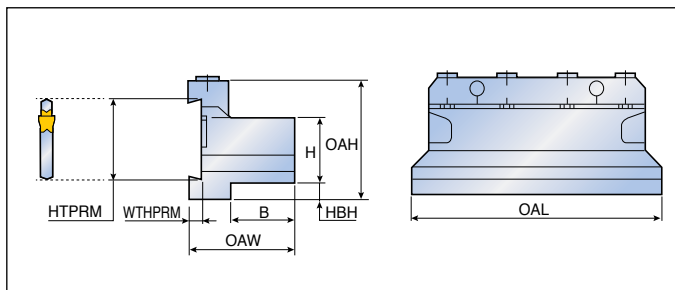
- Extractor should be ordered separately

[illegible]

Spare parts

Designation	Screw	Wrench		
				
TTBN...26	SH M6x1x25	L-W 5		
TTBN...32	SH M6x1x30	L-W 5		
TTBN...45	SH M6x1x40	L-W 5		
TTBN...52	SH M8x1.25x45	L-W 6		



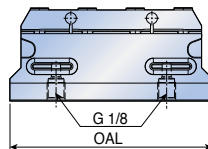
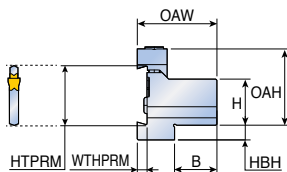
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Designation	Screw	Clamp	Wrench	
				
TTBU 20-26	SR M6X30 DIN912	BKU 86	L-W 5	
TTBU 25-26	SR M6X30 DIN912	BKU 105	L-W 5	
TTBU 20-32	SR M6X25 DIN912	BKU 100	L-W 5	
TTBU 25-32	SR M6X25 DIN912	BKU 110	L-W 5	
TTBU 32-32	SR M6X30 DIN912	BKU 110	L-W 5	
TTBU 25/32-45	SR M6X30 DIN912	BKU 110	L-W 5	



TTBU-TB

Blocks for blades with high pressure coolant

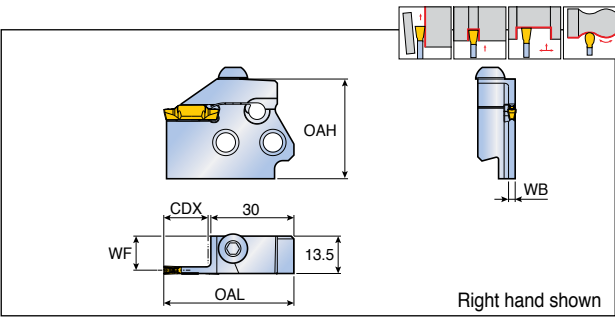
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Spare parts

Designation	Screw	Clamp	O-ring	Wrench
				
TTBU 20-32-TB	SR M6X16 DIN912	BKU 100	O-RING ID14X2.5	L-W 5
TTBU 25-32-TB	SR M6X16 DIN912	BKU 110	O-RING ID14X2.5	L-W 5
TTBU 32-32-TB	SR M6X16 DIN912	BKU 110	O-RING ID14X2.5	L-W 5



Cartridges for external grooving



Designation	Insert seat size	Dimension (mm)					Holder	Insert
		OAL	WF	WB	OAH	CDX		
TCAER/L 1.4T12	1*	47	13.0	1.0	36	12	TCAHR/L TCAHPL/R C...TCAHN C...TCAHPN B52-B55	TDJ 1.4
2T16	2	47	12.6	1.8	36	16		TDC / J / T
2T22	2	53	12.6	1.8	36	22		TDXU / XT / XY
3T16	3	47	12.3	2.4	36	16		TSC / J
3T22	3	53	12.3	2.4	36	22		TDUF / TDV
4T16	4	47	12.0	3.0	36	16		B113-B121
4T22	4	53	12.0	3.0	36	22		
5T20	5	51.5	11.6	3.9	36	20		
5T25	5	56	11.6	3.9	36	25		
6T20	6	51.5	11.1	4.9	36	20		
6T25	6	56	11.1	4.9	36	25		

• * TDJ 1.4 insert only

Spare parts

Designation	Screw	Wrench		
TCAER/L	BH M6x1x16	L-W 4		

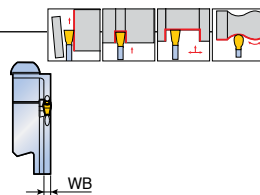
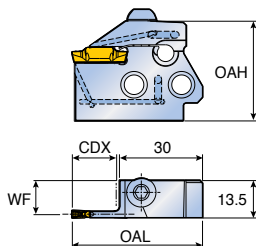
TCAER/L-TB

T-CLAMP
PARTING & GROOVING

Cartridges for external grooving with high pressure coolant



COOLBURST



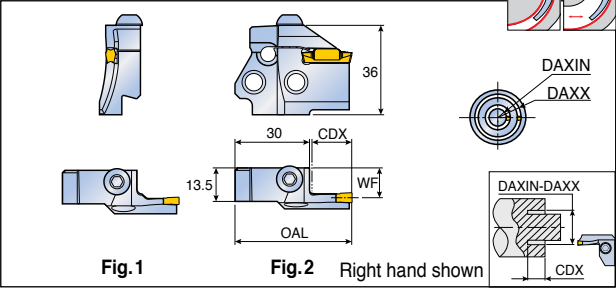
Right hand shown

[illegible]

Spare parts

Designation	Screw	Wrench		
				
TCAER/L-TB	BH M6X1X16	L-W 4		

Cartridges for external face grooving



Designation	Insert seat size	Dimension (mm)					Fig.	Holder	Insert	
		OAL	WF	CDX	DAXIN	DAXX				
TCAFR/L	3T10-29-40 RN	3	40	12.4	10	29	40	1	TCAHL/R	TDC / J / T
	3T12-40-55 RN	3	47	12.4	12	40	55	1	TCAHPR/L	TDXU / XT / XY
	3T12-55-75 RN	3	47	12.4	12	55	75	1	C...TCAHN	TDFT
	3T12-75-100 RN	3	47	12.4	12	75	100	1	C...TCAHPN	TSC / J
	3T12-100-140 RN	3	47	12.4	12	100	140	1	 B52-B55	TDUF / TDV
	3T12-140-200 RN	3	47	12.4	12	140	200	1		 B113-B121, B123
	4T16-34-50 RN	4	47	12.0	16	34	50	2		
	4T16-50-70 RN	4	47	12.0	16	50	70	2		
	4T16-70-100 RN	4	47	12.0	16	70	100	2		
	4T16-100-150 RN	4	47	12.0	16	100	150	2		
	4T16-150-250 RN	4	47	12.0	16	150	250	2		
	4T16-250 RN	4	47	12.0	16	250	∞	2		
	5T20-55-80 RN	5	51.5	11.5	20	55	80	2		
	5T20-80-120 RN	5	51.5	11.5	20	80	120	2		
	5T20-120-180 RN	5	51.5	11.5	20	120	180	2		
	5T20-180-300 RN	5	51.5	11.5	20	180	300	2		
	5T20-300 RN	5	51.5	11.5	20	300	∞	2		
	6T25-60-90 RN	6	56	11.0	25	60	90	2		
	6T25-90-150 RN	6	56	11.0	25	90	150	2		
	6T25-150-250 RN	6	56	11.0	25	150	250	2		
6T25-250-400 RN	6	56	11.0	25	250	400	2			
6T25-400 RN	6	56	11.0	25	400	∞	2			

• Please check insert min. dia for face grooving B74 page

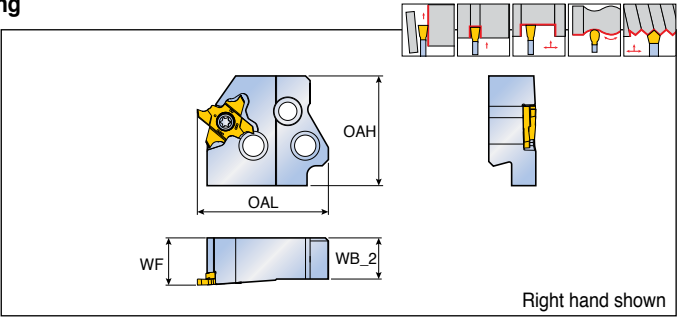
Spare parts

Designation	Screw	Wrench		
TCAFR/L	BH M6x1x16	L-W 4		

TCAQR/L 20



Cartridges for external grooving

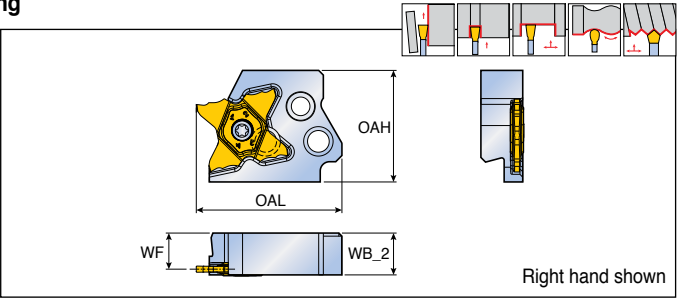


Designation	Dimension (mm)				Holder	Insert
	OAL	WF	WB_2	OAH		
TCAQR/L 20	43	15.5	13.5	36	TCAHR/L, TCAHPL/R C...TCAHN, C...TCAHPN B52-B55	TQ...20 B147-B148

TCAQR/L 27/34



Cartridges for external grooving



Designation	Dimension (mm)				Holder	Insert
	OAL	WF	WB_2	OAH		
TCAQR/L 27	47	12.3	13.5	36	TCAHR/L, TCAHPL/R C...TCAHN, C...TCAHPN B52-B55	TQ... 27
34	47	11.7	13.5	36		TQ... 34 B149-B159

Spare parts

Designation	Screw	Wrench	Designation	Screw	Wrench
TCAQR 20	TS 40A100L	T-1508/5	TCAQR 27/34	TS 50125IL	T 10/20
TCAQL 20	TS 40A100	T-1508/5	TCAQL 27/34	TS 50125I	T 10/20

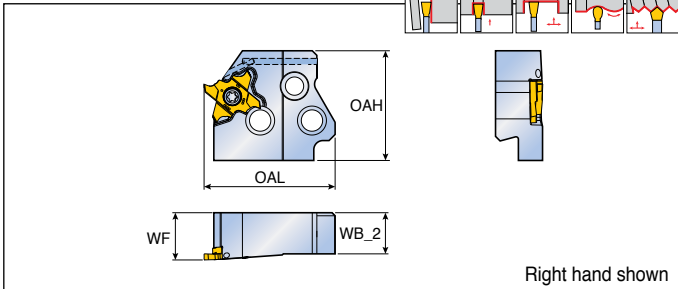
TCAQR/L 20-TB



Cartridges for external grooving with high pressure coolant



COOLBURST



Designation	Dimension (mm)				Holder	Insert
	OAL	WF	WB_2	OAH		
TCAQR/L 20-TB	43	15.5	13.5	36	TCAHR/L-TB, TCAHPL/R-TB C...TCAHN-TB, C...TCAHPN-TB B52-B55	TQ...20 B147-B148

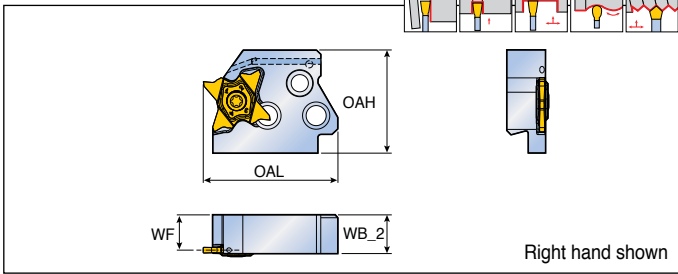
TCAQR/L 27-TB



Cartridges for external grooving with high pressure coolant



COOLBURST



Designation	Dimension (mm)				Holder	Insert
	OAL	WF	WB_2	OAH		
TCAQR/L 27-TB	47	12.3	13.5	36	TCAHR/L-TB, TCAHPL/R-TB C...TCAHN-TB, C...TCAHPN-TB B52-B55	TQ...27 B149-B157

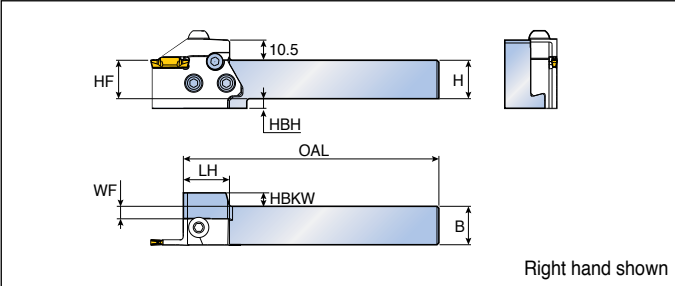
Spare parts

Designation	Screw	Wrench	Designation	Screw	Wrench
TCAQR 20-TB	TS 40A100L	T-1508/5	TCAQR 27-TB	TS 50125IL	T 10/20
TCAQL 20-TB	TS 40A100	T-1508/5	TCAQL 27-TB	TS 50125I	T 10/20

TCAHR/L



Parallel type holders for cartridge



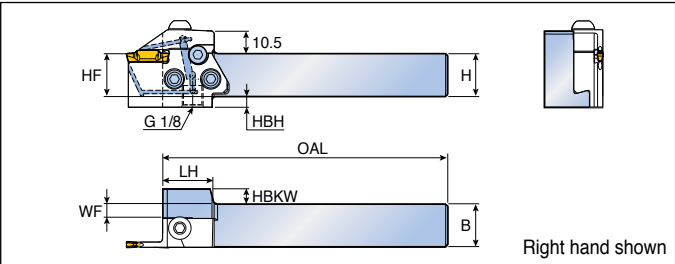
Designation	Dimension (mm)								Cartridge
	H	HF	B	OAL	WF	HBH	HBKW	LH	
TCAHR/L 2020	20	20	20	133	6.5	5	7	24	TCAER/L, TCAFL/R TCAQR/L B47, B49, B50
2525	25	25	25	133	11.5	-	2	24	
3232	32	32	32	153	18.5	-	-	24	

• Cartridge should be ordered separately

TCAHR/L-TB



Parallel type holders for cartridge with high pressure coolant



Designation	Dimension (mm)								Cartridge
	H	HF	B	OAL	WF	HBH	HBKW	LH	
TCAHR/L 2020-TB	20	20	20	133	6.5	5	7	24	TCAER/L-TB TCAQR/L-TB B48, B51
2525-TB	25	25	25	133	11.5	-	2	24	

- Cartridge should be ordered separately
- Please refer to B106 page for COOL-BURST accessories

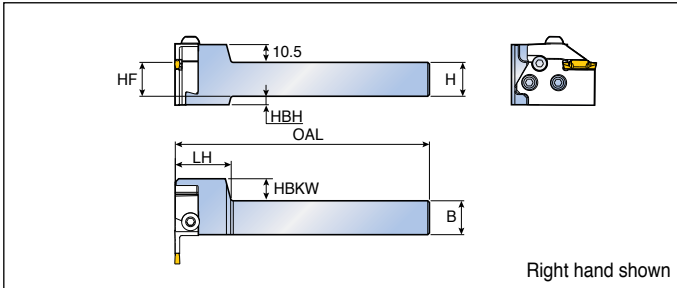
Spare parts

Designation	Screw	Security Screw	Sealing Screw	O-Ring	Wrench	
TCAHR/L	TS 60190I	SH M5X0.8X16	-	-	L-W 4	-
TCAHR/L-TB	TS 60190I	SH M5X0.8X16	SS M4X0.7X4-NL	O-RING ID5X1T	L-W 4	L-W 2

TCAHPR/L



Perpendicular type holders for cartridge



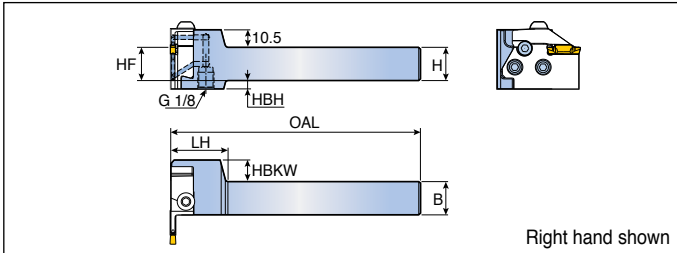
Designation	Dimension (mm)							Cartridge
	H	HF	B	OAL	HBH	HBKW	LH	
TCAHPR/L 2020	20	20	20	150	5	13	33	TCAEL/R, TCAFR/L TCAQL/R B47, B49, B50
2525	25	25	25	150	-	8	33	
3232	32	32	32	170	-	1	33	

- Cartridge should be ordered separately

TCAHPR/L-TB



Perpendicular type holders for cartridge with high pressure coolant



Designation	Dimension (mm)							Cartridge
	H	HF	B	OAL	HBH	HBKW	LH	
TCAHPR/L 2020-TB	20	20	20	150	5	13	33	TCAEL/R-TB TCAQL/R-TB B48, B51
2525-TB	25	25	25	150	-	8	33	

- Cartridge should be ordered separately
- Please refer to B106 page for COOL-BURST accessories

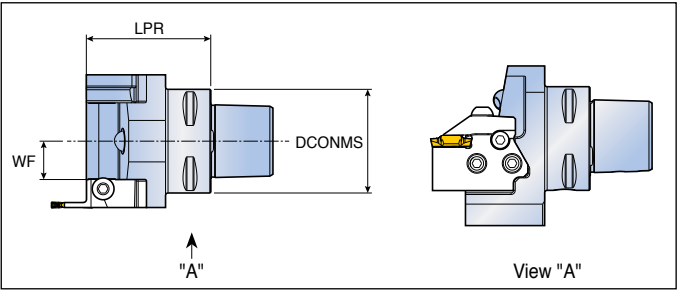
Spare parts

Designation	Screw	Security Screw	Sealing Screw	O-Ring	Wrench	
TCAHPR/L	TS 60190I	SH M5X0.8X16	-	-	L-W 4	-
TCAHPR/L-TB	TS 60190I	SH M5X0.8X16	SS M4X0.7X4-NL	O-RING ID5X1T	L-W 4	L-W 2

C-TCAHN



Parallel type C-Adapters



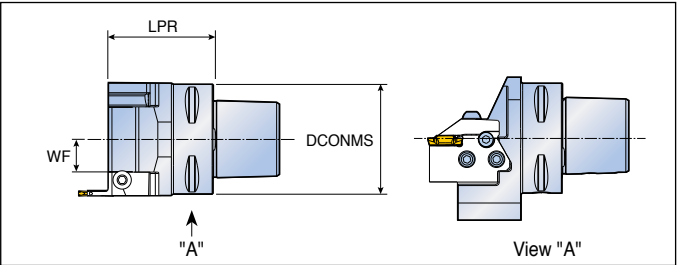
Designation	Dimension (mm)			Cartridge
	DCONMS	LPR	WF	
C4-TCAHN	40	60	18.7	TCAER/L, TCAFR/L
C5-TCAHN	50	60	18.5	TCAQR/L
C6-TCAHN	63	60	19	B47,B49,B50

• Cartridge should be ordered separately

C-TCAHN-TB



Parallel type C-Adapters with high pressure coolant



Designation	Dimension (mm)			Cartridge
	DCONMS	LPR	WF	
C4-TCAHN-TB	40	55	11.5	TCAER/L-TB
C5-TCAHN-TB	50	58	13.7	TCAQR/L-TB
C6-TCAHN-TB	63	60	18.7	B48,B51

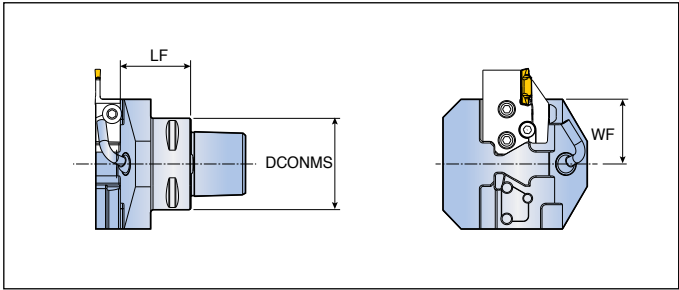
• Cartridge should be ordered separately

Spare parts

Designation	Screw 	Security Screw 	Sealing Screw 	Nozzle 	O-Ring 	Wrench
C-TCAHN	TS 60190I	SH M5X0.8X16	-	NZ 125	-	L-W 4
C-TCAHN-TB	TS 60190I	SH M5X0.8X16	SS M4X0.7X4-NL	-	O-RING ID5X1T	L-W 4 / L-W 2

C-TCAHPN

Perpendicular type C-Adapters

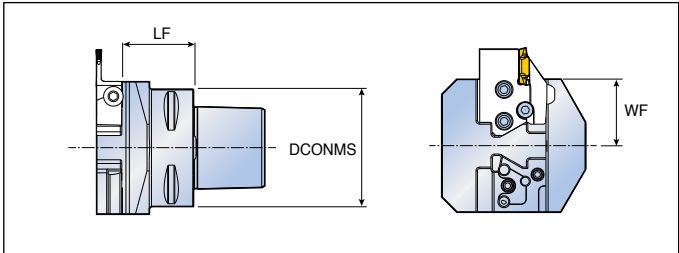


Designation	Dimension (mm)			Cartridge
	DCONMS	LF	WF	
C4-TCAHPN	40	40.5	34	TCAER/L, TCAFR/L
C5-TCAHPN	50	38.5	35.5	TCAQR/L
C6-TCAHPN	63	38.5	36	B47,B49,B51

• Cartridge should be ordered separately

C-TCAHPN-TB

Perpendicular type C-Adapters with high pressure coolant



Designation	Dimension (mm)			Cartridge
	DCONMS	LF	WF	
C4-TCAHPN-TB	40	36.5	34	TCAER/L-TB
C5-TCAHPN-TB	50	36.5	35	TCAQR/L-TB
C6-TCAHPN-TB	63	38.5	35.5	B48,B51

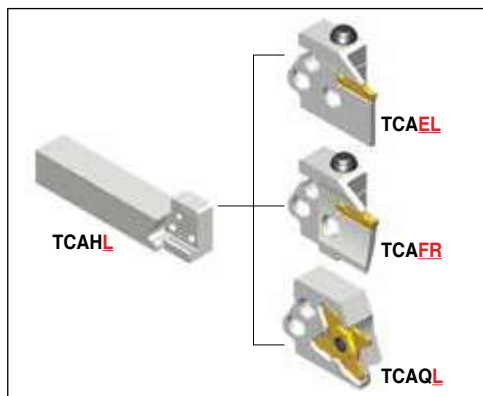
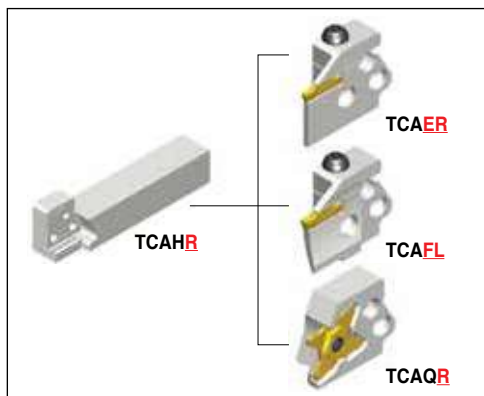
• Cartridge should be ordered separately

Spare parts

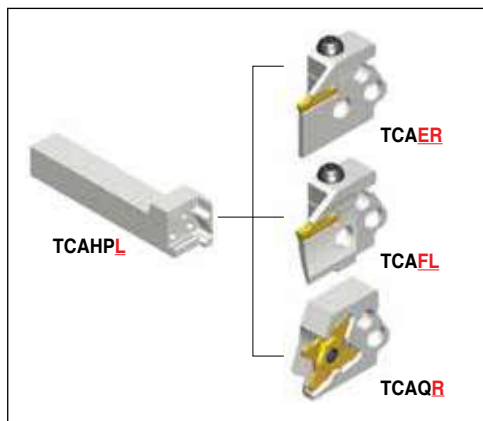
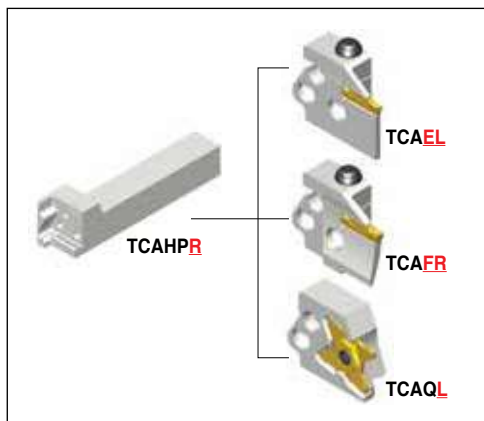
Designation	Screw 	Security Screw 	Sealing Screw 	Nozzle 	O-Ring 	Pipe 	Wrench
C-TCAHPN	TS 60190I	SH M5X0.8X16	-	NZ 125	-	NZP 5	L-W 4
C-TCAHPN-TB	TS 60190I	SH M5X0.8X16	SS M4X0.7X4-NL	-	O-RING ID5X1T	-	L-W 4 / L-W 2

Cartridge and Holder Selection

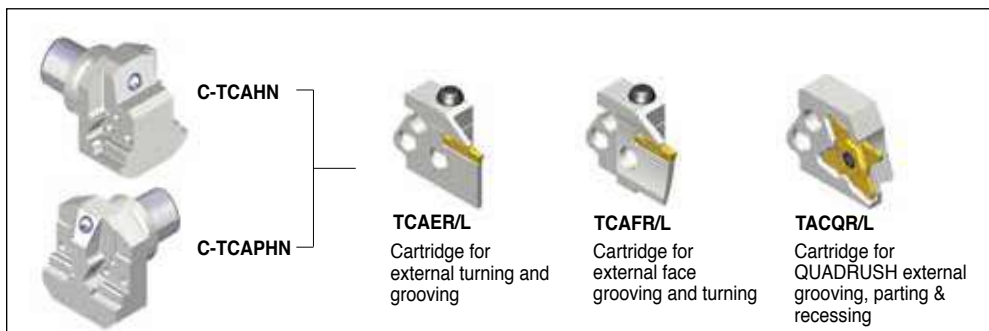
Parallel type



Perpendicular type

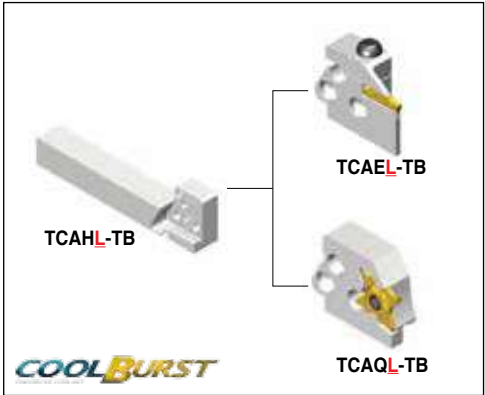
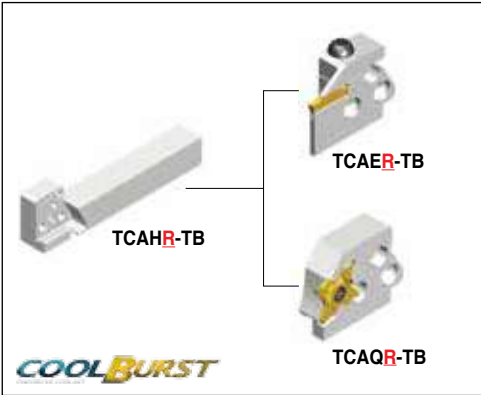


C-ADAPTER

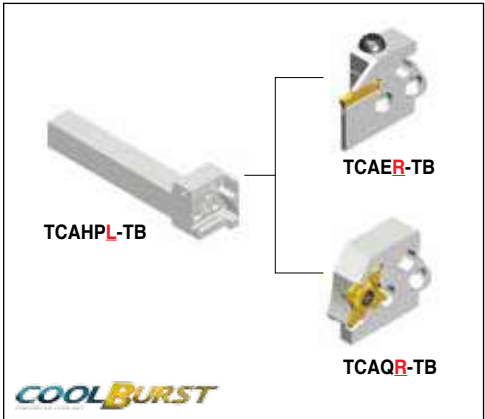
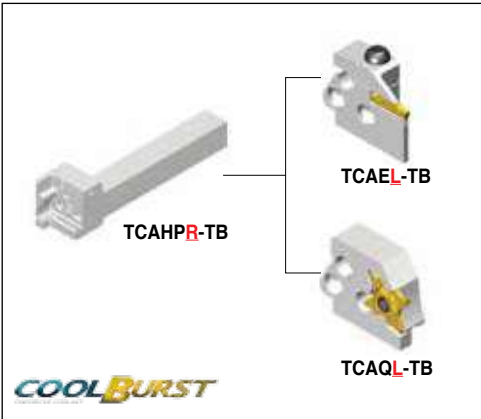


