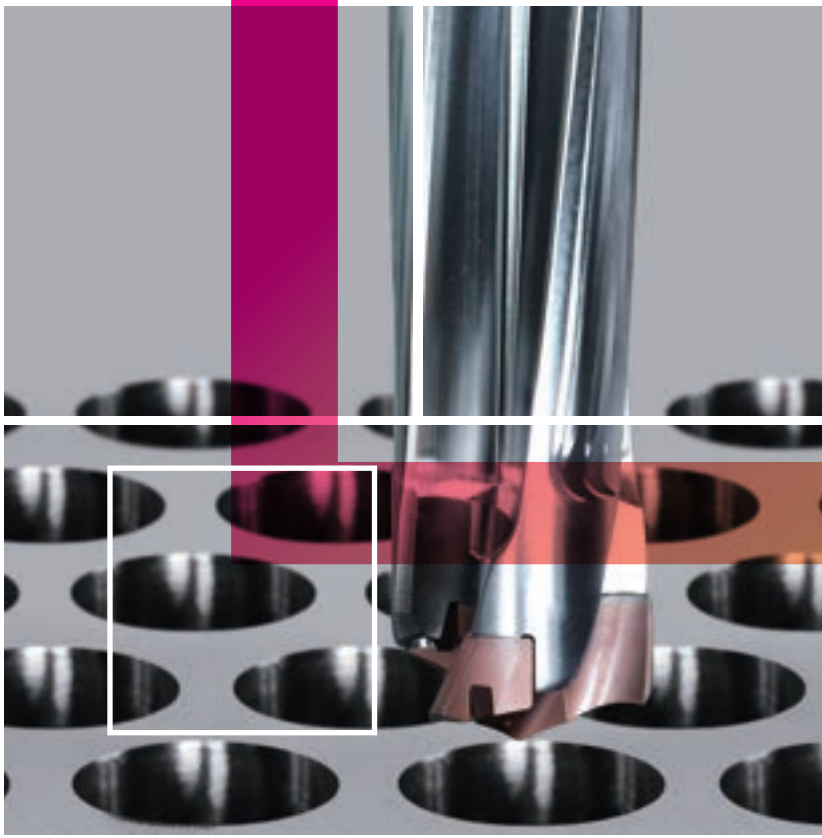
HOLEMAKING



HOLEMAKING

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External Coolant

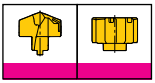

Internal Coolant


Through Hole


Blind Hole



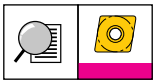
Tube Page

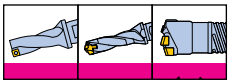

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Tool Selection Guide

Drilling tools

Series			Indexable drill				
			TOPDRILL		TDRILL		TOPCAP
			TOP 2/3/4/5 	TOP-CA 	TDR 2/3/4/5 	TDR-CA 	TCAP 
Pages			D18-D29	D30-D33	D34-D46	D47-D49	D51-D53
DC(mm)			Ø12.0-Ø50.0	Ø51.0-Ø80.0	Ø12.5-Ø50.0	Ø51.0-Ø80.0	Ø8.0-Ø32.0
Drilling depth(L/D)			2, 3, 4, 5 x Dc	2, 3, 4 x Dc	2, 3, 4, 5 x Dc	2.5, 3.5 x Dc	2.25, 3 x Dc
Hole tolerance			IT 11-13	IT 12-13	IT 12-13	IT 12-13	IT 10-12
Application	General drilling		●	●	●	●	●
	Cross hole drilling		●	●	●	●	
	Irregular surface drilling		○	○	○	○	●
	Interrupted drilling		○	○	○	○	
	Chamfering						
Coolant supply			Internal	Internal	Internal	Internal	Internal

Tool Selection Guide

Drilling tools

Head changeable drill					
DrillSpeed	WinDrill	DrillRush			WinDrill
3ED	**TCD...A0**	**TCD**	**TCD-M**	**TCD...A0 3/5/8D**	**TCD-MRS/TCDM**
					
D55-D57	D58	D59-D67	D68	D70	D71-D74
Ø12.0-Ø25.9	Ø4.0-Ø5.9	Ø6.0-Ø25.9	M8-M24 (ISO)	Ø6.0-Ø9.9	Ø6.0-Ø20.9
3, 5, 8 x Dc	3, 5 x Dc	1.5, 3, 5, 8, 12 x Dc		3, 5, 8 x Dc	2, 3, 4 x Dc
IT 9-10	IT 9-10	IT 9-10	IT 9-10	IT 9-10	IT 9-10
●	●	●	●	●	●
○	●	●		●	●
			●		
Internal	Internal	Internal	Internal	Internal	Internal

● Recommended, ○ Suitable

TaeguTec Member IMC Group

Tool Selection Guide

Drilling tools

Series			Head changeable drill			Solid carbide drill	
			WinGun	ModuDrill	SpadeRush	Solid3Drill	HiDrill
			TCDGN	TNDH-TP/MDB	LCD	3HD	NHD-PE/PI
							
Pages			D143-D144	D75-D79	D80-D82	D83-D88	D89-D100
DC(mm)			Ø10.0-Ø25.9	Ø26.0-Ø50.0	Ø20.0-Ø41.0	Ø4.0-Ø12.0	Ø3.0-Ø12.0
Drilling depth(L/D)			16, 20 x Dc	3, 5, 7 x Dc	3, 5, 8 x Dc	3, 5, 8, 12 x Dc	3, 5 x Dc
Hole tolerance			IT 9-10	IT 10-12	IT 9-10	IT 8-10	IT 8-10
Application	General drilling		●	●	●	●	●
	Cross hole drilling		●	●	●	●	●
	Irregular surface drilling						
	Interrupted drilling						
	Chamfering						
Coolant supply			Internal	Internal	Internal	Internal	External / Internal

Tool Selection Guide

Drilling tools

Solid carbide drill					
NHD-KI	**NHD-NI**	**TED/TEO**	**SHO 10/15/20**	**SHO-M**	**CDF**
					
D101-D102	D103-D108	D109-D120	D122	D123	D124
Ø3.0-Ø12.0	Ø3.0-Ø12.0	Ø3.0-Ø12.0	Ø4.0-Ø10.0	M4-M10 (ISO)	Ø3.0-Ø12.7
3, 5 x Dc	3, 5 x Dc	3, 5 x Dc	10, 15, 20 x Dc		
IT 8-10	IT 8-10	IT 8-10	IT 8-10	IT 8-10	IT 8-10
●	●	●	●	●	●
●	●	●	○		
				●	
Internal	Internal	External / Internal	Internal	Internal	External

● Recommended, ○ Suitable

Tool Selection Guide

Reaming tools

				Indexable reamer		Solid reamer	
				XM-REAM	TM-REAM	TBREAM	TSREAM
Series				**XR-SO** 	**TM** 	**TB** 	**TS** 
Pages				D130-D131	D133	D136-D138	D140-D141
DC(mm)				Ø8.000-Ø12.999	Ø11.501-Ø32.000	Ø8.000-Ø32.000	Ø3.000-Ø12.000
Reaming depth(L/D)				3, 5 x Dc	3, 5, 8 x Dc	5-9 x Dc	7.5-10 x Dc
Hole tolerance				IT 7 ★	IT 7 ★	IT 6 ★★	IT 7
Application		**Through**	**Blind**				
	General reaming			●	●	●	●
	Cross hole reaming					●	●
	Irregular surface reaming					●	●
	Interrupted reaming			●	●	●	●
Coolant supply				Internal	Internal	Internal	Internal

★ Up to IT 6 tolerance ★★ Up to IT 5 tolerance

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Tool Selection Guide

Deep drilling tools

Series		Indexable deep drill head			
		TRGD/TRGD3 /TRGDL	TBTA3	TBTA5	TBTA7
					
Pages		D145-D152	D153-155, D159	D156-157, D160	D158, D161
DC(mm)		Ø8.0-Ø36.0	Ø38.00-Ø106.99	Ø107.00-Ø168.99	Ø169.00-Ø232.99
Drilling depth(L/D)		10-45 x Dc	100 x Dc	100 x Dc	100 x Dc
Hole tolerance		IT 10-11	IT 10	IT 10	IT 10
Surface finish			3μm	3μm	3μm
Single tube	Outer four thread		●	●	●
	Inner single thread		●	● ★	●
Double tube	Outer four thread		●	●	

★ In case of inner single thread connection TBTA7 series can cover up to dia. 245.99mm

Series		Indexable deep drill & boring head			Brazed deep drill head		
		TBTA-FB	TBTA-TR	TBTA-R	BTA-SE/DE	BTS-SE	BTE…SE4
							
Pages		D164-D169	D176-D179	D170-D175	D180-D182	D183	D184
DC(mm)		Ø25.00-Ø89.00	Ø14.00-Ø40.00	Ø25.00-Ø110.99	Ø12.60-Ø65.00	Ø8.00-Ø20.00	Ø15.60-Ø16.70
Drilling depth(L/D)		100 x Dc	100 x Dc	100 x Dc	100 x Dc	100 x Dc	100 x Dc
Hole tolerance		IT 10	IT 10	IT 7 - IT 9	IT 9	IT 9	
Surface finish		3μm	3μm	1-2μm	2μm	2μm	
Single tube	Outer four thread	●	●	●	●	● ★	
	Inner single thread	●	●	●			
Double tube	Outer four thread	●	●		●		

★ Two start thread: Diameter 12.60 to 15.59mm

● Recommended

Tool Selection Guide

Drill inserts

Series			TOPDRILL SOMT	TDRILL SPMG / SPGG	DRILLSPEED 3ED-P+	DRILLSPEED 3ED-F
						
Pages			D195-D196	D197-D198	D199-D201	D202
Size			04/05/06/07/08 09/11/13/15	05/06/07/09 11/12/14	Ø12.0-Ø25.9	Ø12.0-Ø25.9
Chip former			DP, DK, DL, DA	DG, DK, DA	P+	F
Grades			TT9080, TT9300 TT8020, TT6080, K10	TT9030, TT8020 TT7400, TT6030, K10	TT5130	TT5130
Application	General drilling		●	●	●	●
	Cross hole drilling		●	●	●	●
	Irregular surface drilling		○	○	○	○
	Interrupted drilling		○	○		
	Chamfering					

Tool Selection Guide

Drill inserts

WinDrill	DrillRush				
TCD-P	**TCD-P/M/K/N**	**TCD-P+**	**TCD-F**	**AOMT**	**CRNG**
					
D203	D204-D210	D211-D214	D215-D216	D217	D217
Ø4.0-Ø5.9	Ø6.0-Ø25.9	Ø6.0-Ø25.9	Ø8.0-Ø25.9	03,04,06-C30/C45	08-45CD
P	P/M/K/N	P+	F	-	-
TT9080	TT9080 UF10	TT9080	TT9080	TT9080	TT9080
●	●	●	●		
●	●	●	●		
○	○	○	○		
				●	●

● Recommended, ○ Suitable

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Tool Selection Guide

Drill inserts

Series			MODURDRILL		SPADERUSH	
			TCD-P-CO+	SPGX...DW	LCD-P	LCD-P+
						
Pages			D218	D218	D219-D220	D221
Size			Ø15.9-Ø25.9	06/07/09/11/14	Ø20.0-Ø41.0	Ø20.0-Ø34.5
Chip former			P-CO+	DW	P	P+
Grades			TT9080	TT9080	TT9080	TT9080
Application	General drilling		●	●	●	●
	Cross hole drilling		●	●	●	●
	Irregular surface drilling		○	○	○	○
	Interrupted drilling					
	Chamfering					

Tool Selection Guide

Drill inserts

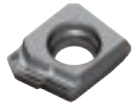
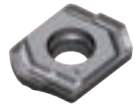
SPADERUSH	TCHAMFER	TOPCAP	TDEEP	
LCD-F	**XCGT-C**	**XCGT-TA XCMT**	**NPHT NPMT**	**NPMX TPMX**
				
D222-D223	D224	D225-D226	D227 -D229	D230
Ø20.0-Ø41.0	06/09	04/05/06/07/08 10/13/17	06/07/08/09 10/11/13	08/14/17/24/28
F	C30/C45/C60	TA/GV/TC	R(L)-G... /R(L)-HF...	R-B/R-G
TT9080	TT9080	TT9080, TT8020, TT9030, K10	TT9030, TT9130, TT8125, TT6130, TT5030	TT9030, TT9130, TT8125, TT7200, TT6130, TT6020, TT5100, TT5030
●		●	●	●
●			○	○
○				
	●			

● Recommended, ○ Suitable

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Tool Selection Guide

Drill inserts

Series			TOGT	ZSGT	LOGT	TPMX XPMT
						
Pages			D232	D231	D231	D233
Size			07/08/09/10/11 /12/13/14	04/05/06	06	14/16/17/24
Chip former			RS/GF	RS	RS	LG/-45
Grades			TT9030, TT9130	TT9130	TT9030, TT9130	TT9030, TT9130, TT6020, TT5030
Application	General drilling		●	●	●	●
	Cross hole drilling					○
	Irregular surface drilling					
	Interrupted drilling					
	Chamfering					

Tool Selection Guide

Reamer heads & blades

Series				XM-REAM	TM-REAM	TBREAM
				XR	TM	TB
						
Pages				D132	D134 - D135	D139
Size				Ø8.000-Ø12.000	Ø11.50-Ø32.000	1/2/3/4
Chip former				AS/BL	AS/BL	A06/B06/B12
Grades				TT9030	TT9030	TT5030, TT5050
Application		**Through**	**Blind**			
	General reaming			●	●	●
	Cross hole reaming					
	Irregular surface reaming					
	Interrupted reaming					

● Recommended, ○ Suitable

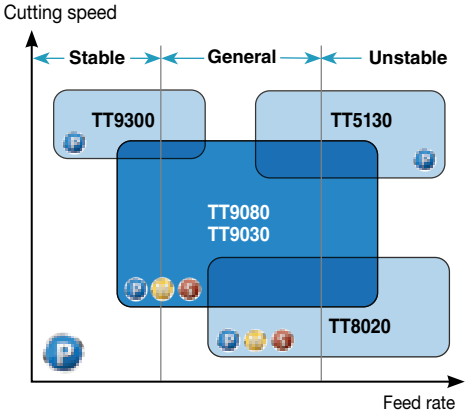
Grades

Holemaking grades

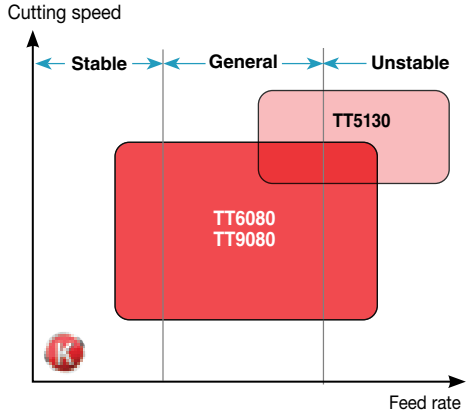
Grades	ISO	Characteristics & applications
TT6080 PVD carbide	K05 – K25 H05 – H25	• General machining for gray and ductile cast iron • Finish and medium machining of hardened steel
TT9300 CVD carbide	P10 – P25	• High speed drilling of carbon & alloy steel
TT5130 PVD carbide	P20 – P40 K20 – K40	• High speed drilling of carbon & alloy steel
TT9080 PVD carbide	P20 – P40 M20 – M40 S20 – S40	• General machining of steel • General machining of stainless steel • General machining of heat-resistant alloy
TT9030 PVD carbide	P20 – P40 M20 – M40 S20 – S40	• General machining of steel • General machining of stainless steel • General machining of heat-resistant alloy
TT8020 PVD carbide	P30 – P50 M30 – M50 S30 – S50	• Interrupted and rough machining of steel • Interrupted and rough machining of stainless steel • Low speed and interrupted machining of heat-resistant alloy
K10 Uncoated	K05 – K15 N05 – N15 S05 – S15	• General machining of cast iron • General machining of aluminum alloys and non-ferrous materials • General machining of heat-resistant alloy
UF1A/UF10 Uncoated	N10 – N25 S10 – S30	• General machining of aluminum alloys and non-ferrous materials • General machining of heat-resistant alloy

Selection guide for holemaking grades

For steel



For cast iron



Drilling Tools



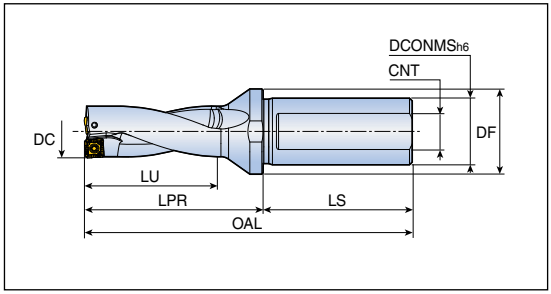
TOP 2...-T2

Indexable drill holders



• Drilling depth: 2xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TOP 2120-20T2-04	12.0	20	25	24	44	50	M13X1.0	SOMT 04...DP
2125-20T2-04	12.5	20	25	26	46	50	M13X1.0	D195
2130-20T2-04	13.0	20	25	26	46	50	M13X1.0	
2135-20T2-04	13.5	20	25	28	46	50	M13X1.0	
2140-20T2-05	14.0	20	25	28	46	50	M13X1.0	SOMT 05...DP/DL/DK/DA
2145-20T2-05	14.5	20	25	30	49	50	M13X1.0	D195-D196
2150-20T2-05	15.0	20	25	30	49	50	M13X1.0	
2155-20T2-05	15.5	20	25	32	52	50	M13X1.0	
2160-20T2-05	16.0	20	25	32	52	50	M13X1.0	
2165-25T2-06	16.5	25	32	34	54	56	M16X1.5	SOMT 06...DP/DL/DK/DA
2170-25T2-06	17.0	25	32	34	54	56	M16X1.5	D195-D196
2175-25T2-06	17.5	25	32	36	57	56	M16X1.5	
2180-25T2-06	18.0	25	32	36	57	56	M16X1.5	
2185-25T2-06	18.5	25	32	38	59	56	M16X1.5	
2190-25T2-06	19.0	25	32	38	59	56	M16X1.5	
2195-25T2-07	19.5	25	32	40	63	56	M16X1.5	SOMT 07...DP/DL/DK/DA
2200-25T2-07	20.0	25	32	40	63	56	M16X1.5	D195-D196
2205-25T2-07	20.5	25	32	42	65	56	M16X1.5	
2210-25T2-07	21.0	25	32	42	65	56	M16X1.5	
2215-25T2-07	21.5	25	32	44	67	56	M16X1.5	
2220-25T2-07	22.0	25	32	44	67	56	M16X1.5	
2225-25T2-08	22.5	25	32	46	68	56	M16X1.5	SOMT 08...DP/DL/DK/DA
2230-25T2-08	23.0	25	32	46	68	56	M16X1.5	D195-D196
2230-32T2-08	23.0	32	40	46	68	60	M22X2.0	
2235-25T2-08	23.5	25	32	48	70	56	M16X1.5	
2235-32T2-08	23.5	32	40	48	70	60	M22X2.0	
2240-25T2-08	24.0	25	32	48	70	56	M16X1.5	
2240-32T2-08	24.0	32	40	48	70	60	M22X2.0	
2245-25T2-08	24.5	25	32	50	72	56	M16X1.5	
2245-32T2-08	24.5	32	40	50	72	60	M22X2.0	
2250-25T2-08	25.0	25	32	50	72	56	M16X1.5	
2250-32T2-08	25.0	32	40	50	72	60	M22X2.0	
2255-25T2-08	25.5	25	32	52	73	56	M16X1.5	
2255-32T2-08	25.5	32	40	52	73	60	M22X2.0	
2260-25T2-08	26.0	25	32	52	73	56	M16X1.5	
2260-32T2-08	26.0	32	40	52	73	60	M22X2.0	

