

PARTING & GROOVING



PARTING & GROOVING



contents

Tool Selection Guide

Holder Selection Guide	B4
------------------------	----

Insert Selection Guide	B17
------------------------	-----

Grades	B24
---------------	-----

Chip Breakers	B26
----------------------	-----

Toolholders	
--------------------	--

CUT-SFEED	B30
-----------	-----

T-CLAMP	B36
---------	-----

FACE-RUSH	B84
-----------	-----

T-GROOVE	B88
----------	-----

TOP-CUT	B89
---------	-----

QUAD-RUSH	B91
-----------	-----

QUAD-I-RUSH	B100
-------------	------

MINI-I-RUSH	B101
-------------	------

COOL-BURST Accessories	B102
-------------------------------	------

Guide to Icons



➤ Holder Page



➤ Sleeve Page



➤ Insert Page



➤ Cutting Condition Page



Inserts and Solid Bars

Insert Designation System	B106
CUT-SFEED	B108
T-CLAMP	B109
FACE-RUSH	B123
T-GROOVE	B124
TOP-MICRO Designation System	B125
TOP-MICRO	B126
TOP-CUT Designation System	B138
TOP-CUT	B139
QUAD-RUSH Designation System	B142
QUAD-RUSH	B143
QUAD-I-RUSH	B155
MINI-I-RUSH	B155
Tailor-made Designation System	B156
Tailor-made Insert	B157
Recommended Cutting Conditions	B161

Tool Selection Guide

Parting and grooving holders

				CUTSPEED			
Series				SFGB	COOLBURST SFGB-TB	SFER/L	COOLBURST 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-B35	B36	B37	B38	B39-B41
●	●	●	●	●
●	●	●	●	●

● Recommended, ○ Suitable

Tool Selection Guide

Parting and grooving holders

Series				T-CLAMP Parting & Grooving				COOLBURST			
				TGBFR/L	TGER/L	TCER/L		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		T-CLAMP PARTING & GROOVING	
TCFR/L	TQCR/L	COOLBURST TCAQR/L-TB	TTER/L-SH	COOLBURST TTER/L-SH-TB	TTER/L-D
					
B49	B50	B51	B58	B59	B60-B61
	●	●	●	●	●
	●	●	●	●	●
	○	○	●	●	●
●					
●					
	○	○	●	●	●
	●	●			

● Recommended, ○ Suitable

Tool Selection Guide

Parting and grooving holders

Series				T-CLAMP COOLBURST			
				TTER/L	TTER/L-TB	TTSER/L	TGFR/L
Pages				B62-B63	B64	B65	B66
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					
TGSFR/L	TTFR/L	TTFR/L-RN	TGFPR/L	TTFPR/L	TGIFR/L
					
B67	B68	B69-B70	B71	B72	B73
●			●		
			○		
○	●	●	●	●	●
	●	●	○	●	○

● Recommended, ○ Suitable

Tool Selection Guide

Parting and grooving holders

Series				T-CLAMP COOLBURST			
				TTFIR/L 	TTIR/L-C TTIR/L 	TTIR/L-TB 	TTSIR/L 
Pages				B74	B75-B76	B77	B78
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				
TGSIR/L	TGEUR/L	TGIUR/L	TTER/L-15A	TGIUR/L-15A
				
B79	B80	B81	B82	B83
●				
		○		
			●	●
	●	●		

● Recommended, ○ Suitable

Tool Selection Guide

Parting and grooving holders

Series				FACE <i>RUSH</i>			
				TXFR/L	COOL <i>BURST</i> TXFR/L-TB	TXFPR/L	COOL <i>BURST</i> TXFPR/L-TB
Pages				B84	B85	B86	B87
Application	External	Parting					
		Grooving		○	○		
		Turning		○	○		
	Facing	Grooving		●	●	●	●
		Turning		●	●	●	●
	Internal	Grooving					
		Turning					
	Profiling						
	Threading			○	○		
	Undercut						

Tool Selection Guide

Parting and grooving holders

T <i>G</i> ROOVE		TOP <i>C</i> UT		QUAD <i>R</i> USH	
<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>	
					
B88	B89	B90	B91	B92	
	●		●	●	
●	●		●	●	
	●	●	●	●	
			○	○	
		●	●	●	

● 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				B93	B94	B95	B96
Application	External	Parting		●	●	●	●
		Grooving		●	●	●	●
		Turning			○	○	○
	Facing	Grooving					
		Turning					
	Internal	Grooving					
		Turning					
	Profiling				○	○	○
	Threading				●	●	●
	Undercut						

Tool Selection Guide

Parting and grooving holders

QUAD <i>RUSH</i>			QUAD <i>RUSH</i>	MINI <i>RUSH</i>
<u>TQHR/L-34</u>	<i>COOLBURST</i> <u>TQHR/L-34-TB</u>	<u>TQHPR/L-34</u>	<u>TQHIR/L</u>	<u>TMIHN</u> <u>TMIHN-C</u>
				
B97	B98	B99	B100	B101
●	●	●		
●	●	●		
○	○	○		
			●	●
			○	○
○	○	○		

● Recommended, ○ Suitable

공구 선정 가이드

직경에 따른 내경 가공용 공구 선정

내경 (mm)	TOP <i>MICRO</i>	MINI <i>RUSH</i>	TOP <i>CAP</i>	T-CLAMP PARTING & GROOVING	QUAD <i>RUSH</i>	T-CLAMP PARTING & GROOVING
	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		
Pages			B108				B108				B109				B110			
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				B111				B112				B113				B113				
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 - 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 S
B114	B114	B115	B116-B117	B118	B118
○	○	○	○		
●	●	●	●	●	●
●	●	●	●	●	●
●	●	●	○		
●	●	●	○		
●	●	●	○		
●	●	●	○		
				●	●
				●	●

● 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			B119	B119-B120	B120	B121
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		N	S								
B122					B122					B122					B123					B123					B124					B128-B137									
○										○					○										●														
●										●					○																								
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●					●																									●									
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● Recommended, ○ Suitable

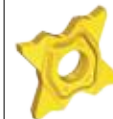
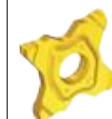
Tool Selection Guide

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			B139-B141	B143	B143	B144	
Application	External	Parting		●	●	●	
		Grooving		●	●	●	
		Turning		●	●	●	
	Facing	Grooving					
		Turning					
	Internal	Grooving					
		Turning					
	Profiling					○	
	Threading			●			●
	Undercut						

Tool Selection Guide

Parting and grooving inserts

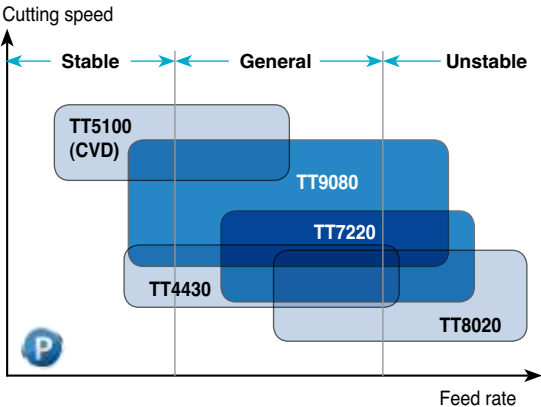
QUAD RUSH					QUAD RUSH	MINI RUSH	
TQJ 27	TQC 27	TQS 27	TQS 27-MT TQS 27-WT	TQS 27-ISO TQS 27-UN TQS 27-W	TQC 34	TQIS 14	TMIS 8
							
P M N S	P M K N S	P M K N S	P M N S	P M N S	P M K N S	P M K N S	P M K N S
B145-B147	B148-B149	B150	B151	B152-B153	B153-B154	B155	B155
●	●	●			●		
●	●	●			●		
●	●	●			●		
						●	●
						○	○
○	○	○			○		
			●	●			

● Recommended, ○ Suitable

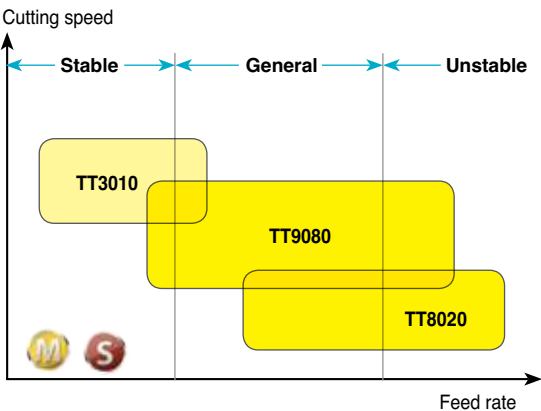
Grades

Selection guide for parting and grooving grades

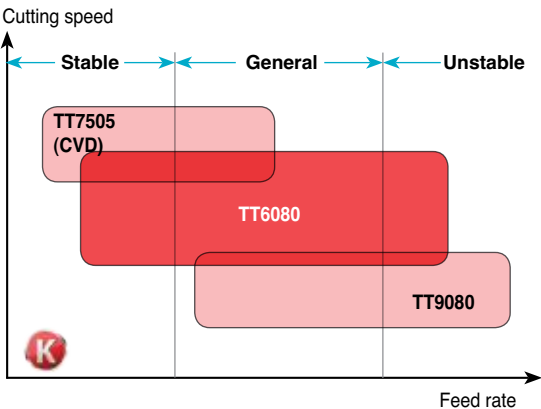
For steel (PVD & CVD coated)



For stainless steel & super alloy (PVD coated)



For cast iron (PVD & CVD coated)



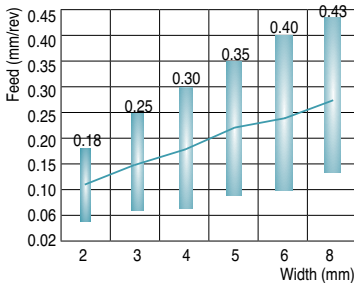
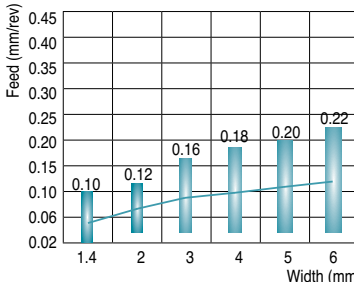
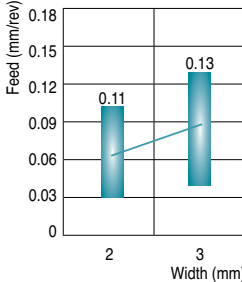
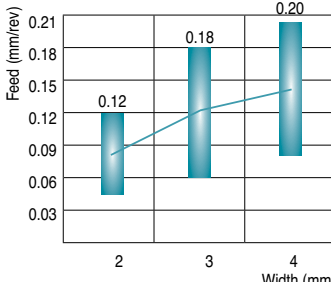
Grades

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

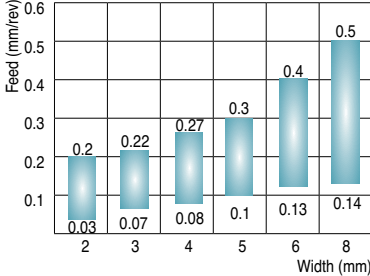
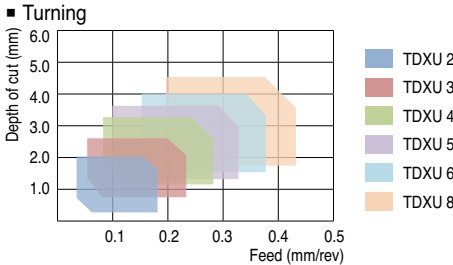
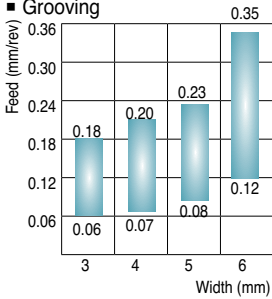
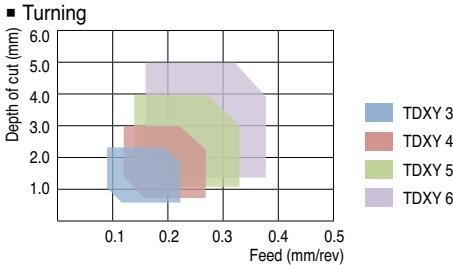
Chip Breakers

Parting and grooving

Chip breakers		Applications and features														
C-Type 	 <table><tr><th>Width (mm)</th><th>Feed (mm/rev)</th></tr><tr><td>2</td><td>0.18</td></tr><tr><td>3</td><td>0.25</td></tr><tr><td>4</td><td>0.30</td></tr><tr><td>5</td><td>0.35</td></tr><tr><td>6</td><td>0.40</td></tr><tr><td>8</td><td>0.43</td></tr></table>	Width (mm)	Feed (mm/rev)	2	0.18	3	0.25	4	0.30	5	0.35	6	0.40	8	0.43	• 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
Width (mm)	Feed (mm/rev)															
2	0.18															
3	0.25															
4	0.30															
5	0.35															
6	0.40															
8	0.43															
J-Type 	 <table><tr><th>Width (mm)</th><th>Feed (mm/rev)</th></tr><tr><td>1.4</td><td>0.10</td></tr><tr><td>2</td><td>0.12</td></tr><tr><td>3</td><td>0.16</td></tr><tr><td>4</td><td>0.18</td></tr><tr><td>5</td><td>0.20</td></tr><tr><td>6</td><td>0.22</td></tr></table>	Width (mm)	Feed (mm/rev)	1.4	0.10	2	0.12	3	0.16	4	0.18	5	0.20	6	0.22	• 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
Width (mm)	Feed (mm/rev)															
1.4	0.10															
2	0.12															
3	0.16															
4	0.18															
5	0.20															
6	0.22															
UF-Type 	 <table><tr><th>Width (mm)</th><th>Feed (mm/rev)</th></tr><tr><td>2</td><td>0.11</td></tr><tr><td>3</td><td>0.13</td></tr></table>	Width (mm)	Feed (mm/rev)	2	0.11	3	0.13	• Narrow chip breaker • Good chip control in low feed of ductile materials and low carbon steel • For Cr-Ni alloy steel and bearing steel								
Width (mm)	Feed (mm/rev)															
2	0.11															
3	0.13															
V-Type 	 <table><tr><th>Width (mm)</th><th>Feed (mm/rev)</th></tr><tr><td>2</td><td>0.12</td></tr><tr><td>3</td><td>0.18</td></tr><tr><td>4</td><td>0.20</td></tr></table>	Width (mm)	Feed (mm/rev)	2	0.12	3	0.18	4	0.20	• Sharp cutting edge and wide groove with minimized burrs • For tubes of small size workpieces • For stainless steel and mild steel						
Width (mm)	Feed (mm/rev)															
2	0.12															
3	0.18															
4	0.20															

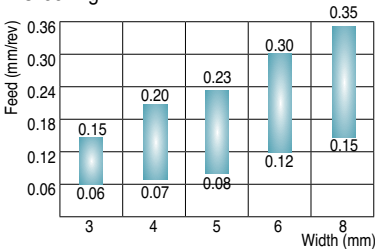
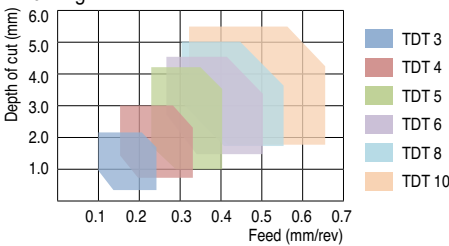
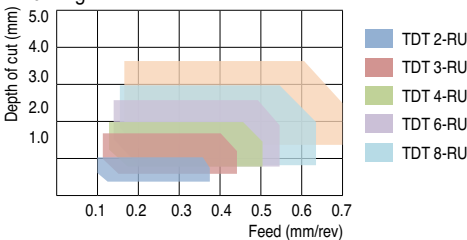
Chip Breakers

Groove-Turn

Chip breakers	Applications and features																																			
XU-Type 	■ Grooving <table><tr><th>Width (mm)</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>8</th></tr><tr><td>Feed (mm/rev)</td><td>0.2</td><td>0.22</td><td>0.27</td><td>0.3</td><td>0.4</td><td>0.5</td></tr><tr><td>Min Feed (mm/rev)</td><td>0.03</td><td>0.07</td><td>0.08</td><td>0.1</td><td>0.13</td><td>0.14</td></tr></table> ■ Turning <table><tr><th>Width (mm)</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>8</th></tr><tr><td>Depth of cut (mm)</td><td>1.0 - 2.0</td><td>1.0 - 2.5</td><td>1.0 - 3.0</td><td>1.0 - 3.5</td><td>1.0 - 4.0</td><td>1.0 - 4.5</td></tr></table> • 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 • Low-to-medium feed • Steel, stainless steel and heat resistant alloy	Width (mm)	2	3	4	5	6	8	Feed (mm/rev)	0.2	0.22	0.27	0.3	0.4	0.5	Min Feed (mm/rev)	0.03	0.07	0.08	0.1	0.13	0.14	Width (mm)	2	3	4	5	6	8	Depth of cut (mm)	1.0 - 2.0	1.0 - 2.5	1.0 - 3.0	1.0 - 3.5	1.0 - 4.0	1.0 - 4.5
Width (mm)	2	3	4	5	6	8																														
Feed (mm/rev)	0.2	0.22	0.27	0.3	0.4	0.5																														
Min Feed (mm/rev)	0.03	0.07	0.08	0.1	0.13	0.14																														
Width (mm)	2	3	4	5	6	8																														
Depth of cut (mm)	1.0 - 2.0	1.0 - 2.5	1.0 - 3.0	1.0 - 3.5	1.0 - 4.0	1.0 - 4.5																														
XY-Type 	■ Grooving <table><tr><th>Width (mm)</th><th>3</th><th>4</th><th>5</th><th>6</th></tr><tr><td>Feed (mm/rev)</td><td>0.18</td><td>0.20</td><td>0.23</td><td>0.35</td></tr><tr><td>Min Feed (mm/rev)</td><td>0.06</td><td>0.07</td><td>0.08</td><td>0.12</td></tr></table> ■ Turning <table><tr><th>Width (mm)</th><th>3</th><th>4</th><th>5</th><th>6</th></tr><tr><td>Depth of cut (mm)</td><td>1.0 - 2.0</td><td>1.0 - 3.0</td><td>1.0 - 4.0</td><td>1.0 - 5.0</td></tr></table> • Suitable for side turning with wide groove • Especially for face grooving and face turning • Stable cutting edge and interrupted cut • Flat bottom of workpiece in grooving • Medium-to-high feed • Steel, stainless steel and cast iron • Available for heat resistant alloy	Width (mm)	3	4	5	6	Feed (mm/rev)	0.18	0.20	0.23	0.35	Min Feed (mm/rev)	0.06	0.07	0.08	0.12	Width (mm)	3	4	5	6	Depth of cut (mm)	1.0 - 2.0	1.0 - 3.0	1.0 - 4.0	1.0 - 5.0										
Width (mm)	3	4	5	6																																
Feed (mm/rev)	0.18	0.20	0.23	0.35																																
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Depth of cut (mm)	1.0 - 2.0	1.0 - 3.0	1.0 - 4.0	1.0 - 5.0																																

Chip Breakers

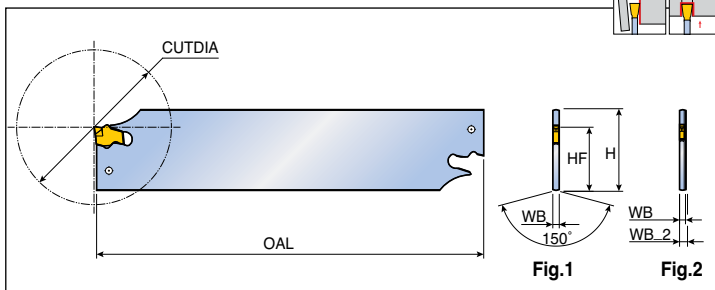
Groove-Turn

Chip breakers	Applications and features																												
T-Type 	■ Grooving <table border="1"><thead><tr><th>Width (mm)</th><th>Feed (mm/rev)</th></tr></thead><tbody><tr><td>3</td><td>0.15</td></tr><tr><td>4</td><td>0.20</td></tr><tr><td>5</td><td>0.23</td></tr><tr><td>6</td><td>0.30</td></tr><tr><td>8</td><td>0.35</td></tr></tbody></table> • 1st choice for side turning of cast iron • Turning and grooving with various geometry • Steel and cast iron • High feed rate ■ Turning <table border="1"><thead><tr><th>Feed (mm/rev)</th><th>Depth of cut (mm)</th></tr></thead><tbody><tr><td>0.1</td><td>1.0</td></tr><tr><td>0.2</td><td>2.0</td></tr><tr><td>0.3</td><td>3.0</td></tr><tr><td>0.4</td><td>4.0</td></tr><tr><td>0.5</td><td>5.0</td></tr><tr><td>0.6</td><td>6.0</td></tr><tr><td>0.7</td><td>6.0</td></tr></tbody></table> - TDT 3 - TDT 4 - TDT 5 - TDT 6 - TDT 8 - TDT 10	Width (mm)	Feed (mm/rev)	3	0.15	4	0.20	5	0.23	6	0.30	8	0.35	Feed (mm/rev)	Depth of cut (mm)	0.1	1.0	0.2	2.0	0.3	3.0	0.4	4.0	0.5	5.0	0.6	6.0	0.7	6.0
Width (mm)	Feed (mm/rev)																												
3	0.15																												
4	0.20																												
5	0.23																												
6	0.30																												
8	0.35																												
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0.1	1.0																												
0.2	2.0																												
0.3	3.0																												
0.4	4.0																												
0.5	5.0																												
0.6	6.0																												
0.7	6.0																												
RU-Type 	■ Turning <table border="1"><thead><tr><th>Feed (mm/rev)</th><th>Depth of cut (mm)</th></tr></thead><tbody><tr><td>0.1</td><td>1.0</td></tr><tr><td>0.2</td><td>2.0</td></tr><tr><td>0.3</td><td>3.0</td></tr><tr><td>0.4</td><td>4.0</td></tr><tr><td>0.5</td><td>5.0</td></tr><tr><td>0.6</td><td>6.0</td></tr><tr><td>0.7</td><td>6.0</td></tr></tbody></table> - TDT 2-RU - TDT 3-RU - TDT 4-RU - TDT 6-RU - TDT 8-RU • 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	1.0	0.2	2.0	0.3	3.0	0.4	4.0	0.5	5.0	0.6	6.0	0.7	6.0												
Feed (mm/rev)	Depth of cut (mm)																												
0.1	1.0																												
0.2	2.0																												
0.3	3.0																												
0.4	4.0																												
0.5	5.0																												
0.6	6.0																												
0.7	6.0																												

