

WINSPEED

ADVANCED MACHINING



New Products



TaeguTec
Member IMC Group

WINTURN
ADVANCED MACHINING

6-Cutting Edge TNMV Insert and Holders for All-Directional Turning

07

POSSTURN
DOUBLE SIDED POSITIVE TURNING

All Directional Turning with Positive 4 Cutting Edge Negative Insert

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WINSWISS

New Modular Head and Holder for Swiss Machines

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ANTI VIBRATION BAR

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HUSHMODU

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MULTITURN
SAFE TURNING

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WINCUT
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53

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FACE GROOVING

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PARTING & GROOVING

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DRILLSPEED
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77

SOLID3DRILL
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ADVANCED MACHINING

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WINDRILL
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WINDRILL
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WINMILL
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WIN4FEED

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120

CHASE8MILL
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124

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150



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ADVANCED MACHINING

6-Cutting Edge TNMV Insert and Holders for All-Directional Turning



All-directional
turning



High feed



High positive
rake angle



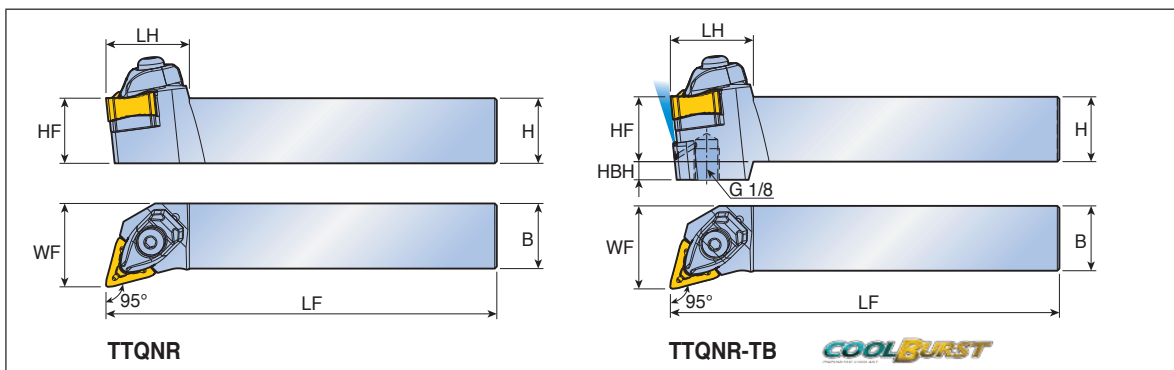
Unique and rigid
captive clamping

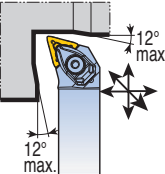
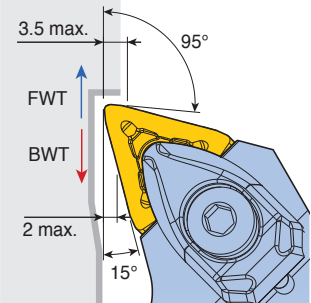
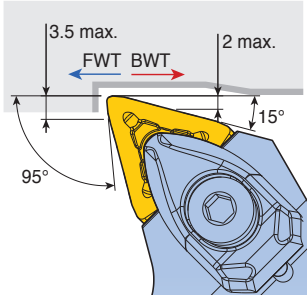


High-pressure
coolant

TTQNR/L TTQNR/L-TB

T-holders for TNMV insert



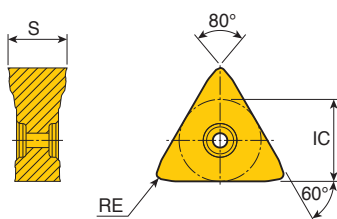
Approach angle	Designation	Dimension (mm)							Insert
		H	HF	B	LF	LH	WF	HBH	
TNMV 15°(BWT) 95°(FWT)	TTQNR/L 2525 M2109	25	25	25	150	32	32	-	TNMV 2109...
	3232 P2109	32	32	32	170	32	40	-	
	TTQNR/L 2525 M2109-TB	25	25	25	150	32	32	7	
	3232 P2109-TB	32	32	32	170	32	40	-	
		 Facing  Ext. Turning							

- BWT: Backward turning
- FWT: Forward turning

Spare parts

Designation	Clamp	Clamp screw	Spring	Shim	Shim screw	Wrench	
...2109	DLM 4.4T-NV	DLS 5	DSP 5	TSTV 210510	TS 35083I/HG	L-W 4	T 10
...2109-TB	DLM 4.4T-NV	DLS 5	DSP 5	TSTV 210510	TS 35083I/HG	L-W 4	T 10

Negative triangular insert



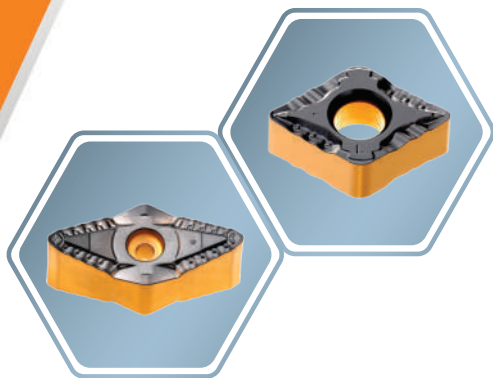
Size	Dimension (mm)		
	IC	S	RE
21	12.5	9	0.8

[illegible]

- ▶ BWT: Backward turning ●: Standard items
 ▶ FWT: Forward turning
 ▶ ap⁽¹⁾: Be aware that the insert may be damaged if the depth of cut is exceeded in high feed backward turning.

POSTTURN
DOUBLE SIDED
POSITIVE TURNING

All Directional Turning with Positive 4 Cutting Edge Negative Insert



All-directional
turning



High feed



4 corner
double-sided
inserts



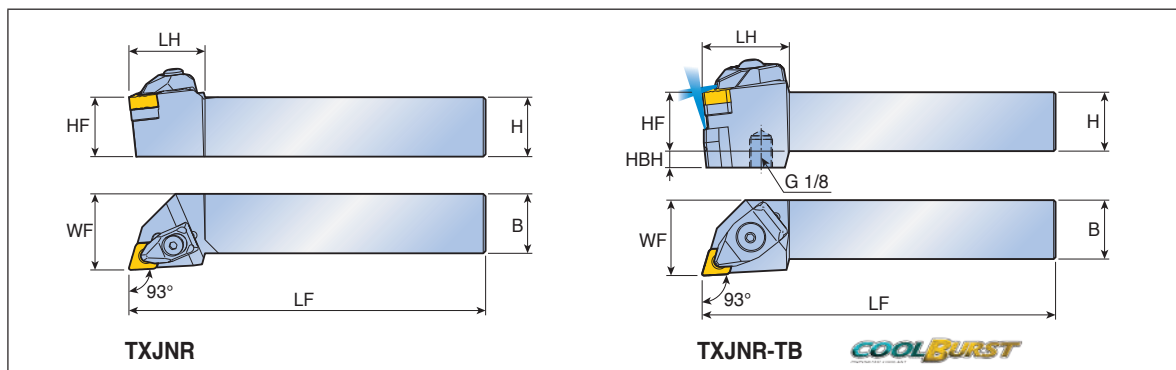
High positive
rake angle

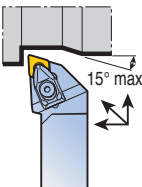
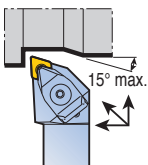


Unique and rigid
captive clamping

TXJNR/L TXJNR/L-TB

T-holders

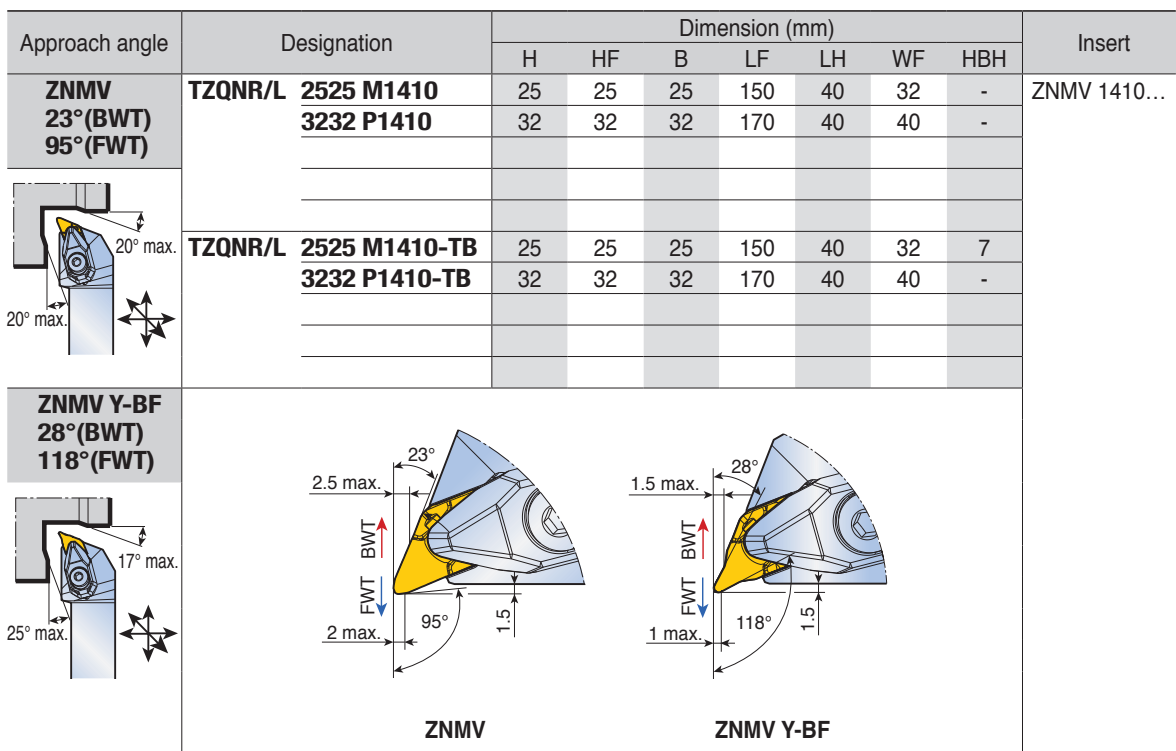


Approach angle	Designation	Dimension (mm)								Insert
		H	HF	B	LF	LH	WF	HBH		
93° 	TXJNR/L 2020 K1105	20	20	20	125	32	25	-	XN... 1105...	
	2525 M1105	25	25	25	150	32	32	-		
93° 	TXJNR/L 2525 M1105-TB	25	25	25	150	37	32	7		

Spare parts

Designation	Clamp	Clamp screw	Spring	Upper O-ring	Lower O-ring	Shim	Shim screw	Wrench	
...1105	DLM 3.5-NX	DLS 4	DSP 4	-	-	TSX 3.53	SO 50090I	L-W 3	T 20
...1105-TB	DLM 3-NX-TB	BH M5x0.8x21-MO-TB	DSP 4	O-RING ID5.28x1.78	O-RING ID7.59x2.62	TSX 3.53	SO 50090I	L-W 3	T 20

T-holders for ZNMV insert



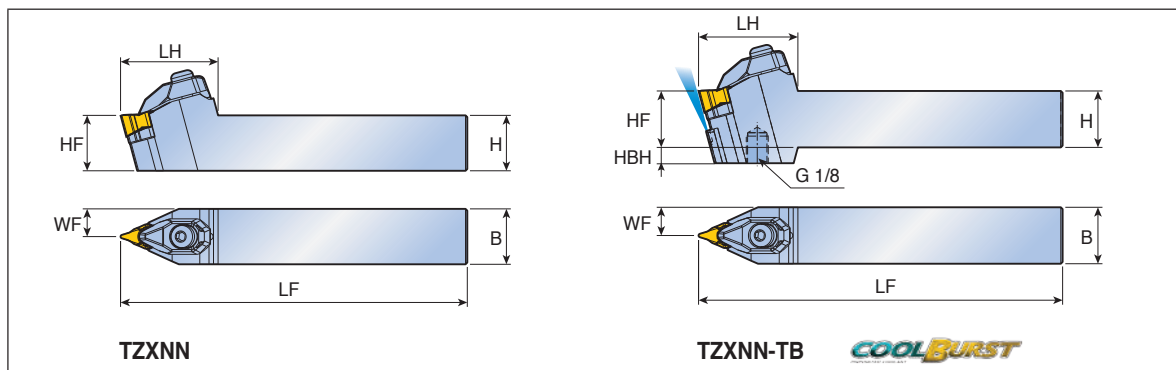
- ▶ BWT: Backward turning
- ▶ FWT: Forward turning

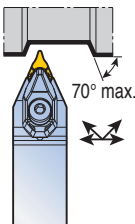
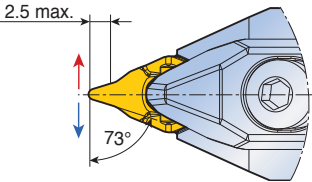
Spare parts

Designation	Clamp	Clamp screw	Spring	Shim	Shim screw	Wrench	
							
...1410	DLM 3.3Z-NV	DLS 5	DSP 5	TSZ 140310	TS 350831/HG	L-W 4	T 10
...1410-TB	DLM 3.3Z-NV	DLS 5	DSP 5	TSZ 140310	TS 350831/HG	L-W 4	T 10

TZXNN TZXNN-TB

T-holders for ZNMV Y-BF insert



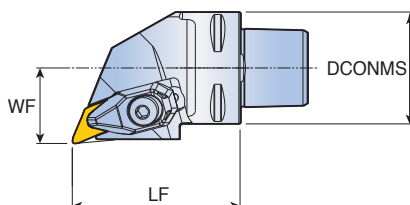
Approach angle	Designation	Dimension (mm)							Insert
		H	HF	B	LF	LH	WF	HBH	
73° 	TZXNN 2525 M1410	25	25	25	150	44	12.5	-	ZNMV 1410...Y-BF
	3232 P1410	32	32	32	170	44	16	-	
	TZXNN 2525 M1410-TB	25	25	25	150	44	12.5	7	
	3232 P1410-TB	32	32	32	170	44	16	-	
									

Spare parts

Designation	Clamp 	Clamp screw 	Spring 	Shim 	Shim screw 	Wrench 	
...1410	DLM 3.3Z-NV	DLS 5	DSP 5	TSZ 140310	TS 35083/HG	L-W 4	T 10
...1410-TB	DLM 3.3Z-NV	DLS 5	DSP 5	TSZ 140310	TS 35083/HG	L-W 4	T 10

TZQNR/L-TB

High pressure T-holders with C-ADAPTER



TZQNR-TB

COOLBURST

Approach angle	Designation	Dimension (mm)			Insert
		DCONMS	WF	LF	
ZNMV 23°(BWT) 95°(FWT)	C4-TZQNR/L 27060-1410-TB	40	27	60	ZNMV 1410...
	C5-TZQNR/L 35060-1410-TB	50	35	60	
	C6-TZQNR/L 45065-1410-TB	60	45	65	
ZNMV Y-BF 28°(BWT) 118°(FWT)					

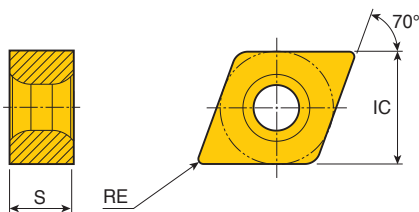
- BWT: Backward turning
- FWT: Forward turning

Spare parts

Designation	Clamp	Clamp screw	Spring	Shim	Shim screw	Wrench	
...1410-TB	DLM 3.3Z-NV	DLS 5	DSP 5	TSZ 140310	TS 350831/HG	L-W 4	T 10

XNMV

Negative 70° rhombic inserts

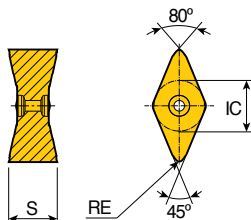


Size	Dimension (mm)		
	IC	S	RE
11	11.11	5.56	0.8

Insert	Designation	BWT		FWT		CVD coated								PVD coated				
		ap (mm)	Feed (mm/rev)	ap (mm)	Feed (mm/rev)	TT7005	TT7015	TT8105B	TT8115B	TT8125B	TT8135B	TT9215	TT9225	TT9235	TT5080	TT3010	TT3020	TT9080
	XNMV 110508L-BM	0.5-1.8	0.5-0.8	0.5-3.5	0.10-0.40				●	●								
	110508R-BM	0.5-1.8	0.5-0.8	0.5-3.5	0.10-0.40													
	XNMV 110508L-BS	0.5-1.8	0.4-0.8	1.0-4.0	0.15-0.40				●	●							●	●
	110508R-BS	0.5-1.8	0.4-0.8	1.0-4.0	0.15-0.40				●	●							●	●

ZNMV

Negative rhombic inserts with 80° corner angle



Size	Dimension (mm)		
	IC	S	RE
14	10.5	10	0.8

Insert	Designation	BWT		FWT		CVD coated										PVD coated						
		ap (mm)	Feed (mm/rev)	ap (mm)	Feed (mm/rev)	TT3005	TT7005	TT7015	TT7025	TT8105B	TT8115B	TT8125B	TT8135B	TT9215	TT9225	TT9235	TT5080	TT8020	TT9080	TT3010	TT3020	TT9020
	ZNMV 141008-BM	0.5-2.5	0.40-1.00	0.5-2.0	0.20-0.60					●	●	●										
	ZNMV 141008-BS	0.5-2.5	0.50-1.00	1.0-2.0	0.20-0.40	●				●	●	●								●	●	

► BWT: Backward turning

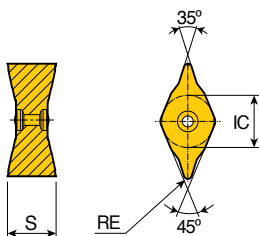
► FWT: Forward turning

► Products are made by license; Prime Turning is a proprietary technology of AB Sandvik Coromant

●: Standard items

ZNMV Y-BF

Negative rhombic inserts with 35° corner angle



Size	Dimension (mm)		
	IC	S	RE
14	10.5	10	0.8

Insert	Designation	BWT		FWT		CVD coated								PVD coated								
		ap (mm)	Feed (mm/rev)	ap (mm))	Feed (mm/rev)	TT3005	TT7005	TT7015	TT7025	TT8105B	TT8115B	TT8125B	TT8135B	TT9215	TT9225	TT9235	TT5080	TT8020	TT9080	TT3010	TT3020	TT9020
	ZNMV 141008Y-BF	0.25-1.5	0.20-0.50	0.25-1.0	0.20-0.35	●				●	●	●										

► BWT: Backward turning

► FWT: Forward turning

●: Standard items

WINSWISS

New Modular Head and Holder for Swiss Machines



Easy replacement
of modular heads
and inserts



High-pressure
coolant



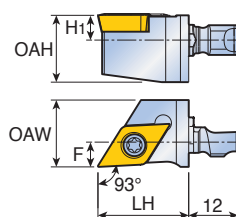
Rigid clamping and
good repeatability



A variety of
modular heads

QE1 SDJCR

Modular head for external turning on Swiss machines



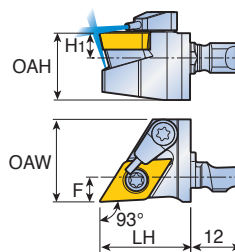
Approach angle	Designation	Dimensions (mm)					Shank	Insert
		OAH	LH	OAW	H1	F		
93°	QE1 SDJCR 11	16.2	22.0	16.2	6.0	7.0	QE1 S12N-TB QE1 S16R-TB	DC... 11T3...

QE1 SDJCR-TB

Modular head for external turning with high-pressure coolant on Swiss machines



COOLBURST



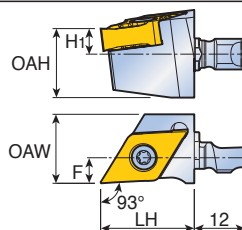
Approach angle	Designation	Dimensions (mm)					Shank	Insert
		OAH	LH	OAW	H1	F		
93°	QE1 SDJCR 11-TB	16.2	22.0	20.0	6.0	7.0	QE1 S12N-TB QE1 S16R-TB	DC... 11T3...

Spare parts

Designation	Screw	Cooling unit	Wrench	
QE1 SDJCR	 SO 35080I	 -	 T15	
QE1 SDJCR-TB	SO 35080I	S-CU-TB	T15	

QE1 SDJNR

Modular head for external turning on Swiss machines



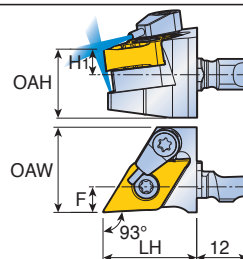
Approach angle	Designation	Dimensions (mm)					Shank	Insert
		OAH	LH	OAW	H1	F		
93° 	QE1 SDJNR 0803	16.2	22.0	16.2	6.0	7.0	QE1 S12N-TB QE1 S16R-TB	DN... 0803... RHINO TURN
	SDJNR 1305	16.2	22.0	16.2	6.0	7.0	QE1 S12N-TB QE1 S16R-TB	DN... 1305... RHINO TURN

QE1 SDJNR-TB

Modular head for external turning with high-pressure coolant on Swiss machines



COOLBURST



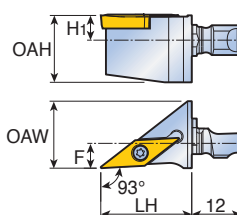
Approach angle	Designation	Dimensions (mm)					Shank	Insert
		OAH	LH	OAW	H1	F		
93° 	QE1 SDJNR 0803-TB	16.2	22.0	16.2	6.0	7.0	QE1 S12N-TB QE1 S16R-TB	DN... 0803... RHINO TURN
	SDJNR 1305-TB	16.2	22.0	20.0	6.0	7.0	QE1 S12N-TB QE1 S16R-TB	DN... 1305... RHINO TURN

Spare parts

Designation	Screw	Cooling unit	Wrench	
QE1 SDJNR 0803	TS 25D060/HG-P	-	T 7P	
QE1 SDJNR 0803-TB	TS 25D060/HG-P	S-CU-TB	T 7P	
QE1 SDJNR 1305	TS 40G110I	-	T15	
QE1 SDJNR 1305-TB	TS 40G110I	S-CU-TB	T15	

QE1 SVJBR

Modular head for external turning on Swiss machines



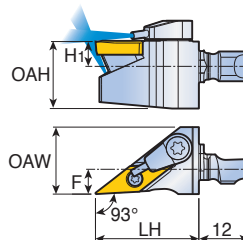
Approach angle	Designation	Dimensions (mm)					Shank	Insert
		OAH	LH	OAW	H1	F		
93° 	QE1 SVJBR 11	16.2	22.0	16.2	6.0	7.0	QE1 S12N-TB QE1 S16R-TB	VB... 1103..

QE1 SVJBR-TB

Modular head for external turning with high-pressure coolant on Swiss machines



COOLBURST



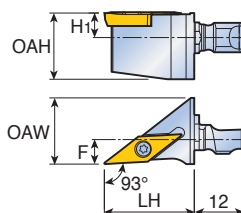
Approach angle	Designation	Dimensions (mm)					Shank	Insert
		OAH	LH	OAW	H1	F		
93° 	QE1 SVJBR 11-TB	16.2	25.0	16.2	6.0	7.0	QE1 S12N-TB QE1 S16R-TB	VB... 1103..

Spare parts

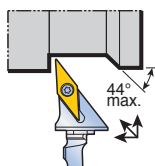
Designation	Screw	Cooling unit	Wrench	
QE1 SVJBR 11	SO 25065I	-	T 7	
QE1 SVJBR 11-TB	SO 25065I	S-CU-TB	T 7	

QE1 SVJCR

Modular head for external turning on Swiss machines



Approach angle	Designation	Dimensions (mm)					Shank	Insert
		OAH	LH	OAW	H1	F		
93°	QE1 SVJCR 11	16.2	22.0	16.2	6.0	7.0	QE1 S12N-TB QE1 S16R-TB	VC... 1103...

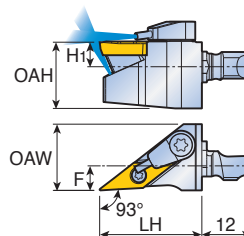


QE1 SVJCR-TB

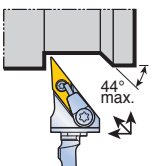
Modular head for external turning with high-pressure coolant on Swiss machines



COOLBURST



Approach angle	Designation	Dimensions (mm)					Shank	Insert
		OAH	LH	OAW	H1	F		
93°	QE1 SVJCR 11-TB	16.2	25.0	16.2	6.0	7.0	QE1 S12N-TB QE1 S16R-TB	VC... 1103...

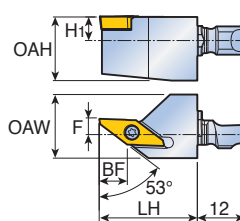


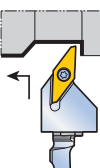
Spare parts

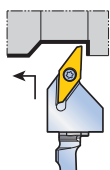
Designation	Screw	Cooling unit	Wrench	
QE1 SVJCR 11	 SO 25065I	 -	 T 7	
QE1 SVJCR 11-TB	SO 25065I	S-CU-TB	T 7	

QE1B SVXCR

Modular head for external back turning on Swiss machines

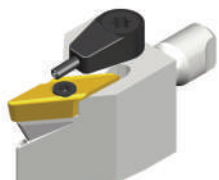


Approach angle	Designation	Dimensions (mm)						Shank	Insert
		OAH	LH	OAW	BF	H ₁	F		
53°	QE1B SVXCR 11	16.2	25.0	16.2	7.2	6.0	3.0	QE1 S12N-TB QE1 S16R-TB	BTVC 1103... TOP MINI
									

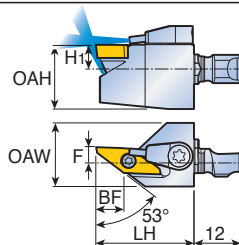


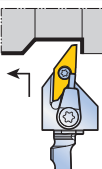
QE1B SVXCR-TB

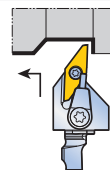
Modular head for external back turning with high-pressure coolant on Swiss machines



COOLBURST



Approach angle	Designation	Dimensions (mm)							Shank	Insert
		OAH	LH	OAW	BF	H1	F			
53°	QE1B SVXCR 11-TB	16.2	25.0	16.2	7.2	6.0	3.0	QE1 S12N-TB QE1 S16R-TB	BTVC 1103... TOP MINI	
										

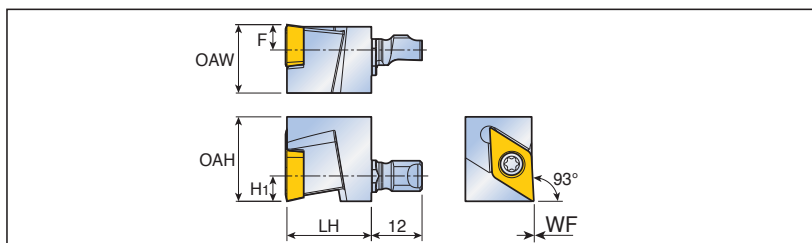
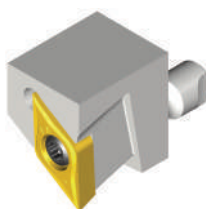


Spare parts

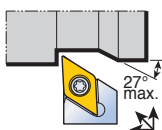
Designation	Screw	Cooling unit	Wrench	
QE1B SVXCR	SO 25065I	-	T 7	
QE1B SVXCR-TB	SO 25065I	S-CU-TB	T 7	

QE1Y SDJCR

Modular head for Y-axis turning on Swiss machines

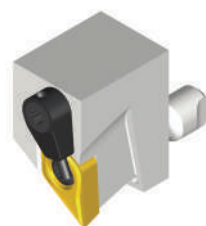


Approach angle	Designation	Dimensions (mm)						Shank	Insert
		OAW	OAH	LH	WF	H1	F		
93°	QE1Y SDJCR 11	16.2	20.0	20.0	0.0	6.0	7.0	QE1 S12N-TB QE1 S16L-TB	DC... 11T3...

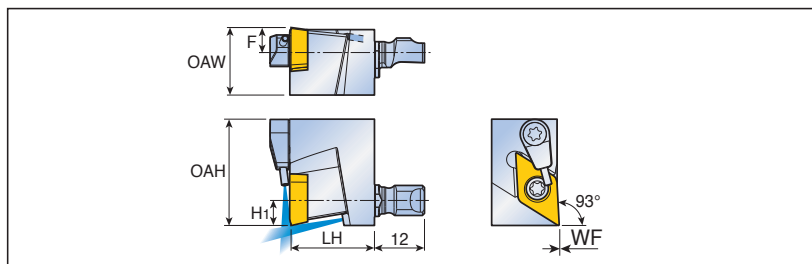


QE1Y SDJCR-TB

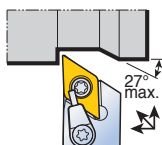
Modular head for Y-axis turning with high-pressure coolant on Swiss machines



COOLBURST



Approach angle	Designation	Dimensions (mm)						Shank	Insert
		OAW	OAH	LH	WF	H1	F		
93°	QE1Y SDJCR 11-TB	16.2	25.5	20.0	0.0	6.0	7.0	QE1 S12N-TB QE1 S16L-TB	DC... 11T3...