Cutting Condition D242

▸ OAL: LPR+LS

ADVANCE CUTTING TaeguTec

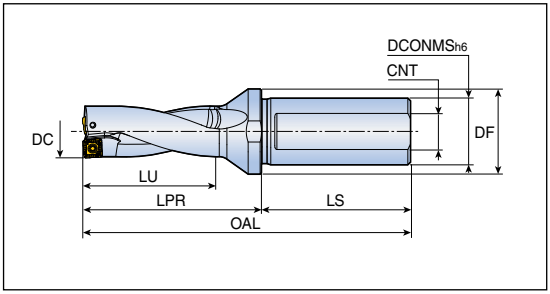
TOP 2...-T2

Indexable drill holders



• Drilling depth: 2xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TOP 2265-32T2-09	26.5	32	40	54	77	60	M22X2.0	SOMT 09...DP/DL/DK/DA
2270-25T2-09	27.0	25	40	54	77	56	M16X1.5	D195-D196
2270-32T2-09	27.0	32	40	54	77	60	M22X2.0	
2275-32T2-09	27.5	32	40	56	79	60	M22X2.0	
2280-25T2-09	28.0	25	40	56	79	56	M16X1.5	
2280-32T2-09	28.0	32	40	56	79	60	M22X2.0	
2285-32T2-09	28.5	32	40	58	81	60	M22X2.0	
2290-25T2-09	29.0	25	40	58	81	56	M16X1.5	
2290-32T2-09	29.0	32	40	58	81	60	M22X2.0	
2295-32T2-09	29.5	32	40	60	83	60	M22X2.0	
2300-32T2-09	30.0	32	40	60	83	60	M22X2.0	
2305-32T2-09	30.5	32	40	62	85	60	M22X2.0	
2310-32T2-09	31.0	32	40	62	85	60	M22X2.0	
2320-32T2-11	32.0	32	40	64	87	60	M22X2.0	SOMT 11...DP/DL/DK/DA
2320-40T2-11	32.0	40	50	64	87	70	M30X2.0	D195-D196
2330-32T2-11	33.0	32	40	66	89	60	M22X2.0	
2330-40T2-11	33.0	40	50	66	89	70	M30X2.0	
2340-32T2-11	34.0	32	40	68	91	60	M22X2.0	
2340-40T2-11	34.0	40	50	68	91	70	M30X2.0	
2350-32T2-11	35.0	32	40	70	93	60	M22X2.0	
2350-40T2-11	35.0	40	50	70	93	70	M30X2.0	
2360-32T2-11	36.0	32	40	72	95	60	M22X2.0	
2360-40T2-11	36.0	40	50	72	95	70	M30X2.0	
2370-32T2-13	37.0	32	50	74	102	60	M22X2.0	SOMT 13...DP/DL/DK/DA
2370-40T2-13	37.0	40	50	74	102	70	M30X2.0	D195-D196
2380-32T2-13	38.0	32	50	76	104	60	M22X2.0	
2380-40T2-13	38.0	40	50	76	104	70	M30X2.0	
2390-32T2-13	39.0	32	50	78	106	60	M22X2.0	
2390-40T2-13	39.0	40	50	78	106	70	M30X2.0	
2400-32T2-13	40.0	32	50	80	108	60	M22X2.0	
2400-40T2-13	40.0	40	50	80	108	70	M30X2.0	
2410-40T2-13	41.0	40	50	82	110	70	M30X2.0	
2420-40T2-13	42.0	40	50	84	112	70	M30X2.0	
2430-40T2-13	43.0	40	50	86	114	70	M30X2.0	

Cutting Condition D242

▸ OAL: LPR+LS

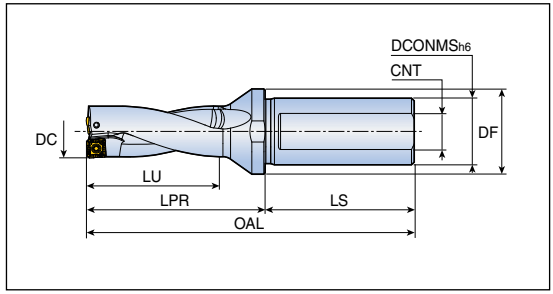
TOP 2...-T2

Indexable drill holders



• Drilling depth: 2xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TOP 2440-40T2-15	44.0	40	60	88	123	70	M30X2.0	SOMT 15...DP/DL/DK/DA
2450-40T2-15	45.0	40	60	90	125	70	M30X2.0	D195-D196
2460-40T2-15	46.0	40	60	92	127	70	M30X2.0	
2470-40T2-15	47.0	40	60	94	129	70	M30X2.0	
2480-40T2-15	48.0	40	60	96	131	70	M30X2.0	
2490-40T2-15	49.0	40	60	98	133	70	M30X2.0	
2500-40T2-15	50.0	40	60	100	135	70	M30X2.0	

▸ OAL: LPR+LS

Spare parts

Designation	Screw	Wrench	Plug*	
				
TOP 2120 - 2135	TS 18041I/HG	TD 6P	SL 20M	
TOP 2140 - 2160	TS 20043I/HG-P	TD 6P	SL 20M	
TOP 2165 - 2220	TS 22052I/HG-P	TD 7P	SL 25M	
TOP 2225 - 2260	SO 25065I	TD 7	SL 25M / SL 32M	
TOP 2265 - 2360	TS 35088I	TD 10	SL 25M / SL 32M / SL 40M	
TOP 2370 - 2430	TS 40093I	TD 15	SL 32M / SL 40M	
TOP 2440 - 2550	TS 50115I	TD 20	SL 40M	

Cutting Condition D242

▸ *Notice: Cooling hole plug for lathe should be ordered separately
Order example) Plug for shank diameter 25.0mm: SL 25M

ADVANCE CUTTING TaeguTec

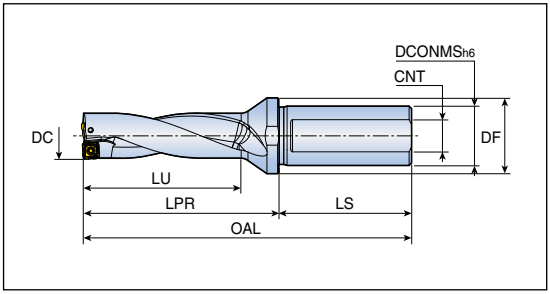
TOP 3...-T2

Indexable drill holders



• Drilling depth: 3xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TOP 3120-20T2-04	12.0	20	25	36	56	50	M13X1.0	SOMT 04...DP
3125-20T2-04	12.5	20	25	39	59	50	M13X1.0	D195
3130-20T2-04	13.0	20	25	39	59	50	M13X1.0	
3135-20T2-04	13.5	20	25	42	60	50	M13X1.0	
3140-20T2-05	14.0	20	25	42	60	50	M13X1.0	SOMT 05...DP/DL/DK/DA
3145-20T2-05	14.5	20	25	45	64	50	M13X1.0	D195-D196
3150-20T2-05	15.0	20	25	45	64	50	M13X1.0	
3155-20T2-05	15.5	20	25	48	68	50	M13X1.0	
3160-20T2-05	16.0	20	25	48	68	50	M13X1.0	
3165-25T2-06	16.5	25	32	51	71	56	M16X1.5	SOMT 06...DP/DL/DK/DA
3167-25T2-06 *	16.7	25	32	51	71	56	M16X1.5	D195-D196
3170-25T2-06	17.0	25	32	51	71	56	M16X1.5	
3175-25T2-06	17.5	25	32	54	75	56	M16X1.5	
3180-25T2-06	18.0	25	32	54	75	56	M16X1.5	
3185-25T2-06	18.5	25	32	57	78	56	M16X1.5	
3190-25T2-06	19.0	25	32	57	78	56	M16X1.5	
3195-25T2-07	19.5	25	32	60	83	56	M16X1.5	SOMT 07...DP/DL/DK/DA
3200-25T2-07	20.0	25	32	60	83	56	M16X1.5	D195-D196
3205-25T2-07	20.5	25	32	63	86	56	M16X1.5	
3210-25T2-07	21.0	25	32	63	86	56	M16X1.5	
3215-25T2-07	21.5	25	32	66	89	56	M16X1.5	
3220-25T2-07	22.0	25	32	66	89	56	M16X1.5	
3222-25T2-07 *	22.2	25	32	66	89	56	M16X1.5	
3225-25T2-08	22.5	25	32	69	91	56	M16X1.5	SOMT 08...DP/DL/DK/DA
3230-25T2-08	23.0	25	32	69	91	56	M16X1.5	D195-D196
3230-32T2-08	23.0	32	40	69	91	60	M22X2.0	
3235-25T2-08	23.5	25	32	72	94	56	M16X1.5	
3235-32T2-08	23.5	32	40	72	94	60	M22X2.0	
3240-25T2-08	24.0	25	32	72	94	56	M16X1.5	
3240-32T2-08	24.0	32	40	72	94	60	M22X2.0	
3245-25T2-08	24.5	25	32	75	97	56	M16X1.5	
3245-32T2-08	24.5	32	40	75	97	60	M22X2.0	
3250-25T2-08	25.0	25	32	75	97	56	M16X1.5	
3250-32T2-08	25.0	32	40	75	97	60	M22X2.0	
3254-25T2-08 *	25.4	25	32	75	97	56	M16X1.5	

Cutting Condition D242

- *: Inch sized hole
- OAL: LPR+LS

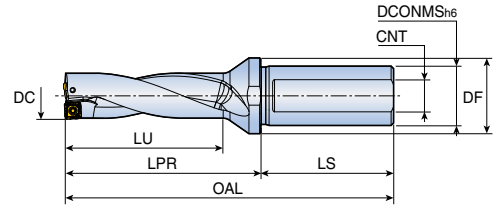
TOP 3...-T2

Indexable drill holders



• Drilling depth: 3xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TOP 3255-25T2-08	25.5	25	32	78	99	56	M16X1.5	SOMT 08...DP/DL/DK/DA
3255-32T2-08	25.5	32	40	78	99	60	M22X2.0	D195-D196
3260-25T2-08	26.0	25	32	78	99	56	M16X1.5	
3260-32T2-08	26.0	32	32	78	99	60	M22X2.0	
3265-25T2-09	26.5	25	40	81	104	56	M16X1.5	SOMT 09...DP/DL/DK/DA
3265-32T2-09	26.5	32	40	81	104	60	M22X2.0	D195-D196
3270-25T2-09	27.0	25	40	81	104	56	M16X1.5	
3270-32T2-09	27.0	32	40	81	104	60	M22X2.0	
3275-25T2-09	27.5	25	40	84	107	56	M16X1.5	
3275-32T2-09	27.5	32	40	84	107	60	M22X2.0	
3280-25T2-09	28.0	25	40	84	107	56	M16X1.5	
3280-32T2-09	28.0	32	40	84	107	60	M22X2.0	
3285-25T2-09	28.5	25	40	87	110	56	M16X1.5	
3285-32T2-09	28.5	32	40	87	110	60	M22X2.0	
3290-25T2-09	29.0	25	40	87	110	56	M16X1.5	
3290-32T2-09	29.0	32	40	87	110	60	M22X2.0	
3295-32T2-09	29.5	32	40	90	113	60	M22X2.0	
3300-32T2-09	30.0	32	40	90	113	60	M22X2.0	
3305-32T2-09	30.5	32	40	93	116	60	M22X2.0	
3310-32T2-09	31.0	32	40	93	116	60	M22X2.0	
3320-32T2-11	32.0	32	40	96	119	60	M22X2.0	SOMT 11...DP/DL/DK/DA
3320-40T2-11	32.0	40	50	96	119	70	M30X2.0	D195-D196
3330-32T2-11	33.0	32	40	99	122	60	M22X2.0	
3330-40T2-11	33.0	40	50	99	122	70	M30X2.0	
3340-32T2-11	34.0	32	40	102	125	60	M22X2.0	
3340-40T2-11	34.0	40	50	102	125	70	M30X2.0	
3350-32T2-11	35.0	32	40	105	128	60	M22X2.0	
3350-40T2-11	35.0	40	50	105	128	70	M30X2.0	
3360-32T2-11	36.0	32	40	108	131	60	M22X2.0	
3360-40T2-11	36.0	40	50	108	131	70	M30X2.0	
3370-32T2-13	37.0	32	50	111	139	60	M22X2.0	SOMT 13...DP/DL/DK/DA
3370-40T2-13	37.0	40	50	111	139	70	M30X2.0	D195-D196
3380-32T2-13	38.0	32	50	114	142	60	M22X2.0	
3380-40T2-13	38.0	40	50	114	142	70	M30X2.0	
3390-32T2-13	39.0	32	50	117	145	60	M22X2.0	

Cutting Condition D242

▸ OAL: LPR+LS

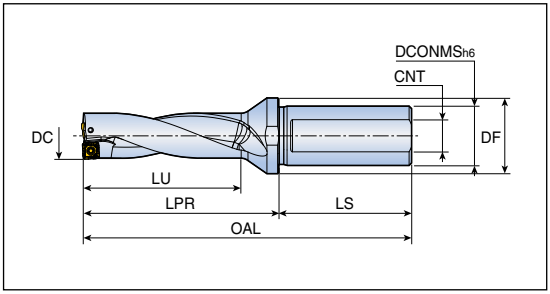
TOP 3...-T2

Indexable drill holders



• Drilling depth: 3xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TOP 3390-40T2-13	39.0	40	50	117	145	70	M30X2.0	SOMT 13...DP/DL/DK/DA
3400-32T2-13	40.0	32	50	120	148	60	M22X2.0	D195-D196
3400-40T2-13	40.0	40	50	120	148	70	M30X2.0	
3410-40T2-13	41.0	40	50	123	151	70	M30X2.0	
3420-40T2-13	42.0	40	50	126	154	70	M30X2.0	
3430-40T2-13	43.0	40	50	129	157	70	M30X2.0	
3440-40T2-15	44.0	40	60	132	167	70	M30X2.0	SOMT 15...DP/DL/DK/DA
3450-40T2-15	45.0	40	60	135	170	70	M30X2.0	D195-D196
3460-40T2-15	46.0	40	60	138	173	70	M30X2.0	
3470-40T2-15	47.0	40	60	141	176	70	M30X2.0	
3480-40T2-15	48.0	40	60	144	179	70	M30X2.0	
3490-40T2-15	49.0	40	60	147	182	70	M30X2.0	
3500-40T2-15	50.0	40	60	150	185	70	M30X2.0	

▸ OAL: LPR+LS

Spare parts

Designation	Screw	Wrench	Plug*	
				
TOP 3120 - 3135	TS 18041I/HG	TD 6P	SL 20M	
TOP 3140 - 3160	TS 20043I/HG-P	TD 6P	SL 20M	
TOP 3165 - 3220	TS 22052I/HG-P	TD 7P	SL 25M	
TOP 3225 - 3260	SO 25065I	TD 7	SL 25M / SL 32M	
TOP 3265 - 3360	TS 35088I	TD 10	SL 25M / SL 32M / SL 40M	
TOP 3370 - 3430	TS 40093I	TD 15	SL 32M / SL 40M	
TOP 3440 - 3500	TS 50115I	TD 20	SL 40M	

Cutting Condition D242

▸ *Notice: Cooling hole plug for lathe should be ordered separately
Order example) Plug for shank diameter 25.0mm: SL 25M

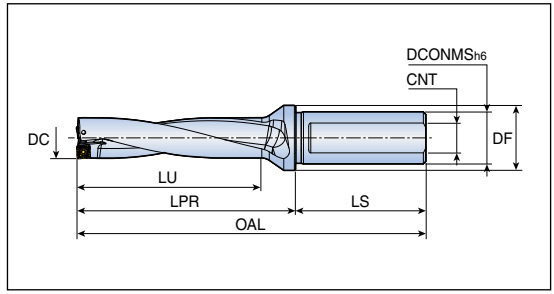
TOP 4...-T2

Indexable drill holders



• Drilling depth: 4xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TOP 4120-20T2-04	12.0	20	25	48	68	50	M13X1.0	SOMT 04...DP
4125-20T2-04	12.5	20	25	52	72	50	M13X1.0	D195
4130-20T2-04	13.0	20	25	52	72	50	M13X1.0	
4135-20T2-04	13.5	20	25	56	74	50	M13X1.0	
4140-20T2-05	14.0	20	25	56	74	50	M13X1.0	SOMT 05...DP/DL/DK/DA
4145-20T2-05	14.5	20	25	60	79	50	M13X1.0	D195-D196
4150-20T2-05	15.0	20	25	60	79	50	M13X1.0	
4155-20T2-05	15.5	20	25	64	84	50	M13X1.0	
4160-20T2-05	16.0	20	25	64	84	50	M13X1.0	
4165-25T2-06	16.5	25	32	68	88	56	M16X1.5	SOMT 06...DP/DL/DK/DA
4170-25T2-06	17.0	25	32	68	88	56	M16X1.5	D195-D196
4175-25T2-06	17.5	25	32	72	93	56	M16X1.5	
4180-25T2-06	18.0	25	32	72	93	56	M16X1.5	
4185-25T2-06	18.5	25	32	76	97	56	M16X1.5	
4190-25T2-06	19.0	25	32	76	97	56	M16X1.5	
4195-25T2-07	19.5	25	32	80	103	56	M16X1.5	SOMT 07...DP/DL/DK/DA
4200-25T2-07	20.0	25	32	80	103	56	M16X1.5	D195-D196
4205-25T2-07	20.5	25	32	84	107	56	M16X1.5	
4210-25T2-07	21.0	25	32	84	107	56	M16X1.5	
4215-25T2-07	21.5	25	32	88	111	56	M16X1.5	
4220-25T2-07	22.0	25	32	88	111	56	M16X1.5	
4225-25T2-08	22.5	25	32	92	114	56	M16X1.5	SOMT 08...DP/DL/DK/DA
4230-25T2-08	23.0	25	32	92	114	56	M16X1.5	D195-D196
4230-32T2-08	23.0	32	40	92	114	60	M22X2.0	
4235-25T2-08	23.5	25	32	96	118	56	M16X1.5	
4235-32T2-08	23.5	32	40	96	118	60	M22X2.0	
4240-25T2-08	24.0	25	32	96	118	56	M16X1.5	
4240-32T2-08	24.0	32	40	96	118	60	M22X2.0	
4245-25T2-08	24.5	25	32	100	122	56	M16X1.5	
4245-32T2-08	24.5	32	40	100	122	60	M22X2.0	
4250-25T2-08	25.0	25	32	100	122	56	M16X1.5	
4250-32T2-08	25.0	32	40	100	122	60	M22X2.0	
4254-25T2-08 *	25.4	25	32	100	122	56	M16X1.5	
4255-25T2-08	25.5	25	32	104	125	56	M16X1.5	
4255-32T2-08	25.5	32	40	104	125	60	M22X2.0	