Cartridge and Holder Selection

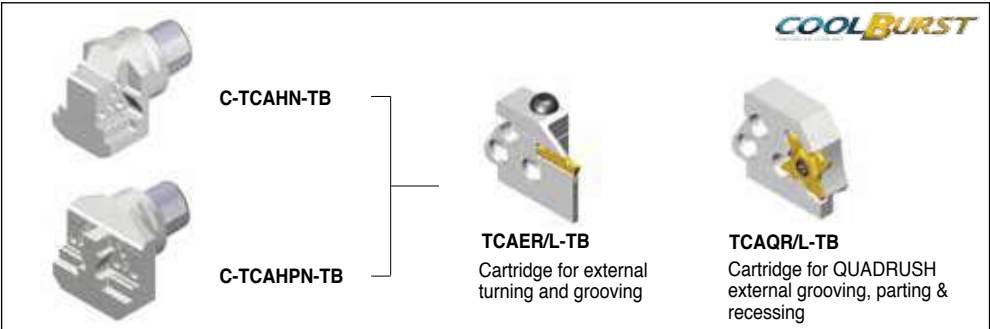
Parallel type with high pressure coolant



Perpendicular type with high pressure coolant



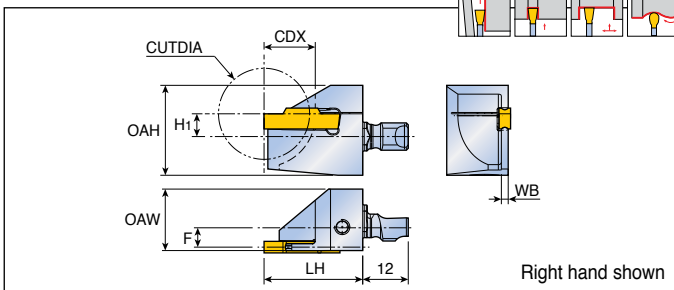
C-ADAPTER with high pressure coolant



QE1 TTER

FLEXTURN T-CLAMP
PARTING & GROOVING

Modular heads for external turning and grooving

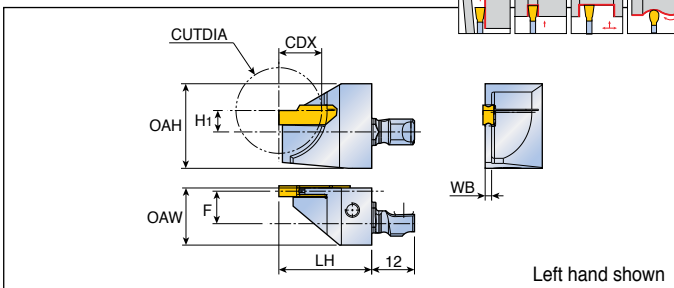


Designation	Insert seat size	Dimension (mm)								Shank	Insert
		OAH	LH	OAW	WB	CDX	CUTDIA	H ₁	F		
QE1 TTER 2-16-32	2	23.7	26.0	16.2	1.8	16.0	32.0	6.0	6.1	QE1 S12N-TB	TDC / J / T
2-12-24	2	23.7	26.0	16.2	1.8	12.0	24.0	6.0	6.1	QE1 S16R-TB	TDXU / XT/ XY
3-16-32	3	23.7	26.0	16.2	2.4	16.0	32.0	6.0	5.8	 B61,B62	TSC / J
3-12-24	3	23.7	26.0	16.2	2.4	12.0	24.0	6.0	5.8		TDUF / TDV
											 B113-B121

QE1 TTEL

FLEXTURN T-CLAMP
PARTING & GROOVING

Modular heads for external turning and grooving



Designation	Insert seat size	Dimension (mm)									Shank	Insert
		OAH	LH	OAW	WB	CDX	CUTDIA	H _i	F			
QE1 TTEL	2-16-32	2	23.7	26.0	16.0	1.8	16.0	32.0	6.0	8.1	QE1 S12N-TB	TDC / J / T
	2-12-24	2	23.7	26.0	16.0	1.8	12.0	24.0	6.0	8.1	QE1 S16R-TB	TDXU / XT/ XY
	3-16-32	3	23.7	26.0	16.0	2.4	16.0	32.0	6.0	7.8	 B61,B62	TSC / J
	3-12-24	3	23.7	26.0	16.0	2.4	12.0	24.0	6.0	7.8		TDUF / TDV
												 B113-B121

Spare parts

Designation	Screw	Wrench		
QE1 TTER/L	SH M4X0.7X16	L-W 3		

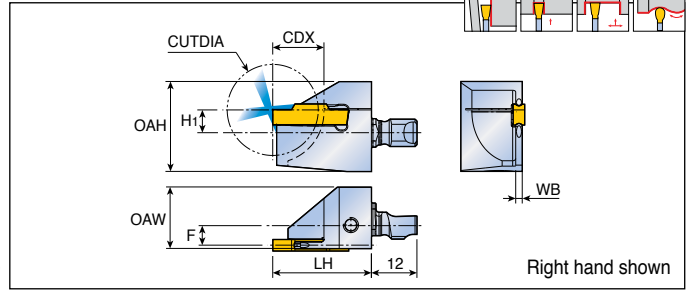
QE1 TTER-TB

FLEXTURN T-CLAMP
PARTING & GROOVING

Modular heads for external turning and grooving with high pressure coolant



COOLBURST



Designation	Insert seat size	Dimension (mm)								Shank	Insert
		OAH	LH	OAW	WB	CDX	CUTDIA	H ₁	F		
QE1 TTER 2-16-32-TB	2	23.7	26.0	16.2	1.8	16.0	32.0	6.0	6.1	QE1 S12N-TB	TDC / J / T
2-12-24-TB	2	23.7	26.0	16.2	1.8	12.0	24.0	6.0	6.1	QE1 S16R-TB	TDXU / XT / XY
3-16-32-TB	3	23.7	26.0	16.2	2.4	16.0	32.0	6.0	5.8	B61,B62	TSC / J
3-12-24-TB	3	23.7	26.0	16.2	2.4	12.0	24.0	6.0	5.8		TDUF / TDV
											B113-B121

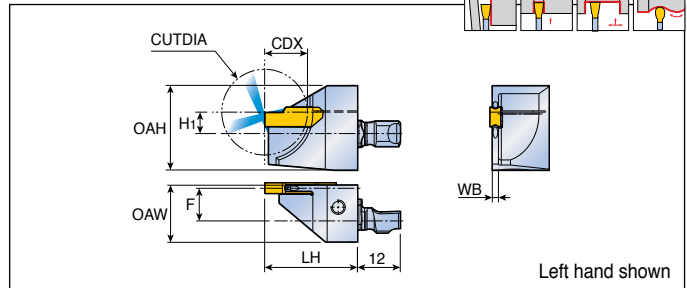
QE1 TTEL-TB

FLEXTURN T-CLAMP
PARTING & GROOVING

Modular heads for external turning and grooving with high pressure coolant



COOLBURST



Designation	Insert seat size	Dimension (mm)								Shank	Insert
		OAH	LH	OAW	WB	CDX	CUTDIA	H ₁	F		
QE1 TTEL 2-16-32-TB	2	23.7	26.0	16.0	1.8	16.0	32.0	6.0	8.1	QE1 S12N-TB	TDC / J / T
2-12-24-TB	2	23.7	26.0	16.0	1.8	12.0	24.0	6.0	8.1	QE1 S16R-TB	TDXU / XT / XY
3-16-32-TB	3	23.7	26.0	16.0	2.4	16.0	32.0	6.0	7.8	B61,B62	TSC / J
3-12-24-TB	3	23.7	26.0	16.0	2.4	12.0	24.0	6.0	7.8		TDUF / TDV
											B113-B121

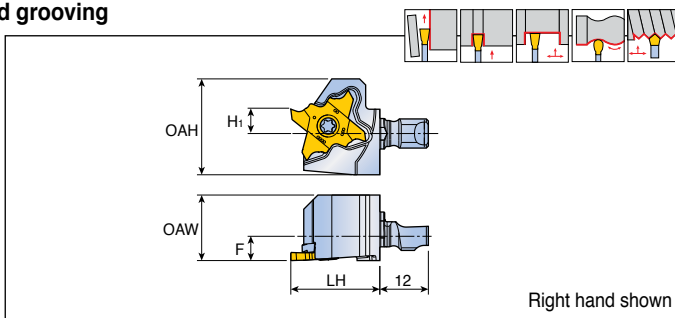
Spare parts

Designation	Screw	Wrench		
				
QE1 TTER/L-TB	SH M4X0.7X16	L-W 3		

QE1 TQHR

FLEXTURN QUADRUSH
THE POWER OF FLEXIBILITY

Modular heads for parting and grooving



Designation	Dimension (mm)					Shank	Insert
	OAH	LH	OAW	H ₁	F		
QE1 TQHR 20	23.7	22.0	16.2	6.0	7.0	QE1 S12N-TB QE1 S16R-TB B61, B62	TQS 20 TQJ 20 B147-B148

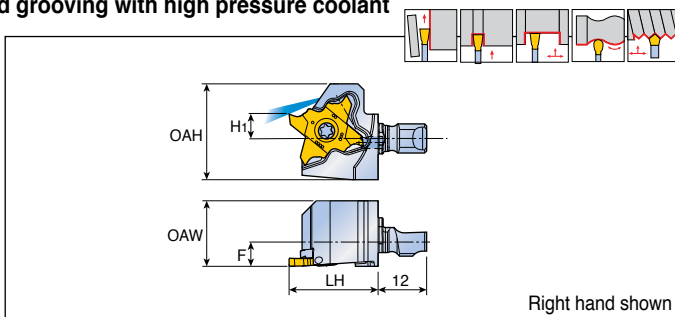
QE1 TQHR-TB

FLEXTURN QUADRUSH
THE POWER OF FLEXIBILITY

Modular heads for parting and grooving with high pressure coolant



COOLBURST

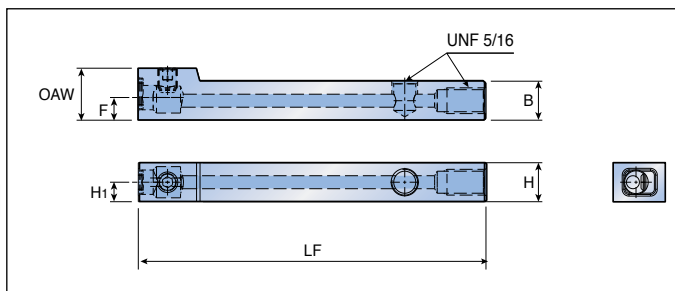


Designation	Dimension (mm)					Shank	Insert
	OAH	LH	OAW	H ₁	F		
QE1 TQHR 20-TB	23.7	22.0	16.2	6.0	7.0	QE1 S12N-TB QE1 S16R-TB B61, B62	TQS 20 TQJ 20 B147-B148

Spare parts

Designation	Screw	Wrench		
QE1 TQHR(-TB)	TS 40A100L	T-1508/5		

FLEXTURN



- Please refer to B106 page for COOL-BURST accessories

Designation	Screw	Plug	Wrench	
QE1 TB	SS M6F-7	PLG 5/16 UNF	L-W 3	L-W 5/32

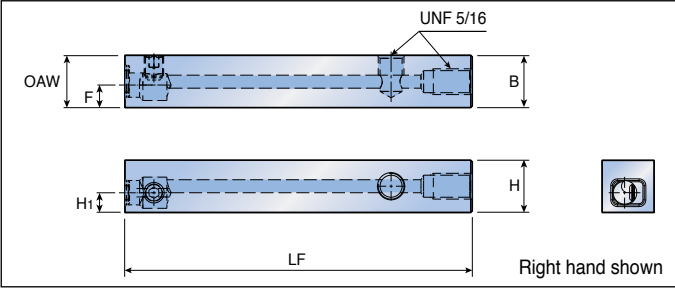
QE1 S16R-TB



High pressure coolant shanks for FLEX-TURN modular head



COOLBURST



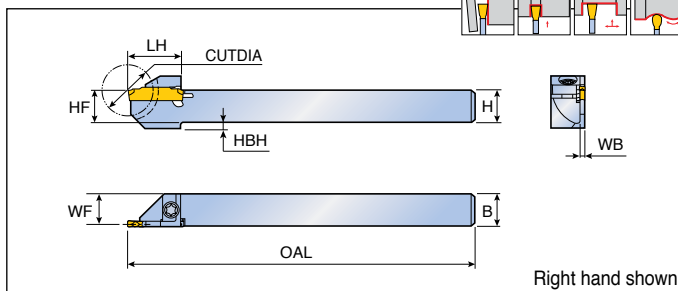
Designation	Dimension (mm)						Modular head
	H	H ₁	B	LF	OAW	F	
QE1 S16R-TB	16	6	16	107	16	7	QE1...R/L(-TB) B58-B60

• Please refer to B106 page for COOL-BURST accessories

Spare parts

Designation	Screw	Plug	Wrench	
QE1 ...-TB	SS M6F-7	PLG 5/16 UNF	L-W 3	L-W 5/32

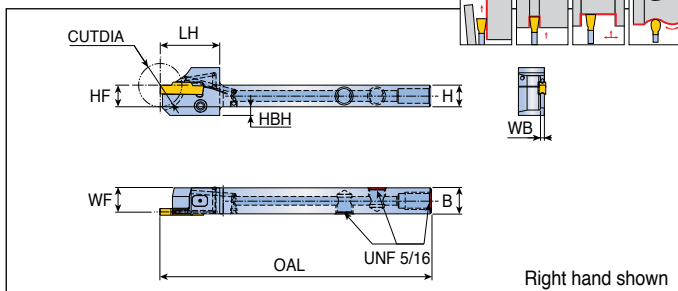
T-CLAMP
PARTING & GROOVING

[illegible]

- ## Spare parts

Designation	Screw	Wrench		
				
TTER/L- SH	TS 40A115I	T 15		

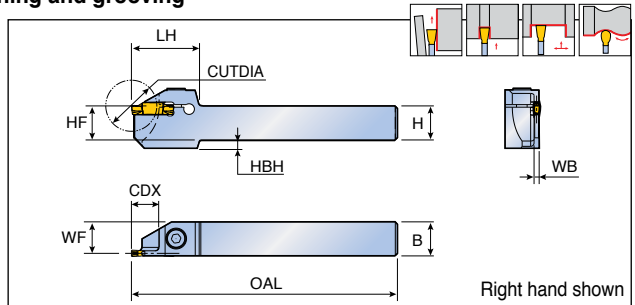
T-CLAMP
PARTING & GROOVING



- Please refer to B106 page for COOL-BURST accessories

Designation	Pin	Clamping screw	Pin plug	Inlet plug	Wrench	
TTER/L...SH-TB	PIN-SH-TB-L21	SS M5-24145	SS M5x3.5 ULTEM 2300	PLG 5/16 UNF	L-W 2.5F	L-W 5/32

Reinforced holders for external turning and grooving



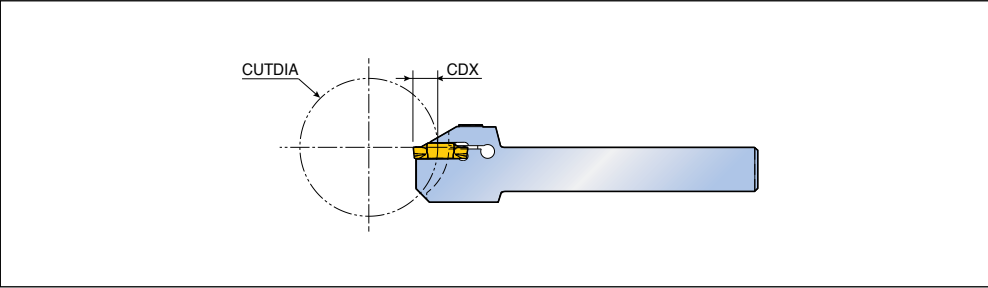
Designation	Insert seat size	Dimension (mm)										Insert
		H(HF)	B	OAL	LH	WF	WB	HBH	CDX	CUTDIA		
TTER/L 1010-1.4T15-D40	1 *	10	10	125	32	9.5	1.0	6	15	40	TDC / J / T	
1212-1.4T15-D40	1 *	12	12	125	32	11.5	1.0	4	15	40	TDXU / XT / XY	
1616-1.4T20-D45	1 *	16	16	125	38	15.5	1.0	4	20	45	TSC / J	
2020-1.4T20-D45	1 *	20	20	125	38	19.5	1.0	-	20	45	TDUF / TDV	
1010-2T15-D40	2	10	10	125	32	9.1	1.8	6	15	40	 B113-B123	
1212-2T15-D40	2	12	12	125	32	11.1	1.8	4	15	40		
1616-2T20-D45	2	16	16	125	38	15.1	1.8	4	20	45		
2020-2T20-D45	2	20	20	125	38	19.1	1.8	-	20	45		
2525-2T20-D45	2	25	25	150	38	24.1	1.8	-	20	45		
1212-3T15-D40	3	12	12	125	32	10.8	2.4	4	15	40		
1616-3T20-D45	3	16	16	125	38	14.8	2.4	4	20	45		
2020-3T20-D45	3	20	20	125	38	18.8	2.4	-	20	45		
2525-3T20-D45	3	25	25	150	38	23.8	2.4	-	20	45		
2525-3T25-D60	3	25	25	150	43	23.8	2.4	-	25	60		

• * TDJ 1.4 insert only

Spare parts

Designation	Screw	Wrench		
TTER/L-D	SH M5x0.8x16	L-W 4		

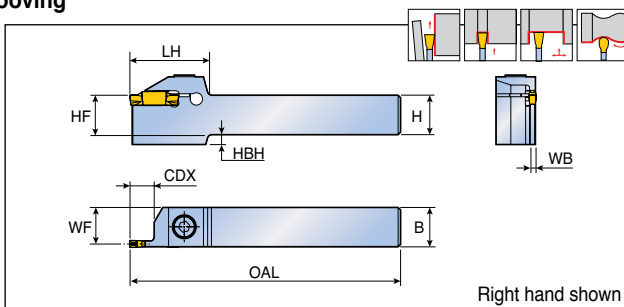
Machining depth for diameter of workpiece



Designation		CDX												
		1	2	3	4	5	6	7	8	9	10	11	12	13
TTER/L 1010-1.4T15-D40	CUTDIA	∞										269	120	79
1212-1.4T15-D40		∞										269	120	79
1616-1.4T20-D45		∞												432
2020-1.4T20-D45		∞												432
1010-2T15-D40		∞										269	120	79
1212-2T15-D40		∞										269	120	79
1616-2T20-D45		∞												432
2020-2T20-D45		∞												432
2525-2T20-D45		∞									1468	339	193	136
1212-3T15-D40		∞										269	120	79
1616-3T20-D45		∞												432
2020-3T20-D45		∞												432
2525-3T20-D45		∞									1468	339	193	136
2525-3T25-D60		∞												

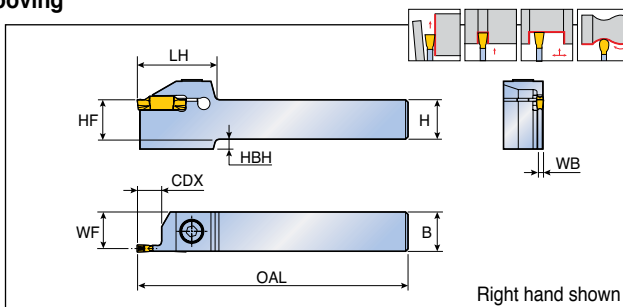
Designation		CDX												
		14	15	16	17	18	19	20	21	22	23	24	25	
TTER/L 1010-1.4T15-D40 1212-1.4T15-D40 1616-1.4T20-D45 2020-1.4T20-D45 1010-2T15-D40 1212-2T15-D40 1616-2T20-D45 2020-2T20-D45 2525-2T20-D45 1212-3T15-D40 1616-3T20-D45 2020-3T20-D45 2525-3T20-D45 2525-3T25-D60	CUTDIA	59	40											
		59	40											
		193	125	94	76	64	57	45						
		193	125	94	76	64	57	45						
		59	40											
		59	40											
		193	125	94	76	64	57	45						
		193	125	94	76	64	57	45						
		87	75	67	60	56	52	45						
		59	40											
		193	125	94	76	64	57	45						
		193	125	94	76	64	57	45						
		87	75	67	60	56	52	45						
					1810	418	237	167	130	107	91	81	73	60

Holders for external turning and grooving



Designation	Insert seat size	Dimension (mm)								Insert
		H(HF)	B	OAL	LH	WF	WB	HBH	CDX	
TTER/L 1616-2T08	2	16	16	110	30.0	15.1	1.8	4	8	TDC / J / T / A
2020-2T08	2	20	20	125	30.0	19.1	1.8	-	8	TDXU / XT / XY
2525-2T08	2	25	25	150	30.0	24.1	1.8	-	8	TSC / J / A
1616-2	2	16	16	110	32.0	15.1	1.8	4	12	TDUF / TDV
2020-2	2	20	20	125	32.0	19.1	1.8	-	12	B113-B123, B126
2525-2	2	25	25	150	32.0	24.1	1.8	-	12	
1616-2T17	2	16	16	110	37.0	15.1	1.8	4	17	
2020-2T17	2	20	20	125	37.0	19.1	1.8	-	17	
2525-2T17	2	25	25	150	37.0	24.1	1.8	-	17	
TTER/L 1616-3T09	3	16	16	110	30.0	14.8	2.4	4	9	
2020-3T09	3	20	20	125	30.0	18.8	2.4	-	9	
2525-3T09	3	25	25	150	30.0	23.8	2.4	-	9	
1616-3	3	16	16	110	32.0	14.8	2.4	4	12	
2020-3	3	20	20	125	32.0	18.8	2.4	-	12	
2525-3	3	25	25	150	32.0	23.8	2.4	-	12	
1616-3T20	3	16	16	110	38.5	14.8	2.4	-	20	
2020-3T20	3	20	20	125	38.5	18.8	2.4	-	20	
2525-3T20	3	25	25	150	38.5	23.8	2.4	-	20	
2525-3T25	3	25	25	150	44.5	23.8	2.4	-	25	
3232-3T20	3	32	32	170	38.5	30.8	2.4	-	20	
TTER/L 1616-4T10	4	16	16	110	32.0	14.5	3.0	4	10	
2020-4T10	4	20	20	125	32.0	18.5	3.0	-	10	
2525-4T10	4	25	25	150	32.0	23.5	3.0	-	10	
1616-4	4	16	16	110	33.0	14.5	3.0	4	15	
2020-4	4	20	20	125	33.0	18.5	3.0	-	15	
2525-4	4	25	25	150	33.0	23.5	3.0	-	15	
1616-4T25	4	16	16	110	45.0	14.5	3.0	-	25	
2020-4T25	4	20	20	125	45.0	18.5	3.0	-	25	
2525-4T25	4	25	25	150	45.0	23.5	3.0	-	25	
2525-4T30	4	25	25	150	51.0	23.5	3.0	-	30	
3232-4T25	4	32	32	170	45.0	30.5	3.0	-	25	
TTER/L 2020-5T12	5	20	20	125	35.0	18.1	3.9	-	12	
2525-5T12	5	25	25	150	35.0	23.1	3.9	-	12	
2020-5	5	20	20	125	37.0	18.1	3.9	-	20	
2525-5	5	25	25	150	37.0	23.1	3.9	-	20	
2525-5T32	5	25	25	150	56.0	23.0	3.9	-	32	
3232-5T20	5	32	32	170	39.0	30.0	3.9	-	20	
3232-5T32	5	32	32	170	56.0	30.0	3.9	-	32	

Holders for external turning and grooving

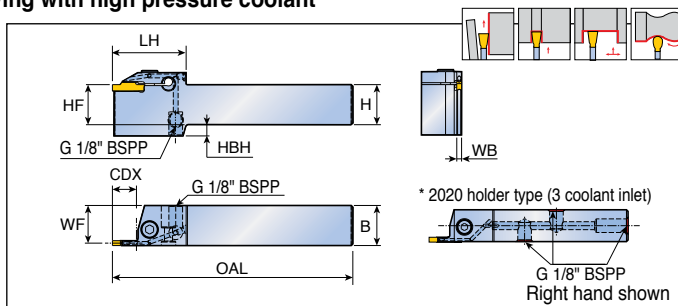


Designation	Insert seat size	Dimension (mm)								Insert
		H(HF)	B	OAL	LH	WF	WB	HBH	CDX	
TTER/L 2020-6T12	6	20	20	125	37	17.6	4.9	-	12	TDC / J / T / A
2525-6T12	6	25	25	150	37	22.6	4.9	7	12	TDXU / XT / XY
2020-6	6	20	20	125	41	17.6	4.9	-	20	TSC / J / A
2525-6	6	25	25	150	41	22.6	4.9	7	20	TDUF / TDV
2525-6T32	6	25	25	150	56	22.5	4.9	7	32	 B113-B123, B126
3232-6T20	6	32	32	170	41	29.5	4.9	-	20	
3232-6T25	6	32	32	170	46	29.5	4.9	-	25	
3232-6T32	6	32	32	170	56	29.5	4.9	-	32	
TTER/L 2525-8T16	8	25	25	150	40	22.1	5.9	7	16	
2525-8	8	25	25	150	47	22.1	5.9	7	25	
3232-8	8	32	32	170	47	29.1	5.9	-	25	
2525-8T36	8	25	25	150	60	22.1	5.9	7	36	
3232-8T36	8	32	32	170	60	29.1	5.9	-	36	
TTER/L 2525-10T25	10	25	25	150	50	21.1	7.9	7	25	
3232-10T25	10	32	32	170	50	28.1	7.9	-	25	
4040-10T25	10	40	40	200	50	36.1	7.9	-	25	

Spare parts

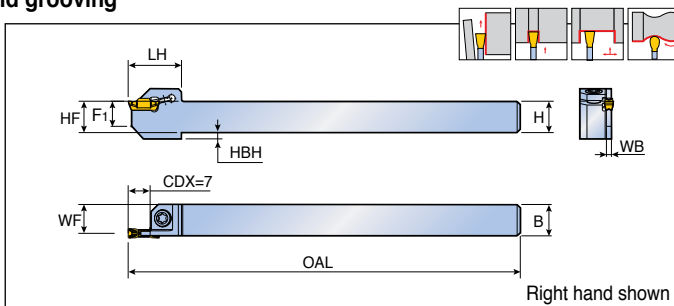
Designation	Screw	Wrench		
				
TTER/L 1616-2/3	SH M5x0.8x16	L-W 4		
TTER/L 2020-2/3	SH M5x0.8x20	L-W 4		
TTER/L 2525-2/3	SH M5x0.8x25	L-W 4		
TTER/L 3232-3	SH M5x0.8x25	L-W 4		
TTER/L 1616-4/5	SH M6x1x16	L-W 5		
TTER/L 2020-4/5	SH M6x1x20	L-W 5		
TTER/L 2525-4/5	SH M6x1x25	L-W 5		
TTER/L 3232-4/5	SH M6x1x25	L-W 5		
TTER/L 2020-6	SH M8x1.25x20	L-W 6		
TTER/L 2525-6/8	SH M8x1.25x25	L-W 6		
TTER/L 3232-6/8/10	SH M8x1.25x25	L-W 6		
TTER/L 4040-10	SH M8x1.25x25	L-W 6		

T-CLAMP
PARTING & GROOVING

[illegible]