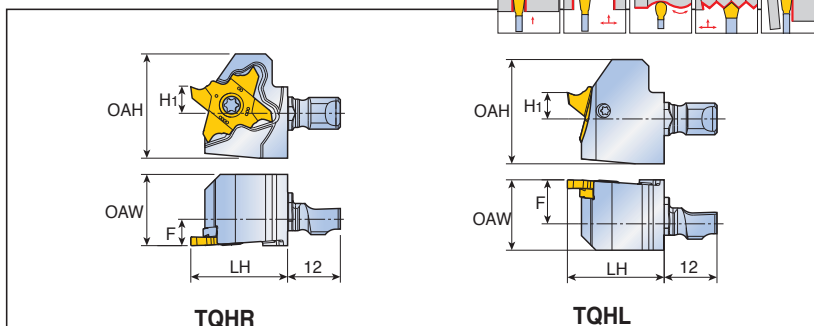
Spare parts

Designation	Screw	Cooling unit	Wrench	
QE1Y SDJCR 11	 SO 35080I	 -	 T 15	
QE1Y SDJCR 11-TB	SO 35080I	S-CU-TB	T 15	

QE1 TQHR/L

WINSWISS

Modular head for parting and grooving on Swiss machines



Designation	Dimensions (mm)					Shank	Insert
	OAH	LH	OAW	H1	F		
QE1 TQHR 20	23.7	22.0	16.2	6.0	7.0	QE1 S12N-TB	TQ... 20
QE1 TQHL 20	23.7	22.0	16.0	6.0	9.0	QE1 S16R-TB	

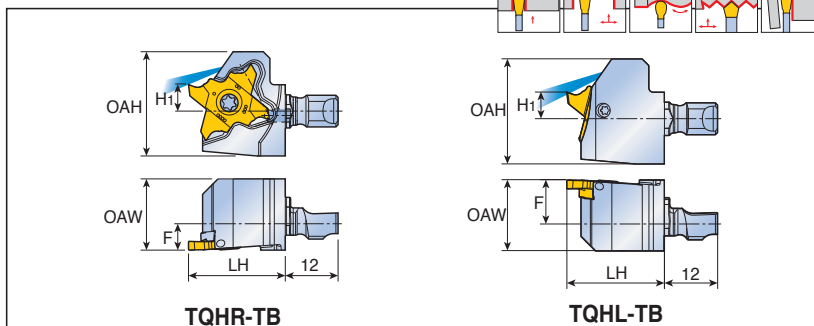
QE1 TQHR/L-TB

WINSWISS

Modular head for parting and grooving with high-pressure coolant on Swiss machines



COOLBURST
ADVANCED TOOL COOLING



Designation	Dimensions (mm)					Shank	Insert
	OAH	LH	OAW	H1	F		
QE1 TQHR 20-TB	23.7	22.0	16.2	6.0	7.0	QE1 S12N-TB	TQ... 20
QE1 TQHL 20-TB	23.7	22.0	16.0	6.0	9.0	QE1 S16R-TB	

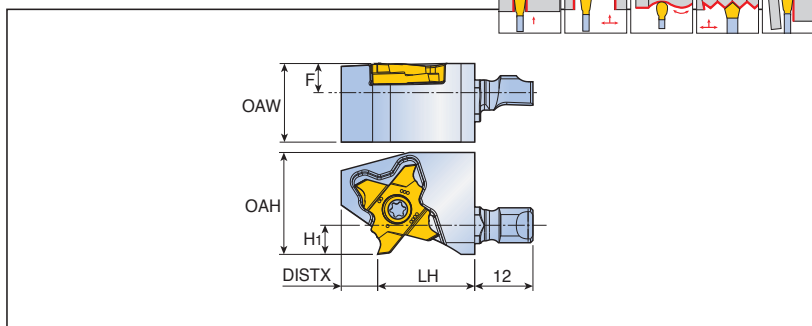
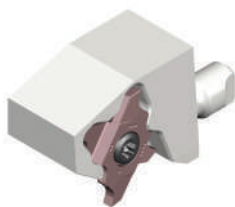
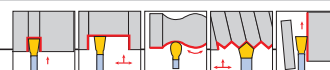
Spare parts

Designation	Screw	Wrench		
				
QE1 TQHR(-TB)	TS 40A100L	T-1508/5		
QE1 TQHL(-TB)	TS 40A100	T-1508/5		

QE1Y TQHR

WIN
 SWISS

Modular head for Y-axis parting and grooving on Swiss machines

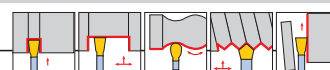
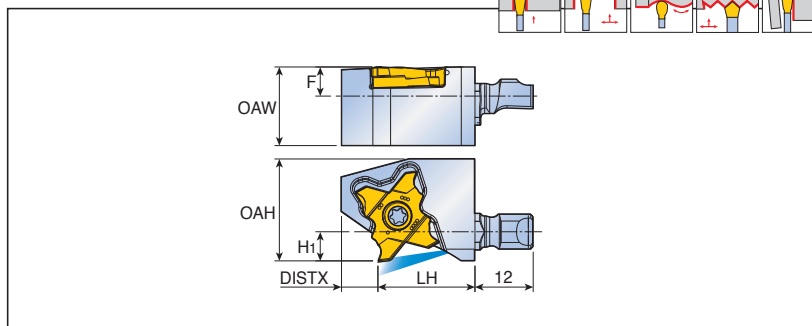


Designation	Dimensions (mm)						Shank	Insert
	OAH	LH	OAW	H1	F	DISTX		
QE1Y TQHR 20	21.0	20.0	16.2	6.0	7.0	7.5	QE1 S12N-TB QE1 S16L-TB	TQ... 20

QE1Y TQHR-TB

WIN
 SWISS

Modular head for Y-axis parting and grooving with high-pressure coolant on Swiss machines


COOLBURST
ADVANCED COOLANT SYSTEM


Designation	Dimensions (mm)						Shank	Insert
	OAH	ALH	OAW	H1	F	DISTX		
QE1Y TQHR 20-TB	21.0	20.0	16.2	6.0	7.0	7.5	QE1 S12N-TB QE1 S16L-TB	TQ... 20

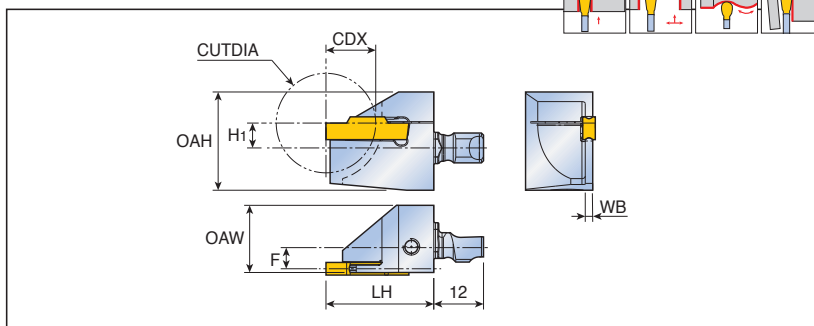
Spare parts

Designation	Screw	Wrench		
				
QE1Y TQHR 20(-TB)	TS 40A100L	T-1508/5		

QE1 TTER

WINSWISS

Modular head for external turning and grooving



Designation	Insert seat size	Dimensions (mm)									Shank	Insert
		OAH	LH	OAW	WB	CDX	CUTDIA	H1	F			
QE1 TTER 2-12-24	2	23.7	26.0	16.2	1.8	12.0	24.0	6.0	6.1	QE1 S12N-TB	TDC/J/T/A	
	2	23.7	26.0	16.2	1.8	16.0	32.0	6.0	6.1	QE1 S16R-TB	TDXU/XT/XY/CT	
	3	23.7	26.0	16.2	2.4	12.0	24.0	6.0	5.8		TSC/J/A	
	3	23.7	26.0	16.2	2.4	16.0	32.0	6.0	5.8		TDUF/TDV	

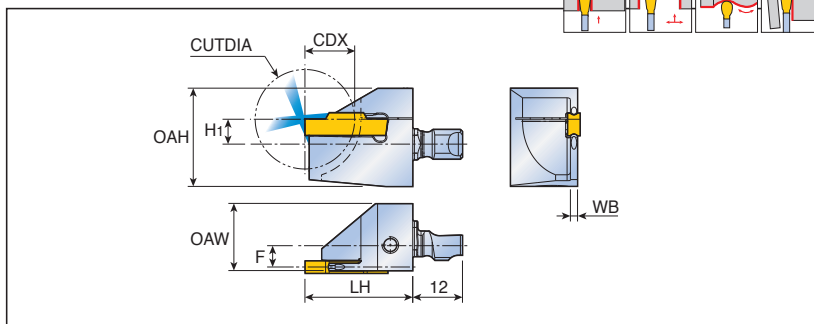
QE1 TTER-TB

WINSWISS

Modular head for external turning and grooving with high-pressure coolant



COOLBURST



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

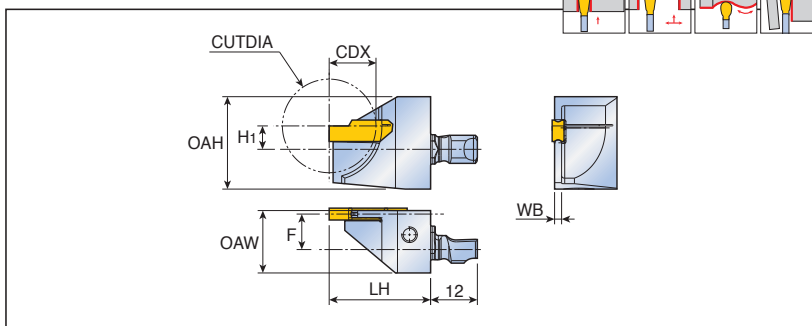
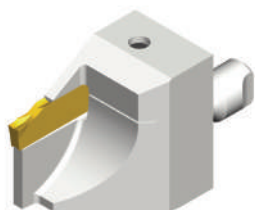
Spare parts

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

QE1 TTEL

WINSWISS

Modular head for external turning and grooving

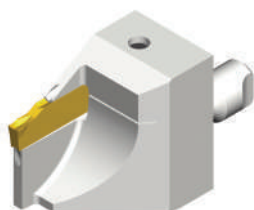
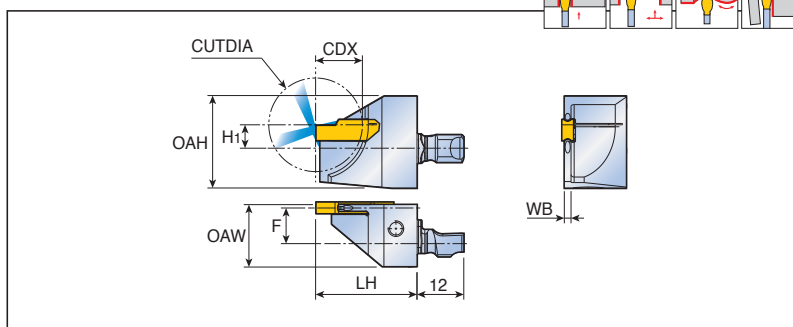


Designation	Insert seat size	Dimensions (mm)									Shank	Insert
		OAH	LH	OAW	WB	CDX	CUTDIA	H ₁	F			
QE1 TTEL 2-12-24	2	23.7	26.0	16.0	1.8	12.0	24.0	6.0	8.1	QE1 S12N-TB	TDC/J/T/A	
	2	23.7	26.0	16.0	1.8	16.0	32.0	6.0	8.1	QE1 S16R-TB	TDXU/XT/XY/CT	
	3	23.7	26.0	16.0	2.4	12.0	24.0	6.0	7.8		TSC/J/A	
	3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

QE1 TTEL-TB

WINSWISS

Modular head for external turning and grooving with high-pressure coolant


COOLBURST


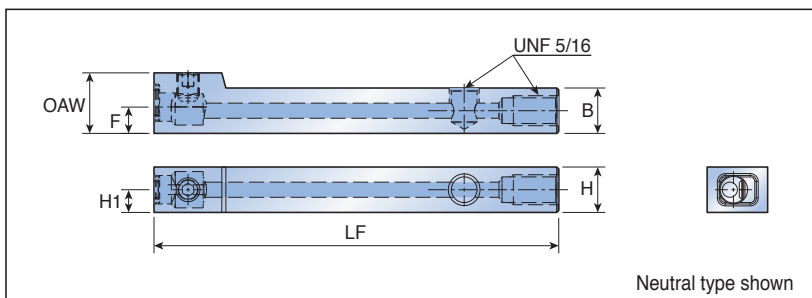
Designation	Insert seat size	Dimensions (mm)								Shank	Insert
		OAH	LH	OAW	WB	CDX	CUTDIA	H1	F		
QE1 TTEL 2-12-24-TB	2	23.7	26.0	16.0	1.8	12.0	24.0	6.0	8.1	QE1 S12N-TB	TDC/J/T/A
2-16-32-TB	2	23.7	26.0	16.0	1.8	16.0	32.0	6.0	8.1	QE1 S16R-TB	TDXU/XT/XY/CT
3-12-24-TB	3	23.7	26.0	16.0	2.4	12.0	24.0	6.0	7.8		TSC/J/A
3-16-32-TB	3	23.7	26.0	16.0	2.4	16.0	32.0	6.0	7.8		TDUF/TDV

Spare parts

Designation	Screw	Wrench		
				
QE1 TTEL(-TB)	SH M4X0.7X16	L-W 3		

QE1 S12N-TB

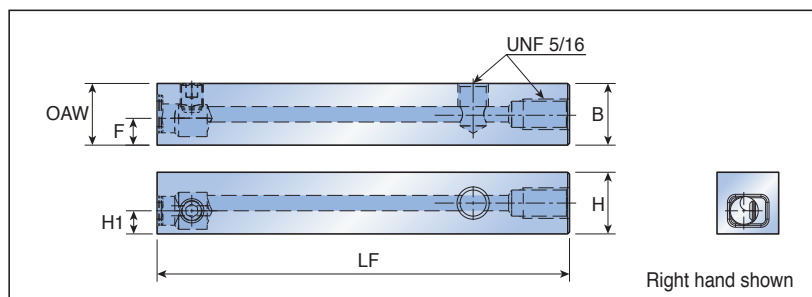
Shank for high-pressure coolant type Swiss machines



Designation	Dimensions (mm)					
	H ₁	F	H	B	LF	OAW
QE1 S12N-TB	6.0	7.0	12.0	12.0	107.0	16.0

QE1 S16R/L-TB

Shank for high-pressure coolant type Swiss machines



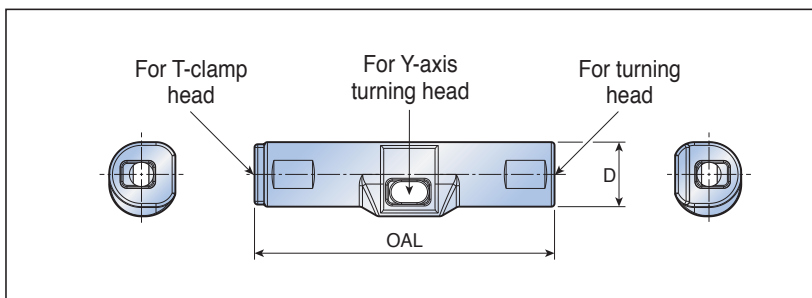
Designation	Dimensions (mm)					
	H ₁	F	H	B	LF	OAW
QE1 S16R/L-TB	6.0	7.0	16.0	16.0	107.0	16.0

Spare parts

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

QE1 FIX-20100

Insert replacement fixture



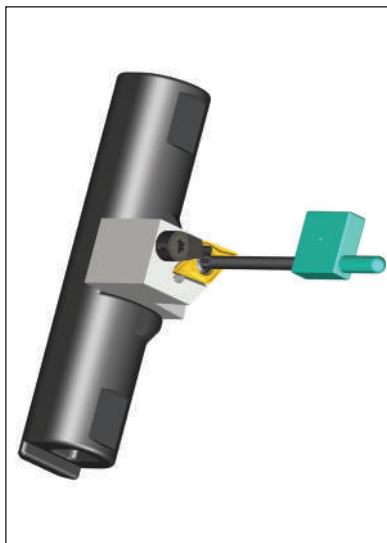
Designation	Dimensions (mm)	
	OAL	D
QE1 FIX-20100	93.0	20.0

► Fixture ordered separately

Insert replacement

■ Due to the WIN-SWISS' small head sizes, replacing the inserts could be difficult. Please use the fixture to facilitate insert replacement.

■ Y-axis turning head



■ T-clamp head



■ Turning head



HUSHBORE

ANTI VIBRATION BAR



Vibration Free Boring Bar with Exchangeable Heads



Vibration free for
deep internal
turning



A variety of
head types



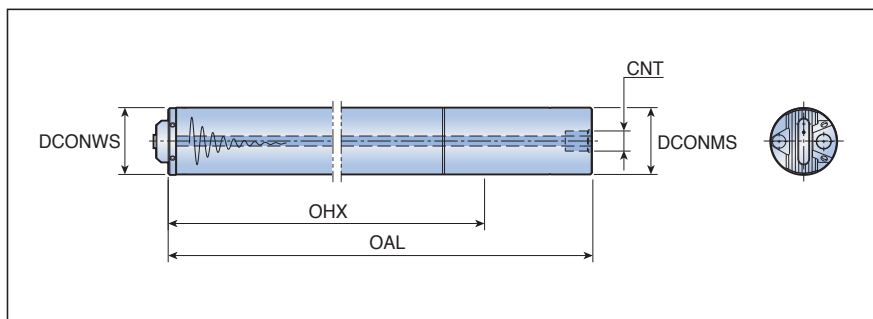
Through
coolant system



Serrated coupling
design for robust
tightening

QS-VH

Anti-Vibration shanks for boring

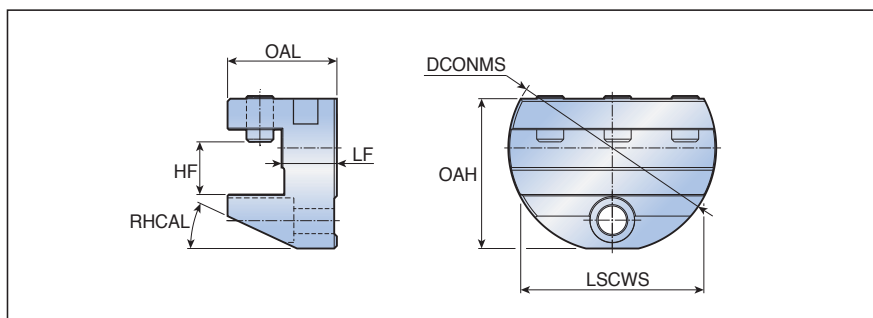


Designation	Dimension (mm)					Coolant hole
	DCONMS	DCONWS	OAL	OHX	CNT	
QS80A- 7D-VH	80	80	880	515	G 3/4"	•
10D-VH	80	80	1200	755	G 3/4"	•

► OHX: Maximum overhang

QH80-VH

Perpendicular adaptor for external square-shank tools



Designation	Dimension (mm)						
	DCONMS	LF	HF	OAL	OAH	LSCWS	RHCAL
QH80- 2020-VH	77.0	20.5	20.0	40.5	55.5	67.8	25.0

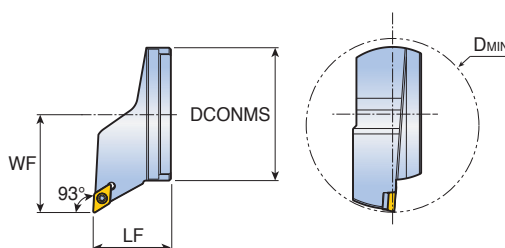
- Used with external 20x20 square holders
- Since there is a deviation in the D_{MIN} value for each holder, it is recommended to use the boring head after checking for interference with the workpiece.

Spare parts

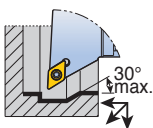
Designation	Screw	Wrench				
						
QH80	SR M10x16 DIN913	L-W 5				

QH-SDUCR/L-VH

Screw type boring heads

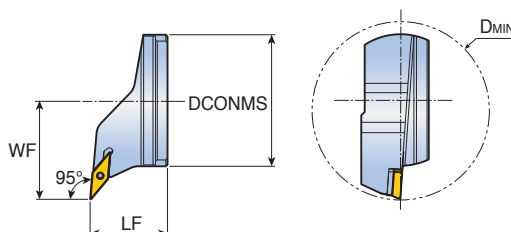


Approach angle	Designation	Dimension (mm)				Insert
		DCONMS	LF	WF	DMIN	
93°	QH80- SDUCR/L-11-VH	77	45	57	100	DC...T 11T3...

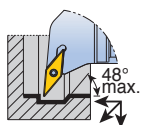


QH-SVLCR/L-VH

Screw type boring heads



Approach angle	Designation	Dimension (mm)				Insert
		DCONMS	LF	WF	DMIN	
95°	QH80- SVLCR/L-16-VH	77	45	57	100	VC...T 1604...

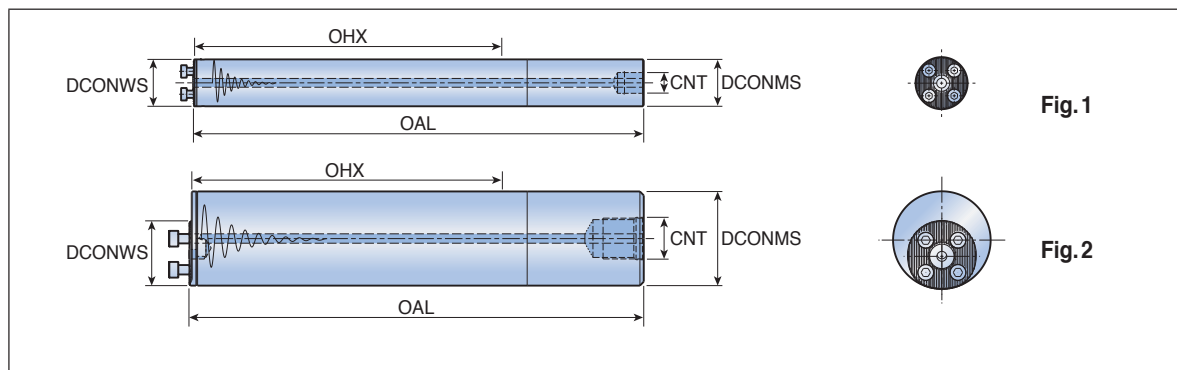


Spare parts

Designation	Screw	Shim		Shim screw	Stopper screw	Wrench		
SDUCR/L	SR 16-236 P	TDC 3-1P	-	SR TC-3P	SH M3x0.5x6	T-15/5	L-W 4	L-W 2.5
SVLCR/L...	SR 16-236 P	-	TVC 3-1P	SR TC-3P	SH M3x0.5x6	T-15/5	L-W 4	L-W 2.5

QS

Anti-vibration shanks for boring



Designation	Dimension (mm)					Coolant hole	Fig.
	DCONMS	DCONWS	OAL	OHX	CNT		
QS16A-7D	16	16	156.3	92	G 1/8	●	1
QS16E-10D⁽¹⁾	16	16	204.3	140	-	●	1
QS20A-7D	20	20	200.3	120	G 1/4	●	1
QS20E-10D⁽¹⁾	20	20	260.3	180	-	●	1
QS25A-7D	25	25	257.5	155	G 1/4	●	1
QS25A-10D	25	25	332.5	230	G 1/4	●	1
QS32A-7D	32	32	323.0	192	G 3/8	●	1
QS32A-10D	32	32	419.0	288	G 3/8	●	1
QS40A-7D	40	40	411.0	251	G 1/2	●	1
QS40A-10D	40	40	531.0	368	G 1/2	●	1
QS50A-7D	50	40	523.0	318	G 1/2	●	2
QS50A-10D	50	40	673.0	468	G 1/2	●	2
QS60A-7D	60	40	633.0	388	G 3/4	●	2
QS60A-10D	60	40	813.0	568	G 3/4	●	2

► OHX: Maximum overhang

► ⁽¹⁾ Carbide shank

Spare parts

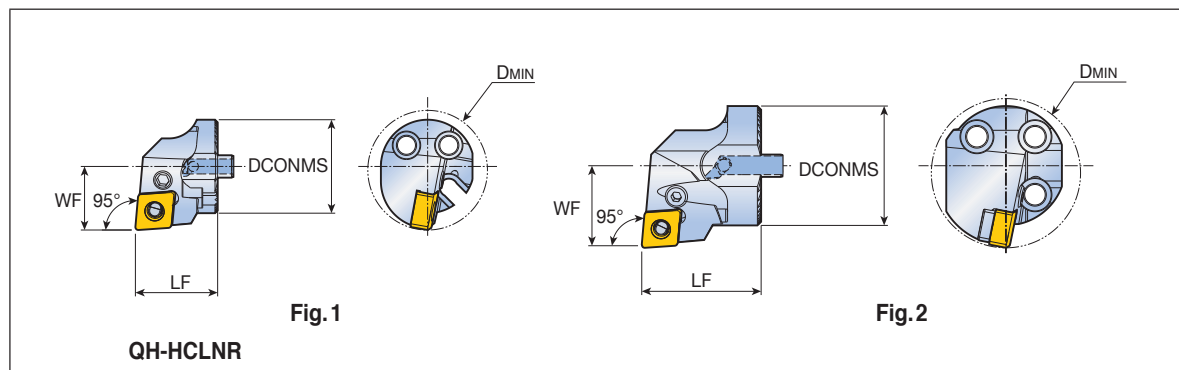
Designation	Screw	Wrench					
							
QS16	SH M3x0.5X10	L-W 2.5					
QS20	SH M3.5x0.6X10	L-W 2.5					
QS25	SH M4x0.7X12	L-W 3					
QS32	SH M5x0.8X12	L-W 4					
QS40/50/60	SH M6x1X16	L-W 5					

HUSH-BORE sleeve

[illegible]

QH-HCLNR/L

Hook lever type boring heads



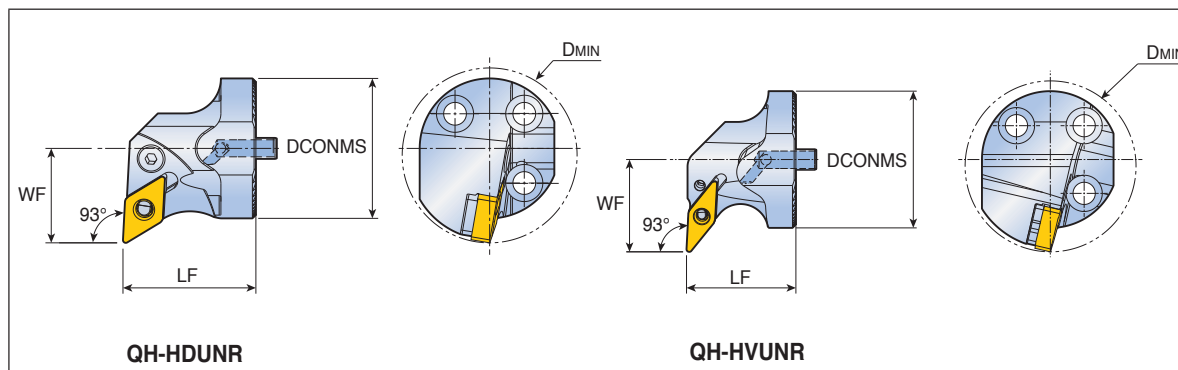
Approach angle	Designation	Dimension (mm)				Coolant hole	Fig.	Insert
		DCONMS	LF	WF	DMIN			
95° 	QH25- HCLNR/L-0904	25	22	17	32	•	1	CN... 0904...
	QH32- HCLNR/L-0904	32	32	22	40	•	2	RHINO TURN

Spare parts

Designation	Lever 	Lever screw 	Shim 	Shim pin 	Snap ring 	Wrench 	
QH25...0904	LCL 09B-NX	LCS 3B	-	-	LSR 3B	L-W 2	
QH32...0904	LCL 09-NX	LCS 3	LSC 32	LSP 3A	-	L-W 2.5	

QH-HDUNR/L QH-HVUNR/L

Hook lever type boring heads



Approach angle	Designation	Dimension (mm)				Coolant hole	Insert
		DCONMS	LF	WF	DMIN		
93°	QH40- HDUNR/L-1305 *	40	38	27	50	●	DN...G 1305... RHINO TURN
93°	QH40- HVUNR/L-1304 *	40	32	27	50	●	VN...X 1304... YNMG 1304... RHINO TURN

► * When applying Ø50mm shank, DMIN for the assembly is Ø60mm. When applying Ø60mm shank, DMIN for the assembly is Ø70mm.

Spare parts

Designation	Lever	Lever screw	Shim		Shim pin	Wrench	
HDUNR/L-1305	LCL 11-NX	LCS 4S	LSD 3.52B	-	LSP 4	L-W 3	
HVUNR/L-1304	LCL 08-NX	LCS 4-DH	-	LSV 2.51.8H	LSP 3B	L-W 2.5	

Screw type boring heads

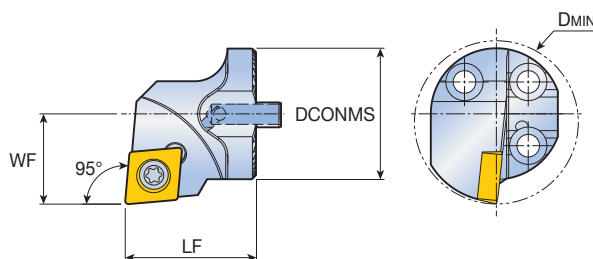


Fig.2

QH-SCLCR

[illegible]

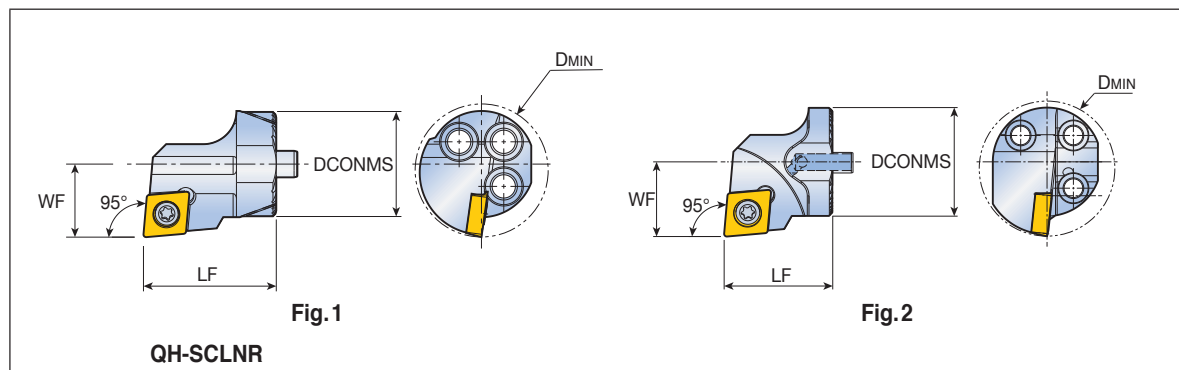
► * When applying Ø50mm shank, D_{MIN} for the assembly is Ø60mm. When applying Ø60mm shank, D_{MIN} for the assembly is Ø70mm.