Cutting Condition D242

- *: Inch sized hole
- OAL: LPR+LS

ADVANCE CUTTING TaeguTec

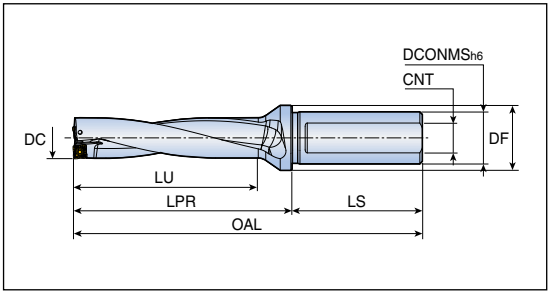
TOP 4...-T2

Indexable drill holders



• Drilling depth: 4xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TOP 4260-25T2-08	26.0	25	32	104	125	56	M16X1.5	SOMT 08...DP/DL/DK/DA
4260-32T2-08	26.0	32	40	104	125	60	M22X2.0	D195-D196
4265-25T2-09	26.5	25	40	108	131	56	M16X1.5	SOMT 09...DP/DL/DK/DA
4265-32T2-09	26.5	32	40	108	131	60	M22X2.0	D195-D196
4270-25T2-09	27.0	25	40	108	131	56	M16X1.5	
4270-32T2-09	27.0	32	40	108	131	60	M22X2.0	
4275-25T2-09	27.5	25	40	112	135	56	M16X1.5	
4275-32T2-09	27.5	32	40	112	135	60	M22X2.0	
4280-25T2-09	28.0	25	40	112	135	56	M16X1.5	
4280-32T2-09	28.0	32	40	112	135	60	M22X2.0	
4285-25T2-09	28.5	25	40	116	139	56	M16X1.5	
4285-32T2-09	28.5	32	40	116	139	60	M22X2.0	
4286-32T2-09 *	28.6	32	40	116	139	60	M22X2.0	
4290-25T2-09	29.0	25	40	116	139	56	M16X1.5	
4290-32T2-09	29.0	32	40	116	139	60	M22X2.0	
4295-32T2-09	29.5	32	40	120	143	60	M22X2.0	
4300-32T2-09	30.0	32	40	120	143	60	M22X2.0	
4305-32T2-09	30.5	32	40	124	147	60	M22X2.0	
4310-32T2-09	31.0	32	40	124	147	60	M22X2.0	
4318-32T2-11 *	31.8	32	40	128	151	60	M22X2.0	SOMT 11...DP/DL/DK/DA
4320-32T2-11	32.0	32	40	128	151	60	M22X2.0	D195-D196
4320-40T2-11	32.0	40	50	128	151	70	M30X2.0	
4330-32T2-11	33.0	32	40	132	155	60	M22X2.0	
4330-40T2-11	33.0	40	50	132	155	70	M30X2.0	
4340-32T2-11	34.0	32	40	136	159	60	M22X2.0	
4340-40T2-11	34.0	40	50	136	159	70	M30X2.0	
4349-40T2-11 *	34.9	40	50	140	163	70	M30X2.0	
4350-32T2-11	35.0	32	40	140	163	60	M22X2.0	
4350-40T2-11	35.0	40	50	140	163	70	M30X2.0	
4360-32T2-11	36.0	32	40	144	167	60	M22X2.0	
4360-40T2-11	36.0	40	50	144	167	70	M30X2.0	
4370-32T2-13	37.0	32	50	148	176	60	M22X2.0	SOMT 13...DP/DL/DK/DA
4370-40T2-13	37.0	40	50	148	176	70	M30X2.0	D195-D196
4371-40T2-13 *	37.1	40	50	148	176	70	M30X2.0	

Cutting Condition D242

- *: Inch sized hole
- OAL: LPR+LS

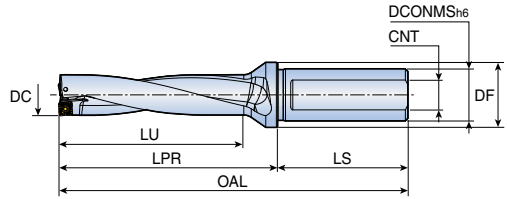
TOP 4...-T2

Indexable drill holders



• Drilling depth: 4xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TOP 4380-32T2-13	38.0	32	50	152	180	60	M22X2.0	SOMT 13...DP/DL/DK/DA
4380-40T2-13	38.0	40	50	152	180	70	M30X2.0	D195-D196
4381-40T2-13 *	38.1	40	50	152	180	70	M30X2.0	
4390-32T2-13	39.0	32	50	156	184	60	M22X2.0	
4390-40T2-13	39.0	40	50	156	184	70	M30X2.0	
4400-32T2-13	40.0	32	50	160	188	60	M22X2.0	
4400-40T2-13	40.0	40	50	160	188	70	M30X2.0	
4410-40T2-13	41.0	40	50	164	192	70	M30X2.0	
4413-40T2-13 *	41.3	40	50	164	192	70	M30X2.0	
4420-40T2-13	42.0	40	50	168	196	70	M30X2.0	
4429-40T2-13 *	42.9	40	50	172	200	70	M30X2.0	
4430-40T2-13	43.0	40	50	172	200	70	M30X2.0	
4440-40T2-15	44.0	40	60	176	211	70	M30X2.0	SOMT 15...DP/DL/DK/DA
4445-40T2-15 *	44.5	40	60	180	215	70	M30X2.0	D195-D196
4450-40T2-15	45.0	40	60	180	215	70	M30X2.0	
4460-40T2-15	46.0	40	60	184	219	70	M30X2.0	
4470-40T2-15	47.0	40	60	188	223	70	M30X2.0	
4476-40T2-15 *	47.6	40	60	192	227	70	M30X2.0	
4480-40T2-15	48.0	40	60	192	227	70	M30X2.0	
4490-40T2-15	49.0	40	60	196	231	70	M30X2.0	
4500-40T2-15	50.0	40	60	200	235	70	M30X2.0	
4508-40T2-15 *	50.8	40	60	204	239	70	M30X2.0	

▸ *: Inch sized hole
▸ OAL: LPR+LS

Spare parts

Designation	Screw	Wrench	Plug*	
				
TOP 4120 - 4135	TS 18041I/HG	TD 6P	SL 20M	
TOP 4140 - 4160	TS 20043I/HG-P	TD 6P	SL 20M	
TOP 4165 - 4220	TS 22052I/HG-P	TD 7P	SL 25M	
TOP 4225 - 4260	SO 25065I	TD 7	SL 25M / SL 32M	
TOP 4265 - 4360	TS 35088I	TD 10	SL 25M / SL 32M / SL 40M	
TOP 4370 - 4430	TS 40093I	TD 15	SL 32M / SL 40M	
TOP 4440 - 4508	TS 50115I	TD 20	SL 40M	

Cutting Condition D242

▸ *Notice: Cooling hole plug for lathe should be ordered separately
Order example) Plug for shank diameter 25.0mm: SL 25M

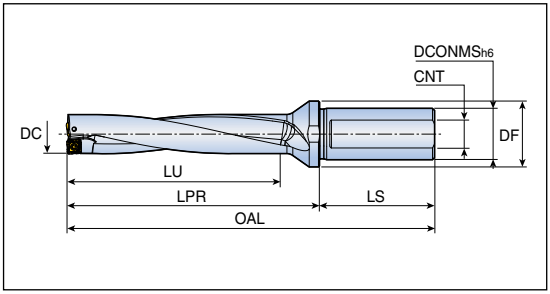
TOP 5...-T2

Indexable drill holders



• Drilling depth: 5xdiameter





Designation		Dimension (mm)							Insert
		DC	DCONMS	DF	LU	LPR	LS	CNT	
TOP	5120-20T2-04	12.0	20	25	60	80	50	M13X1.0	SOMT 04...DP
	5125-20T2-04	12.5	20	25	65	85	50	M13X1.0	D195
	5130-20T2-04	13.0	20	25	65	85	50	M13X1.0	
	5135-20T2-04	13.5	20	25	70	88	50	M13X1.0	
	5140-20T2-05	14.0	20	25	70	88	50	M13X1.0	SOMT 05...DP/DL/DK/DA
	5145-20T2-05	14.5	20	25	75	94	50	M13X1.0	D195-D196
	5150-20T2-05	15.0	20	25	75	94	50	M13X1.0	
	5155-20T2-05	15.5	20	25	80	100	50	M13X1.0	
	5160-20T2-05	16.0	20	25	80	100	50	M13X1.0	
	5165-25T2-06	16.5	25	32	85	105	56	M16X1.5	SOMT 06...DP/DL/DK/DA
	5170-25T2-06	17.0	25	32	85	105	56	M16X1.5	D195-D196
	5175-25T2-06	17.5	25	32	90	111	56	M16X1.5	
	5180-25T2-06	18.0	25	32	90	111	56	M16X1.5	
	5185-25T2-06	18.5	25	32	95	116	56	M16X1.5	
	5190-25T2-06	19.0	25	32	95	116	56	M16X1.5	
	5195-25T2-07	19.5	25	32	100	123	56	M16X1.5	SOMT 07...DP/DL/DK/DA
	5200-25T2-07	20.0	25	32	100	123	56	M16X1.5	D195-D196
	5205-25T2-07	20.5	25	32	105	128	56	M16X1.5	
	5210-25T2-07	21.0	25	32	105	128	56	M16X1.5	
	5215-25T2-07	21.5	25	32	110	133	56	M16X1.5	
	5220-25T2-07	22.0	25	32	110	133	56	M16X1.5	
	5222-25T2-07 *	22.2	25	32	110	133	56	M16X1.5	
	5225-25T2-08	22.5	25	32	115	137	56	M16X1.5	SOMT 08...DP/DL/DK/DA
	5230-25T2-08	23.0	25	32	115	137	56	M16X1.5	D195-D196
	5230-32T2-08	23.0	32	40	115	137	60	M22X2.0	
	5235-25T2-08	23.5	25	32	120	142	56	M16X1.5	
	5235-32T2-08	23.5	32	40	120	142	60	M22X2.0	
	5240-25T2-08	24.0	25	32	120	142	56	M16X1.5	
	5240-32T2-08	24.0	32	40	120	142	60	M22X2.0	
	5245-25T2-08	24.5	25	32	125	147	56	M16X1.5	
	5245-32T2-08	24.5	32	40	125	147	60	M22X2.0	
	5250-25T2-08	25.0	25	32	125	147	56	M16X1.5	
	5250-32T2-08	25.0	32	40	125	147	60	M22X2.0	
	5255-25T2-08	25.5	25	32	130	151	56	M16X1.5	
	5255-32T2-08	25.5	32	40	130	151	60	M22X2.0	

Cutting Condition D244

- *: Inch sized hole
- OAL: LPR+LS

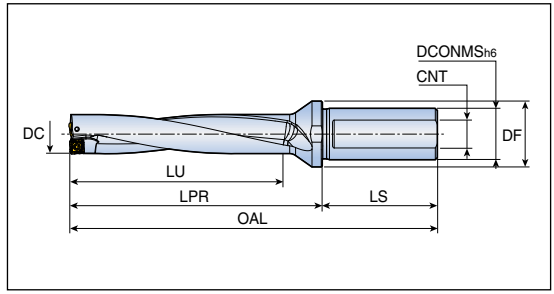
TOP 5...-T2

Indexable drill holders



• Drilling depth: 5xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TOP 5260-25T2-08	26.0	25	32	130	151	56	M16X1.5	SOMT 08...DP/DL/DK/DA
5260-32T2-08	26.0	32	40	130	151	60	M22X2.0	D195-D196
5265-32T2-09	26.5	32	40	135	158	60	M22X2.0	SOMT 09...DP/DL/DK/DA
5270-25T2-09	27.0	25	40	135	158	56	M16X1.5	D195-D196
5270-32T2-09	27.0	32	40	135	158	60	M22X2.0	
5275-32T2-09	27.5	32	40	140	163	60	M22X2.0	
5280-25T2-09	28.0	25	40	140	163	56	M16X1.5	
5280-32T2-09	28.0	32	40	140	163	60	M22X2.0	
5282-32T2-09 *	28.2	32	40	140	163	60	M22X2.0	
5285-32T2-09	28.5	32	40	145	168	60	M22X2.0	
5290-25T2-09	29.0	25	40	145	168	56	M16X1.5	
5290-32T2-09	29.0	32	40	145	168	60	M22X2.0	
5295-32T2-09	29.5	32	40	150	173	60	M22X2.0	
5300-32T2-09	30.0	32	40	150	173	60	M22X2.0	
5305-32T2-09	30.5	32	40	155	178	60	M22X2.0	
5310-32T2-09	31.0	32	40	155	178	60	M22X2.0	
5320-32T2-11	32.0	32	40	160	183	60	M22X2.0	SOMT 11...DP/DL/DK/DA
5320-40T2-11	32.0	40	50	160	183	70	M30X2.0	D195-D196
5330-32T2-11	33.0	32	40	165	188	60	M22X2.0	
5330-40T2-11	33.0	40	50	165	188	70	M30X2.0	
5340-32T2-11	34.0	32	40	170	193	60	M22X2.0	
5340-40T2-11	34.0	40	50	170	193	70	M30X2.0	
5350-32T2-11	35.0	32	40	175	198	60	M22X2.0	
5350-40T2-11	35.0	40	50	175	198	70	M30X2.0	
5360-32T2-11	36.0	32	40	180	203	60	M22X2.0	
5360-40T2-11	36.0	40	50	180	203	70	M30X2.0	
5370-32T2-13	37.0	32	50	185	213	60	M22X2.0	SOMT 13...DP/DL/DK/DA
5370-40T2-13	37.0	40	50	185	213	70	M30X2.0	D195-D196
5380-32T2-13	38.0	32	50	190	218	60	M22X2.0	
5380-40T2-13	38.0	40	50	190	218	70	M30X2.0	
5390-32T2-13	39.0	32	50	195	223	60	M22X2.0	
5390-40T2-13	39.0	40	50	195	223	70	M30X2.0	
5400-32T2-13	40.0	32	50	200	228	60	M22X2.0	
5400-40T2-13	40.0	40	50	200	228	70	M30X2.0	

Cutting Condition D244

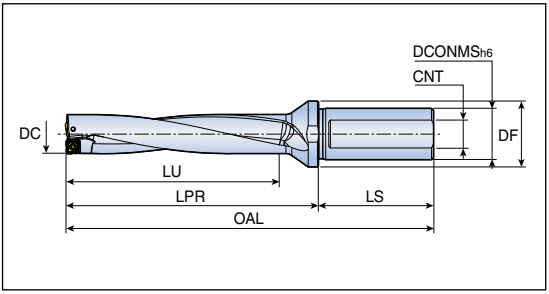
- *: Inch sized hole
- OAL: LPR+LS

ADVANCE CUTTING TaeguTec

TOP 5...-T2

Indexable drill holders





• Drilling depth: 5xdiameter

Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TOP 5410-40T2-13	41.0	40	50	205	233	70	M30X2.0	SOMT 13...DP/DL/DK/DA
5420-40T2-13	42.0	40	50	210	238	70	M30X2.0	D195-D196
5430-40T2-13	43.0	40	50	215	243	70	M30X2.0	
5440-40T2-15	44.0	40	60	220	255	70	M30X2.0	SOMT 15...DP/DL/DK/DA
5450-40T2-15	45.0	40	60	225	260	70	M30X2.0	D195-D196
5460-40T2-15	46.0	40	60	230	265	70	M30X2.0	
5470-40T2-15	47.0	40	60	235	270	70	M30X2.0	
5480-40T2-15	48.0	40	60	240	275	70	M30X2.0	
5490-40T2-15	49.0	40	60	245	280	70	M30X2.0	
5500-40T2-15	50.0	40	60	250	285	70	M30X2.0	

▸ OAL: LPR+LS

Spare parts

Designation	Screw	Wrench	Plug*	
TOP 5120 - 5135	TS 18041I/HG	TD 6P	SL 20M	
TOP 5140 - 5160	TS 20043I/HG-P	TD 6P	SL 20M	
TOP 5165 - 5220	TS 22052I/HG-P	TD 7P	SL 25M	
TOP 5225 - 5260	SO 25065I	TD 7	SL 25M / SL 32M	
TOP 5265 - 5360	TS 35088I	TD 10	SL 25M / SL 32M / SL 40M	
TOP 5370 - 5430	TS 40093I	TD 15	SL 32M / SL 40M	
TOP 5440 - 5500	TS 50115I	TD 20	SL 40M	

Cutting Condition D244

▸ * Notice: Cooling hole plug for lathe should be ordered separately
Order example) Plug for shank diameter 25.0mm: SL 25M

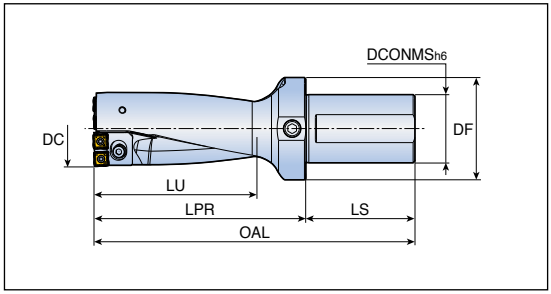
TOP 20…CA

Indexable drill holders for cartridge



• Drilling depth: 2xdiameter





Designation	Dimension (mm)							Setting Plate	Insert
	DC	DCONMS	DF	OAL	LU	LPR	LS		
TOP 2051-55-50T2-09CA	51	50	64	223	110	143	80	-	SOMT 09… DP/DL/DK/DA D195-D196
	52	50	64	223	110	143	80	TOP-0901	
	53	50	64	223	110	143	80	TOP-0902	
	54	50	64	223	110	143	80	TOP-0903	
	55	50	64	223	110	143	80	TOP-0904	
TOP 2056-60-50T2-11CA	56	50	64	236	120	156	80	-	SOMT 11… DP/DL/DK/DA D195-D196
	57	50	64	236	120	156	80	TOP-0901	
	58	50	64	236	120	156	80	TOP-0902	
	59	50	64	236	120	156	80	TOP-0903	
	60	50	64	236	120	156	80	TOP-0904	
TOP 2061-65-50T2-11CA	61	50	69	249	130	169	80	-	SOMT 11… DP/DL/DK/DA D195-D196
	62	50	69	249	130	169	80	TOP-0901	
	63	50	69	249	130	169	80	TOP-0902	
	64	50	69	249	130	169	80	TOP-0903	
	65	50	69	249	130	169	80	TOP-0904	
TOP 2066-70-50T2-11CA	66	50	69	262	140	182	80	-	SOMT 11… DP/DL/DK/DA D195-D196
	67	50	69	262	140	182	80	TOP-0901	
	68	50	69	262	140	182	80	TOP-0902	
	69	50	69	262	140	182	80	TOP-0903	
	70	50	69	262	140	182	80	TOP-0904	
TOP 2071-75-50T2-13CA	71	50	74	275	150	195	80	-	SOMT 13… DP/DL/DK/DA D195-D196
	72	50	74	275	150	195	80	TOP-0901	
	73	50	74	275	150	195	80	TOP-0902	
	74	50	74	275	150	195	80	TOP-0903	
	75	50	74	275	150	195	80	TOP-0904	
TOP 2076-80-50T2-13CA	76	50	74	288	160	208	80	-	SOMT 13… DP/DL/DK/DA D195-D196
	77	50	74	288	160	208	80	TOP-0901	
	78	50	74	288	160	208	80	TOP-0902	
	79	50	74	288	160	208	80	TOP-0903	
	80	50	74	288	160	208	80	TOP-0904	