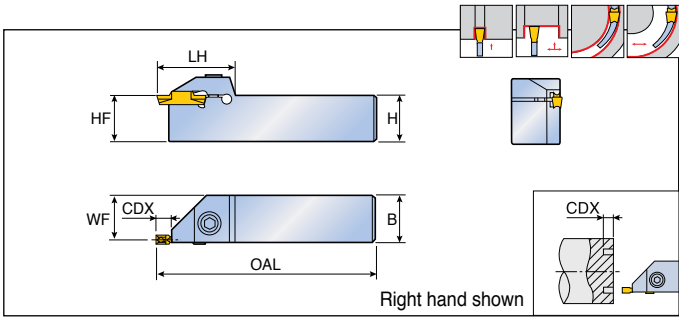
Spare parts

Designation	Screw	Plug		Wrench
				
TTER/L 2020-2T12-TB	SH M5x0.8x20	PLG G1/8-L6.5	-	L-W 4, L-W 5
TTER/L 2525-2T12-TB	SH M5x0.8x20	-	PLG G1/8-T8.0-L12.3	L-W 4, L-W 5
TTER/L 2020-3-TB	SH M5x0.8x20	PLG G1/8-L6.5	-	L-W 4, L-W 5
TTER/L 2020-4-TB	SH M6x1.0x20	PLG G1/8-L6.5	-	L-W 5
TTER/L 2525-3-TB	SH M5x0.8x20	-	PLG G1/8-T8.0-L12.3	L-W 4, L-W 5
TTER/L 2525-4 / 5-TB	SH M6x1.0x20	-	PLG G1/8-T8.0-L12.3	L-W 5
TTER/L 2525-6 / 8-TB	SH M8x1.25x20	-	PLG G1/8-T8.0-L12.3	L-W 5, L-W 6

[illegible]

Designation	Screw	Wrench		
TTSER/L	TS 400971	T 15		

Holders for shallow grooving



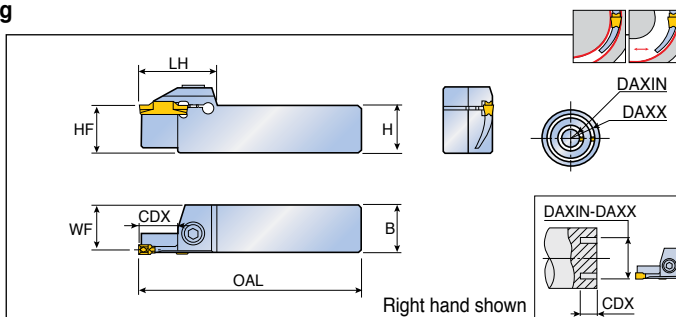
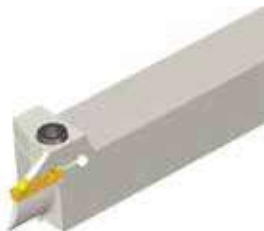
Designation	Insert seat size	Dimension (mm)						Insert
		H(HF)	B	OAL	LH	WF	CDX	
TGFR/L 1616-4	2, 3, 4	16	16	110	33	14.5	4.8	TDC / J / T
2020-4	2, 3, 4	20	20	125	33	18.5	4.8	TDXU / XT / XY / FT
2525-4	2, 3, 4	25	25	150	33	23.5	4.8	TSC / J
2020-6	5, 6	20	20	125	37	17.6	4.8	TDUF / TDV
2525-6	5, 6	25	25	150	37	22.6	4.8	 B113-B121,B123

- External turning & grooving is available depending on the insert type
- Please check insert min. dia for face grooving B74 page

Spare parts

Designation	Screw	Wrench		
				
TGFR/L 1616	SH M6x1x16	L-W 5		
TGFR/L 2020	SH M6x1x20	L-W 5		
TGFR/L 2525	SH M6x1x25	L-W 5		

Holders for deep face grooving



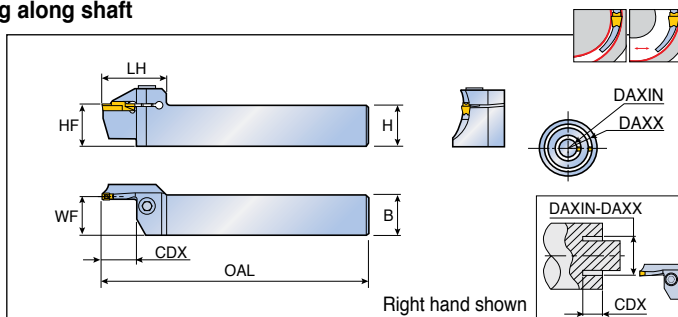
Designation	Insert seat size	Dimension (mm)								Insert
		H(HF)	B	OAL	LH	WF	CDX	DAXIN	DAXX	
TTFR/L 25-30-3	3	25	25	150	32	24.0	10	24	35	TDC / J / T
25-35-3	3	25	25	150	32	24.0	10	29	40	TDXU / XT / XY / FT
25-40-3	3	25	25	150	32	24.0	10	34	50	TSC / J
25-50-3	3	25	25	150	32	24.0	15	44	60	TDUF / TDV
25-60-3	3	25	25	150	32	24.0	15	54	85	
25-30-4	4	25	25	150	33	23.6	12	22	40	B113-B121,B123
25-40-4	4	25	25	150	33	23.6	15	32	50	
25-50-4	4	25	25	150	33	23.6	15	42	60	
25-60-4	4	25	25	150	33	23.6	15	52	85	
25-60-5	5	25	25	150	41	23.1	20	50	80	
25-80-5	5	25	25	150	41	23.1	20	70	110	
25-110-5	5	25	25	150	41	23.1	20	110	150	
25-150-5	5	25	25	150	41	23.1	20	140	200	
25-60-6	6	25	25	150	41	22.6	20	48	85	
25-85-6	6	25	25	150	41	22.6	20	73	150	
25-150-6	6	25	25	150	41	22.6	20	138	250	
25-250-6	6	25	25	150	41	22.6	20	250	∞	

• Please check insert min. dia for face grooving **B74** page

Spare parts

Designation	Screw	Wrench		
TTFR/L...-3	SH M5x0.8x25	L-W 4		
TTFR/L...-4	SH M6x1x25	L-W 5		
TTFR/L...-5	SH M8X1.25X25	L-W 5		
TTFR/L...-6	SH M8X1.25X25	L-W 5		

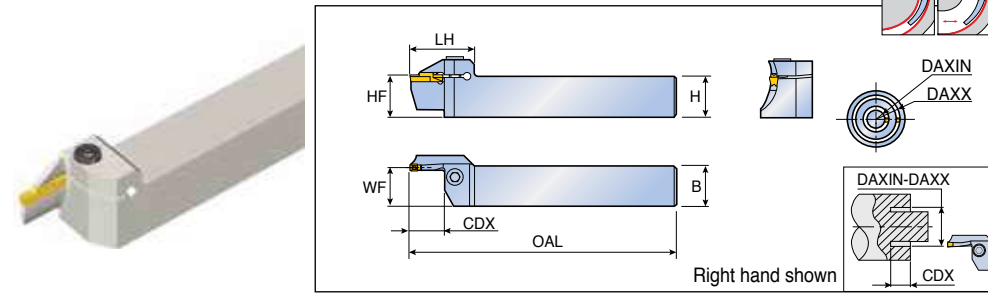
Holders for deep face grooving along shaft



Designation	Insert seat size	Dimension (mm)								Insert
		H(HF)	B	OAL	LH	WF	CDX	DAXIN	DAXX	
TTFR/L 20-21-30-3T10 RN	3	20	20	140	31	19.0	10	21	30	TDC / J / T TDXU / XT / XY TDFT TSC / J TDUF / TDV  B113-B121,B123
20-24-35-3T10 RN	3	20	20	140	31	19.0	10	24	35	
20-29-40-3T10 RN	3	20	20	140	31	19.0	10	29	40	
20-34-50-3T10 RN	3	20	20	140	31	19.0	10	34	50	
20-44-70-3T15 RN	3	20	20	140	35	19.0	15	44	70	
20-64-100-3T15 RN	3	20	20	140	35	19.0	15	64	100	
25-30-3 RN	3	25	25	150	35	24.0	10	24	35	
25-35-3 RN	3	25	25	150	35	24.0	10	29	40	
25-40-3 RN	3	25	25	150	35	24.0	10	34	50	
25-50-3 RN	3	25	25	150	35	24.0	15	44	70	
25-70-3 RN	3	25	25	150	35	24.0	15	64	100	
20-19-30-4T10 RN	4	20	20	140	31	18.6	10	19	30	
20-22-36-4T10 RN	4	20	20	140	31	18.6	10	22	36	
20-28-42-4T16 RN	4	20	20	140	36	18.6	16	28	42	
20-34-50-4T16 RN	4	20	20	140	36	18.6	16	34	50	
20-42-70-4T16 RN	4	20	20	140	36	18.6	16	42	70	
20-62-120-4T16 RN	4	20	20	140	36	18.6	16	62	120	
20-112-200-4T16 RN	4	20	20	140	36	18.6	16	112	200	
25-30-4 RN	4	25	25	150	35	23.6	10	22	36	
25-36-4 RN	4	25	25	150	39	23.6	20	28	42	
25-42-4 RN	4	25	25	150	39	23.6	20	34	50	
25-50-4 RN	4	25	25	150	39	23.6	20	42	70	
25-70-4 RN	4	25	25	150	39	23.6	20	62	120	
25-120-4 RN	4	25	25	150	39	23.6	20	112	200	
25-200-4 RN	4	25	25	150	39	23.6	20	200	∞	
25-60-5T15 RN	5	25	25	150	41	23.1	15	50	80	
25-60-5 RN	5	25	25	150	49	23.1	25	50	80	
25-80-5T15 RN	5	25	25	150	41	23.1	15	70	110	
25-80-5 RN	5	25	25	150	49	23.1	25	70	110	
25-110-5 RN	5	25	25	150	49	23.1	25	100	150	
25-150-5 RN	5	25	25	150	49	23.1	25	140	200	
25-200-5 RN	5	25	25	150	49	23.1	25	200	∞	

• Please check insert min. dia for face grooving B74 page

Holders for deep face grooving along shaft



Designation	Insert seat size	Dimension (mm)								Insert
		H(HF)	B	OAL	LH	WF	CDX	DAXIN	DAXX	
TTFR/L 25-60-6 RN	6	25	25	150	49	22.6	25	48	70	TDC / J / T
25-70-6 RN	6	25	25	150	49	22.6	25	58	100	TDXU / XT / XY / FT
25-100-6 RN	6	25	25	150	49	22.6	25	88	180	TSC / J
25-180-6 RN	6	25	25	150	49	22.6	25	168	400	TDUF / TDV
25-400-6 RN	6	25	25	150	49	22.6	25	400	∞	B113-B121,B123

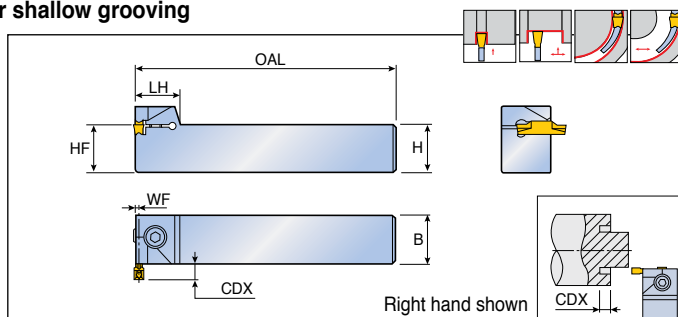
• Please check insert min. dia for face grooving B74 page

Insert initial min.Dia (Dmin) for face grooving

Machining	Insert	Size (mm)	Min. dia. (mm)	Insert	Size (mm)	Min. dia. (mm)
 Facing Min. dia. of face machining	TDJ/C TDUF / TDV	3	54	TDT RU TDT RS	3	41
		4	34		4	36
		5	49		5	54
		6	46		6	54
	TDT	3	44	TDXU TDXT TDXY TDFT	3	18
		4	42		4	18
		5	50		5	20
		6	48		6	18

Spare parts

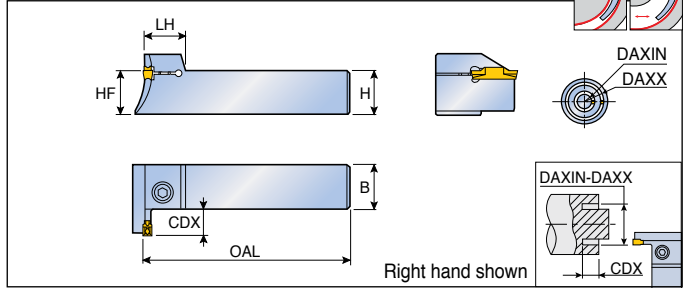
Designation	Screw	Wrench		
TTFR/L 20...RN	SH M6x1x20	L-W 5		
TTFR/L 25...3/4 RN	SH M6x1x25	L-W 5		
TTFR/L 25...5/6 RN	SH M8x1.25x25	L-W 6		

[illegible]

- ## Spare parts

Designation	Screw	Wrench		
				
TGFPR/L 2020	SH M6x1x20	L-W 5		
TGFPR/L 2525	SH M6x1x25	L-W 5		
TGFPR/L 2525	SH M6x1x25	L-W 5		

Perpendicular type holders for deep face grooving



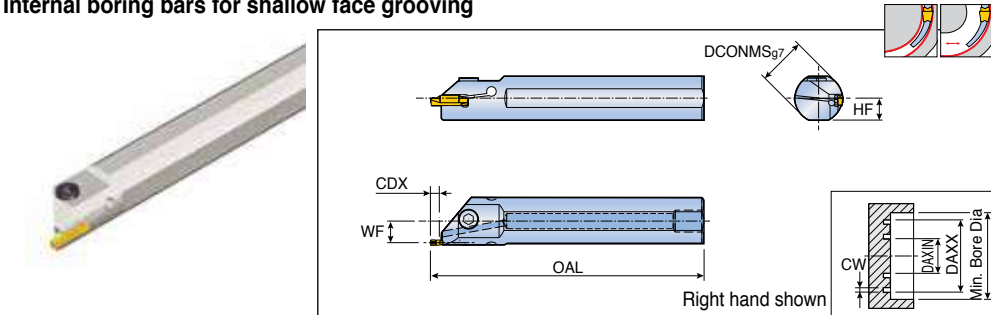
Designation	Insert seat size	Dimension (mm)							Insert
		H(HF)	B	OAL	LH	CDX	DAXIN	DAXX	
TTFPR/L 25-30-3	3	25	25	150	18.0	10	24	35	TDC / J / T
25-35-3	3	25	25	150	18.0	10	29	40	TDXU / XT / XY / FT
25-40-3	3	25	25	150	18.0	10	34	50	TSC / J
25-50-3	3	25	25	150	18.0	15	44	60	TDUF / TDV
25-60-3	3	25	25	150	18.0	15	54	85	
25-30-4	4	25	25	150	18.5	12	22	40	B113-B121,B123
25-40-4	4	25	25	150	18.5	15	32	50	
25-50-4	4	25	25	150	18.5	15	42	60	
25-60-4	4	25	25	150	18.5	15	52	85	
25-60-5	5	25	25	150	22.0	20	50	80	
25-80-5	5	25	25	150	22.0	20	70	110	
25-110-5	5	25	25	150	22.0	20	100	150	
25-150-5	5	25	25	150	22.0	20	140	200	
25-200-5	5	25	25	150	22.0	20	200	∞	
25-60-6	6	25	25	150	22.0	20	48	85	
25-85-6	6	25	25	150	22.0	20	73	150	
25-150-6	6	25	25	150	22.0	20	138	250	
25-250-6	6	25	25	150	22.0	20	250	∞	

• Please check insert min. dia for face grooving **B74** page

Spare parts

Designation	Screw	Wrench		
TTFPR/L...-3	SH M5x0.8x25	L-W 4		
TTFPR/L...-4	SH M6x1x25	L-W 5		
TTFPR/L...-5	SH M8x1.25x25	L-W 6		
TTFPR/L...-6	SH M8x1.25x25	L-W 6		

Internal boring bars for shallow face grooving

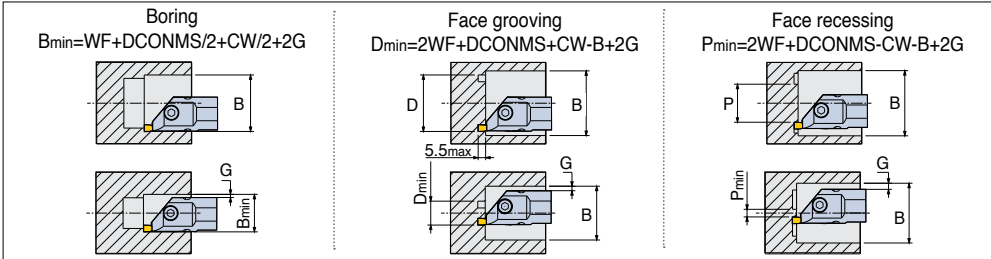


Designation	Insert seat size	Dimension (mm)					Insert
		DCONMS	OAL	WF	HF	CDX	
TGIFR/L 25-4C-T5.5	3, 4	25	200	11.3	11.5	5.5	TDC / J / T
32-4C-T5.5	3, 4	32	250	14.8	15.0	5.5	TDXU / XT / XY / FT
25-6C-T5.5	5, 6	25	200	10.3	11.5	5.5	TSC / J
32-6C-T5.5	5, 6	32	250	13.8	15.0	5.5	TDUF / TDV
							 B113-B121,B123

• Please check insert min. dia for face grooving B74 page

CW	Min. Bore Dia		DAXIN				DAXX
	DCONMS ø25	DCONMS ø32	TDC/J/U/F/V	TDFT / TDXU / TDXT	TDT	TDT-RU/RS	
3	26.3	33.3	54	18	44	41	∞
4	26.8	33.8	34	18	42	36	
5	26.3	33.3	49	20	50	54	
6	26.8	33.8	46	18	48	54	

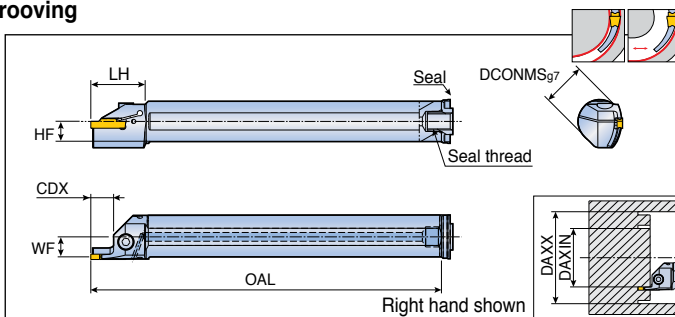
TGIFR/L Application



Spare parts

Designation	Screw	Wrench	Seal	
TGIFR/L 25	 SH M6x1x16	 L-W 5	 PL 25 (R1/8")	
TGIFR/L 32	SH M6x1x16	L-W 5	PL 32 (R1/8")	

Internal boring bars for face grooving



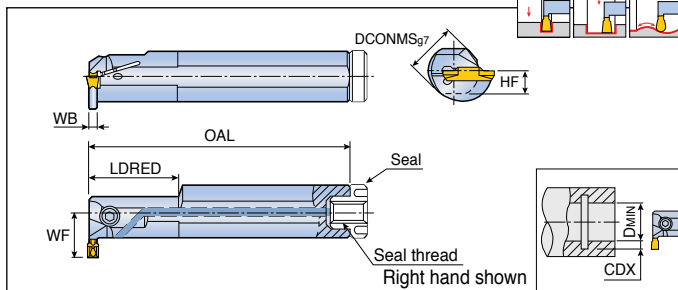
Designation	Insert seat size	Dimension (mm)									Insert
		DCONMS	OAL	LH	WF	HF	CDX	DAXIN	DAXX		
TTFIR/L 25-3T12 20-33	3	25	200	31	11.5	11.5	12	20	33	TDC / J / T	
25-3T12 26-39	3	25	200	31	11.5	11.5	12	26	39	TDXU / XT / XY	
25-3T12 33-48	3	25	200	31	11.5	11.5	12	33	48	TDFT	
25-3T12 42-60	3	25	200	31	11.5	11.5	12	42	60	TSC / J	
25-3T12 54-85	3	25	200	31	11.5	11.5	12	54	85	TDUF / TDV	
25-3T12 79-150	3	25	200	31	11.5	11.5	12	79	150		
25-4T12 18-34	4	25	200	31	11.0	11.5	12	18	34	B113-B121,B123	
25-4T12 26-42	4	25	200	31	11.0	11.5	12	26	42		
25-4T12 34-55	4	25	200	31	11.0	11.5	12	34	55		
32-4T12 47-70	4	32	250	31	14.5	15.0	12	47	70		
32-4T12 62-100	4	32	250	31	14.5	15.0	12	62	100		
32-4T12 92-180	4	32	250	31	14.5	15.0	12	92	180		

• Please check insert min. dia for face grooving **B74** page

Spare parts

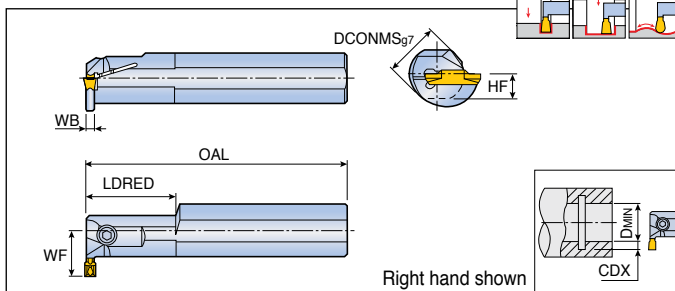
Designation	Screw	Wrench	Seal	
				
TTFIR/L 25	SH M5x0.8x16	L-W 4	PL 25 (R1/8")	
TTFIR/L 32	SH M5x0.8x16	L-W 4	PL 32 (R1/8")	

Internal boring bars for turning and grooving with coolant hole

[illegible]

- Please check insert min. dia for internal grooving B80 page

Internal boring bars for turning and grooving



Designation	Insert seat size	Dimension (mm)								Insert
		DCONMS	OAL	LDRED	WF	HF	WB	CDX	Dmin	
TTIR/L 16-2	2	16	125	-	16.5	7.5	1.8	8.5	25	TDC / J / T
20-2	2	20	160	40	15.8	9.0	1.6	6.0	25	TDXU / XT / XY / IT
25-2	2	25	200	40	17.5	11.5	1.6	5.0	25	TSC / J
32-2	2	32	250	60	20.8	14.0	1.5	4.7	31	TDUF / TDV
20-3	3	20	160	40	15.8	9.0	2.1	6.0	25	B113-B124
25-3	3	25	200	40	17.5	11.5	2.1	5.1	25	
32-3	3	32	250	60	20.8	14.0	2.1	4.7	31	
20-4	4	20	160	40	15.8	9.0	2.9	6.0	25	
25-4	4	25	200	40	17.5	11.5	2.9	5.2	25	
32-4	4	32	250	60	20.8	14.0	2.9	4.7	31	

- Without "C" on the description: non-coolant hole type
- Please check insert min. dia for internal grooving [B80](#) page

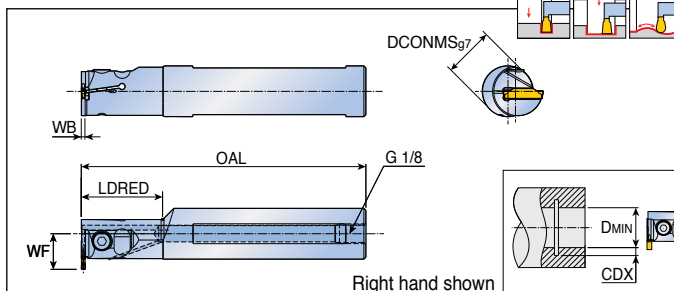
Machining	TDJ/C/UF/V		TDT		TDT RU/RS		TDXU / TDIT / TDXT/ TDXY	
	Size (mm)	Min. dia. (mm)	Size (mm)	Min. dia. (mm)	Size (mm)	Min. dia. (mm)	Size (mm)	Min. dia. (mm)
Internal grooving Min. dia. of internal machining 	2	40	3	40	2	41	2	24
	3	50	4	40	3	38	3	24
	4	50	5	50	4	38	4	21
	5	60	6	50	5	43	5	30
	6	60	8	62	6	46	6	31
	8	70			8	56	8	33

Spare parts

Designation	Screw 	Wrench 	Seal *
TTIR/L 16-2	SH M5x0.8x10	L-W 4	PL 16 (M6)
TTIR/L 20-2/3/4	SH M5x0.8x12	L-W 4	PL 20 (M6)
TTIR/L 25-2/3/4	SH M5x0.8x16	L-W 4	PL 25 (R1/8")
TTIR/L 32-2/3/4	SH M5x0.8x16	L-W 4	PL 32 (R1/8")
TTIR/L 40-3/4	SH M5x0.8x16	L-W 4	PL 40 (R1/8")
TTIR/L 50-4	SH M5x0.8x20	L-W 4	PL 40 (R1/8")
TTIR/L 25-5/6	SH M6x1x16	L-W 5	PL 25 (R1/8")
TTIR/L 32-5/6	SH M6x1x20	L-W 5	PL 32 (R1/8")
TTIR/L 40/50-5/6	SH M6x1x25	L-W 5	PL 40 (R1/8")

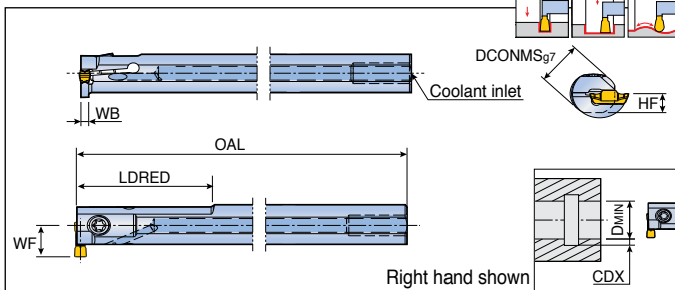
* For through coolant type only

T-CLAMP
PARTING & GROOVING

[illegible]

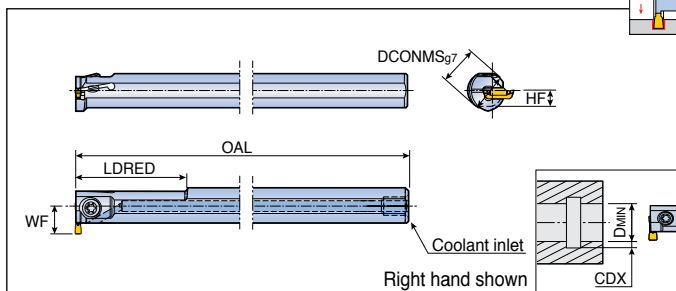
- Please refer to B106 page for COOL-BURST accessories
- Please check insert min. dia for internal grooving B80 page

Designation	Screw	Wrench		
TTIR/L-20-TB	SH M5X0.8X12	L-W 4		
TTIR/L-25/32-TB	SH M5X0.8X16	L-W 4		

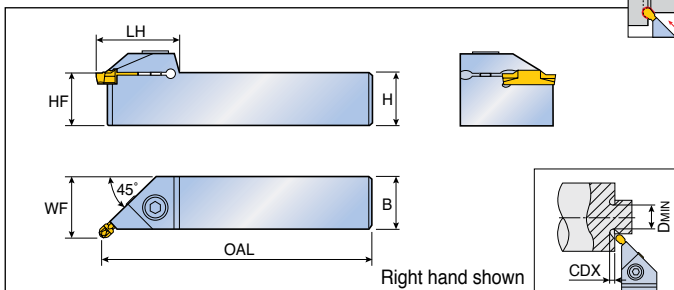


Spare parts

Designation	Screw	Wrench	Seal	
				
TTSIR/L 10/12	TS 40093I	T 15	-	
TTSIR/L 16-12/14	TS 40093I	T 15	PL 16 (M6)	
TTSIR/L 16-16	TS 50125I	T 20	PL 16 (M6)	
TTSIR/L 20	TS 50125I	T 20	PL 20 (M6)	