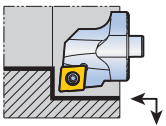
Spare parts

Designation	Screw	Shim	Shim screw	Wrench			
							
...06	SO 250650I	-	-	T 7	-		
...09	SO 35080I	-	-	T 15	-		
QH32...12	SO 45100I	-	-	T 20	-		
QH40...12	SO 45130I	SSC 43N	SO 60105S	T 20	L-W 5		

QH-SCLNR/L

Screw type boring heads



Approach angle	Designation	Dimension (mm)				Coolant hole	Fig.	Insert
		DCONMS	LF	WF	DMIN			
95° 	QH16- SCLNR/L-0703	16	20	11	20	•	1	CNMX 0703... 
	QH20- SCLNR/L-0703	20	20	13	25	•	2	

Spare parts

Designation	Screw	Wrench					
...0703	TS 25D060/HG-P	T 7P					

Screw type boring heads

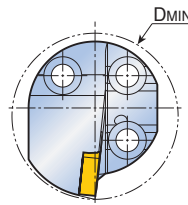


Fig.2

QH-SDUCR

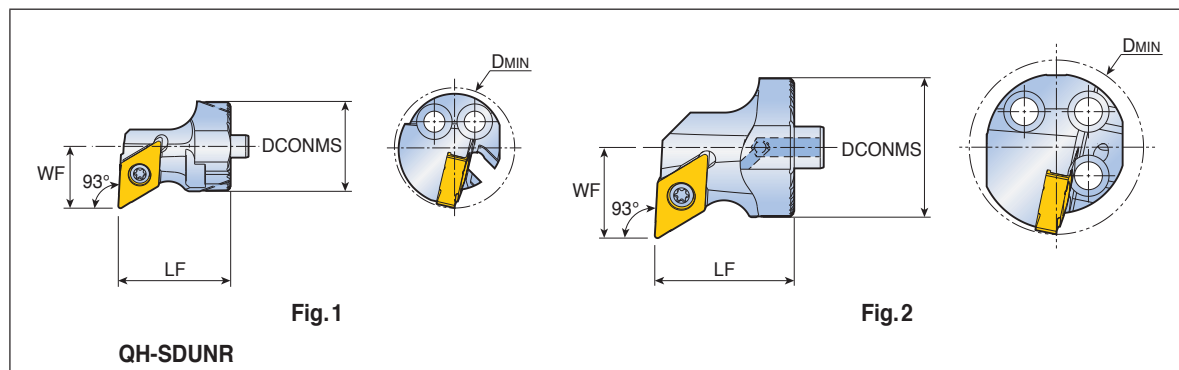
► * When applying Ø50mm shank, DMIN for the assembly is Ø60mm. When applying Ø60mm shank, DMIN for the assembly is Ø70mm.

Spare parts

Designation	Screw	Shim	Shim screw	Wrench			
							
...07	SO 25065I	-	-	T 7	-		
...11	SO 35080I	-	-	T 15	-		
QH40...11	SO 35124I	SSD 32	SO 50090S	T 15	L-W 3.5		

QH-SDUNR/L

Screw type boring heads



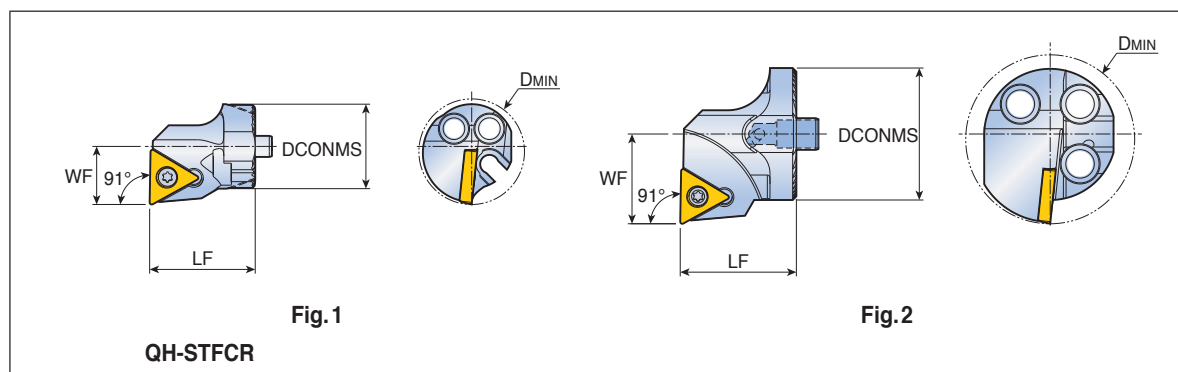
Approach angle	Designation	Dimension (mm)				Coolant hole	Fig.	Insert
		DCONMS	LF	WF	DMIN			
93° 	QH16- SDUNR/L-0803	16	20	11	20	•	1	DN...X 0803...
	QH20- SDUNR/L-0803	20	20	13	25	•	2	RHINO TURN
	QH32- SDUNR/L-1305	32	32	22	40	•	2	DN...G 1305... RHINO TURN

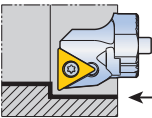
Spare parts

Designation	Screw	Wrench					
...0803	TS 25D060/HG-P	T 7P					
...1305	TS 40G110I	T 15					

QH-STFCR/L

Screw type boring heads



Approach angle	Designation	Dimension (mm)				Coolant hole	Fig.	Insert
		DCONMS	LF	WF	DMIN			
91° 	QH16- STFCR/L-11	16	20	11	20	●	1	TC... 1102...
	QH20- STFCR/L-11	20	20	13	25	●	2	
	QH25- STFCR/L-11	25	22	17	32	●	2	
	QH32- STFCR/L-16	32	32	22	40	●	2	TC... 16T3...
	QH40- STFCR/L-16 *	40	38	27	50	●	2	

► * When applying Ø50mm shank, DMIN for the assembly is Ø60mm. When applying Ø60mm shank, DMIN for the assembly is Ø70mm.

Spare parts

Designation	Screw	Shim	Shim screw	Wrench			
							
...-11	SO 25065I	-	-	T 7	-		
...-16	SO 35124I	SST 32	SO 50090S	T 15	L-W 3.5		

Screw type boring heads

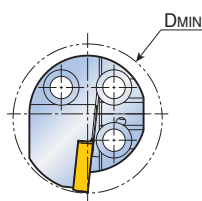


Fig. 1

QH-SVUBR

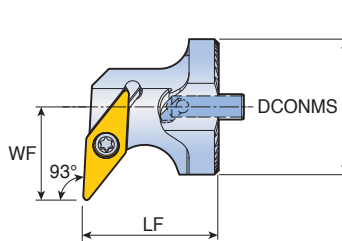


Fig.2

► * When applying Ø50mm shank, DMIN for the assembly is Ø60mm. When applying Ø60mm shank, DMIN for the assembly is Ø70mm.

Spare parts

Designation	Screw	Shim	Shim screw	Wrench			
							
SVUBR/L-11	SO 25065I	-	-	T 7	-		
SVUBR/L-16	SO 35124I	SSV 32	SO 50090S	T 15	L-W 3.5		

QH-SWLNR/L

Screw type boring heads

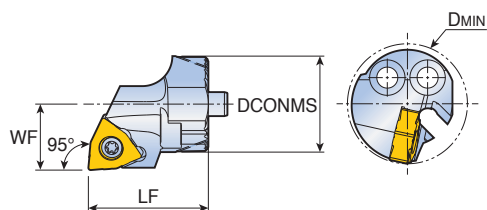


Fig. 1

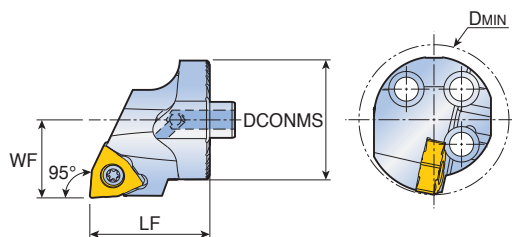
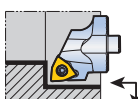


Fig. 2

QH-SWLNR

Approach angle	Designation	Dimension (mm)				Coolant hole	Fig.	Insert
		DCONMS	LF	WF	DMIN			
95° 	QH16- SWLNR/L-0403	16	20	11	20	•	1	WN...X 0403...
	QH20- SWLNR/L-0403	20	20	13	25	•	2	RHINO TURN

Spare parts

Designation	Screw	Wrench					
							
SWLNR/L-0403	TS 25D060/HG-P	T 7P					

QH-SXUNR/L

Screw type boring heads

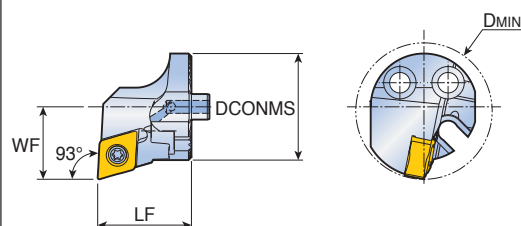


Fig. 1

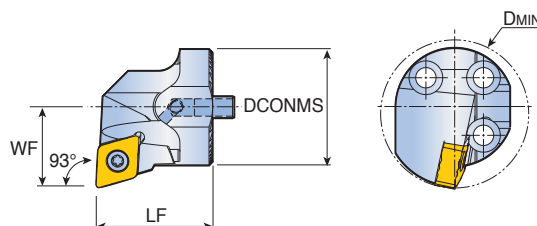


Fig. 2

QH-SXUNR

Approach angle	Designation	Dimension (mm)				Coolant hole	Fig.	Insert
		DCONMS	LF	WF	DMIN			
93° 	QH25- SXUNR/L-0904	25	22	17	32	•	1	XNMG 0904... RHINOXTURN
	QH32- SXUNR/L-1105	32	32	22	40	•	2	XN... 1105... POSSTURN

Spare parts

Designation	Screw	Wrench					
...0904	TS 30080I/HG	T 9					
...1105	TS 40G110I	T 15					

HUSHMODU



Modular Type Shanks for Various Turning Applications



A variety of
head types

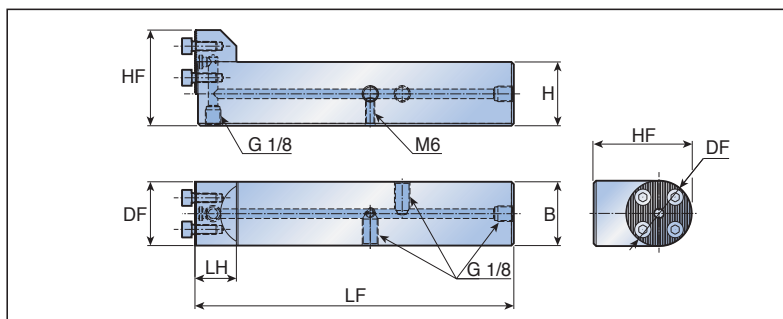
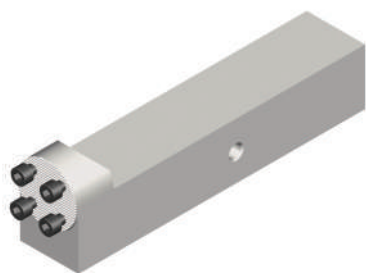


Through
coolant system



Serrated coupling
design for robust
tightening

Head changeable square shank

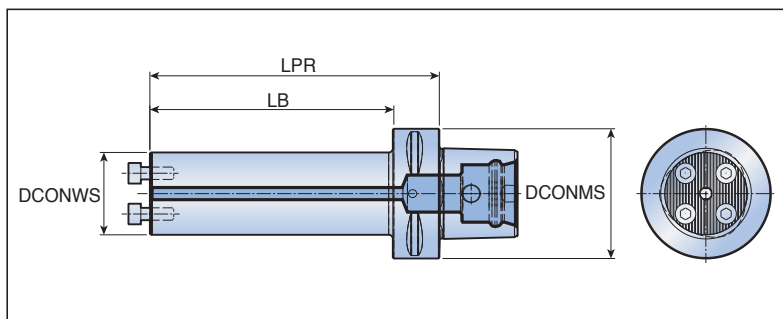
[illegible]

Spare parts

Designation	Screw	Plug		Wrench	
					
...-D20...	SH M3.5x0.6X10	RSS M6	PLG G1/8-L6.5	L-W 2.5	
...-D25...	SH M4x0.7X12	RSS M6	PLG G1/8-L6.5	L-W 3	
...N2020/N2525-D32...	SH M5x0.8X12	RSS M6	PLG G1/8-L6.5	L-W 4	
...N3232-D32...	SH M5x0.8X12	-	PLG G1/8-L6.5	L-W 4	
...N2525-D40...	SH M6x1X16	RSS M6	PLG G1/8-L6.5	L-W 5	
...N3232/N4040-D40...	SH M6x1X16	-	PLG G1/8-L6.5	L-W 5	

C...CS

Head changeable C-ADAPTER shank



Designation	Dimensions (mm)				Coolant hole
	DCONMS	DCONWS	LPR	LB	
C4- CS16A-2.5D	40	16	40	20	•
CS20A-2.5D	40	20	50	30	•
CS25A-2.5D	40	25	55	35	•
CS32A-2.5D	40	32	75	55	•
CS40A-3D	40	40	80	80	•
C5- CS16A-2.5D	50	16	40	20	•
CS20A-2.5D	50	20	50	30	•
CS25A-2.5D	50	25	55	35	•
CS32A-2.5D	50	32	75	55	•
CS40A-3D	50	40	100	80	•
C6- CS16A-2.5D	63	16	40	18	•
CS20A-2.5D	63	20	50	28	•
CS25A-2.5D	63	25	65	43	•
CS32A-3D	63	32	90	68	•
CS32A-4D	63	32	125	103	•
CS40A-3D	63	40	100	78	•
CS40A-4D	63	40	140	118	•
CS16E-5D	63	16	80	58	•
CS20E-5D	63	20	100	78	•
CS25E-5D	63	25	115	93	•
CS32E-5D	63	32	150	128	•
CS40E-5D	63	40	185	163	•

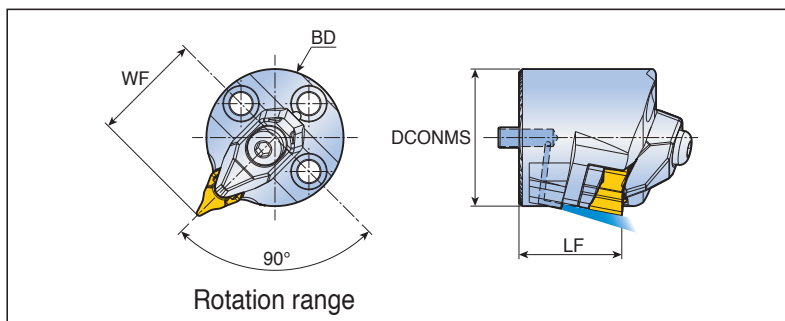
► 5D: Carbide core type

Spare parts

Designation	Screw	Wrench			
					
CS16	SH M3x0.5X10	L-W 2.5			
CS20	SH M3.5x0.6X10	L-W 2.5			
CS25	SH M4x0.7X12	L-W 3			
CS32	SH M5x0.8X12	L-W 4			
CS40	SH M6x1X16	L-W 5			

QH40Y-TZXNN-TB

Y-axis turning heads

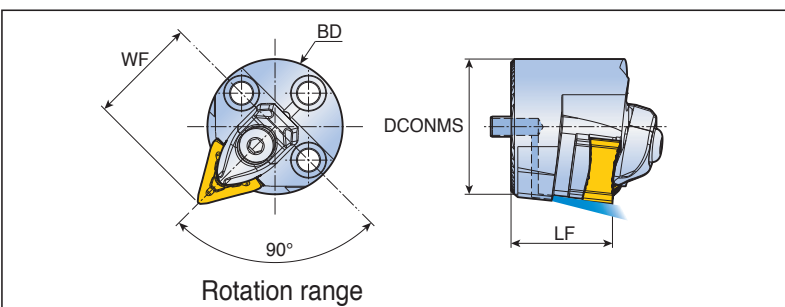


Approach angle	Designation	Dimensions (mm)				Insert
		DCONMS	LF	WF	BD	
	QH40Y- TZXNN -1410-TB	40	30	32	40	ZNMV 1410...Y-...

► Only ZNMV 1410...Y-BF inserts available

QH40Y-TTXNN-TB

Y-axis turning heads



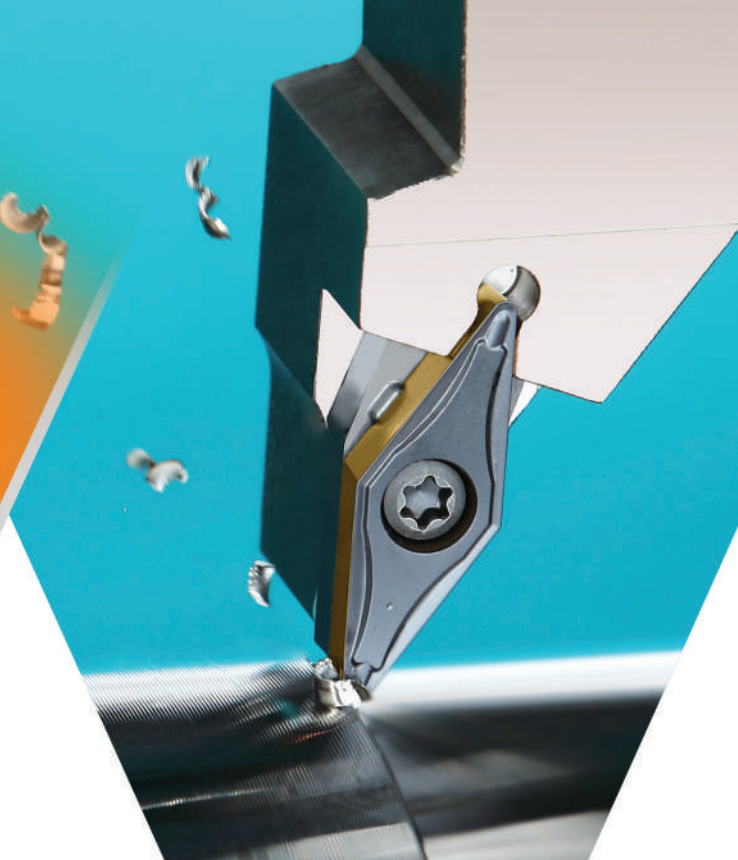
Approach angle	Designation	Dimensions (mm)				Insert
		DCONMS	LF	WF	BD	
	QH40Y- TTXNN -2109-TB	40	30	32	40	TNMV 2109...

Spare parts

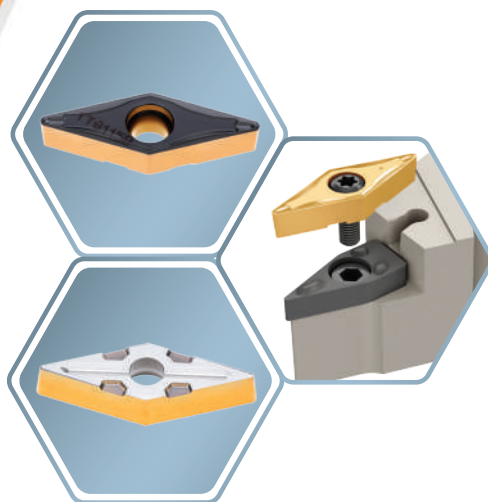
Designation	Clamp	Clamp screw	Spring	Shim		Shim screw	Wrench	
TZ...1410-TB	DLM 3.3Z-NV	DLS 5	DSP 5	TSZ 140310	-	TS 35083I/HG	L-W 4	T 10
TT...2109-TB	DLM 4.4T-NV	DLS 5	DSP 5	-	TSTV 210510	TS 35083I/HG	L-W 4	T 10

MULTITURN

SAFE TURNING



VBMX Insert and Holders with Rigid Clamping



For finishing



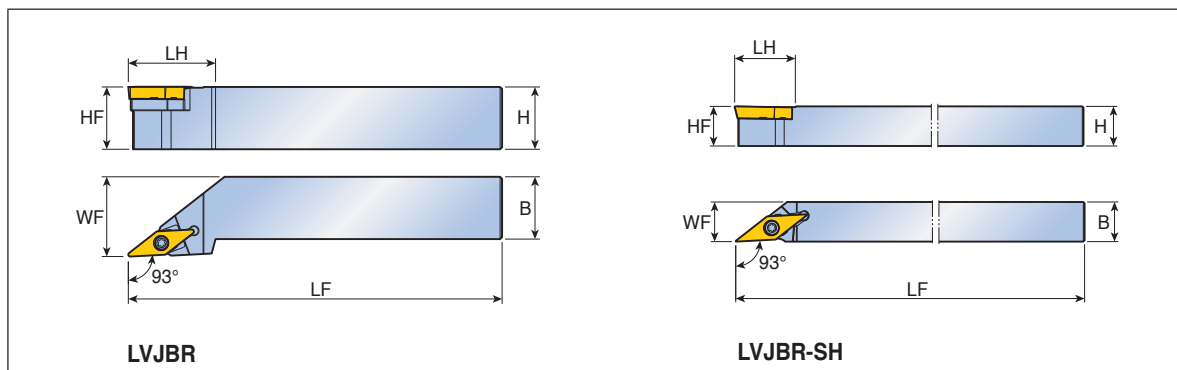
High stability

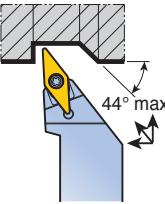
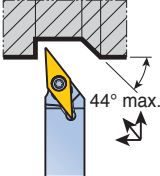


Secure and unique
clamping structure

LVJBR/L LVJBR-SH

Screw type holders

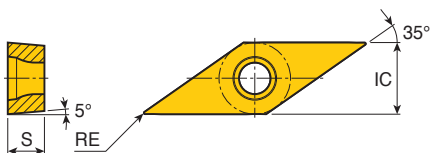


Approach angle	Designation	Dimension (mm)						Insert
		H	HF	B	LF	LH	WF	
93° 	LVJBR/L 2020 K16	20	20	20	125	35	25	VBMX 1604...
	2525 M16	25	25	25	150	35	32	
93° 	LVJBR 1616 K16-SH	16	16	16	125	24.5	16	

Spare parts

Designation	Screw	Shim	Shim screw	Wrench			
							
LVJBR/L	SO 35124I	SSVX 32	TS 5035062S	L-W 3.5	T 15		
LVJBR-SH	SO 35080I	-	-	-	T 15		

Positive 5° clearance 35° rhombic inserts



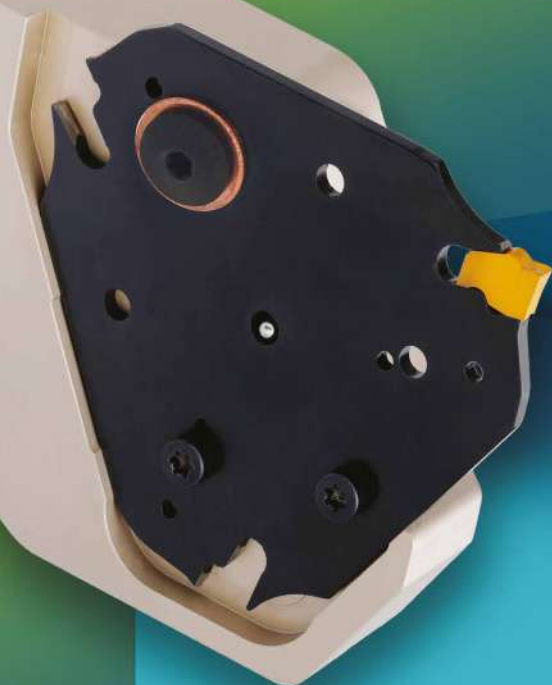
Size	Dimension (mm)		
	IC	S	RE
16	9.52	4.76	0.2-0.8

[illegible]

●: Standard items

WINCUT

ADVANCED PARTING



WINSPEED

ADVANCED MACHINING



WINCUT
ADVANCED PARTING

New Single-Ended Rigid Insert for Parting and Grooving with Unique Adapters



High
productivity with
better tool life



Higher speed and
feed



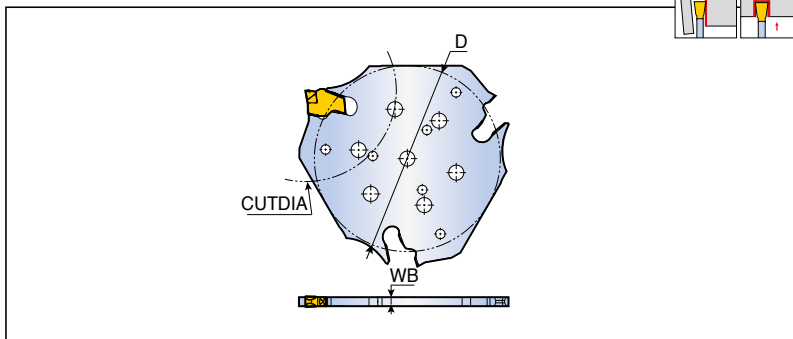
Simple and rigid
clamping system



Top and bottom
high-pressure
coolant supply

SFTB

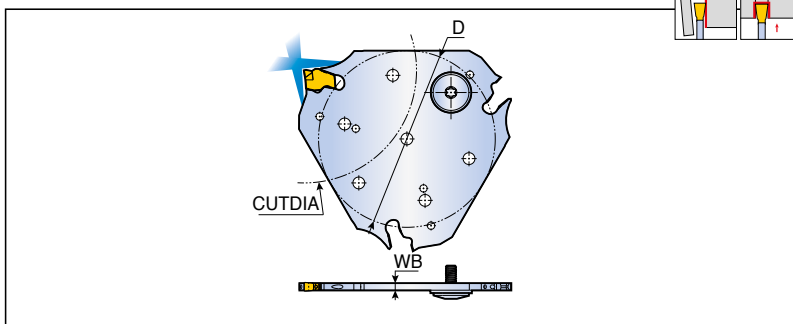
Triangular blades for parting and deep grooving



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

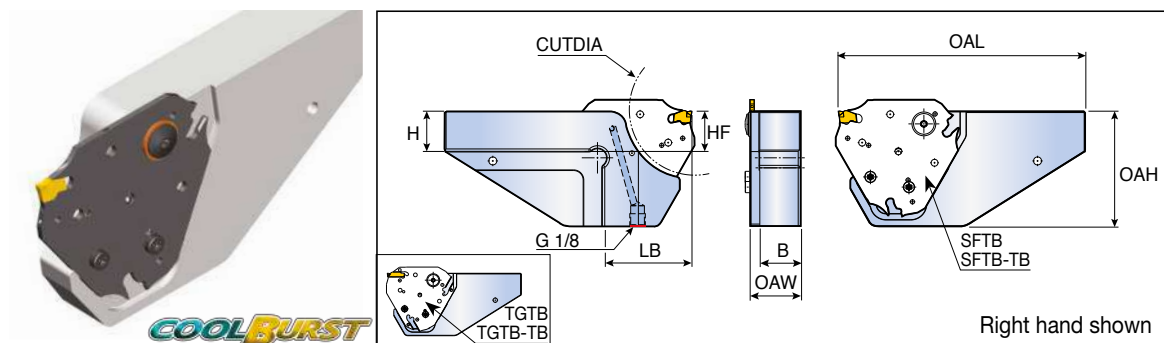
Spare parts

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

► Extractor should be ordered separately

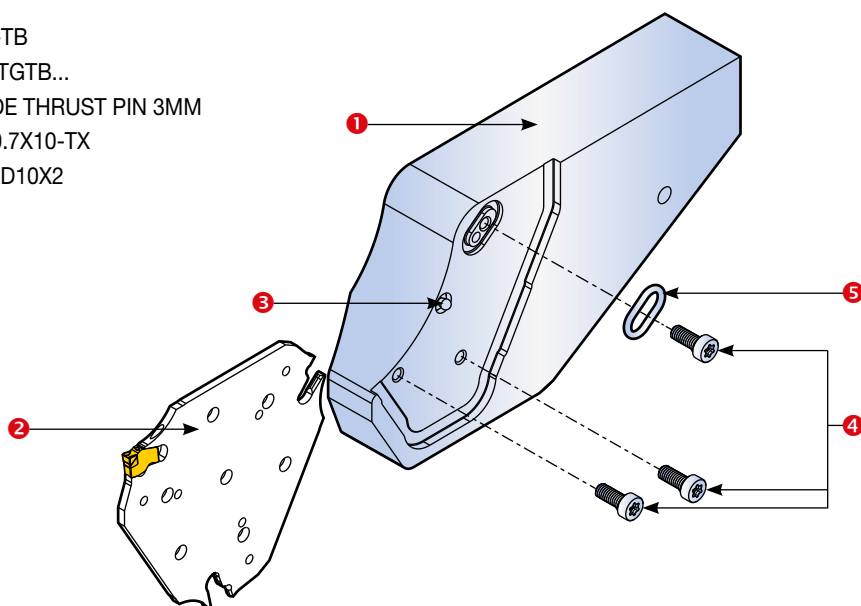
THTBR/L-TB

Blocks for triangular blade



Designation	Dimension (mm)								Blade
	H	HF	B	OAL	OAH	OAW	LB	CUTDIA	
THTBR/L 20-D52-TB	20	20	17.5	125	52	23.5	40	52	SFTB/SFTB-TB TGTB/TGTB-TB
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	

- ① Block: THTBR/L-TB
- ② Blade: SFTB... / TGTB...
- ③ Locating pin: SIDE THRUST PIN 3MM
- ④ Screw: SH M4X0.7X10-TX
- ⑤ O-ring: O-RING ID10X2