Cutting Condition D246

▸ OAL: LPR+LS

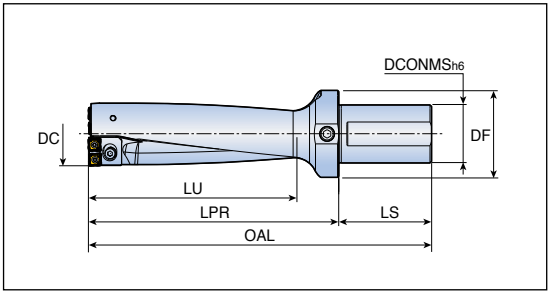
TOP 30…CA

Indexable drill holders for cartridge



• Drilling depth: 3xdiameter





Designation	Dimension (mm)							Setting Plate	Insert
	DC	DCONMS	DF	OAL	LU	LPR	LS		
TOP 3051-55-50T2-09CA	51	50	64	278	165	198	80	-	SOMT 09… DP/DL/DK/DA D195-D196
	52	50	64	278	165	198	80	TOP-0901	
	53	50	64	278	165	198	80	TOP-0902	
	54	50	64	278	165	198	80	TOP-0903	
	55	50	64	278	165	198	80	TOP-0904	
TOP 3056-60-50T2-11CA	56	50	64	296	180	216	80	-	SOMT 11… DP/DL/DK/DA D195-D196
	57	50	64	296	180	216	80	TOP-0901	
	58	50	64	296	180	216	80	TOP-0902	
	59	50	64	296	180	216	80	TOP-0903	
	60	50	64	296	180	216	80	TOP-0904	
TOP 3061-65-50T2-11CA	61	50	69	314	195	234	80	-	SOMT 11… DP/DL/DK/DA D195-D196
	62	50	69	314	195	234	80	TOP-0901	
	63	50	69	314	195	234	80	TOP-0902	
	64	50	69	314	195	234	80	TOP-0903	
	65	50	69	314	195	234	80	TOP-0904	
TOP 3066-70-50T2-11CA	66	50	69	332	210	252	80	-	SOMT 11… DP/DL/DK/DA D195-D196
	67	50	69	332	210	252	80	TOP-0901	
	68	50	69	332	210	252	80	TOP-0902	
	69	50	69	332	210	252	80	TOP-0903	
	70	50	69	332	210	252	80	TOP-0904	
TOP 3071-75-50T2-13CA	71	50	74	350	225	270	80	-	SOMT 13… DP/DL/DK/DA D195-D196
	72	50	74	350	225	270	80	TOP-0901	
	73	50	74	350	225	270	80	TOP-0902	
	74	50	74	350	225	270	80	TOP-0903	
	75	50	74	350	225	270	80	TOP-0904	
TOP 3076-80-50T2-13CA	76	50	74	368	240	288	80	-	SOMT 13… DP/DL/DK/DA D195-D196
	77	50	74	368	240	288	80	TOP-0901	
	78	50	74	368	240	288	80	TOP-0902	
	79	50	74	368	240	288	80	TOP-0903	
	80	50	74	368	240	288	80	TOP-0904	

Cutting Condition D246

▸ OAL: LPR+LS

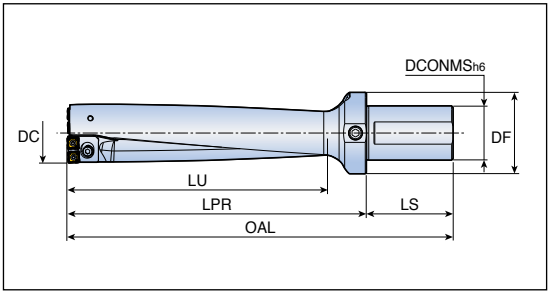
TOP 40…CA

Indexable drill holders for cartridge



• Drilling depth: 4xdiameter





Designation	Dimension (mm)							Setting Plate	Insert
	DC	DCONMS	DF	OAL	LU	LPR	LS		
TOP 4051-55-50T2-09CA	51	50	64	333	220	253	80	-	SOMT 09… DP/DL/DK/DA D195-D196
	52	50	64	333	220	253	80	TOP-0901	
	53	50	64	333	220	253	80	TOP-0902	
	54	50	64	333	220	253	80	TOP-0903	
	55	50	64	333	220	253	80	TOP-0904	
TOP 4056-60-50T2-11CA	56	50	64	356	240	276	80	-	SOMT 11… DP/DL/DK/DA D195-D196
	57	50	64	356	240	276	80	TOP-0901	
	58	50	64	356	240	276	80	TOP-0902	
	59	50	64	356	240	276	80	TOP-0903	
	60	50	64	356	240	276	80	TOP-0904	
TOP 4061-65-50T2-11CA	61	50	69	379	260	299	80	-	SOMT 11… DP/DL/DK/DA D195-D196
	62	50	69	379	260	299	80	TOP-0901	
	63	50	69	379	260	299	80	TOP-0902	
	64	50	69	379	260	299	80	TOP-0903	
	65	50	69	379	260	299	80	TOP-0904	
TOP 4066-70-50T2-11CA	66	50	69	402	280	322	80	-	SOMT 11… DP/DL/DK/DA D195-D196
	67	50	69	402	280	322	80	TOP-0901	
	68	50	69	402	280	322	80	TOP-0902	
	69	50	69	402	280	322	80	TOP-0903	
	70	50	69	402	280	322	80	TOP-0904	
TOP 4071-75-50T2-13CA	71	50	74	425	300	345	80	-	SOMT 13… DP/DL/DK/DA D195-D196
	72	50	74	425	300	345	80	TOP-0901	
	73	50	74	425	300	345	80	TOP-0902	
	74	50	74	425	300	345	80	TOP-0903	
	75	50	74	425	300	345	80	TOP-0904	
TOP 4076-80-50T2-13CA	76	50	74	448	320	368	80	-	SOMT 13… DP/DL/DK/DA D195-D196
	77	50	74	448	320	368	80	TOP-0901	
	78	50	74	448	320	368	80	TOP-0902	
	79	50	74	448	320	368	80	TOP-0903	
	80	50	74	448	320	368	80	TOP-0904	

Cutting Condition D246

▸ OAL: LPR+LS

Indexable drill holders for cartridge

Spare parts

Designation	Insert	Insert screw	Cartridge for peripheral	Cartridge for center
				
TOP ..51-55-50T2-09CA	SOMT 09	TS 35088I	TOP 09CA-P1	TOP 09CA-C1
TOP ..56-60-50T2-11CA	SOMT 09	TS 35088I	TOP 11CA-P1	TOP 11CA-C1
TOP ..61-65-50T2-11CA	SOMT 11	TS 35088I	TOP 11CA-P2	TOP 11CA-C2
TOP ..66-70-50T2-11CA	SOMT 11	TS 35088I	TOP 11CA-P3	TOP 11CA-C3
TOP ..71-75-50T2-13CA	SOMT 13	TS 40093I	TOP 13CA-P1	TOP 13CA-C1
TOP ..76-80-50T2-13CA	SOMT 13	TS 40093I	TOP 13CA-P2	TOP 13CA-C2

Spare parts for cartridge

Designation	Cartridge clamping screw	Washer	Setting plate screw
TOP 09CA-P1	SH M4x0.7x16	MW 4.3x8	TS 20043I/HG-P
TOP 09CA-C1	SH M4x0.7x16	MW 4.3x8	-
TOP 11CA-P1	SH M5x0.8x16	MW 5.5x10	TS 20043I/HG-P
TOP 11CA-C1	SH M5x0.8x16	MW 5.5x10	-
TOP 11CA-P2	SH M5x0.8x16	MW 5.5x10	TS 20043I/HG-P
TOP 11CA-C2	SH M5x0.8x16	MW 5.5x10	-
TOP 11CA-P3	SH M5x0.8x16	MW 5.5x10	TS 20043I/HG-P
TOP 11CA-C3	SH M5x0.8x16	MW 5.5x10	-
TOP 13CA-P1	SH M6x1.0x20	MW 6.4x12	TS 20043I/HG-P
TOP 13CA-C1	SH M6x1.0x20	MW 6.4x12	-
TOP 13CA-P2	SH M6x1.0x20	MW 6.4x12	TS 20043I/HG-P
TOP 13CA-C2	SH M6x1.0x20	MW 6.4x12	-

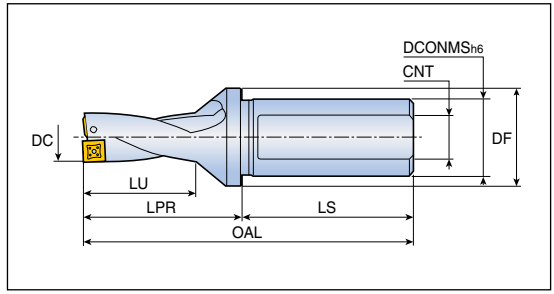
TDR 2...-T2

Indexable drill holders



• Drilling depth: 2xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TDR 2125-20T2-05	12.5	20	25	26	44	50	M13X1.0	SPMG 05...
2130-20T2-05	13.0	20	25	26	44	50	M13X1.0	DG/DK
2135-20T2-05	13.5	20	25	28	46	50	M13X1.0	SPGG 05..DA
2140-20T2-05	14.0	20	25	28	46	50	M13X1.0	D197-D198
2145-20T2-05	14.5	20	25	30	49	50	M13X1.0	
2150-20T2-05	15.0	20	25	30	49	50	M13X1.0	
2155-25T2-06	15.5	25	32	32	52	56	M16X1.5	SPMG 06...
2160-25T2-06	16.0	25	32	32	52	56	M16X1.5	DG/DK
2165-25T2-06	16.5	25	32	34	54	56	M16X1.5	SPGG 06..DA
2170-25T2-06	17.0	25	32	34	54	56	M16X1.5	D197-D198
2175-25T2-06	17.5	25	32	36	57	56	M16X1.5	
2180-25T2-06	18.0	25	32	36	57	56	M16X1.5	
2185-25T2-06	18.5	25	32	38	59	56	M16X1.5	
2190-25T2-06	19.0	25	32	38	59	56	M16X1.5	
2195-25T2-06	19.5	25	32	40	63	56	M16X1.5	
2200-25T2-06	20.0	25	32	40	63	56	M16X1.5	
2205-25T2-06	20.5	25	32	42	65	56	M16X1.5	
2210-25T2-06	21.0	25	32	42	65	56	M16X1.5	
2215-25T2-06	21.5	25	32	44	67	56	M16X1.5	
2220-25T2-07	22.0	25	32	44	67	56	M16X1.5	SPMG 07...
2225-25T2-07	22.5	25	32	46	71	56	M16X1.5	DG/DK
2225-32T2-07	22.5	32	40	46	71	60	M22X2.0	SPGG 07..DA
2230-25T2-07	23.0	25	32	46	71	56	M16X1.5	D197-D198
2230-32T2-07	23.0	32	40	46	71	60	M22X2.0	
2235-25T2-07	23.5	25	32	48	74	56	M16X1.5	
2235-32T2-07	23.5	32	40	48	74	60	M22X2.0	
2240-25T2-07	24.0	25	32	48	74	56	M16X1.5	
2240-32T2-07	24.0	32	40	48	74	60	M22X2.0	
2245-25T2-07	24.5	25	32	50	77	56	M16X1.5	
2245-32T2-07	24.5	32	40	50	77	60	M22X2.0	
2250-25T2-07	25.0	25	32	50	77	56	M16X1.5	
2250-32T2-07	25.0	32	40	50	77	60	M22X2.0	
2255-25T2-07	25.5	25	32	52	79	56	M16X1.5	
2255-32T2-07	25.5	32	40	52	79	60	M22X2.0	
2260-25T2-07	26.0	25	32	52	79	56	M16X1.5	

Cutting Condition D248

▸ OAL: LPR+LS

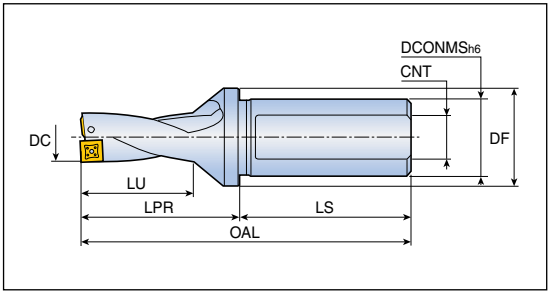
TDR 2...-T2

Indexable drill holders



• Drilling depth: 2xdiameter





Designation		Dimension (mm)							Insert
		DC	DCONMS	DF	LU	LPR	LS	CNT	
TDR	2260-32T2-07	26.0	32	40	52	79	60	M22X2.0	SPMG 07...
	2265-25T2-07	26.5	25	32	54	81	56	M16X1.5	DG/DK
	2265-32T2-07	26.5	32	40	54	81	60	M22X2.0	SPGG 07..DA
	2270-25T2-07	27.0	25	32	54	81	56	M16X1.5	D197-D198
	2270-32T2-07	27.0	32	40	54	81	60	M22X2.0	
	2275-25T2-07	27.5	25	32	56	84	56	Rc 1/8	
	2275-32T2-07	27.5	32	40	56	84	60	Rc 1/4	
	2280-25T2-09	28.0	25	40	56	84	56	Rc 1/8	SPMG 09...
	2280-32T2-09	28.0	32	40	56	84	60	Rc 1/4	DG/DK
	2285-25T2-09	28.5	25	40	58	86	56	Rc 1/8	SPGG 09..DA
	2285-32T2-09	28.5	32	40	58	86	60	Rc 1/4	D197-D198
	2290-25T2-09	29.0	25	40	58	86	56	Rc 1/8	
	2290-32T2-09	29.0	32	40	58	86	60	Rc 1/4	
	2295-32T2-09	29.5	32	40	60	91	60	Rc 1/4	
	2295-40T2-09	29.5	40	50	60	91	70	Rc 1/4	
	2300-32T2-09	30.0	32	40	60	91	60	Rc 1/4	
	2300-40T2-09	30.0	40	50	60	91	70	Rc 1/4	
	2305-32T2-09	30.5	32	40	62	94	60	Rc 1/4	
	2305-40T2-09	30.5	40	50	62	94	70	Rc 1/4	
	2310-32T2-09	31.0	32	40	62	94	60	Rc 1/4	
	2310-40T2-09	31.0	40	50	62	94	70	Rc 1/4	
	2315-32T2-09	31.5	32	40	64	96	60	Rc 1/4	
	2315-40T2-09	31.5	40	50	64	96	70	Rc 1/4	
	2320-32T2-09	32.0	32	40	64	96	60	Rc 1/4	
	2320-40T2-09	32.0	40	50	64	96	70	Rc 1/4	
	2325-32T2-09	32.5	32	40	66	99	60	Rc 1/4	
	2325-40T2-09	32.5	40	50	66	99	70	Rc 1/4	
	2330-32T2-09	33.0	32	40	66	99	60	Rc 1/4	
	2330-40T2-09	33.0	40	50	66	99	70	Rc 1/4	
	2340-32T2-11	34.0	32	50	68	101	60	Rc 1/4	SPMG 11...
	2340-40T2-11	34.0	40	55	68	101	70	Rc 1/4	DG/DK
	2350-32T2-11	35.0	32	50	70	104	60	Rc 1/4	SPGG 11..DA
	2350-40T2-11	35.0	40	55	70	104	70	Rc 1/4	D197-D198
	2360-32T2-11	36.0	32	50	72	107	60	Rc 1/4	
	2360-40T2-11	36.0	40	55	72	107	70	Rc 1/4	

Cutting Condition D248

▸ OAL: LPR+LS

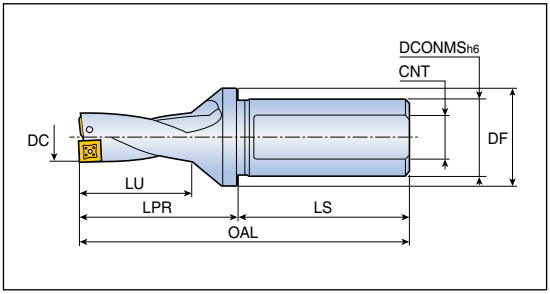
TDR 2...-T2

Indexable drill holders



• Drilling depth: 2xdiameter





Designation		Dimension (mm)							Insert
		DC	DCONMS	DF	LU	LPR	LS	CNT	
TDR	**2370-32T2-11**	37.0	32	50	74	110	60	Rc 1/4	SPMG 11...
	2370-40T2-11	37.0	40	55	74	110	70	Rc 1/4	DG/DK
	2380-32T2-11	38.0	32	50	76	113	60	Rc 1/4	SPGG 11..DA
	2380-40T2-11	38.0	40	55	76	113	70	Rc 1/4	D197-D198
	2390-32T2-11	39.0	32	50	78	115	60	Rc 1/4	
	2390-40T2-11	39.0	40	55	78	115	70	Rc 1/4	
	2400-32T2-11	40.0	32	50	80	118	60	Rc 1/4	
	2400-40T2-11	40.0	40	55	80	118	70	Rc 1/4	
	2410-40T2-11	41.0	40	55	82	121	70	Rc 1/4	
	2420-40T2-14	42.0	40	60	84	123	70	Rc 1/4	SPMG 14...
	2430-40T2-14	43.0	40	60	86	126	70	Rc 1/4	DG/DK
	2440-40T2-14	44.0	40	60	88	128	70	Rc 1/4	SPGG 14..DA
	2450-40T2-14	45.0	40	60	90	132	70	Rc 1/4	D197-D198
	2460-40T2-14	46.0	40	60	92	135	70	Rc 1/4	
	2470-40T2-14	47.0	40	60	94	137	70	Rc 1/4	
	2480-40T2-14	48.0	40	60	96	140	70	Rc 1/4	
	2490-40T2-14	49.0	40	60	98	142	70	Rc 1/4	
	2500-40T2-14	50.0	40	60	100	145	70	Rc 1/4	