Parting & Grooving Toolholders



Blades for parting and deep grooving

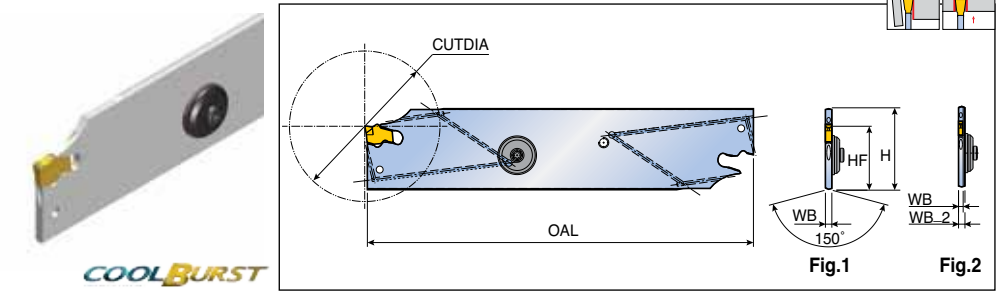
[illegible]

- * : SFC 1.6 insert only

Spare parts

Designation	Extractor			
				
SFGB	ETG 3-4			

- Extractor should be ordered separately



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 B108
32-3-TB	3	32	24.8	150	2.5	-	100	1		

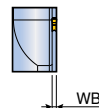
	70 bar flow rate (ℓ/min)	100 bar flow rate (ℓ/min)	140 bar flow rate (ℓ/min)
SFGB 32-2-TB	10-12	12-14	15-17
32-3-TB	19-21	23-25	27-29

Spare parts

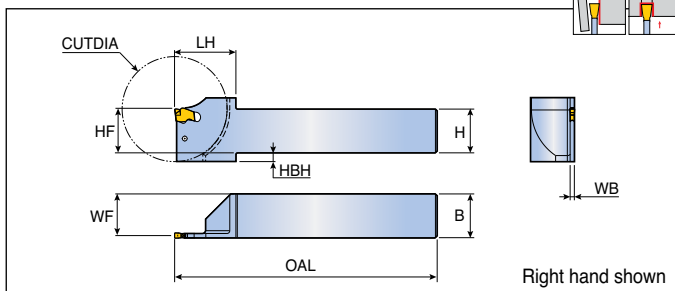
Designation	Sealing screw set	Extractor		
SFGB -TB	SGC 340	ETG 3-4		

• Extractor should be ordered separately

Holders for parting and deep grooving



Right hand shown

[illegible]

-
- * : SFC 1.6 insert only

Spare parts

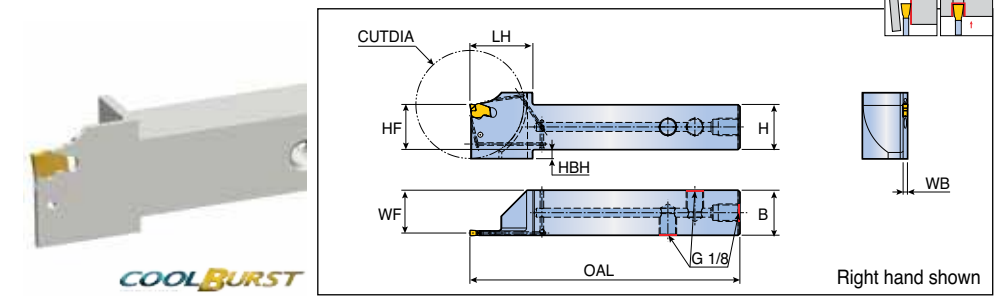
Designation	Extractor			
				
SFER/L	ETG 3-4			

- Extractor should be ordered separately

SFER/L-TB



Holders for parting and deep grooving with high pressure coolant



Designation	Insert seat size	Dimension (mm)									Insert
		H	HF	B	OAL	LH	WF	WB	HBH	CUTDIA	
SFER/L 2525-2T25-D50-TB	2	25	25	25	150	32	24.1	1.8	-	50	SFC
2525-3T30-D60-TB	3	25	25	25	150	35	23.8	2.4	5	60	SFJ
											B108

	70 bar flow rate (ℓ/min)	100 bar flow rate (ℓ/min)	140 bar flow rate (ℓ/min)
SFER/L 2525-2T25-D50-TB	10-12	12-14	15-17
2525-3T30-D60-TB	14-16	17-19	21-23

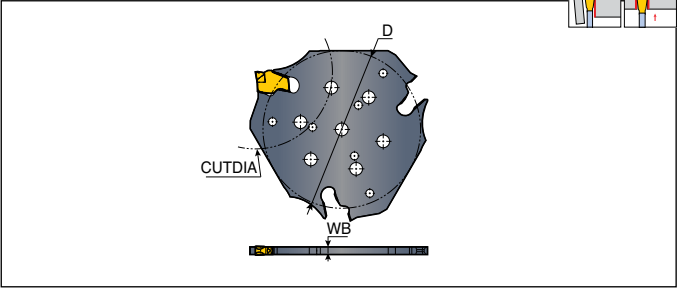
- Please refer to B102 page for COOL-BURST accessories

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

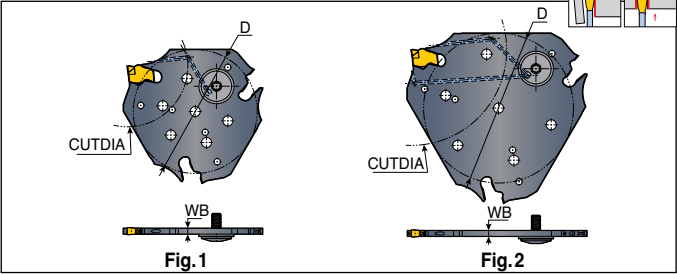
Triangular blades for parting and deep grooving



Designation	Insert seat size	Dimension (mm)			Holder	Insert
		D	WB	CUTDIA		
SFTB D52-2	2	53.2	1.8	52	THTBR/L-TB B35	SFC SFJ B108
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.	Holder	Insert
		D	WB	CUTDIA			
SFTB D52-2-TB	2	53.2	1.8	52	1	THTBR/L-TB B35	SFC SFJ B108
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

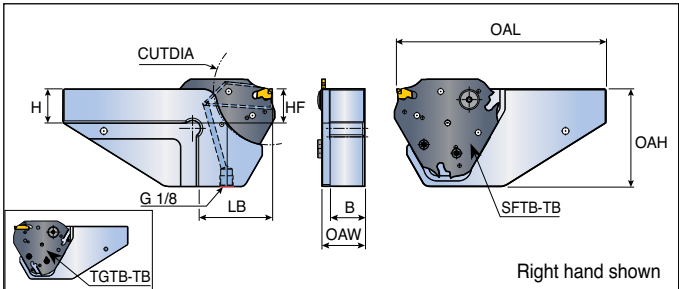
Designation	Sealing screw set	Extractor		
SFTB	-	ETG 3-4		
SFTB-TB	SGC 340-Q	ETG 3-4		

• Extractor should be ordered separately

THTBR/L-TB



Holders for triangular blade with high pressure coolant



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	

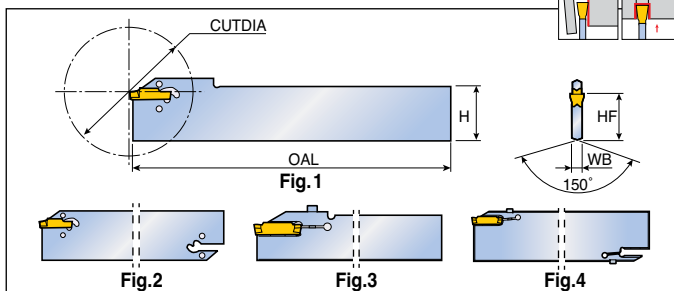
• Please refer to B102 page for COOL-BURST accessories

		70 bar flow rate (ℓ/min)	100 bar flow rate (ℓ/min)	140 bar flow rate (ℓ/min)
SFTB/TGTB	D52-2-TB	4-6	5-7	6-8
	D52-3-TB	7-9	9-11	10-12
	D82-2-TB	9-11	11-13	13-15
	D82-3-TB	15-17	18-20	21-23
SFTB	D120-2-TB	9-11	11-13	13-15
	D120-3-TB	15-17	18-20	21-23

Spare parts

Designation	Screw	O-Ring	Wrench	
				
THTBR/L-TB	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  B109-B118
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	6.8	200	4	TTBN/U...-52	
								 B44-B45	

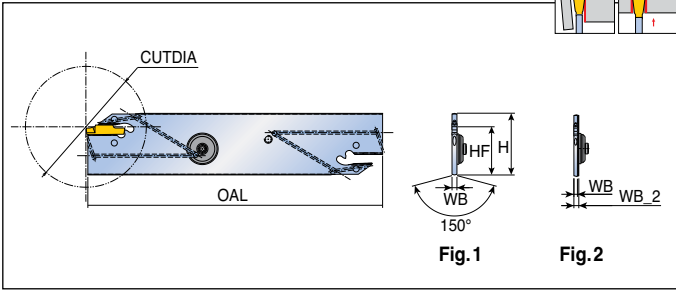
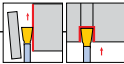
- ⁽¹⁾ Single ended blade
- ⁽²⁾ Thickness at DOC area only. Overall thickness is 2.4mm
- * TDJ 1.4 insert only

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

Blades for parting and deep grooving with high pressure coolant



Designation	Insert seat size	Dimension (mm)						Fig.	Block	Insert
		H	HB	OAL	WB	WB_2	CUTDIA			
TGB 32-2-TB	2	32	24.9	150	1.8	2.5	50	2	B46	TDC / J / T
32-3-TB	3	32	24.9	150	2.5	-	100	1		TDXU / XT / XY
32-4-TB	4	32	24.9	150	3.2	-	100	1		TSC / J
32-5-TB	5	32	24.9	150	4.0	-	120	1		TDUF/TDV
32-6-TB	6	32	24.9	150	5.2	-	120	1		B109-B118

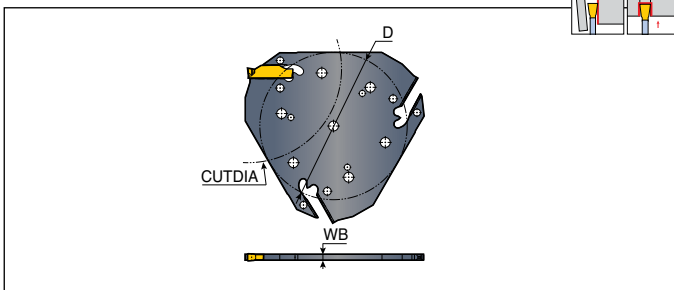
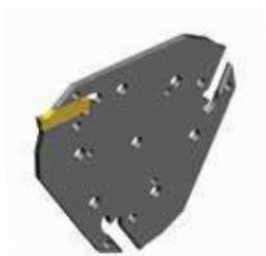
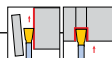
	70 bar flow rate (ℓ/min)	100 bar flow rate (ℓ/min)	140 bar flow rate (ℓ/min)
TGB 32-2-TB	10-12	12-14	15-17
32-3-TB	19-21	23-25	27-29
32-4-TB	24-26	29-31	35-37
32-5-TB	24-26	29-31	35-37
32-6-TB	24-26	29-31	35-37

Spare parts

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

• Extractor should be ordered separately

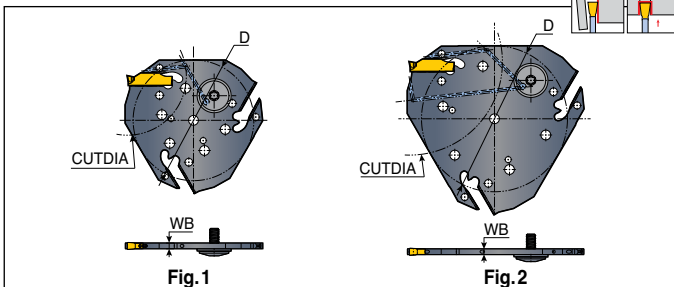
Triangular blades for parting and deep grooving



Designation	Insert seat size	Dimension (mm)			Holder	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		B109-B118

TGTB-TB

Triangular blades for parting and deep grooving with high pressure coolant



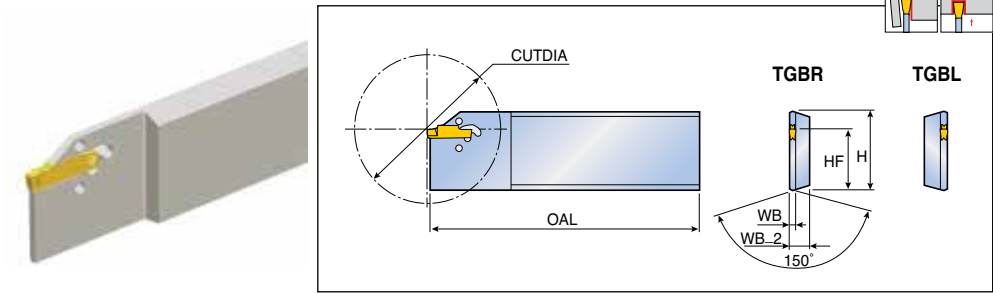
Designation	Insert seat size	Dimension (mm)			Fig.	Holder	Insert
		D	WB	CUTDIA			
TGTB D52-2-TB	2	53.2	1.8	52	1	THTBR/L-TB B35	TDC / J / T
D52-3-TB	3	53.2	2.5	52	1		TDXU / XT / XY
D82-2-TB	2	64.3	1.8	82	2		TSC / J / TDUF / TDV
D82-3-TB	3	64.3	2.5	82	2		B109-B118

Spare parts

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

- Extractor should be ordered separately

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
									B109-B118

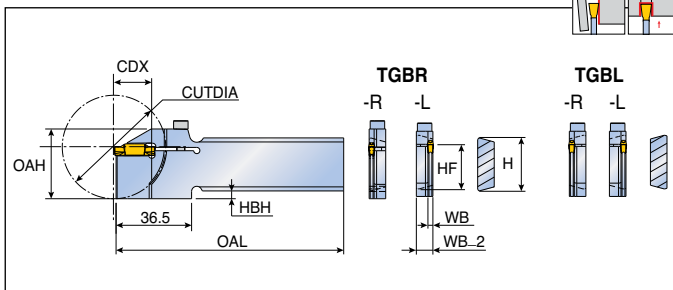
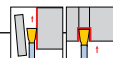
Spare parts

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  B109-B118	
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

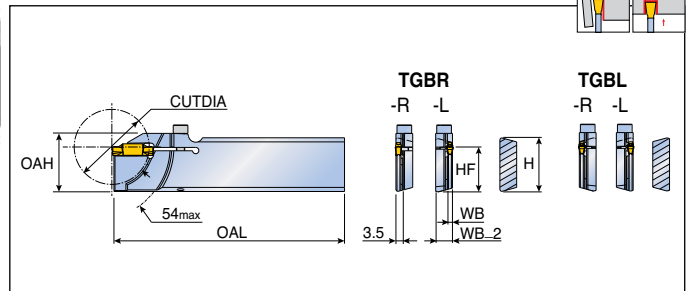
• ⁽²⁾ for Tornos Bechler, model Emco 2000/20, 2000/26

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

Spare parts

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

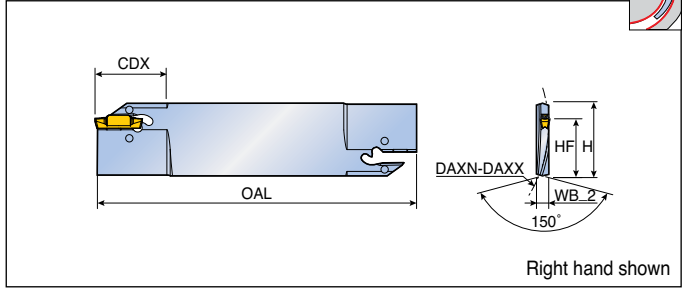
T-CLAMP
PARTING & GROOVING



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	DAXN	DAXX			
TGBFR/L 32T 20-40-60-3	3	32	24.9	150	5.2	20	40	60		TDC / J / T	
32T 20-54-80-3	3	32	24.9	150	5.2	20	54	80		TDXU / XT / XY	
32T25-74-120-3	3	32	24.9	150	5.2	25	74	120		TDFT	
32T25-114-180-3	3	32	24.9	150	5.2	25	114	180		TSC / J	
32T25-40-60-4	4	32	24.9	150	5.2	25	40	60		TDUF / TDV	
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	∞			

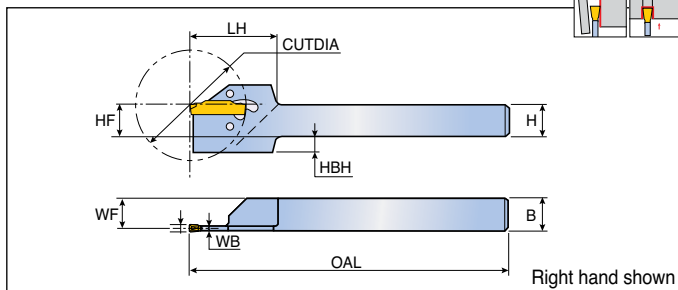
• Please check insert min. dia for face grooving B70 page

Spare parts

Designation	Extractor			
				
TGBFR/L	EDG 33B			

• Extractor should be ordered separately

Holders for parting and deep grooving



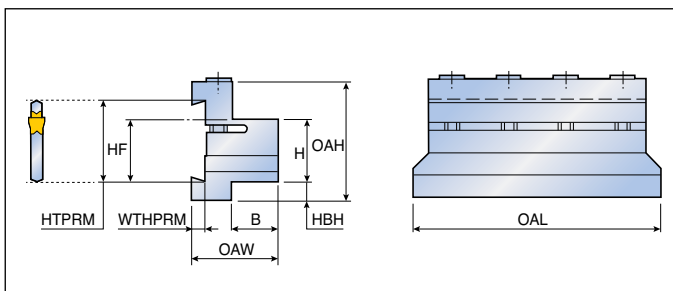
Designation	Insert seat size	Dimension (mm)								CUTDIA		Insert
		H	HF	B	OAL	LH	WF	WB	HBH	TDJ/C	TSJ/C	
TGER/L 2020-1.4T10	1 *	20	20	20	125	31	19.5	1.0	-	20	20	TDC / J / T
1010-2	2	10	10	10	150	31	9.1	1.8	8	33	33	TDXU / XT / XY
1212-2	2	12	12	12	150	31	11.1	1.8	6	35	35	TSC / J
1616-2	2	16	16	16	150	31	15.1	1.8	2	35	35	TDUF / TDV
2012-2	2	20	20	12	150	31	11.1	1.8	-	35	35	B109-B118
2020-2	2	20	20	20	150	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			

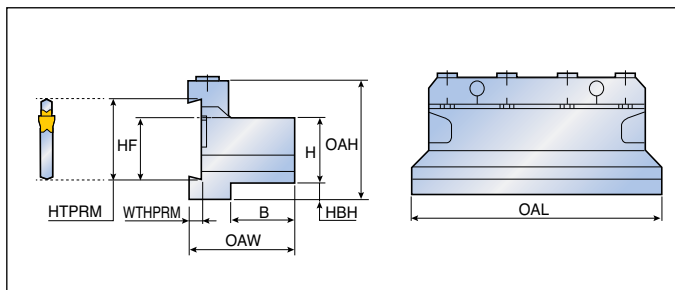
- Extractor should be ordered separately

[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		



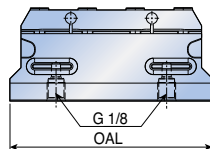
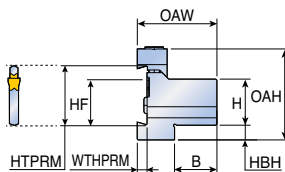
[illegible]

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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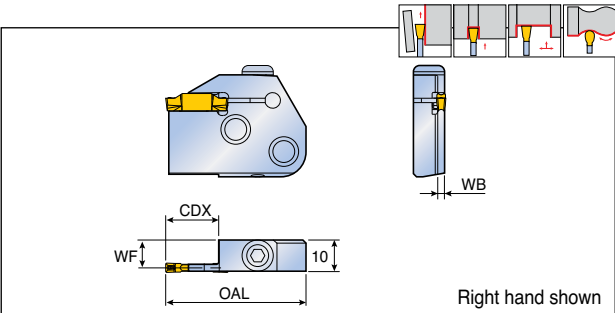
Spare parts

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



TCER/L

Cartridges for external grooving



Designation	Insert seat size	Dimension (mm)				Holder	Insert
		OAL	WF	WB	CDX		
TCER/L 1.4T12	1 *	41	9.5	1.0	12	TCHR/L TCHPL/R C..TCHN C..TCHPN  B52-B55	TDJ 1.4
2T16	2	45	9.1	1.8	16		TDC / J / T
2T22	2	51	9.1	1.8	22		TDXU / XT / XY
3T16	3	45	8.8	2.4	16		TSC / J
3T22	3	51	8.8	2.4	22		TDUF / TDV  B109-B118
4T16	4	45	8.5	3.0	16		
4T22	4	51	8.5	3.0	22		
5T20	5	49	8.0	4.0	20		
5T25	5	54	8.0	4.0	25		
6T20	6	49	7.5	5.0	20		
6T25	6	54	7.5	5.0	25		

• * TDJ 1.4 insert only

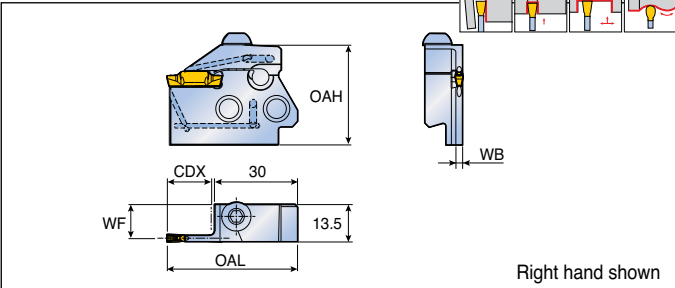
Spare parts

Designation	Screw	Wrench		
				
TCER/L	BH M6x1x20	L-W 4		

TCAER/L-TB



Cartridges for external grooving with high pressure coolant



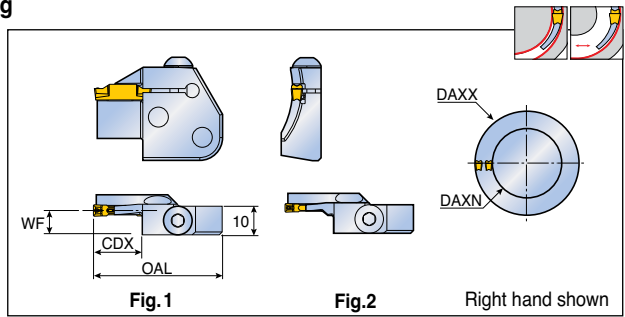
Designation	Insert seat size	Dimension (mm)					Holder	Insert
		OAL	WF	WB	OAH	CDX		
TCAER/L 2T16-TB	2	47	12.6	1.8	36	16	TCAHR/L-TB TCAHPL/R-TB C...TCAHN-TB C...TCAHPN-TB B52-B55	TDC / J / T
3T16-TB	3	47	12.3	2.4	36	16		TDXU / XT / XY
4T16-TB	4	47	12.0	3.0	36	16		TSC / J
5T20-TB	5	51	11.5	4.0	36	20		TDUF / TDV
								B109-B118