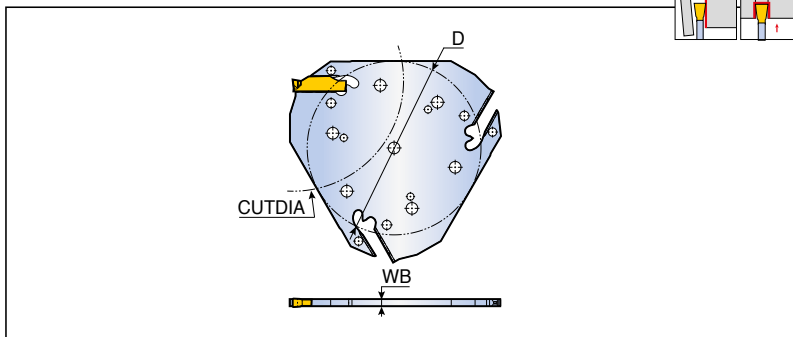
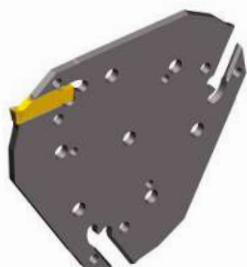


Spare parts

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

TGTB

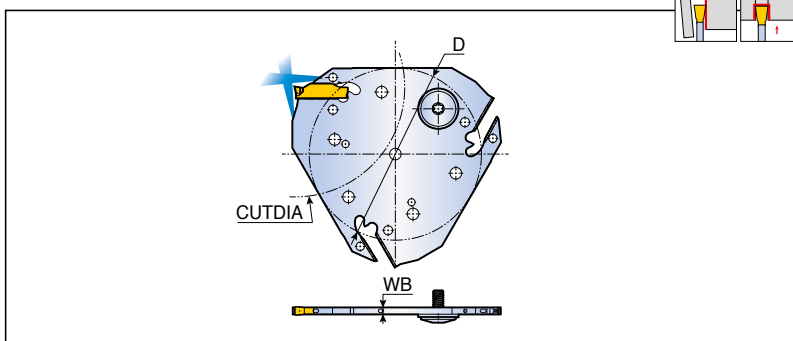
Triangular blades for parting and deep grooving



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

TGTB-TB

Triangular blades for parting and deep grooving with high-pressure coolant



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

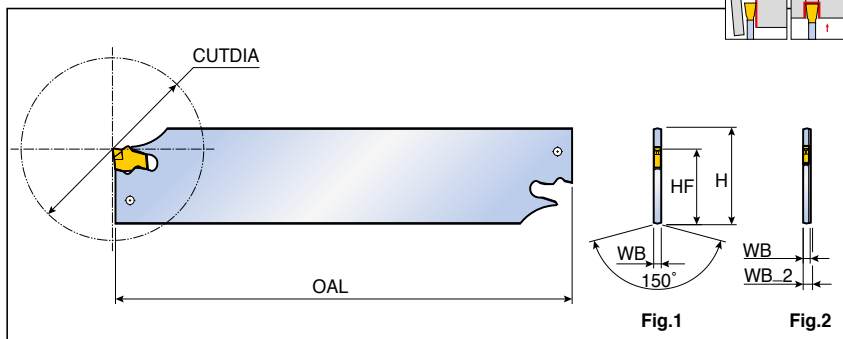
Spare parts

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

► Extractor should be ordered separately

SFGB

Blades for parting and deep grooving

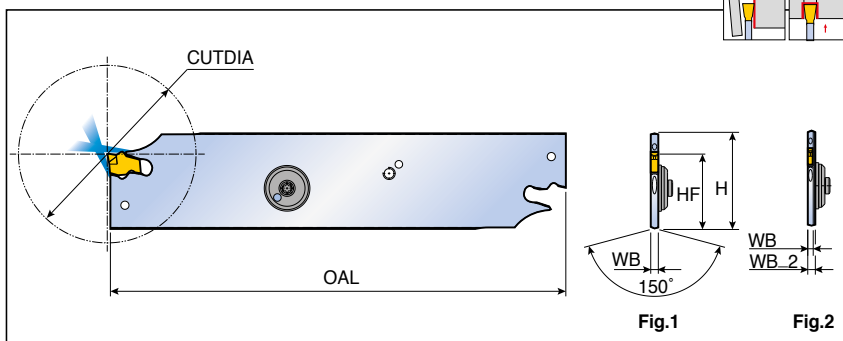


Designation	Insert seat size	Dimension (mm)						Fig.	Block	Insert
		H	HF	OAL	WB	WB_2	CUTDIA			
SFGB 32-1.6	1*	32	24.8	150	1.3	2.5	38	2	TTBN/U..32	SFC SFJ
32-2	2	32	24.8	150	1.8	2.5	50	2		
32-3	3	32	24.8	150	2.5	-	100	1		

► *: SFC 1.6 insert only

SFGB-TB

Blades for parting and deep grooving with high-pressure coolant



Designation	Insert seat size	Dimension (mm)						Fig.	Block	Insert
		H	HF	OAL	WB	WB_2	CUTDIA			
SFGB 32-2-TB	2	32	24.8	150	1.8	2.5	50	2	TTBU..-TB	SFC SFJ
32-3-TB	3	32	24.8	150	2.5	-	100	1		

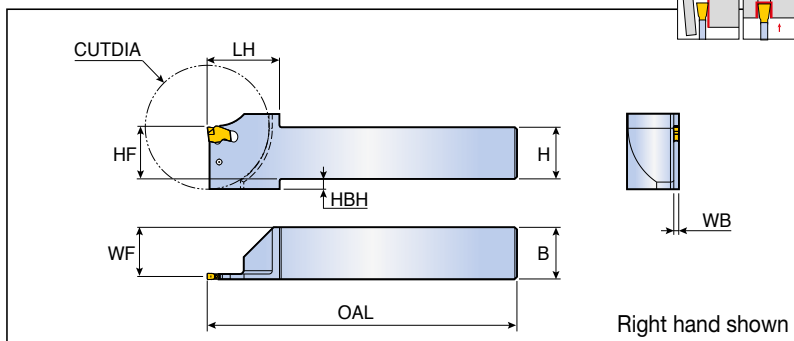
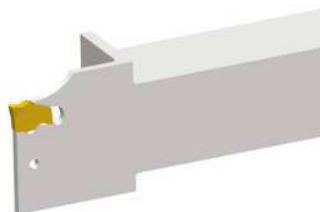
Spare parts

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

► Extractor should be ordered separately

SFER/L

External holders for parting and deep grooving

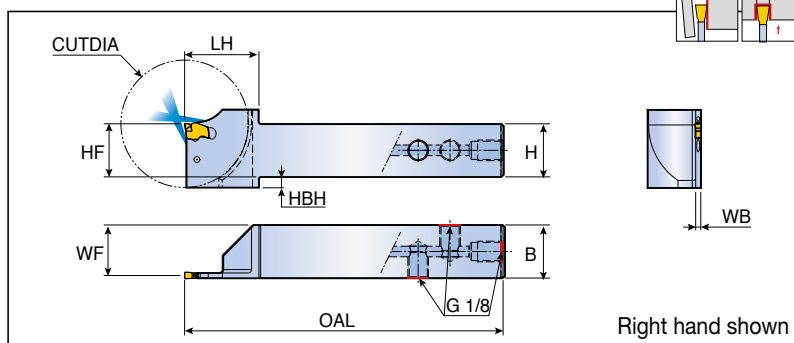


Designation	Insert seat size	Dimension (mm)									Insert
		H	HF	B	OAL	LH	WF	WB	HBH	CUTDIA	
SFER/L 2020-1.6T22-D45	1*	20	20	20	150	29.5	19.4	1.3	2.5	45	SFC
2525-2T25-D50	2	25	25	25	150	32	24.1	1.8	-	50	SFJ
2525-3T30-D60	3	25	25	25	150	35	23.8	2.4	5	60	

► *: SFC 1.6 insert only

SFER/L-TB

External 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

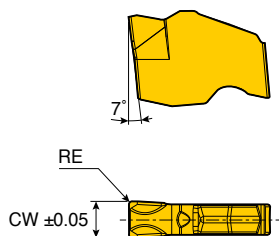
Spare parts

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

► Extractor should be ordered separately

SFC

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



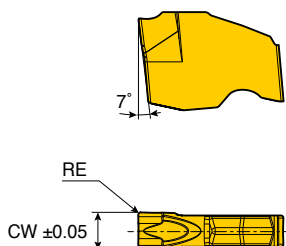
Size	Dimension (mm)				
	CW	RE			
1.6	1.6	0.2			
2	2.0	0.2			
3	3.0	0.2			

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

●: Standard items

SFJ

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



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

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

●: Standard items

FACEGROOVING

Unique Shallow Face Grooving Inserts



Multiple
applications



Stable and
secure clamping



Various size inserts
with one holder



Good chip
evacuation

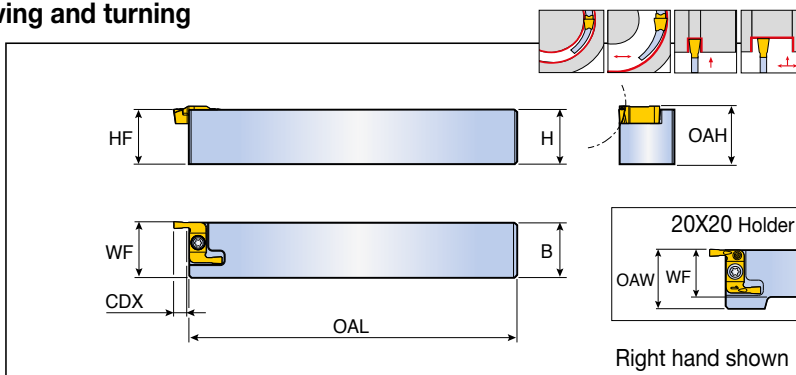
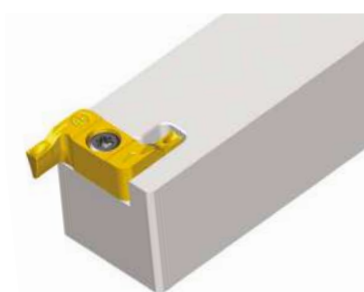


High-pressure
coolant

TXFR/L



Holders for shallow face grooving and turning



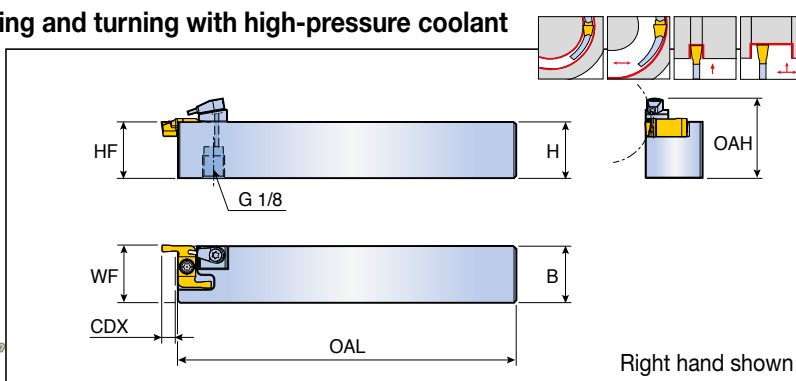
Designation	Dimension (mm)								Insert
	H	HF	B	OAL	OAH	WF	CDX	OAW	
TXFR/L 2020	20	20	20	125	21.5	20.5	6	25.5	TDFX ...R ⁽¹⁾
2525	25	25	25	150	26.5	25.5	6	25.5	TDFX ...L ⁽²⁾

► ⁽¹⁾ For TXFR ⁽²⁾ For TXFL

TXFR/L-TB



Holders for shallow face grooving and turning with high-pressure coolant



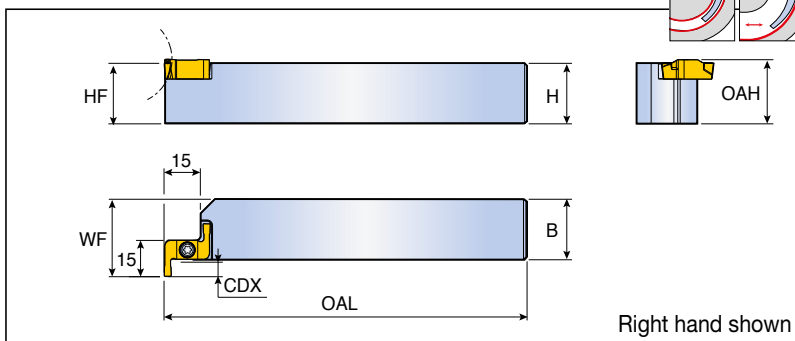
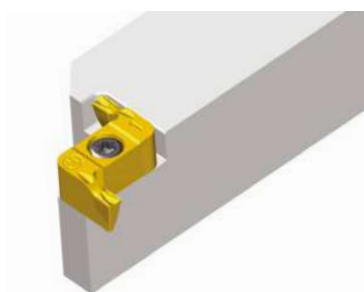
Designation	Dimension (mm)							Insert
	H	HF	B	OAL	OAH	WF	CDX	
TXFR 2525-TB	25	25	25	150	35.5	25.5	6	TDFX ...R
TXFL 2525-TB	25	25	25	150	35.5	25.5	6	TDFX ...L

Spare parts

Designation	Screw	Wrench	Cooling unit	
TXFR	TS 40E113I/HG	L-T15	-	
TXFL	TS 40E113IL/HG	L-T15	-	
TXFR-TB	TS 40E113I/HG	L-T15	S-CU-TB	
TXFL-TB	TS 40E113IL/HG	L-T15	S-CU-TB	

TXFPR/L

Perpendicular holders for shallow face grooving

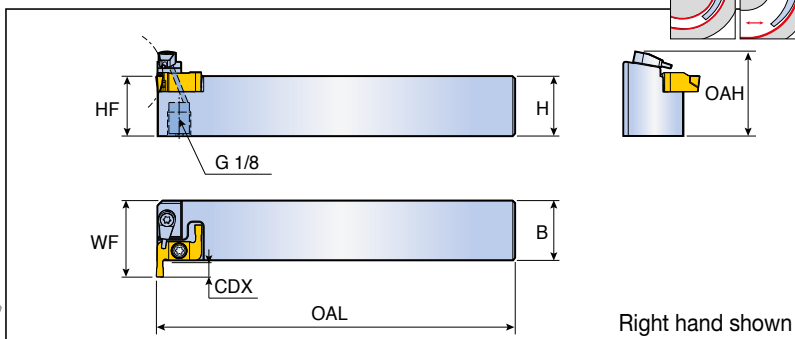


Designation	Dimension (mm)							Insert
	H	HF	B	OAL	OAH	WF	CDX	
TXFPR/L 2020	20	20	20	125	21.5	27	6	TDFX ...R ⁽¹⁾
2525	25	25	25	150	26.5	32	6	TDFX ...L ⁽²⁾

► ⁽¹⁾ For TXFPR ⁽²⁾ For TXFPL

TXFPR/L-TB

Perpendicular holders for shallow face grooving with high-pressure coolant



Designation	Dimension (mm)							Insert
	H	HF	B	OAL	OA H	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

Spare parts

Designation	Screw	Wrench	Cooling unit	
				
TXFPR	TS 40E113I/HG	L-T15	-	
TXFPL	TS 40E113IL/HG	L-T15	-	
TXFPR-TB	TS 40E113I/HG	L-T15	S-CU-TB	
TXFPL-TB	TS 40E113IL/HG	L-T15	S-CU-TB	

Double-ended inserts for face grooving and turning



Size	Dimension (mm)				
	CW	RE	CDX	DAXIN	DAXX
2	2	0.3	6	25	N.L.
3	3	0.3	6	24	N.L.
4	4	0.4	6	32	N.L.

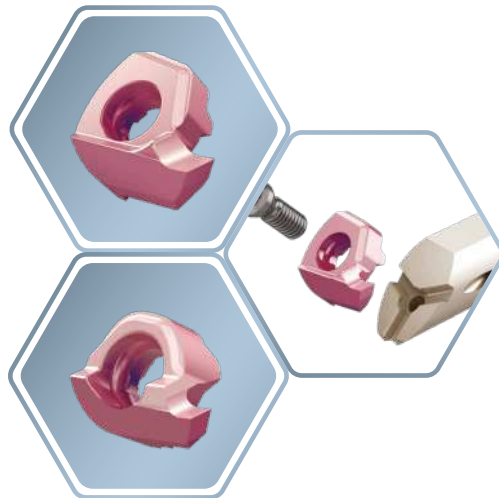
[illegible]

●: Standard items

WIN!GROOVE



Mini Indexable Insert for Internal Shallow Grooving



Very small
insert for
miniature in-
dustry



Secure and
unique clamping
structure



Precision
ground insert
for finishing

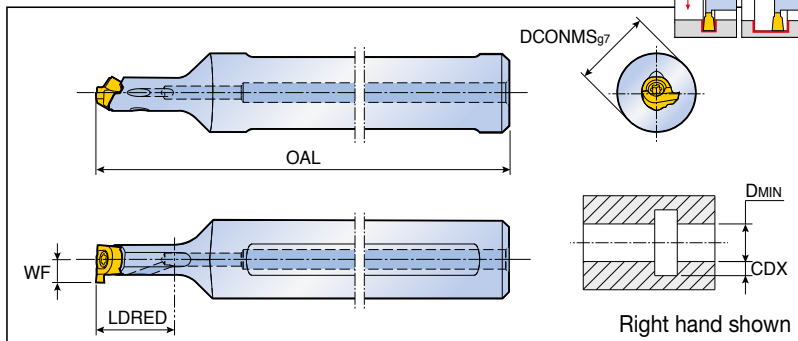


Good chip
evacuation



Internal cool-
ant

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

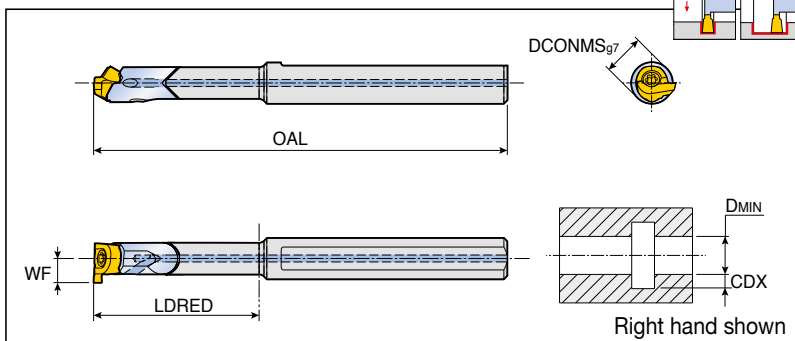
[illegible]

► CDX: Refer to insert dimension

Spare parts

Designation	Screw	Wrench		
				
TMIHR/L 12-12-6	TS 18049/HG-P	T 6P		
TMIHR/L 12-16-8	TS 20055I	T 6		

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

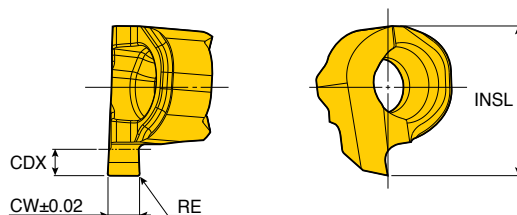
[illegible]

► CDX: Refer to insert dimension

Spare parts

Designation	Screw	Wrench		
				
TMIHR/L 06C	TS 18049/HG-P	T 6P		
TMIHR/L 12C	TS 20055I	T 6		

Precise inserts for internal shallow grooving on small diameter



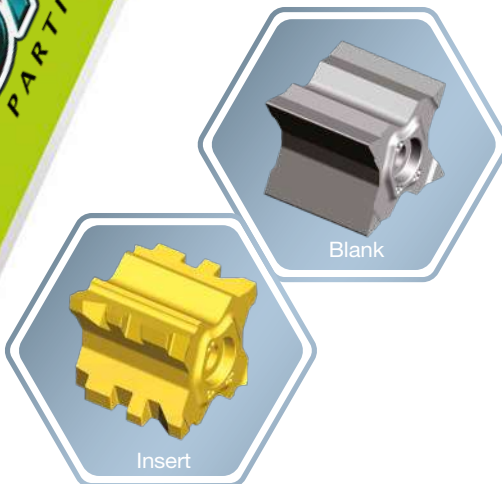
Right hand shown

[illegible]

●: Standard items

QUAD-RUSH
PARTING & GROOVING

QUAD-RUSH Blank Insert for Wide Tailored Profiles



For specially
tailored profiles



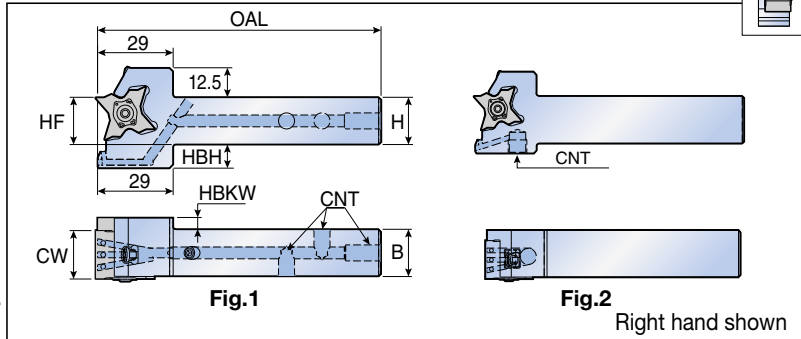
Secure and unique
clamping structure



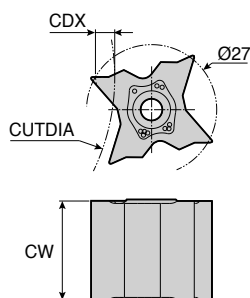
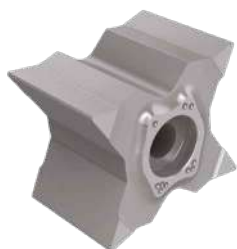
High-pressure
coolant



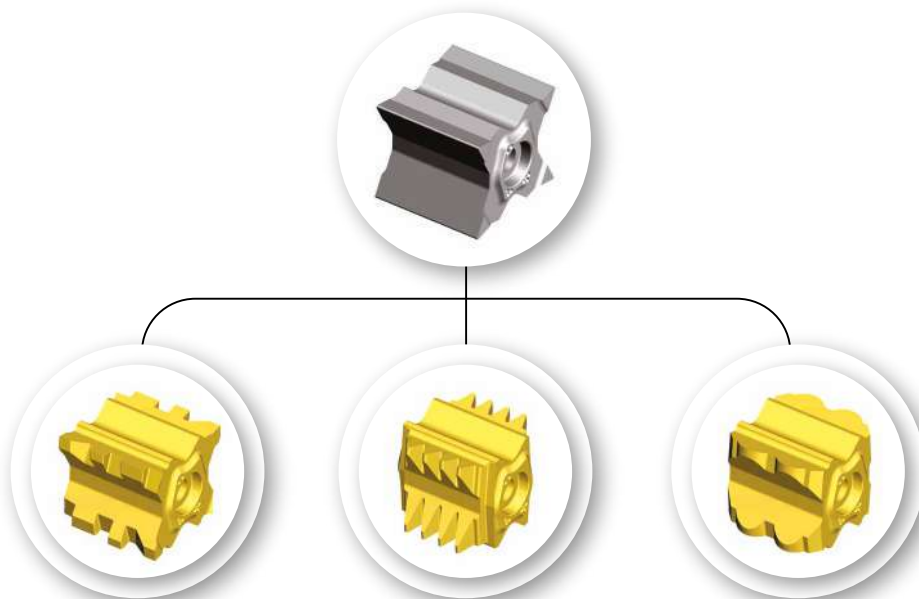
Economical insert



4 cutting edges with semi-finished blanks for wide grooving and profiling

[illegible]

●: Standard items

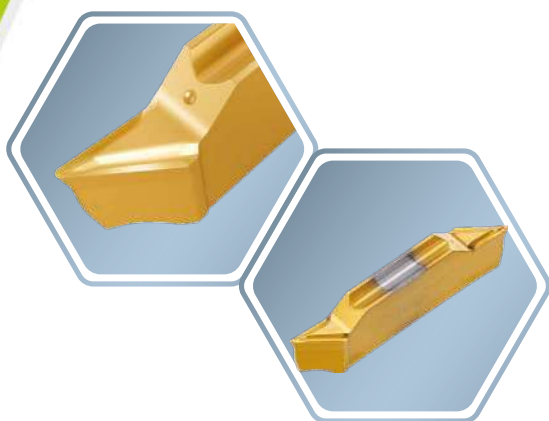


VT-CLAMP

V TURN



Multi-Functional V-Type Insert



Multiple applications



Working in
narrow spaces

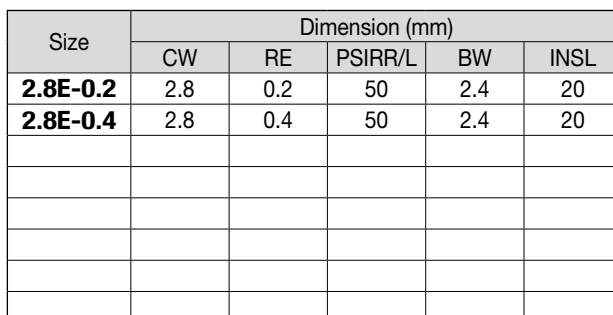


Optimum chip
breaking



Can be used on
standard holders

Double-ended inserts for turning and grooving with V-type shape

[illegible]

- : Standard items

T-CLAMP
PARTING & GROOVING



New Parting-Grooving Insert with Turning Capability



Enables high feed
turning & grooving



Optimized turning
chip breaker



Can be used on
standard holders

Double-ended inserts for turning and grooving



Size	Dimension (mm)				
	CW	RE	BW	INSL	CDX
2	2.0	0.30	1.7	20	19
3	3.0	0.30	2.2	20	19
4	4.0	0.40	3.0	20	19
5	5.0	0.40	4.0	25	24
6	6.0	0.40	5.0	25	24

[illegible]

●: Standard items



WINDRILL

ADVANCED MACHINING



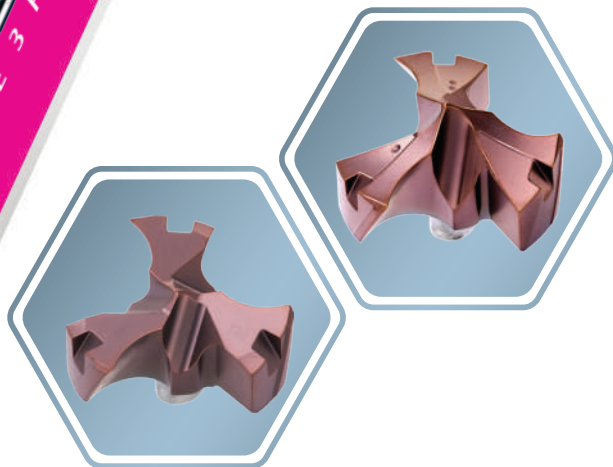
WINSPEED

ADVANCED MACHINING



DRILL SPEED
INDEXABLE 3 FLUTE

Head Changeable 3 Flute Drill for Higher Productivity



High productivity



Unique geometry
for self-centering



Excellent
hole accuracy

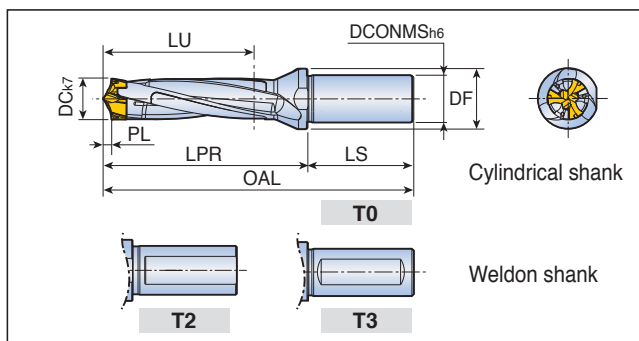


No set-up time



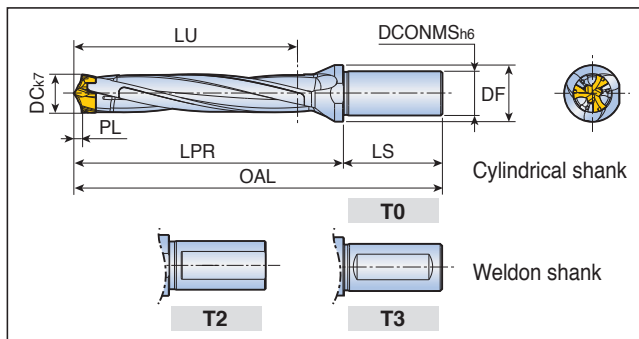
P & K application

Head changeable 3 flute drill holder



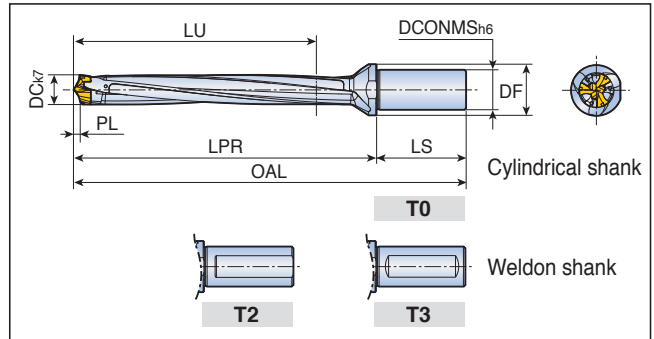
- ▶ SSC: Seat size code
- ▶ OAL: LPR+LS

Head changeable 3 flute drill holder



- ▶ SSC: Seat size code
- ▶ OAL: LPR+LS

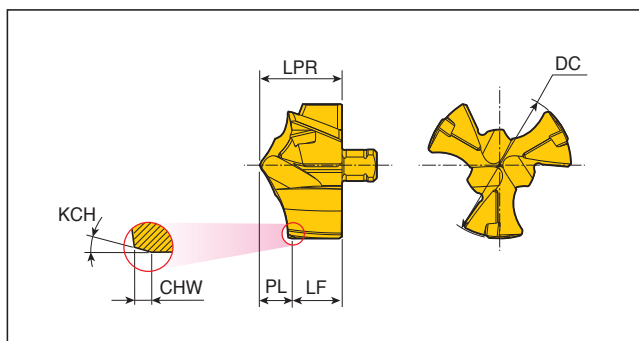
Head changeable 3 flute drill holder



- ▶ SSC: Seat size code
- ▶ OAL: LPR+LS

3ED...-P+

3 flute drill head



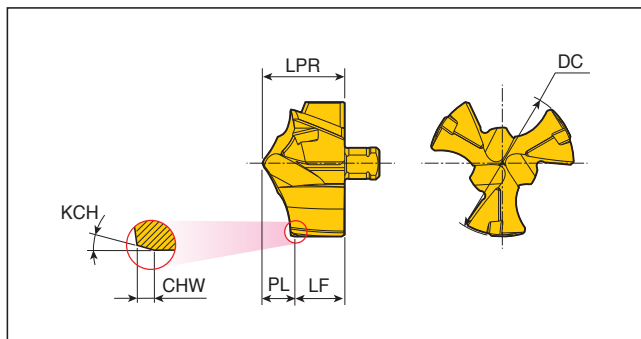
Designation	Dimension (mm)							Grade
	DC	LPR	PL	LF	CHW	KCH	SSC	TT5130
3ED- 120-P+ new	12.0	6.7	2.74	3.96	0.4	15	12	●
121-P+ new	12.1	6.7	2.74	3.96	0.4	15	12	●
122-P+ new	12.2	6.7	2.74	3.96	0.4	15	12	●
123-P+ new	12.3	6.7	2.74	3.96	0.4	15	12	●
124-P+ new	12.4	6.7	2.74	3.96	0.4	15	12	●
125-P+ new	12.5	6.7	2.76	3.94	0.4	15	12	●
126-P+ new	12.6	6.7	2.76	3.94	0.4	15	12	●
127-P+ new	12.7	6.7	2.76	3.94	0.4	15	12	●
128-P+ new	12.8	6.7	2.76	3.94	0.4	15	12	●
129-P+ new	12.9	6.7	2.76	3.94	0.4	15	12	●
130-P+ new	13.0	7.3	2.91	4.39	0.4	15	13	●
131-P+ new	13.1	7.3	2.91	4.39	0.4	15	13	●
132-P+ new	13.2	7.3	2.91	4.39	0.4	15	13	●
133-P+ new	13.3	7.3	2.91	4.39	0.4	15	13	●
134-P+ new	13.4	7.3	2.91	4.39	0.4	15	13	●
135-P+ new	13.5	7.3	2.93	4.37	0.4	15	13	●
136-P+ new	13.6	7.3	2.93	4.37	0.4	15	13	●
137-P+ new	13.7	7.3	2.93	4.37	0.4	15	13	●
138-P+ new	13.8	7.3	2.93	4.37	0.4	15	13	●
139-P+ new	13.9	7.3	2.93	4.37	0.4	15	13	●
140-P+ new	14.0	7.9	3.17	4.73	0.4	15	14	●
141-P+ new	14.1	7.9	3.17	4.73	0.4	15	14	●
142-P+ new	14.2	7.9	3.17	4.73	0.4	15	14	●
143-P+ new	14.3	7.9	3.17	4.73	0.4	15	14	●
144-P+ new	14.4	7.9	3.17	4.73	0.4	15	14	●
145-P+ new	14.5	7.9	3.19	4.71	0.4	15	14	●
146-P+ new	14.6	7.9	3.19	4.71	0.4	15	14	●
147-P+ new	14.7	7.9	3.19	4.71	0.4	15	14	●
148-P+ new	14.8	7.9	3.19	4.71	0.4	15	14	●
149-P+ new	14.9	7.9	3.19	4.71	0.4	15	14	●