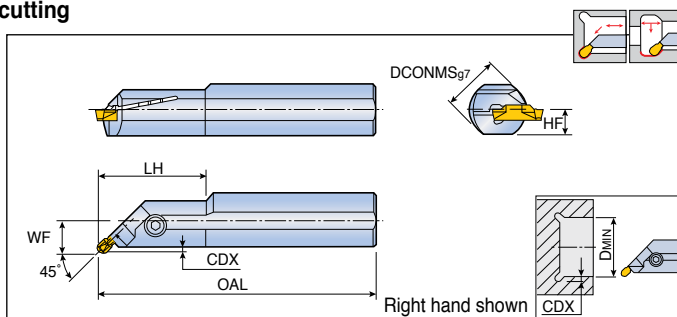
[illegible]

Designation	Screw	Wrench	Seal	
TGSIR/L 10/12	TS 40093I	T 15	-	
TGSIR/L 16	TS 40093I	T 15	PL 16 (M6)	



Spare parts

Designation	Screw	Wrench		
				
TGEUR/L 1616-3	SH M5x0.8x16	L-W 4		
TGEUR/L 2020-3	SH M5x0.8x20	L-W 4		
TGEUR/L 2525-3	SH M5x0.8x25	L-W 4		
TGEUR/L 1616-4	SH M6x1x16	L-W 5		
TGEUR/L 2020-4	SH M6x1x20	L-W 5		
TGEUR/L 2525-4/6	SH M6x1x25	L-W 5		

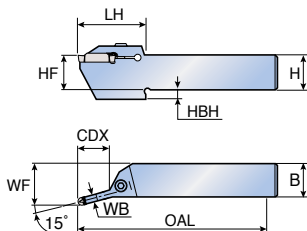
[illegible]

Designation	Screw	Wrench		
				
TGIUR/L 20-3	SH M5x0.8x12	L-W 4		
TGIUR/L 20-4	SH M5x0.8x16	L-W 4		
TGIUR/L 25-3/4	SH M5x0.8x16	L-W 4		
TGIUR/L 25-6	SH M6x1x16	L-W 5		

TTER/L-15A

T-CLAMP
PARTING & GROOVING

Holders for external aluminum wheel machining



Right hand shown

[illegible]

Spare parts

Designation	Screw	Wrench		
				
TTER/L	SH M6x1x25	L-W 5		

TGIUR/L-15A

T-CLAMP
PARTING & GROOVING

Internal boring bars for aluminum wheel machining

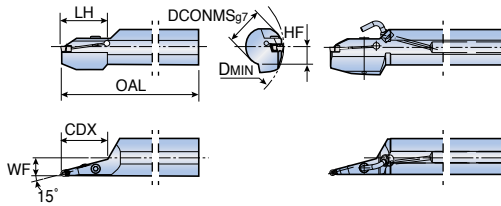


Fig. 1

Fig.2

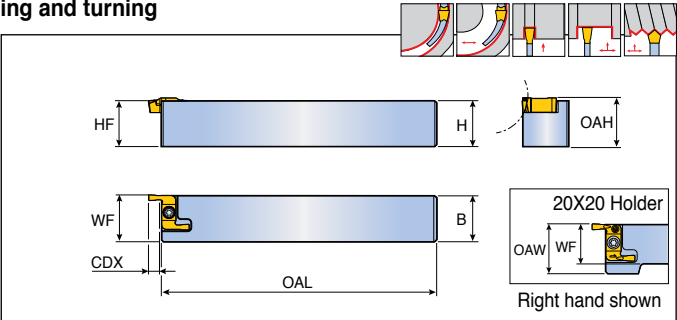
Right hand shown

[illegible]

Spare parts

Designation	Screw	Wrench	Seal	Pipe	Nozzle
					
TGIUR/L	SH M6x1x25	L-W 5	PL 40 (R1/8")	NZP 5	NZ 125

Holders for shallow face grooving and turning



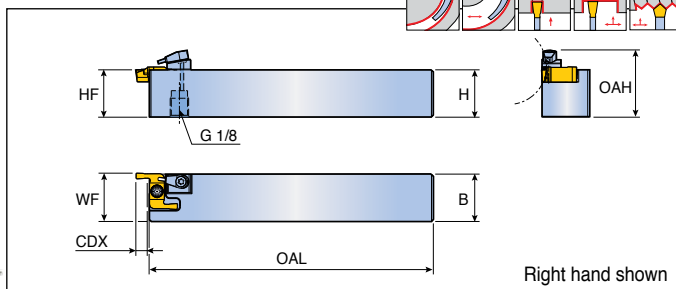
Designation	Dimension (mm)								Insert
	H	HF	B	OAL	OAH	WF	CDX	OAW	
TXFR/L 2020	20	20	20	125	21.5	20.5	6	25.5	TDF(G)X ...R ⁽¹⁾ TDF(G)X ...L ⁽²⁾ B127
2525	25	25	25	150	26.5	25.5	6	25.5	

• ⁽¹⁾ For TXFR ⁽²⁾ For TXFL

Spare parts

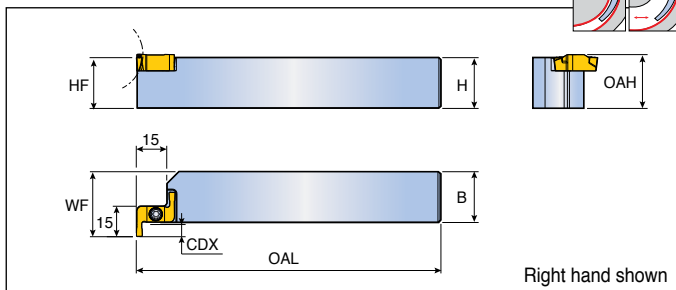
Designation	Screw	Wrench		
TXFR	TS 35110I	T 15		
TXFL	TS 35110IL	T 15		

FACE RUSH

[illegible]

Spare parts

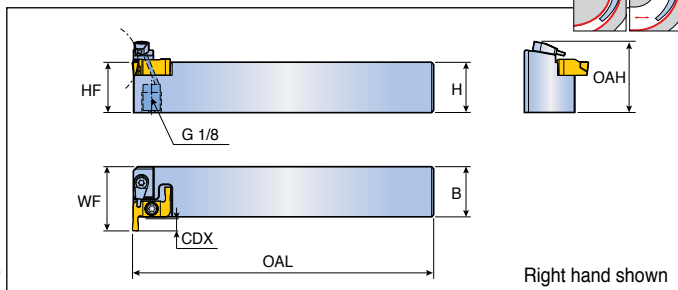
Designation	Screw	Wrench	Cooling unit	
				
TXFR-TB	TS 35110I	T 15	S-CU-TB	
TXFL-TB	TS 35110IL	T 15	S-CU-TB	

[illegible]

Spare parts

Designation	Screw	Wrench		
				
TXFPR	TS 35110I	T 15		
TXFPL	TS 35110IL	T 15		

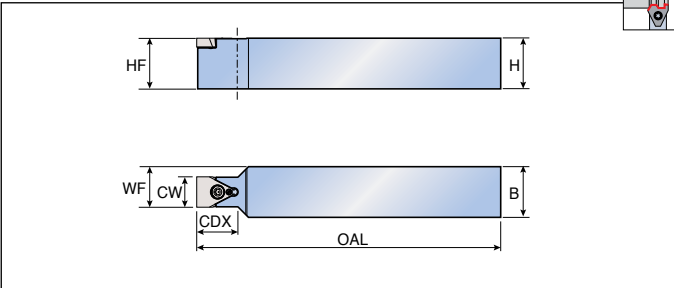
FACE RUSH

[illegible]

- ## Spare parts

Designation	Screw	Wrench	Cooling unit	
				
TXFPR-TB	TS 35110I	T 15	S-CU-TB	
TXFPL-TB	TS 35110IL	T 15	S-CU-TB	

Holders for external wide grooving and profiling

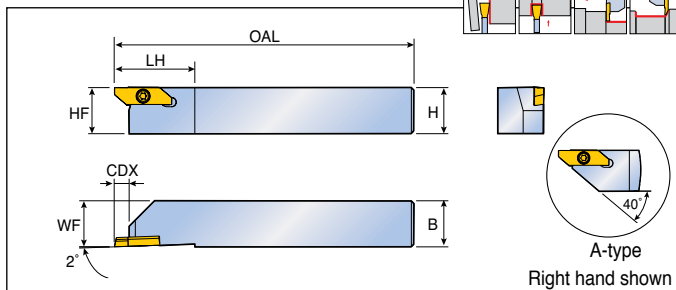


Designation	Dimension (mm)							Insert ⁽¹⁾
	H	HF	B	OAL	WF	CDX	CW	
TTLEN 1212 K10	12	12	12	125	11.0	20	10	TGUX  B128
1616 K10	16	16	16	125	13.0	20	10	
2020 M10	20	20	20	150	15.0	20	10	
2525 M10	25	25	25	150	17.5	20	10	
1616 K15	16	16	16	125	15.5	20	15	
2020 M15	20	20	20	150	17.5	20	15	
2525 M15	25	25	25	150	20.0	20	15	
2020 K20	20	20	20	125	20.0	35	20	
2525 M20	25	25	25	150	22.5	35	20	
3232 P20	32	32	32	170	26.0	35	20	
2020 K25	20	20	20	125	22.5	35	25	
2525 M25	25	25	25	150	25.0	35	25	
3232 P25	32	32	32	170	28.5	35	25	

• ⁽¹⁾ Designation of final insert will be different to the semi finished blank

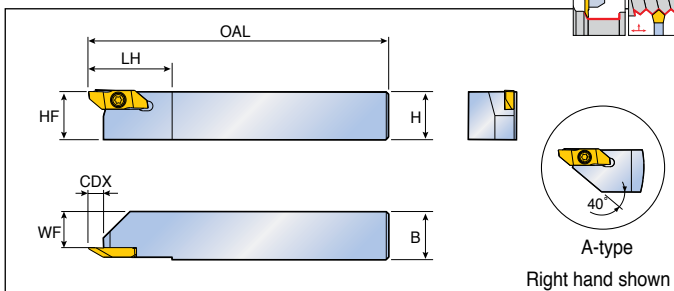
Spare parts

Designation	Screw	Wrench		
				
TTLEN ...K10/K15/M10/M15	TS 40B100I	T 15		
TTLEN ...K20/M20/P20	TS 45120I	T 20		
TTLEN ...K25/M25/P25	TS 45120I	T 20		

[illegible]

- ## Spare parts

Designation	Screw	Wrench		
				
TTVER/L	CSTB-4SD	T 8		

[illegible]

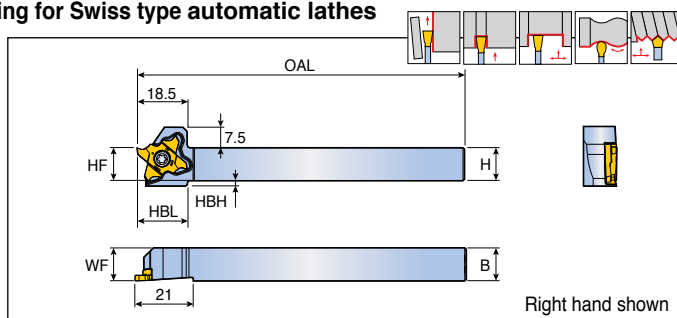
TVBR/L
TVTR/L
 B144

Designation	Screw	Wrench		
TTVBR/L	CSTB-4SD	T 8		

TQHR/L-20



Holders for parting and grooving for Swiss type automatic lathes

[illegible]

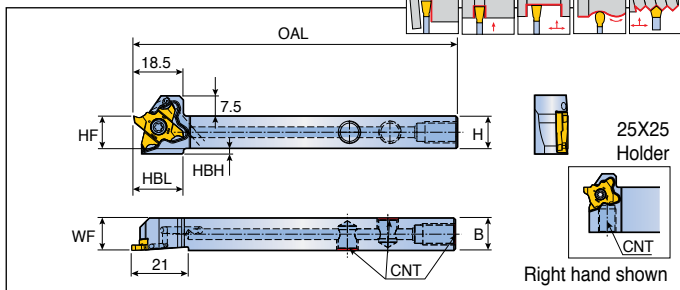
Spare parts

Designation	Screw	Wrench		
				
TQHR/L....20	TS 40A100L ⁽¹⁾ TS 40A100 ⁽²⁾	T-1508/5		

- ⁽¹⁾ For TQHR
- ⁽²⁾ For TQHL

The diagram shows five sequential stages of a welding process:

- Approach:** The electrode (yellow) moves towards the workpiece (grey).
- Initiation:** An arc is established between the electrode tip and the workpiece.
- Travel:** The electrode moves along the workpiece, creating a weld pool.
- Termination:** The electrode stops moving, and the arc is extinguished.
- Withdrawal:** The electrode is pulled away from the workpiece.



- Please refer to B106 page for COOL-BURST accessories

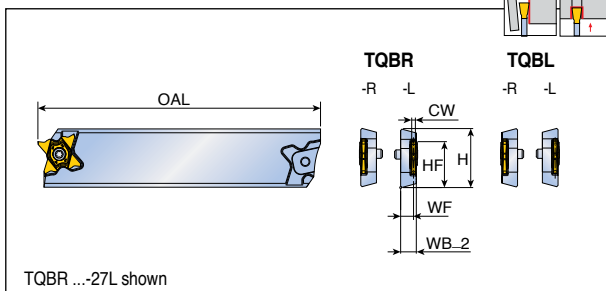
Designation	Screw	Plug	Wrench	
TQHR/L 12/16-20-TB	TS 40A100L ⁽¹⁾ TS 40A100 ⁽²⁾	PLG 5/16 UNF	T-1508/5	L-W 5/32
TQHR/L 20-20-TB		PLG G1/8-L6.5	T-1508/5	L-W 5
TQHR/L 25-20-TB		-	T-1508/5	-

- ⁽¹⁾ For TQHR
- ⁽²⁾ For TQHL

TQBR/L-27



Blades for parting and grooving

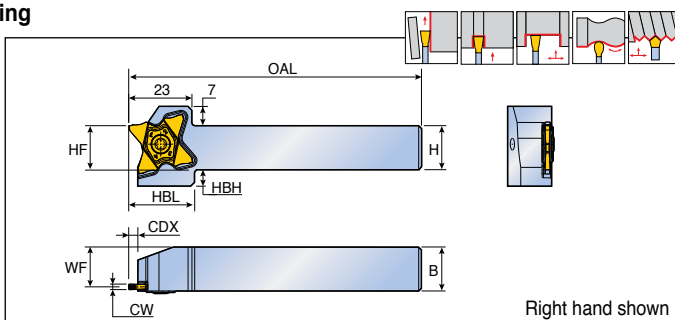
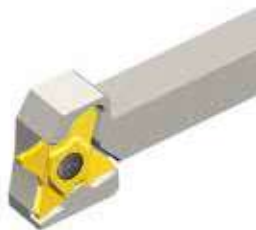
[illegible]

- * : To the center of inserts up to 3.2mm width

Spare parts

Designation	Screw	Wrench		
				
TQBR/L 26-27R	TS 50125I	T 10/20		
TQBR/L 26-27L	TS 50125IL	T 10/20		
TQBR/L 32-27R	TS 50125I	T 10/20		
TQBR/L 32-27L	TS 50125IL	T 10/20		

Holders for parting and grooving

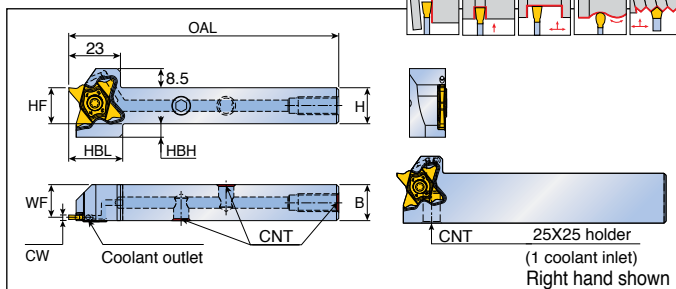
[illegible]

- ⁽¹⁾ Only for TQS wider inserts from 5.3mm-8.2mm width

Designation	Screw	Wrench		
TQHR/L 10/12/16/20/25	TS 50125I ⁽¹⁾	T 10/20		
	TS 50125IL ⁽²⁾	T 10/20		
TQHR/L 16/20/25-27-8	TS 50170I-IC ⁽³⁾	T 15		
	TS 50170IL-IC ⁽⁴⁾	T 15		

- (1)(3) For left holder
- (2)(4) For right holder

QUAD RUSH

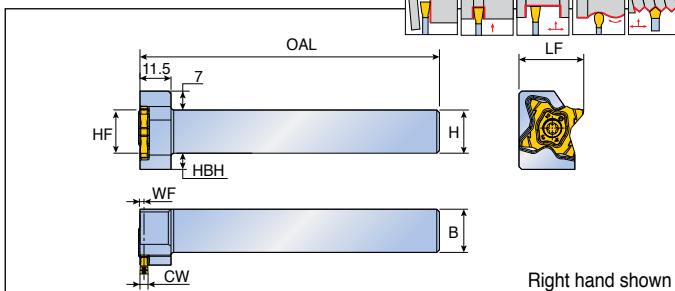
[illegible]

Spare parts

Designation	Screw	Plug	Wrench	
				
TQHR/L 12-27-TB	TS 50125I ⁽¹⁾ TS 50125IL ⁽²⁾	PLG 5/16 UNF	T 10/20	L-W 5/32
TQHR/L 16-27-TB		PLG 5/16 UNF	T 10/20	L-W 5/32
TQHR/L 20-27-TB		PLG G1/8-L6.5	T 10/20	L-W 5
TQHR/L 25-27-TB		-	T 10/20	-

• ⁽¹⁾ For TQHL • ⁽²⁾ For TQHR

QUAD RUSH

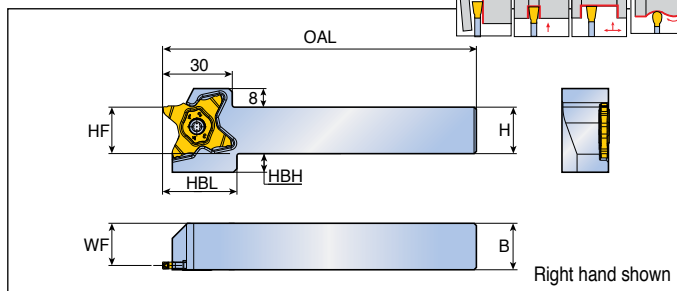
[illegible]

- ## Spare parts

Designation	Screw	Wrench		
				
TQHPR/L 16/20/25	TS 50125I ⁽¹⁾	T 20		
	TS 50125IL ⁽²⁾	T 20		
TQHPR/L 16/20/25-8	TS 50170I-IC ⁽³⁾	T 15		
	TS 50170IL-IC ⁽⁴⁾	T 15		

- ⁽¹⁾⁽³⁾ For right holder
- ⁽²⁾⁽⁴⁾ For left holder

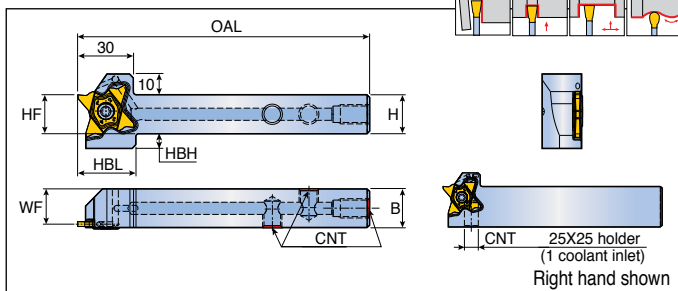
QUAD RUSH

[illegible]

Designation	Screw	Wrench		
TQHR/L-34	TS 50125I ⁽¹⁾ TS 50125IL ⁽²⁾	T 10/20		

- ⁽¹⁾ For left holder, ⁽²⁾ For right holder

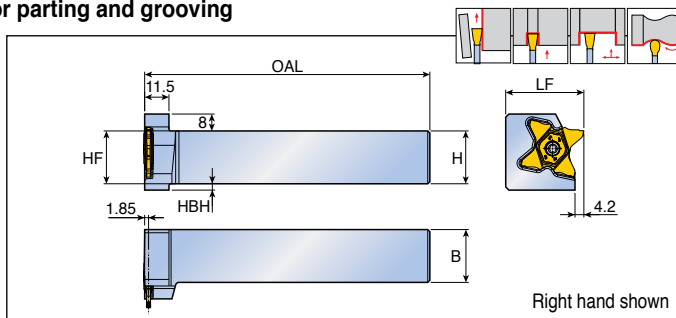
QUAD RUSH



- Please refer to B106 page for COOL-BURST accessories

- (1) For left holder, (2) For right holder

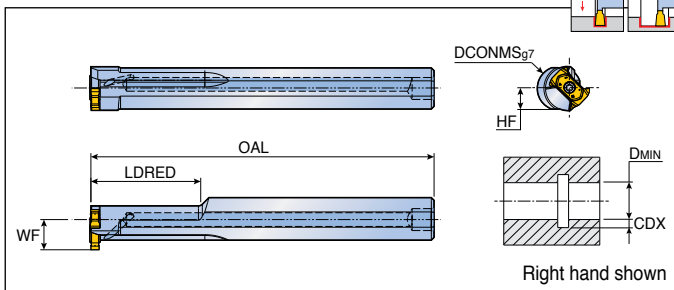
QUAD RUSH



Spare parts

Designation	Screw	Wrench		
				
TQHPR/L-34	TS 50125I ⁽¹⁾ TS 50125IL ⁽²⁾	T 10/20		

- 

[illegible]

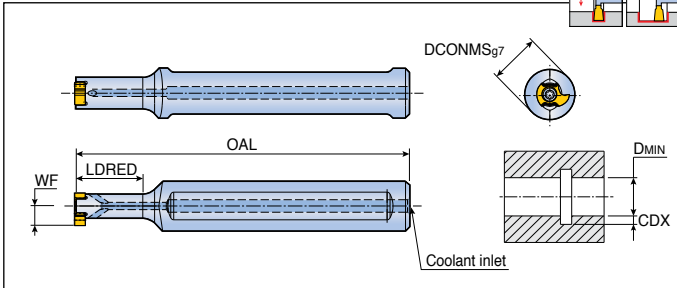
Spare parts

Designation	Screw	Wrench	Seal	
				
TQHIR/L 16	TS 25075I/HG	T 8	PL 16 (M6)	
TQHIR/L 20	TS 25075I/HG	T 8	PL 20 (M6)	
TQHIR/L 25	TS 25075I/HG	T 8	PL 25 (R1/8")	
TQHIR/L 32	TS 25075I/HG	T 8	PL 32 (R1/8")	

TMIHN



Internal boring bars for shallow grooving with coolant hole on small diameter



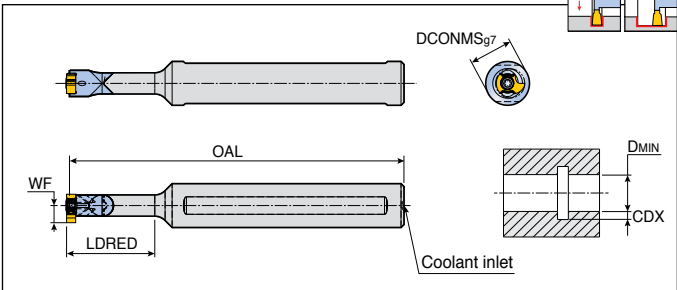
Designation	Dimension (mm)					Coolant inlet	Insert
	DCONMS	OAL	LDRED	WF	DMIN		
TMIHN 12-16-8	12	80	16	4.7	10	Ø3	TMIS 8 B161

• CDX: Refer to insert dimension

TMIHN-C



Internal carbide boring bars for shallow grooving with coolant hole on small diameter



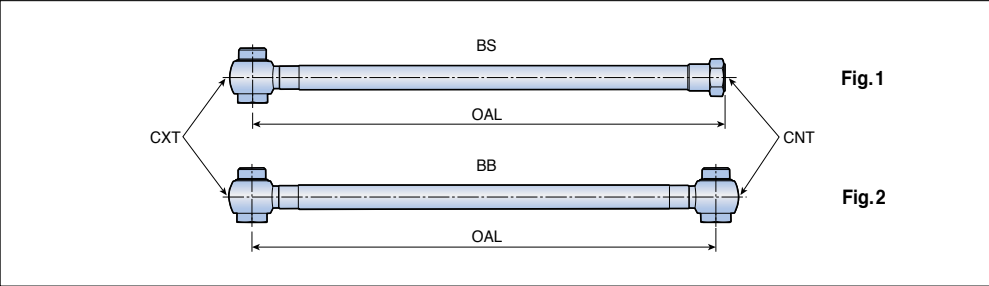
Designation	Dimension (mm)					Coolant inlet	Insert
	DCONMS	OAL	LDRED	WF	DMIN		
TMIHN 12C-24-8	12	92	24	4.7	10	Ø2	TMIS 8
12C-32-8	12	100	32	4.7	10	Ø2	B161

• CDX: Refer to insert dimension

Spare parts

Designation	Screw	Wrench		
TMIHN	TS 22052I/HG	T 7		
TMIHN -C	TS 22052I/HG	T 7		

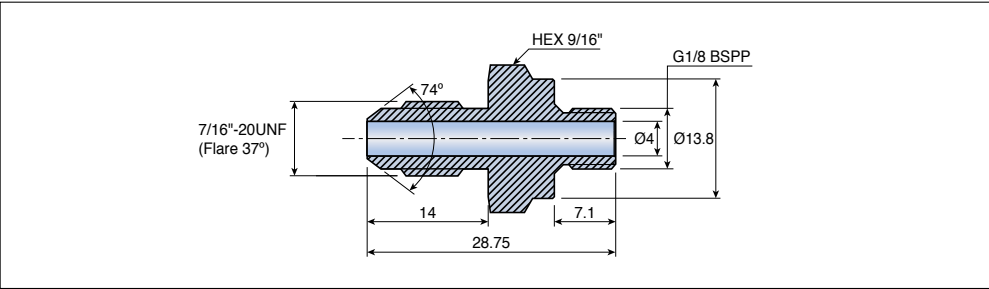
Hose



Designation	Dimension				Fig.
	OAL (mm)	CXT	CNT	Max.pressure (Bar)	
TB HOSE G1/8-7/16-200BS	200	G1/8"-28 BSPP	7/16"-20 UNF (Flare 37°)	260	1
G1/8-7/16-250BS	250	G1/8"-28 BSPP	7/16"-20 UNF (Flare 37°)	260	1
G1/8-G1/8-200BB	200	G1/8"-28 BSPP	G1/8"-28 BSPP	260	2
G1/8-G1/8-250BB	250	G1/8"-28 BSPP	G1/8"-28 BSPP	260	2
5/16-7/16-200BS	200	5/16"-24 UNF	7/16"-20 UNF (Flare 37°)	200	1
5/16-G1/8-200BS	200	5/16"-24 UNF	G1/8"-28 BSPP	200	1

• Hose is ordered separately

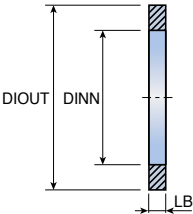
Adapter



Designation
TB NIPPLE G1/8-7/16 UNF

• Adapter is ordered separately

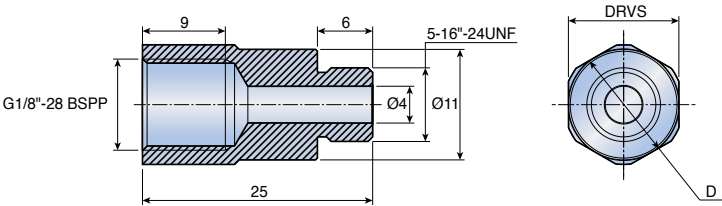
Seal washer



Designation	Dimension (mm)						
	DIOUT	DINN	LB				
TB COPPER SEAL 1/8"	15	10	1				
SEAL 5/16"	12	8	1				