▸ OAL: LPR+LS

Spare parts

Designation	Screw	Wrench	Plug*	
TDR 2125 - 2150	TS 20043I/HG-P	TD 6P	SL 20 M	
TDR 2155 - 2215	TS 22052I/HG	TD 7	SL 25 M	
TDR 2220 - 2270	TS 25064I	TD 8	SL 25 M / SL 32 M	
TDR 2275	TS 25064I	TD 8	-	
TDR 2280 - 2330	TS 35088I	TD 10	-	
TDR 2340 - 2390	TS 40093I	TD 15	-	
TDR 2400 - 2410	TS 40093I	TD 15	-	
TDR 2420 - 2500	SO 50090I	TD 20	-	

Cutting Condition D248

▸ *Notice: Cooling hole plug for lathe should be ordered separately
Order example) Plug for shank diameter 25.0mm: SL 25M

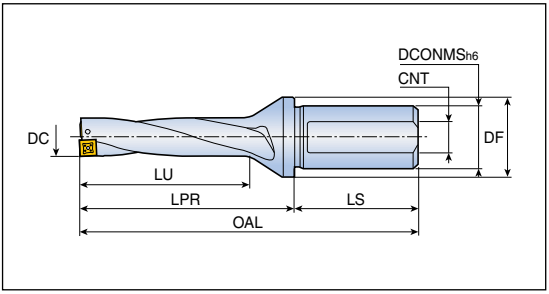
ADVANCeCUTTING TaeguTec

TDR 3...-T2

Indexable drill holders



• Drilling depth: 3xdiameter



Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TDR 3125-20T2-05	12.5	20	25	39	57	50	M13X1.0	SPMG 05...
3130-20T2-05	13.0	20	25	39	57	50	M13X1.0	DG/DK
3135-20T2-05	13.5	20	25	42	60	50	M13X1.0	SPGG 05..DA
3140-20T2-05	14.0	20	25	42	60	50	M13X1.0	D197-D198
3145-20T2-05	14.5	20	25	45	64	50	M13X1.0	
3150-20T2-05	15.0	20	25	45	64	50	M13X1.0	
3155-25T2-06	15.5	25	32	48	68	56	M16X1.5	SPMG 06...
3160-25T2-06	16.0	25	32	48	68	56	M16X1.5	DG/DK
3165-25T2-06	16.5	25	32	51	71	56	M16X1.5	SPGG 06..DA
3170-25T2-06	17.0	25	32	51	71	56	M16X1.5	D197-D198
3175-25T2-06	17.5	25	32	54	75	56	M16X1.5	
3180-25T2-06	18.0	25	32	54	75	56	M16X1.5	
3185-25T2-06	18.5	25	32	57	78	56	M16X1.5	
3190-25T2-06	19.0	25	32	57	78	56	M16X1.5	
3195-25T2-06	19.5	25	32	60	83	56	M16X1.5	
3200-25T2-06 *	20.0	25	32	60	83	56	M16X1.5	
3205-25T2-06	20.5	25	32	63	86	56	M16X1.5	
3209-25T2-06 *	20.9	25	32	63	86	56	M16X1.5	
3210-25T2-06	21.0	25	32	63	86	56	M16X1.5	
3215-25T2-06	21.5	25	32	66	89	56	M16X1.5	
3220-25T2-07	22.0	25	32	66	89	56	M16X1.5	SPMG 07...
3225-25T2-07	22.5	25	32	69	94	56	M16X1.5	DG/DK
3225-32T2-07	22.5	32	40	69	94	60	M22X2.0	SPGG 07..DA
3230-25T2-07	23.0	25	32	69	94	56	M16X1.5	D197-D198
3230-32T2-07	23.0	32	40	69	94	60	M22X2.0	
3235-25T2-07	23.5	25	32	72	98	56	M16X1.5	
3235-32T2-07	23.5	32	40	72	98	60	M22X2.0	
3239-25T2-07 *	23.9	25	32	72	98	56	M16X1.5	
3239-32T2-07 *	23.9	32	40	72	98	60	M22X2.0	
3240-25T2-07	24.0	25	32	72	98	56	M16X1.5	
3240-32T2-07	24.0	32	40	72	98	60	M22X2.0	
3245-25T2-07	24.5	25	32	75	102	56	M16X1.5	
3245-32T2-07	24.5	32	40	75	102	60	M22X2.0	
3250-25T2-07	25.0	25	32	75	102	56	M16X1.5	
3250-32T2-07	25.0	32	40	75	102	60	M22X2.0	

Cutting Condition D248

- *: Pre-thread hole making
- OAL: LPR+LS

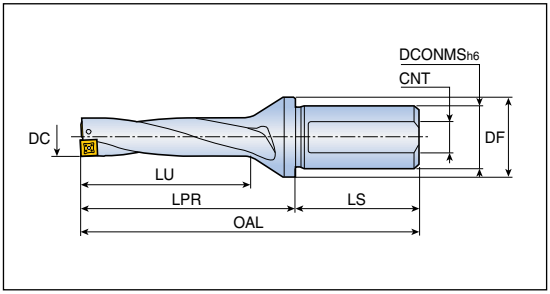
TDR 3...-T2

Indexable drill holders



• Drilling depth: 3xdiameter





Designation		Dimension (mm)							Insert
		DC	DCONMS	DF	LU	LPR	LS	CNT	
TDR	**3255-25T2-07**	25.5	25	32	78	105	56	M16X1.5	SPMG 07...
	3255-32T2-07	25.5	32	40	78	105	60	M22X2.0	DG/DK
	3260-25T2-07	26.0	25	32	78	105	56	M16X1.5	SPGG 07..DA
	3260-32T2-07	26.0	32	40	78	105	60	M22X2.0	D197-D198
	3264-25T2-07 *	26.4	25	45	81	108	56	M16X1.5	
	3264-32T2-07 *	26.4	32	45	81	108	60	M22X2.0	
	3265-25T2-07	26.5	25	32	81	108	56	M16X1.5	
	3265-32T2-07	26.5	32	40	81	108	60	M22X2.0	
	3270-25T2-07	27.0	25	32	81	108	56	M16X1.5	
	3270-32T2-07	27.0	32	40	81	108	60	M22X2.0	
	3275-25T2-07	27.5	25	32	84	112	56	Rc 1/8	
	3275-32T2-07	27.5	32	40	84	112	60	Rc 1/4	
	3280-25T2-09	28.0	25	40	84	112	56	Rc 1/8	SPMG 09...
	3280-32T2-09	28.0	32	40	84	112	60	Rc 1/4	DG/DK
	3285-25T2-09	28.5	25	40	87	115	56	Rc 1/8	SPGG 09..DA
	3285-32T2-09	28.5	32	40	87	115	56	Rc 1/4	D197-D198
	3290-25T2-09	29.0	25	40	87	115	56	Rc 1/8	
	3290-32T2-09	29.0	32	40	87	115	60	Rc 1/4	
	3294-32T2-09 *	29.4	32	55	90	121	60	Rc 1/4	
	3294-40T2-09 *	29.4	40	55	90	121	70	Rc 1/4	
	3295-32T2-09	29.5	32	40	90	121	60	Rc 1/4	
	3295-40T2-09	29.5	40	50	90	121	70	Rc 1/4	
	3300-32T2-09	30.0	32	40	90	121	60	Rc 1/4	
	3300-40T2-09	30.0	40	50	90	121	70	Rc 1/4	
	3305-32T2-09	30.5	32	40	93	125	60	Rc 1/4	
	3305-40T2-09	30.5	40	50	93	125	70	Rc 1/4	
	3310-32T2-09	31.0	32	40	93	125	60	Rc 1/4	
	3310-40T2-09	31.0	40	50	93	125	70	Rc 1/4	
	3315-32T2-09	31.5	32	40	96	128	60	Rc 1/4	
	3315-40T2-09	31.5	40	50	96	128	70	Rc 1/4	
	3320-32T2-09	32.0	32	40	96	128	60	Rc 1/4	
	3320-40T2-09	32.0	40	50	96	128	70	Rc 1/4	

Cutting Condition D248

- *: Pre-thread hole making
- OAL: LPR+LS

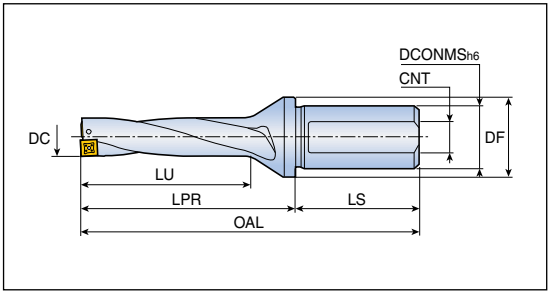
TDR 3...-T2

Indexable drill holders



• Drilling depth: 3xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TDR 3325-32T2-09	32.5	32	40	99	132	60	Rc 1/4	SPMG 09... DG/DK SPGG 09..DA D197-D198
3325-40T2-09	32.5	40	50	99	132	70	Rc 1/4	
3330-32T2-09	33.0	32	40	99	132	60	Rc 1/4	
3330-40T2-09	33.0	40	50	99	132	70	Rc 1/4	
3340-32T2-11	34.0	32	50	102	135	60	Rc 1/4	SPMG 11... DG/DK SPGG 09..DA D197-D198
3340-40T2-11	34.0	40	55	102	135	70	Rc 1/4	
3350-32T2-11	35.0	32	50	105	139	60	Rc 1/4	
3350-40T2-11	35.0	40	55	105	139	70	Rc 1/4	
3360-32T2-11	36.0	32	50	108	143	60	Rc 1/4	
3360-40T2-11	36.0	40	55	108	143	70	Rc 1/4	
3370-32T2-11	37.0	32	50	111	147	60	Rc 1/4	
3370-40T2-11	37.0	40	55	111	147	70	Rc 1/4	
3375-32T2-11 *	37.5	32	55	114	151	60	Rc 1/4	
3375-40T2-11 *	37.5	40	55	114	151	70	Rc 1/4	
3380-32T2-11	38.0	32	50	114	151	60	Rc 1/4	
3380-40T2-11	38.0	40	55	114	151	70	Rc 1/4	
3390-32T2-11	39.0	32	50	117	154	60	Rc 1/4	
3390-40T2-11	39.0	40	55	117	154	70	Rc 1/4	
3400-32T2-11	40.0	32	50	120	158	60	Rc 1/4	
3400-40T2-11	40.0	40	55	120	158	70	Rc 1/4	
3405-40T2-11 *	40.5	40	60	123	162	70	Rc 1/4	
3410-40T2-11	41.0	40	55	123	162	70	Rc 1/4	

Cutting Condition D248

- *: Pre-thread hole making
- OAL: LPR+LS

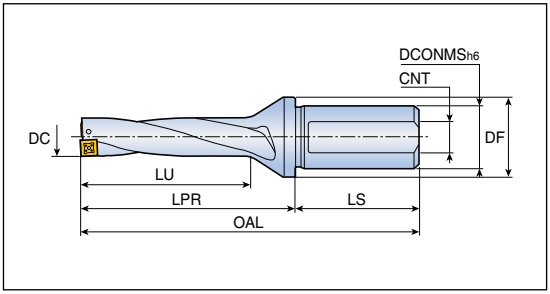
TDR 3...-T2

Indexable drill holders



• Drilling depth: 3xdiameter





Designation		Dimension (mm)							Insert
		DC	DCONMS	DF	LU	LPR	LS	CNT	
TDR	**3420-40T2-14**	42.0	40	60	126	165	70	Rc 1/4	SPMG 14...
	3430-40T2-14	43.0	40	60	129	169	70	Rc 1/4	DG/DK
	3440-40T2-14	44.0	40	60	132	172	70	Rc 1/4	SPGG 14..DA
	3450-40T2-14	45.0	40	60	135	177	70	Rc 1/4	D197-D198
	3460-40T2-14	46.0	40	60	138	181	70	Rc 1/4	
	3470-40T2-14	47.0	40	60	141	184	70	Rc 1/4	
	3480-40T2-14	48.0	40	60	144	188	70	Rc 1/4	
	3490-40T2-14	49.0	40	60	147	191	70	Rc 1/4	
	3500-40T2-14	50.0	40	60	150	195	70	Rc 1/4	

▸ OAL: LPR+LS

Spare parts

Designation	Screw	Wrench	Plug*	
				
TDR 3125 - 3150	TS 20043I/HG-P	TD 6P	SL 20 M	
TDR 3155 - 3215	TS 22052I/HG	TD 7	SL 25 M	
TDR 3220 - 3270	TS 25064I	TD 8	SL 25 M / SL 32 M	
TDR 3275	TS 25064I	TD 8	-	
TDR 3280 - 3330	TS 35088I	TD 10	-	
TDR 3340 - 3390	TS 40093I	TD 15	-	
TDR 3400 - 3410	TS 40093I	TD 15	-	
TDR 3420 - 3500	SO 50090I	TD 20	-	

Cutting Condition D248

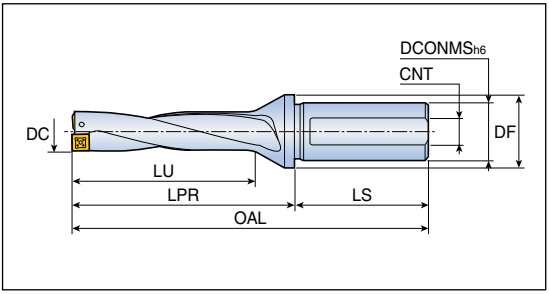
▸ *Notice: Cooling hole plug for lathe should be ordered separately
Order example) Plug for shank diameter 25.0mm : SL 25M

TDR 4...-T2

Indexable drill holders



• Drilling depth: 4xdiameter



Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TDR 4125-20T2-05	12.5	20	25	52	70	50	M13X1.0	SPMG 05...
4130-20T2-05	13.0	20	25	52	70	50	M13X1.0	DG/DK
4135-20T2-05	13.5	20	25	56	74	50	M13X1.0	SPGG 05..DA
4140-20T2-05	14.0	20	25	56	74	50	M13X1.0	D197-D198
4145-20T2-05	14.5	20	25	60	79	50	M13X1.0	
4150-20T2-05	15.0	20	25	60	79	50	M13X1.0	
4155-25T2-06	15.5	25	32	64	84	56	M16X1.5	SPMG 06...
4160-25T2-06	16.0	25	32	64	84	56	M16X1.5	DG/DK
4165-25T2-06	16.5	25	32	68	88	56	M16X1.5	SPGG 06..DA
4170-25T2-06	17.0	25	32	68	88	56	M16X1.5	D197-D198
4175-25T2-06	17.5	25	32	72	93	56	M16X1.5	
4180-25T2-06	18.0	25	32	72	93	56	M16X1.5	
4185-25T2-06	18.5	25	32	76	97	56	M16X1.5	
4190-25T2-06	19.0	25	32	76	97	56	M16X1.5	
4195-25T2-06	19.5	25	32	80	103	56	M16X1.5	
4200-25T2-06	20.0	25	32	80	103	56	M16X1.5	
4205-25T2-06	20.5	25	32	84	107	56	M16X1.5	
4210-25T2-06	21.0	25	32	84	107	56	M16X1.5	
4215-25T2-06	21.5	25	32	88	111	56	M16X1.5	
4220-25T2-07	22.0	25	32	88	111	56	M16X1.5	SPMG 07...
4225-25T2-07	22.5	25	32	92	117	56	M16X1.5	DG/DK
4225-32T2-07	22.5	32	40	92	117	60	M22X2.0	SPGG 07..DA
4230-25T2-07	23.0	25	32	92	117	56	M16X1.5	D197-D198
4230-32T2-07	23.0	32	40	92	117	60	M22X2.0	
4235-25T2-07	23.5	25	32	96	122	56	M16X1.5	
4235-32T2-07	23.5	32	40	96	122	60	M22X2.0	
4240-25T2-07	24.0	25	32	96	122	56	M16X1.5	
4240-32T2-07	24.0	32	40	96	122	60	M22X2.0	
4245-25T2-07	24.5	25	32	100	127	56	M16X1.5	
4245-32T2-07	24.5	32	40	100	127	60	M22X2.0	
4250-25T2-07	25.0	25	32	100	127	56	M16X1.5	
4250-32T2-07	25.0	32	40	100	127	60	M22X2.0	
4255-25T2-07	25.5	25	32	104	131	56	M16X1.5	
4255-32T2-07	25.5	32	40	104	131	60	M22X2.0	
4260-25T2-07	26.0	25	32	104	131	56	M16X1.5	

Cutting Condition D248

▸ OAL: LPR+LS

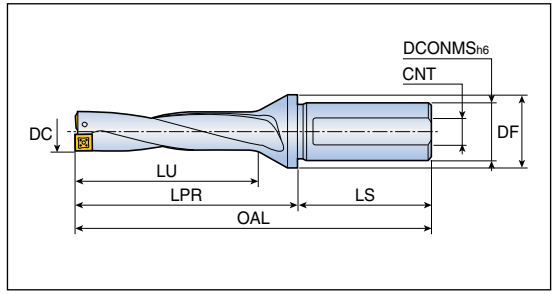
TDR 4...-T2

Indexable drill holders



• Drilling depth: 4xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TDR 4260-32T2-07	26.0	32	40	104	131	60	M22X2.0	SPMG 07...
4265-25T2-07	26.5	25	32	108	135	56	M16X1.5	DG/DK
4265-32T2-07	26.5	32	40	108	135	60	M22X2.0	SPGG 07..DA
4270-25T2-07	27.0	25	32	108	135	56	M16X1.5	D197-D198
4270-32T2-07	27.0	32	40	108	135	60	M22X2.0	
4275-25T2-07	27.5	25	32	112	140	56	Rc 1/8	
4275-32T2-07	27.5	32	40	112	140	60	Rc 1/4	
4280-25T2-09	28.0	25	40	112	140	56	Rc 1/8	SPMG 09...
4280-32T2-09	28.0	32	40	112	140	60	Rc 1/4	DG/DK
4285-25T2-09	28.5	25	40	116	144	56	Rc 1/8	SPGG 09..DA
4285-32T2-09	28.5	32	40	116	144	60	Rc 1/4	D197-D198
4290-25T2-09	29.0	25	40	116	144	56	Rc 1/8	
4290-32T2-09	29.0	32	40	116	144	60	Rc 1/4	
4295-32T2-09	29.5	32	40	120	151	60	Rc 1/4	
4295-40T2-09	29.5	40	50	120	151	70	Rc 1/4	
4300-32T2-09	30.0	32	40	120	151	60	Rc 1/4	
4300-40T2-09	30.0	40	50	120	151	70	Rc 1/4	
4305-32T2-09	30.5	32	40	124	156	60	Rc 1/4	
4305-40T2-09	30.5	40	50	124	156	70	Rc 1/4	
4310-32T2-09	31.0	32	40	124	156	60	Rc 1/4	
4310-40T2-09	31.0	40	50	124	156	70	Rc 1/4	
4315-32T2-09	31.5	32	40	128	160	60	Rc 1/4	
4315-40T2-09	31.5	40	50	128	160	70	Rc 1/4	
4320-32T2-09	32.0	32	40	128	160	60	Rc 1/4	
4320-40T2-09	32.0	40	50	128	160	70	Rc 1/4	
4325-32T2-09	32.5	32	40	132	165	60	Rc 1/4	
4325-40T2-09	32.5	40	50	132	165	70	Rc 1/4	
4330-32T2-09	33.0	32	40	132	165	60	Rc 1/4	
4330-40T2-09	33.0	40	50	132	165	70	Rc 1/4	
4340-32T2-11	34.0	32	50	136	169	60	Rc 1/4	SPMG 11...
4340-40T2-11	34.0	40	55	136	169	70	Rc 1/4	DG/DK
4350-32T2-11	35.0	32	50	140	174	60	Rc 1/4	SPGG 11..DA
4350-40T2-11	35.0	40	55	140	174	70	Rc 1/4	D197-D198
4360-32T2-11	36.0	32	50	144	179	60	Rc 1/4	
4360-40T2-11	36.0	40	55	144	179	70	Rc 1/4	