► SSC: Seat size code

●: Standard items

3ED...-P+

3 flute drill head



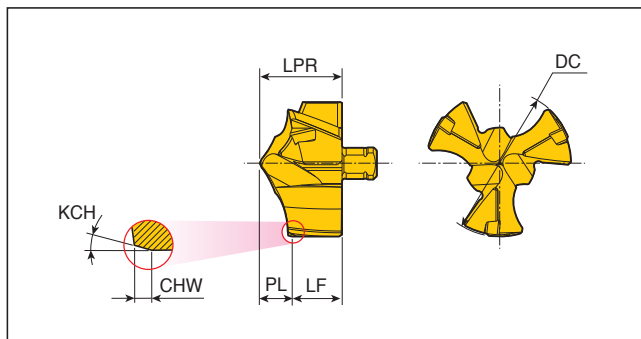
Designation	Dimension (mm)							Grade
	DC	LPR	PL	LF	CHW	KCH	SSC	TT5130
3ED- 150-P+	15.0	8.4	3.31	5.09	0.5	30	15	●
151-P+	15.1	8.4	3.31	5.09	0.5	30	15	●
152-P+	15.2	8.4	3.31	5.09	0.5	30	15	●
153-P+	15.3	8.4	3.31	5.09	0.5	30	15	●
154-P+	15.4	8.4	3.31	5.09	0.5	30	15	●
155-P+	15.5	8.4	3.32	5.08	0.5	30	15	●
156-P+	15.6	8.4	3.32	5.08	0.5	30	15	●
157-P+	15.7	8.4	3.32	5.08	0.5	30	15	●
158-P+	15.8	8.4	3.32	5.08	0.5	30	15	●
159-P+	15.9	8.4	3.32	5.08	0.5	30	15	●
160-P+	16.0	9.0	3.70	5.30	0.7	30	16	●
161-P+	16.1	9.0	3.70	5.30	0.7	30	16	●
162-P+	16.2	9.0	3.70	5.30	0.7	30	16	●
163-P+	16.3	9.0	3.70	5.30	0.7	30	16	●
164-P+	16.4	9.0	3.70	5.30	0.7	30	16	●
165-P+	16.5	9.0	3.71	5.29	0.7	30	16	●
166-P+	16.6	9.0	3.71	5.29	0.7	30	16	●
167-P+	16.7	9.0	3.71	5.29	0.7	30	16	●
168-P+	16.8	9.0	3.71	5.29	0.7	30	16	●
169-P+	16.9	9.0	3.71	5.29	0.7	30	16	●
170-P+	17.0	9.5	3.88	5.62	0.7	30	17	●
171-P+	17.1	9.5	3.88	5.62	0.7	30	17	●
172-P+	17.2	9.5	3.88	5.62	0.7	30	17	●
173-P+	17.3	9.5	3.88	5.62	0.7	30	17	●
174-P+	17.4	9.5	3.88	5.62	0.7	30	17	●
175-P+	17.5	9.5	3.89	5.61	0.7	30	17	●
176-P+	17.6	9.5	3.89	5.61	0.7	30	17	●
177-P+	17.7	9.5	3.89	5.61	0.7	30	17	●
178-P+	17.8	9.5	3.89	5.61	0.7	30	17	●
179-P+	17.9	9.5	3.89	5.61	0.7	30	17	●

► SSC: Seat size code

●: Standard items

3ED...-P+

3 flute drill head

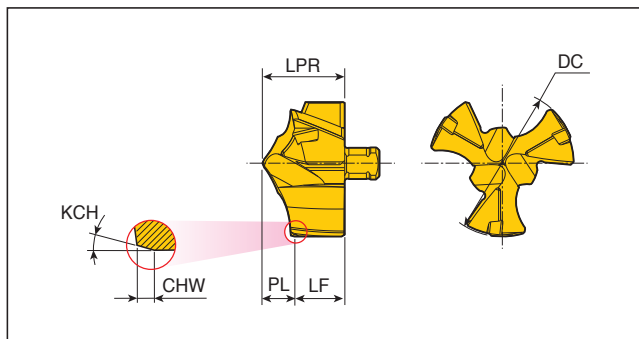


Designation	Dimension (mm)							Grade
	DC	LPR	PL	LF	CHW	KCH	SSC	TT5130
3ED- 180-P+	18.0	10.1	4.07	6.03	0.7	30	18	●
181-P+	18.1	10.1	4.07	6.03	0.7	30	18	●
182-P+	18.2	10.1	4.07	6.03	0.7	30	18	●
183-P+	18.3	10.1	4.07	6.03	0.7	30	18	●
184-P+	18.4	10.1	4.07	6.03	0.7	30	18	●
185-P+	18.5	10.1	4.08	6.02	0.7	30	18	●
186-P+	18.6	10.1	4.08	6.02	0.7	30	18	●
187-P+	18.7	10.1	4.08	6.02	0.7	30	18	●
188-P+	18.8	10.1	4.08	6.02	0.7	30	18	●
189-P+	18.9	10.1	4.08	6.02	0.7	30	18	●
190-P+	19.0	10.7	4.26	6.44	0.7	30	19	●
191-P+	19.1	10.7	4.26	6.44	0.7	30	19	●
192-P+	19.2	10.7	4.26	6.44	0.7	30	19	●
193-P+	19.3	10.7	4.26	6.44	0.7	30	19	●
194-P+	19.4	10.7	4.26	6.44	0.7	30	19	●
195-P+	19.5	10.7	4.27	6.43	0.7	30	19	●
196-P+	19.6	10.7	4.27	6.43	0.7	30	19	●
197-P+	19.7	10.7	4.27	6.43	0.7	30	19	●
198-P+	19.8	10.7	4.27	6.43	0.7	30	19	●
199-P+	19.9	10.7	4.27	6.43	0.7	30	19	●
200-P+	20.0	11.3	4.44	6.86	0.7	30	20	●
201-P+	20.1	11.3	4.44	6.86	0.7	30	20	●
202-P+	20.2	11.3	4.44	6.86	0.7	30	20	●
203-P+	20.3	11.3	4.44	6.86	0.7	30	20	●
204-P+	20.4	11.3	4.44	6.86	0.7	30	20	●
205-P+	20.5	11.3	4.45	6.85	0.7	30	20	●
206-P+	20.6	11.3	4.45	6.85	0.7	30	20	●
207-P+	20.7	11.3	4.45	6.85	0.7	30	20	●
208-P+	20.8	11.3	4.45	6.85	0.7	30	20	●
209-P+	20.9	11.3	4.45	6.85	0.7	30	20	●

► SSC: Seat size code

●: Standard items

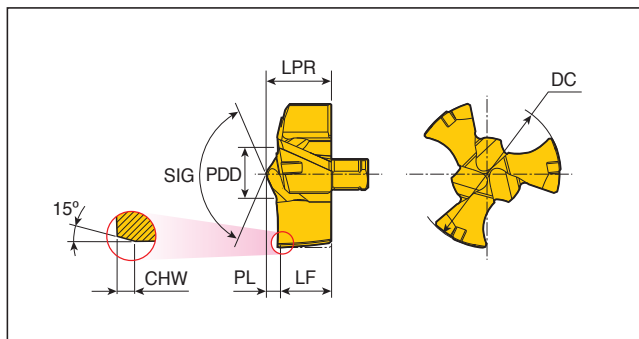
3 flute drill head

[illegible]

●: Standard items

3ED...-F new

3 flute drill heads for flat bottom hole



Designation	Dimension (mm)								Grade
	DC	LPR	PL	LF	PDD	SIG	CHW	SSC	TT5130
3ED- 120-F	12.0	5.14	1.18	3.96	3.38	133	0.4	12	●
125-F	12.5	5.14	1.20	3.94	3.38	133	0.4	12	●
130-F	13.0	5.61	1.22	4.39	3.58	132	0.4	13	●
135-F	13.5	5.61	1.24	4.37	3.58	132	0.4	13	●
140-F	14.0	6.01	1.28	4.73	4.01	133	0.4	14	●
145-F	14.5	6.01	1.30	4.71	4.01	133	0.4	14	●
150-F	15.0	6.38	1.32	5.06	4.16	133	0.4	15	●
155-F	15.5	6.38	1.34	5.04	4.16	133	0.4	15	●
160-F	16.0	6.86	1.38	5.48	4.52	134	0.4	16	●
165-F	16.5	6.86	1.40	5.46	4.52	134	0.4	16	●
170-F	17.0	7.22	1.45	5.77	4.79	134	0.4	17	●
175-F	17.5	7.22	1.47	5.75	4.79	134	0.4	17	●
180-F	18.0	7.93	1.75	6.18	5.96	133	0.4	18	●
185-F	18.5	7.93	1.77	6.16	5.96	133	0.4	18	●
190-F	19.0	8.41	1.83	6.58	6.32	133	0.4	19	●
195-F	19.5	8.41	1.85	6.56	6.32	133	0.4	19	●
200-F	20.0	8.89	1.90	6.99	6.61	133	0.4	20	●
205-F	20.5	8.89	1.92	6.97	6.61	133	0.4	20	●
210-F	21.0	9.17	1.99	7.18	7.01	133	0.4	21	●
215-F	21.5	9.17	2.01	7.16	7.01	133	0.4	21	●
220-F	22.0	9.72	2.10	7.62	7.30	133	0.4	22	●
225-F	22.5	9.72	2.12	7.60	7.30	133	0.4	22	●
230-F	23.0	9.96	2.18	7.78	7.49	132	0.4	23	●
235-F	23.5	9.96	2.20	7.76	7.49	132	0.4	23	●
240-F	24.0	10.46	2.24	8.22	7.81	132	0.4	24	●
245-F	24.5	10.46	2.26	8.20	7.81	132	0.4	24	●
250-F	25.0	11.03	2.31	8.72	8.16	132	0.4	25	●
255-F	25.5	11.03	2.33	8.70	8.16	132	0.4	25	●

► SSC: Seat size code

●: Standard items

SOLID 3DRILL

3 FLUTE

Solid Carbide 3 Flute Drill for Higher Productivity



High productivity



Self-centering
design



Optimum flute
design

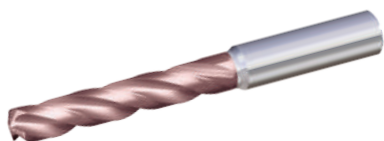


Unique flat bottom
design

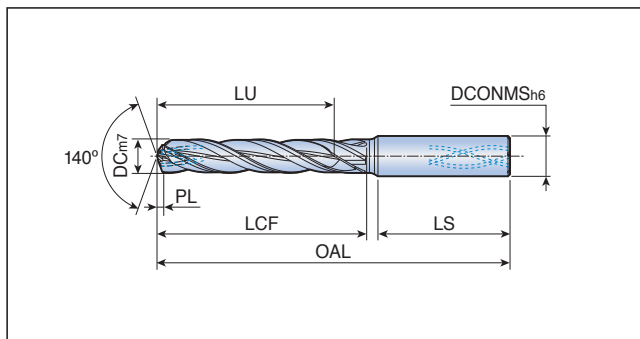


Longer tool life

3 flute solid carbide drills with oil holes

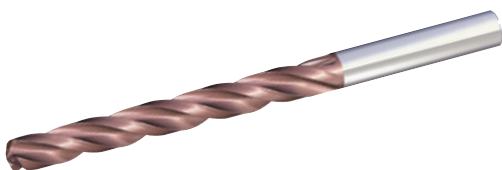


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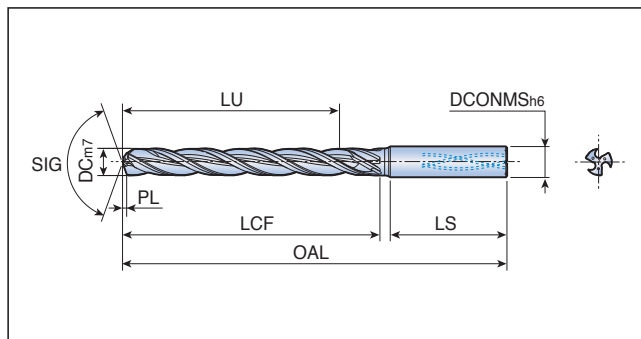
[illegible]

●: Standard items

3 flute solid carbide drills with oil holes



- Drilling depth: $8 \times \text{Diameter}$

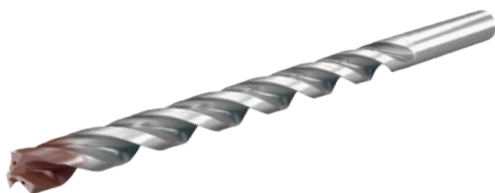
[illegible]

●: Standard items

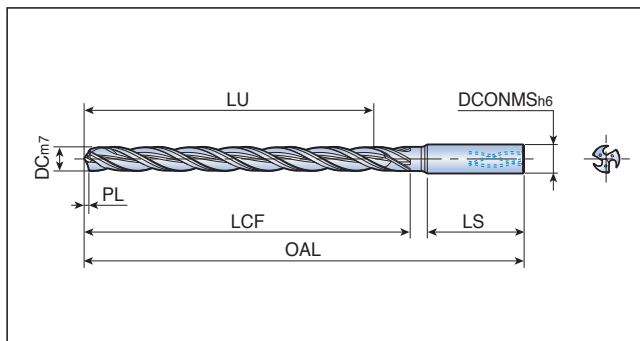
3HD...CI12



3 flute solid carbide drill with oil holes

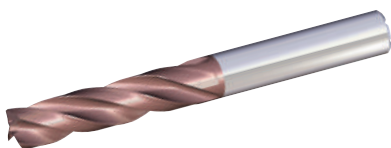


- Drilling depth: $12 \times \text{Diameter}$

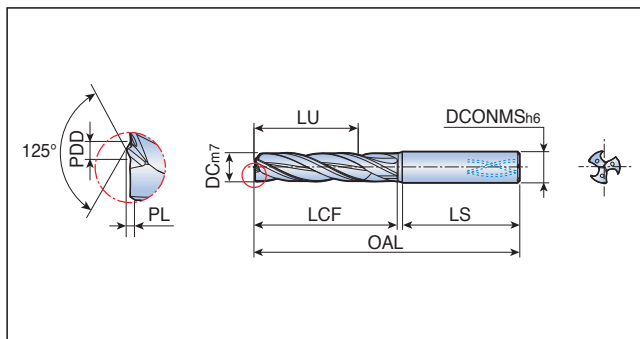
[illegible]

●: Standard items

3 flute solid carbide drills for flat bottom hole

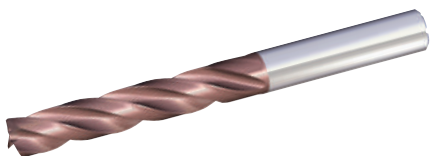


- Drilling depth: $3 \times \text{Diameter}$

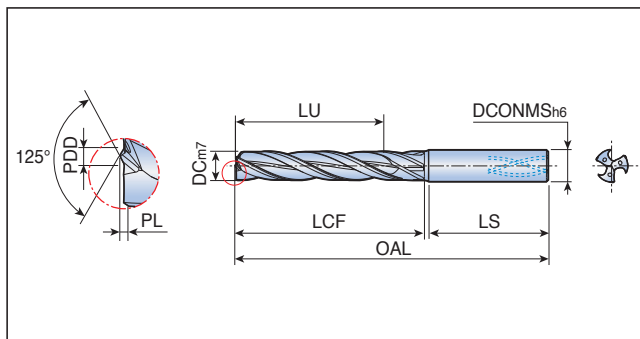
[illegible]

●: Standard items

3 flute solid carbide drills for flat bottom hole



- Drilling depth: $5 \times \text{Diameter}$

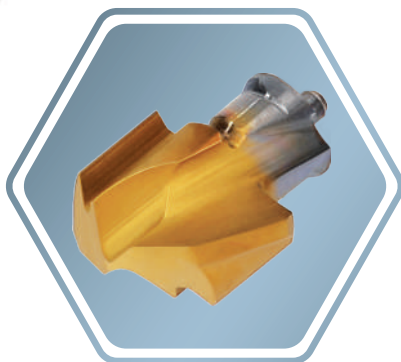
[illegible]

●: Standard items

WINDRILL
ADVANCED MACHINING



Head Changeable Drill for Small Diameter



No set-up time



Small diameter head



Easy to use



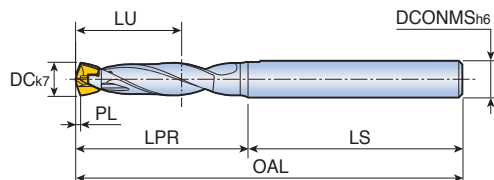
Accurate hole size and
excellent hole quality

TCD...-3D

Head changeable drill holder - Cylindrical type shank



- Drilling depth: 3xDiameter



Designation	Dimension (mm)							Clamping key
	DC	DCONMS	LU	LPR	LS	PL	SSC	
TCD 040-044-06A0-3D	4.0-4.4	6	13	22.7	35	0.62	4	K TCD D040-D049
045-049-06A0-3D	4.5-4.9	6	14	24.7	35	0.66	4.5	K TCD D040-D049
050-054-06A0-3D	5.0-5.4	6	16	26.3	35	0.73	5	K TCD D050-D059
055-059-06A0-3D	5.5-5.9	6	17	28.2	35	0.81	5.5	K TCD D050-D059

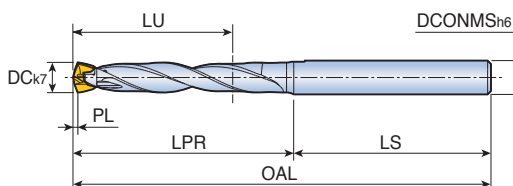
- OAL = LPR+LS
- SSC: Seat size code

TCD...-5D

Head changeable drill holder - Cylindrical type shank



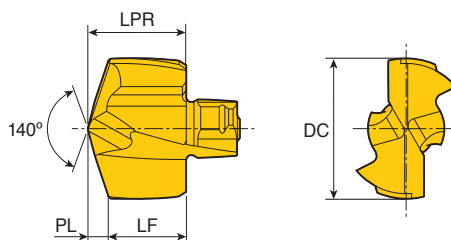
- Drilling depth: 5xDiameter



Designation	Dimension (mm)							Clamping key
	DC	DCONMS	LU	LPR	LS	PL	SSC	
TCD 040-044-06A0-5D	4.0-4.4	6	21	30.7	35	0.62	4	K TCD D040-D049
045-049-06A0-5D	4.5-4.9	6	23	33.7	35	0.66	4.5	K TCD D040-D049
050-054-06A0-5D	5.0-5.4	6	26	36.3	35	0.73	5	K TCD D050-D059
055-059-06A0-5D	5.5-5.9	6	28	39.2	35	0.81	5.5	K TCD D050-D059

- OAL = LPR+LS
- SSC: Seat size code

Drill head

[illegible]

●: Standard items

WINDRILL
ADVANCED MACHINING

MAXI-RUSH Connection for Head Changeable Drill



No set-up time



Easy to use

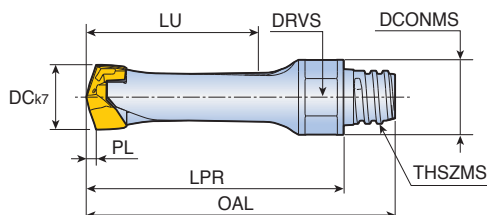


Accurate hole size and
excellent hole quality

Head changeable drill holder with MAXI-RUSH type shank



-



- ▶ SSC: Seat size code
- ▶ Matched with MAXI-RUSH holder

WINDRILL
ADVANCED MACHINING

T-FLEXTEC Connection for Head Changeable Drill



No set-up time

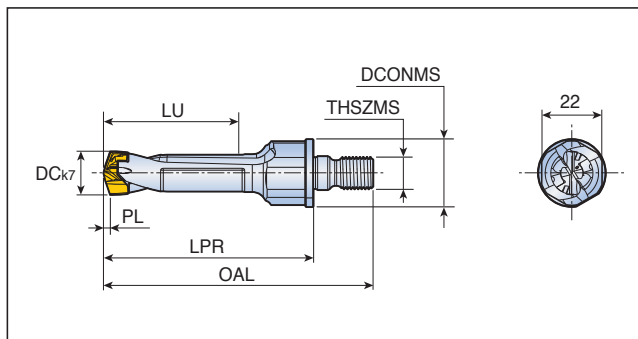


Easy to use



Accurate hole size and
excellent hole quality

Head changeable drill holder with T-FLEXTEC type shank



- ▶ SSC: Seat size code
- ▶ Matched with T-FLEXTEC holder

SPADERUSH



Large Diameter Drill with P+ Self-centering Drill Heads



Excellent
self-centering
capability



Premium
hole quality

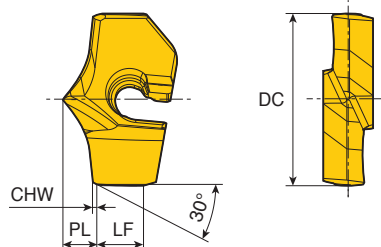


High productivity
without pilot drilling



Reinforced
cutting edge

Self-centering drill head

[illegible]

► SSC: Seat size code

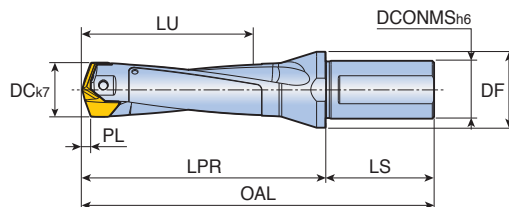
●: Standard items

LCD...T2-3D

Head changeable drill holders - Weldon type shank



- Drilling depth: 3xDiameter



Designation	Dimension (mm)							
	DC	DCONMS	DF	LU	LPR	LS	PL	SSC
LCD 200-209-25T2-3D	20.0-20.9	25	32	63	92.1	56	3.11	20
210-219-25T2-3D	21.0-21.9	25	32	66	95.3	56	3.29	21
220-229-25T2-3D	22.0-22.9	25	32	69	98.4	56	3.42	22
230-239-25T2-3D	23.0-23.9	25	32	73	101.6	56	3.60	23
240-249-32T2-3D	24.0-24.9	32	40	76	110.7	60	3.73	24
250-259-32T2-3D	25.0-25.9	32	40	79	113.9	60	3.91	25
260-269-32T2-3D	26.0-26.9	32	40	82	117.0	60	4.04	26
270-279-32T2-3D	27.0-27.9	32	40	85	120.2	60	4.22	27
280-289-32T2-3D	28.0-28.9	32	40	88	128.4	60	4.35	28
290-299-32T2-3D	29.0-29.9	32	40	92	131.5	60	4.53	29
300-309-32T2-3D	30.0-30.9	32	42	95	134.7	60	4.67	30
310-319-32T2-3D	31.0-31.9	32	42	98	137.9	60	4.85	31
320-329-40T2-3D	32.0-32.9	40	48	101	143.0	68	4.98	32
330-339-40T2-3D	33.0-33.9	40	48	104	146.2	68	5.16	33
340-349-40T2-3D	34.0-34.9	40	48	107	149.3	68	5.34	34
350-359-40T2-3D	35.0-35.9	40	48	110	152.4	68	5.44	35
360-369-40T2-3D	36.0-36.9	40	48	114	155.6	68	5.62	36
370-379-40T2-3D	37.0-37.9	40	48	117	158.8	68	5.80	37
380-389-40T2-3D	38.0-38.9	40	50	120	166.9	68	5.91	38
390-399-40T2-3D	39.0-39.9	40	50	123	170.1	68	6.09	39
400-410-40T2-3D	40.0-41.0	40	50	126	173.3	68	6.27	40

► OAL = LPR+LS ► SSC: Seat size code

Spare parts

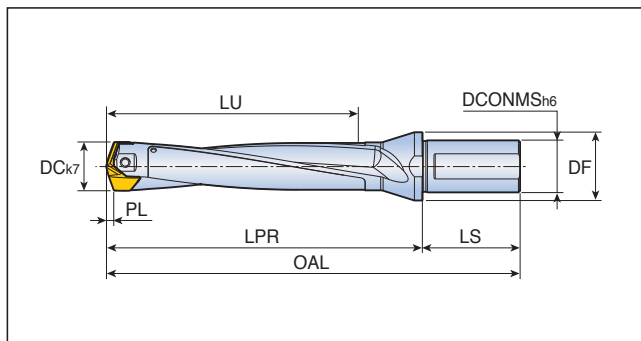
Designation	Screw	Wrench	Wrench handle	
LCD 200-219-3D	TS 40178D25	BLD T20/S7	SW6-T-SH	
LCD 220-239-3D	TS 40198D28	BLD T20/S7	SW6-T-SH	
LCD 240-259-3D	TS 40210D3	BLD T20/S7	SW6-T-SH	
LCD 260-279-3D	TS 50230D3	BLD T20/S7	SW6-T-SH	
LCD 280-299-3D	TS 50250D35	BLD T25/S7	SW6-T-SH	
LCD 300-319-3D	TS 60265D4	BLD T25/S7	SW6-T-SH	
LCD 320-349-3D	TS 60285D42	BLD T25/S7	SW6-T-SH	
LCD 350-379-3D	TS 60320D5	BLD T25/S7	SW6-T-SH	
LCD 380-410-3D	TS 80340D6	BLD T25/S7	SW6-T-SH	

LCD...T2-5D

Head changeable drill holders - Weldon type shank



- Drilling depth: 5xDiameter



Designation	Dimension (mm)							
	DC	DCONMS	DF	LU	LPR	LS	PL	SSC
LCD 200-209-25T2-5D	20.0-20.9	25	32	103	132.1	56	3.11	20
210-219-25T2-5D	21.0-21.9	25	32	108	137.3	56	3.29	21
220-229-25T2-5D	22.0-22.9	25	32	113	142.4	56	3.42	22
230-239-25T2-5D	23.0-23.9	25	32	119	147.6	56	3.60	23
240-249-32T2-5D	24.0-24.9	32	40	124	158.7	60	3.73	24
250-259-32T2-5D	25.0-25.9	32	40	129	163.9	60	3.91	25
260-269-32T2-5D	26.0-26.9	32	40	134	169.0	60	4.04	26
270-279-32T2-5D	27.0-27.9	32	40	139	174.2	60	4.22	27
280-289-32T2-5D	28.0-28.9	32	40	144	184.4	60	4.35	28
290-299-32T2-5D	29.0-29.9	32	40	150	189.5	60	4.53	29
300-309-32T2-5D	30.0-30.9	32	42	155	194.7	60	4.67	30
310-319-32T2-5D	31.0-31.9	32	42	160	199.9	60	4.85	31
320-329-40T2-5D	32.0-32.9	40	48	165	207.0	68	4.98	32
330-339-40T2-5D	33.0-33.9	40	48	170	212.2	68	5.16	33
340-349-40T2-5D	34.0-34.9	40	48	175	217.3	68	5.34	34
350-359-40T2-5D	35.0-35.9	40	48	180	222.4	68	5.44	35
360-369-40T2-5D	36.0-36.9	40	48	186	227.6	68	5.62	36
370-379-40T2-5D	37.0-37.9	40	48	191	232.8	68	5.80	37
380-389-40T2-5D	38.0-38.9	40	50	196	242.9	68	5.91	38
390-399-40T2-5D	39.0-39.9	40	50	201	248.1	68	6.09	39
400-410-40T2-5D	40.0-41.0	40	50	206	253.3	68	6.27	40