• Seal washer is ordered separately

Connector

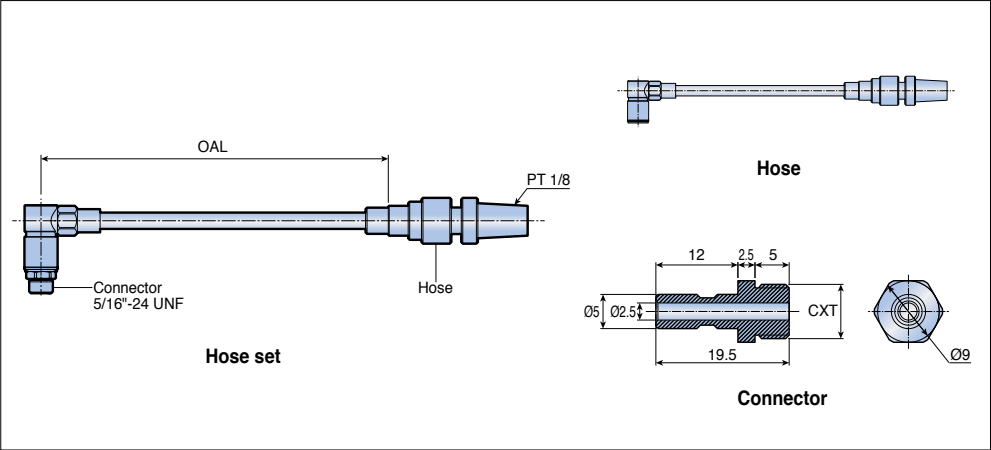


Designation	Dimension (mm)						
	D	DRVS					
TB CONECTOR 5/16"-G1/8"	13	12					
5/16"-G1/8"-12	12	11					

• Connector is ordered separately

Accessories

Coupling system



Components	Designation		Dimension		
			OAL (mm)	CXT	Maximum pressure (Bar)
Hose set	S-TB HOSE	R1/8-COUPLE-100	100	-	140
		R1/8-COUPLE-200	200	-	140
		R1/8-COUPLE-300	300	-	140
Hose	TB HOSE	R1/8-COUPLE-200	200	-	140
		R1/8-COUPLE-300	300	-	140
Connector	TB CONECTOR	5/16-COUPLE	-	5/16"-24 UNF	-
		G1/8-COUPLE	-	G1/8"-28 BSPP	-
		R1/8-COUPLE	-	PT 1/8"	-

• Hose set, hose and connector are ordered separately

Parting & Grooving Inserts and Solid Bars





1 TaeguTec

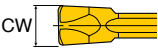
2 Cutting edge type

	
S	D
Single-ended insert	Double-ended insert

3 Chip breaker type

C 	J 
V 	UF 
For medium	For light

4 Width of insert

	2 = 2.0 mm 3 = 3.0 mm 4 = 4.0 mm 5 = 5.0 mm 6 = 6.0 mm
--	---

5 Lead angle



6 Hand of insert

	
L	R
Left hand	Right hand

7 Corner type

	
S	
Sharp corner	Standard corner radius

Insert Designation System

Turning, grooving and face machining

T D (F) T 3.00 E - 0.40 R
1 2 3 4 5 6 7 8

1 TaeguTec

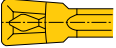
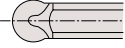
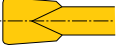
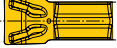
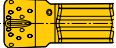
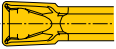
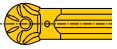
2 Cutting edge type

S 	D 
Single-ended insert	Double-ended insert

3 Application type

- F** Face turning and grooving
I Internal turning and grooving
X Universal

4 Chip breaker type

T 	A 	G 	M 	P 
For steel, high-temp. alloy and cast iron	For aluminum	Without chip breaker	Pressed for small diameter	Ground for small diameter
XU 	XY 	RU 	RS 	
Universal chip breaker (General)	Universal chip breaker (Roughing)	General profiling	Precision profiling	

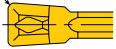
5 Width of insert (mm)

CW 	☐ ☐ ☐ Precision insert
	☐ Pressed insert

6 Application type

- E** For turning and grooving
No designation For precision grooving

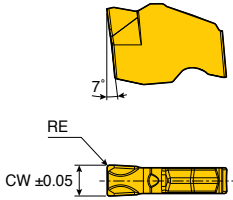
7 Corner radius (mm)

RE 	☐ ☐ ☐ Precision insert
	☐ ☐ Pressed insert

8 Hand of insert - For face machining

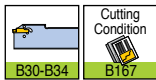
L 	R 
Left hand insert on left hand holder	Right hand insert on right hand holder

Single-ended inserts for parting and deep grooving with C-Type chip breaker



Size	Dimension (mm)				
	CW	RE			
1.6	1.6	0.2			
2	2.0	0.2			
3	3.0	0.2			

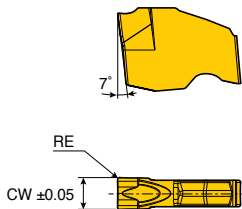
Insert	Designation	Insert seat size	Feed (mm/rev)	Cermet		Coated					Uncoated	
				CT3000		TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10
	SFC 1.6	1	0.05-0.15						●		●	
	2	2	0.08-0.20						●		●	●
	3	3	0.10-0.25						●		●	●



●: Standard items

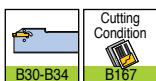
SFJ

Single-ended inserts for parting and deep grooving with J-Type chip breaker



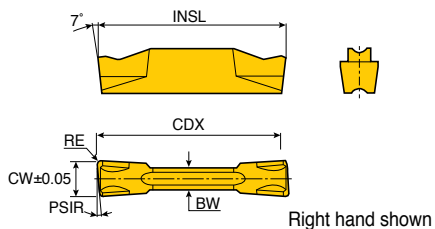
Size	Dimension (mm)				
	CW	RE			
2	2.0	0.2			
3	3.0	0.2			

Insert	Designation	Insert seat size	Feed (mm/rev)	Cermet		Coated					Uncoated	
				CT3000		TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10
	SFJ 2	2	0.05-0.15						●		●	●
	3	3	0.08-0.20						●		●	●



●: Standard items

Double-ended inserts for parting and grooving with C-Type chip breaker



Size	Dimension (mm)					
	CW	RE	BW	INSL	PSIR	CDX
2 (.R/L)	2.0	0.20	1.7	20.0	0-15	19
2 RS/LS	2.0	0.02	1.7	19.6	15	19
3 (.R/L)	3.0	0.20	2.4	20.0	0-15	19
3 RS/LS	3.0	0.02	2.4	19.6	6-15	19
3.18	3.18	0.20	2.4	20.0	-	19
4 (.R/L)	4.0	0.30	3.0	20.0	0-15	19
5 (.R/L)	5.0	0.30	4.0	25.0	0-4	24
6	6.0	0.30	5.0	25.0	-	24
8	8.0	0.40	6.0	30.0	-	29

[illegible]

●: Standard items

7°

INSL

RE

CW±0.05

PSIR

BW

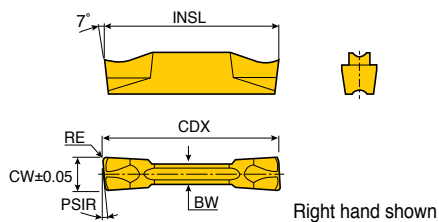
Right hand shown

Size	Dimension (mm)				
	CW	RE	BW	INSL	PSIR
2 (..R/L)	2.0	0.20	1.7	19.7	0-15
2 RS/LS	2.0	0.02	1.7	19.5	15
3 (..R/L)	3.0	0.20	2.4	19.6	0-15
3 RS/LS	3.0	0.02	2.4	19.4	15
4 (..R/L)	4.0	0.30	3.0	19.7	0-15
5 (..R/L)	5.0	0.30	4.0	24.6	0-4
6	6.0	0.30	5.0	24.7	-
8	8.0	0.40	6.0	30.1	-

[illegible]

●: Standard items

Double-ended inserts for parting and grooving with J-Type chip breaker



Size	Dimension (mm)					
	CW	RE	BW	INSL	PSIR	CDX
1.4	1.4	0.16	1.0	16.0	-	15
2 (.R/L)	2.0	0.20	1.7	20.0	0-15	19
2 RS/LS	2.0	0.02	1.7	19.6	6-15	19
3 (.R/L)	3.0	0.20	2.4	20.0	0-15	19
3 RS/LS	3.0	0.02	2.4	19.6	6-15	19
3.18	3.18	0.20	2.4	20.0	-	19
4 (.R/L)	4.0	0.30	3.0	20.0	0-15	19
5 (.R/L)	5.0	0.30	4.0	25.0	0-4	24
6	6.0	0.30	5.0	25.0	-	24

[illegible]

●: Standard items



7°

INSL

RE

CW±0.05

PSIR

BW

Right hand shown

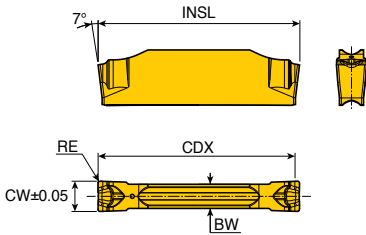
Size	Dimension (mm)				
	CW	RE	BW	INSL	PSIR
2 (.R/L)	2.0	0.20	1.7	19.8	0-15
2 RS/LS	2.0	0.02	1.7	19.6	15
3 (.R/L)	3.0	0.20	2.4	19.6	0-15
3 RS/LS	3.0	0.02	2.4	19.4	6-15
4 (.R/L)	4.0	0.30	3.0	19.7	0-15
5 (.R/L)	5.0	0.30	4.0	24.6	-
6	6.0	0.30	5.0	24.5	-

[illegible]

●: Standard items

TDUF

Double-ended inserts for parting and grooving with UF-Type chip breaker



Size	Dimension (mm)				
	CW	RE	BW	INSL	CDX
2	2.0	0.2	1.5	20	19
3	3.0	0.2	2.4	20	19

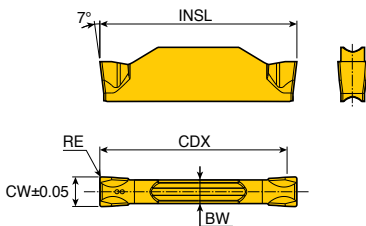
Insert	Designation	Insert seat size	Feed (mm/rev)	Cermet	Coated					Uncoated	
				CT3000	TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10
	TDUF 2	2	0.03-0.11					●			
	3	3	0.04-0.13					●			



●: Standard items

TDV

Double-ended inserts for parting and grooving with V-Type chip breaker



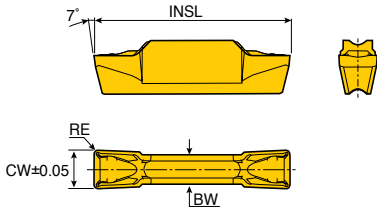
Size	Dimension (mm)				
	CW	RE	BW	INSL	CDX
2	2.0	0.2	1.7	20	19
3	3.0	0.2	2.4	20	19
4	4.0	0.3	3.0	20	19

Insert	Designation	Insert seat size	Feed (mm/rev)	Cermet	Coated						Uncoated	
				CT3000	TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10	
	TDV 2	2	0.04-0.12					●		●		
	3	3	0.06-0.18					●		●		
	4	4	0.08-0.20					●		●		



●: Standard items

Double-ended inserts for grooving, turning, face grooving and parting



Size	Dimension (mm)			
	CW	RE	BW	INSL
2E-0.3	2.0	0.3	1.7	20.0
3E-0.3	3.0	0.3	2.2	20.0
4E-0.4	4.0	0.4	3.0	20.0
4E-0.8	4.0	0.8	3.0	20.0
5E-0.4	5.0	0.4	4.0	25.0
5E-0.8	5.0	0.8	4.0	25.0
6E-0.4	6.0	0.4	5.0	25.0
6E-0.8	6.0	0.8	5.0	25.0
8E-0.8	8.0	0.8	6.0	30.0

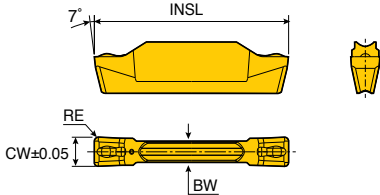
Insert	Designation	Insert seat size	Turning		Grooving	Cermet		Coated						Uncoated	
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)	CT3000		TT7505	TT6080	TT3010	TT5100	TT9080	TT7220	TT8020	K10
	TDXU 2E-0.3	2	0.4-1.2	0.12-0.18	0.03-0.20	●		●	●		●	●	●	●	●
	3E-0.3	3	0.4-1.8	0.15-0.19	0.07-0.22	●		●	●	●	●	●	●	●	●
	4E-0.4	4	0.5-2.4	0.18-0.24	0.08-0.27	●		●	●	●	●	●	●	●	●
	4E-0.8	4	1.0-2.4	0.18-0.24	0.08-0.27	●		●	●	●	●	●	●	●	●
	5E-0.4	5	0.5-3.0	0.20-0.30	0.10-0.30	●		●	●	●	●	●	●	●	●
	5E-0.8	5	1.0-3.0	0.23-0.35	0.10-0.30	●		●	●	●	●	●	●	●	●
	6E-0.4	6	0.5-3.6	0.22-0.36	0.13-0.40			●	●	●	●	●	●	●	●
	6E-0.8	6	1.0-3.6	0.24-0.42	0.13-0.40			●	●	●	●	●	●	●	●
	8E-0.8	8	1.0-4.8	0.30-0.56	0.14-0.50			●	●		●	●	●	●	●



●: Standard items

TDXT

Double-ended inserts for grooving, turning and face grooving



Size	Dimension (mm)			
	CW	RE	BW	INSL
3E-0.4	3.0	0.4	2.2	20.0
4E-0.4	4.0	0.4	3.0	20.0
5E-0.4	5.0	0.4	4.0	25.0
6E-0.8	6.0	0.8	5.0	25.0
8E-0.8	8.0	0.8	6.0	30.0

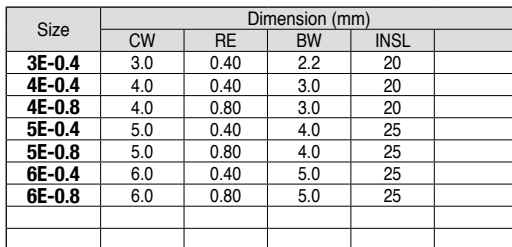
Insert	Designation	Insert seat size	Turning		Grooving	Cermet		Coated						Uncoated	
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)	CT3000		TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10	
	TDXT 3E-0.4	3	0.5-1.8	0.15-0.22	0.06-0.15	●		●	●	●	●	●	●	●	●
	4E-0.4	4	0.5-2.4	0.18-0.30	0.07-0.20	●		●	●	●	●	●	●	●	●
	5E-0.4	5	0.5-3.0	0.20-0.35	0.08-0.23	●		●	●	●	●	●	●	●	●
	6E-0.8	6	1.0-3.6	0.24-0.42	0.12-0.30			●	●	●	●	●	●	●	●
	8E-0.8	8	1.0-4.8	0.30-0.56	0.15-0.35			●	●	●	●	●	●	●	●



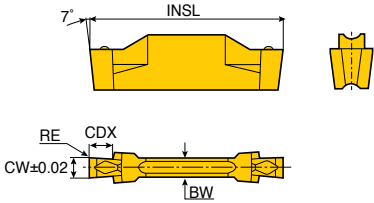
● Non-standard grade production available at the customer's request

●: Standard items

PARTING & GROOVING



Precision double-ended inserts for external grooving only



Size	Dimension (mm)				
	CW	RE	BW	INSL	CDX
1.00	1.00	0.00	2.2	20.0	2.5
1.30	1.30	0.00	2.2	20.0	2.5
1.60	1.60	0.10	2.2	20.0	2.5
1.85	1.85	0.10	2.2	20.0	3.5
2.15	2.15	0.15	2.2	20.0	3.5

Insert	Designation	Insert seat size	Grooving	Cermet	Coated					Uncoated
			Feed (mm/rev)	CT3000	TT7505	TT6080	TT5100	TT9080	TT7220	TT8020
	TDT 1.00-0.00*	2	0.02-0.04					●	●	●
	1.30-0.00*	2	0.02-0.05					●	●	●
	1.60-0.10*	2	0.03-0.07					●	●	●
	1.85-0.10*	2	0.03-0.09					●	●	●
	2.15-0.15	2	0.03-0.10					●	●	●



B71



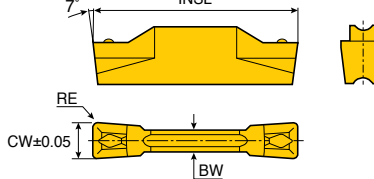
B167

• *: Only for grooving. Please use TGR/L ...-4 holder

●: Standard items

TDT-E

Double-ended inserts for turning and grooving



Size	Dimension (mm)			
	CW	RE	BW	INSL
3	3.0	0.4	2.2	20.0
4	4.0	0.4	3.0	20.0
6	6.0	0.8	5.0	25.0

Insert	Designation	Insert seat size	Turning		Grooving	Cermet	Ceramic		Coated					Uncoated	
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)	CT3000		AB30		TT7505	TT6080	TT5100	TT9080	TT7220	TT8020
 CE type	TDT 3E-0.4	3	0.5-1.8	0.15-0.22	0.07-0.15	●			●	●	●	●	●		●
	4E-0.4	4	0.5-2.4	0.18-0.30	0.09-0.18	●			●	●	●	●	●		●
	4E-0.4T CE⁽¹⁾	4	0.5-2.4	0.18-0.30	0.09-0.35		●								
	6E-0.8T CE⁽¹⁾	6	1.0-3.6	0.24-0.42	0.13-0.40		●								



B167

• ⁽¹⁾This insert is a pressed ceramic insert

●: Standard items

Size	Dimension (mm)			
	CW	RE	BW	INSL
2.65 / 3.00 / 3.15	2.65-3.15	0.15-0.40	2.2	20.0
4.00 / 4.15	4.00-4.15	0.15-0.80	3.0	20.0
4.78 / 5.00 / 5.15	4.78-5.15	0.15-0.80	4.0	25.0
6.00	6.00	0.80-1.20	5.0	25.0
8.00	8.00	0.80-1.20	6.0	30.0
10.00	10.00	0.80-2.00	8.0	30.0

[illegible]

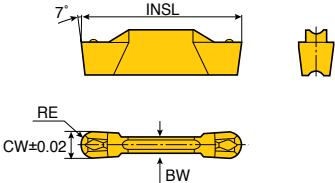
●: Standard items



TDT-E (Full-Radius)



Precision double-ended inserts for external turning, grooving and profiling



Size	Dimension (mm)			
	CW	RE	BW	INSL
3	3.00	1.50	2.2	20.0
4	4.00	2.00	3.0	20.0
4.78	4.78	2.39	4.0	25.0
5	5.00	2.50	4.0	25.0
6	6.00	3.00	5.0	25.0
8	8.00	4.00	6.0	30.0
10	10.00	5.00	8.0	30.0

Insert	Designation	Insert seat size	Turning		Grooving	Cermet CT3000	Coated					Uncoated	
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)		TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10
	TDT 3.00E-1.50	3	0.0-1.5	0.15-0.28	0.08-0.18				●	●	●	●	
	4.00E-2.00	4	0.0-2.0	0.18-0.35	0.10-0.20				●	●	●	●	
	4.78E-2.39	5	0.0-2.4	0.20-0.42	0.12-0.23				●	●	●		
	5.00E-2.50	5	0.0-2.5	0.20-0.42	0.12-0.23				●	●	●	●	
	6.00E-3.00	6	0.0-3.0	0.25-0.54	0.15-0.27				●	●	●	●	
	8.00E-4.00	8	0.0-4.0	0.30-0.67	0.18-0.35				●	●	●		
	10.00E-5.00	10	0.0-5.0	0.35-0.80	0.22-0.40				●	●			

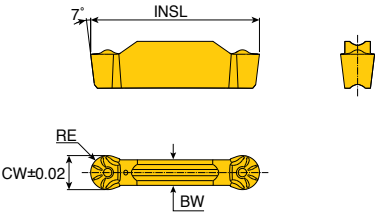


●: Standard items

TDT-RS (Full-Radius)



Precision double-ended inserts for external turning, grooving and profiling



Size	Dimension (mm)			
	CW	RE	BW	INSL
2	2.0	1.0	1.7	20.0
3	3.0	1.5	2.4	20.0
4	4.0	2.0	3.0	20.0
5	5.0	2.5	4.0	25.0
6	6.0	3.0	5.0	25.0

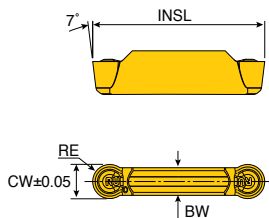
Insert	Designation	Insert seat size	Turning		Grooving	Cermet	Coated						Uncoated	
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)		CT3000	TT7505	TT6080	TT5100	TT3010	TT9080		TT7220
	TDT 2.00E-1.00-RS	2	0.0-1.0	0.10-0.22	0.08-0.15					●	●		●	
	3.00E-1.50-RS	3	0.0-1.5	0.15-0.28	0.09-0.18					●	●		●	
	4.00E-2.00-RS	4	0.0-2.0	0.18-0.35	0.10-0.20					●	●		●	
	5.00E-2.50-RS	5	0.0-2.5	0.25-0.54	0.13-0.23					●	●		●	
	6.00E-3.00-RS	6	0.0-3.0	0.30-0.67	0.15-0.27					●	●		●	



●: Standard items

TDT-RU (Full-Radius)

Double-ended inserts for external turning, grooving and profiling



Size	Dimension (mm)			
	CW	RE	BW	INSL
2	2.0	1.0	1.7	20.0
3	3.0	1.5	2.2	20.0
4	4.0	2.0	3.0	20.0
5	5.0	2.5	4.0	25.0
6	6.0	3.0	5.0	25.0
8	8.0	4.0	6.0	30.0

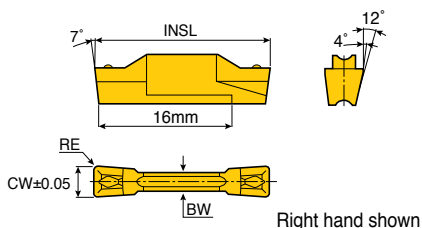
Insert	Designation	Insert seat size	Turning		Grooving	Cermet	Coated						Uncoated		
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)	CT3000		TT7505	TT6080	TT5100	TT3010	TT9080	TT7220	TT8020	K10
	TDT 2E-1.0-RU	2	0.0-1.0	0.10-0.25	0.05-0.15			●	●	●	●	●	●	●	●
	3E-1.5-RU	3	0.0-1.5	0.15-0.28	0.08-0.18	●		●	●	●	●	●	●	●	●
	4E-2.0-RU	4	0.0-2.0	0.18-0.35	0.10-0.20	●		●	●	●	●	●	●	●	●
	5E-2.5-RU	5	0.0-2.5	0.20-0.42	0.12-0.23	●		●	●	●	●	●	●	●	●
	6E-3.0-RU	6	0.0-3.0	0.25-0.54	0.15-0.27	●		●	●	●	●	●	●	●	●
	8E-4.0-RU	8	0.0-4.0	0.30-0.67	0.18-0.35			●	●	●		●	●		●



●: Standard items

TDFT-E

Double-ended inserts for face grooving



Size	Dimension (mm)			
	CW	RE	BW	INSL
3E	3.0	0.40	2.2	20.0
4E	4.0	0.40	3.0	20.0

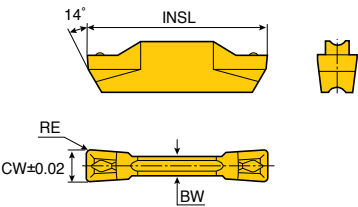
Insert	Designation	Insert seat size	Turning		Grooving	Cermet		Coated						Uncoated
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)	CT3000		TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10
	TDFT 3E-0.4R/L	3	0.5-2.0	0.15-0.22	0.07-0.15					●		●		●
	4E-0.4R/L	4	0.5-2.4	0.18-0.30	0.09-0.18					●		●		●



● Apply R insert on R tool and L insert on L tool

●: Standard items

Precision double-ended inserts for internal turning and grooving



Size	Dimension (mm)			
	CW	RE	BW	INSL
3	3.00	0.40	2.2	20.0
4	4.00	0.40-0.80	3.0	20.0
5	5.00	0.40-0.80	4.0	25.0
6	6.00	0.80-1.20	5.0	25.0
8	8.00	1.20	6.0	30.0

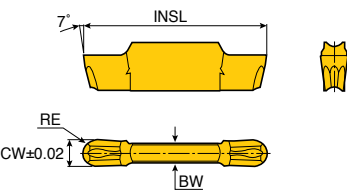
Insert	Designation	Insert seat size	Turning		Grooving	Cermet	Coated					Uncoated
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)	CT3000	TT7505	TT6080	TT5100	TT9080	TT7220	TT8020
	TDIT 3.00E-0.40	3	0.5-1.8	0.15-0.22	0.07-0.15				●	●		●
	4.00E-0.40	4	0.5-2.4	0.18-0.30	0.09-0.18				●	●		●
	4.00E-0.80	4	1.0-2.4	0.18-0.30	0.09-0.18				●	●		●
	5.00E-0.40	5	0.5-2.3	0.20-0.35	0.11-0.20				●	●		●
	5.00E-0.80	5	1.0-3.0	0.23-0.35	0.11-0.21				●	●		●
	6.00E-0.80	6	1.0-3.6	0.24-0.42	0.13-0.30				●	●		●
	6.00E-1.20	6	1.3-3.6	0.24-0.42	0.13-0.30				●	●		●
	8.00E-0.80	8	1.0-4.8	0.30-0.56	0.15-0.40				●	●		●
	8.00E-1.20	8	1.3-4.8	0.30-0.56	0.15-0.40				●	●		●



●: Standard items

TDIT-E (Full-Radius)

Precision double-ended inserts for internal turning, grooving, profiling and undercutting



Size	Dimension (mm)			
	CW	RE	BW	INSL
3	3.00	1.50	2.2	20.0
4	4.00	2.00	3.0	20.0
5	5.00	2.50	4.0	25.0
6	6.00	3.00	5.0	25.0

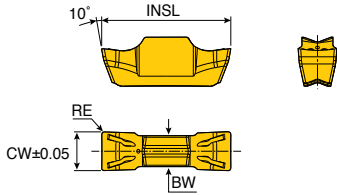
Insert	Designation	Insert seat size	Turning		Grooving	Cermet	Coated					Uncoated	
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)	CT3000	TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10
	TDIT 3.00E-1.50	3	0.0-1.5	0.15-0.28	0.08-0.18				●	●	●	●	
	4.00E-2.00	4	0.0-2.0	0.18-0.35	0.10-0.20				●	●	●	●	
	5.00E-2.50	5	0.0-2.5	0.20-0.42	0.12-0.23				●	●	●	●	
	6.00E-3.00	6	0.0-3.0	0.25-0.54	0.15-0.27				●	●	●	●	



●: Standard items

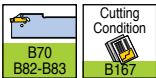
TDIM

Double-ended inserts for internal turning and grooving on small diameter



Size	Dimension (mm)			
	CW	RE	BW	INSL
2	2.0	0.15	1.6	10
3	3.0	0.20	2.4	10

Insert	Designation	Insert seat size	Turning		Grooving	Cermet	Coated					Uncoated
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)	CT3000	TT7505	TT6080	TT5100	TT9080	TT7220	TT8020
	TDIM 2E-0.15	2	0.2-0.6	0.05-0.08	0.03-0.05					●		
	3E-0.2	3	0.3-1.3	0.10-0.14	0.05-0.09					●		

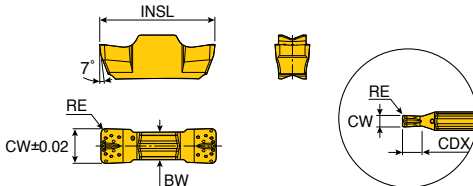


• Used holder TTSEIR/L, TTSIR/L, TGSIR/L

●: Standard items

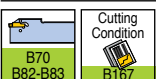
TDIP

Precision double-ended inserts for internal turning and grooving on small diameter



Size	Dimension (mm)				
	CW	RE	BW	INSL	CDX
1.00	1.00	0.10-0.50	1.6	10	1.6
1.20	1.20	0.00	1.6	10	1.8
1.40	1.40	0.00	1.6	10	2.0
1.50	1.50	0.10	1.6	10	2.0
2.00	2.00	0.10-1.00	1.6	10	-
2.15	2.15	0.15	1.6	10	-
2.50	2.50	0.20	2.4	10	-
3.00	3.00	0.20-1.50	2.4	10	-

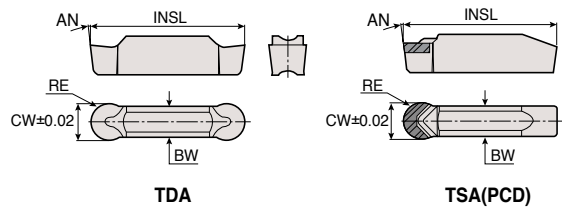
Insert	Designation	Insert seat size	Turning		Grooving	Cermet		Coated					Uncoated	
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)	CT3000		TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10
	TDIP 1.00-0.10*	2	-	-	0.01-0.03						●			
	1.00-0.50*	2	-	-	0.01-0.04						●			
	1.20-0.00*	2	-	-	0.01-0.03						●			
	1.40-0.00*	2	-	-	0.02-0.04						●			
	1.50-0.10*	2	-	-	0.02-0.04						●			
	2.00E-0.10	2	0.2-0.6	0.05-0.07	0.03-0.05						●			
	2.00E-0.20	2	0.2-0.6	0.05-0.07	0.03-0.05						●			
	2.00E-1.00	2	0.0-0.6	0.08-0.12	0.04-0.07						●			
	2.15E-0.15	2	0.2-0.6	0.06-0.08	0.04-0.06						●			
	2.50E-0.20	3	0.2-1.1	0.07-0.09	0.04-0.07						●			
	3.00E-0.20	3	0.3-1.3	0.11-0.14	0.05-0.09						●			
	3.00E-1.50	3	0.0-1.5	0.13-0.20	0.05-0.11						●			



• * Only for grooving: Please use TGSIR/L holder

●: Standard items

Inserts for aluminum wheel machining



Size	Dimension (mm)				
	CW	RE	BW	INSL	AN
3	3.00	1.5	2.4	20.0	7
4	4.00	2.0	3.0	20.0	7
5	5.00	2.5	4.0	25.0	7
6	6.00	3.0	5.0	25.0	7
8	8.00	4.0	6.0	30.0	10

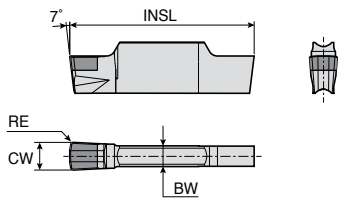
Insert	Designation	Insert seat size	Turning		Grooving	PCD	Coated					Uncoated		
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)	KP300	TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10	
 TDA	TDA 3.00-1.50	3	0.0-1.5	0.15-0.30	0.08-0.16								●	
	4.00-2.00	4	0.0-2.0	0.20-0.43	0.10-0.22								●	
	5.00-2.50	5	0.0-2.5	0.20-0.48	0.10-0.25								●	
	6.00-3.00	6	0.0-3.0	0.21-0.58	0.11-0.29								●	
	8.00-4.00	8	0.0-4.0	0.24-0.67	0.14-0.38								●	
 TSA	TSA 6.00-3.00	6	0.0-3.0	0.26-0.72	0.13-0.36	●								
	8.00-4.00	8	0.0-4.0	0.24-0.67	0.14-0.38	●								



● : Standard items

TSG-HF

Single-ended CBN inserts for high feed turning



Size	Dimension (mm)				
	CW	RE	BW	INSL	
3	3.0	0.3	2.2	20	
5	5.0	0.3	4.0	25	

Insert	Designation	Insert seat size	ap (mm)	Feed (mm/rev)	CBN
					TB2015
	TSG 3.0-0.3-HF	3	0.08-0.12	0.40-0.80	●
	5.0-0.3-HF	5	0.08-0.12	0.40-1.20	●

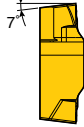
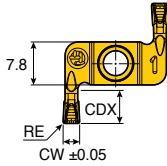
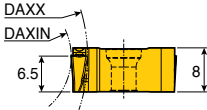


● : Standard items

TDFX



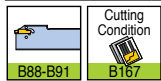
Double-ended inserts for face grooving and turning



Right hand shown

Size	Dimension (mm)				
	CW	RE	CDX	DAXIN	DAXX
3	3	0.3	6	24	N.L.
4	4	0.4	6	32	N.L.