	70 bar flow rate (ℓ/min)	100 bar flow rate (ℓ/min)	140 bar flow rate (ℓ/min)
TCAER/L 2T16-TB	12-14	15-17	18-20
3T16-TB	19-21	23-25	27-29
4T16-TB	24-26	29-31	35-37
5T20-TB	30-35	36-38	43-45

Spare parts

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

Cartridges for external face grooving



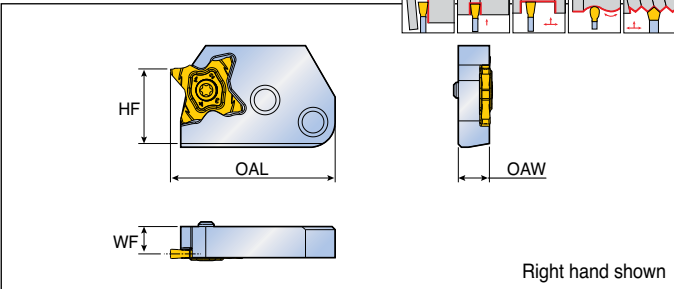
Designation	Insert seat size	Dimension (mm)					Fig.	Holder	Insert	
		OAL	WF	CDX	DAXN	DAXX				
TCFR/L	3T12-40-55 RN	3	45	8.9	12	40	55	2	TCHL/R TCHPR/L C...TCHN C...TCHPN  B52-B55	TDC / J / T TDXU / XT / XY TDFT TSC / J TDUF / TDV  B109-B119
	3T12-55-75 RN	3	45	8.9	12	55	75	2		
	3T12-75-100 RN	3	45	8.9	12	75	100	2		
	3T12-100-140 RN	3	45	8.9	12	100	140	2		
	3T12-140-200 RN	3	45	8.9	12	140	200	2		
	4T16-50-70 RN	4	45	8.5	16	50	70	1		
	4T16-70-100 RN	4	45	8.5	16	70	100	1		
	4T16-100-150 RN	4	45	8.5	16	100	150	1		
	4T16-150-250 RN	4	45	8.5	16	150	250	1		
	4T16-250 RN	4	45	8.5	16	250	∞	1		
	5T20-55-80 RN	5	49	8.0	20	55	80	1		
	5T20-80-120 RN	5	49	8.0	20	80	120	1		
	5T20-120-180 RN	5	49	8.0	20	120	180	1		
	5T20-180-300 RN	5	49	8.0	20	180	300	1		
	5T20-300 RN	5	49	8.0	20	300	∞	1		
	6T25-60-90 RN	6	55	7.5	25	60	90	1		
	6T25-90-150 RN	6	55	7.5	25	90	150	1		
	6T25-150-250 RN	6	55	7.5	25	150	250	1		
	6T25-250-400 RN	6	55	7.5	25	250	400	1		
	6T25-400 RN	6	55	7.5	25	400	∞	1		

• Please check insert min. dia for face grooving B70 page

Spare parts

Designation	Screw	Wrench		
TCFR/L	BH M6x1x20	L-W 4		

Cartridges for external grooving



Designation	Dimension (mm)					Holder	Insert
	OAL	OAW	HF	WF ⁽¹⁾	CW _{range}		
TQCR 27	53	10	24	8.8	0.5 ≤ CW < 5.3	TCHR/L TCHPL/R C...TCHN C...TCHPN  B52-B55	TQ..27...  B145-B153
TQCL 27	53	10	24	8.8	0.5 ≤ CW < 5.3		

• ⁽¹⁾ "WF" value is based on TQ.. 27 standard insert

Spare parts

Designation	Screw	Wrench		
				
TQCR 27	TS 501251L	T 10 / 20		
TQCL 27	TS 501251	T 10 / 20		

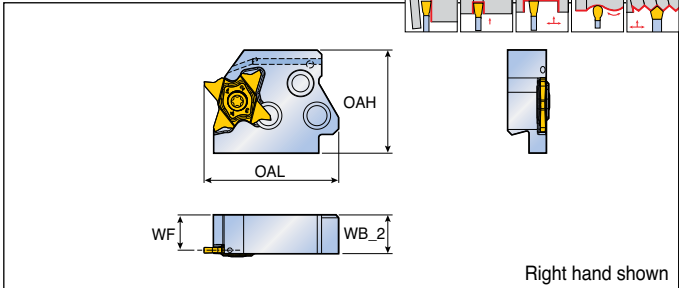
TCAQR/L 27-TB



Cartridges for external grooving with high pressure coolant



COOLBURST



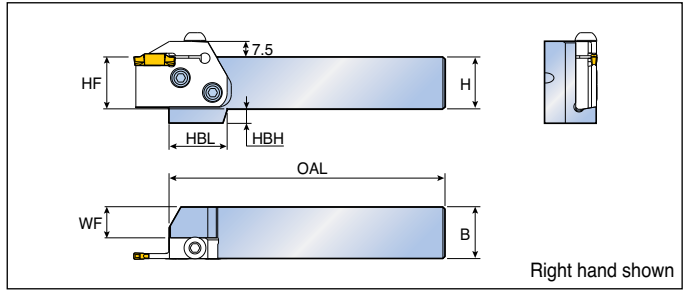
Designation	Dimension (mm)				Holder	Insert
	OAL	WF	WB_2	OAH		
TCAQR/L 27-TB	47	12.3	13.5	36	TCAHR/L-TB TCAHPL/R-TB C...TCAHN-TB C...TCAHPN-TB	TQ...27  B145-B153
					 B52-B53	

	70 bar flow rate (ℓ/min)	100 bar flow rate (ℓ/min)	140 bar flow rate (ℓ/min)
TCAQR/L 27-TB	9-11	11-13	13-15

Spare parts

Designation	Screw	Wrench		
				
TCAQR 27-TB	TS 50125IL	T 10/20		
TCAQL 27-TB	TS 50125I	T 10/20		

Parallel type holders for cartridge

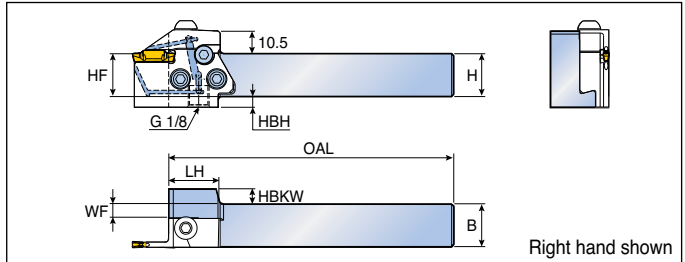


Designation	Dimension (mm)							Cartridge
	H	HF	B	OAL	WF	HBL	HBH	
TCHR/L 2020	20	20	20	133	10	35	12	TCER/L / TCFL/R TQCR/L B47, B49, B50
2525	25	25	25	133	15	28	7	
3232	32	32	32	153	22	28	-	

- 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	

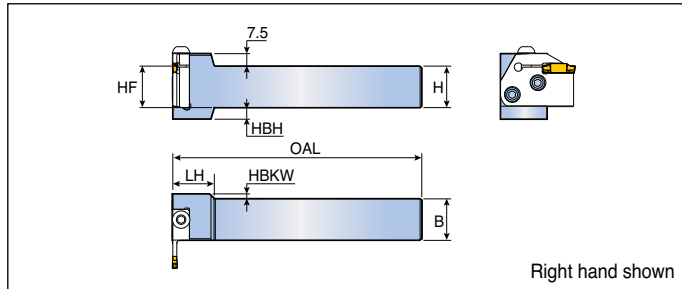
- Cartridge should be ordered separately
- Please refer to B102 page for COOL-BURST accessories

Spare parts

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

TCHPR/L

Perpendicular type holders for cartridge

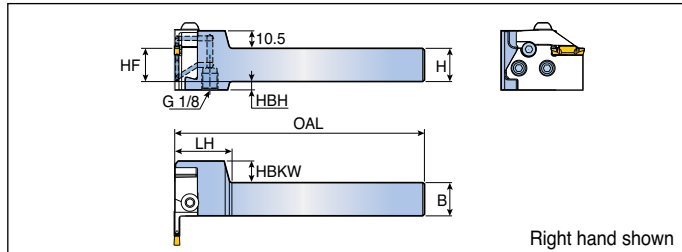


Designation	Dimension (mm)							Cartridge
	H	HF	B	OAL	HBH	HBKW	LH	
TCHPR/L 2020	20	20	20	150	12	8	25	TCEL/R / TCFR/L
2525	25	25	25	150	7	3	25	TQCL/R
3232	32	32	32	170	-	-	25	B47,B49,B50

- 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
2525-TB	25	25	25	150	-	8	33	TCAQL/R-TB
								B48,B51

- Cartridge should be ordered separately
- Please refer to B102 page for COOL-BURST accessories

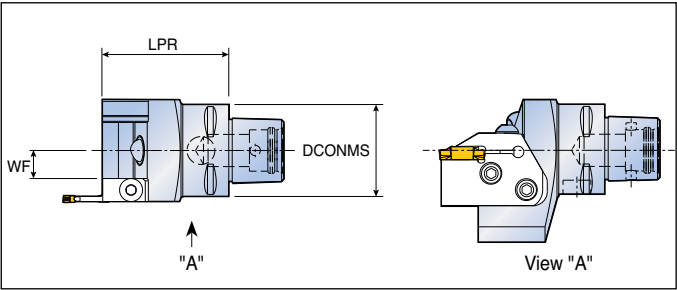
Spare parts

Designation	Screw	Security Screw	Sealing Screw	O-Ring	Wrench	
TCHPR/L	TS 60190I	-	-	-	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-TCHN



Parallel type C-Adapters



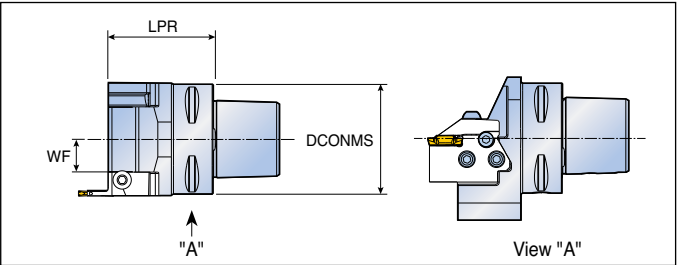
Designation	Dimension (mm)			Cartridge
	DCONMS	LPR	WF	
C4-TCHN	40	55	12.2	TCER/L / TCFR/L
C5-TCHN	50	58	17.2	TQCR/L
C6-TCHN	63	60	22.2	B47,B49,B50

• 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

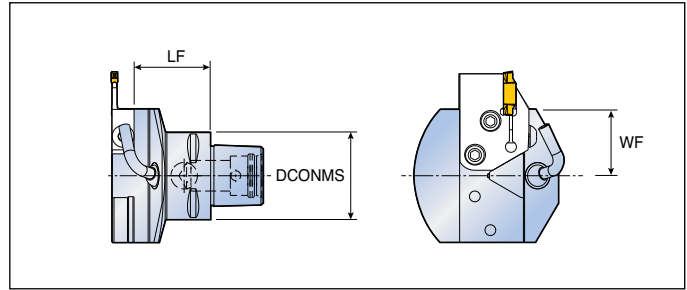
• Cartridge should be ordered separately

Spare parts

Designation	Screw	Security Screw	Sealing Screw	Nozzle	O-Ring	Wrench
C-TCHN	TS 60190I	-	-	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-TCHPN

Perpendicular type C-Adapters

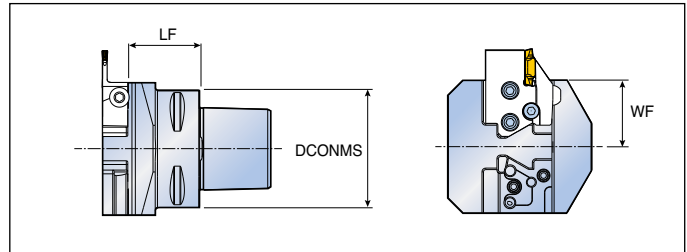


Designation	Dimension (mm)			Cartridge
	DCONMS	LF	WF	
C4-TCHPN	40	35	30.5	TCER/L / TCFR/L
C5-TCHPN	50	40	35.5	TQCR/L
C6-TCHPN	63	42	35.5	 B47, B49, B51

• 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

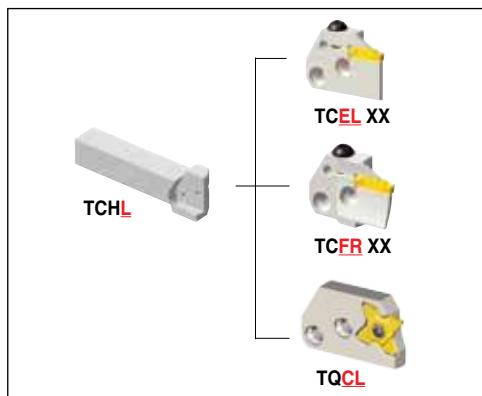
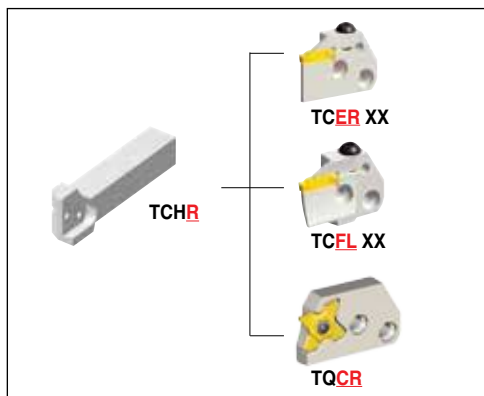
• Cartridge should be ordered separately

Spare parts

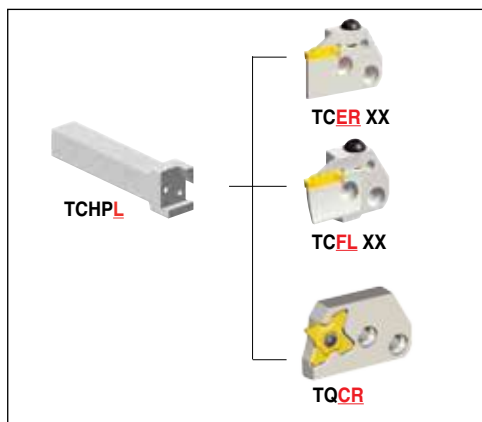
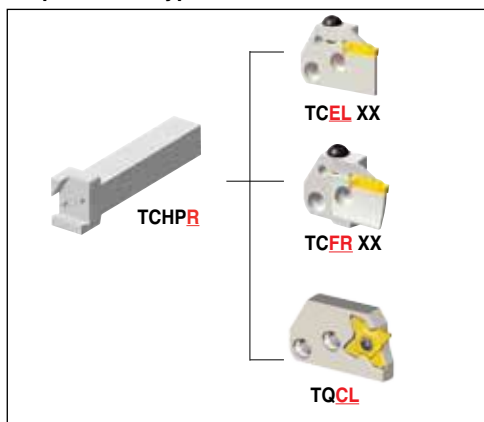
Designation	Screw 	Security Screw 	Sealing Screw 	Nozzle 	O-Ring 	Pipe 	Wrench 
C-TCHPN	TS 60190I	-	-	NZ 125	-	NZP 5	L-W 4
C-TCAHPN-TB	TS 60190I	SH M5X0.8X16	SS M4X0.7X4-NL	-	O-RING ID5X1T	-	L-W 4 / L-W 2

Cartridge and Holder Selection

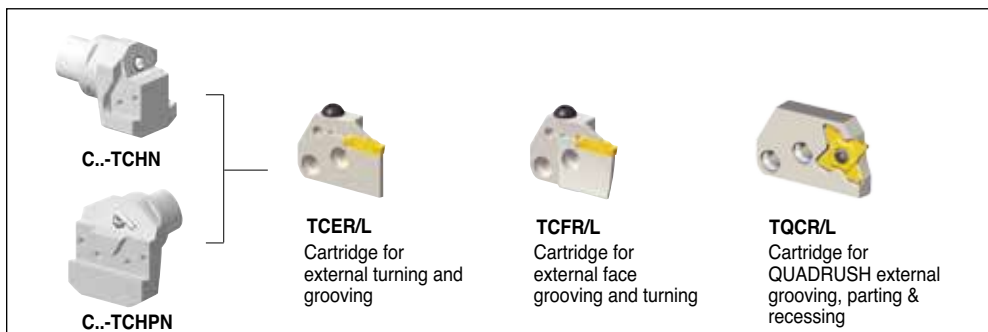
Parallel type



Perpendicular type

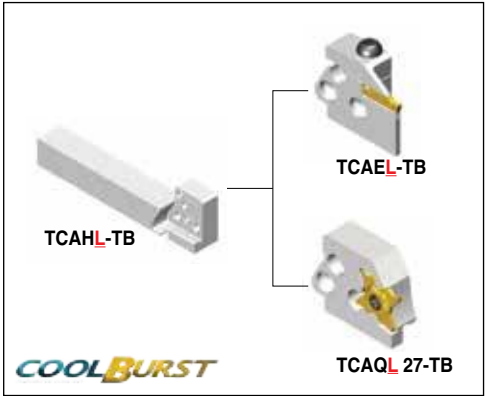
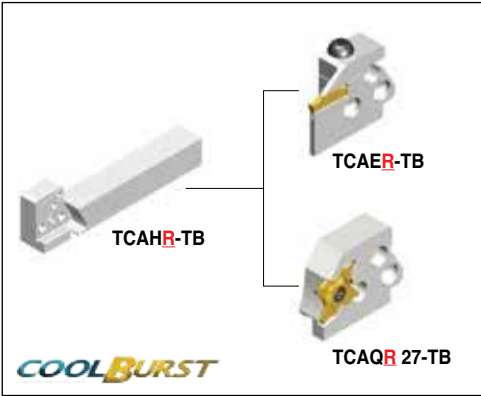


C-ADAPTER

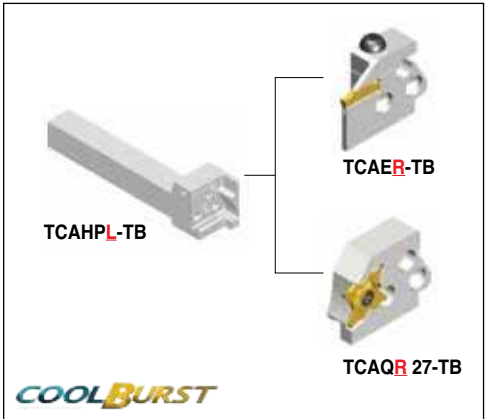
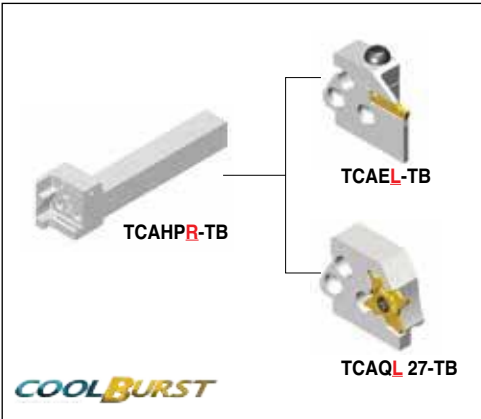


Cartridge and Holder Selection

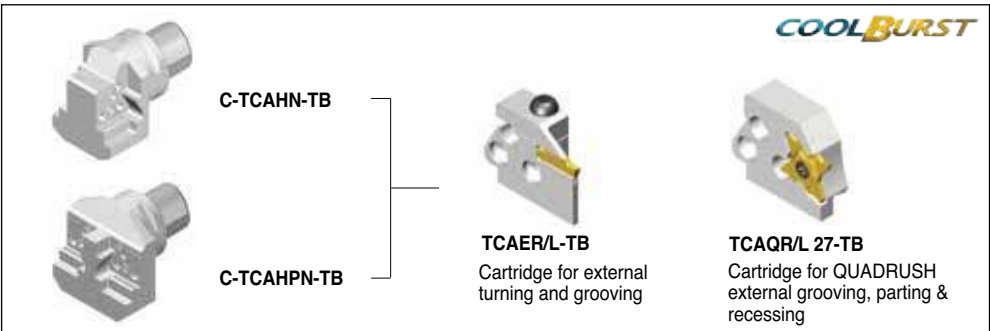
Parallel type with high pressure coolant



Perpendicular type with high pressure coolant



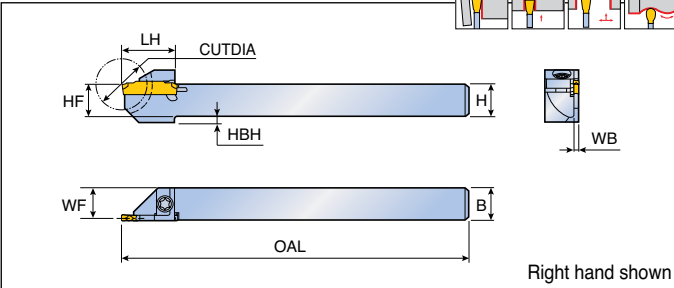
C-ADAPTER with high pressure coolant



TTER/L-SH



Parting and grooving holders for Swiss automatic lathes



Designation	Insert seat size	Dimension (mm)								Insert
		H(HF)	B	OAL	LH	WF	WB	HBH	CUTDIA	
TTER/L 10-20-1.4SH	1 *	10	10	125	18	9.5	1.0	-	20	TDC / J / T
12-24-1.4SH	1 *	12	12	125	19.5	11.5	1.0	-	24	TDXU / XT / XY
14-24-1.4SH	1 *	14	14	125	19.5	13.5	1.0	-	24	TSC / J
16-32-1.4SH	1 *	16	16	125	24	15.5	1.0	-	32	TDUF / TDV
10-20-2SH	2	10	10	125	19	9.1	1.8	2	20	 B109-B118
12-24-2SH	2	12	12	125	19	11.1	1.8	2	24	
14-24-2SH	2	14	14	125	19	13.1	1.8	-	24	
16-32-2SH	2	16	16	125	24	15.1	1.8	-	32	
12-24-3SH	3	12	12	125	19	10.8	2.4	2	24	
16-32-3SH	3	16	16	125	24	14.8	2.4	-	32	
16-38-3SH	3	16	16	125	27	14.8	2.4	-	38	
20-45-3SH	3	20	20	125	30.5	18.8	2.4	-	45	