► OAL = LPR+LS ► SSC: Seat size code

Spare parts

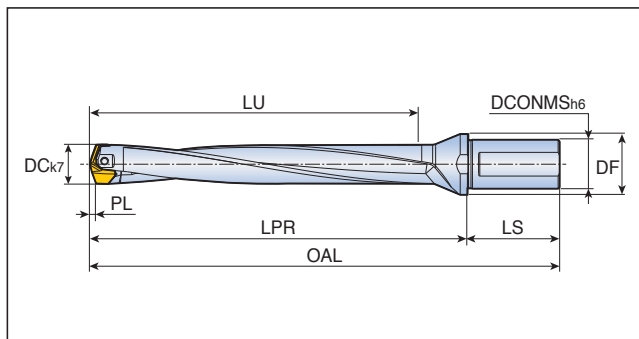
Designation	Screw	Wrench	Wrench handle	
				
LCD 200-219-5D	TS 40178D25	BLD T20/S7	SW6-T-SH	
LCD 220-239-5D	TS 40198D28	BLD T20/S7	SW6-T-SH	
LCD 240-259-5D	TS 40210D3	BLD T20/S7	SW6-T-SH	
LCD 260-279-5D	TS 50230D3	BLD T20/S7	SW6-T-SH	
LCD 280-299-5D	TS 50250D35	BLD T25/S7	SW6-T-SH	
LCD 300-319-5D	TS 60265D4	BLD T25/S7	SW6-T-SH	
LCD 320-349-5D	TS 60285D42	BLD T25/S7	SW6-T-SH	
LCD 350-379-5D	TS 60320D5	BLD T25/S7	SW6-T-SH	
LCD 380-410-5D	TS 80340D6	BLD T25/S7	SW6-T-SH	

LCD...T2-8D

Head changeable drill holders - Weldon type shank



- Drilling depth: 8xDiameter



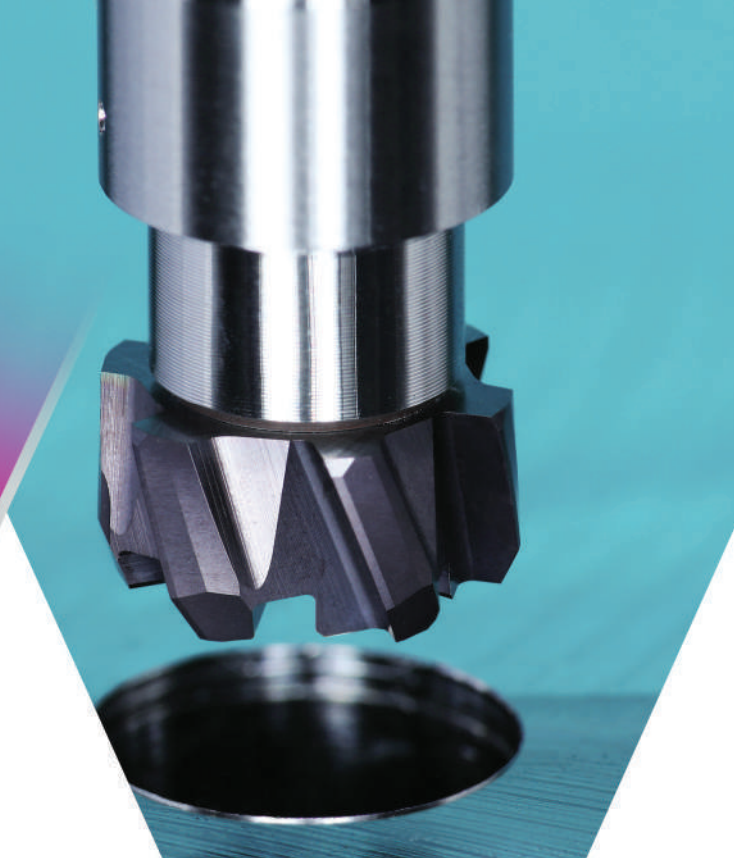
Designation	Dimension (mm)							
	DC	DCONMS	DF	LU	LPR	LS	PL	SSC
LCD 200-209-25T2-8D	20.0-20.9	25	32	163.1	192.1	56	3.11	20
210-219-25T2-8D	21.0-21.9	25	32	171.3	200.1	56	3.29	21
220-229-25T2-8D	22.0-22.9	25	32	179.4	208.4	56	3.42	22
230-239-25T2-8D	23.0-23.9	25	32	187.6	216.4	56	3.60	23
240-249-32T2-8D	24.0-24.9	32	40	195.7	230.7	60	3.73	24
250-259-32T2-8D	25.0-25.9	32	40	203.9	238.7	60	3.91	25
260-269-32T2-8D	26.0-26.9	32	40	212.0	247.0	60	4.04	26
270-279-32T2-8D	27.0-27.9	32	40	220.2	255.0	60	4.22	27
280-289-32T2-8D	28.0-28.9	32	40	228.4	268.4	60	4.35	28
290-299-32T2-8D	29.0-29.9	32	40	236.5	276.4	60	4.53	29
300-309-32T2-8D	30.0-30.9	32	42	244.7	284.7	60	4.67	30
310-319-32T2-8D	31.0-31.9	32	42	252.9	292.7	60	4.85	31
320-329-40T2-8D	32.0-32.9	40	48	261.0	303.0	68	4.98	32
330-339-40T2-8D	33.0-33.9	40	48	269.2	311.0	68	5.16	33
340-349-40T2-8D	34.0-34.9	40	48	277.3	319.0	68	5.34	34
350-359-40T2-8D	35.0-35.9	40	48	285.4	327.4	68	5.44	35
360-369-40T2-8D	36.0-36.9	40	48	293.6	335.4	68	5.62	36
370-379-40T2-8D	37.0-37.9	40	48	301.8	343.4	68	5.80	37
380-389-40T2-8D	38.0-38.9	40	50	309.9	356.9	68	5.91	38
390-399-40T2-8D	39.0-39.9	40	50	318.1	364.9	68	6.09	39
400-410-40T2-8D	40.0-41.0	40	50	326.3	372.9	68	6.27	40

► OAL = LPR+LS ► SSC: Seat size code

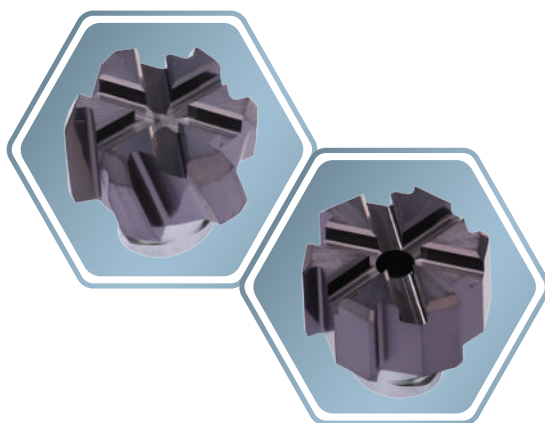
Spare parts

Designation	Screw	Wrench	Wrench handle	
				
LCD 200-219-8D	TS 40178D25	BLD T20/S7	SW6-T-SH	
LCD 220-239-8D	TS 40198D28	BLD T20/S7	SW6-T-SH	
LCD 240-259-8D	TS 40210D3	BLD T20/S7	SW6-T-SH	
LCD 260-279-8D	TS 50230D3	BLD T20/S7	SW6-T-SH	
LCD 280-299-8D	TS 50250D35	BLD T25/S7	SW6-T-SH	
LCD 300-319-8D	TS 60265D4	BLD T25/S7	SW6-T-SH	
LCD 320-349-8D	TS 60285D42	BLD T25/S7	SW6-T-SH	
LCD 350-379-8D	TS 60320D5	BLD T25/S7	SW6-T-SH	
LCD 380-410-8D	TS 80340D6	BLD T25/S7	SW6-T-SH	

XM-REAM



Head Changeable Reamer for Small Diameter



High productivity



Easy to use



No set-up time

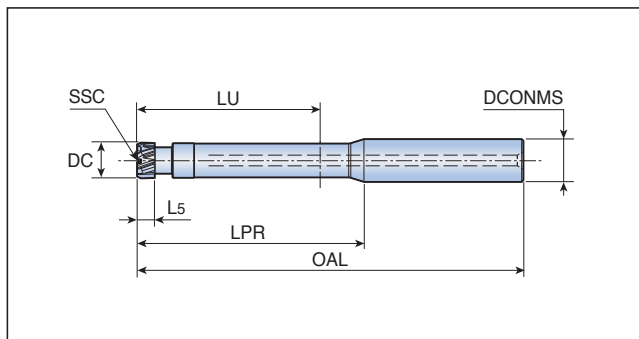


Small diameter head



Excellent
hole accuracy

Head changeable reamer holders for small diameter through hole

[illegible]

- ▶ SSC: Seat size code
- ▶ Matched with XR...-BL reamer heads

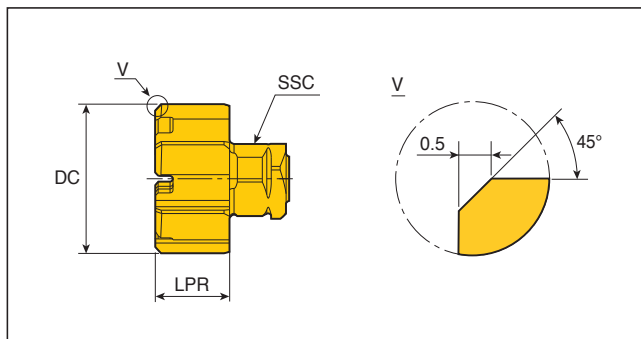
Spare parts

Designation	Clamping key	Key handle
		
XR-D08...	W XR D08-KEY	SW6-T-SH
XR-D09...	W XR D08-KEY	SW6-T-SH
XR-D10...	W XR D10-KEY	SW6-T-SH
XR-D11...	W XR D10-KEY	SW6-T-SH
XR-D12...	W XR D12-KEY	SW6-T-SH

XR...-AS

XM-REAM

Head changeable reamer head



- Straight flute for blind hole
- For H7 hole tolerance

Designation	Dimension (mm)		NOF	SSC	Flute type	Edge type	Grade TT9030
	DC	LPR					
XR-08.000-AS	8.000	4.0	6	8	S	A	●
09.000-AS	9.000	4.5	6	9	S	A	●
10.000-AS	10.000	5.0	6	10	S	A	●
11.000-AS	11.000	5.5	6	11	S	A	●
12.000-AS	12.000	6.0	6	12	S	A	●

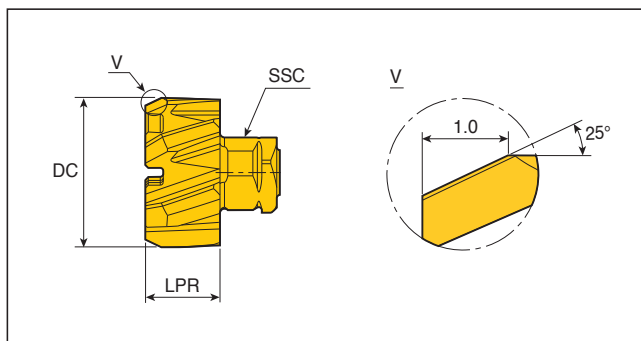
- ▶ NOF: Number of flutes
- ▶ SSC: Seat size code
- ▶ Matched with XR...B... holders

●: Standard items

XR...-BL

XM-REAM

Head changeable reamer head



- Helical flute for through hole
- For H7 hole tolerance

Designation	Dimension (mm)		NOF	SSC	Flute type	Edge type	Grade TT9030
	DC	LPR					
XR-08.000-BL	8.000	4.0	6	8	L	B	●
09.000-BL	9.000	4.5	6	9	L	B	●
10.000-BL	10.000	5.0	6	10	L	B	●
11.000-BL	11.000	5.5	6	11	L	B	●
12.000-BL	12.000	6.0	6	12	L	B	●

- ▶ NOF: Number of flutes
- ▶ SSC: Seat size code
- ▶ Matched with XR...T... holders

●: Standard items



WINMILL

ADVANCED MACHINING



WINSPEED

ADVANCED MACHINING



WINMILL
ADVANCED MACHINING



Next Generation Shouldering Insert with V Bottom for Strong Clamping



V-shape
insert



Super high
positive
rake angle



High ramping down
angle for various
applications



High
productivity

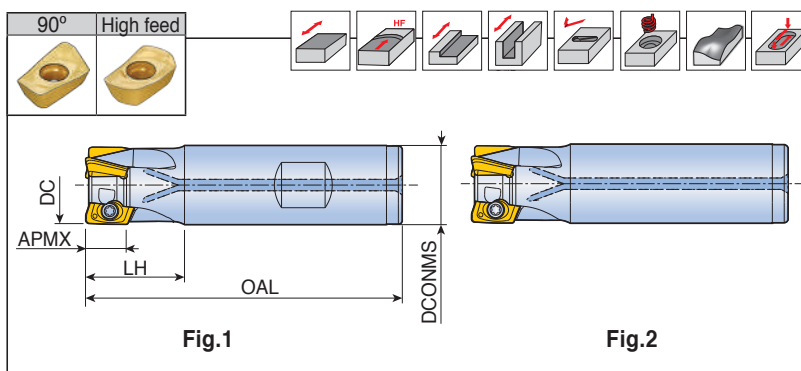


90-degree
shouldering



High feed
insert

End mills

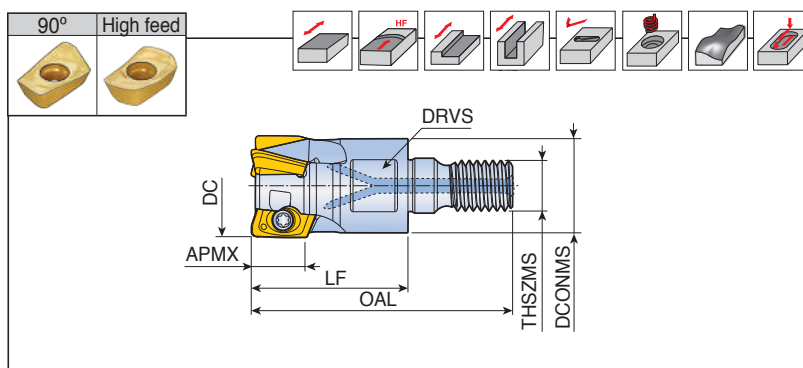
[illegible]

- ▶ When using the "AVKT 1004R-HF" insert, the cutter body needs to be modified to a corner radius of 3.0 mm
- ▶ When using "AVKT 10" insert with a corner radius of 2.0 mm or bigger, the cutter body corner radius should be adjusted to insert "R" + 0.2 mm

Spare parts

Designation	Screw	Wrench			
					
TE90AV-10	TS 30B062/HG-P	TD 8P			

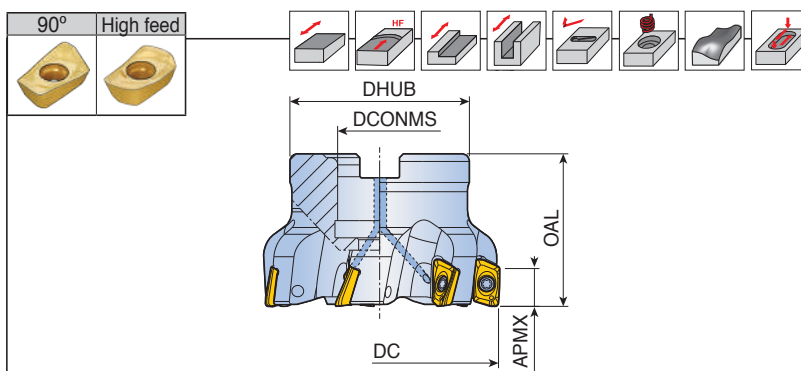
Modular heads

[illegible]

- ## Spare parts

Designation	Screw	Wrench			
					
TE90AV-M-10	TS 30B062/HG-P	TD 8P			

Face mills

[illegible]

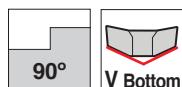
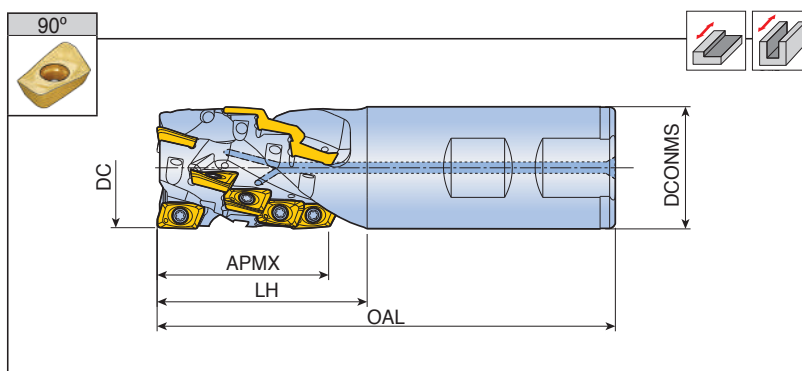
- ▶ When using the "AVKT 1004R-HF" insert, the cutter body needs to be modified to a corner radius of 3.0 mm
- ▶ When using "AVKT 10" insert with a corner radius of 2.0 mm or bigger, the cutter body corner radius should be adjusted to insert "R" + 0.2 mm

Spare parts

Designation	Screw	Wrench			
					
TFM90AV-10	TS 30B062/HG-P	TD 8P			

TEF-AV10

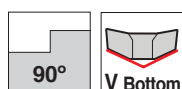
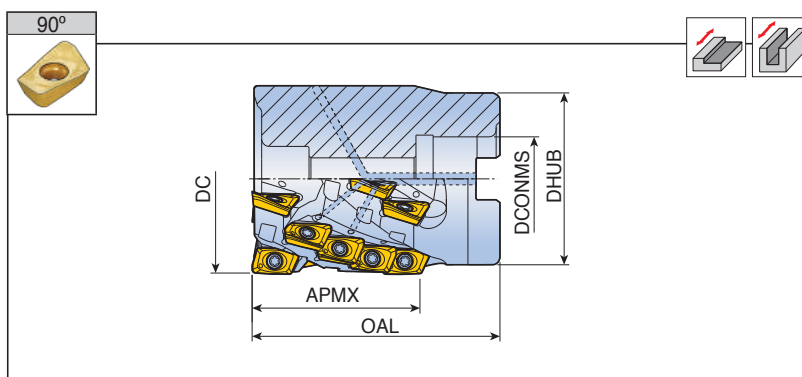
Extended flute cutters



Designation		No. of insert	Dimension (mm)					Coolant hole	Kg	Insert
			DC	DCONMS	OAL	LH	APMX			
TEF D25-27-W25-AV10-2F		6	25	25	95	35	27	●	0.3	AVKT 10-M/EL
D32-44-W32-AV10-3F		15	32	32	120	55	44	●	0.6	AVCT 10-AL

TES-AV10

Extended flute cutters



Designation		No. of insert	Dimension (mm)					Coolant hole	Kg	Mounting bolt	Insert
			DC	DCONMS	OAL	DHUB	APMX				
TES D40-35-16R-AV10-4F		16	40	16	55	38	35	●	0.3	SH M8x40	AVKT 10-M/EL
D50-44-22R-AV10-5F		25	50	22	65	45	44	●	0.6	SH M10x50	AVCT 10-AL

Spare parts

Designation	Screw	Wrench			
TEF/TES-AV10	TS 30B062/HG-P	TD 8P			

Inserts

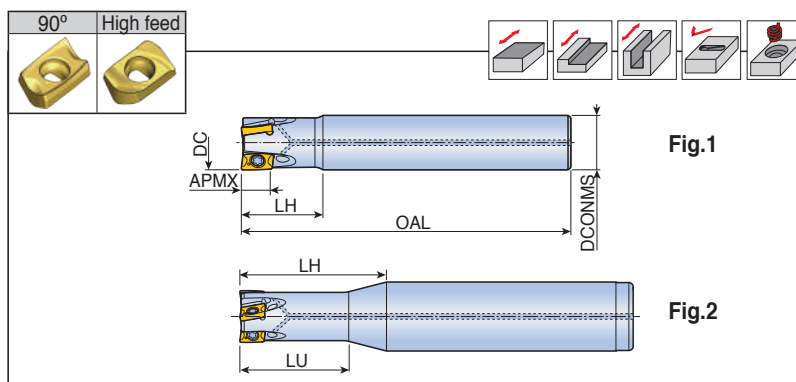
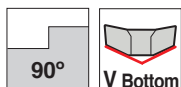


Size	Dimension (mm)					
	INSL	W1	S	APMX	BS	RE
10-M/EL	11.5-12.4	6.8	4.1-4.3	9.6-10	0-1.0	0.8-3.2
10-HF	11.6	6.6	4.4	1.0	-	-
10-AL	11.5-12.5	6.8	4.1-4.5	9.6-10.1	0-1.2	0.4-3.0

[illegible]

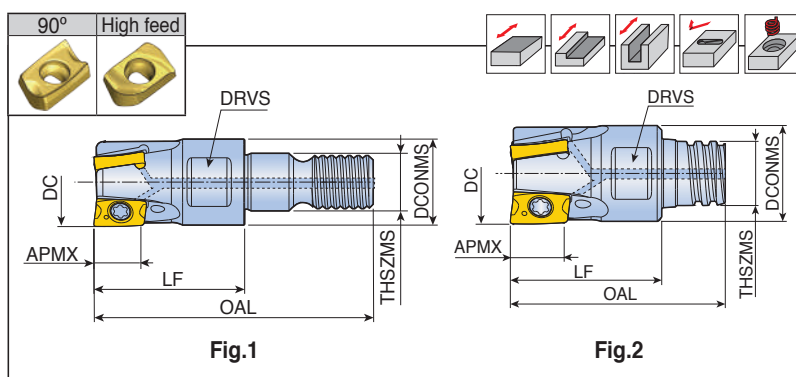
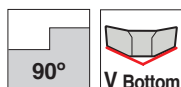
●: Standard items

End mills

[illegible]

► Cutter body for '-HF' insert should be modified with body corner radius 1.8 mm

Modular heads

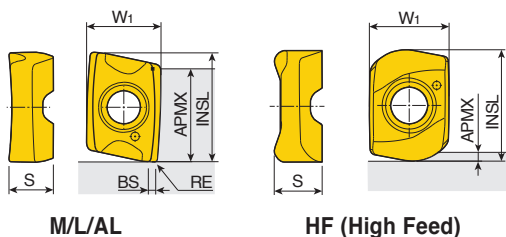


- ▶ Cutter body for 'HF' insert should be modified with body corner radius 1.8 mm
- ▶ Matched with T-FLEXTEC holder (Fig.1) & MAXI-RUSH holder (Fig.2)

Designation	Screw	Wrench			
2S-TE90CV-05	TS 18033/HG-P	TD 6P			

CVK(H)T

Inserts



Size	Dimension (mm)					
	INSL	W1	S	APMX	BS	RE
05-M	6.2-6.3	4.2	2.6	5.0	0.3	0.2-0.4
05-L/AL	6.3	4.1	2.6	5.0	0.3	0.2
05-HF	5.6	4.1	2.5	0.5	-	-



Insert	Designation	Recommended machining conditions		Coated										Uncoated	
		ap (mm)	Feed (mm/tooth)	TT9080	TT9030	TT8080	TT8020	TT8525	TT7080	TT7515	TT6080	TT5525	TT2510	UF10	
	CVKT 0502PNR-M	0.5-4.0	0.08-0.04	●		●									
	050204R-M	0.5-4.0	0.08-0.04	●		●									
	CVHT 0502PNR-L	0.5-4.0	0.07-0.03	●		●						●			
	CVHT 0502PNR-AL	0.5-4.0	0.07-0.03											●	
	CVKT 0502R-HF	0.2-0.4	0.70-0.30	●		●							●		

●: Standard items

WIN4FEED



**Higher Ramp Down Angle
with Secure 'V' Clamping
for Improved Productivity**



**V-shape
insert**



**High feed insert
with strong
geometry**



**High productivity
due to high
ramp angle**



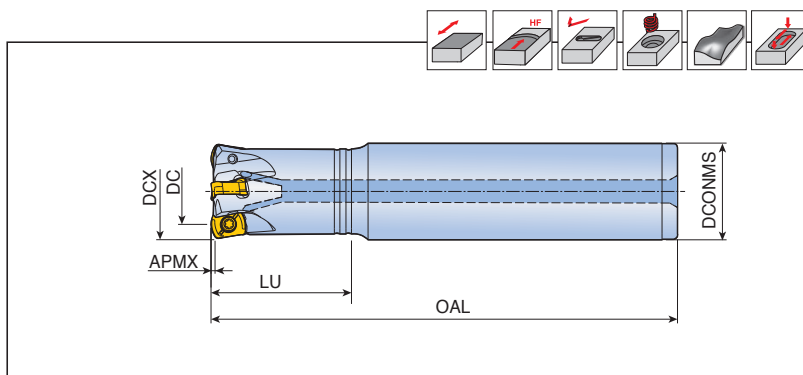
**High positive
rake angle**



**Good chip
evacuation**

TEBLV-06

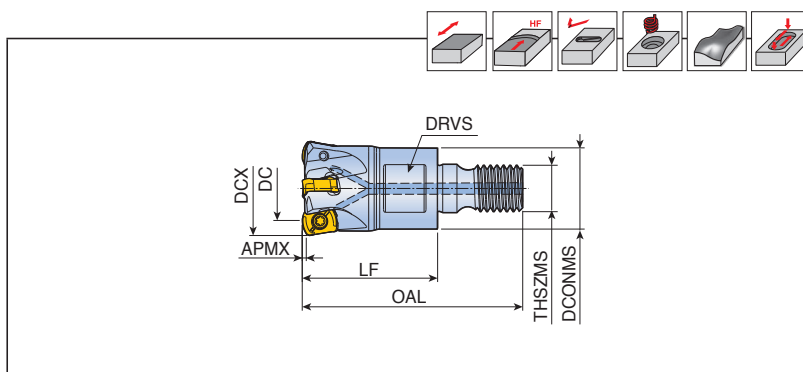
End mills



Designation		Dimension (mm)						Coolant hole	Insert
		DCX	DC	DCONMS	OAL	LU	APMX		
TEBLV 216-15-06-L150	2	16	9.1	15	150	40	0.7	●	BLMV 0603...
216-16-06-L100	2	16	9.1	16	100	30	0.7	●	
216-16-06-L150	2	16	9.1	16	150	40	0.7	●	
217-16-06-L200	2	17	10.1	16	200	20	0.7	●	
320-20-06-L130	3	20	12	20	130	50	1.0	●	
320-20-06-L160	3	20	12	20	160	80	1.0	●	
321-20-06-L150	3	21	13	20	150	20	1.0	●	
321-20-06-L200	3	21	13	20	200	20	1.0	●	
425-25-06-L140	4	25	17	25	140	60	1.0	●	
425-25-06-L180	4	25	17	25	180	60	1.0	●	
426-25-06-L200	4	26	18	25	200	30	1.0	●	
532-32-06-L150	5	32	24	32	150	70	1.0	●	
640-32-06-L150	6	40	32	32	150	40	1.0	●	

TEBLV-M-06

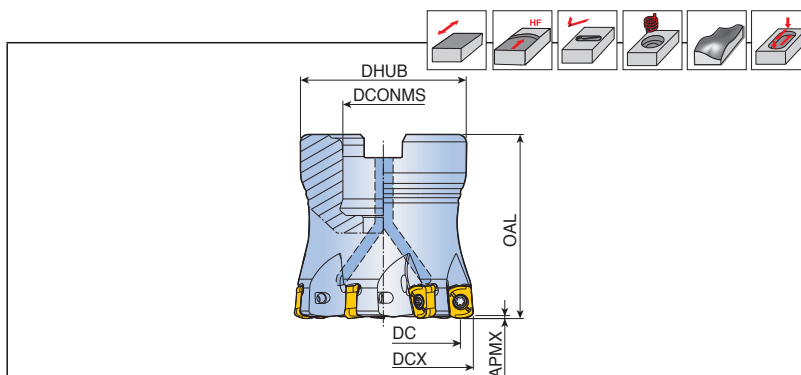
Modular heads



Designation		Dimension (mm)								Coolant hole	Insert
		DCX	DC	DCONMS	LF	OAL	THSZMS	APMX	DRVS		
TEBLV 216-M08-06	2	16	9.1	13	25	42.5	M08	0.7	10	●	BLMV 0603...
320-M10-06	3	20	12	18	30	50	M10	1.0	15	●	
425-M12-06	4	25	17	21	35	57	M12	1.0	17	●	
532-M16-06	5	32	24	29	40	65	M16	1.0	25	●	
535-M16-06	5	35	27	29	43	68	M16	1.0	25	●	
640-M16-06	6	40	32	29	43	68	M16	1.0	25	●	

► Matched with T-FLEXTEC holder

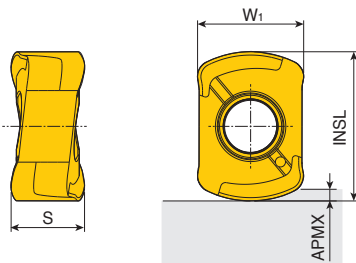
Face mills

[illegible]