Cutting Condition D248

▸ OAL: LPR+LS

ADVANCE CUTTING TaeguTec

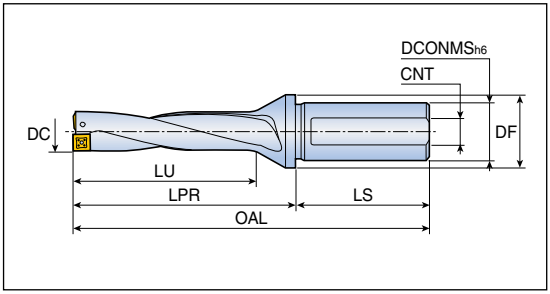
TDR 4...-T2

Indexable drill holders



• Drilling depth: 4xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TDR 4370-32T2-11	37.0	32	50	148	184	60	Rc 1/4	SPMG 11...
4370-40T2-11	37.0	40	55	148	184	70	Rc 1/4	DG/DK
4380-32T2-11	38.0	32	50	152	189	60	Rc 1/4	SPGG 11..DA
4380-40T2-11	38.0	40	55	152	189	70	Rc 1/4	D197-D198
4390-32T2-11	39.0	32	50	156	193	60	Rc 1/4	
4390-40T2-11	39.0	40	55	156	193	70	Rc 1/4	
4400-32T2-11	40.0	32	50	160	198	60	Rc 1/4	
4400-40T2-11	40.0	40	55	160	198	70	Rc 1/4	
4410-40T2-11	41.0	40	55	164	203	70	Rc 1/4	
4420-40T2-14	42.0	40	60	168	207	70	Rc 1/4	SPMG 14...
4430-40T2-14	43.0	40	60	172	212	70	Rc 1/4	DG/DK
4440-40T2-14	44.0	40	60	176	216	70	Rc 1/4	SPGG 14..DA
4450-40T2-14	45.0	40	60	180	222	70	Rc 1/4	D197-D198
4460-40T2-14	46.0	40	60	184	227	70	Rc 1/4	
4470-40T2-14	47.0	40	60	188	231	70	Rc 1/4	
4480-40T2-14	48.0	40	60	192	236	70	Rc 1/4	
4490-40T2-14	49.0	40	60	196	240	70	Rc 1/4	
4500-40T2-14	50.0	40	60	200	245	70	Rc 1/4	

▸ OAL = LPR+LS

Spare parts

Designation	Screw	Wrench	Plug*	
TDR 4125 - 4150	TS 20043I/HG-P	TD 6P	SL 20 M	
TDR 4155 - 4215	TS 22052I/HG	TD 7	SL 25 M	
TDR 4220 - 4270	TS 25064I	TD 8	SL 25 M / SL 32 M	
TDR 4275	TS 25064I	TD 8	-	
TDR 4280 - 4330	TS 35088I	TD 10	-	
TDR 4340 - 4390	TS 40093I	TD 15	-	
TDR 4400 - 4410	TS 40093I	TD 15	-	
TDR 4420 - 4500	SO 50090I	TD 20	-	

Cutting Condition D248

▸ *Notice: Cooling hole plug for lathe should be ordered separately
Order example) Plug for shank diameter 25.0mm: SL 25M

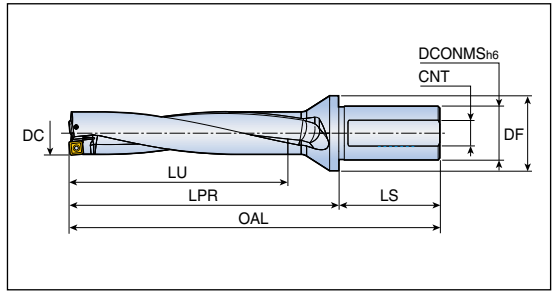
TDR 5...-T2

Indexable drill holders



• Drilling depth: 5xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TDR 5125-20T2-05	12.5	20	25	65	83	50	M13X1.0	SPMG 05...
5130-20T2-05	13.0	20	25	65	83	50	M13X1.0	DG/DK
5135-20T2-05	13.5	20	25	70	88	50	M13X1.0	SPGG 05..DA
5140-20T2-05	14.0	20	25	70	88	50	M13X1.0	D197-D198
5145-20T2-05	14.5	20	25	75	94	50	M13X1.0	
5150-20T2-05	15.0	20	25	75	94	50	M13X1.0	
5155-25T2-06	15.5	25	32	80	100	56	M16X1.5	SPMG 06...
5160-25T2-06	16.0	25	32	80	100	56	M16X1.5	DG/DK
5165-25T2-06	16.5	25	32	85	105	56	M16X1.5	SPGG 06..DA
5170-25T2-06	17.0	25	32	85	105	56	M16X1.5	D197-D198
5175-25T2-06	17.5	25	32	90	111	56	M16X1.5	
5180-25T2-06	18.0	25	32	90	111	56	M16X1.5	
5185-25T2-06	18.5	25	32	95	116	56	M16X1.5	
5190-25T2-06	19.0	25	32	95	116	56	M16X1.5	
5195-25T2-06	19.5	25	32	100	123	56	M16X1.5	
5200-25T2-06	20.0	25	32	100	123	56	M16X1.5	
5205-25T2-06	20.5	25	32	105	128	56	M16X1.5	
5210-25T2-06	21.0	25	32	105	128	56	M16X1.5	
5215-25T2-06	21.5	25	32	110	133	56	M16X1.5	
5220-25T2-07	22.0	25	32	110	133	56	M22X2.0	SPMG 07...
5225-32T2-07	22.5	32	40	115	140	60	M22X2.0	DG/DK
5230-32T2-07	23.0	32	40	115	140	60	M22X2.0	SPGG 07..DA
5235-32T2-07	23.5	32	40	120	146	60	M22X2.0	D197-D198
5240-32T2-07	24.0	32	40	120	146	60	M22X2.0	
5245-32T2-07	24.5	32	40	125	152	60	M22X2.0	
5250-32T2-07	25.0	32	40	125	152	60	M22X2.0	
5255-32T2-07	25.5	32	40	130	157	60	M22X2.0	
5260-32T2-07	26.0	32	40	130	157	60	M22X2.0	
5265-32T2-07	26.5	32	40	135	162	60	M22X2.0	
5270-32T2-07	27.0	32	40	135	162	60	M22X2.0	
5275-32T2-07	27.5	32	40	140	168	60	Rc 1/4	

Cutting Condition D250

▸ OAL: LPR+LS

ADVANCE CUTTING TaeguTec

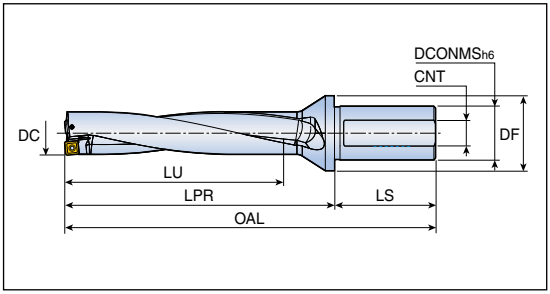
TDR 5...-T2

Indexable drill holders



• Drilling depth: 5xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TDR 5280-32T2-09	28.0	32	40	140	168	60	Rc 1/4	SPMG 09...
5285-32T2-09	28.5	32	40	145	173	60	Rc 1/4	DG/DK
5290-32T2-09	29.0	32	40	145	173	60	Rc 1/4	SPGG 09..DA
5295-32T2-09	29.5	32	40	150	181	60	Rc 1/4	D197-D198
5300-32T2-09	30.0	32	40	150	181	60	Rc 1/4	
5300-40T2-09	30.0	40	50	150	181	70	Rc 1/4	
5310-32T2-09	31.0	32	40	155	187	60	Rc 1/4	
5310-40T2-09	31.0	40	50	155	187	70	Rc 1/4	
5320-32T2-09	32.0	32	40	160	192	60	Rc 1/4	
5320-40T2-09	32.0	40	50	160	192	70	Rc 1/4	
5330-32T2-09	33.0	32	40	165	198	60	Rc 1/4	
5330-40T2-09	33.0	40	50	165	198	70	Rc 1/4	
5340-32T2-11	34.0	32	50	170	203	60	Rc 1/4	SPMG 11...
5340-40T2-11	34.0	40	55	170	203	70	Rc 1/4	DG/DK
5350-32T2-11	35.0	32	50	175	209	60	Rc 1/4	SPGG 11..DA
5350-40T2-11	35.0	40	55	175	209	70	Rc 1/4	D197-D198
5360-32T2-11	36.0	32	50	180	215	60	Rc 1/4	
5360-40T2-11	36.0	40	55	180	215	70	Rc 1/4	
5370-32T2-11	37.0	32	50	185	221	60	Rc 1/4	
5370-40T2-11	37.0	40	55	185	221	70	Rc 1/4	
5380-32T2-11	38.0	32	50	190	227	60	Rc 1/4	
5380-40T2-11	38.0	40	55	190	227	70	Rc 1/4	
5390-32T2-11	39.0	32	50	195	232	60	Rc 1/4	
5390-40T2-11	39.0	40	55	195	232	70	Rc 1/4	
5400-32T2-11	40.0	32	50	200	238	60	Rc 1/4	
5400-40T2-11	40.0	40	55	200	238	70	Rc 1/4	
5410-40T2-11	41.0	40	55	205	244	70	Rc 1/4	

Cutting Condition D250

▸ OAL: LPR+LS

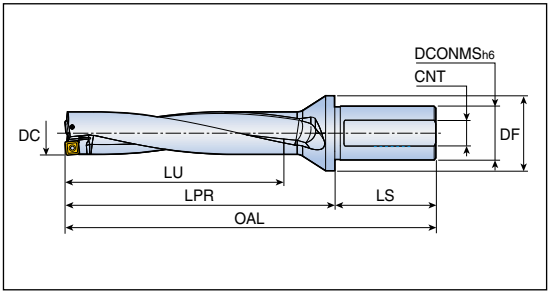
TDR 5...-T2

Indexable drill holders



• Drilling depth: 5xdiameter





Designation	Dimension (mm)							Insert
	DC	DCONMS	DF	LU	LPR	LS	CNT	
TDR 5420-40T2-14	42.0	40	60	210	249	70	Rc 1/4	SPMG 14...
5430-40T2-14	43.0	40	60	215	255	70	Rc 1/4	DG/DK
5440-40T2-14	44.0	40	60	220	260	70	Rc 1/4	SPGG 14..DA
5450-40T2-14	45.0	40	60	225	267	70	Rc 1/4	D197-D198
5460-40T2-14	46.0	40	60	230	273	70	Rc 1/4	
5470-40T2-14	47.0	40	60	235	278	70	Rc 1/4	
5480-40T2-14	48.0	40	60	240	284	70	Rc 1/4	
5490-40T2-14	49.0	40	60	245	289	70	Rc 1/4	
5500-40T2-14	50.0	40	60	250	295	70	Rc 1/4	

▸ OAL: LPR+LS

Spare parts

Designation	Screw	Wrench	Plug*	
TDR 5125 - 5150	TS 20043I/HG-P	TD 6P	SL 20 M	
TDR 5155 - 5215	TS 22052I/HG	TD 7	SL 25 M	
TDR 5220 - 5270	TS 25064I	TD 8	SL 25 M / SL 32 M	
TDR 5275	TS 25064I	TD 8	-	
TDR 5280 - 5330	TS 35088I	TD 10	-	
TDR 5340 - 5390	TS 40093I	TD 15	-	
TDR 5400 - 5410	TS 40093I	TD 15	-	
TDR 5420 - 5500	SO 50090I	TD 20	-	

Cutting Condition D250

▸ *Notice: Cooling hole plug for lathe should be ordered separately
Order example) Plug for shank diameter 25.0mm: SL 25M

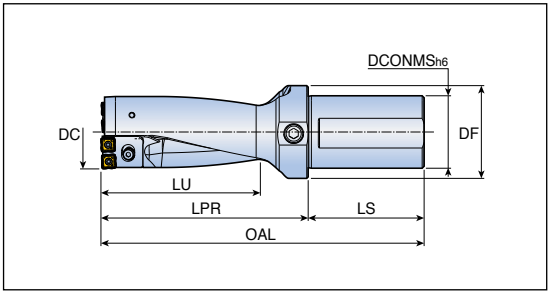
TDR 25...CA-T

Indexable cartridge drill holders



• Drilling depth: 2.5xdiameter





Designation	Dimension (mm)						Setting plate	Insert
	DC	DCONMS	DF	LU	LPR	LS		
TDR 2551-53-50T2-07CA-T	51	50	64	133	170	80	-	SPMG 07... DG/DK SPGG 07..DA D197-D198
	52	50	64	133	170	80	TDP-0701	
	53	50	64	133	170	80	TDP-0702	
2554-56-50T2-07CA-T	54	50	64	140	180	80	-	SPMG 07... DG/DK SPGG 07..DA D197-D198
	55	50	64	140	180	80	TDP-0701	
	56	50	64	140	180	80	TDP-0702	
2557-62-50T2-09CA-T	57	50	64	155	201	80	-	SPMG 09... DG/DK SPGG 09..DA D197-D198
	58	50	64	155	201	80	TDP-0901	
	59	50	64	155	201	80	TDP-0902	
	60	50	64	155	201	80	TDP-0903	
	61	50	64	155	201	80	TDP-0904	
	62	50	64	155	201	80	TDP-0905	
2563-66-50T2-09CA-T	63	50	69	165	215	80	-	SPMG 09... DG/DK SPGG 09..DA D197-D198
	64	50	69	165	215	80	TDP-0901	
	65	50	69	165	215	80	TDP-0902	
	66	50	69	165	215	80	TDP-0903	
2567-73-50T2-11CA-T	67	50	69	183	240	80	-	SPMG 11... DG/DK SPGG 11..DA D197-D198
	68	50	69	183	240	80	TDP-1101	
	69	50	69	183	240	80	TDP-1102	
	70	50	69	183	240	80	TDP-1103	
	71	50	69	183	240	80	TDP-1104	
	72	50	69	183	240	80	TDP-1105	
	73	50	69	183	240	80	TDP-1106	
2574-80-50T2-12CA-T	74	50	74	200	250	80	-	SPMG 12...DG D197
	75	50	74	200	250	80	TDP-1101	
	76	50	74	200	250	80	TDP-1102	
	77	50	74	200	250	80	TDP-1103	
	78	50	74	200	250	80	TDP-1104	
	79	50	74	200	250	80	TDP-1105	
	80	50	74	200	250	80	TDP-1106	

Cutting Condition D252

▸ OAL: LPR+LS

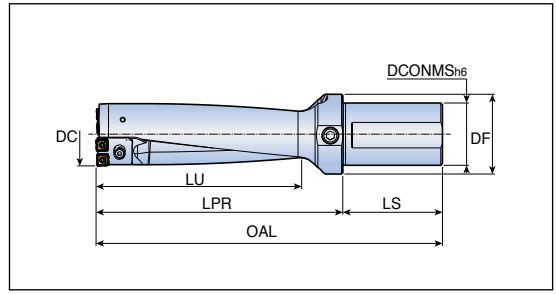
TDR 35...CA-T

Indexable cartridge drill holders



• Drilling depth: 3.5xdiameter





Designation	Dimension (mm)						Setting plate	Insert
	DC	DCONMS	DF	LU	LPR	LS		
TDR 3551-53-50T2-07CA-T	51	50	64	186	223	80	-	SPMG 07... DG/DK SPGG 07..DA D197-D198
	52	50	75	186	223	80	TDP-0701	
	53	50	75	186	223	80	TDP-0702	
3554-56-50T2-07CA-T	54	50	75	196	236	80	-	SPMG 07... DG/DK SPGG 07..DA D197-D198
	55	50	75	196	236	80	TDP-0701	
	56	50	75	196	236	80	TDP-0702	
3557-62-50T2-09CA-T	57	50	75	217	263	80	-	SPMG 09... DG/DK SPGG 09..DA D197-D198
	58	50	75	217	263	80	TDP-0901	
	59	50	75	217	263	80	TDP-0902	
	60	50	75	217	263	80	TDP-0903	
	61	50	75	217	263	80	TDP-0904	
	62	50	75	217	263	80	TDP-0905	
3563-66-50T2-09CA-T	63	50	75	231	281	80	-	SPMG 09... DG/DK SPGG 09..DA D197-D198
	64	50	75	231	281	80	TDP-0901	
	65	50	75	231	281	80	TDP-0902	
	66	50	75	231	281	80	TDP-0903	
3567-73-50T2-11CA-T	67	50	75	256	313	80	-	SPMG 11... DG/DK SPGG 11..DA D197-D198
	68	50	75	256	313	80	TDP-1101	
	69	50	75	256	313	80	TDP-1102	
	70	50	75	256	313	80	TDP-1103	
	71	50	75	256	313	80	TDP-1104	
	72	50	75	256	313	80	TDP-1105	
	73	50	75	256	313	80	TDP-1106	

Cutting Condition D252

▸ OAL: LPR+LS

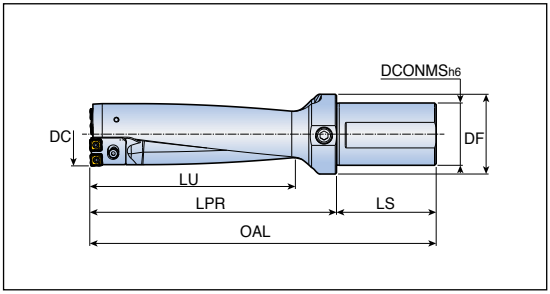
TDR 35...CA-T

Indexable cartridge drill holders



• Drilling depth: 3.5xdiameter





Designation	Dimension (mm)						Setting plate	Insert
	DC	DCONMS	DF	LU	LPR	LS		
TDR 3574-80-50T2-12CA-T	74	50	75	280	330	80	-	SPMG 12...DG
	75	50	75	280	330	80	TDP-1101	D197
	76	50	75	280	330	80	TDP-1102	
	77	50	75	280	330	80	TDP-1103	
	78	50	75	280	330	80	TDP-1104	
	79	50	75	280	330	80	TDP-1105	
	80	50	75	280	330	80	TDP-1106	