• * TDJ 1.4 insert only

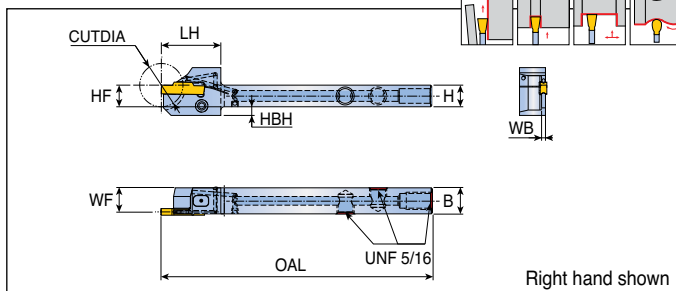
Spare parts

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

TTER/L-SH-TB

T-CLAMP
PARTING & GROOVING

Side lock holders with high pressure coolant for Swiss automatic lathes



Designation	Insert seat size	Dimension (mm)								Insert
		H(HF)	B	OAL	LH	WF	WB	HBH	CUTDIA	
TTER/L 12-24-2SH-TB	2	12	12	125	27.5	11.1	1.8	2	24	TDC / J / T / A
16-32-2SH-TB	2	16	16	125	31.5	15.1	1.8	-	32	TDXU / XT / XY
12-24-3SH-TB	3	12	12	125	27.5	10.8	2.4	2	24	TSC / J
16-32-3SH-TB	3	16	16	125	31.5	14.8	2.4	-	32	TDUF / TDV
16-38-3SH-TB	3	16	16	125	34.5	14.8	2.4	-	38	B109-B118
20-45-3SH-TB	3	20	20	125	38	18.8	2.4	-	45	

	70 bar flow rate (ℓ/min)	100 bar flow rate (ℓ/min)	140 bar flow rate (ℓ/min)
TTER/L 2SH-TB	5-7	7-9	8-10
3SH-TB	5-7	7-9	8-10

• Please refer to B102 page for COOL-BURST accessories

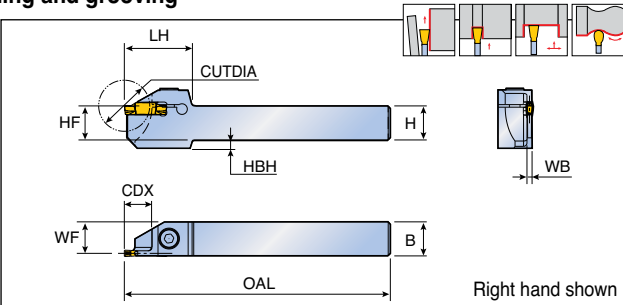
Spare parts

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

TTER/L-D



Reinforced holders for external turning and grooving



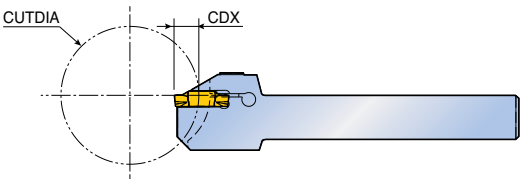
Designation	Insert seat size	Dimension (mm)										Insert
		H(HF)	B	OAL	LH	WF	WB	HBH	CDX	CUTDIA		
TTER/L 1010-1.4T15-D40	1 *	10	10	125	32	9.5	1.0	6	15	40	TDC / J / T TDXU / XT / XY TSC / J TDUF / TDV B109-B118	
1212-1.4T15-D40	1 *	12	12	125	32	11.5	1.0	4	15	40		
1616-1.4T20-D45	1 *	16	16	125	38	15.5	1.0	4	20	45		
2020-1.4T20-D45	1 *	20	20	125	38	19.5	1.0	-	20	45		
1010-2T15-D40	2	10	10	125	32	9.1	1.8	6	15	40		
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		

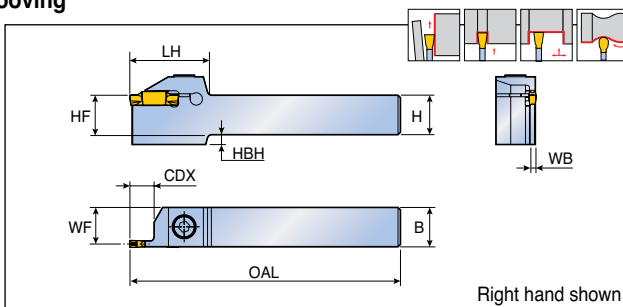
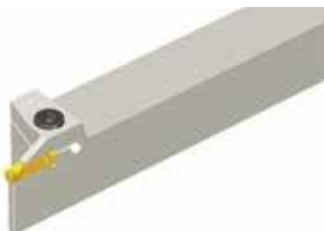
Machining depth for diameter of workpiece



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	106
1212-3T15-D40						∞						269	120	79
1616-3T20-D45						∞								432
2020-3T20-D45						∞								432
2525-3T20-D45						∞				1468	339	193	136	106
2525-3T25-D60						∞								

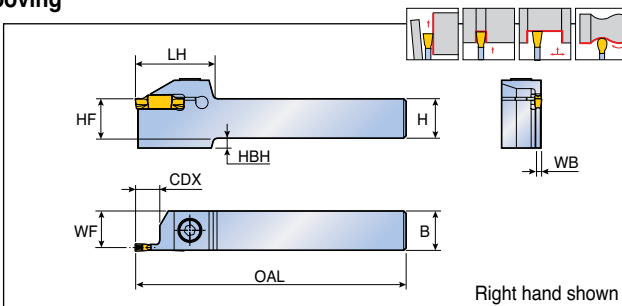
Designation		CDX												
		14	15	16	17	18	19	20	21	22	23	24	25	
TTER/L 1010-1.4T15-D40 1212-1.4T15-D40 1616-1.4T20-D45 2020-1.4T20-D45 1010-2T15-D40 1212-2T15-D40 1616-2T20-D45 2020-2T20-D45 2525-2T20-D45 1212-3T15-D40 1616-3T20-D45 2020-3T20-D45 2525-3T20-D45 2525-3T25-D60	CUTDIA	59	40											
		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	33.0	15.1	1.8	4	8	TDC / J / T / A
2020-2T08	2	20	20	125	33.0	19.1	1.8	-	8	TDXU / XT / XY
2525-2T08	2	25	25	150	33.0	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	B109-B118, B122
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	32.0	14.8	2.4	4	9	
2020-3T09	3	20	20	125	32.0	18.8	2.4	-	9	
2525-3T09	3	25	25	150	32.0	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	37.0	18.1	4.0	-	12	
2525-5T12	5	25	25	150	37.0	23.1	4.0	-	12	
2020-5	5	20	20	125	37.0	18.1	4.0	-	20	
2525-5	5	25	25	150	37.0	23.1	4.0	-	20	
2525-5T32	5	25	25	150	56.0	23.0	4.0	-	32	
3232-5T20	5	32	32	170	39.0	30.0	4.0	-	20	
3232-5T32	5	32	32	170	56.0	30.0	4.0	-	32	

Holders for external turning and grooving



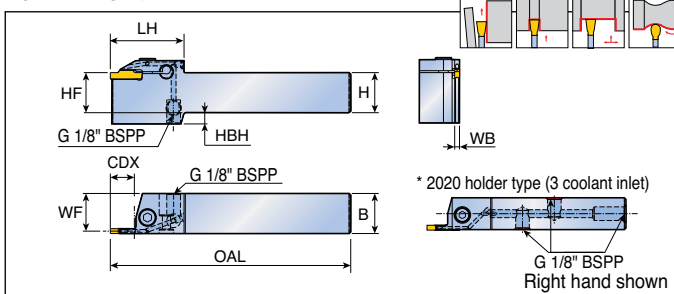
Designation	Insert seat size	Dimension (mm)								Insert
		H(HF)	B	OAL	LH	WF	WB	HBH	CDX	
TTER/L 2020-6T12	6	20	20	125	37	17.6	5.0	-	12	TDC / J / T / A
2525-6T12	6	25	25	150	37	22.6	5.0	7	12	TDXU / XT / XY
2020-6	6	20	20	125	41	17.6	5.0	-	20	TSC / J / A
2525-6	6	25	25	150	41	22.6	5.0	7	20	TDUF / TDV
2525-6T32	6	25	25	150	56	22.5	5.0	7	32	B109-B118,B122
3232-6T20	6	32	32	170	41	29.5	5.0	-	20	
3232-6T25	6	32	32	170	46	29.5	5.0	-	25	
3232-6T32	6	32	32	170	56	29.5	5.0	-	32	
TTER/L 2525-8T16	8	25	25	150	47	22.1	6.0	7	16	
2525-8	8	25	25	150	47	22.1	6.0	7	25	
3232-8	8	32	32	170	47	29.1	6.0	-	25	
2525-8T36	8	25	25	150	60	22.1	6.0	7	36	
3232-8T36	8	32	32	170	60	29.1	6.0	-	36	
TTER/L 2525-10T25	10	25	25	150	50	21.1	7.85	7	25	
3232-10T25	10	32	32	170	50	28.1	7.85	-	25	
4040-10T25	10	40	40	200	50	36.1	7.85	-	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		

TTER/L-TB

Holders for turning and grooving with high pressure coolant



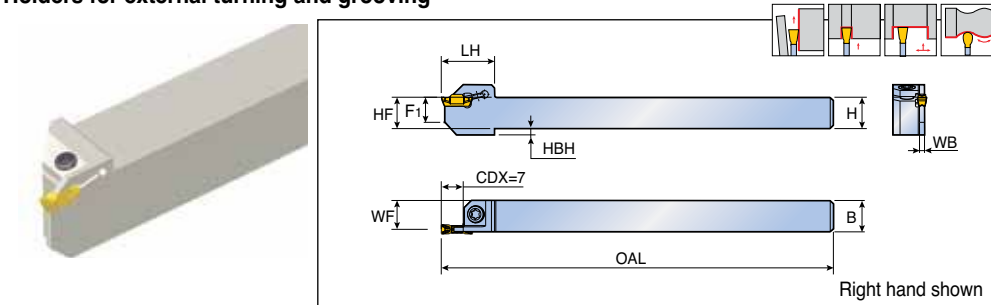
Designation	Insert seat size	Dimension (mm)								Insert
		H(HF)	B	OAL	LH	WF	WB	HBH	CDX	
TTER/L 2020-2T12-TB	2	20	20	125	43	19.1	1.8	-	12	TDC / J / T / A TD XU / XT / XY TSC / J / A TDUF / TDV B109-B118,B122
2525-2T12-TB	2	25	25	150	43	24.1	1.8	-	12	
2020-3-TB	3	20	20	125	43	18.8	2.4	-	12	
2020-4-TB	4	20	20	125	46	18.5	3.0	-	15	
2525-3-TB	3	25	25	150	43	23.8	2.4	-	12	
2525-4-TB	4	25	25	150	46	23.5	3.0	-	15	
2525-5-TB	5	25	25	150	49	23.1	4.0	-	20	
2525-6-TB	6	25	25	150	52	22.6	5.0	7	20	
2525-8-TB	8	25	25	150	58	22.1	6.0	7	25	
		70 bar flow rate (ℓ/min)			100 bar flow rate (ℓ/min)			140 bar flow rate (ℓ/min)		
TTER/L 2020-2T12-TB		5-7			7-9			8-10		
2525-2T12-TB		5-7			7-9			8-10		
2020-3-TB		5-7			7-9			9-11		
2020-4-TB		6-8			10-12			12-14		
2525-3-TB		6-8			8-10			10-12		
2525-4-TB		10-12			14-16			16-18		
2525-5-TB		13-16			19-21			22-24		
2525-6-TB		13-16			19-21			22-24		
2525-8-TB		13-16			19-21			22-24		

- Please refer to **B102** page for COOL-BURST accessories

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 / 7-TB	SH M8x1.25x20	-	PLG G1/8-T8.0-L12.3	L-W 5, L-W 6

Holders for external turning and grooving

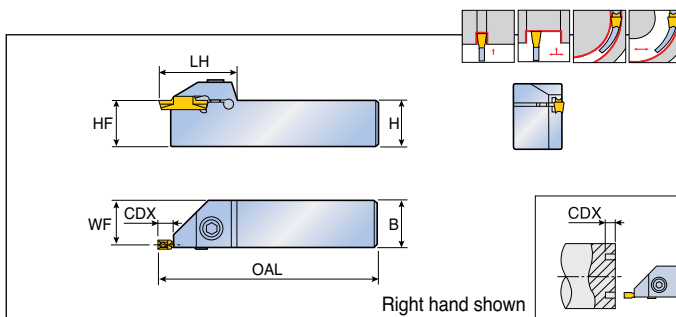


Designation	Insert seat size	Dimension (mm)								Insert
		H(HF)	B	OAL	LH	WF	WB	F1	HBH	
TTSER/L 1010-2T7	2	10	10	125	17	9.2	1.6	8	2	TDIM / TDIP  B120-B121
1212-2T7	2	12	12	125	17	11.2	1.6	8	-	
1616-2T7	2	16	16	125	20	15.2	1.6	11	-	
2020-2T7	2	20	20	125	20	19.2	1.6	14	-	
2525-2T7	2	25	25	125	20	24.2	1.6	18	-	
1010-3T7	3	10	10	125	17	8.8	2.4	8	2	
1212-3T7	3	12	12	125	17	10.8	2.4	8	-	
1616-3T7	3	16	16	125	20	14.8	2.4	11	-	
2020-3T7	3	20	20	125	20	18.8	2.4	14	-	
2525-3T7	3	25	25	125	20	23.8	2.4	18	-	

Spare parts

Designation	Screw	Wrench		
				
TTSER/L	TS 40097I	T 15		

Holders for shallow grooving

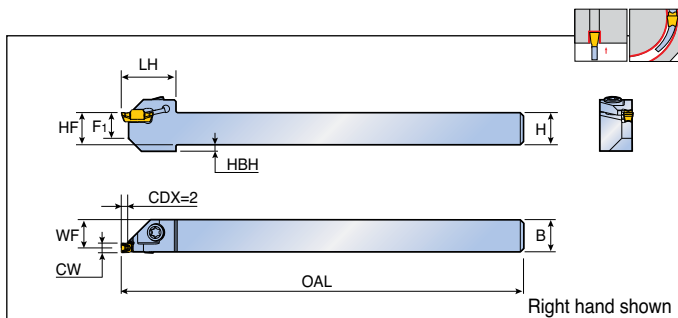
[illegible]

- External turning & grooving is available depending on the insert type
- Please check insert min. dia for face grooving [B70](#) 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		

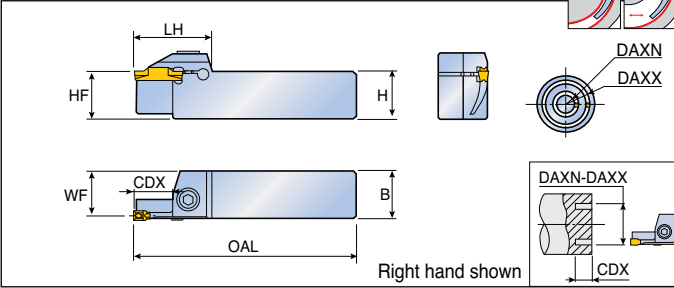
Holders for shallow grooving

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Spare parts

Designation	Screw	Wrench		
				
TGSFR/L	TS 40097I	T 15		

Holders for deep face grooving



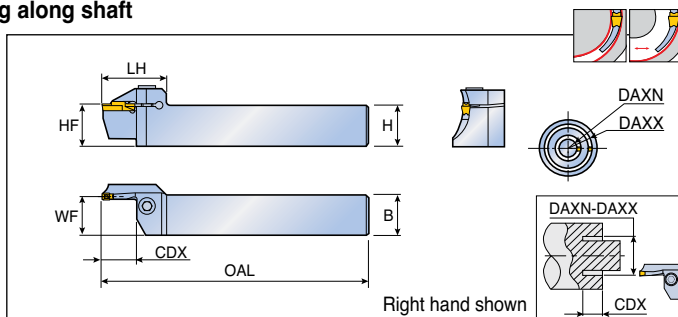
Designation	Insert seat size	Dimension (mm)								Insert
		H(HF)	B	OAL	LH	WF	CDX	DAXN	DAXX	
TTFR/L 25-30-3	3	25	25	150	32	24.0	10	24	35	TDC / J / T TDXU / XT / XY / FT TSC / J TDUF / TDV B109-B119
25-35-3	3	25	25	150	32	24.0	10	29	40	
25-40-3	3	25	25	150	32	24.0	10	34	50	
25-50-3	3	25	25	150	32	24.0	15	44	60	
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	
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 B70 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		

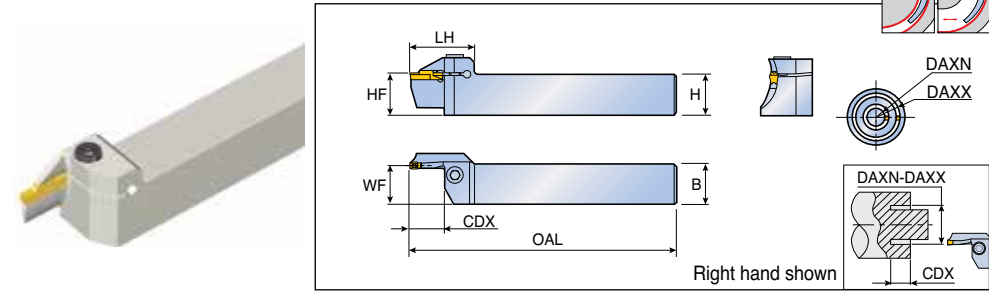
Holders for deep face grooving along shaft



Designation	Insert seat size	Dimension (mm)								Insert	
		H(HF)	B	OAL	LH	WF	CDX	DAXN	DAXX		
TTFR/L	20-21-30-3T10 RN	3	20	20	140	31	19.0	10	21	30	TDC / J / T
	20-24-35-3T10 RN	3	20	20	140	31	19.0	10	24	35	TDXU / XT / XY
	20-29-40-3T10 RN	3	20	20	140	31	19.0	10	29	40	TDFT
	20-34-50-3T10 RN	3	20	20	140	31	19.0	10	34	50	TSC / J
	20-44-70-3T15 RN	3	20	20	140	35	19.0	15	44	70	TDUF / TDV
	20-64-100-3T15 RN	3	20	20	140	35	19.0	15	64	100	 B109-B119
	25-30-3 RN	3	25	25	150	38	24.0	10	24	35	
	25-35-3 RN	3	25	25	150	38	24.0	10	29	40	
	25-40-3 RN	3	25	25	150	38	24.0	10	34	50	
	25-50-3 RN	3	25	25	150	38	24.0	15	44	70	
	25-70-3 RN	3	25	25	150	38	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	39	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 B70 page

Holders for deep face grooving along shaft



Designation	Insert seat size	Dimension (mm)								Insert
		H(HF)	B	OAL	LH	WF	CDX	DAXN	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	∞	 B109-B119

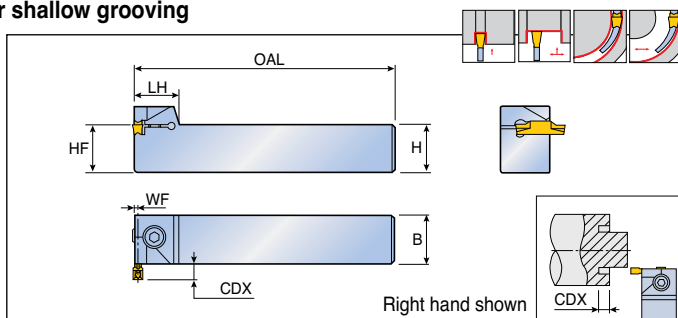
• Please check insert min. dia for face grooving B70 page

Insert initial min.Dia (Dmin) for face grooving

Machining	Insert	Size (mm)	Min. dia. (mm)	Insert	Size (mm)	Min. dia. (mm)
	TDJ/C TDUF / TDV	3	54	TDT RU	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

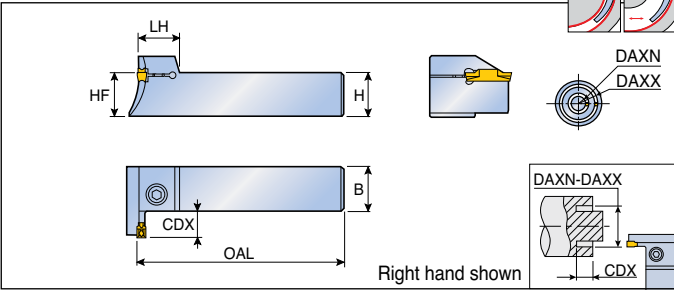
Designation	Screw	Wrench		
				
TTFR/L 20...RN	SH M6x1x20	L-W 5		
TTFR/L 25...3/4 RN	SH M6x1x25	L-W 5		
TTFR/L 25...5/6 RN	SH M8x1.25x25	L-W 6		

[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



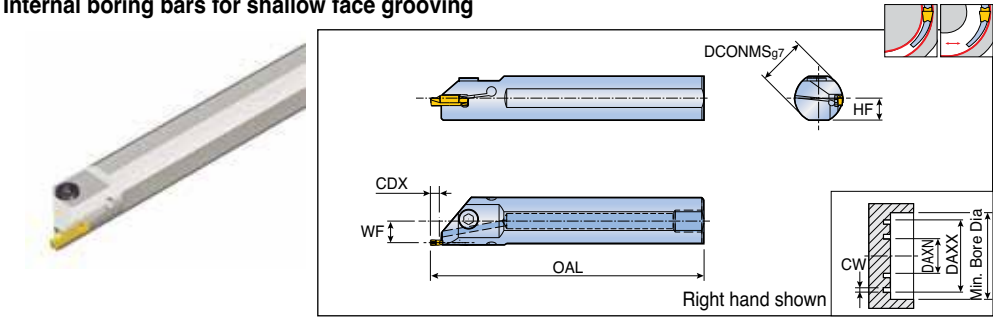
Designation	Insert seat size	Dimension (mm)							Insert
		H(HF)	B	OAL	LH	CDX	DAXN	DAXX	
TTFPR/L 25-30-3	3	25	25	150	18.0	10	24	35	TDC / J / T TDXU / XT / XY / FT TSC / J TDUF / TDV  B109-B119
25-35-3	3	25	25	150	18.0	10	29	40	
25-40-3	3	25	25	150	18.0	10	34	50	
25-50-3	3	25	25	150	18.0	15	44	60	
25-60-3	3	25	25	150	18.0	15	54	85	
25-30-4	4	25	25	150	18.5	12	22	40	
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 B70 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

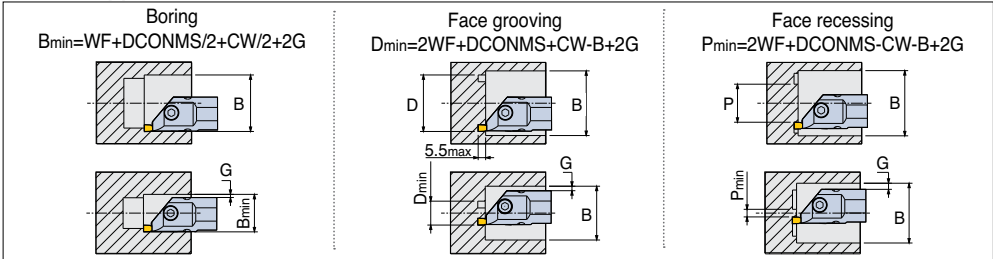


Designation	Insert seat size	Dimension (mm)					Insert
		DCONMS	OAL	WF	HF	CDX	
TGIFR/L 25-4C-T5.5	3, 4	25	200	11.3	11.5	5.5	TDC / J / T
32-4C-T5.5	3, 4	32	250	14.8	15.0	5.5	TDXU / XT / XY / FT
25-6C-T5.5	5, 6	25	200	10.3	11.5	5.5	TSC / J
32-6C-T5.5	5, 6	32	250	13.8	15.0	5.5	TDUF / TDV
							B109-B119