Designation	Screw	Wrench			
TEBLV/TFMBLV-06	TS 25064I/HG-P	TD 8P			

BLMV 06

Inserts



Size	Dimension (mm)				
	INSL	W1	S	APMX	
06	9	6.4	4.43	1.0	



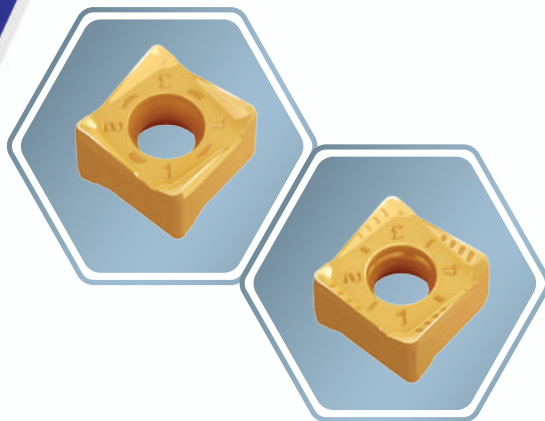
Insert	Designation	Recommended machining conditions		Coated							Uncoated	
		ap (mm)	Feed (mm/tooth)	TT9080	TT9030	TT8080	TT8020	TT8525B	TT7080	TT2510	K10	
	BLMV 0603R-M	0.1-1.0	2.50-0.30	●		●		●		●		

●: Standard items

CHASE8 MILL

90° FACING & SHOULDERING

90° Shouldering with 8-Cutting Edge SQKU Insert



**Economical
double-sided
insert**



**Strong tool body
and high positive
insert**



**High productivity
with maximum
No. of teeth**



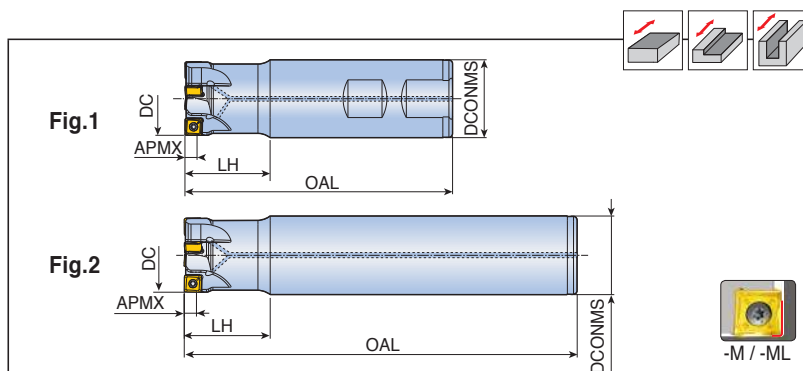
**90-degree
shouldering with
wiper flat insert**



**Good chip
evacuation**

8D-TE90-07

End mills

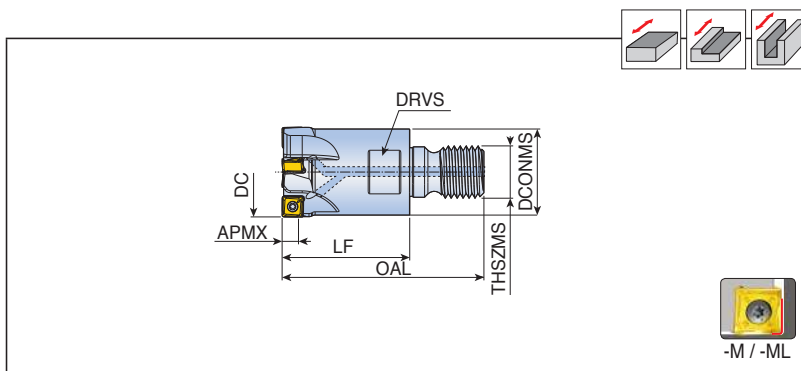


Designation		Dimension (mm)					Coolant hole	Fig.	Insert
		DC	DCONMS	LH	OAL	APMX			
8D-TE90- 216-W16-07	2	16	16	20	90	5.0	●	1	SQKU 0703...
216-16-07-L110	2	16	16	20	110	5.0	●	2	
217-16-07-L110	2	17	16	20	110	5.0	●	2	
220-W20-07	2	20	20	25	90	5.0	●	1	
220-20-07-L160	2	20	20	25	160	5.0	●	2	
320-W20-07	3	20	20	25	90	5.0	●	1	
221-20-07-L160	2	21	20	25	160	5.0	●	2	
325-W25-07	3	25	25	30	100	5.0	●	1	
325-25-07-L160	3	25	25	30	160	5.0	●	2	
425-W25-07	4	25	25	30	100	5.0	●	1	
326-25-07-L160	3	26	25	30	160	5.0	●	2	
432-W32-07	4	32	32	35	110	5.0	●	1	
432-32-07-L200	4	32	32	35	200	5.0	●	2	
632-W32-07	6	32	32	35	110	5.0	●	1	
433-32-07-L200	4	33	32	35	200	5.0	●	2	
540-W32-07	5	40	32	40	110	5.0	●	1	
840-W32-07	8	40	32	40	110	5.0	●	1	

Spare parts

Designation	Screw	Wrench			
					
8D-TE90-07	TS 25D060/HG-P	TD 7P			

Modular heads

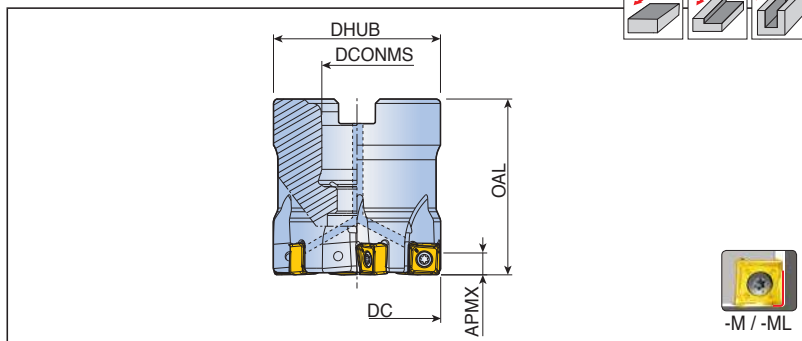
[illegible]

► Matched with T-FLEXTEC holder

Spare parts

Designation	Screw	Wrench			
					
8D-TE90-07	TS 25D060/HG-P	TD 7P			

Face mills



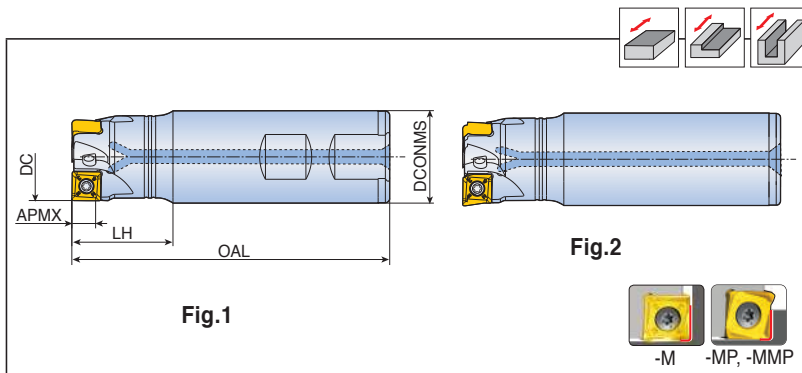
► Mounting bolt with coolant through hole is available on request (ordering example: SH M10x1.5x30-C)

Designation	Screw	Wrench			
8D-TE90-07	TS 25D060/HG-P	TD 7P			

8D-TE90-10

End mills

CHASE 8 MILL
90° FACING & SHOULDERING



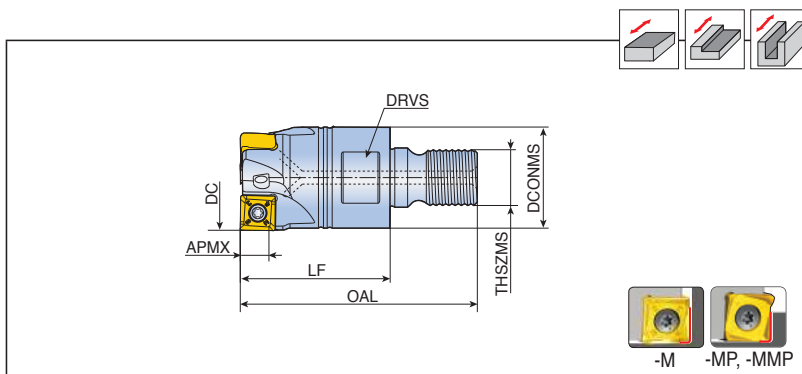
Designation		Dimension (mm)					Coolant hole	Fig.	Insert
		DC	DCONMS	OAL	LH	APMX			
8D-TE90-225-W25-10	2	25	25	100	30	7.0*	●	1	SQK(H)U 1004...
225-25-10-L160	2	25	25	160	30	7.0*	●	2	
332-W32-10	3	32	32	110	35	7.0*	●	1	
332-32-07-L200	3	32	32	200	35	7.0*	●	2	
440-W32-10	4	40	32	110	40	7.0*	●	1	

► *When applying SQHU insert, APMX is 6.5 mm.

8D-TE90-M-10

CHASE 8 MILL
90° FACING & SHOULDERING

Modular heads



Designation		Dimension (mm)							Coolant hole	Insert
		DC	DCONMS	LF	OAL	THSZMS	APMX	DRVS		
8D-TE90-225-M12-10	2	25	22	35	57	M12	7.0*	17	●	SQK(H)U 1004...
332-M16-10	3	32	29	43	68	M16	7.0*	25	●	
440-M16-10	4	40	29	43	68	M16	7.0*	25	●	

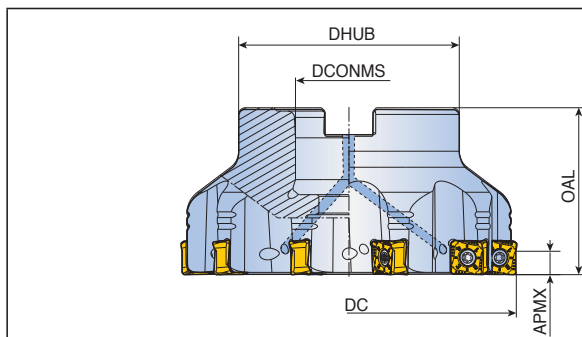
► Matched with T-FLEXTEC holder

► *When applying SQHU insert, APMX is 6.5 mm.

Spare parts

Designation	Screw	Wrench			
8D-TE90-10	TS 35A088I/HG	TD 10P			

Face mills

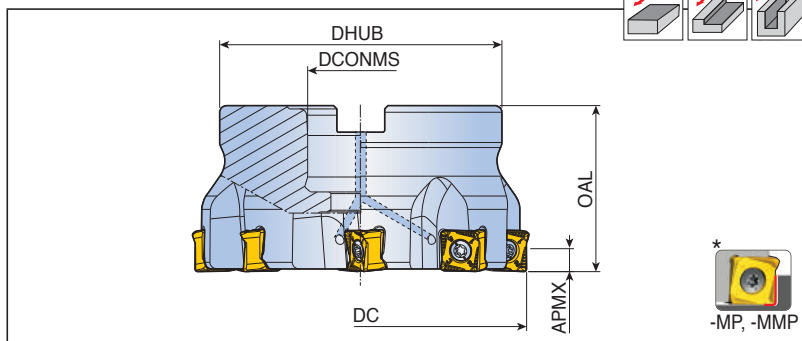
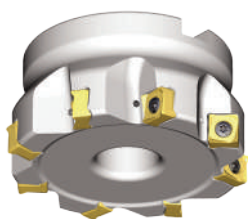


- ▶ Mounting bolt with coolant through hole is available on request (ordering example: SH M10x1.5x30-C)
- ▶ *When applying SQHU insert, APMX is 6.5 mm.

Designation	Screw	Wrench			
8D-TF90-10	TS 35A088I/HG	TD 10P			

8D-TF90-12

Face mills



Designation		Dimension (mm)					Coolant hole	Arbor style	Kg	Mounting bolt	Insert
		DC	DCONMS	DHUB	OAL	APMX					
8D-TF90-340-16R-12	3	40	16	38	40	8.5**	●	E	0.3	KTB 32B	SQK(H)U 1206...
440-16R-12	4	40	16	38	40	8.5**	●	E	0.3	KTB 32B	
450-22R-12	4	50	22	45	40	8.5**	●	A	0.3	SH M10x30	
650-22R-12	6	50	22	45	40	8.5**	●	A	0.4	SH M10x30	
563-22R-12	5	63	22	47	40	8.5**	●	A	0.5	SH M10x30	
863-22R-12	8	63	22	47	40	8.5**	●	A	0.6	SH M10x30	
680-27R-12	6	80	27	58	50	8.5**	●	A	1.1	SH M12x35	
980-27R-12	9	80	27	58	50	8.5**	●	A	1.2	SH M12x35	
1180-27R-12	11	80	27	58	50	8.5**	●	A	1.2	SH M12x35	
8100-32R-12	8	100	32	66	50	8.5**	●	A	1.6	SH M16x35	
11100-32R-12	11	100	32	66	50	8.5**	●	A	1.7	SH M16x35	
14100-32R-12	14	100	32	66	50	8.5**	●	A	1.7	SH M16x35	
10125-40R-12	10	125	40	85	63	8.5**	●	A	3.4	SH M20x40	
18125-40R-12	18	125	40	85	63	8.5**	●	A	3.5	SH M20x40	
12160-40R-12	12	160	40	110	63	8.5**	x	C	4.7	-	
22160-40R-12	22	160	40	110	63	8.5**	x	C	4.9	-	

- ▶ Mounting bolt with coolant through hole is available on request (ordering example: SH M10x1.5x30-C)
- ▶ * Multi-Step milling is not recommended over the APMX ▶ ** When applying SQHU insert, APMX is 8.0mm.

Spare parts

Designation	Screw	Wrench	Wrench handle		
8D-TF90-12	TS 40M100/HG	TBLD T15-W6	SW6-T		

Inserts



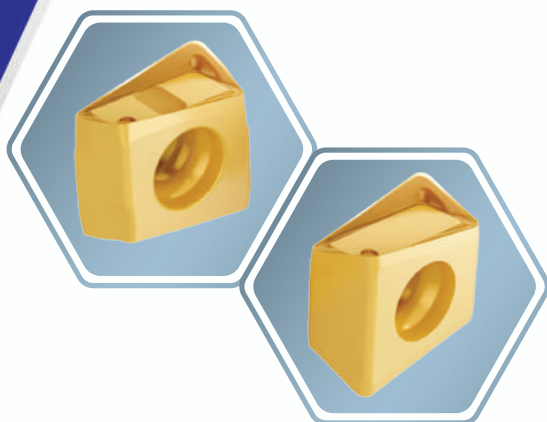
Size	Dimension (mm)					
	IC	S	APMX	BS	RE	
07	7	4.16	5.0	0.9	0.8	
10-M	10	5.8	7.0	1.1	0.8	
10-MP	10	6	7.0	1.1	0.8	
10-MMP	10	6	6.5	1.1	0.8	
12-MP	12.2	8.06	8.5	1.1	0.8	
12-MMP	12.2	8.06	8.0	1.1	0.8	

[illegible]

●: Standard items

MAXITANG

Quick Changeable Head for Multiple Machining



No set-up time



High
productivity



Various
applications

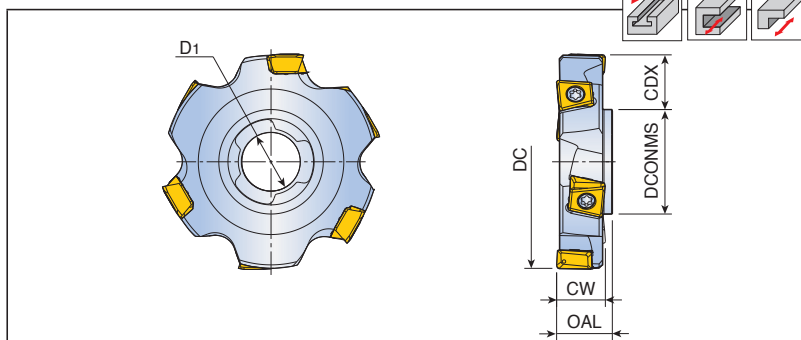


Good chip
evacuation

4T-TSM-TR-05

MAXITANG

Interchangeable Slotting Cutters



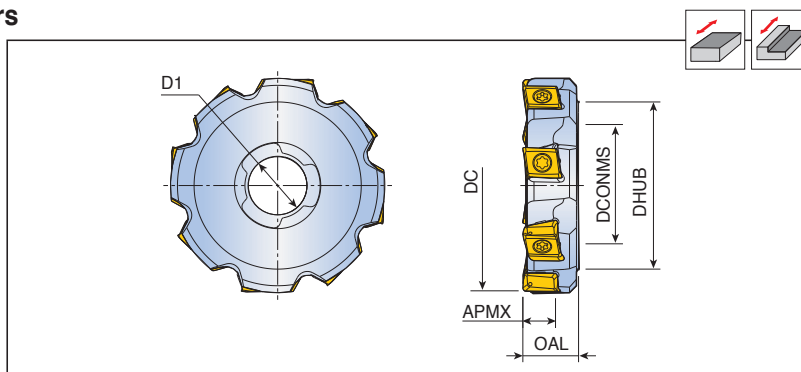
Designation	CW (mm)		Dimension (mm)					Coolant hole	Insert
			DC	DCONMS	D1	CDX	OAL		
4T-TSM-D23-07-TR13-05	7	2+2	23	13	7.5	4.5	8	X	LXHU 05
D25-07-TR13-05	7	2+2	25	13	7.5	5.5	8	X	
D32-07-TR15-05	7	3+3	32	15	8.4	8	8	X	
D40-07-TR17-05	7	4+4	40	17	9.8	11	10	X	

► Matched with TR holder

4T-TE90-TR-05

MAXITANG

Interchangeable Milling Cutters



Designation		Dimension (mm)						Coolant hole	Insert
		DC	DCONMS	D1	DHUB	OAL	APMX		
4T-TE90-625-TR15-05	6	25	15	8.4	19	8	4.6	X	LPK(H)U 05
832-TR15-05	8	32	15	8.4	24	8	4.6	X	
1040-TR17-05	10	40	17	9.8	31	10	4.6	X	

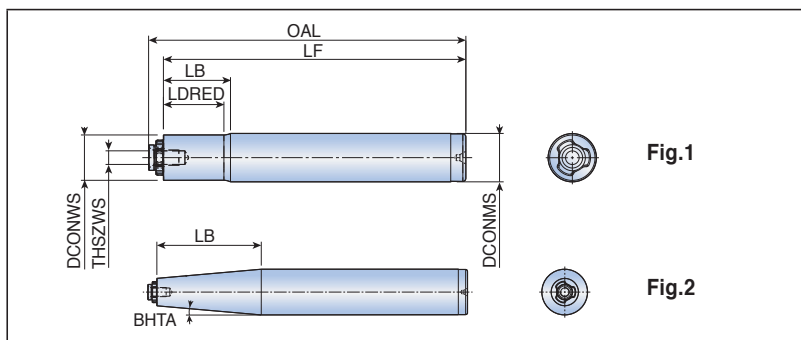
► Matched with TR-F-C holder

Spare parts

Designation	Screw	Wrench			
4T-TSM/TE90-TR-05	TS 18049/HG-P	TD 6P			

TR

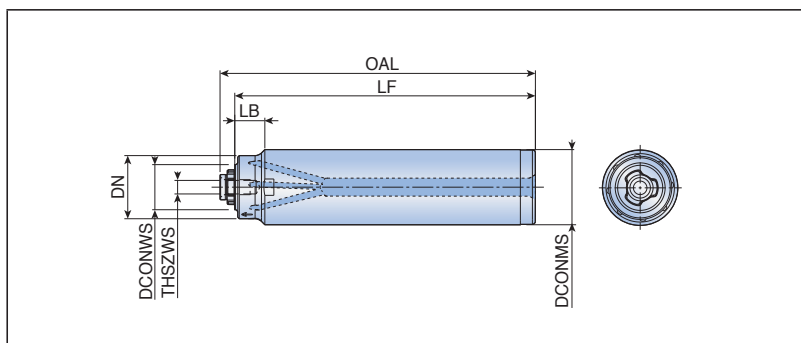
Slotting holders



Designation	Dimension (mm)								Coolant hole	Fig.	Cutter
	DCONMS	DCONWS	LB	LF	OAL	THSZWS	LDRED	BHTA			
TR13-16-L100	16	13	16.6	100	104.35	M4x0.5	13.0	-	x	1	4T-TSM-TR-05
15-16-L100	16	15	18.2	100	104.90	M5x0.5	16.0	-	x	1	
15-16-L130	16	15	18.2	130	134.90	M5x0.5	16.0	-	x	1	
17-20-L140	20	17	23.8	140	146.00	M6x0.5	20.2	-	x	1	
15-25-TC170	25	15	57.2	170	174.90	M5x0.5	-	5	x	2	

TR-F-C

Facing holders



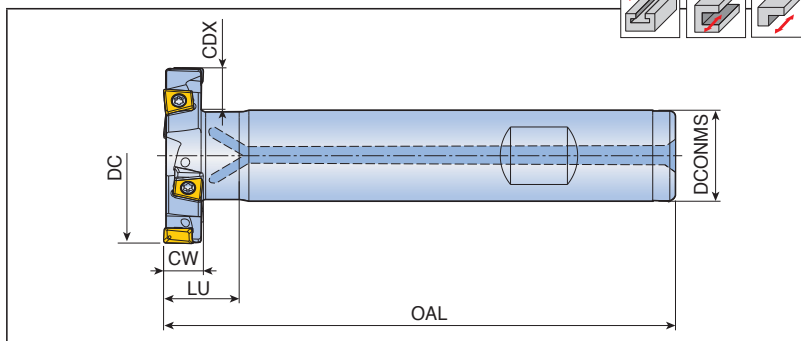
Designation	Dimension (mm)							Coolant hole	Cutter
	DCONMS	DCONWS	LB	LF	OAL	THSZWS	DN		
TR15-25-L100-F-C	25	15	10	100	104.90	M5x0.5	21	●	4T-TE90-TR-05
15-32-L110-F-C	32	15	13.5	110	114.90	M5x0.5	21	●	
17-32-L140-F-C	32	17	10	140	146.00	M6x0.5	28	●	
17-42-L140-F-C	42	17	15	140	146.00	M6x0.5	28	●	

Spare parts

Designation	Screw	Wrench	Wrench handle		
TR13	 TS 40T098/HG-P	 BLD IP15/S7	 SW6-T		
TR15	TS 50T110/HG-P	BLD IP20/S7	SW6-T		
TR17	TS 60T130/HG-P	BLD IP20/S7	SW6-T		

4T-TSM-W-05

Slotting Cutters: End mills

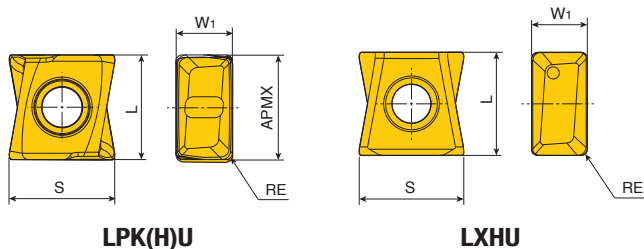
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Spare parts

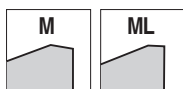
Designation	Screw	Wrench			
					
4T-TSM-W-05	TS 18049/HG-P	TD 6P			

LPK(H)U / LXHU 05

Inserts

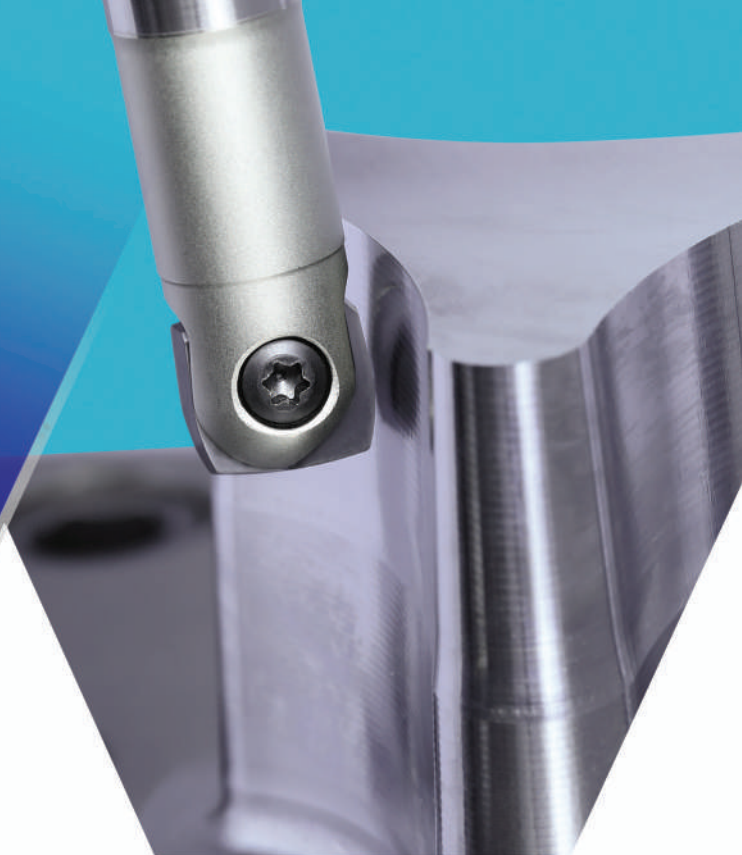


Size	Dimension (mm)					
	L	W ₁	S	APMX	RE	
LPK(H)U 05	5	2.7	5.0-5.2	4.6	0-0.4	
LXHU 05	5	2.7	5.0	-	0.4	

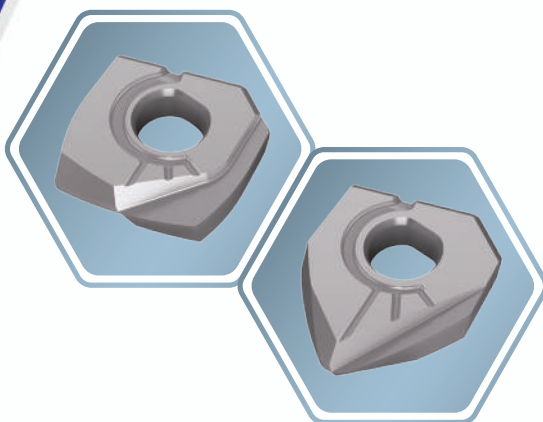
[illegible]

●: Standard items

FINEBARREL



High Productivity Finishing Lens and Chamfer Barrel Inserts



High
productivity



Superior surface
roughness



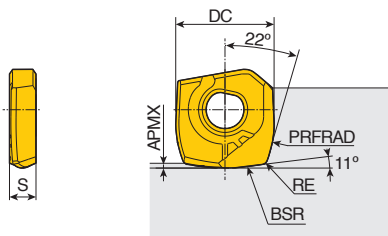
90° & 45°
Barrel Lens



Various inserts
with one holder

NFLB

Inserts



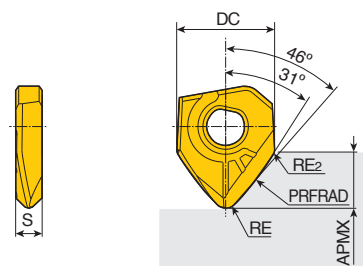
Size	Dimension (mm)					
	DC	S	APMX	RE	BSR	PRFRAD
120	12	3.2	0.4	0.7	24	12
160	16	4.2	0.6	0.8	32	16
200	20	5.2	0.7	1	40	20
250	25	6.2	0.9	1.3	50	25
300	30	7.2	1.1	1.5	60	30

Insert	Designation	Recommended machining conditions		Coated							Uncoated		
		ap (mm)	Feed (mm/tooth)	TT9080	TT9030	TT8080	TT8020	TT8525B	TT7080	TT7515	TT6080	TT5515	K10
	NFLB 120-L24-B12	-	0.15-0.08									●	
	160-L32-B16	-	0.15-0.08									●	
	200-L40-B20	-	0.15-0.08									●	
	250-L50-B25	-	0.15-0.08									●	
	300-L60-B30	-	0.20-0.08									●	

●: Standard items

NFCB

Inserts



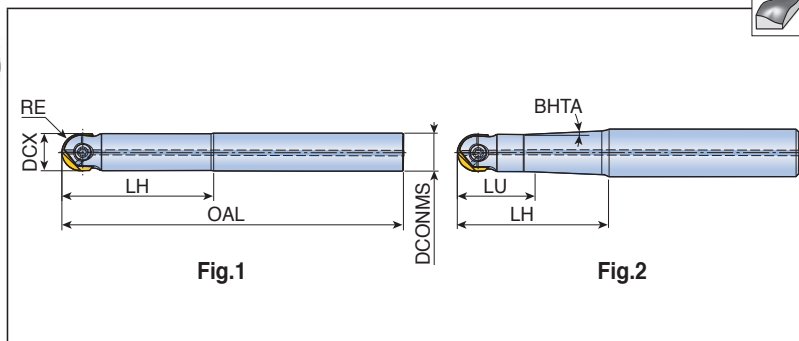
Size	Dimension (mm)					
	DC	S	APMX	RE	PRFRAD	RE ₂
80	8	2.2	4.3	1.0	20	0.6
100	10	2.7	5.4	1.2	25	0.8
120	12	3.2	6.4	1.5	30	1.0
160	16	4.2	8.5	2.0	40	1.3
200	20	5.2	10.7	2.5	50	1.6
250	25	6.2	13.5	3.0	62.5	2.0
300	30	7.2	16.3	3.5	75	2.4

Insert	Designation	Recommended machining conditions		Coated								Uncoated	
		ap (mm)	Feed (mm/tooth)	TT9080	TT9030	TT8080	TT8020	TT8525B	TT7080	TT7515	TT6080	TT5515	K10
	NFCB 080-R20	-	0.12-0.05									●	
	100-R25	-	0.12-0.05									●	
	120-R30	-	0.15-0.08									●	
	160-R40	-	0.15-0.08									●	
	200-R50	-	0.15-0.08									●	
	250-R62.5	-	0.15-0.08									●	
	300-R75	-	0.20-0.08									●	

●: Standard items

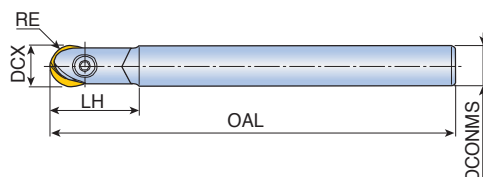
TNF

End mills - Steel shank

[illegible]

TNF-CT-L

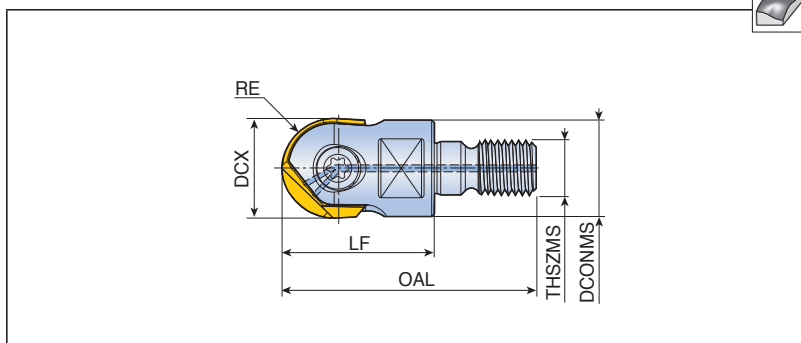
End mills - Carbide shank



Designation	Dimension (mm)					Insert
	DCX	RE	DCONMS	OAL	LH	
TNF 080-08-CT-L100	8	4	8	100	30	NFCB 080...
080-10-CT-L140	8	4	10	140	75	
080-08-CT-L160	8	4	8	160	80	
100-10-CT-L100	10	5	10	100	35	NFCB 100...
100-10-CT-L140	10	5	10	140	75	
100-10-CT-L200	10	5	10	200	70	
100-10-CT-L220	10	5	10	220	140	
120-12-CT-L120	12	6	12	120	50	NFLB 120...
120-12-CT-L160-S	12	6	12	160	30	NFCB 120...
120-12-CT-L160	12	6	12	160	90	
120-12-CT-L200	12	6	12	200	70	
120-12-CT-L220	12	6	12	220	150	
160-16-CT-L120	16	8	16	120	60	NFLB 160...
160-16-CT-L160-S	16	8	16	160	70	NFCB 160...
160-16-CT-L160	16	8	16	160	80	
160-16-CT-L200	16	8	16	200	70	
160-16-CT-L220	16	8	16	220	150	
200-20-CT-L200	20	10	20	200	70	NFLB 200...
200-20-CT-L110	20	10	20	110	40	NFCB 200...
200-20-CT-L220	20	10	20	220	120	
200-20-CT-L300	20	10	20	300	220	
250-25-CT-L200	25	12.5	25	200	70	NFLB 250...
250-25-CT-L220-S	25	12.5	25	220	80	NFCB 250...
250-25-CT-L220	25	12.5	25	220	120	
250-25-CT-L300	25	12.5	25	300	220	
300-32-CT-L200	30	15	32	200	70	NFLB 300...
300-32-CT-L250-S	30	15	32	250	80	NFCB 300...
300-32-CT-L250	30	15	32	250	150	
300-32-CT-L350-S	30	15	32	350	80	
300-32-CT-L350	30	15	32	350	230	

TNF-M

Modular heads



Designation	Dimension (mm)						Coolant hole	Insert
	DCX	RE	DCONMS	OAL	LF	THSZMS		
TNF 100-M06	10	5	9.7	34.5	20	M06	●	NFCB 100...
120-M06	12	6	11.5	37.5	23	M06	●	NFLB 120...
120-M08	12	6	13	40.5	23	M08	●	NFCB 120...
160-M08	16	8	13	47.5	30	M08	●	NFLB 160...
								NFCB 160...
200-M10	20	10	19	50	30	M10	●	NFLB 200...
								NFCB 200...
250-M12	25	12.5	24	57	35	M12	●	NFLB 250...
250-M16	25	12.5	29	68	43	M16	●	NFCB 250...
300-M16	30	15	29	68	43	M16	●	NFLB 300...
								NFCB 300...