▸ OAL: LPR+LS

Spare parts

Designation	Screw	Cartridge for peripheral	Cartridge for center
			
TDR.. 51-53...	TS 25064I	TDR 07CA-P1-T	TDR 07CA-C1-T
TDR.. 54-56...	TS 25064I	TDR 07CA-P2-T	TDR 07CA-C2-T
TDR.. 57-62...	TS 35088I	TDR 09CA-P1-T	TDR 09CA-C1-T
TDR.. 63-66...	TS 35088I	TDR 09CA-P2-T	TDR 09CA-C2-T
TDR.. 67-73...	TS 40093I	TDR 11CA-P1-T	TDR 11CA-C1-T
TDR.. 74-80...	TS 40093I	TDR 12CA-P2-T	TDR 12CA-C2-T

Spare parts for cartridges

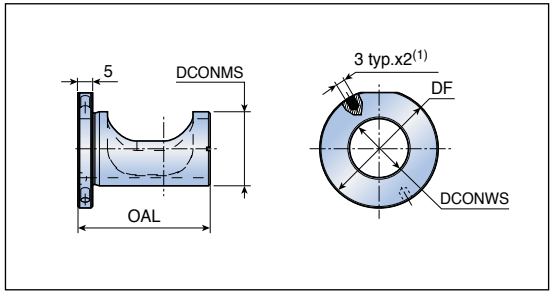
Designation	Cartridge clamping screw	Washer	Setting plate screw
TDR 07CA-P1-T	SH M4x0.7x16	MW 4.3x8	TS 20043I/HG-P
TDR 07CA-C1-T	SH M4x0.7x16	MW 4.3x8	-
TDR 07CA-P2-T	SH M4x0.7x16	MW 4.3x8	TS 20043I/HG-P
TDR 07CA-C2-T	SH M4x0.7x16	MW 4.3x8	-
TDR 09CA-P1-T	SH M5x0.8x16	MW 5.5x10	SO 30055I
TDR 09CA-C1-T	SH M5x0.8x16	MW 5.5x10	-
TDR 09CA-P2-T	SH M5x0.8x16	MW 5.5x10	SO 30055I
TDR 09CA-C2-T	SH M5x0.8x16	MW 5.5x10	-
TDR 11CA-P1-T	SH M6x1.0x20	MW 6.4x12	SO 30055I
TDR 11CA-C1-T	SH M6x1.0x20	MW 6.4x12	-
TDR 12CA-P2-T	SH M6x1.0x20	MW 6.4x12	SO 30055I
TDR 12CA-C2-T	SH M6x1.0x20	MW 6.4x12	-

Cutting Condition D252

ECCENTER SLEEVE

Drill center adjustment sleeves / eccentric sleeve





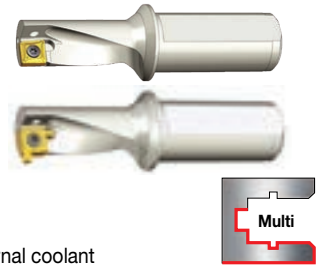
Designation	Dimension (mm)			
	DCONWS	DCONMS	DF	OAL
ECCENTER SLEEVE 20x25	20	25	40	44
25x32	25	32	50	46
32x40	32	40	65	55
40x50	40	50	75	62

▸ (1) Holes for inserting a pin are used to facilitate radial adjustment of the sleeve (Pin is not supplied)

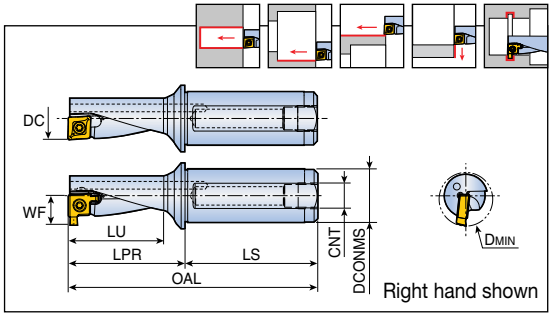
TCAP...-2.25DN

TOPCAP

Multi-functioan toolholders - 2.25xD



• Internal coolant



Designation	Dimension (mm)								Insert	
	DC	DCONMS	WF	LU	LPR	LS	DMIN	CNT	For drilling, boring, turning	For grooving
TCAP 08R/L-2.25DN	8	12	-	18.0	22.5	42	-	G 1/16	XCM(G)T 04...TC/TA	-
10R/L-2.25DN-GV	10	12	7.1	22.5	27.5	42	12.0	G 1/16	XCM(G)T 05...TC/TA	XCMT 05R...GV
12R/L-2.25DN-GV	12	16	8.5	27.0	33.0	45	14.5	G 1/8	XCM(G)T 06...TC/TA	XCMT 06R...GV
14R/L-2.25DN-GV	14	16	9.5	31.5	38.5	45	16.5	G 1/8	XCM(G)T 07...TC/TA	XCMT 07R...GV
16R/L-2.25DN-GV	16	20	11.1	36.0	44.0	50	19.0	G 1/8	XCM(G)T 08...TC/TA	XCMT 08R...GV
20R/L-2.25DN-GV	20	25	13.2	45.0	55.0	56	23.5	G 1/8	XCM(G)T 10...TC/TA	XCMT 10R...GV
25R/L-2.25DN-GV	25	32	16.5	56.2	69.0	61	29.0	G 1/8	XCM(G)T 13...TC/TA	XCMT 13R...GV
32R/L-2.25DN-GV	32	40	20.5	72.0	86.0	74	36.5	G 1/8	XCM(G)T 17...TC/TA	XCMT 17R...GV
									D225-D226	D225

▸ OAL: LPR+LS
▸ Grooving insert is available for right handed type

Spare parts

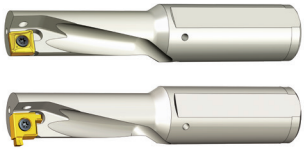
Designation	Screw	Wrench		
				
TCAP 08	TS 18034I/HG-P	T 6P	-	
TCAP 10	TS 20038I/HG-P	T 6P	-	
TCAP 12	TS 22052I/HG-P	T 7P	-	
TCAP 14	TS 25064I/HG-P	T 8P	-	
TCAP 16	TS 30100I/HG-P	-	TD 9P	
TCAP 20	TS 35088I/HG-P	-	TD10P	
TCAP 25	TS 45A100I/HG	-	TD 20	
TCAP 32	TS 45A100I/HG	-	TD 20	

Cutting Condition D254

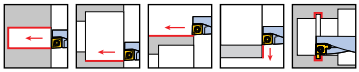
TCAP...-3.0DN

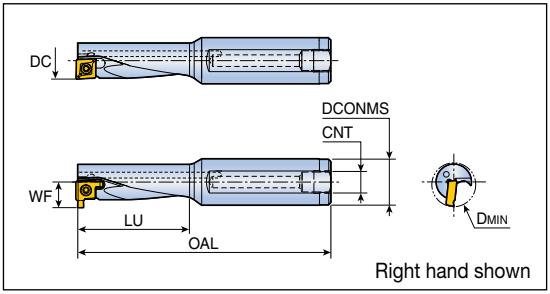
TOPCAP

Multi-function toolholders - 3.0xD



• Internal coolant





Designation	Dimension (mm)							Insert	
	DC	DCONMS	WF	LU	OAL	DMIN	CNT	For drilling, boring, turning	For grooving
TCAP 08R/L-3.0DN12	8	12	-	24	80	-	G 1/16	XCM(G)T 04...TC/TA	-
10R/L-3.0DN-GV	10	12	7.1	30	85	12.0	G 1/16	XCM(G)T 05...TC/TA	XCMT 05R...GV
12R/L-3.0DN-GV	12	16	8.5	36	95	14.5	G 1/8	XCM(G)T 06...TC/TA	XCMT 06R...GV
14R/L-3.0DN-GV	14	16	9.5	42	100	16.5	G 1/8	XCM(G)T 07...TC/TA	XCMT 07R...GV
16R/L-3.0DN-GV	16	20	11.1	48	110	19.0	G 1/8	XCM(G)T 08...TC/TA	XCMT 08R...GV
20R/L-3.0DN-GV	20	25	13.2	60	130	23.5	G 1/8	XCM(G)T 10...TC/TA	XCMT 10R...GV
25R/L-3.0DN-GV	25	32	16.5	75	150	29.0	G 1/8	XCM(G)T 13...TC/TA	XCMT 13R...GV
32R/L-3.0DN-GV	32	40	20.5	96	185	36.5	G 1/8	XCM(G)T 17...TC/TA	XCMT 17R...GV
								D225-D226	D225

▸ OA: LPR+LS
▸ Grooving insert is available for right handed type

Spare parts

Designation	Screw	Wrench		
				
TCAP 08	TS 18034I/HG-P	T 6P	-	
TCAP 10	TS 20038I/HG-P	T 6P	-	
TCAP 12	TS 22052I/HG-P	T 7P	-	
TCAP 14	TS 25064I/HG-P	T 8P	-	
TCAP 16	TS 30100I/HG-P	-	TD 9P	
TCAP 20	TS 35088I/HG-P	-	TD10P	
TCAP 25	TS 45A100I/HG	-	TD 20	
TCAP 32	TS 45A100I/HG	-	TD 20	

Cutting Condition D254

ADVANCE CUTTING TaeguTec

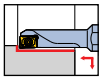
S...SXUCR/L

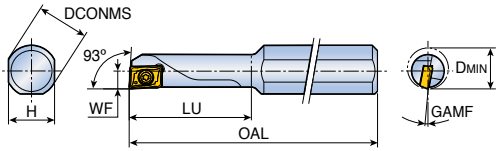
TOP CAP

Boring bars with TOP-CAP inserts



- For boring
- External coolant





Right hand shown

Designation	Dimension (mm)							Insert
	DCONMS	H	OAL	LU	WF	DMIN	GAMF	
S10H SXUCR/L 04-06 (1)	10	9	100	21	3.0	6	9°	XCMT 04...R/L TC
S10J SXUCR/L 04-07 (1)	10	9	110	24.5	3.5	7	5°	D226
S10J SXUCR/L 04-08 (1)	10	9	110	28	4.0	8	2°	
S10K SXUCR/L 05-10	10	9	125	35	5.0	10	2°	XCMT 05..TC
								D226

▸ (1) Right hand Insert should be used in right hand boring bar

Spare parts

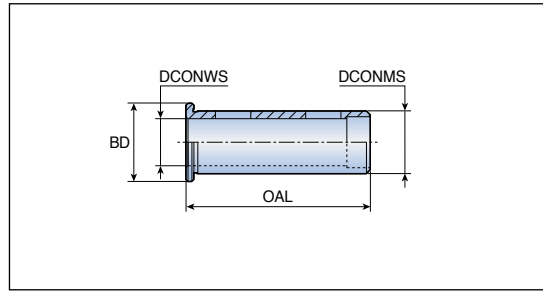
Designation	Screw	Wrench		
				
S10H SXUCR/L 04-06	TS 18034I/HG-P	T 6P		
S10J SXUCR/L 04-07	TS 18034I/HG-P	T 6P		
S10J SXUCR/L 04-08	TS 18034I/HG-P	T 6P		
S10K SXUCR/L 05-10	TS 20038I/HG-P	T 6P		

Cutting Condition D254

TSL

Sleeves for clamping unit



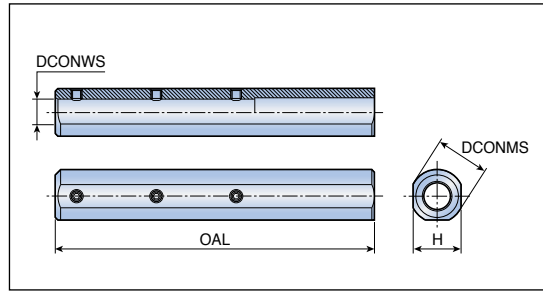


Designation	Dimension (mm)				Toolholders
	DCONMS	DCONWS	BD	OAL	
TSL 16-12	16	12	20	47	TCAP 10R/L...
25-20	25	20	32	55	TCAP 16R/L...

TBSL

Sleeves for boring bar





Designation	Dimension (mm)			
	DCONMS	DCONWS	OAL	H
TBSL 20-10-120	20	10	120	18

Spare parts

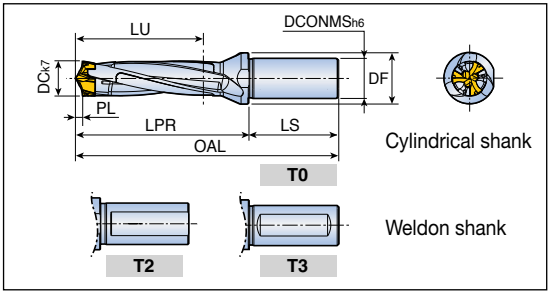
Designation	Screw	Wrench		
				
TBSL 20-10-120	SS M4x0.7x4	L-W 2		

3ED...T...-3D

Head changeable 3 flute drill holder



• Drilling depth: 3xdiameter



Designation	Dimension (mm)								Clamping key
	DC	DCONMS	DF	LU	LPR	LS	PL	SSC	
3ED 120-124-16T3/T0-3D	12.0-12.4	16	20	40.0	60.7	48	2.74	12	K 3ED D12-D13
125-129-16T3/T0-3D	12.5-12.9	16	20	41.5	62.5	48	2.76	12	
130-134-16T3/T0-3D	13.0-13.4	16	20	43.0	64.8	48	2.91	13	
135-139-16T3/T0-3D	13.5-13.9	16	20	44.5	66.6	48	2.93	13	
140-144-16T3/T0-3D	14.0-14.4	16	20	46.0	68.9	48	3.17	14	K 3ED D14-D15
145-149-16T3/T0-3D	14.5-14.9	16	20	47.5	70.7	48	3.19	14	
150-159-20T3/T0-3D	15.0-15.9	20	25	49.0	73.9	50	3.31	15	
160-169-20T3/T0-3D	16.0-16.9	20	25	52.0	79.0	50	3.70	16	K 3ED D16-D17
170-179-20T3/T0-3D	17.0-17.9	20	25	55.0	84.0	50	3.88	17	
180-189-25T2/T0-3D	18.0-18.9	25	32	58.0	90.1	56	4.07	18	K 3ED D18-D19
190-199-25T2/T0-3D	19.0-19.9	25	32	61.0	94.7	56	4.26	19	
200-209-25T2/T0-3D	20.0-20.9	25	32	64.0	99.3	56	4.44	20	K 3ED D20-D21
210-219-25T2/T0-3D	21.0-21.9	25	32	67.0	103.8	56	4.62	21	
220-229-25T2/T0-3D	22.0-22.9	25	32	70.0	108.4	56	4.78	22	K 3ED D22-D23
230-239-32T2/T0-3D	23.0-23.9	32	42	73.0	112.8	60	5.02	23	
240-249-32T2/T0-3D	24.0-24.9	32	42	76.0	117.4	60	5.18	24	K 3ED D24-D25
250-259-32T2/T0-3D	25.0-25.9	32	42	79.0	122.0	60	5.29	25	

D199-D202

Cutting Condition D256

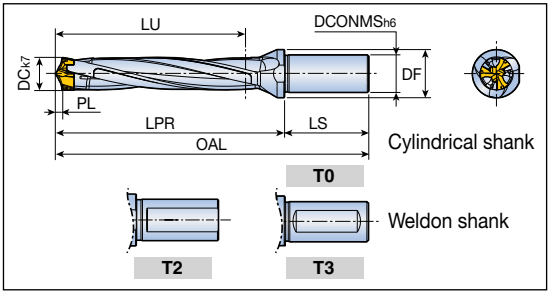
- OAL: LPR+LS
- SSC: Seat size code

3ED...T...-5D

Head changeable 3 flute drill holder



• Drilling depth: 5xdiameter



Designation	Dimension (mm)								Clamping key
	DC	DCONMS	DF	LU	LPR	LS	PL	SSC	
3ED 120-124-16T3/T0-5D	12.0-12.4	16	20	64.0	84.7	48	2.74	12	K 3ED D12-D13
125-129-16T3/T0-5D	12.5-12.9	16	20	66.5	87.5	48	2.76	12	
130-134-16T3/T0-5D	13.0-13.4	16	20	69.0	90.8	48	2.91	13	
135-139-16T3/T0-5D	13.5-13.9	16	20	71.5	93.6	48	2.93	13	
140-144-16T3/T0-5D	14.0-14.4	16	20	74.0	96.9	48	3.17	14	K 3ED D14-D15
145-149-16T3/T0-5D	14.5-14.9	16	20	76.5	99.7	48	3.19	14	
150-159-20T3/T0-5D	15.0-15.9	20	25	79.0	103.9	50	3.31	15	
160-169-20T3/T0-5D	16.0-16.9	20	25	84.0	111.0	50	3.70	16	K 3ED D16-D17
170-179-20T3/T0-5D	17.0-17.9	20	25	89.0	118.0	50	3.88	17	
180-189-25T2/T0-5D	18.0-18.9	25	32	94.0	126.1	56	4.07	18	K 3ED D18-D19
190-199-25T2/T0-5D	19.0-19.9	25	32	99.0	132.7	56	4.26	19	
200-209-25T2/T0-5D	20.0-20.9	25	32	104.0	139.3	56	4.44	20	K 3ED D20-D21
210-219-25T2/T0-5D	21.0-21.9	25	32	109.0	145.8	56	4.62	21	
220-229-25T2/T0-5D	22.0-22.9	25	32	114.0	152.4	56	4.78	22	K 3ED D22-D23
230-239-32T2/T0-5D	23.0-23.9	32	42	119.0	158.8	60	5.02	23	
240-249-32T2/T0-5D	24.0-24.9	32	42	124.0	165.4	60	5.18	24	K 3ED D24-D25
250-259-32T2/T0-5D	25.0-25.9	32	42	129.0	172.0	60	5.29	25	