• Please check insert min. dia for face grooving [B70](#) page

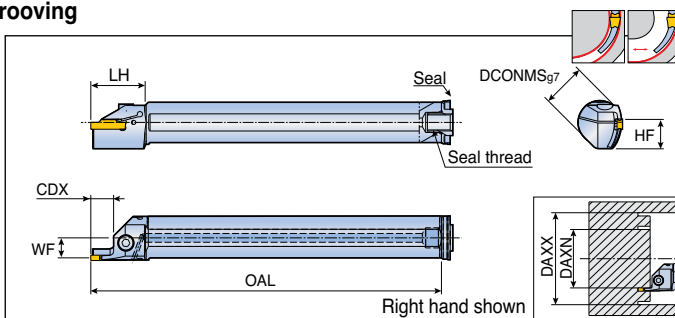
CW	Min. bore dia		DAXN				DAXX
	d=25	d=32	TDC / TDJ	TDFT / TDXU / TDXT	TDT	TDT-RU	
3	26.3	33.3	54	18	44	41	∞
4	26.8	33.8	34	18	42	36	
5	26.3	33.3	49	20	50	54	
6	26.8	33.8	46	18	48	54	

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")	

[illegible]

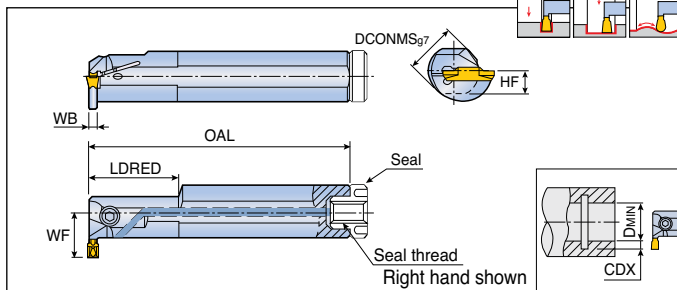
Spare parts

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")	

TTIR/L-C

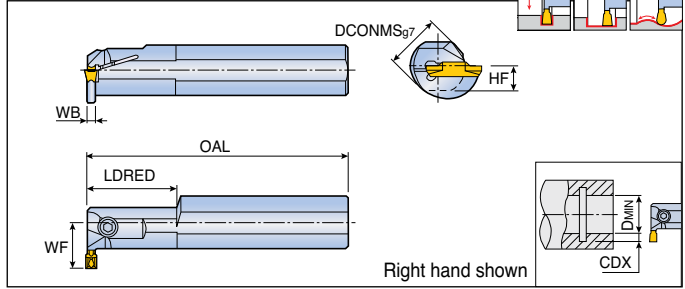
T-CLAMP
PARTING & GROOVING

Internal boring bars for turning and grooving with coolant hole

[illegible]

- Please check insert min. dia for internal grooving B76 page

Internal boring bars for turning and grooving



Designation	Insert seat size	Dimension (mm)								Insert
		DCONMS	OAL	LDRED	WF	HB	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	B109-B120
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 [B76](#) page

Machining	TDJ/C/UF/V		TDT		TDT RU		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

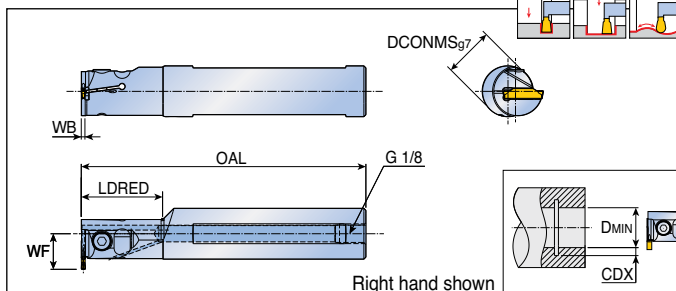
Spare parts

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

TTIR/L-TB

Internal boring bars for turning and grooving with high pressure coolant



Designation	Insert seat size	Dimension (mm)							Insert
		DCONMS	OAL	LDRED	WF	WB	CDX	DMIN	
TTIR/L 20-2T06-TB	2	20	120	40	17	1.8	6	27	TDC / J / T
25-2T06-TB	2	25	150	40	19.5	1.8	6	29	TDXU / XT / XY
20-3T06-TB	3	20	120	40	17	2.4	6	27	TSC / J
25-3T06-TB	3	25	150	40	19.5	2.4	6	29	TDUF / TDV
32-3T10-TB	3	32	150	60	27	2.4	10	40	B109-B118
TTIR 20-4T06-TB	4	20	120	40	17	3	6	27	
25-4T06-TB	4	25	150	40	19.5	3	6	29	
32-4T10-TB	4	32	150	60	27	3	10	40	

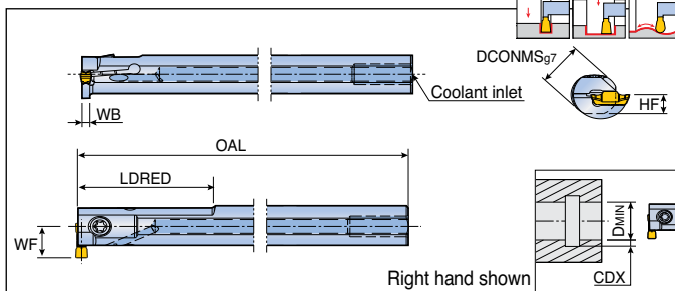
	70 bar flow rate (ℓ/min)	100 bar flow rate (ℓ/min)	140 bar flow rate (ℓ/min)
TTIR/L 20-2T06-TB	12-14	15-17	18-20
25-2T06-TB	12-14	15-17	18-20
20-3T06-TB	14-16	17-19	21-23
25-3T06-TB	14-16	17-19	21-23
32-3T10-TB	14-16	17-19	21-23
TTIR 20-4T06-TB	24-26	29-31	35-37
25-4T06-TB	24-26	29-31	35-37
32-4T10-TB	24-26	29-31	35-37

- Please refer to B102 page for COOL-BURST accessories
- Please check insert min. dia for internal grooving B76 page

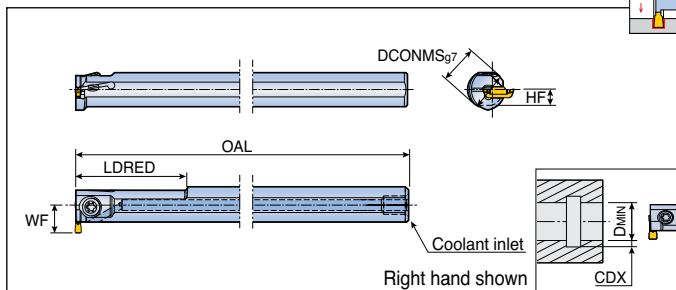
Spare parts

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

The diagrams show a cross-section of a rock formation with a wellbore. In the first stage, a vertical fracture is formed. In the second stage, the fracture extends further into the rock under pressure. In the third stage, the fracture closes, and fluid flows from the wellbore into the fracture.

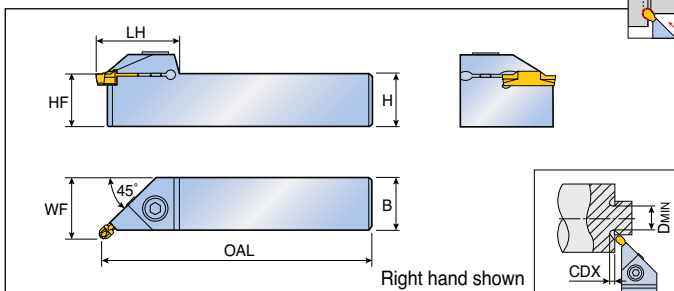
[illegible]

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)	



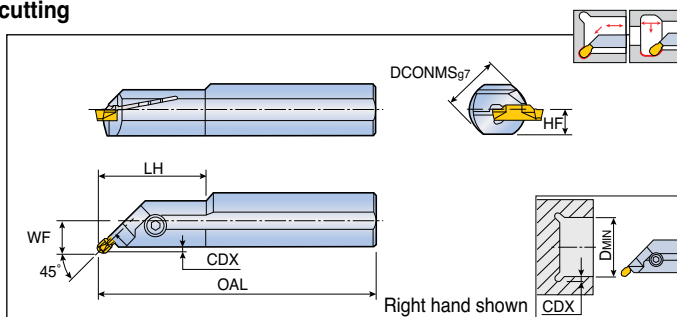
Spare parts

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



Spare parts

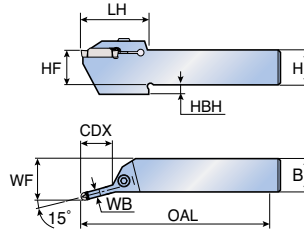
Designation	Screw	Wrench		
				
TGEUR/L 1616-3	SH M5x0.8x16	L-W 4		
TGEUR/L 2020-3	SH M5x0.8x20	L-W 4		
TGEUR/L 2525-3	SH M5x0.8x25	L-W 4		
TGEUR/L 1616-4	SH M6x1x16	L-W 5		
TGEUR/L 2020-4	SH M6x1x20	L-W 5		
TGEUR/L 2525-4/6	SH M6x1x25	L-W 5		

[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

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

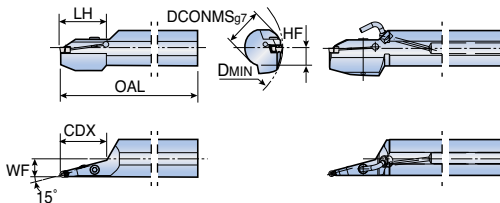


Fig. 1

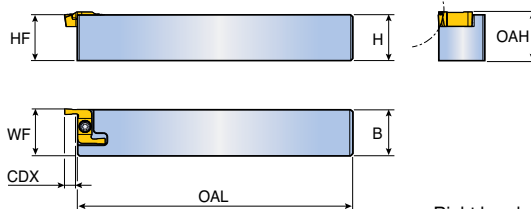
Fig.2

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



Right hand shown

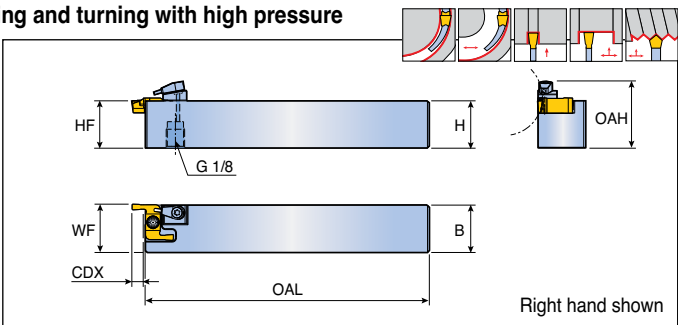
[illegible]

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

TXFR/L-TB



Holders for shallow face grooving and turning with high pressure coolant



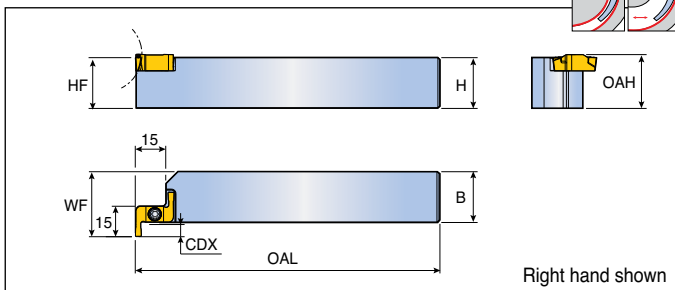
Designation	Dimension (mm)							Insert
	H	HF	B	OAL	OAH	WF	CDX	
TXFR 2525-TB	25	25	25	150	35.5	25.5	6	TDF(G)X ...R
TXFL 2525-TB	25	25	25	150	35.5	25.5	6	TDF(G)X ...L
								B123

	70 bar flow rate (ℓ/min)	100 bar flow rate (ℓ/min)	140 bar flow rate (ℓ/min)
TXFL 2525-TB	5-7	7-9	8-10
TXFR 2525-TB	5-7	7-9	8-10

• Please refer to B102 page for COOL-BURST accessories

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	

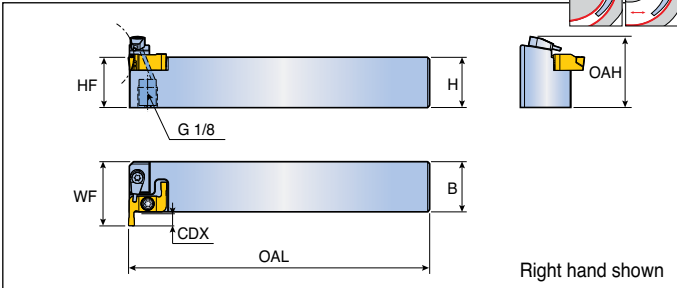
[illegible]

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

TXFPR/L-TB



Perpendicular holders for shallow face grooving and turning with high pressure coolant



Designation	Dimension (mm)							Insert
	H	HF	B	OAL	OAH	WF	CDX	
TXFPR 2525-TB	25	25	25	150	35.5	32	6	TDFX ...R
TXFPL 2525-TB	25	25	25	150	35.5	32	6	TDFX ...L
								B123

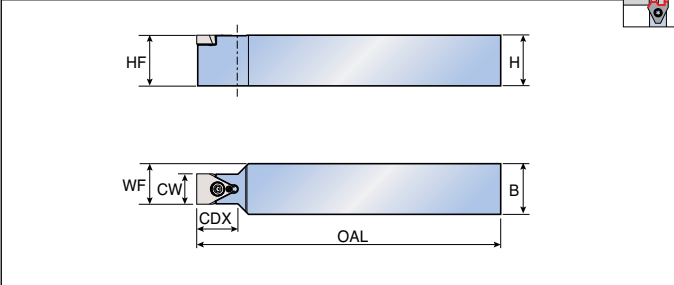
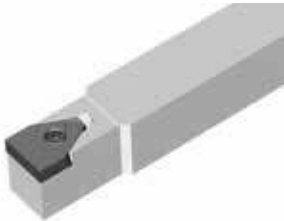
	70 bar flow rate (ℓ/min)	100 bar flow rate (ℓ/min)	140 bar flow rate (ℓ/min)
TXFPR 2525-TB	5-7	7-9	8-10
TXFPL 2525-TB	5-7	7-9	8-10

• Please refer to B102 page for COOL-BURST accessories

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



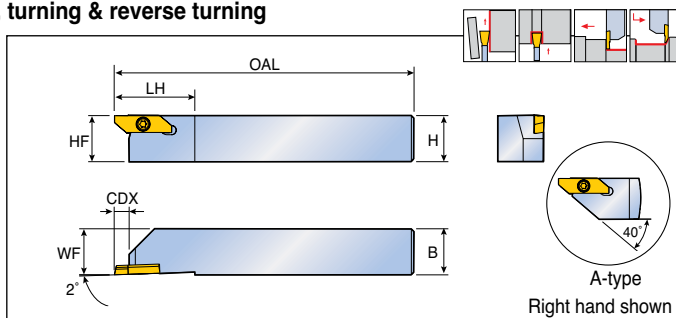
Designation	Dimension (mm)							Insert ⁽¹⁾
	H	HF	B	OAL	WF	CDX	CW	
TTLEN 1212 K10	12	12	12	125	11.0	20	10	TGUX B124
1616 K10	16	16	16	125	13.0	20	10	
2020 M10	20	20	20	150	15.0	20	10	
2525 M10	25	25	25	150	17.5	20	10	
1616 K15	16	16	16	125	15.5	20	15	
2020 M15	20	20	20	150	17.5	20	15	
2525 M15	25	25	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		

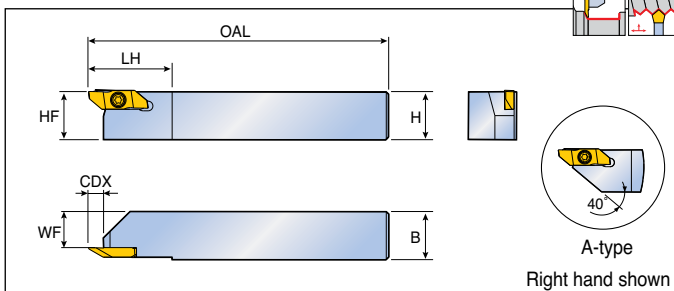
Holders for grooving, parting, turning & reverse turning

[illegible]

- Please keep in your mind selecting right insert

Spare parts

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

[illegible]

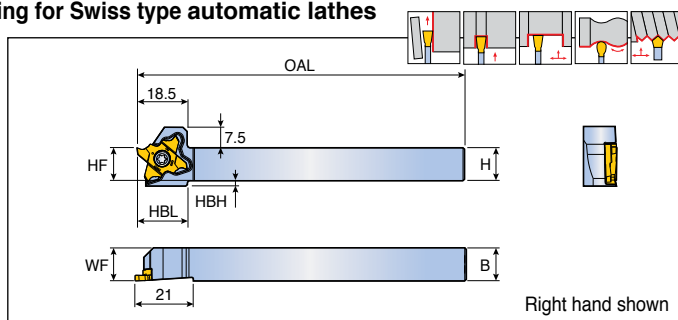
- Please keep in your mind selecting right insert

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

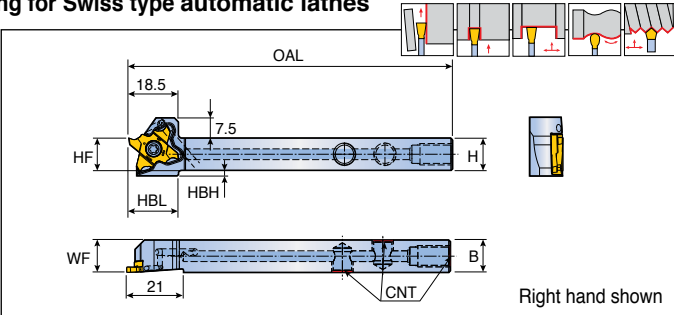
Designation	Screw	Wrench		
				
TQHR/L....20	TS 40A100L ⁽¹⁾ TS 40A100 ⁽²⁾	T-1508/5		

- ⁽¹⁾ For TQHR
- ⁽²⁾ For TQHL

TQHR/L-20-TB



Holders for parting and grooving for Swiss type automatic lathes
with high pressure coolant



Designation	Dimension (mm)							CNT	Insert
	H	HF	B	WF	OAL	HBL	HBH		
TQHR/L 12-20-TB	12	12	12	12	120	18.5	2	UNF 5/16	TQS 20 TQJ 20 B143-B144
16-20-TB	16	16	16	16	120	-	-	UNF 5/16	
20-20-TB	20	20	20	20	120	-	-	G 1/8	

	70 bar flow rate (ℓ/min)	100 bar flow rate (ℓ/min)	140 bar flow rate (ℓ/min)
TQHR/L- TB	9-11	11-13	12-14

• Please refer to B102 page for COOL-BURST accessories

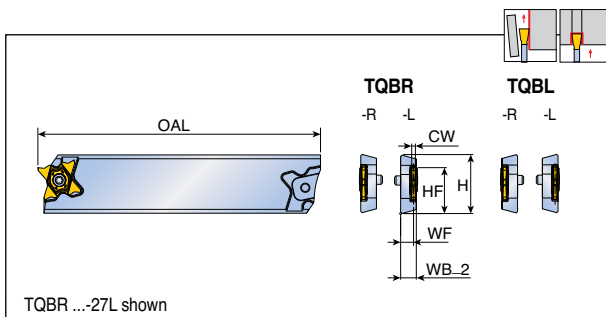
Spare parts

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

• ⁽¹⁾ For TQHR • ⁽²⁾ For TQHL

TQBR/L-27

Blades for parting and grooving

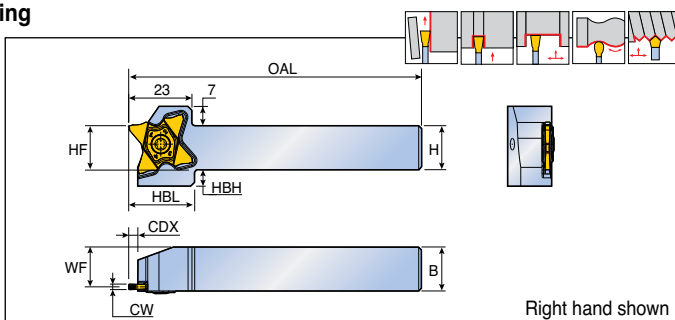
[illegible]

- * : 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

Spare parts

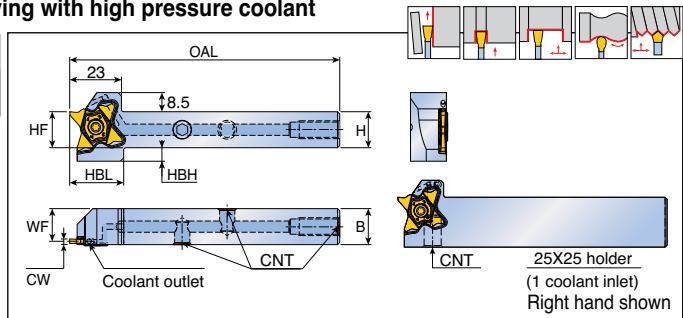
Designation	Screw	Wrench		
				
TQHR/L 10/12/16/20/25	TS 50125I ⁽¹⁾	T 10/20		
	TS 50125IL ⁽²⁾	T 10/20		
TQHR/L 16/20/25-27-8	TS 50170I-IC ⁽³⁾	T 15		
	TS 50170IL-IC ⁽⁴⁾	T 15		

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

TQHR/L-27-TB



Holders for parting and grooving with high pressure coolant



Designation	Dimension (mm)							CNT	Insert
	H(HF)	B	OAL	WF	HBL	HBH	CW range		
TQHR/L 12-27-TB	12	12	120	10.5	24	8	0.5 ≤ CW < 5.3	UNF 5/16	TQ.. 27 B145-B153
16-27-TB	16	16	120	14.5	24	6	0.5 ≤ CW < 5.3	UNF 5/16	
20-27-TB	20	20	120	18.5	24	2	0.5 ≤ CW < 5.3	G1/8 BSPP	
25-27-TB	25	25	135	23.5	-	-	0.5 ≤ CW < 5.3	G1/8 BSPP	

	70 bar flow rate (ℓ/min)	100 bar flow rate (ℓ/min)	140 bar flow rate (ℓ/min)
TQHR/L- TB	9-11	11-13	12-14