► Matched with T-FLEXTEC holder

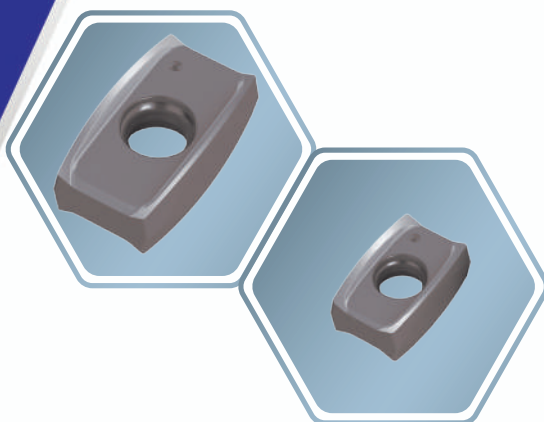
Spare parts

Designation	Screw	Wrench			Wrench handle	
						
TNF 080	TS 25F080A	TD 8	-	-	-	
TNF 100	TS 30F100A	TD 10	-	-	-	
TNF 120	TS 40F120A	TD 15	-	-	-	
TNF 160	TS 50F160A	-	T-T20	-	-	
TNF 200	TS 60F200A	-	-	BLD T25/M7	SW6-T	
TNF 250	TS 70F250A	-	-	BLD T25/M7	SW6-T	
TNF 300	TS 80F300A	-	T-T30	-	-	

SPEED BARREL



New, Higher Productivity Profile Milling Barrel Inserts and Holders



**Big radius for
better surface
quality**



**Big radius for
maximizing pitch
distance**



**Various angle
options - 90°, 75°
& 45° Barrel**

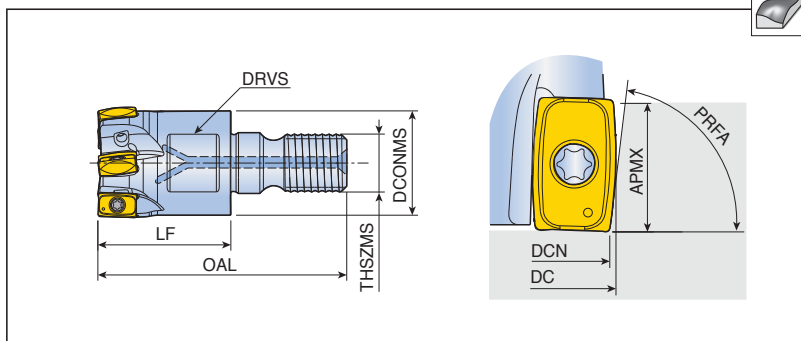


**Economical
4 cutting edge
insert**

TBR90-M-06/12

SPEED**BARREL**

Modular heads



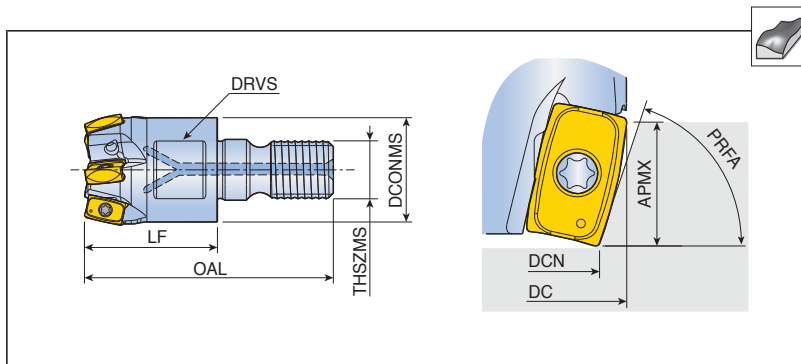
Designation		Dimension (mm)									Coolant hole	Insert
		DC	DCN	APMX	PRFA	DCONMS	LF	OAL	THSZMS	DRVS		
TBR90 312-M06-06	3	12	10.95	6.3	80°- 90°	11	17	31.5	M06	8	●	BRHU 06...
416-M08-06	4	16	14.95	6.3	80°- 90°	13	23	40.5	M08	10	●	
520-M10-06	5	20	18.95	6.3	80°- 90°	18	23	43	M10	15	●	
725-M12-06	7	25	22.95	6.3	80°- 90°	21	27	49	M12	17	●	
TBR90 320-M10-12	3	20	17.5	12.0	75°- 90°	18	27	47	M10	15	●	BRHU 12...
425-M12-12	4	25	22.8	12.0	75°- 90°	21	35	57	M12	17	●	
532-M16-12	5	32	29.8	12.0	75°- 90°	29	38	63	M16	25	●	

► Matched with T-FLEXTEC holder

TBR75-M-06/12

SPEED**BARREL**

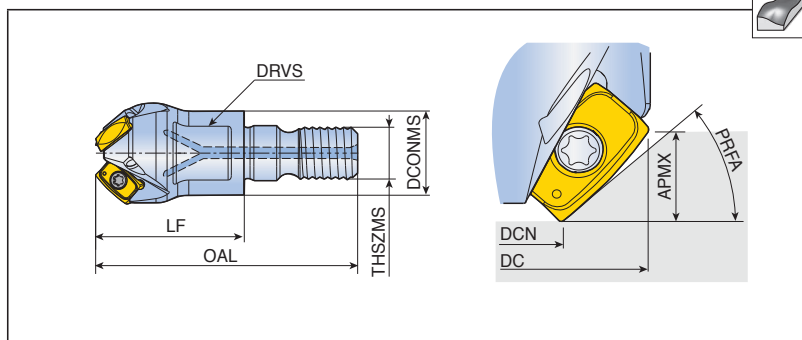
Modular heads



Designation		Dimension (mm)									Coolant hole	Insert
		DC	DCN	APMX	PRFA	DCONMS	LF	OAL	THSZMS	DRVS		
TBR75 416-M08-06	4	16	12.75	6.14	69°- 81°	13	23	40.5	M08	10	●	BRHU 06...
520-M10-06	5	20	16.75	6.14	69°- 81°	18	23	43	M10	15	●	
625-M12-06	6	25	21.75	6.14	69°- 81°	21	27	49	M12	17	●	
TBR75 220-M10-12	2	20	13.8	11.7	67°- 83°	18	27	47	M10	15	●	BRHU 12...
325-M12-12	3	25	18.8	11.7	67°- 83°	21	35	57	M12	17	●	
532-M16-12	5	32	25.8	11.7	67°- 83°	29	38	63	M16	25	●	

► Matched with T-FLEXTEC holder

Modular heads

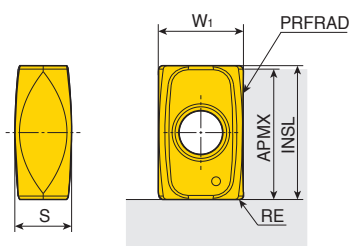
[illegible]

► Matched with T-FLEXTEC holder

Spare parts

Designation	Screw	Wrench			
					
TBR-M-06	TS 18041/HG	TD 6P			
TBR-M-12	TS 30B068/HG	TD 8			

Inserts



Size	Dimension (mm)					
	W1	S	APMX	INSL	RE	PRFRAD
06	4.2	2.8	6.4	6.6	0.2	20
12	7	4.56	12.2	12.4	0.2	30

[illegible]

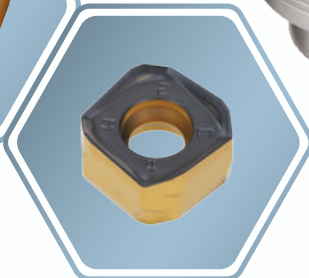
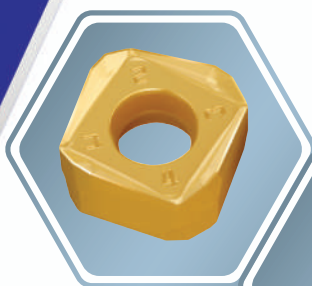
●: Standard items

CHASE8SFEED

FACING & HIGH FEED



8-Corners SQKU 11 & 14 Inserts for High Productivity Face Milling



High productivity
with max. No. teeth



Strong tool body
and reinforced
cutting edge



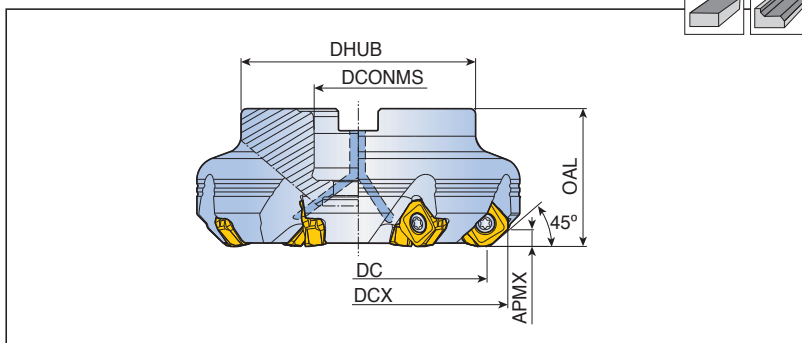
Excellent
chip evacuation



Economical
8 cutting edge

8D-TF45-11/14

Face mills



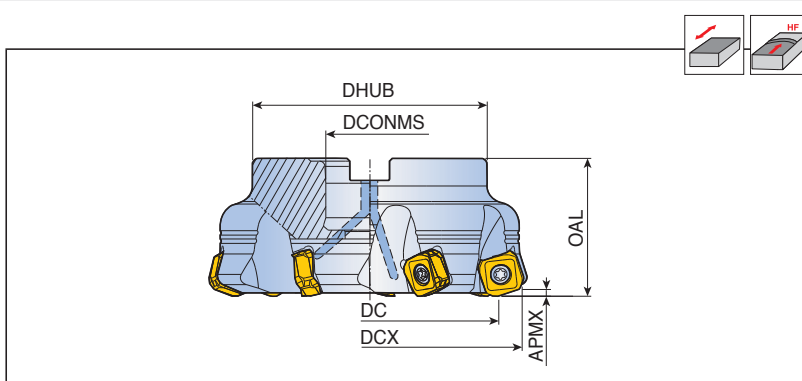
Designation		Dimension (mm)						Coolant hole	Arbor type	Kg	Mounting bolt	Insert
		DC	DCX	DCONMS	DHUB	OAL	APMX					
8D-TF45-440-16R-11	4	40	51	16	38	40	4.2	●	A	0.4	SH M8X25	SQKU 1105
640-16R-11	6	40	51	16	38	40	4.2	●	A	0.4	SH M8X25	
650-22R-11	6	50	61	22	45	40	4.2	●	A	0.5	LH M10X25	
850-22R-11	8	50	61	22	45	40	4.2	●	A	0.5	LH M10X25	
763-22R-11	7	63	74	22	47	50	4.2	●	A	1.0	SH M10X30	
1063-22R-11	10	63	74	22	47	50	4.2	●	A	1.0	SH M10X30	
880-27R-11	8	80	91	27	70	50	4.2	●	A	1.6	LH M12X30	
1280-27R-11	12	80	91	27	70	50	4.2	●	A	1.6	LH M12X30	
9100-32R-11	9	100	111	32	85	50	4.2	●	A	2.4	LH M16X35	
14100-32R-11	14	100	111	32	85	50	4.2	●	A	2.5	LH M16X35	
12125-40R-11	12	125	136	40	85	63	4.2	●	A	4.0	SH M20X40	
18125-40R-11	18	125	136	40	85	63	4.2	●	A	4.1	SH M20X40	
16160-40R-11	16	160	171	40	110	63	4.2	x	C	5.6	-	
24160-40R-11	24	160	171	40	110	63	4.2	x	C	5.6	-	
8D-TF45-450-22R-14	4	50	65.5	22	45	40	6	●	A	0.6	LH M10X25	SQKU 1406
650-22R-14	6	50	65.5	22	45	40	6	●	A	0.6	LH M10X25	
663-22R-14	6	63	78.5	22	47	50	6	●	A	1.1	SH M10X30	
863-22R-14	8	63	78.5	22	47	50	6	●	A	1.0	SH M10X30	
780-27R-14	7	80	95.5	27	70	50	6	●	A	1.7	LH M12X30	
1080-27R-14	10	80	95.5	27	70	50	6	●	A	1.7	LH M12X30	
8100-32R-14	8	100	115.5	32	85	50	6	●	A	2.6	LH M16X35	
12100-32R-14	12	100	115.5	32	85	50	6	●	A	2.5	LH M16X35	
10125-40R-14	10	125	140.5	40	85	63	6	●	A	4.4	SH M20X40	
16125-40R-14	16	125	140.5	40	85	63	6	●	A	4.3	SH M20X40	
12160-40R-14	12	160	175.5	40	110	63	6	x	C	5.9	-	
20160-40R-14	20	160	175.5	40	110	63	6	x	C	5.9	-	
18200-60R-14	18	200	215.5	60	130	63	6	x	C	8.4	-	
26200-60R-14	26	200	215.5	60	130	63	6	x	C	8.3	-	

► Mounting bolt with coolant through hole is available on request (ordering example: SH M10x1.5x30-C)

Spare parts

Designation	Screw	Wrench	Wrench handle		
					
8D-TF-11	TS 40A115I	TBLD T15-W6	SW6-T		
8D-TF-14	TS 50C130I/HG	TBLD T20-W6	SW6-T		

High feed face mills

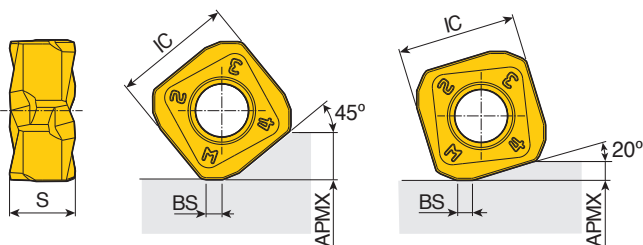
[illegible]

► Mounting bolt with coolant through hole is available on request (ordering example: SH M10x1.5x30-C)

Spare parts

Designation	Screw	Wrench	Wrench handle		
					
8D-TF-11	TS 40A115I	TBLD T15-W6	SW6-T		
8D-TF-14	TS 50C130I/HG	TBLD T20-W6	SW6-T		

Inserts

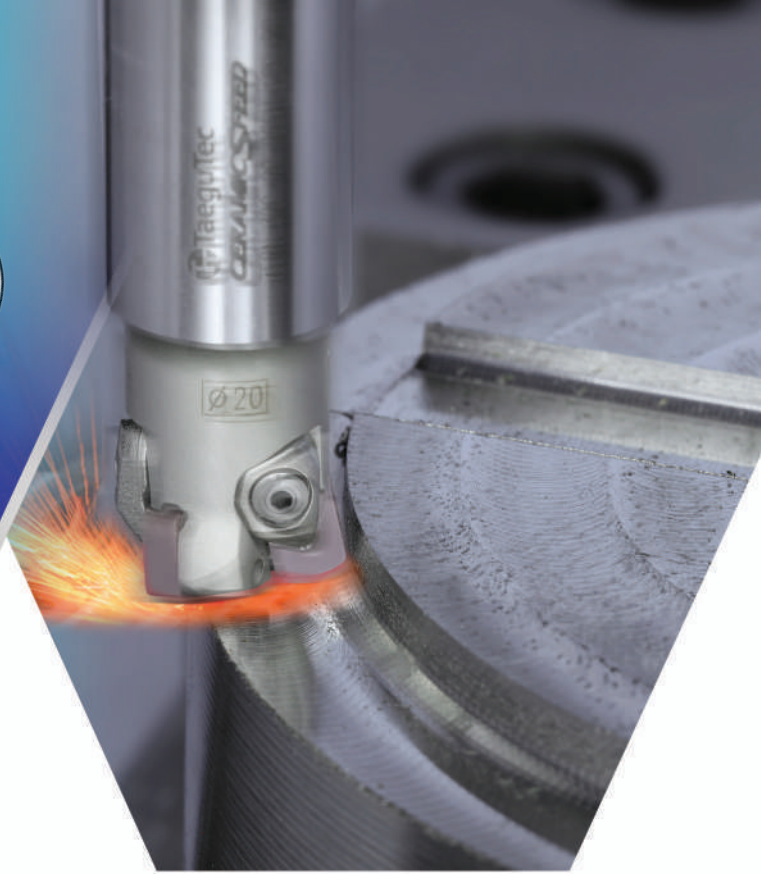


Size	Dimension (mm)					
	IC	S	APMX	BS		
11(45°)	11.2	6.3	4.2	1.9		
11(20°)	11.2	6.3	1.8	1		
14(45°)	14.5	7.8	6	2		
14(20°)	14.5	7.8	2.5	1.6		

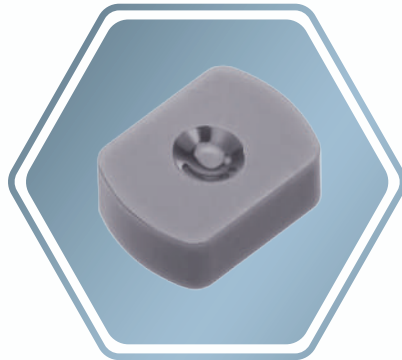
[illegible]

●: Standard items

CERAMIC SPEED
HARDPART & EXOTIC MATERIALS



SiAlON Ceramic Milling for High-Speed Machining of Super Alloy



For super alloy
materials



Ultra High Speed
(V: 800-1200m/min)



High feed
geometry



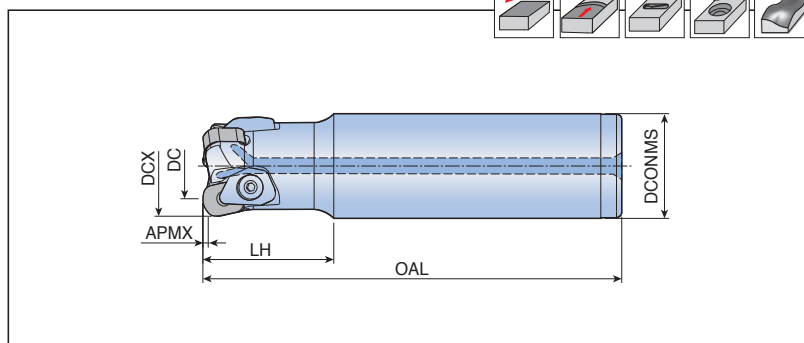
High
productivity



Good chip
evacuation

TEBN-06CH

High feed end mills

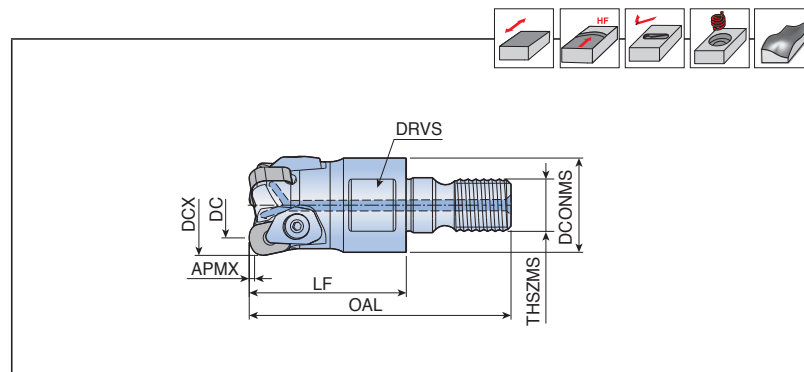


Designation		Dimension (mm)						Air ⁽¹⁾ hole	Insert
		DCX	DC	DCONMS	OAL	LH	APMX		
TEBN 216-16-06CH-L80	2	16	8.6	16	80	25	1.0	x	BNGX 0603...
320-20-06CH-L80	3	20	12.5	20	80	25	1.0	●	
425-25-06CH-L100	4	25	17.4	25	100	40	1.0	●	
532-32-06CH-L120	5	32	24.3	32	120	40	1.0	●	

► ⁽¹⁾ Use only air (coolant is prohibited)

TEBN-M-06CH

High feed modular heads



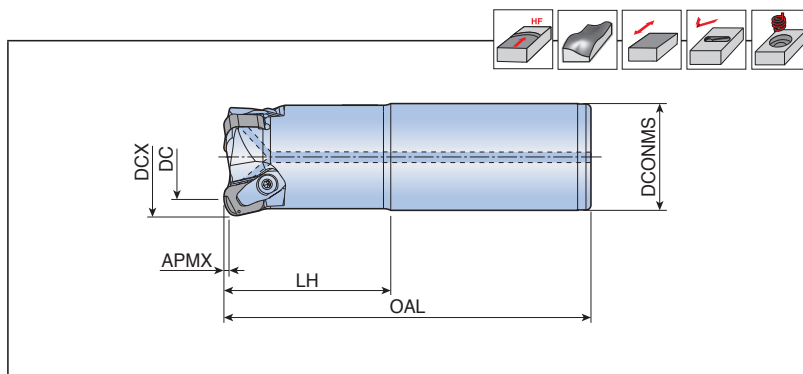
Designation		Dimension (mm)								Air ⁽¹⁾ hole	Insert
		DCX	DC	DCONMS	LF	OAL	THSZMS	APMX	DRVS		
TEBN 216-M08-06CH	2	16	8.6	13	25	42.5	8	1.0	10	x	BNGX 0603...
320-M10-06CH	3	20	12.5	18	30	50	10	1.0	15	●	
425-M12-06CH	4	25	17.4	21	35	57	12	1.0	17	●	
532-M16-06CH	5	32	24.3	29	43	68	16	1.0	25	●	

► Matched with T-FLEXTEC holder ► ⁽¹⁾ Use only air (coolant is prohibited)

Spare parts

Designation	Clamp 	Screw 	Snap ring 	Wrench 	
TEBN-06CH	CCL-2S	CLS-25A080	CSR M2.5	L-W 1.5	

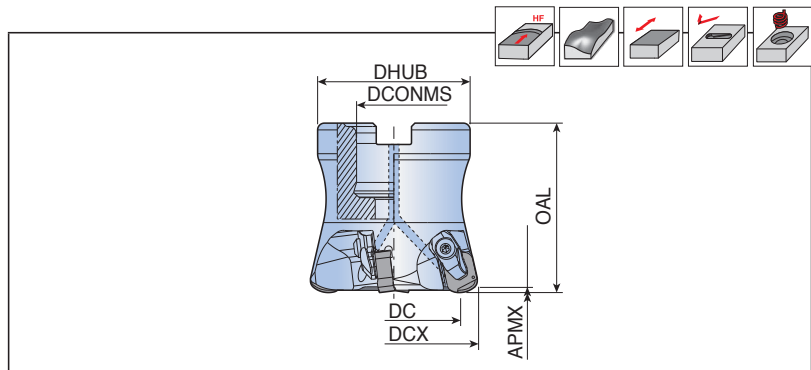
High feed end mills

[illegible]

► ⁽¹⁾ Use only air (Coolant is prohibited)

Designation	Clamp	Screw	Snap ring	Wrench	
TEBN-09CH	CCL-3S	CLS-35A120	CSR 1.25	L-W 2	

High feed face mills

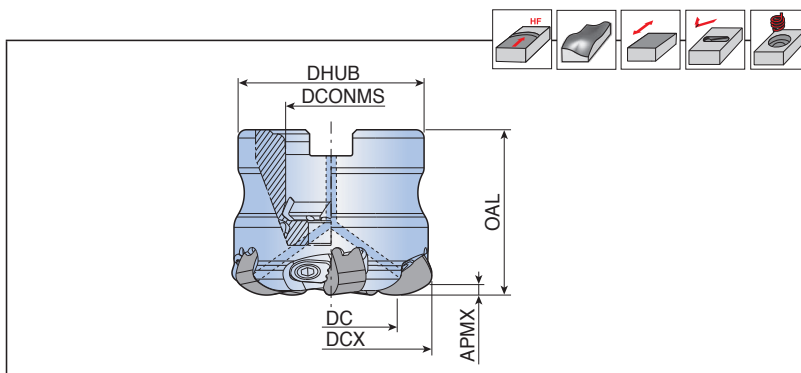
[illegible]

- ▶ Mounting bolt with coolant through hole is available on request (ordering example: SH M10x1.5x30-C)
- ▶ ⁽¹⁾ Use only air (Coolant is prohibited)

Spare parts

Designation	Clamp	Screw	Snap ring	Wrench	
					
TFMBN-09CH	CCL-3S	CLS-35A120	CSR 1.25	L-W 2	

High feed face mills

[illegible]

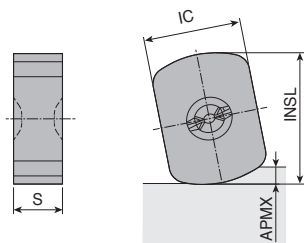
- ▶ Mounting bolt with coolant through hole is available on request (ordering example: SH M10x1.5x30-C)
- ▶ ⁽¹⁾ Use only air (Coolant is prohibited)

Spare parts

Designation	Wedge	Screw	Wrench		
					
TFMBN-12	WFZ 6-C	WS 6	T-W 3		

BNGX 06 / 09

High feed inserts



Size	Dimension (mm)				
	INSL	IC	S	APMX	
06	8	6	3	1.0	
09	12	9	5	1.5	

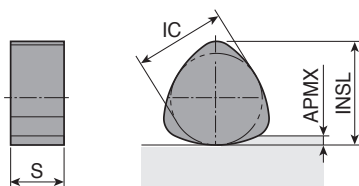
Insert	Designation	Recommended machining conditions		Ceramic		Coated								Uncoated	
		ap (mm)	Feed (mm/tooth)	TC3030	TC3020	TT9080	TT9030	TT8080	TT8020	TT8525B	TT7080	TT7515	TT6080	K10	
	BNGX 0603 CH-E04	0.4-0.8	0.30-0.10	●											
	0904 CH-E04	0.5-1.0	0.35-0.15	●											

► E04: Honing 0.04-0.05mm

●: Standard items

BNGX 12

High feed inserts



Size	Dimension (mm)				
	INSL	IC	S	APMX	
12	13.6	12	7	2.5	

Insert	Designation	Recommended machining conditions		Ceramic		Coated								Uncoated	
		ap (mm)	Feed (mm/tooth)	TC3030	TC3020	TT9080	TT9030	TT8080	TT8020	TT8525B	TT7080	TT7515	TT6080	K10	
	BNGX 1207-E04	1.0-2.0	0.35-0.15	●											

► E04: Honing 0.04-0.05mm

●: Standard items

WINSEED

ADVANCED MACHINING



- Cat.No: 6250729
- English Version: CT 05/2023
- ©TaeguTec LTD.

World Headquarters

1040 Gachang-ro, Gachang-myeon, Dalseong-gun, Daegu, 42936, Korea

Tel: +82-53-760-7640 Web: www.taegutec.com