Insert	Designation	Turning		Grooving	Cermet		Coated					Uncoated	
		ap (mm)	Feed (mm/rev)	Feed (mm/rev)	CT3000		TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10
	TDFX 3E-0.3-D24R/L	0.4-1.8	0.15-0.20	0.07-0.20					●				
	4E-0.4-D32R/L	0.5-2.4	0.15-0.24	0.09-0.25					●				



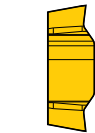
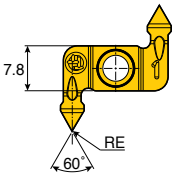
● N.L.: No limit

●: Standard items

TDGX



Double-ended threading inserts with 60° partial profile



Right hand shown

Size	Dimension (mm)				
	RE	TPN	TPX	TPIX	TPIN
4	0.05	0.45	3.5	56	8

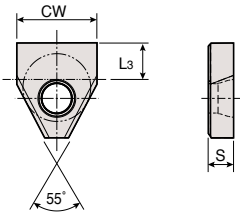
Insert	Designation	Cermet		Coated					Uncoated	
		CT3000		TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10
	TDGX 4MT-0.05-R/L						●			



- TPN : Thread pitch minimum (mm)
- TPX : Thread pitch maximum (mm)
- TPIX : Thread per inch maximum
- TPIN : Thread per inch minimum

●: Standard items

Semi finished blanks for wide grooving and profiling



Size	Dimension (mm)		
	CW	S	L3
10	10.2	4.76	5.85
15	15.2	4.76	5.85
20	20.2	6.35	9.35
25	25.2	6.35	9.25

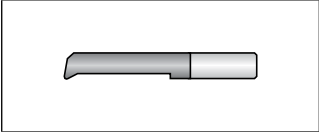
Insert	Designation	Cermet			Coated						Uncoated			
		CT3000			TT7505	TT6080	TT5100	TT9080	TT7220	TT8020		K10	P40	UF10
	TGUX 1004											●	●	●
	1504											●	●	●
	2006											●	●	●
	2506											●	●	●

●: Standard items



MIN	T	R	04	040	005	D010
1	7	2	3	4	5	6

1 TOP-MICRO series



2 Hand of tool

R Right-hand
L Left-hand

3 Shank dia.

04 4.0mm
07 7.0mm

4 Max. depth

050 5.0mm
140 14.0mm

5 Corner radius

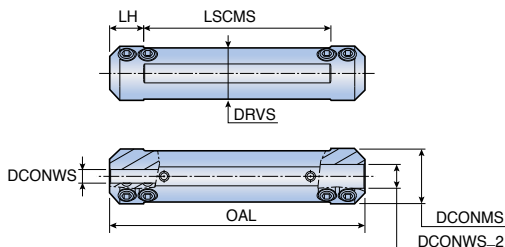
010 0.10mm
020 0.20mm

6 Min. bore dia.

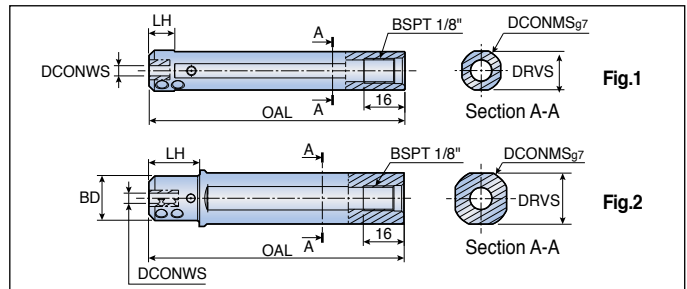
D010 1.0mm

7 Application type

T	Turning and chamfering
B	Back turning
P	Turning and profiling
U	Undercutting and chamfering
C	Turning and 45° chamfering
G	Grooving and turning
S	Grooving along shaft
F	Face grooving
R	Full radius for internal boring and profiling
I	ISO full profile internal threading
SL	Sleeve for MINS

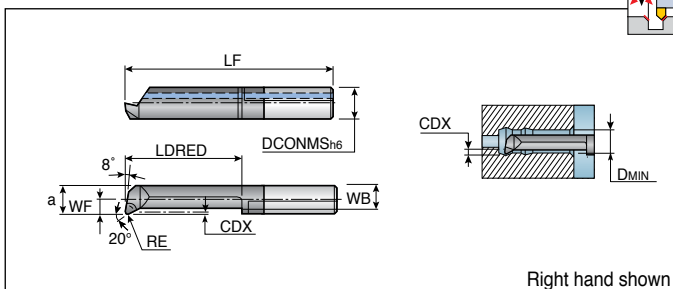
[illegible]

Designation	Set screw	Wrench		
				
MINSL 12	SS M5x0.8x4-MG	L-W 2.5		
MINSL 14/16/20/22/25	SS M5x0.8x6-MG	L-W 2.5		

[illegible]

- ## Spare parts

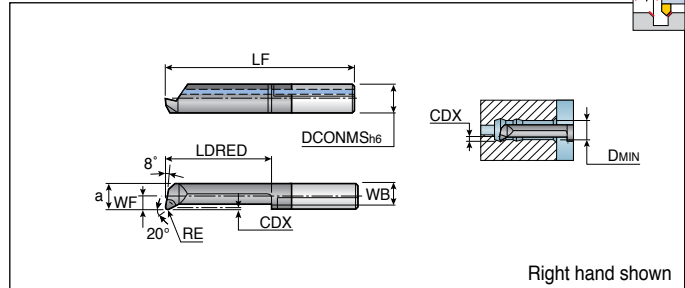
Designation	Set screw	Wrench		
				
MINS ...-L100C	SS M5x0.8x6-MG	L-W 2.5		



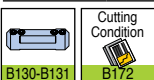
● * Max D.O.C: 0.01 - 0.03, max feed 0.01mm/rev ●: Standard items



Mini carbide bars for internal turning and chamfering



Designation	Dimension (mm)									R/L	Grade TT9030
	DCONMS	WF	a	WB	LF	LDRED	RE	CDX	DMIN		
MINTR07-090015D050	7.00	0.90	4.40	3.65	25.00	10.00	0.15	0.50	5.00	R	●
140015D050	7.00	0.90	4.40	3.65	30.00	15.00	0.15	0.50	5.00	R	●
190015D050	7.00	0.90	4.40	3.65	35.00	20.00	0.15	0.50	5.00	R	●
240015D050	7.00	0.90	4.40	3.65	40.00	25.00	0.15	0.50	5.00	R	●
290015D050	7.00	0.90	4.40	3.65	45.00	30.00	0.15	0.50	5.00	R	●
340015D050	7.00	0.90	4.40	3.65	50.00	35.00	0.15	0.50	5.00	R	●
140015D060	7.00	1.80	5.30	4.40	30.00	15.00	0.15	0.50	6.00	R	●
210015D060	7.00	1.80	5.30	4.40	37.00	22.00	0.15	0.50	6.00	R	●
240015D060	7.00	1.80	5.30	4.40	40.00	25.00	0.15	0.50	6.00	R	●
290015D060	7.00	1.80	5.30	4.40	45.00	30.00	0.15	0.50	6.00	R	●
340015D060	7.00	1.80	5.30	4.40	50.00	35.00	0.15	0.50	6.00	R	●
410015D060	7.00	1.80	5.30	4.40	57.00	42.00	0.15	0.50	6.00	R	●
190015D068	7.00	2.80	6.30	5.40	35.00	20.00	0.15	0.60	6.80	R	●
240015D068	7.00	2.80	6.30	5.40	40.00	25.00	0.15	0.60	6.80	R	●
290015D068	7.00	2.80	6.30	5.40	45.00	30.00	0.15	0.60	6.80	R	●
340015D070	7.00	2.80	6.30	5.40	50.00	35.00	0.15	0.60	7.00	R	●
390015D070	7.00	2.80	6.30	5.40	55.00	40.00	0.15	0.60	7.00	R	●
440015D070	7.00	2.80	6.30	5.40	60.00	45.00	0.15	0.60	7.00	R	●
490015D070	7.00	2.80	6.30	5.40	65.00	50.00	0.15	0.60	7.00	R	●
MINTL07-090015D050	7.00	0.90	4.40	3.65	25.00	10.00	0.15	0.50	5.00	L	●
140015D050	7.00	0.90	4.40	3.65	30.00	15.00	0.15	0.50	5.00	L	●
190015D050	7.00	0.90	4.40	3.65	35.00	20.00	0.15	0.50	5.00	L	●
240015D050	7.00	0.90	4.40	3.65	40.00	25.00	0.15	0.50	5.00	L	●
290015D050	7.00	0.90	4.40	3.65	45.00	30.00	0.15	0.50	5.00	L	●
140015D060	7.00	1.80	5.30	4.40	30.00	15.00	0.15	0.50	6.00	L	●
210015D060	7.00	1.80	5.30	4.40	37.00	22.00	0.15	0.50	6.00	L	●
240015D060	7.00	1.80	5.30	4.40	40.00	25.00	0.15	0.50	6.00	L	●
290015D060	7.00	1.80	5.30	4.40	45.00	30.00	0.15	0.50	6.00	L	●
190015D068	7.00	2.80	6.30	5.40	35.00	20.00	0.15	0.60	6.80	L	●
290015D068	7.00	2.80	6.30	5.40	45.00	30.00	0.15	0.60	6.80	L	●
340015D070	7.00	2.80	6.30	5.40	50.00	35.00	0.15	0.60	7.00	L	●

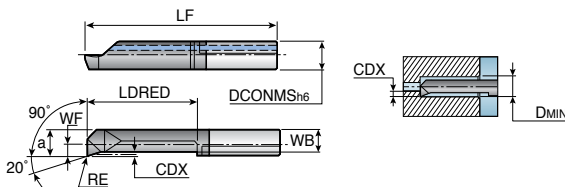


●: Standard items

MINP R 04/07

TOPMICRO

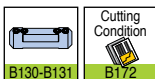
Mini carbide bars for internal turning and profiling



Right hand shown

Designation	Dimension (mm)									R/L	Grade TT9030
	DCONMS	WF	a	WB	LF	LDRED	RE	CDX	DMIN		
MINPR04-090010D028	4.00	0.90	2.60	2.20	25.50	10.50	0.10	0.20	2.80	R	●
150010D028	4.00	0.90	2.60	2.20	31.50	16.50	0.10	0.20	2.80	R	●
090010D040	4.00	1.50	3.50	2.90	25.50	10.50	0.10	0.30	4.00	R	●
150010D040	4.00	1.50	3.50	2.90	31.50	16.50	0.10	0.30	4.00	R	●
MINPR07-140015D050	7.00	0.90	4.40	3.65	30.00	15.00	0.15	0.50	5.00	R	●
190015D050	7.00	0.90	4.40	3.65	35.00	20.00	0.15	0.50	5.00	R	●

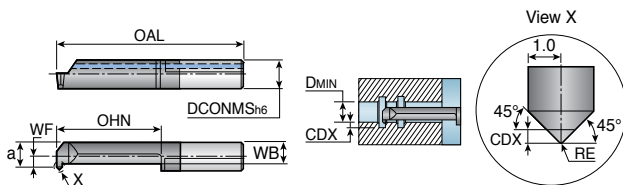
●: Standard items



MINC R 07

TOPMICRO

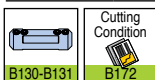
Mini carbide bars for internal turning and 45° chamfering



Right hand shown

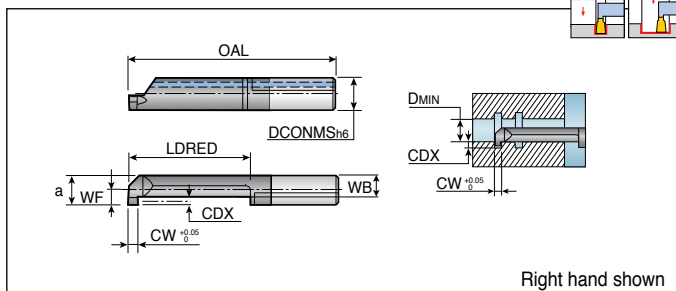
Designation	Dimension (mm)									R/L	Grade TT9030
	DCONMS	WF	a	WB	OAL	OHN	RE	CDX	DMIN		
MINCR07-140020D050	7.00	0.90	4.40	3.20	30.00	15.00	0.20	0.70	5.00	R	●
190020D050	7.00	0.90	4.40	3.20	35.00	20.00	0.20	0.70	5.00	R	●
190020D068	7.00	2.80	6.30	3.80	35.00	20.00	0.20	0.70	6.80	R	●

●: Standard items



MING R 04

Mini carbide bars for grooving and turning

[illegible]

Cutting Condition

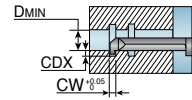
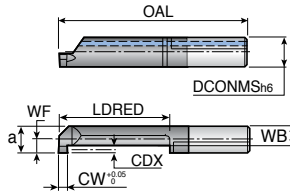
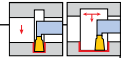
- The corner radius is less than 0.1mm

- : Standard items

MING R/L 07

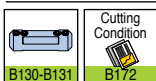


Mini carbide bars for grooving and turning



Right hand shown

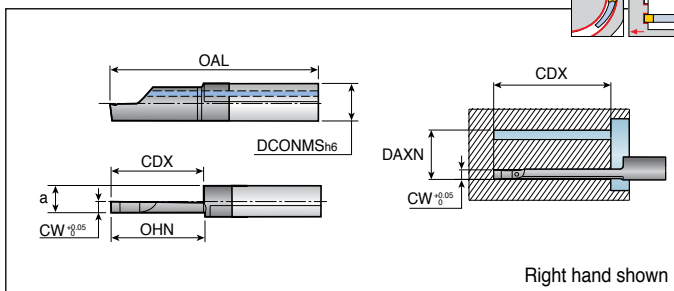
Designation	Dimension (mm)									R/L	Grade TT9030	
	DCONMS	CW	WF	a	WB	OAL	LDRED	CDX	Dmin			
MINGR07-	090100D050	7.00	1.00	0.90	4.40	3.00	25.00	10.00	1.00	5.00	R	●
	140100D050	7.00	1.00	0.90	4.40	3.00	30.00	15.00	1.00	5.00	R	●
	090150D050	7.00	1.50	0.90	4.40	3.00	25.00	10.00	1.00	5.00	R	●
	140150D050	7.00	1.50	0.90	4.40	3.00	30.00	15.00	1.00	5.00	R	●
	090200D050	7.00	2.00	0.90	4.40	3.00	25.00	10.00	1.00	5.00	R	●
	190200D050	7.00	2.00	0.90	4.40	3.00	35.00	20.00	1.00	5.00	R	●
	090100D060	7.00	1.00	1.80	5.30	3.10	25.00	10.00	1.80	6.00	R	●
	140100D060	7.00	1.00	1.80	5.30	3.10	30.00	15.00	1.80	6.00	R	●
	210100D060	7.00	1.00	1.80	5.30	3.10	37.00	22.00	1.80	6.00	R	●
	290100D060	7.00	1.00	1.80	5.30	3.10	45.00	30.00	1.80	6.00	R	●
	090150D060	7.00	1.50	1.80	5.30	3.10	25.00	10.00	1.80	6.00	R	●
	140150D060	7.00	1.50	1.80	5.30	3.10	30.00	15.00	1.80	6.00	R	●
	210150D060	7.00	1.50	1.80	5.30	3.10	37.00	22.00	1.80	6.00	R	●
	240150D060	7.00	1.50	1.80	5.30	3.10	40.00	25.00	1.80	6.00	R	●
	290150D060	7.00	1.50	1.80	5.30	3.10	45.00	30.00	1.80	6.00	R	●
	090200D060	7.00	2.00	1.80	5.30	3.10	25.00	10.00	1.80	6.00	R	●
	140200D060	7.00	2.00	1.80	5.30	3.10	30.00	15.00	1.80	6.00	R	●
	210200D060	7.00	2.00	1.80	5.30	3.10	37.00	22.00	1.80	6.00	R	●
	240200D060	7.00	2.00	1.80	5.30	3.10	40.00	25.00	1.80	6.00	R	●
	290200D060	7.00	2.00	1.80	5.30	3.10	45.00	30.00	1.80	6.00	R	●
	090100D068	7.00	1.00	2.70	6.20	3.30	25.00	10.00	2.50	6.80	R	●
	140100D068	7.00	1.00	2.70	6.20	3.30	30.00	15.00	2.50	6.80	R	●
	210100D068	7.00	1.00	2.70	6.20	3.30	37.00	22.00	2.50	6.80	R	●
	090150D068	7.00	1.50	2.70	6.20	3.30	25.00	10.00	2.50	6.80	R	●
	140150D068	7.00	1.50	2.70	6.20	3.30	30.00	15.00	2.50	6.80	R	●
	210150D068	7.00	1.50	2.70	6.20	3.30	37.00	22.00	2.50	6.80	R	●
	290150D068	7.00	1.50	2.70	6.20	3.30	45.00	30.00	2.50	6.80	R	●
	090200D068	7.00	2.00	2.70	6.20	3.30	25.00	10.00	2.50	6.80	R	●
	140200D068	7.00	2.00	2.70	6.20	3.30	30.00	15.00	2.50	6.80	R	●
	210200D068	7.00	2.00	2.70	6.20	3.30	37.00	22.00	2.50	6.80	R	●
	290200D068	7.00	2.00	2.70	6.20	3.30	45.00	29.00	2.50	6.80	R	●
	MINGL07-	090100D060	7.00	1.00	1.80	5.30	3.10	25.00	10.00	1.80	6.00	L
090150D060		7.00	1.50	1.80	5.30	3.10	25.00	10.00	1.80	6.00	L	●
140200D068		7.00	2.00	2.70	6.20	3.30	30.00	15.00	2.50	6.80	L	●



• The corner radius is less than 0.1mm

●: Standard items

TOPMICRO

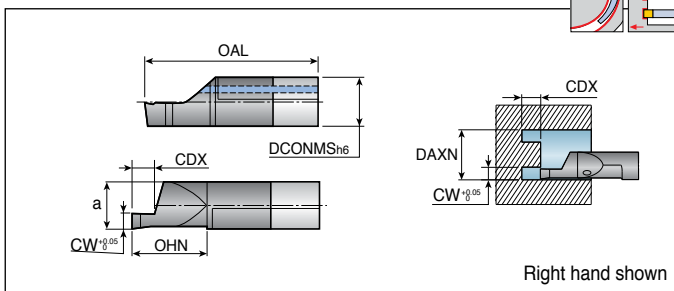
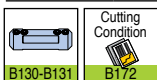


 B130-B131	Cutting Condition  B172
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●: Standard items

MINF R/L 07

Mini carbide bars for deep face grooving

[illegible]

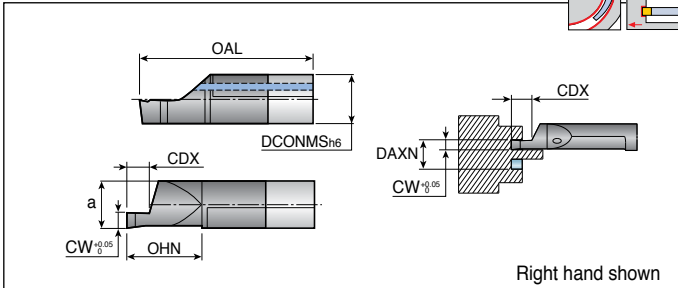
- The corner radius is less than 0.1mm

●: Standard items

MINS R 07



Mini carbide bars for grooving along shaft



Designation	Dimension (mm)							R/L	Grade TT9030
	DCONMS	CW	a	OAL	OHN	CDX	DAXN		
MINSR07-200200D060	7.00	2.00	5.20	36.00	21.00	4.00	6.00	R	●

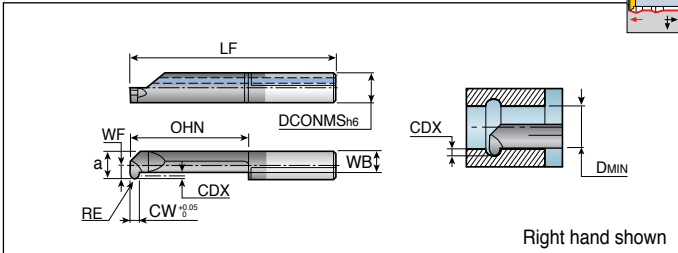


- The corner radius is less than 0.1mm
- : Standard items

MINR R 07



Mini carbide bars, full radius for internal turning and profiling



Designation	Dimension (mm)										R/L	Grade TT9030
	DCONMS	CW	WF	a	WB	RE	LF	OHN	CDX	DMIN		
MINRR07-190050D050	7.00	1.00	0.90	4.40	3.10	0.50	35.00	20.00	1.00	5.00	R	●
240050D060	7.00	1.00	1.80	5.30	3.20	0.50	40.00	25.00	1.80	6.00	R	●
290050D068	7.00	1.00	2.80	6.30	3.55	0.50	45.00	30.00	2.50	6.80	R	●

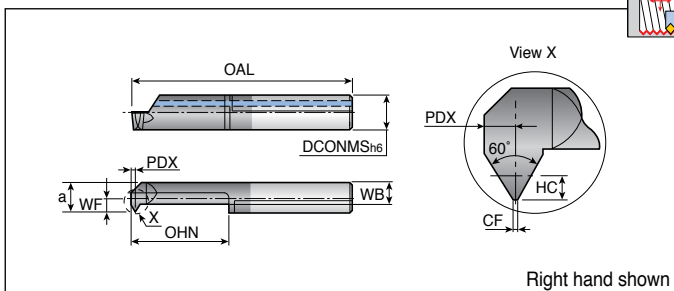


- : Standard items

MINI R 04/07

TOPMICRO

Mini carbide bars for ISO internal thread turning

[illegible]

B130-B131

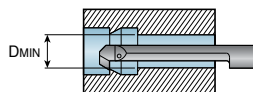
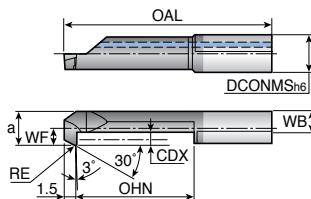


B172

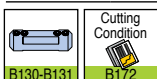
Cutting Condition

●: Standard items

Mini carbide bars for internal back turning



Right hand shown

[illegible]

●: Standard items



1 TaeguTec TOP-CUT series

2 Application type

E	External turning
R	Reverse turning
B	Back turning
T	Threading
P	Parting

3 Hand of tool

R	Right-hand
L	Left-hand

4 Insert thickness

4	3.97mm
---	--------

5 Width of insert

07	0.7mm
10	1.0mm
12	1.2mm
15	1.5mm
18	1.8mm
20	2.0mm

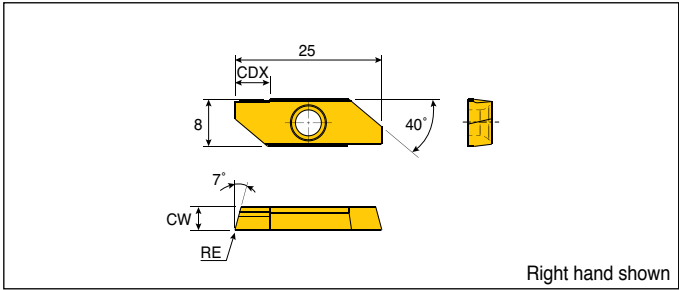
6 Corner radius

000	0mm
003	0.03mm
005	0.05mm
010	0.10mm
015	0.15mm

7 CDX (TVPR/L only)

45	4.5mm
50	5.0mm
60	6.0mm

General turning inserts



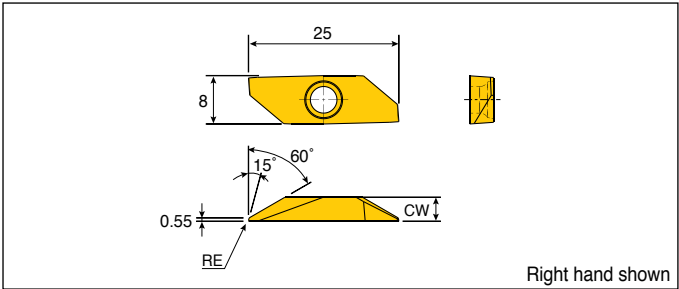
Right hand shown

Designation	ap (mm)	Feed (mm/rev)	Dimension (mm)			Grade (TT9010)	
			CW	RE	CDX	R	L
TVER/L 40003	0.1-5.5	0.01-0.15	3.97	0.03	5.5	●	
40010	0.1-5.5	0.01-0.15	3.97	0.10	5.5	●	