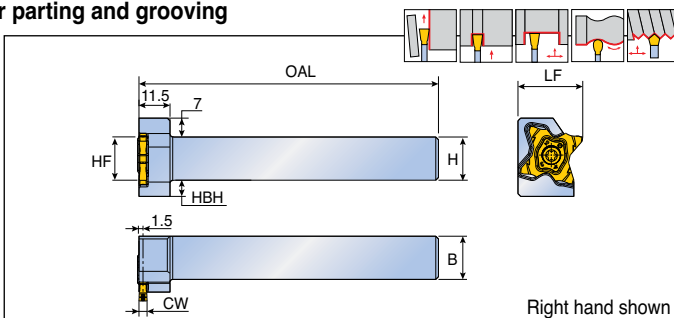
• Please refer to B102 page for COOL-BURST accessories

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

Perpendicular type holders for parting and grooving

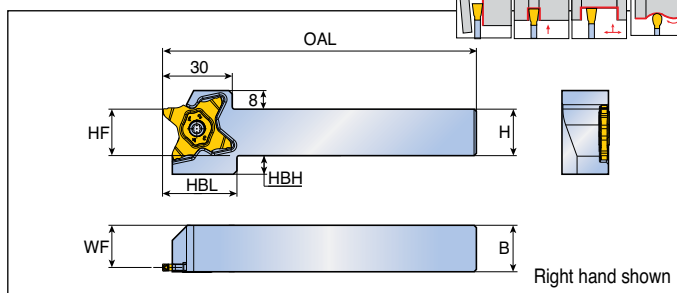
[illegible]

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

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

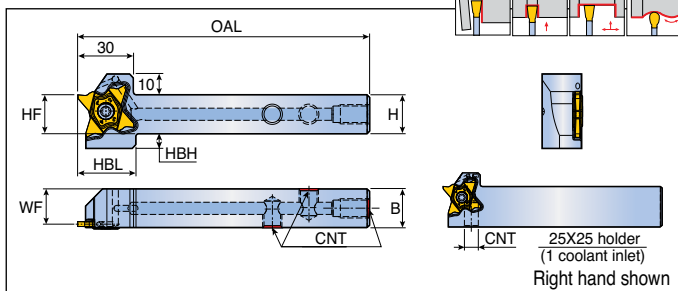
QUAD RUSH

[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

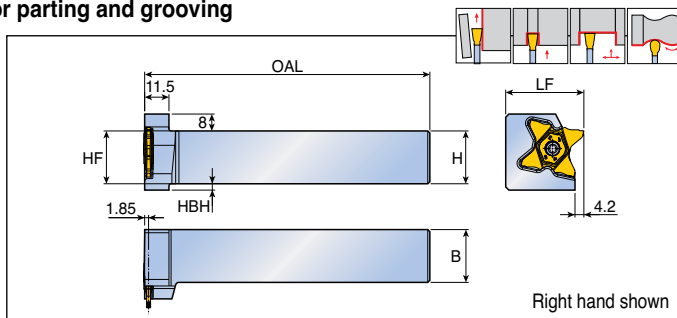


	70 bar flow rate (ℓ/min)	100 bar flow rate (ℓ/min)	140 bar flow rate (ℓ/min)
TQHR/L -34-TB	9-11	11-13	12-14

Spare parts

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

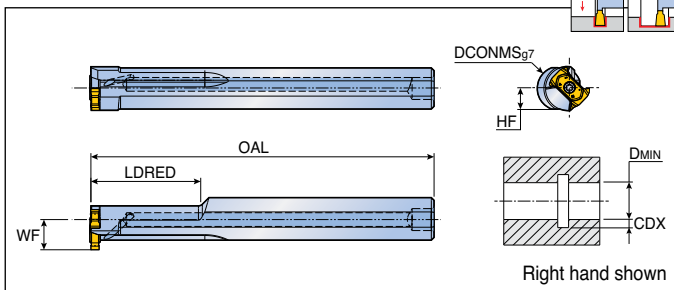
QUAD RUSH



Spare parts

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

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

[illegible]

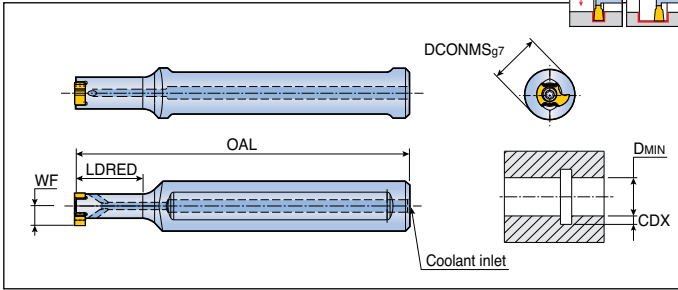
Spare parts

Designation	Screw	Wrench	Seal	
				
TQHIR/L 16	TS 25075I/HG	T 8	PL 16	
TQHIR/L 20	TS 25075I/HG	T 8	PL 20	

TMIHN



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



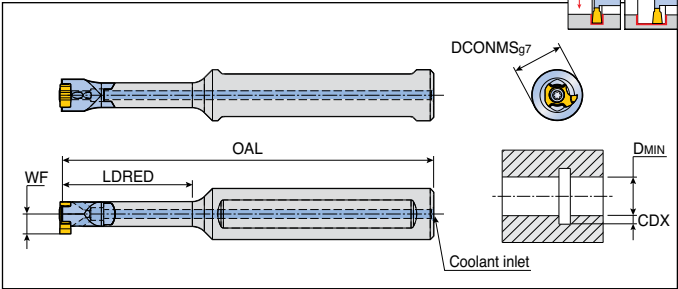
Designation	Dimension (mm)					Coolant inlet	Insert
	DCONMS	OAL	LDRED	WF	DMIN		
TMIHN 12-16-8	12	80	16	4.7	10	Ø3	TMIS 8 B155

• CDX: Refer to insert dimension

TMIHN-C



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



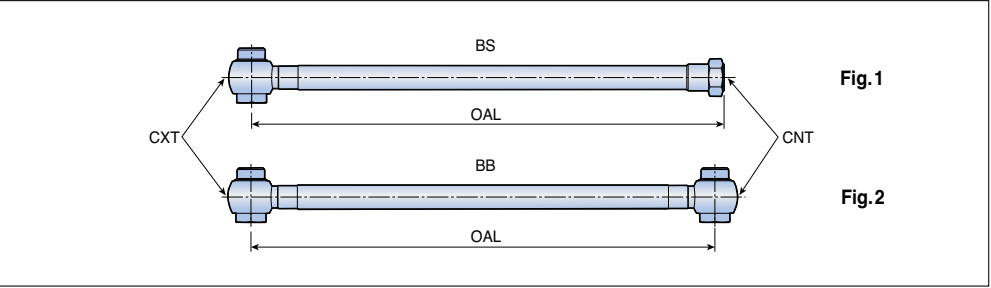
Designation	Dimension (mm)					Coolant inlet	Insert
	DCONMS	OAL	LDRED	WF	DMIN		
TMIHN 12C-24-8	12	92	24	4.7	10	Ø2	TMIS 8
12C-32-8	12	100	32	4.7	10	Ø2	B155

• CDX: Refer to insert dimension

Spare parts

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

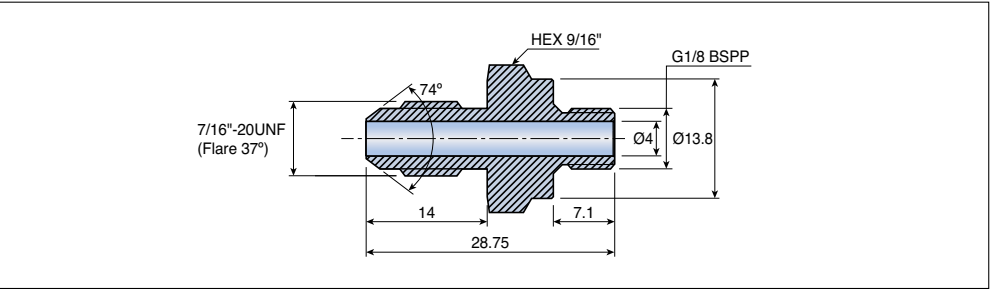
Hose



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

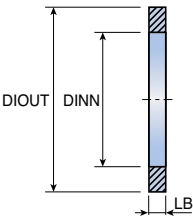
Adapter



Designation
TB NIPPLE G1/8-7/16 UNF

• Adapter is ordered separately

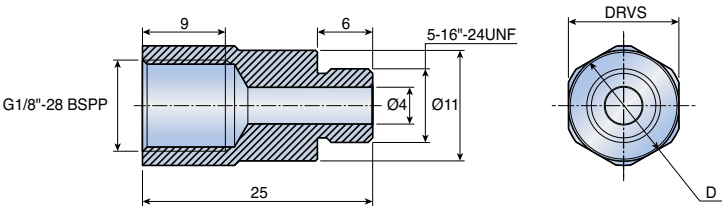
Seal washer



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

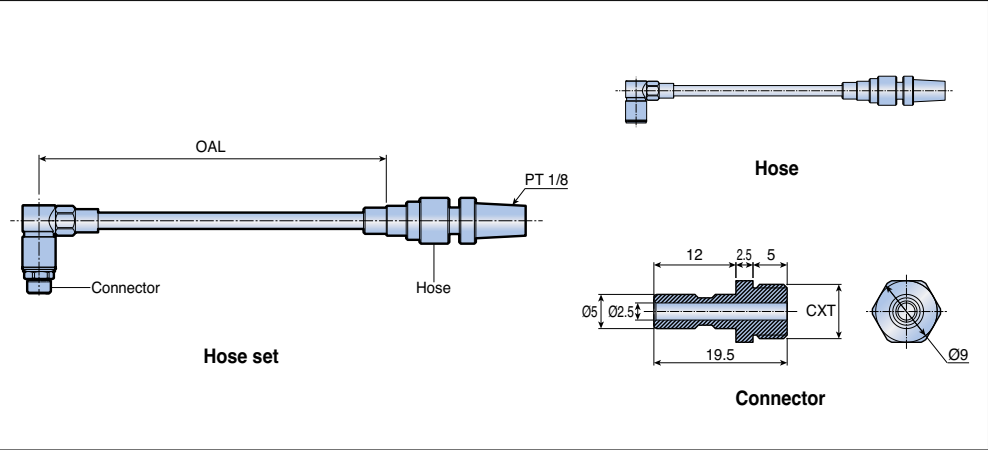
Connector



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

• Connector is ordered separately

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 and grooving



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

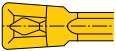
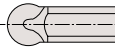
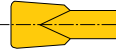
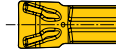
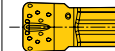
2 Cutting edge type

	
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	XU	XY
For steel, high-temp. alloy and cast iron	For aluminum	Without chip breaker	Pressed for small diameter	Ground for small diameter	Universal chip breaker (General)	Universal chip breaker (Roughing)

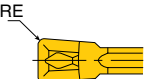
5 Width of insert (mm)

	☐ . ☐ ☐ Precision insert
	☐ Pressed insert

6 Application type

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

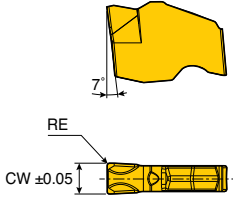
7 Corner radius (mm)

	☐ . ☐ ☐ Precision insert
	☐ . ☐ Pressed insert

8 Hand of insert - For face machining

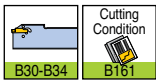
	
L	R
Left hand insert on left hand holder	Right hand insert on right hand holder

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



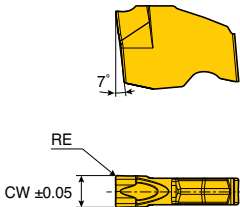
Size	Dimension (mm)				
	CW	RE			
1.6	1.6	0.2			
2	2.0	0.2			
3	3.0	0.2			

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						●		●		



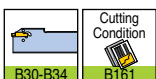
●: Standard items

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

Technical drawing of a 1/2" x 1/2" x 1/2" hexagonal nut. The top view shows a hexagon with a central hole of diameter 7/8". The side view shows the nut's profile with dimensions: RE (radius), CDX (center distance), PSIR (pitch circle radius), and BW (width). The text "Right hand shown" is present.

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



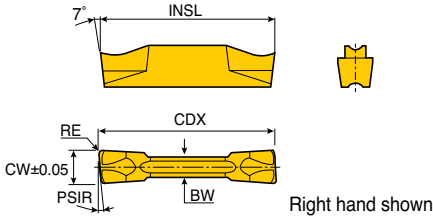
Technical drawing of a right-hand drill bit. The drawing includes a side view and a cross-sectional view. The side view shows the drill bit with dimensions: T° (tip angle), $INSL$ (insert length), RE (radius), $CW \pm 0.05$ (chamfer width), $PSIR$ (point sharpness), and BW (bit width). The cross-sectional view shows the bit's profile. The text "Right hand shown" is present.

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

Insert	Designation	Insert seat size	Feed (mm/rev)	Cermet		Coated					Uncoated	
				CT3000		TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10
	TDJ 1.4	1	0.02-0.10						●	●	●	
	2	2	0.04-0.12						●	●	●	●
	2-6R/L	2	0.03-0.08						●	●	●	●
	2-6RS/LS	2	0.03-0.07						●	●	●	
	2-8R/L	2	0.03-0.08						●	●	●	
	2-15R/L	2	0.03-0.08						●	●	●	
	2-15RS/LS	2	0.03-0.07						●	●	●	
	3	3	0.04-0.16						●	●	●	●
	3-6R/L	3	0.03-0.12						●	●	●	●
	3-6RS/LS	3	0.03-0.10							●		
	3-15R/L	3	0.03-0.12						●	●	●	
	3-15RS/LS	3	0.03-0.10							●	●	
	3.18	3	0.04-0.16						●		●	●
	4	4	0.05-0.18						●	●	●	●
	4-4R/L	4	0.05-0.14						●	●	●	●
	4-15R/L	4	0.05-0.12							●	●	●
	5	5	0.05-0.20						●	●	●	●
	5-4R/L	5	0.05-0.16							●	●	●
	6	6	0.05-0.22						●	●	●	●



●: Standard items

Technical drawing of a right-hand drill bit. The drawing includes a side view and a top view. The side view shows the drill bit with a cutting edge angle of 7° , a length dimension labeled **INSL**, a cutting edge radius dimension labeled **RE**, a cutting edge width dimension labeled **CW $\neq 0.05$** , a cutting edge chamfer dimension labeled **PSIR**, and a cutting edge chamfer angle dimension labeled **BW**. The top view shows the drill bit with a cutting edge angle of 7° and a cutting edge radius dimension labeled **RE**. The text "Right hand shown" is present.

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	0-6
5 (.R/L)	5.0	0.30	4.0	24.6	0-4
6	6.0	0.30	5.0	24.5	-

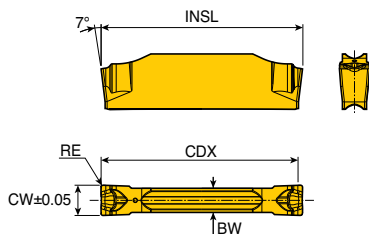
[illegible]

●: 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

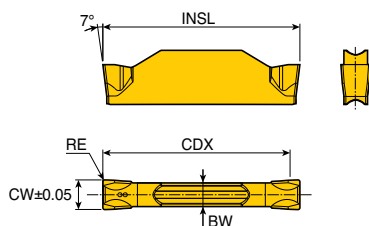
Insert	Designation	Insert seat size	Feed (mm/rev)	Cermet	Coated						Uncoated	
				CT3000		TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10
	TDUF 2	2	0.03-0.11						●			
	3	3	0.04-0.13						●			



●: Standard items

TDV

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



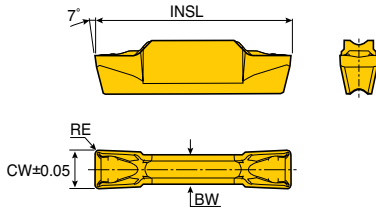
Size	Dimension (mm)				
	CW	RE	BW	INSL	CDX
2	2.0	0.2	1.7	20	19
3	3.0	0.2	2.4	20	19
4	4.0	0.3	3.0	20	19

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

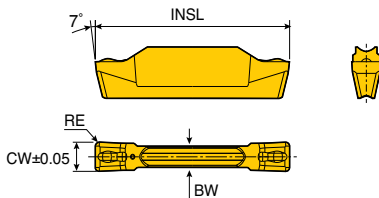
Insert	Designation	Insert seat size	Turning		Grooving	Cermet		Coated						Uncoated	
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)	CT3000		TT7505	TT6080	TT3010	TT5100	TT9080	TT7220	TT8020	K10
	TDXU 2E-0.3	2	0.4-1.2	0.12-0.18	0.03-0.20			●	●		●	●		●	●
	3E-0.3	3	0.4-1.8	0.15-0.19	0.07-0.22	●		●	●	●	●	●		●	●
	4E-0.4	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

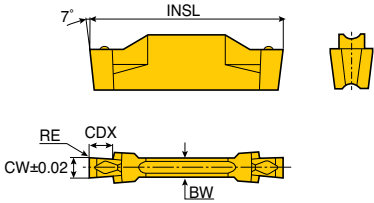
●: Standard items

Size	Dimension (mm)				
	CW	RE	BW	INSL	
3E-0.4	3.0	0.40	2.2	20	
4E-0.4	4.0	0.40	3.0	20	
4E-0.8	4.0	0.80	3.0	20	
5E-0.4	5.0	0.40	4.0	25	
5E-0.8	5.0	0.80	4.0	25	
6E-0.4	6.0	0.40	5.0	25	
6E-0.8	6.0	0.80	5.0	25	

[illegible]

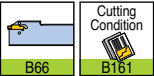
●: Standard items

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

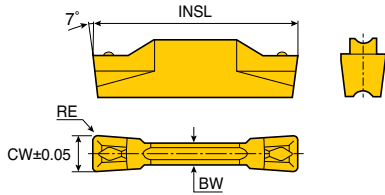
Insert	Designation	Insert seat size	Grooving	Cermet	Coated					Uncoated
			Feed (mm/rev)	CT3000	TT7505	TT6080	TT5100	TT9080	TT7220	TT8020
	TDT 1.00-0.00*	2	0.02-0.04					●	●	●
	1.30-0.00*	2	0.02-0.05					●	●	●
	1.60-0.10*	2	0.03-0.07					●	●	●
	1.85-0.10*	2	0.03-0.09					●	●	●
	2.15-0.15	2	0.03-0.10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



• *: 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	K10
 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			●								



• ⁽¹⁾This insert is a pressed ceramic insert ●: Standard items

[illegible]

Cutting Condition

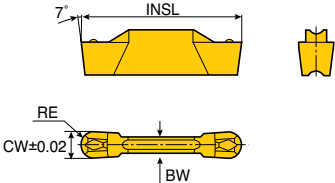


B161

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	Coated					Uncoated	
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)	CT3000	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				●	●			

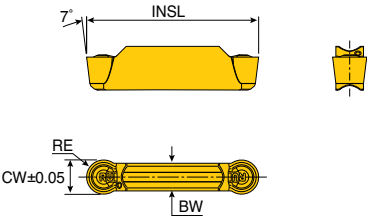


●: Standard items

TDT-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

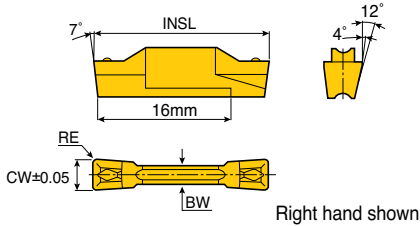
Insert	Designation	Insert seat size	Turning		Grooving	Cermet	Coated						Uncoated	
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)	CT3000	TT7505	TT6080	TT5100	TT3010	TT9080	TT7220	TT8020	K10
	TDT 2E-1.0-RU	2	0.0-1.0	0.10-0.25	0.05-0.15			●	●	●	●	●	●	●
	3E-1.5-RU	3	0.0-1.5	0.15-0.28	0.08-0.18	●		●	●	●	●	●	●	●
	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	0.25-054	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				●	●		●	

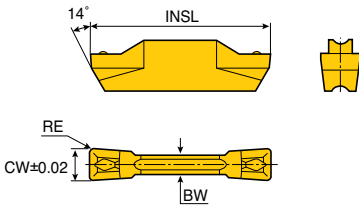


• Apply R insert on R tool and L insert on L tool

●: Standard items

TDIT-E

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

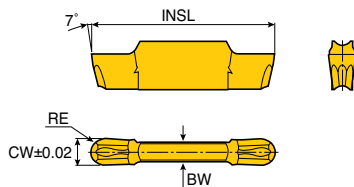
Insert	Designation	Insert seat size	Turning		Grooving	Cermet CT3000	Coated					Uncoated	
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)		TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10
	TDIT 3.00E-0.40	3	0.5-1.8	0.15-0.22	0.07-0.15				●	●		●	
	4.00E-0.40	4	0.5-2.4	0.18-0.30	0.09-0.18				●	●		●	
	4.00E-0.80	4	1.0-2.4	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

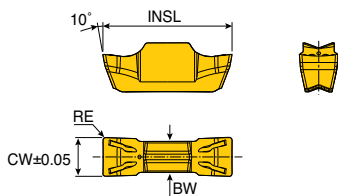
Insert	Designation	Insert seat size	Turning		Grooving	Cermet CT3000	Coated					Uncoated
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)		TT7505	TT6080	TT5100	TT9080	TT7220	TT8020
	TDIT 3.00E-1.50	3	0.0-1.5	0.15-0.28	0.08-0.18				●	●	●	
	4.00E-2.00	4	0.0-2.0	0.18-0.35	0.10-0.20				●	●	●	
	5.00E-2.50	5	0.0-2.5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

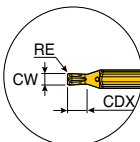
Insert	Designation	Insert seat size	Turning		Grooving	Cermet CT3000	Coated					Uncoated	
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)		TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10
	TDIM 2E-0.15	2	0.2-0.6	0.05-0.08	0.03-0.05					●			
	3E-0.2	3	0.3-1.3	0.10-0.14	0.05-0.09					●			



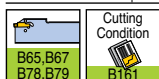
• Used holder TTSE/L, TGSFR/L, TTSIR/L, TGSIR/L

●: Standard items

FLC
PARTING & GROOVING

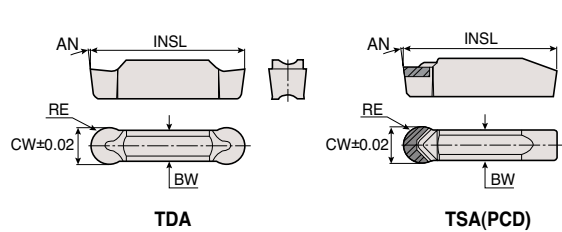


Size	Dimension (mm)				
	CW	RE	BW	INSL	CDX
1.00	1.00	0.10-0.50	1.6	10	1.6
1.20	1.20	0.00	1.6	10	1.8
1.40	1.40	0.00	1.6	10	2.0
1.50	1.50	0.10	1.6	10	2.0
2.00	2.00	0.10-1.00	1.6	10	-
2.15	2.15	0.15	1.6	10	-
2.50	2.50	0.20	2.4	10	-
3.00	3.00	0.20-1.50	2.4	10	-

[illegible]

●: 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

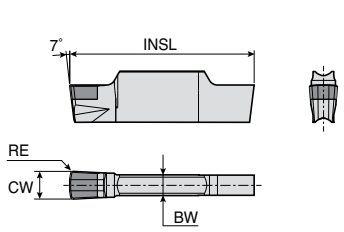
Insert	Designation	Insert seat size	Turning		Grooving	PCD	Coated					Uncoated	
			ap (mm)	Feed (mm/rev)	Feed (mm/rev)	KP300	TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10
 TDA	TDA 3.00-1.50	3	0.0-1.5	0.15-0.30	0.08-0.16								●
	4.00-2.00	4	0.0-2.0	0.20-0.43	0.10-0.22								●
	5.00-2.50	5	0.0-2.5	0.20-0.48	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



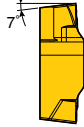
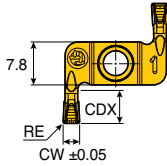
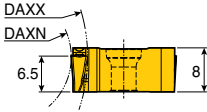
Size	Dimension (mm)				
	CW	RE	BW	INSL	
3	3.0	0.3	2.2	20	
5	5.0	0.3	4.0	25	

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

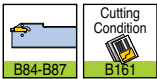
Double-ended inserts for face grooving and turning



Right hand shown

Size	Dimension (mm)				
	CW	RE	CDX	DAXN	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					●				

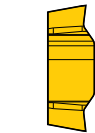
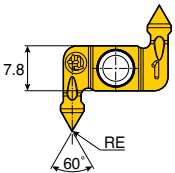


● N.L.: No limit

●: 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

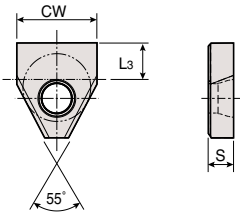
Insert	Designation	Cermet		Coated					Uncoated	
		CT3000		TT7505	TT6080	TT5100	TT9080	TT7220	TT8020	K10
	TDGX 4MT-0.05-R/L						●			



- 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

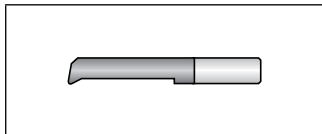
Insert	Designation	Cermet			Coated						Uncoated			
		CT3000			TT7505	TT6080	TT5100	TT9080	TT7220	TT8020		K10	P40	UF10
	TGUX 1004											●	●	●
	1504											●	●	●
	2006											●	●	●
	2506											●	●	●

●: 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

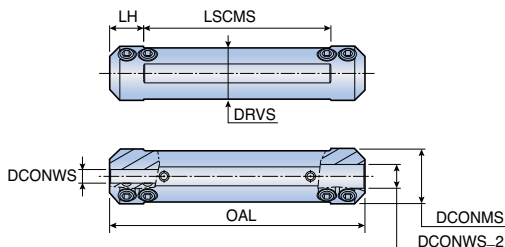
010 0.10mm
020 0.20mm

6 Min. bore. dia.

D010 1.0mm

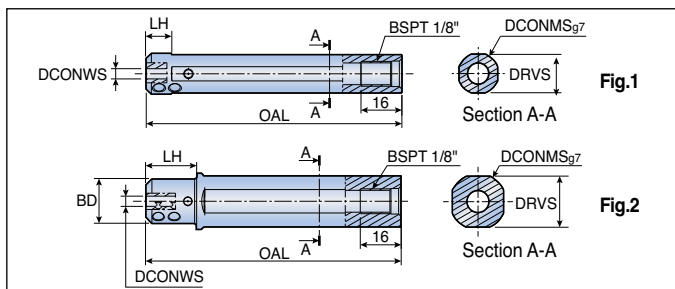
7 Application type

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



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		

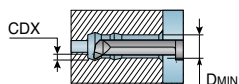
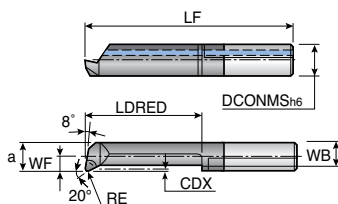
TOPMICRO

[illegible]

- ## Spare parts

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

Mini carbide bars for internal turning and chamfering



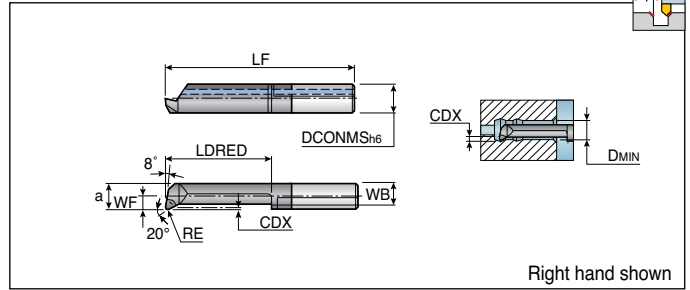
Right hand shown

[illegible]

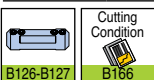
- * Max D.O.C: 0.01 - 0.03, max feed 0.01mm/rev

●: 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	●

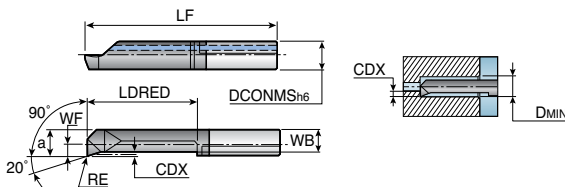


●: Standard items

MINP R 04/07

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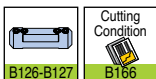
Mini carbide bars for internal turning and profiling



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	●

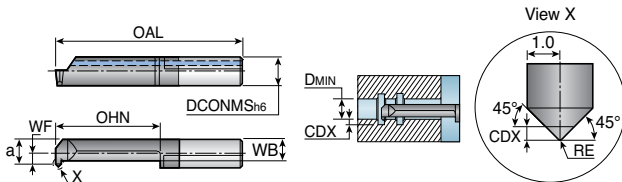
●: Standard items



MINC R 07

TOPMICRO

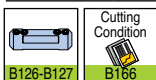
Mini carbide bars for internal turning and 45° chamfering



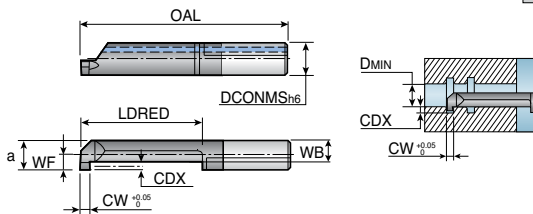
Right hand shown

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



TOPMICRO



Right hand shown

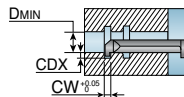
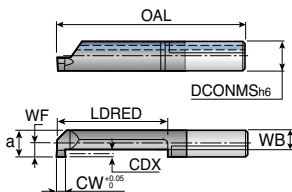
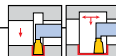
[illegible]

Cutting
Condition

- The corner radius is less than 0.1mm

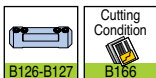
- : Standard items

Mini carbide bars for grooving and turning



Right hand shown

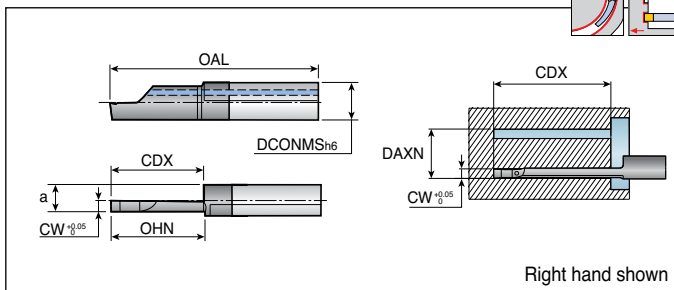
Designation	Dimension (mm)									R/L	Grade TT9030
	DCONMS	CW	WF	a	WB	OAL	LDRED	CDX	DMIN		
MINGR07- 090100D050	7.00	1.00	0.90	4.40	3.00	25.00	10.00	1.00	5.00	R	●
140100D050	7.00	1.00	0.90	4.40	3.00	30.00	15.00	1.00	5.00	R	●
090150D050	7.00	1.50	0.90	4.40	3.00	25.00	10.00	1.00	5.00	R	●
140150D050	7.00	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

[illegible]

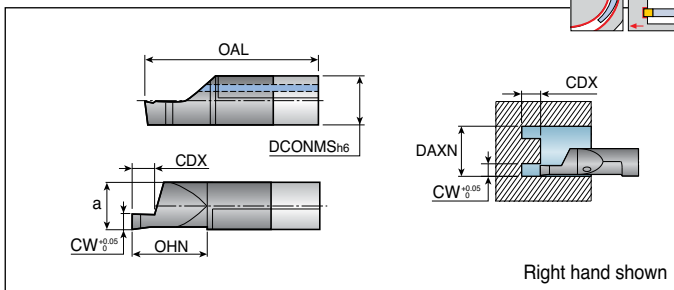
- The corner radius is less than 0.1mm

●: Standard items

MINF R/L 07



Mini carbide bars for deep face grooving

[illegible]

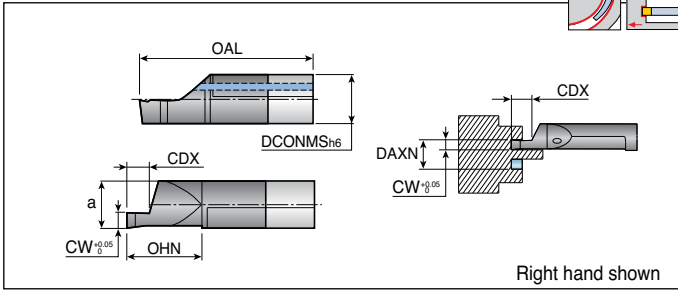
- The corner radius is less than 0.1mm

●: Standard items

MINA R 07



Mini carbide bars for grooving along shaft



Designation	Dimension (mm)							R/L	Grade TT9030
	DCONMS	CW	a	OAL	OHN	CDX	DAXN		
MINAR07-200200D060	7.00	2.00	5.20	36.00	21.00	4.00	6.00	R	●



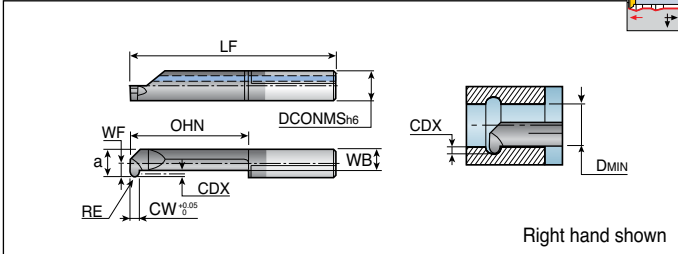
• The corner radius is less than 0.1mm

●: Standard items

MINR R 07



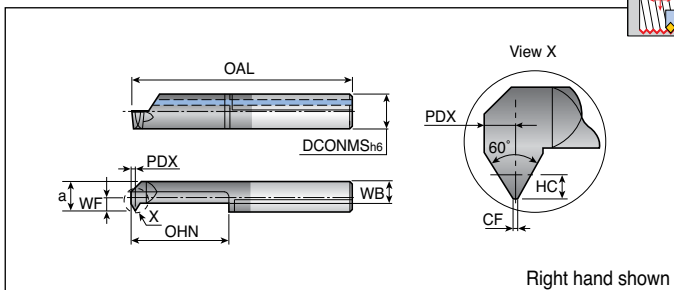
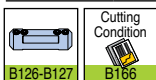
Mini carbide bars, full radius for internal turning and profiling



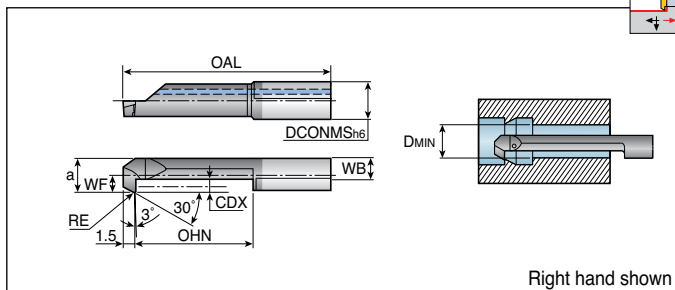
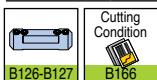
Designation	Dimension (mm)										R/L	Grade TT9030
	DCONMS	CW	WF	a	WB	RE	LF	OHN	CDX	DMIN		
MINRR07-190050D050	7.00	1.00	0.90	4.40	3.10	0.50	35.00	20.00	1.00	5.00	R	●
240050D060	7.00	1.00	1.80	5.30	3.20	0.50	40.00	25.00	1.80	6.00	R	●
290050D068	7.00	1.00	2.80	6.30	3.55	0.50	45.00	30.00	2.50	6.80	R	●



●: Standard items

[illegible]

●: Standard items

[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

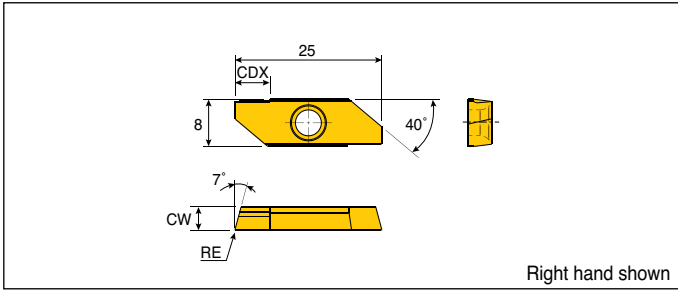
6 Corner radius

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

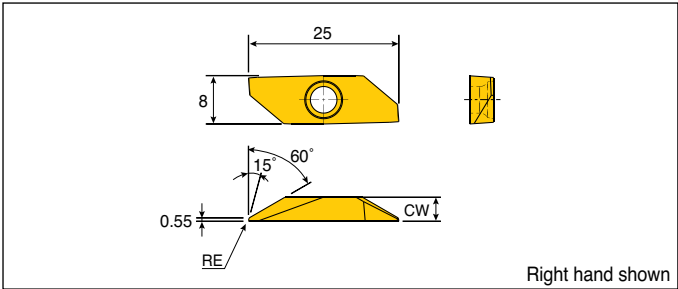


Designation	ap (mm)	Feed (mm/rev)	Dimension (mm)			Grade (TT9010)	
			CW	RE	CDX	R	L
TVER/L 40003	0.1-5.5	0.01-0.15	3.97	0.03	5.5	●	
40010	0.1-5.5	0.01-0.15	3.97	0.10	5.5	●	



●: Standard items

Reverse turning inserts

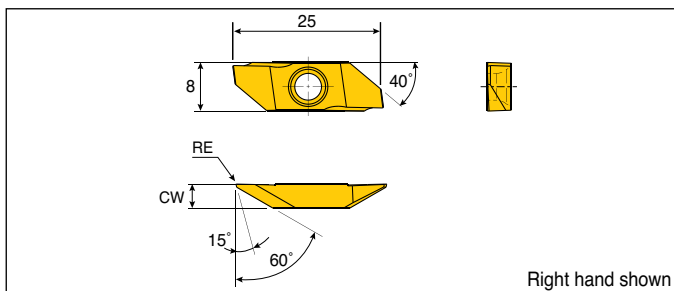


Designation	ap (mm)	Feed (mm/rev)	Dimension (mm)			Grade (TT9010)	
			CW	RE	CDX	R	L
TVRR/L 40003-60	0.1-5.5	0.01-0.15	3.97	0.03	5.5	●	
40010-60	0.1-5.5	0.01-0.15	3.97	0.10	5.5	●	



●: 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	●	●
40010-H⁽¹⁾	0.1-5.5	0.01-0.15	3.97	0.10	5.5	●	●
40015-H⁽¹⁾	0.1-5.5	0.01-0.15	3.97	0.15	5.5	●	●

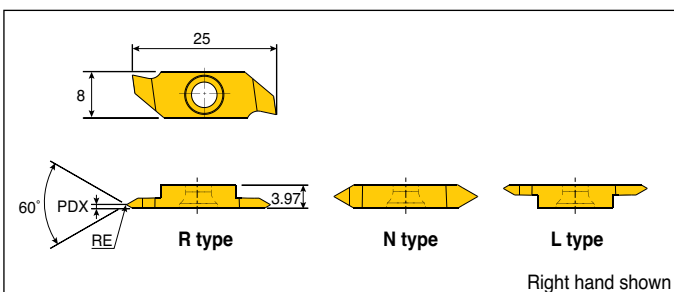


● ⁽¹⁾ With honed edges

●: Standard items

TVTR/L

Threading inserts

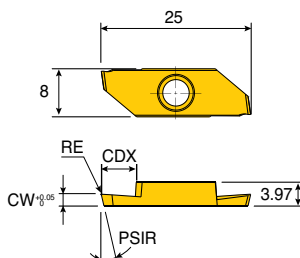


Designation	Dimension (mm)				Grade (TT9010)	
	TPN	TPX	PDX	RE	R	L
TVTR/L 41203-R	0.5	1.0	0.6	0.03	●	
40003-N	0.5	2.0	0.6	0.03	●	
41203-L	0.5	1.0	0.6	0.03		



- 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

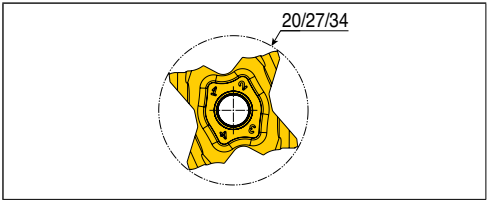
1 TaeguTec

2 QUAD-RUSH

3 Chip breaker type

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

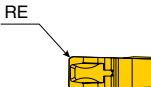
4 Circular circumference of the insert



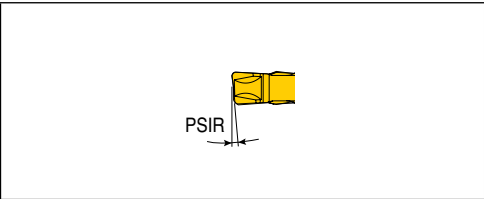
5 Width of insert

	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



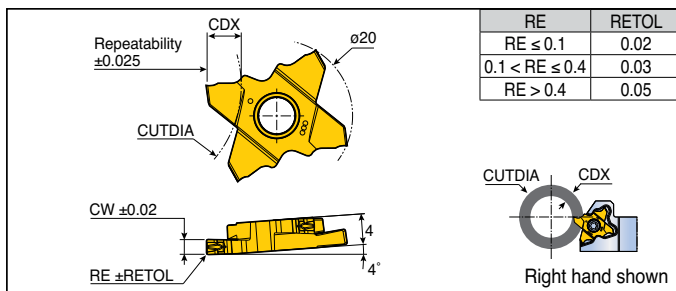
8 Hand of insert

	
L	R
Left-hand	Right-hand

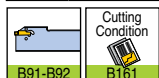
TQJ 20

QUAD RUSH

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	●



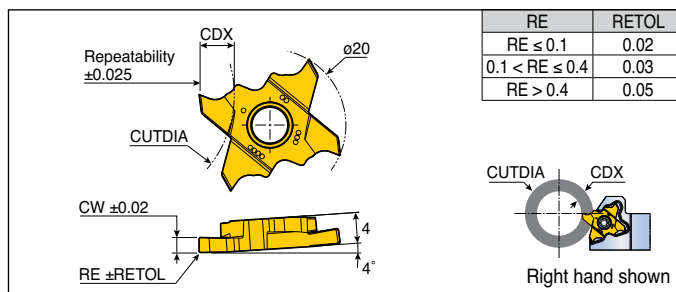
• N.L.: No limit

●: Standard items

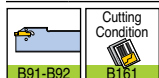
TQS 20

QUAD RUSH

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	
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



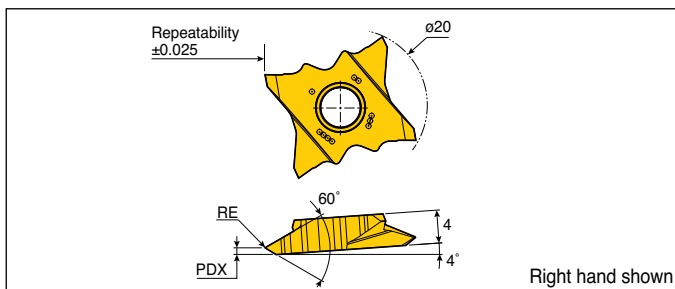
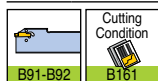
• N.L.: No limit
• *: Full radius insert

●: Standard items

TQS 20-MT



Partial profile 60° threading inserts

[illegible]

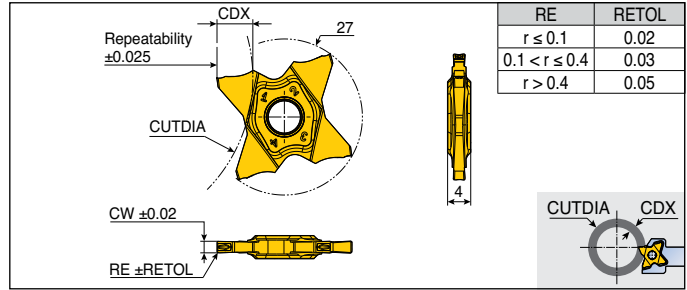
- TPN: Thread pitch minimum (mm)
- TPX: Thread pitch maximum (mm)
- TPIN: Thread per inch minimum
- TPIX: Thread per inch maximum

●: Standard items

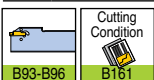
TQJ 27



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	T≤6.6	T≤6.8	
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	-	-	-	●



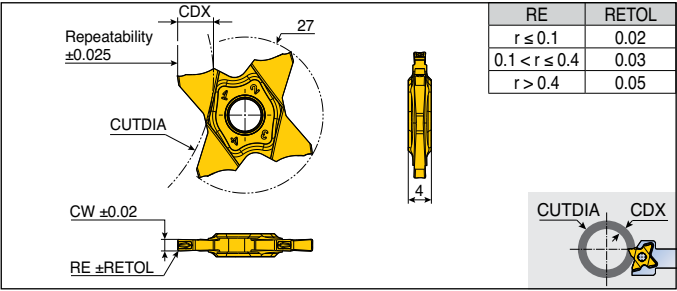
• N.L. = No limit

●: Standard items

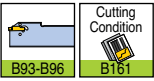
TQJ 27



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	●



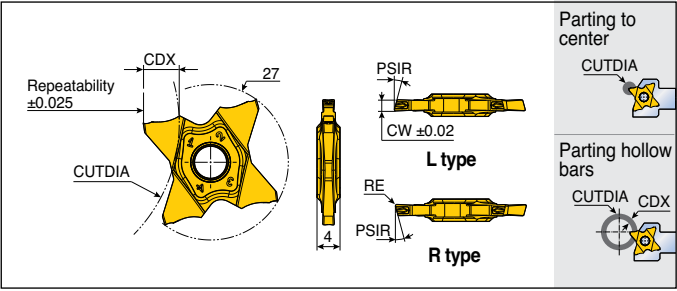
● N.L. = No limit

●: Standard items

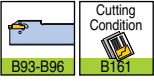
TQJ 27



Parting inserts



Designation	Feed (mm/rev)	CW	RE	PSIR	Parting to center	Parting hollow bars		Grade
					CUTDIA	CDX	CUTDIA	
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	●