●: Standard items

Reverse turning inserts



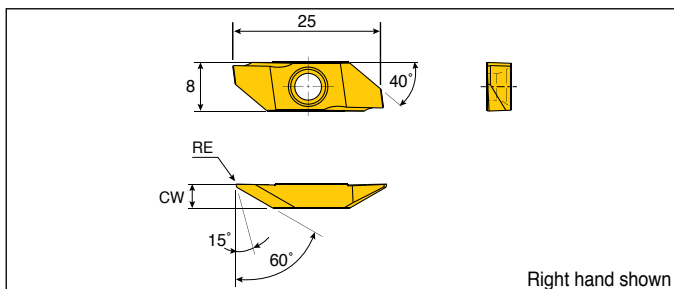
Right hand shown

Designation	ap (mm)	Feed (mm/rev)	Dimension (mm)			Grade (TT9010)	
			CW	RE	CDX	R	L
TVRR/L 40003-60	0.1-5.5	0.01-0.15	3.97	0.03	5.5	●	
40010-60	0.1-5.5	0.01-0.15	3.97	0.10	5.5	●	



●: Standard items

Back turning inserts



Designation	ap (mm)	Feed (mm/rev)	Dimension (mm)			Grade (TT9010)	
			CW	RE	CDX	R	L
TVBR/L 40003	0.1-5.5	0.01-0.15	3.97	0.03	5.5	●	●
40005	0.1-5.5	0.01-0.15	3.97	0.05	5.5	●	●
40010	0.1-5.5	0.01-0.15	3.97	0.10	5.5	●	●
40015	0.1-5.5	0.01-0.15	3.97	0.15	5.5	●	●
40005-H⁽¹⁾	0.1-5.5	0.01-0.15	3.97	0.05	5.5	●	●
40015-H⁽¹⁾	0.1-5.5	0.01-0.15	3.97	0.15	5.5	●	●

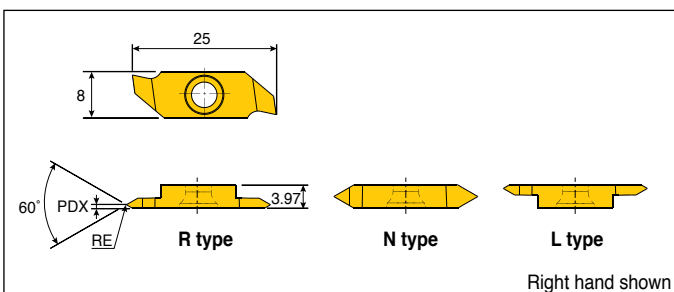


• ⁽¹⁾ With honed edges

●: Standard items

TVTR/L

Threading inserts

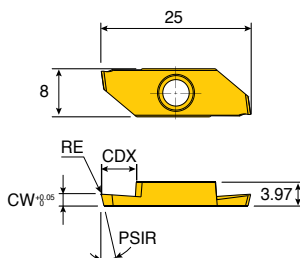


Designation	Dimension (mm)				Grade (TT9010)	
	TPN	TPX	PDX	RE	R	L
TVTR/L 41203-R	0.5	1.0	0.6	0.03	●	
40003-N	0.5	2.0	2.1	0.03	●	
41203-L	0.5	1.0	0.6	0.03		



- TVTR 41203-R/L → pitch range: 0.5 - 1.0mm
- TVTR 40003-N → pitch range: 0.5 - 2.0mm
- TPN: Thread pitch minimum (mm), TPX: Thread pitch maximum (mm)

●: Standard items

[illegible]

T **Q** **J** - **27** - **3** - **0.2** - **6** - **R**

1 2 3 4 5 6 7 8

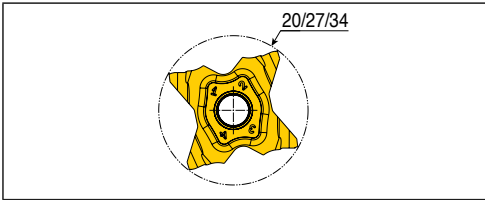
1 TaeguTec

2 QUAD-RUSH

3 Chip breaker type

		
C	J	S
For medium	For light	For light & tailor made

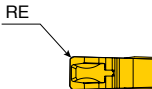
4 Circular circumference of the insert



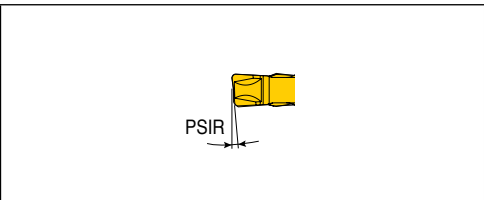
5 Width of insert

	1.00 = 1.0 mm 1.50 = 1.5 mm 2.53 = 2.53 mm 3.18 = 3.18 mm
--	--

6 Corner radius

	0.10 = 0.1 mm 0.20 = 0.2 mm 0.30 = 0.3 mm 0.40 = 0.4 mm
--	--

7 Lead angle

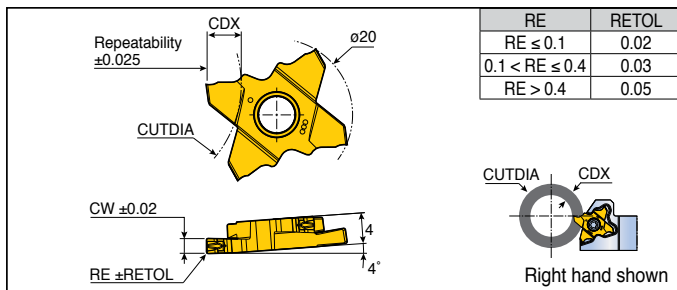


8 Hand of insert

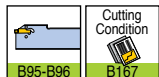
	
L	R
Left-hand	Right-hand

TQJ 20

Precision grooving and parting inserts with J-Type chip breaker



Designation	Feed (mm/rev)	CW	RE	CDX	CUTDIA					Grade
					CDX ≤ 2.7	CDX ≤ 3.5	CDX ≤ 4.0	CDX ≤ 4.5	CDX ≤ 5.0	
TQJ 20-1.00-0.10-R/L	0.03-0.07	1.00	0.10	2.7	N.L.	-	-	-	-	●
20-1.50-0.20-R/L	0.03-0.08	1.50	0.20	5.0	N.L.	70	50	30	16	●
20-2.00-0.20-R/L	0.04-0.10	2.00	0.20	5.0	N.L.	70	50	30	16	●

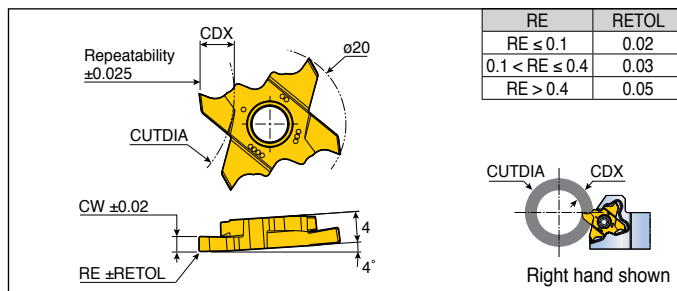


• N.L.: No limit

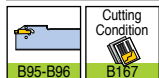
●: Standard items

TQS 20

Precision grooving and parting inserts with ground chip breaker



Designation	Feed (mm/rev)	CW	RE	CDX	CUTDIA						Grade
					CDX ≤ 2.2	CDX ≤ 2.7	CDX ≤ 3.5	CDX ≤ 4.0	CDX ≤ 4.5	CDX ≤ 5.0	TT4430
TQS 20-0.50-0.05-R/L	0.03-0.07	0.50	0.05	2.2	N.L.	-	-	-	-	-	●
20-1.00-0.10-R/L	0.03-0.07	1.00	0.10	2.7	N.L.	N.L.	-	-	-	-	●
20-1.50-0.10-R/L	0.03-0.10	1.50	0.10	5.0	N.L.	N.L.	70	50	30	16	●
20-2.00-0.10-R/L	0.04-0.12	2.00	0.10	5.0	N.L.	N.L.	70	50	30	16	●
20-2.00-1.00-R/L*	0.05-0.13	2.00	1.00	5.0	N.L.	N.L.	70	50	30	16	●
20-2.50-0.10-R/L	0.04-0.15	2.50	0.10	5.0	N.L.	N.L.	70	50	30	16	●
20-3.00-0.10-R/L	0.04-0.16	3.00	0.10	5.0	N.L.	N.L.	70	50	30	16	●
20-3.00-1.50-R/L*	0.04-0.16	3.00	1.50	5.0	N.L.	N.L.	70	50	30	16	●



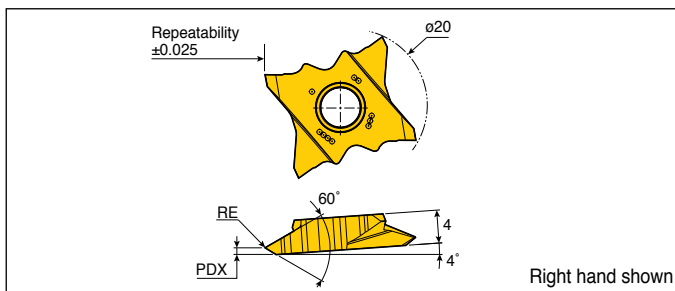
• N.L.: No limit
• *: Full radius insert

●: Standard items

TQS 20-MT



Partial profile 60° threading inserts

[illegible]

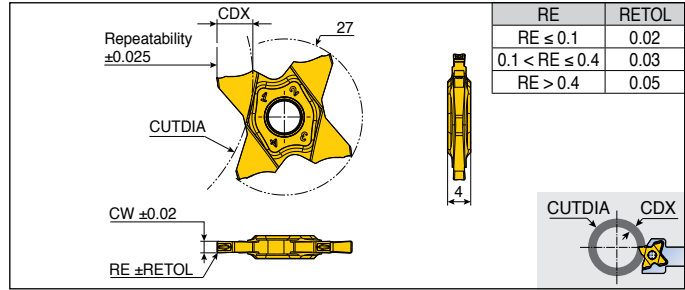
- TPN: Thread pitch minimum (mm)
- TPX: Thread pitch maximum (mm)
- TPIN: Thread per inch minimum
- TPIX: Thread per inch maximum

●: Standard items

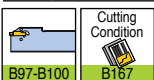
TQJ 27



Precision grooving and parting inserts



Designation	Feed (mm/rev)	CW	RE	CDX	CUTDIA												Grade
					T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤5.7	T≤6.0	T≤6.2	T≤6.4	TT9080		
TQJ 27-0.50-0.00	0.02-0.04	0.50	0.00	1.0	-	-	-	-	-	-	-	-	-	-	●		
27-0.50-0.04	0.02-0.04	0.50	0.04	2.5	-	-	-	-	-	-	-	-	-	-	●		
27-0.75-0.10	0.02-0.05	0.75	0.10	2.5	-	-	-	-	-	-	-	-	-	-	●		
27-0.80-0.00	0.02-0.05	0.80	0.00	1.6	-	-	-	-	-	-	-	-	-	-	●		
27-1.00-0.06	0.03-0.07	1.00	0.06	3.5	N.L.	600	-	-	-	-	-	-	-	-	●		
27-1.00-0.10	0.03-0.07	1.00	0.10	3.5	N.L.	600	-	-	-	-	-	-	-	-	●		
27-1.04-0.00	0.03-0.07	1.04	0.00	2.0	-	-	-	-	-	-	-	-	-	-	●		
27-1.20-0.00	0.03-0.07	1.20	0.00	2.0	-	-	-	-	-	-	-	-	-	-	●		
27-1.25-0.10	0.03-0.07	1.25	0.10	3.5	N.L.	600	-	-	-	-	-	-	-	-	●		
27-1.25-0.20	0.03-0.07	1.25	0.20	3.5	N.L.	600	-	-	-	-	-	-	-	-	●		
27-1.40-0.00	0.03-0.08	1.40	0.00	2.0	-	-	-	-	-	-	-	-	-	-	●		
27-1.47-0.00	0.03-0.08	1.47	0.00	2.5	-	-	-	-	-	-	-	-	-	-	●		
27-1.50-0.10	0.03-0.08	1.50	0.10	5.7	N.L.	600	280	180	130	50	35	-	-	-	●		
27-1.50-0.20	0.03-0.08	1.50	0.20	5.7	N.L.	600	280	180	130	50	35	-	-	-	●		
27-1.57-0.10	0.03-0.08	1.57	0.10	3.0	N.L.	-	-	-	-	-	-	-	-	-	●		
27-1.57-0.15	0.03-0.08	1.57	0.15	3.0	N.L.	-	-	-	-	-	-	-	-	-	●		
27-1.70-0.10	0.03-0.08	1.70	0.10	3.0	N.L.	-	-	-	-	-	-	-	-	-	●		
27-1.75-0.10	0.03-0.08	1.75	0.10	3.0	N.L.	-	-	-	-	-	-	-	-	-	●		
27-1.75-0.20	0.03-0.08	1.75	0.20	3.0	N.L.	-	-	-	-	-	-	-	-	-	●		
27-1.78-0.18	0.04-0.10	1.78	0.18	3.0	N.L.	-	-	-	-	-	-	-	-	-	●		
27-1.85-0.20	0.04-0.10	1.85	0.20	3.0	N.L.	-	-	-	-	-	-	-	-	-	●		
27-1.96-0.15	0.04-0.10	1.96	0.15	3.0	N.L.	-	-	-	-	-	-	-	-	-	●		
27-2.00-0.10	0.04-0.10	2.00	0.10	6.4	N.L.	600	280	180	130	105	85	60	50	30	●		
27-2.00-0.20	0.04-0.10	2.00	0.20	6.4	N.L.	600	280	180	130	105	85	60	50	30	●		
27-2.22-0.15	0.04-0.10	2.22	0.15	3.5	N.L.	600	-	-	-	-	-	-	-	-	●		
27-2.30-0.20	0.04-0.10	2.30	0.20	3.5	N.L.	600	-	-	-	-	-	-	-	-	●		
27-2.39-0.15	0.04-0.10	2.39	0.15	5.7	N.L.	600	280	180	130	50	35	-	-	-	●		
27-2.47-0.20	0.04-0.10	2.47	0.20	5.7	N.L.	600	280	180	130	50	35	-	-	-	●		
27-2.50-0.10	0.04-0.10	2.50	0.10	5.7	N.L.	600	280	180	130	50	35	-	-	-	●		
27-2.50-0.30	0.05-0.12	2.50	0.30	5.7	N.L.	600	280	180	130	50	35	-	-	-	●		
27-2.70-0.10	0.05-0.12	2.70	0.10	6.2	N.L.	600	280	180	135	105	95	85	78	-	●		
27-2.87-0.20	0.05-0.12	2.87	0.20	6.2	N.L.	600	280	180	135	105	95	85	78	-	●		



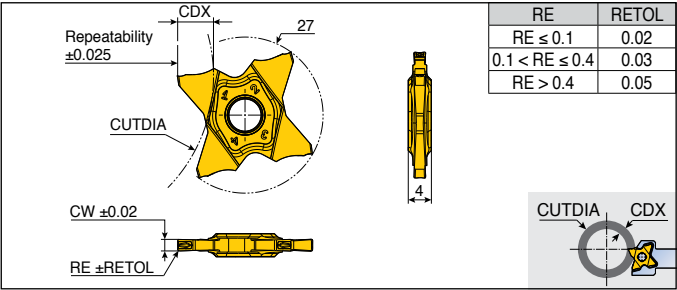
• N.L. = No limit

●: Standard items

TQJ 27



Precision grooving and parting inserts



Designation	Feed (mm/rev)	CW	RE	CDX	CUTDIA										Grade
					T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤5.7	T≤6.0	T≤6.2	T≤6.4	
TQJ 27-3.00-0.00	0.05-0.12	3.00	0.00	6.4	N.L.	600	280	180	135	105	95	85	78	55	●
27-3.00-0.20	0.05-0.12	3.00	0.20	6.4	N.L.	600	280	180	135	105	95	85	78	55	●
27-3.00-0.30	0.05-0.12	3.00	0.30	6.4	N.L.	600	280	180	135	105	95	85	78	55	●
27-3.00-0.40	0.05-0.12	3.00	0.40	6.4	N.L.	600	280	180	135	105	95	85	78	55	●
27-3.15-0.15	0.05-0.12	3.15	0.15	6.4	N.L.	600	280	180	135	105	95	85	78	68	●
27-3.18-0.20	0.05-0.12	3.18	0.20	6.4	N.L.	600	280	180	135	105	95	85	78	68	●



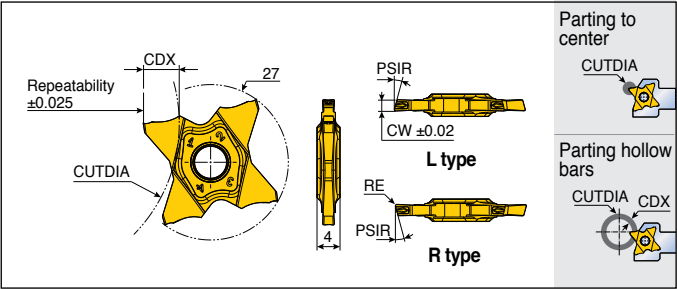
● N.L. = No limit

●: Standard items

TQJ 27



Parting inserts



Designation	Feed (mm/rev)	CW	RE	PSIR	Parting to center		Parting hollow bars		Grade
					CUTDIA	CDX	CUTDIA	CDX	
TQJ 27-1.00-15R/L	0.02-0.06	1.00	0.06	15°	7.0	3.5	600		●
27-1.50-6R/L	0.02-0.06	1.50	0.06	6°	12.0	5.7	35		●
27-1.50-15R/L	0.02-0.06	1.50	0.06	15°	12.0	5.7	35		●
27-2.00-6R/L	0.03-0.08	2.00	0.10	6°	13.0	6.4	30		●
27-2.00-15R/L	0.03-0.08	2.00	0.10	15°	13.0	6.4	30		●

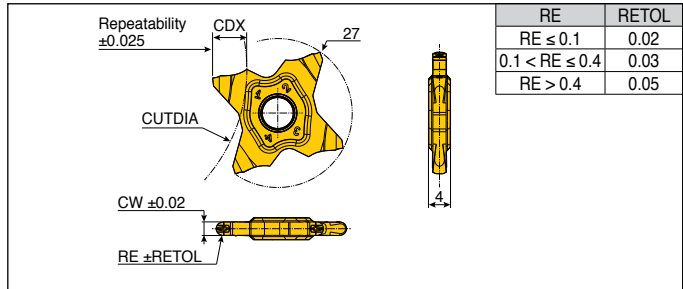


●: Standard items

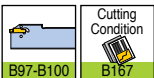
TQJ 27



Full radius inserts



Designation	Feed (mm/rev)	CW	RE	CDX	CUTDIA										Grade
					T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤5.7	T≤6.0	T≤6.2	T≤6.4	
TQJ 27-1.57-0.79	0.05-0.08	1.57	0.79	3.0	N.L.	-	-	-	-	-	-	-	-	-	●
27-2.00-1.00	0.05-0.11	2.00	1.00	3.5	N.L.	600	-	-	-	-	-	-	-	-	●
27-2.39-1.20	0.05-0.11	2.39	1.20	5.7	N.L.	600	280	180	130	50	35	-	-	-	●
27-3.00-1.50	0.06-0.12	3.00	1.50	6.4	N.L.	600	280	180	135	105	95	85	78	55	●



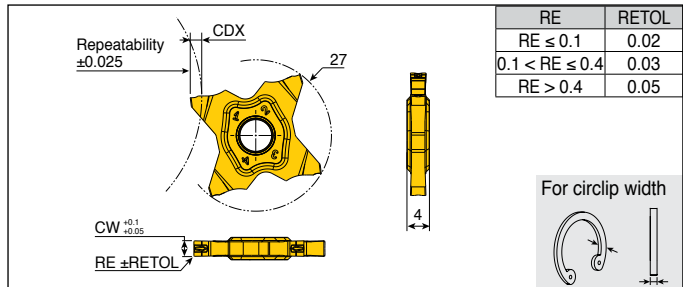
• N.L. = No limit

●: Standard items

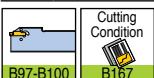
TQJ 27



DIN 471 circlip grooving and shallow grooving inserts



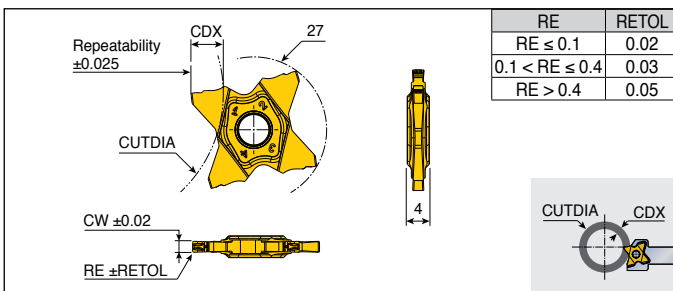
Designation	Feed (mm/rev)	CW	RE	CDX	For circlip width	Grade
						TT9080
TQJ 27-1.10-0.08-CG	0.03-0.07	1.10	0.08	1.50	1.10	●
27-1.30-0.08-CG	0.03-0.07	1.30	0.08	1.50	1.30	●
27-1.60-0.08-CG	0.03-0.08	1.60	0.08	2.00	1.60	●
27-1.85-0.08-CG	0.03-0.08	1.85	0.08	2.00	1.85	●
27-2.15-0.08-CG	0.04-0.10	2.15	0.08	2.50	2.15	●
27-2.65-0.15-CG	0.05-0.12	2.65	0.15	2.50	2.65	●



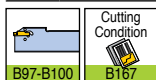
• When selecting insert, please keep in your mind insert tolerance

●: Standard items

Precision grooving and parting inserts



Designation	Feed (mm/rev)	CW	RE	CDX	CUTDIA												Grade
					T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤5.7	T≤6.0	T≤6.2	T≤6.4	T≤6.5	TT9080	
TQC 27-1.50-0.10	0.05-0.08	1.50	0.10	5.7	N.L.	600	280	180	130	50	35	-	-	-	-	●	
27-1.50-0.20	0.05-0.06	1.50	0.20	5.7	N.L.	600	280	180	130	50	35	-	-	-	-	●	
27-1.57-0.15	0.05-0.08	1.57	0.15	3.0	N.L.	-	-	-	-	-	-	-	-	-	-	●	
27-1.70-0.10	0.05-0.09	1.70	0.10	3.0	N.L.	-	-	-	-	-	-	-	-	-	-	●	
27-1.75-0.10	0.05-0.10	1.75	0.10	3.0	N.L.	-	-	-	-	-	-	-	-	-	-	●	
27-1.75-0.20	0.05-0.09	1.75	0.20	3.0	N.L.	-	-	-	-	-	-	-	-	-	-	●	
27-1.78-0.18	0.05-0.11	1.78	0.18	3.0	N.L.	-	-	-	-	-	-	-	-	-	-	●	
27-1.85-0.20	0.05-0.11	1.85	0.20	3.0	N.L.	-	-	-	-	-	-	-	-	-	-	●	
27-1.96-0.15	0.05-0.11	1.96	0.15	3.0	N.L.	-	-	-	-	-	-	-	-	-	-	●	
27-2.00-0.10	0.05-0.17	2.00	0.10	6.4	N.L.	600	280	180	130	105	85	60	50	30	-	●	
27-2.00-0.20	0.05-0.15	2.00	0.20	6.4	N.L.	600	280	180	130	105	85	60	50	30	-	●	
27-2.22-0.15	0.05-0.15	2.22	0.15	3.5	N.L.	600	-	-	-	-	-	-	-	-	-	●	
27-2.30-0.20	0.05-0.16	2.30	0.20	3.5	N.L.	600	-	-	-	-	-	-	-	-	-	●	
27-2.39-0.15	0.05-0.16	2.39	0.15	5.7	N.L.	600	280	180	130	50	35	-	-	-	-	●	
27-2.47-0.20	0.05-0.19	2.47	0.20	5.7	N.L.	600	280	180	130	50	35	-	-	-	-	●	
27-2.50-0.10	0.05-0.20	2.50	0.10	5.7	N.L.	600	280	180	130	50	35	-	-	-	-	●	
27-2.50-0.30	0.05-0.17	2.50	0.30	5.7	N.L.	600	280	180	130	50	35	-	-	-	-	●	
27-2.70-0.10	0.05-0.19	2.70	0.10	6.2	N.L.	600	280	180	135	105	95	85	78	-	-	●	
27-2.87-0.20	0.05-0.19	2.87	0.20	6.2	N.L.	600	280	180	135	105	95	85	78	-	-	●	
27-3.00-0.00	0.05-0.11	3.00	0	6.4	N.L.	600	280	180	135	105	95	85	78	55	-	●	
27-3.00-0.20	0.06-0.23	3.00	0.20	6.4	N.L.	600	280	180	135	105	95	85	78	55	-	●	
27-3.00-0.30	0.06-0.25	3.00	0.30	6.4	N.L.	600	280	180	135	105	95	85	78	55	-	●	
27-3.00-0.40	0.06-0.25	3.00	0.40	6.4	N.L.	600	280	180	135	105	95	85	78	55	-	●	
27-3.15-0.15	0.06-0.21	3.15	0.15	6.4	N.L.	600	280	180	135	105	95	85	78	68	-	●	
27-3.18-0.20	0.06-0.23	3.18	0.20	6.4	N.L.	600	280	180	135	105	95	85	78	68	-	●	
27-3.30-0.10	0.06-0.23	3.30	0.10	6.5	N.L.	600	280	180	135	105	85	65	50	40	35	●	
27-3.48-0.20	0.06-0.23	3.48	0.20	6.5	N.L.	600	280	180	135	105	85	65	50	40	35	●	
27-3.56-0.20	0.06-0.23	3.56	0.20	6.5	N.L.	600	280	180	135	105	85	65	55	40	35	●	
27-3.74-0.20	0.06-0.23	3.74	0.20	6.5	N.L.	600	280	180	135	105	85	65	55	40	35	●	
27-3.98-0.20	0.07-0.30	3.98	0.20	6.5	N.L.	600	280	180	135	105	95	85	78	40	45	●	
27-4.00-0.30	0.07-0.30	4.00	0.30	6.5	N.L.	600	280	180	135	105	95	85	78	40	45	●	
27-4.00-0.40	0.07-0.30	4.00	0.40	6.5	N.L.	600	280	180	135	105	95	85	78	40	45	●	
27-4.00-0.80	0.07-0.30	4.00	0.80	6.5	N.L.	600	280	180	135	105	95	85	78	40	45	●	
27-4.15-0.15	0.07-0.30	4.15	0.15	6.5	N.L.	600	280	180	135	105	95	85	78	40	45	●	
27-4.23-0.10	0.07-0.30	4.23	0.10	6.5	N.L.	600	280	180	135	105	95	85	78	55	65	●	

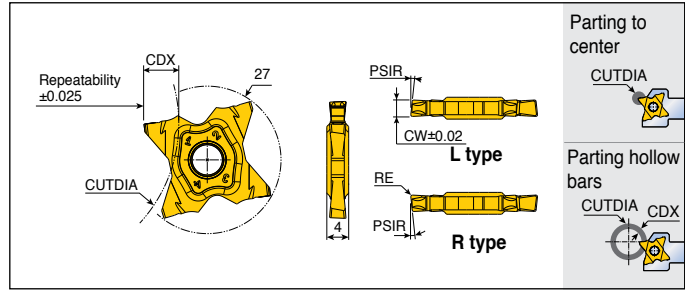


● N.L. = No limit

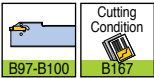
●: Standard items

TQC 27

Parting inserts



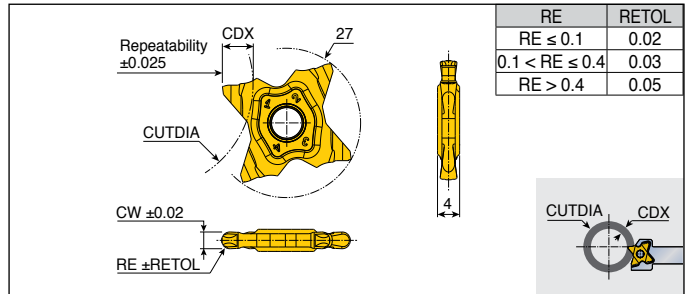
Designation	Feed (mm/rev)	CW	RE	PSIR	Parting to center	Parting hollow bars		Grade
					CUTDIA	CDX	CUTDIA	
TQC 27-1.50-6R/L	0.03-0.07	1.50	0.06	6°	12.0	5.7	35	●
27-1.50-15R/L	0.03-0.07	1.50	0.06	15°	12.0	5.7	35	●
27-2.00-6R/L	0.04-0.14	2.00	0.10	6°	13.0	6.4	30	●
27-2.00-15R/L	0.04-0.14	2.00	0.10	15°	13.0	6.4	30	●