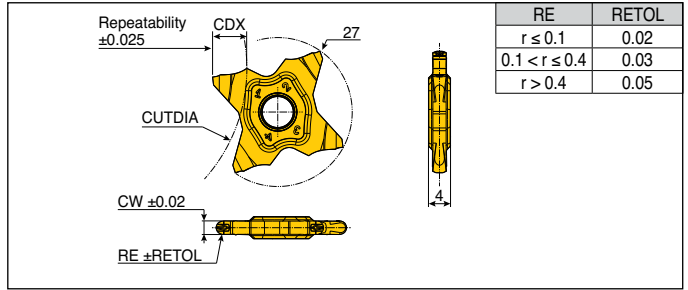
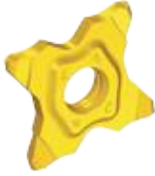


●: Standard items

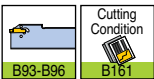
TQJ 27



Full radius inserts



Designation	Feed (mm/rev)	CW	RE	CDX	CUTDIA										Grade
					T $\leq$ 3.0	T $\leq$ 3.5	T $\leq$ 4.0	T $\leq$ 4.5	T $\leq$ 5.0	T $\leq$ 5.5	T $\leq$ 5.7	T $\leq$ 6.0	T $\leq$ 6.2	T $\leq$ 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	●



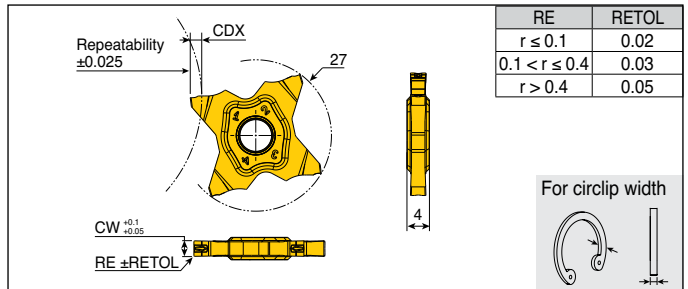
• N.L. = No limit

• Standard items

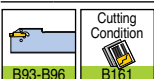
TQJ 27



DIN 471 circlip grooving and shallow grooving inserts



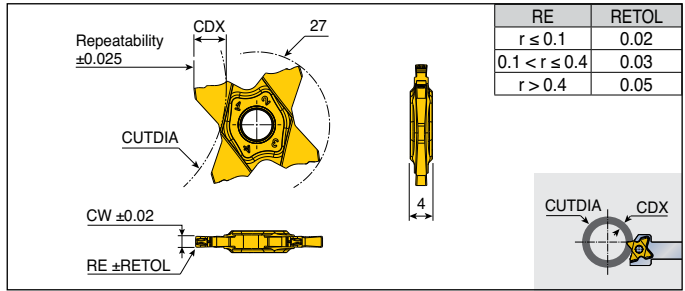
Designation	Feed (mm/rev)	CW	RE	CDX	For circlip width	Grade
						TT9080
TQJ 27-1.10-0.08-CG	0.03-0.07	1.10	0.08	1.50	1.10	●
27-1.30-0.08-CG	0.03-0.07	1.30	0.08	1.50	1.30	●
27-1.60-0.08-CG	0.03-0.08	1.60	0.08	2.00	1.60	●
27-1.85-0.08-CG	0.03-0.08	1.85	0.08	2.00	1.85	●
27-2.15-0.08-CG	0.04-0.10	2.15	0.08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



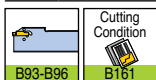
• When selecting insert, please keep in your mind insert tolerance

• 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	●	



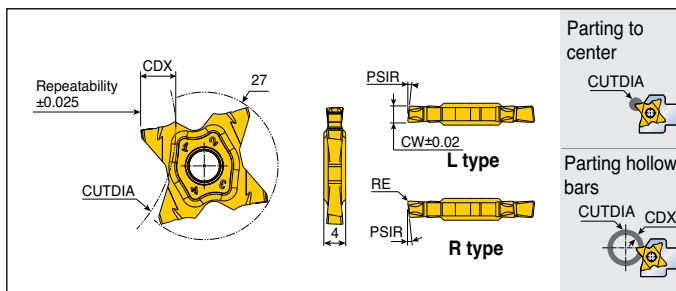
● N.L. = No limit

●: Standard items

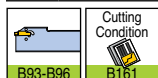
TQC 27

Parting inserts

QUAD RUSH



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	●

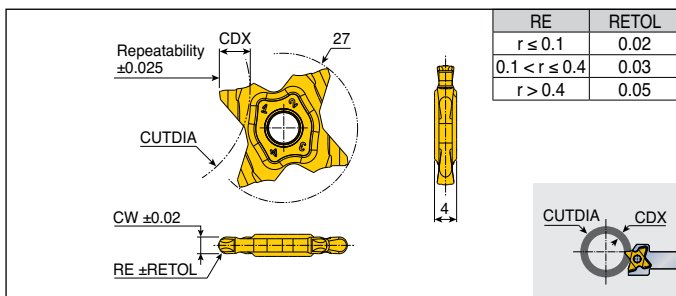


●: Standard items

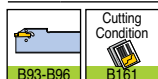
TQC 27

Full radius inserts

QUAD RUSH



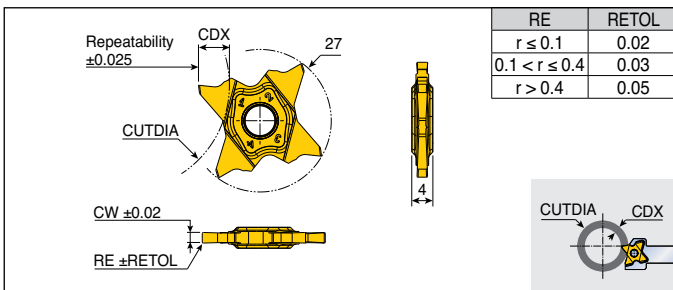
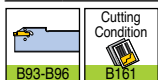
Designation	Feed (mm/rev)	CW	RE	CDX	CUTDIA										Grade
					T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤5.7	T≤6.0	T≤6.2	T≤6.4	
TQC 27-1.57-0.79	0.05-0.09	1.57	0.79	3.0	N.L..	-	-	-	-	-	-	-	-	-	●
27-2.00-1.00	0.05-0.13	2.00	1.00	3.5	N.L..	600	-	-	-	-	-	-	-	-	●
27-2.39-1.20	0.06-0.17	2.39	1.20	5.7	N.L..	600	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

Precision grooving and parting inserts

[illegible]

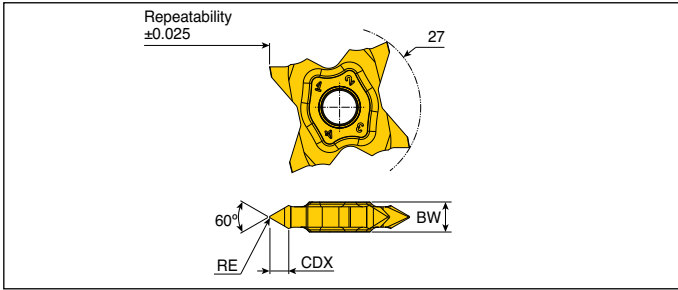
- ⁽¹⁾ Other size of width from 0.5mm up to 8.2mm can be supplied as special
- N.L. = No limit

- : Standard items

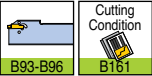
TQS 27-MT



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	56	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	●



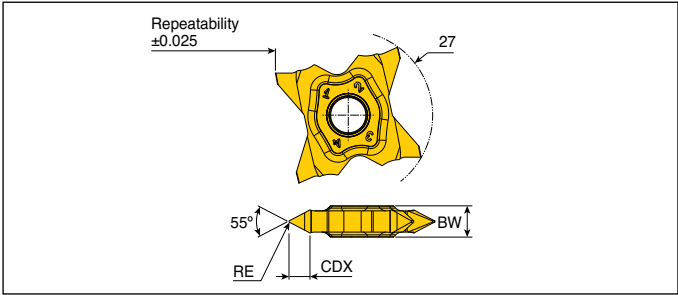
- D: Diameter of thread
- TPN: Thread pitch minimum (mm)
- TPX: Thread pitch maximum (mm)
- TPIX: Thread per inch maximum
- TPIN: Thread per inch minimum

●: Standard items

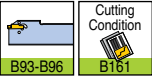
TQS 27-WT



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	●



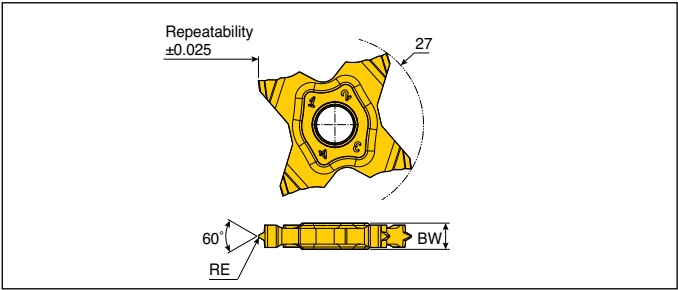
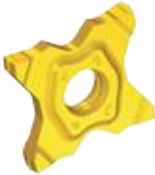
- D: Diameter of thread
- TPIX: Thread per inch maximum
- TPIN: Thread per inch minimum

●: Standard items

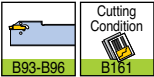
TQS 27-ISO



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	●



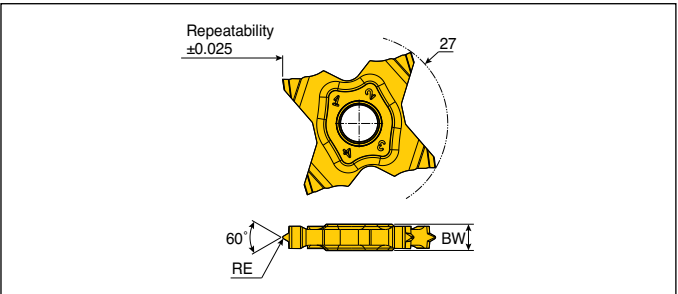
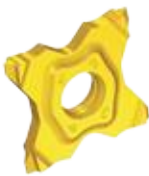
● TP: Thread pitch (mm)

●: Standard items

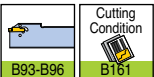
TQS 27-UN



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



Designation	Dimension (mm)			Grade
	TP	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	●



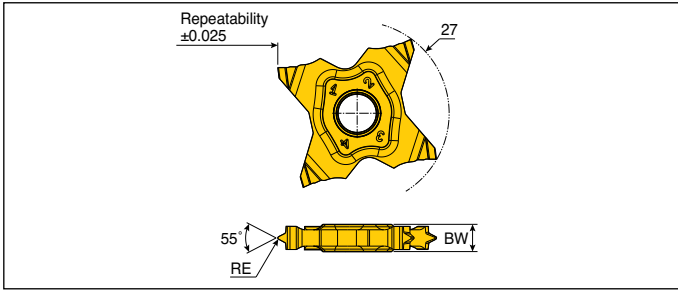
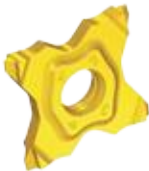
● TPI: Thread per inch

●: Standard items

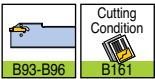
TQS 27-W



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



Designation	Dimension (mm)			Grade
	TP	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	●



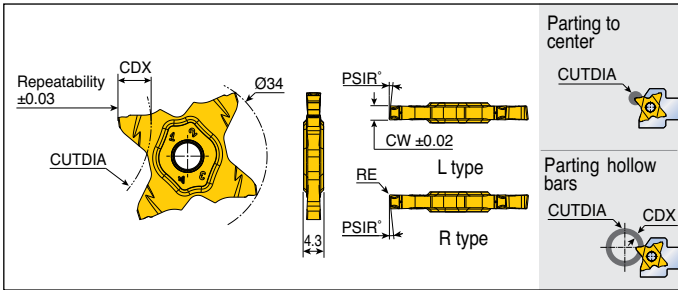
● TPI: Thread per inch

●: Standard items

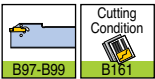
TQC 34



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	●



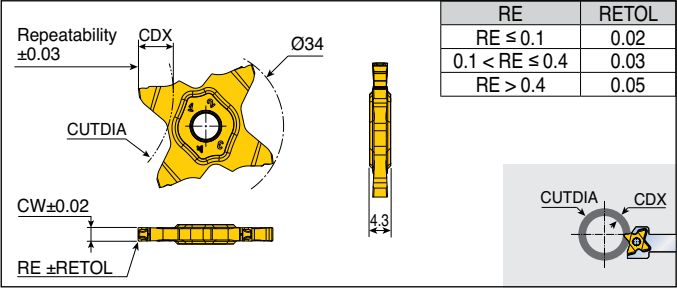
●: Standard items



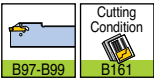
TQC 34



Deep grooving and parting inserts



Designation	Feed (mm/rev)	CW	RE	CDX	CUTDIA							Grade
					CDX≤4.0	CDX≤5.0	CDX≤6.0	CDX≤7.0	CDX≤8.0	CDX≤9.0	CDX≤10.0	
TQC 34-1.50-0.15	0.05-0.12	1.50	0.15	9.0	N.L.	400	190	125	90	40	-	●
34-2.00-0.20	0.05-0.18	2.00	0.20	9.0	N.L.	400	190	125	90	40	-	●
34-2.30-0.20	0.05-0.18	2.30	0.20	9.0	N.L.	400	190	125	90	45	-	●
34-2.47-0.20	0.05-0.18	2.47	0.20	10.0	N.L.	400	190	125	90	45	20	●
34-2.50-0.20	0.05-0.21	2.50	0.20	10.0	N.L.	400	190	125	90	45	20	●
34-2.70-0.10	0.05-0.21	2.70	0.10	10.0	N.L.	400	190	125	90	45	20	●
34-3.00-0.20	0.05-0.25	3.00	0.20	10.0	N.L.	400	190	125	90	50	20	●
34-3.00-0.40	0.05-0.25	3.00	0.40	10.0	N.L.	400	190	125	90	50	20	●
34-3.18-0.20	0.05-0.25	3.18	0.20	10.0	N.L.	400	190	125	90	50	20	●
34-3.50-0.25	0.07-0.30	3.50	0.25	10.0	N.L.	400	190	125	90	50	20	●
34-4.00-0.30	0.07-0.30	4.00	0.30	10.0	N.L.	400	190	125	90	50	20	●



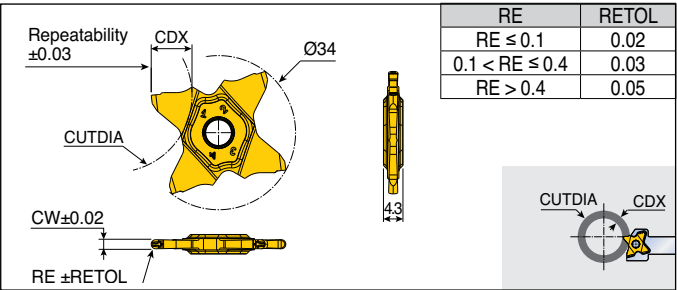
• N.L. = No limit

● Standard items

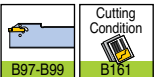
TQC 34



Full radius inserts



Designation	Feed (mm/rev)	CW	RE	CDX	CUTDIA							Grade
					CDX≤4.0	CDX≤5.0	CDX≤6.0	CDX≤7.0	CDX≤8.0	CDX≤9.0	CDX≤10.0	
TQC 34-2.00-1.00	0.05-0.11	2.00	1.00	9.0	N.L.	400	190	125	90	40	-	●
34-2.39-1.20	0.05-0.11	2.39	1.20	10.0	N.L.	400	190	125	90	45	20	●
34-3.00-1.50	0.06-0.12	3.00	1.50	10.0	N.L.	400	190	125	90	50	20	●



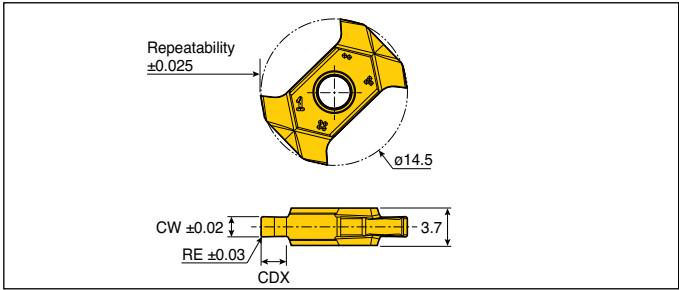
• N.L. = No limit

● Standard items

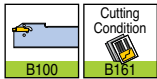
TQIS 14



4 cutting edge inserts for internal shallow grooving



Designation	Feed (mm/rev)	Dimension (mm)			Grade
		CW	RE	CDX	
TQIS 14-1.50-0.10	0.02-0.07	1.50	0.10	2.00	●
14-2.00-0.10	0.03-0.08	2.00	0.10	2.50	●
14-2.00-0.20	0.03-0.08	2.00	0.20	2.50	●
14-2.50-0.20	0.03-0.09	2.50	0.20	2.50	●
14-3.00-0.20	0.03-0.10	3.00	0.20	2.50	●

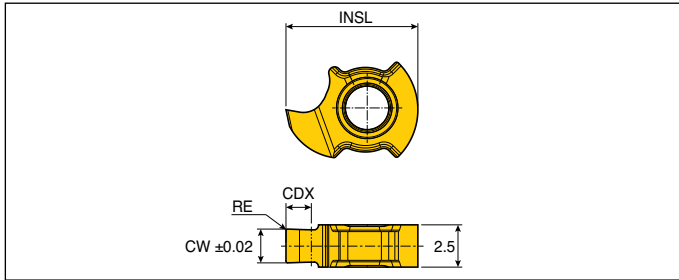


●: Standard items

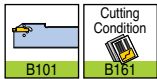
TMIS 8



Precise inserts for internal shallow grooving on small diameter



Designation	Feed (mm/rev)	Dimension (mm)				Grade
		CW	RE	CDX	INSL	
TMIS 8-0.50-0.00	0.01-0.03	0.50	0.00	0.70	7.8	●
8-1.00-0.00	0.01-0.03	1.00	0.00	1.50	7.8	●
8-1.50-0.05	0.01-0.03	1.50	0.05	1.50	7.8	●
8-2.00-0.10	0.01-0.03	2.00	0.10	1.50	7.8	●



●: Standard items

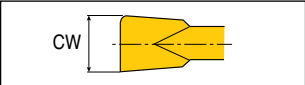
TDIT **3.20** - **0.00** - **0.25** - - **TT8020**

1 2 3 4 5 6

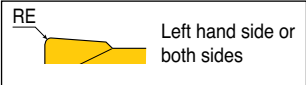
1 Main style of insert

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

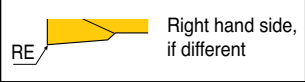
2 Insert width



3 Corner radius



4 Corner radius



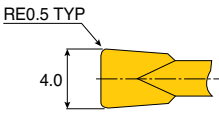
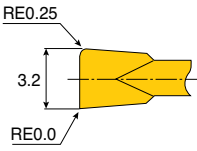
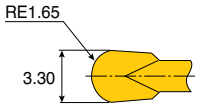
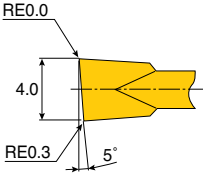
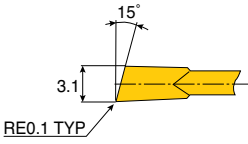
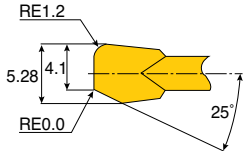
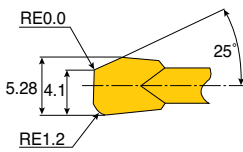
5 Additional codes

6 Grades

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

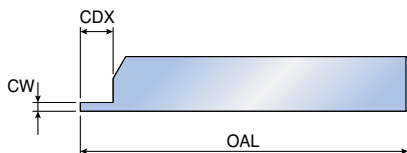
Heavy Industry

Tailor-made

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

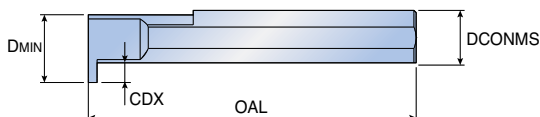
► Specific dimensions

External holder



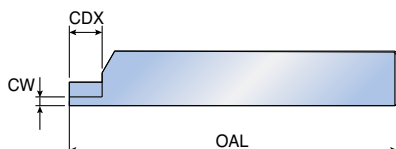
Right handed shown

Internal holder

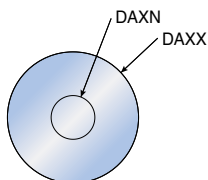


Right handed shown

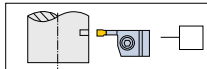
Facing holder



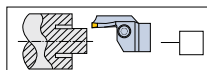
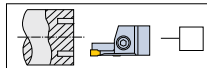
Right handed shown



External holder

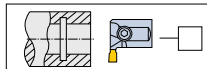


Facing holder



RN type

Internal holder



Holder handed

- Right handed ☐
- Light handed ☐

Insert

- Grade: _____
- Chip breaker type: _____

Quantity

- _____ pcs

Workpieces

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

Comment

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

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	
		Quenched and tempered	1200	350	9	50-120	50-100	30-50	
			680	200	10	60-140	60-120	50-80	
M	Stainless steel and cast steel	Annealed	1100	325	11	50-70	40-60	30-60	
		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
N	Aluminum - Wrought alloy	Ferritic		230	20	140-230			45-75
		Pearlitic		230	20	140-230			45-75
	Aluminum- cast, alloyed	Not cureable		60	21				
		Cured		100	22				
		<=12% Si Not cureable		75	23				
		Cured		90	24				
	Copper alloys	>12% Si High temp.		130	25				
		>1% Pb Free cutting		110	26				
		Brass		90	27				
	Non-metallic	Electrolitic copper		100	28				
S	High temp. alloys	Duroplastics, fiber plastics			29				
		Hard rubber			30				
		Fe based Annealed		200	31	40-70			35-50
		Cured		280	32	30-50			25-40
		Ni or Annealed		250	33	30-40			20-30
		Co based Cured		350	34	15-25			15-20
	Titanium, Ti alloys	Cast		320	35	15-30			15-20
			Rm 400		36	90-190			150-200
H	Hardened steel	Alpha+beta alloys cured	Rm 1050		37	30-60			50-80
		Hardened		55HRC	38				
	Chilled cast iron	Hardened		60HRC	39				
		Cast		400	40				
H	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							20-40
80-100		30-50							20-30
180-200		30-50							20-50
90-110		30-50							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	
			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	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		
						15-25		
						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			