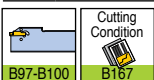
●: Standard items

TQC 27

Full radius inserts

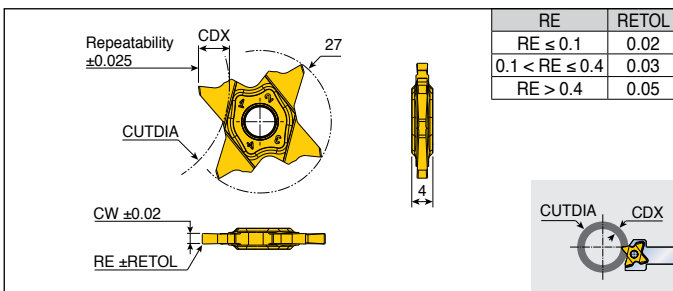
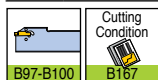


Designation	Feed (mm/rev)	CW	RE	CDX	CUTDIA										Grade
					T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤5.7	T≤6.0	T≤6.2	T≤6.4	
TQC 27-1.57-0.79	0.05-0.09	1.57	0.79	3.0	N.L.	-	-	-	-	-	-	-	-	-	●
27-2.00-1.00	0.05-0.13	2.00	1.00	3.5	N.L.	600	-	-	-	-	-	-	-	-	●
27-2.39-1.20	0.06-0.17	2.39	1.20	5.7	N.L.	600	280	180	130	50	35	-	-	-	●
27-3.00-1.50	0.06-0.20	3.00	1.50	6.4	N.L.	600	280	180	135	105	95	85	78	55	●



● N.L. = No limit

●: Standard items

[illegible]

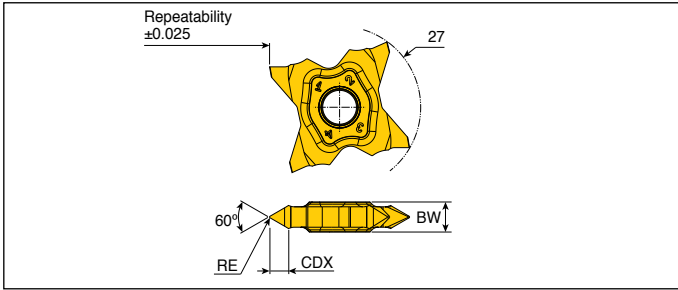
- ⁽¹⁾ Other size of width from 0.5mm up to 8.2mm can be supplied as special
- N.L. = No limit

- : Standard items

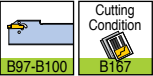
TQS 27-MT



Partial profile 60° threading inserts



Designation	Dimension (mm)							Grade
	TPN	TPX	TPIX	TPIN	RE	BW	CDX	TT9080
TQS 27-4MT-0.05	0.45	3	48	8	0.05	4	2.8	●
27-4MT-0.14	1.11	3	23	8	0.14	4	2.7	●
27-5MT-0.15	1.25	3	20	8	0.15	5	3.1	●
27-5MT-0.20	1.63	3	16	8	0.20	5	3.1	●
27-6MT-0.25	1.94	3	13	8	0.25	6	3.6	●

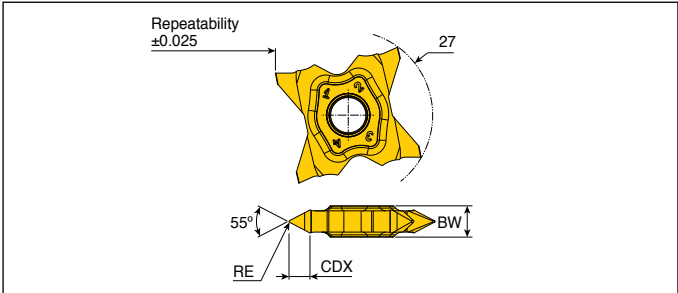


- TPN: Thread pitch minimum (mm)
- TPX: Thread pitch maximum (mm)
- TPIX: Thread per inch maximum
- TPIN: Thread per inch minimum
- : Standard items

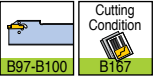
TQS 27-WT



Partial profile 55° threading inserts



Designation	Dimension (mm)					Grade
	TPIX	TPIN	RE	BW	CDX	TT9080
TQS 27-4WT-0.05	54	10	0.05	4	2.9	●
27-5WT-0.15	19	10	0.15	5	3.3	●
27-6WT-0.25	12	9	0.25	6	3.9	●

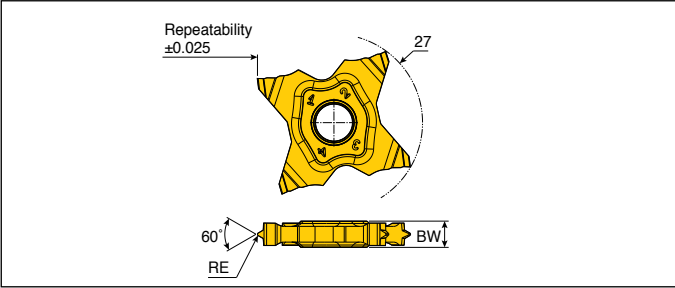


- TPIX: Thread per inch maximum
- TPIN: Thread per inch minimum
- : Standard items

TQS 27-ISO



ISO metric full profile, external threading inserts



Designation	Dimension (mm)			Grade
	TP	RE	BW	TT9080
TQS 27-0.5-ISO	0.50	0.08	4	●
27-0.75-ISO	0.75	0.11	4	●
27-0.8-ISO	0.80	0.12	4	●
27-1.0-ISO	1.00	0.14	4	●
27-1.25-ISO	1.25	0.18	4	●
27-1.5-ISO	1.50	0.22	4	●
27-1.75-ISO	1.75	0.25	4	●
27-2.0-ISO	2.00	0.28	4	●



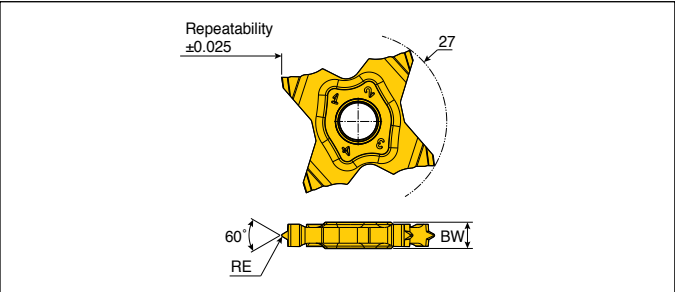
● TP: Thread pitch (mm)

●: Standard items

TQS 27-UN



American UN (UNC, UNF, UNEF) full profile, external threading inserts



Designation	Dimension (mm)			Grade
	TPI	RE	BW	TT9080
TQS 27-24-UN	24	0.13	4	●
27-20-UN	20	0.16	4	●
27-18-UN	18	0.16	4	●
27-16-UN	16	0.21	4	●
27-14-UN	14	0.23	4	●
27-12-UN	12	0.27	4	●



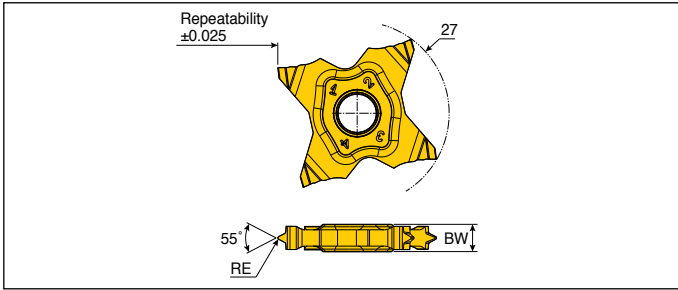
● TPI: Thread per inch

●: Standard items

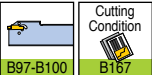
TQS 27-W



Whitworth (BSW, BSF, BSP) full profile, external threading inserts



Designation	Dimension (mm)			Grade
	TPI	RE	BW	TT9080
TQS 27-28-W	28	0.09	4	●
27-19-W	19	0.15	4	●
27-18-W	18	0.16	4	●
27-16-W	16	0.19	4	●
27-14-W	14	0.21	4	●
27-12-W	12	0.25	4	●

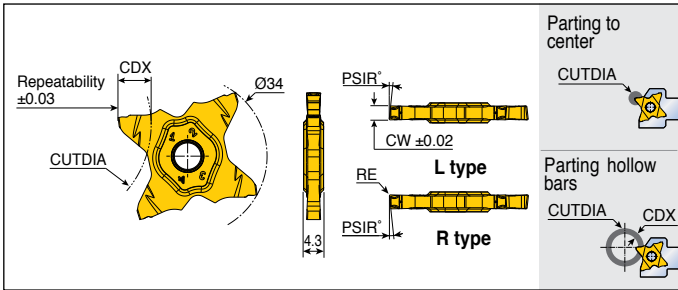


● TPI: Thread per inch ● Standard items

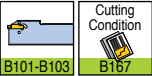
TQC 34



Parting inserts

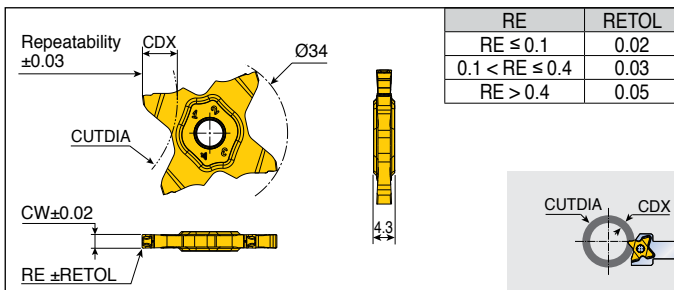


Designation	Feed (mm/rev)	CW	RE	PSIR°	Parting to center	Parting hollow bars		Grade
					CUTDIA	CDX	CUTDIA	TT9080
TQC 34-1.50-8R/L	0.03-0.10	1.50	0.07	8	18.5	9	40	●
34-2.00-6R/L	0.03-0.15	2.00	0.10	6	18.5	9	40	●
34-2.00-15R/L	0.03-0.15	2.00	0.10	15	18.5	9	40	●
34-3.00-6R/L	0.03-0.18	3.00	0.20	6	20.0	10	20	●



● Standard items

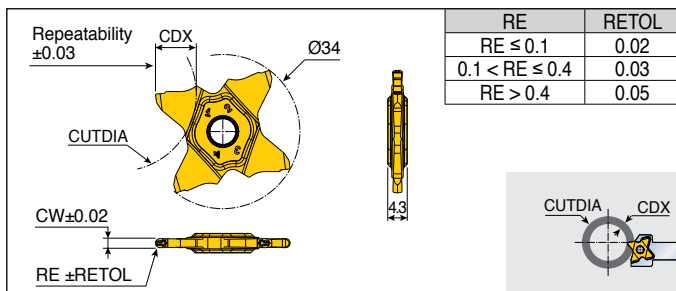
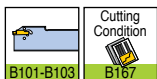




- N.L. = No limit

●: Standard items

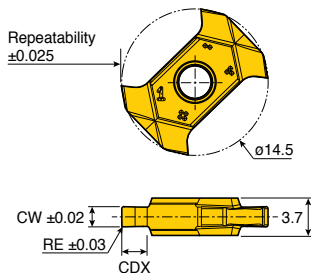
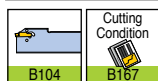
Full radius inserts

[illegible]

- N.L. = No limit

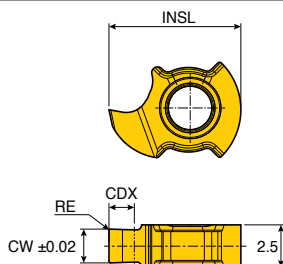
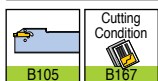
●: Standard items

4 cutting edge inserts for internal shallow grooving

[illegible]

●: Standard items

1011

[illegible]

●: Standard items

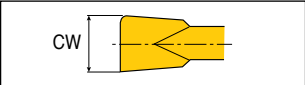
TDIT **3.20** - **0.00** - **0.25** - - **TT8020**

1 2 3 4 5 6

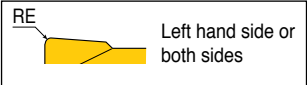
1 Main style of insert

T type: Chip breaker
G type: Non-chip breaker

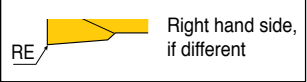
2 Insert width



3 Corner radius



4 Corner radius



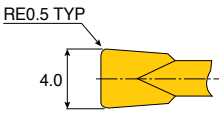
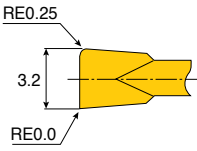
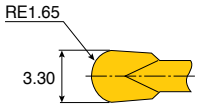
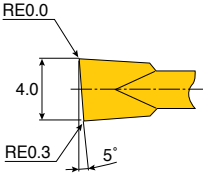
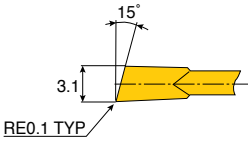
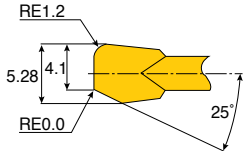
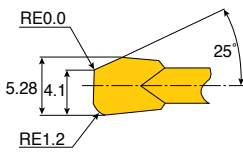
5 Additional codes

6 Grades

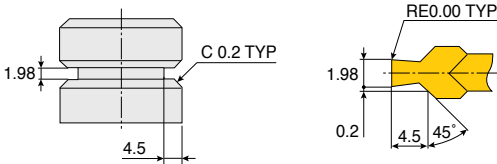
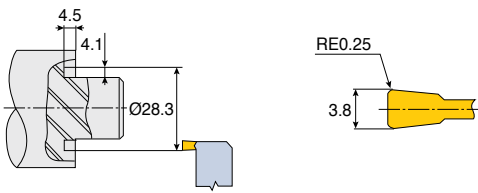
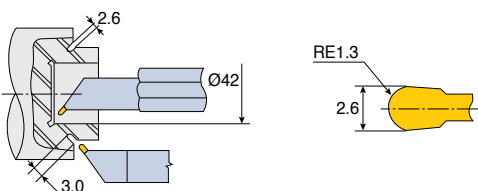
Parting & Grooving	Turning & Grooving
TDJ / TDC TSJ / TSC	TDT TDA TDG TDIT Internal TDFT Facing

Special profile inserts

Tailor-made inserts are available upon request.

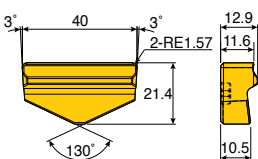
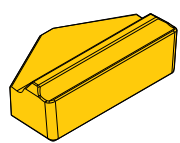
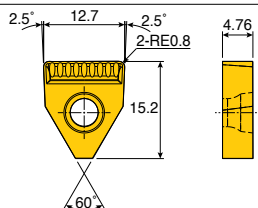
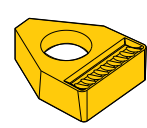
Shape	Designation	Remarks
	TDT 4.00-0.50	Symmetrical type
	TDIT 3.20-0.00-0.25	Non-symmetrical type
	TDT 3.30-1.65	Full-R type
	TDT 4.00-0.30-5RA	L: Chamfer on left hand side R: Chamfer on right hand side
	TDT 3.10-0.10-15LA	
	TDG 5.28-1.20-R25A	
	TDT 5.28-1.20-L25A	

Shape	Designation	Remarks
	TDG 4.40-1.82-29A	L: Chamfer on left hand side R: Chamfer on right hand side
	TDT 4.40-1.50-30A	
	TDT 5.28-2.05-45R25L	
	TDG 4.40-0.15-60A	
	TDG 5.40-0.10-30R50L	
	TDT 3.90-4.00	
	TDT 1.90-T3.5C	
	TDT 1.90-0.30-4.20T	

Shape	Designation
	TDG 1.98-T4.5C
	TDFT 3.80E-0.25
	TDIT 2.60-1.30
The others	Available upon customer's request

Heavy Industry

Tailor-made

Designation	Dimension (mm)	Remarks
XNMR 401416-HD		
XNGT 332-GV		

► Specific dimensions

External holder

Right handed shown

Internal holder

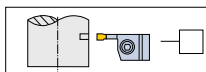
Right handed shown

Facing holder

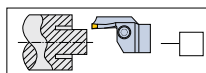
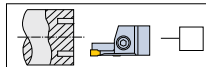
Right handed shown

Right handed shown

External holder

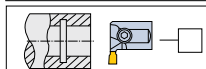


Facing holder



RN type

Internal holder



Holder handed

- Right handed ☐
- Light handed ☐

Insert

- Grade: _____
- Chip breaker type: _____

Quantity

- _____ pcs

Workpieces

- Part: _____
- Material: _____
- Hardness: _____

Comment

- Customer: _____
- Address : _____
- Telephone : _____
- E-mail : _____
- Contact: _____
- Fax : _____

Recommended Cutting Conditions

Parting

ISO	Material		Condition	Tensile strength (N/mm ²)	Hardness HB	Material No.	Cutting speed Vc(m/min)			
							TT9080	TT4430	TT7220 TT8020	K10
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	140-250	120-220	80-120	
		>=0.25%C	Annealed	650	190	2	130-220	100-190	80-110	
		<0.55%C	Quenched and tempered	850	250	3	90-200	80-170	70-90	
		>=0.55%C	Annealed	750	220	4	100-220	80-190	70-100	
			Quenched and tempered	1000	300	5	70-170	70-140	40-70	
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	90-120	80-110	70-100	
			Quenched and tempered	930	275	7	80-170	80-140	50-70	
				1000	300	8	70-130	70-110	40-60	
				1200	350	9	50-120	50-100	30-50	
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	60-140	60-120	50-80	
		Quenched and tempered	1100	325	11	50-70	40-60	30-60		
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	70-170	60-150	60-120	
			Martensitic	820	240	13	60-150	60-120	60-90	
			Austenitic	600	180	14	90-180	80-150	60-90	
K	Gray cast iron (GG)		Ferritic		160	15	150-260			60-80
			Pearlitic		250	16	130-190			50-70
	Cast iron nodular (GGG)		Ferritic		180	17	140-230			70-100
			Pearlitic		260	18	110-180			70-90
	Malleable cast iron		Ferritic		130	19	170-270			60-85
		Pearlitic		230	20	140-230			45-75	
N	Aluminum - Wrought alloy		Not cureable		60	21				
			Cured		100	22				
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23				
			Cured		90	24				
		>12% Si	High temp.		130	25				
	Copper alloys	>1% Pb	Free cutting		110	26				
			Brass		90	27				
			Electrolitic copper		100	28				
	Non-metallic		Duroplastics, fiber plastics			29				
		Hard rubber			30					
S	High temp. alloys	Fe based		Annealed		200	31	40-70		35-50
				Cured		280	32	30-50		25-40
		Ni or Co based		Annealed		250	33	30-40		20-30
				Cured		350	34	15-25		15-20
				Cast		320	35	15-30		15-20
	Titanium, Ti alloys			Rm 400		36	90-190		150-200	
		Alpha+beta alloys cured	Rm 1050		37	30-60		50-80		
H	Hardened steel		Hardened		55HRC	38				
			Hardened		60HRC	39				
	Chilled cast iron		Cast		400	40				
	Cast iron nodular		Hardened		55HRC	41				

• For more information of material groups, see the materials & grades "material conversion table"

Steel Stainless steel Cast iron Nonferrous High temp. alloys Hardened steel

Recommended Cutting Conditions

Grooving and Turning

ISO	Material	Condition	Tensile strength (N/mm ²)	Hardness HB	Material No.	Cutting speed Vc(m/min)
						KP300
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C Annealed	420	125	1	
		≥0.25%C Annealed	650	190	2	
		<0.55%C Quenched and tempered	850	250	3	
		≥0.55%C Annealed	750	220	4	
		Quenched and tempered	1000	300	5	
	Low alloy steel and cast steel (Less than 5% of alloying elements)	Annealed	600	200	6	
		Quenched and tempered	930	275	7	
			1000	300	8	
			1200	350	9	
	High alloy steel, cast steel and tool steel	Annealed	680	200	10	
		Quenched and tempered	1100	325	11	
M	Stainless steel and cast steel	Ferritic / martensitic	680	200	12	
		Martensitic	820	240	13	
		Austenitic	600	180	14	
K	Gray cast iron (GG)	Ferritic		160	15	
		Pearlitic		250	16	
	Cast iron nodular (GGG)	Ferritic		180	17	
		Pearlitic		260	18	
	Malleable cast iron	Ferritic		130	19	
		Pearlitic		230	20	
N	Aluminum - Wrought alloy	Not cureable		60	21	150-2500
		Cured		100	22	150-2500
	Aluminum- cast, alloyed	≤12% Si Not cureable		75	23	150-2500
		Cured		90	24	150-2500
		>12% Si High temp.		130	25	330-800
	Copper alloys	>1% Pb Free cutting		110	26	
		Brass		90	27	330-800
		Electrolitic copper		100	28	190-400
	Non-metallic	Duroplastics, fiber plastics			29	
		Hard rubber			30	
S	High temp. alloys	Fe based Annealed		200	31	
				280	32	
		Ni or Co based Annealed		250	33	
				350	34	
				320	35	
	Titanium, Ti alloys		Rm 400		36	
		Alpha+beta alloys cured	Rm 1050		37	
H	Hardened steel	Hardened		55HRC	38	
		Hardened		60HRC	39	
	Chilled cast iron	Cast		400	40	
	Cast iron nodular	Hardened		55HRC	41	

• For more information of material groups, see the materials & grades "material conversion table"

Steel Stainless steel Cast iron Nonferrous High temp. alloys Hardened steel

Recommended Cutting Conditions

Grooving and Turning

Cutting speed Vc(m/min)									
TB2015	CT3000	TT7505	TT6080	TT3010	TT5100	TT9080	TT4430	TT7220 TT8020	K10
	100-210				110-220	100-200	90-180	80-150	
	100-200				110-200	100-180	90-160	100-150	
	80-180				90-180	80-160	80-140	70-130	
	80-180				90-180	80-160	80-140	70-120	
	70-150				80-150	70-130	70-110	60-100	
	100-180				110-180	100-160	90-140	80-120	
	90-180				90-180	80-160	80-150	70-130	
	80-170				90-170	80-150	80-130	70-110	
	80-150				90-150	80-130	80-120	60-100	
	90-130				100-150	90-130	90-120	80-110	
	50-80				60-90	50-80	50-70	40-60	
	80-170				90-190	80-170	80-150	70-130	
	80-150				90-170	80-150	80-130	70-110	
	80-170				90-190	80-170	80-150	70-130	
		150-270	110-250						70-100
		120-170	90-140						50-90
		150-250	120-230						70-100
		120-200	90-180						60-90
		120-200	90-180						60-120
		100-180	80-150						50-80
									300-800
									230-310
									280-830
									200-510
									130-300
									120-200
									90-150
				40-60	40-60	30-50	30-40	20-30	30-40
				30-50	25-45	20-40	20-30	15-20	20-40
				30-40	25-35	20-30	15-25	15-20	20-30
				25-35	20-25	15-20	15-20	15-20	15-20
				25-35	20-25	15-20	15-20	15-20	15-20
				140-180	150-190	130-170	100-150	80-100	100-130
				40-80	50-80	40-70	40-60	15-30	20-50
90-110		30-50	25-45						20-40
80-100		30-50	25-35						20-30
180-200		30-50	25-45						20-50
90-110		30-50	25-45						20-40

Recommended Cutting Conditions

Face grooving and Internal grooving

ISO	Material		Condition	Tensile strength (N/mm²)	Hardness HB	Material No.	Cutting speed Vc(m/min)
							TT7505
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	
		>=0.25%C	Annealed	650	190	2	
		<0.55%C	Quenched and tempered	850	250	3	
		>=0.55%C	Annealed	750	220	4	
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Quenched and tempered	1000	300	5	
			Annealed	600	200	6	
			Quenched and tempered	930	275	7	
				1000	300	8	
			1200	350	9		
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	
			Quenched and tempered	1100	325	11	
M	Stainless steel and cast steel	Ferritic / martensitic	680	200	12		
		Martensitic	820	240	13		
		Austenitic	600	180	14		
K	Gray cast iron (GG)	Ferritic		160	15	90-140	
		Pearlitic		250	16	80-120	
	Cast iron nodular (GGG)	Ferritic		180	17	90-130	
		Pearlitic		260	18	80-110	
	Malleable cast iron	Ferritic		130	19	80-130	
		Pearlitic		230	20	60-100	
N	Aluminum - Wrought alloy	Not cureable		60	21		
		Cured		100	22		
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	
			Cured		90	24	
		>12% Si	High temp.		130	25	
	Copper alloys	>1% Pb	Free cutting		110	26	
			Brass		90	27	
			Electrolitic copper		100	28	
	Non-metallic		Duroplastics, fiber plastics			29	
		Hard rubber			30		
S	High temp. alloys	Fe based	Annealed		200	31	
			Cured		280	32	
		Ni or Co based	Annealed		250	33	
			Cured		350	34	
			Cast		320	35	
	Titanium, Ti alloys		Rm 400		36		
	Alpha+beta alloys cured	Rm 1050		37			
H	Hardened steel	Hardened		55HRC	38	15-25	
		Hardened		60HRC	39	15-25	
	Chilled cast iron	Cast		400	40	15-25	
	Cast iron nodular	Hardened		55HRC	41	15-25	

• For more information of material groups, see the materials & grades "material conversion table"

Steel Stainless steel Cast iron Nonferrous High temp. alloys Hardened steel

Recommended Cutting Conditions

Face grooving and Internal grooving

Cutting speed Vc(m/min)								
TT6080	TT3010	TT5100	TT9080	TT4430	TT7220 TT8020	K10		
		110-160	100-150	100-130	80-110			
		70-110	60-100	60-90	50-80			
		70-120	60-110	60-100	50-90			
		70-120	60-110	60-100	40-70			
		80-120	70-110	70-100	40-60			
		70-100	60-90	60-80	30-50			
		70-100	60-90	60-80	30-50			
		60-90	50-80	50-70	30-40			
		60-140	50-130	50-110	40-80			
		50-140	40-130	40-110	30-80			
70-120						40-60		
60-100						40-60		
70-110						40-60		
60-90						30-50		
60-110						20-40		
50-90						20-40		
						100-300		
						100-300		
						100-300		
						100-300		
						80-200		
						80-150		
						60-100		
	30-50	30-50	20-40	20-30	15-25			
	25-40	20-40	15-30	15-25	10-15			
	25-35	20-30	15-20	15-20	10-15			
	20-30	20-30	15-20	15-20	10-15			
	20-30	20-30	15-20	15-20	10-15			
	100-130	100-130	90-120	80-100	60-80			
	30-60	30-60	20-50	20-40	15-30			
15-20						15-20		
15-20						15-20		
15-25						15-25		
15-25						15-25		

Recommended Cutting Conditions

T-CLAMP ceramic insert

Material			Grooving	Turning
P	High hardened steel	Vc (m/min)	Not recommended	250-350
		F (mm/rev)		0.08-0.20
K	Cast iron	Vc (m/min)	600-800	600-800
		F (mm/rev)	0.1-0.2	0.1-0.24

• Above condition is adapted to TDT 4E-0.4T CE AB30

TOP-MICRO carbide bars

Cutting speed Vc(m/min)		Feed (mm/rev)		
		Turning / Back turning	Grooving	Face grooving
P	30-150	0.01-0.08	0.01-0.05	0.01-0.04
M	30-130			
K	30-150			
N	50-200			
S	10-50			