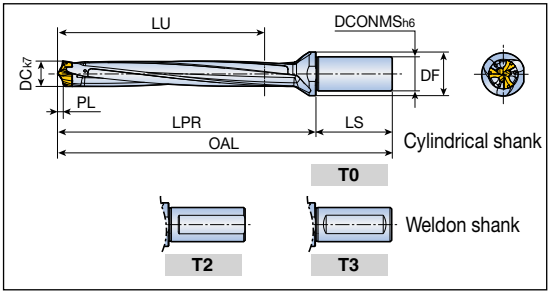
D199-D202
Cutting Condition D256

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

3ED...T...-8D

Head changeable 3 flute drill holder





- Drilling depth: 8xdiameter

Designation	Dimension (mm)								Clamping key
	DC	DCONMS	DF	LU	LPR	LS	PL	SSC	
3ED 120-124-16T3/T0-8D	12.0-12.4	16	20	100	120.7	48	2.74	12	K 3ED D12-D13
125-129-16T3/T0-8D	12.5-12.9	16	20	104	125.0	48	2.76	12	
130-134-16T3/T0-8D	13.0-13.4	16	20	108	129.8	48	2.91	13	
135-139-16T3/T0-8D	13.5-13.9	16	20	112	134.1	48	2.93	13	
140-144-16T3/T0-8D	14.0-14.4	16	20	116	138.9	48	3.17	14	K 3ED D14-D15
145-149-16T3/T0-8D	14.5-14.9	16	20	120	143.2	48	3.19	14	
150-159-20T3/T0-8D	15.0-15.9	20	25	124	148.9	50	3.31	15	
160-169-20T3/T0-8D	16.0-16.9	20	25	132	159.0	50	3.70	16	K 3ED D16-D17
170-179-20T3/T0-8D	17.0-17.9	20	25	140	169.0	50	3.88	17	
180-189-25T2/T0-8D	18.0-18.9	25	32	148	180.1	56	4.07	18	K 3ED D18-D19
190-199-25T2/T0-8D	19.0-19.9	25	32	156	189.7	56	4.26	19	
200-209-25T2/T0-8D	20.0-20.9	25	32	164	199.3	56	4.44	20	K 3ED D20-D21
210-219-25T2/T0-8D	21.0-21.9	25	32	172	208.8	56	4.62	21	
220-229-25T2/T0-8D	22.0-22.9	25	32	180	218.4	56	4.78	22	K 3ED D22-D23
230-239-32T2/T0-8D	23.0-23.9	32	42	188	227.8	60	5.02	23	
240-249-32T2/T0-8D	24.0-24.9	32	42	196	237.4	60	5.18	24	K 3ED D24-D25
250-259-32T2/T0-8D	25.0-25.9	32	42	204	247.0	60	5.29	25	

D199-D202

Cutting Condition D256

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

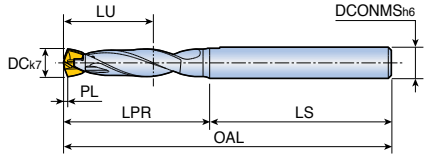
TCD...-3D

Head changeable drill holders for small diameter holes - 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	
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	0.80	5.5	





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

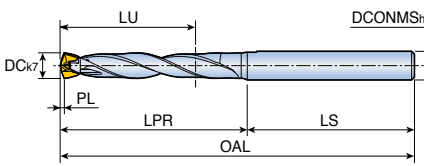
TCD...-5D

Head changeable drill holders for small diameter holes - 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	
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	0.80	5.5	





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

TCD...T...-1.5D

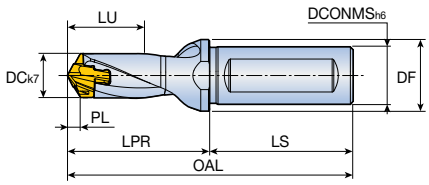
DRILLRUSH
RUSH 2 FLUTE

Head changeable drill holders - Weldon type shank



• Drilling depth: 1.5xdiameter





Designation	Dimension (mm)								Clamping key
	DC	DCONMS	DF	LU	LPR	LS	PL	SSC	
TCD 060-064-12T3-1.5D	6.0-6.4	12	16	10	23.0	45	0.96	6	K TCD D060-D099
065-069-12T3-1.5D	6.5-6.9	12	16	11	24.1	45	1.18	6.5	
070-074-12T3-1.5D	7.0-7.4	12	16	12	25.1	45	1.01	7	
075-079-12T3-1.5D	7.5-7.9	12	16	12	25.9	45	1.10	7	
080-089-12T3-1.5D	8.0-8.9	12	16	13	27.4	45	1.20	8	
090-099-12T3-1.5D	9.0-9.9	12	16	15	29.3	45	1.35	9	
100-109-16T3-1.5D	10.0-10.9	16	20	17	31.2	48	1.50	10	K TCD D100-D199
110-119-16T3-1.5D	11.0-11.9	16	20	19	33.1	48	1.67	11	
120-129-16T3-1.5D	12.0-12.9	16	20	20	35.0	48	1.82	12	
130-139-16T3-1.5D	13.0-13.9	16	20	22	37.1	48	1.96	13	
140-149-16T3-1.5D	14.0-14.9	16	20	23	41.1	48	2.12	14	
150-159-20T3-1.5D	15.0-15.9	20	25	25	46.2	50	2.27	15	
160-169-20T3-1.5D	16.0-16.9	20	25	26	49.3	50	2.42	16	
170-179-20T3-1.5D	17.0-17.9	20	25	29	52.4	50	2.59	17	
180-189-25T2-1.5D	18.0-18.9	25	32	30	55.5	56	2.73	18	
190-199-25T2-1.5D	19.0-19.9	25	32	32	58.5	56	2.88	19	
200-209-25T2-1.5D	20.0-20.9	25	32	33	61.6	56	3.02	20	K TCD D200-D269
210-219-25T2-1.5D	21.0-21.9	25	32	35	64.7	56	3.18	21	
220-229-25T2-1.5D	22.0-22.9	25	32	36	67.8	56	3.24	22	
230-239-32T2-1.5D	23.0-23.9	32	42	38	70.8	60	3.46	23	
240-249-32T2-1.5D	24.0-24.9	32	42	40	73.9	60	3.62	24	
250-259-32T2-1.5D	25.0-25.9	32	42	42	77.0	60	3.80	25	

D204-D216 | Sleeve D127 | Cutting Condition D258

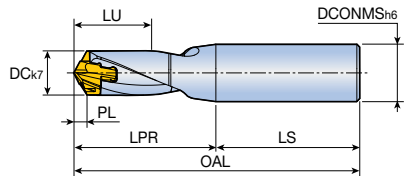
- OAL: LPR+LS
- SSC: Seat size code

TCD...S0-1.5D

DRILLRUSH 2 FLUTE

Head changeable drill holders - Cylindrical type shank





• Drilling depth: 1.5xdiameter

Designation	Dimension (mm)							Clamping key
	DC	DCONMS	LU	LPR	LS	PL	SSC	
TCD 060-064-12S0-1.5D	6.0-6.4	12	10	23.0	45	0.96	6	K TCD D060-D099
065-069-12S0-1.5D	6.5-6.9	12	11	24.1	45	1.18	6.5	
070-074-12S0-1.5D	7.0-7.4	12	12	25.1	45	1.01	7	
075-079-12S0-1.5D	7.5-7.9	12	12	25.9	45	1.10	7	
080-089-12S0-1.5D	8.0-8.9	12	13	27.4	45	1.20	8	
090-099-12S0-1.5D	9.0-9.9	12	15	29.3	45	1.35	9	
100-109-16S0-1.5D	10.0-10.9	16	17	31.2	48	1.50	10	K TCD D100-D199
110-119-16S0-1.5D	11.0-11.9	16	19	33.1	48	1.67	11	
120-129-16S0-1.5D	12.0-12.9	16	20	35.0	48	1.82	12	
130-139-16S0-1.5D	13.0-13.9	16	22	37.1	48	1.96	13	
140-149-16S0-1.5D	14.0-14.9	16	23	41.1	48	2.12	14	
150-159-20S0-1.5D	15.0-15.9	20	25	46.2	50	2.27	15	
160-169-20S0-1.5D	16.0-16.9	20	26	49.3	50	2.42	16	
170-179-20S0-1.5D	17.0-17.9	20	29	52.4	50	2.59	17	
180-189-25S0-1.5D	18.0-18.9	25	30	55.5	56	2.73	18	
190-199-25S0-1.5D	19.0-19.9	25	32	58.5	56	2.88	19	
200-209-25S0-1.5D	20.0-20.9	25	33	61.6	56	3.02	20	K TCD D200-D269
210-219-25S0-1.5D	21.0-21.9	25	35	64.7	56	3.18	21	
220-229-25S0-1.5D	22.0-22.9	25	36	67.8	56	3.24	22	
230-239-32S0-1.5D	23.0-23.9	32	38	70.8	60	3.46	23	
240-249-32S0-1.5D	24.0-24.9	32	40	73.9	60	3.62	24	
250-259-32S0-1.5D	25.0-25.9	32	42	77.0	60	3.80	25	

D204-D216
Cutting Condition
D258

▸ OAL: LPR+LS
▸ SSC: Seat size code

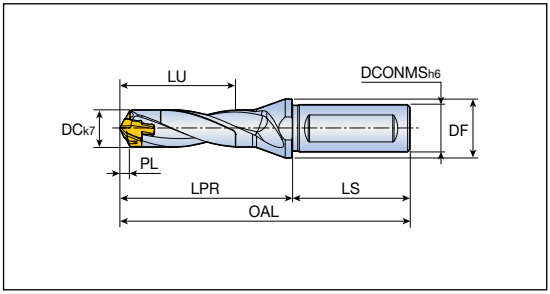
ADVANCE CUTTING TaeguTec

TCD...T...-3D

DRILLRUSH
RUSH 2 FLUTE

Head changeable drill holders - Weldon type shank





• Drilling depth: 3xdiameter



Designation	Dimension (mm)								Clamping key
	DC	DCONMS	DF	LU	LPR	LS	PL	SSC	
TCD 060-064-12T3-3D	6.0-6.4	12	16	19	32.0	45	0.96	6	K TCD D060-D099
065-069-12T3-3D	6.5-6.9	12	16	21	33.8	45	1.18	6.5	
070-074-12T3-3D	7.0-7.4	12	16	22	35.6	45	1.01	7	
075-079-12T3-3D	7.5-7.9	12	16	24	37.1	45	1.10	7	
080-084-12T3-3D	8.0-8.4	12	16	25	39.4	45	1.20	8	
085-089-12T3-3D	8.5-8.9	12	16	27	40.9	45	1.29	8	
090-094-12T3-3D	9.0-9.4	12	16	28	42.8	45	1.35	9	
095-099-12T3-3D	9.5-9.9	12	16	30	44.3	45	1.44	9	
100-104-16T3-3D	10.0-10.4	16	20	32	46.2	48	1.50	10	K TCD D100-D199
105-109-16T3-3D	10.5-10.9	16	20	34	47.7	48	1.59	10	
110-114-16T3-3D	11.0-11.4	16	20	35	49.6	48	1.67	11	
115-119-16T3-3D	11.5-11.9	16	20	37	51.1	48	1.76	11	
120-124-16T3-3D	12.0-12.4	16	20	38	53.0	48	1.82	12	
125-129-16T3-3D	12.5-12.9	16	20	39	54.5	48	1.91	12	
130-134-16T3-3D	13.0-13.4	16	20	41	56.6	48	1.96	13	
135-139-16T3-3D	13.5-13.9	16	20	43	58.1	48	2.05	13	
140-144-16T3-3D	14.0-14.4	16	20	44	62.2	48	2.12	14	
145-149-16T3-3D	14.5-14.9	16	20	46	63.7	48	2.21	14	
150-159-20T3-3D	15.0-15.9	20	25	47	68.7	50	2.27	15	
160-169-20T3-3D	16.0-16.9	20	25	50	73.3	50	2.42	16	
170-179-20T3-3D	17.0-17.9	20	25	54	77.9	50	2.59	17	
180-189-25T2-3D	18.0-18.9	25	32	57	82.5	56	2.73	18	
190-199-25T2-3D	19.0-19.9	25	32	60	87.0	56	2.88	19	
200-209-25T2-3D	20.0-20.9	25	32	63	91.6	56	3.02	20	K TCD D200-D269
210-219-25T2-3D	21.0-21.9	25	32	66	96.2	56	3.18	21	
220-229-25T2-3D	22.0-22.9	25	32	69	100.8	56	3.24	22	
230-239-32T2-3D	23.0-23.9	32	42	72	105.3	60	3.46	23	
240-249-32T2-3D	24.0-24.9	32	42	76	109.9	60	3.62	24	
250-259-32T2-3D	25.0-25.9	32	42	79	114.5	60	3.80	25	







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

TCD...S0-3D

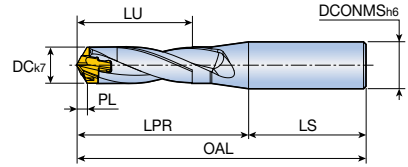
DRILLRUSH

Head changeable drill holders - Cylindrical type shank



• Drilling depth: 3xdiameter





Designation	Dimension (mm)							Clamping key
	DC	DCONMS	LU	LPR	LS	PL	SSC	
TCD 060-064-12S0-3D	6.0-6.4	12	19	32.0	45	0.96	6	K TCD D060-D099
065-069-12S0-3D	6.5-6.9	12	21	33.8	45	1.18	6.5	
070-074-12S0-3D	7.0-7.4	12	22	35.6	45	1.01	7	
075-079-12S0-3D	7.5-7.9	12	24	37.1	45	1.10	7	
080-084-12S0-3D	8.0-8.4	12	25	39.4	45	1.20	8	
085-089-12S0-3D	8.5-8.9	12	27	40.9	45	1.29	8	
090-094-12S0-3D	9.0-9.4	12	28	42.8	45	1.35	9	
095-099-12S0-3D	9.5-9.9	12	30	44.3	45	1.44	9	
100-104-16S0-3D	10.0-10.4	16	32	46.2	48	1.50	10	K TCD D100-D199
105-109-16S0-3D	10.5-10.9	16	34	47.7	48	1.59	10	
110-114-16S0-3D	11.0-11.4	16	35	49.6	48	1.67	11	
115-119-16S0-3D	11.5-11.9	16	37	51.1	48	1.76	11	
120-124-16S0-3D	12.0-12.4	16	38	53.0	48	1.82	12	
125-129-16S0-3D	12.5-12.9	16	39	54.5	48	1.91	12	
130-134-16S0-3D	13.0-13.4	16	41	56.6	48	1.96	13	
135-139-16S0-3D	13.5-13.9	16	43	58.1	48	2.05	13	
140-144-16S0-3D	14.0-14.4	16	44	62.1	48	2.12	14	
145-149-16S0-3D	14.5-14.9	16	46	63.7	48	2.21	14	
150-159-20S0-3D	15.0-15.9	20	47	68.7	50	2.27	15	
160-169-20S0-3D	16.0-16.9	20	50	73.3	50	2.42	16	
170-179-20S0-3D	17.0-17.9	20	54	77.9	50	2.59	17	
180-189-25S0-3D	18.0-18.9	25	57	82.5	56	2.73	18	
190-199-25S0-3D	19.0-19.9	25	60	87.0	56	2.88	19	
200-209-25S0-3D	20.0-20.9	25	63	91.6	56	3.02	20	K TCD D200-D269
210-219-25S0-3D	21.0-21.9	25	66	96.2	56	3.18	21	
220-229-25S0-3D	22.0-22.9	25	69	100.8	56	3.24	22	
230-239-32S0-3D	23.0-23.9	32	72	105.3	60	3.46	23	
240-249-32S0-3D	24.0-24.9	32	76	109.9	60	3.62	24	
250-259-32S0-3D	25.0-25.9	32	79	114.5	60	3.80	25	

D204-D216

Cutting Condition

D258

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

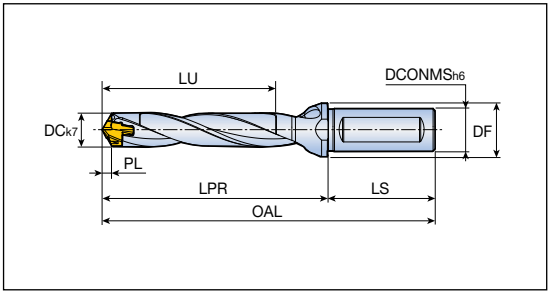
ADVANCE CUTTING TaeguTec

TCD...T...-5D

DRILLRUSH
RUSH 2 FLUTE

Head changeable drill holders - Weldon type shank





• Drilling depth: 5xdiameter



Designation	Dimension (mm)								Clamping key
	DC	DCONMS	DF	LU	LPR	LS	PL	SSC	
TCD 060-064-12T3-5D	6.0-6.4	12	16	31	44.0	45	0.96	6	K TCD D060-D099
065-069-12T3-5D	6.5-6.9	12	16	34	46.8	45	1.18	6.5	
070-074-12T3-5D	7.0-7.4	12	16	36	49.6	45	1.01	7	
075-079-12T3-5D	7.5-7.9	12	16	39	52.1	45	1.10	7	
080-084-12T3-5D	8.0-8.4	12	16	41	55.4	45	1.20	8	
085-089-12T3-5D	8.5-8.9	12	16	44	57.9	45	1.29	8	
090-094-12T3-5D	9.0-9.4	12	16	46	60.8	45	1.35	9	
095-099-12T3-5D	9.5-9.9	12	16	49	63.3	45	1.44	9	
100-104-16T3-5D	10.0-10.4	16	20	52	66.2	48	1.50	10	K TCD D100-D199
105-109-16T3-5D	10.5-10.9	16	20	55	68.7	48	1.59	10	
110-114-16T3-5D	11.0-11.4	16	20	57	71.6	48	1.67	11	
115-119-16T3-5D	11.5-11.9	16	20	60	74.1	48	1.76	11	
120-124-16T3-5D	12.0-12.4	16	20	62	77.0	48	1.82	12	
125-129-16T3-5D	12.5-12.9	16	20	64	79.5	48	1.91	12	
130-134-16T3-5D	13.0-13.4	16	20	67	82.6	48	1.96	13	
135-139-16T3-5D	13.5-13.9	16	20	70	85.1	48	2.05	13	
140-144-16T3-5D	14.0-14.4	16	20	72	90.2	48	2.12	14	
145-149-16T3-5D	14.5-14.9	16	20	75	92.7	48	2.21	14	
150-159-20T3-5D	15.0-15.9	20	25	77	98.7	50	2.27	15	
160-169-20T3-5D	16.0-16.9	20	25	82	105.3	50	2.42	16	
170-179-20T3-5D	17.0-17.9	20	25	88	111.9	50	2.59	17	
180-189-25T2-5D	18.0-18.9	25	32	93	118.5	56	2.73	18	
190-199-25T2-5D	19.0-19.9	25	32	98	125.0	56	2.88	19	
200-209-25T2-5D	20.0-20.9	25	32	103	131.6	56	3.02	20	K TCD D200-D269
210-219-25T2-5D	21.0-21.9	25	32	108	138.2	56	3.18	21	
220-229-25T2-5D	22.0-22.9	25	32	113	144.8	56	3.24	22	
230-239-32T2-5D	23.0-23.9	32	42	118	151.3	60	3.46	23	
240-249-32T2-5D	24.0-24.9	32	42	124	157.9	60	3.62	24	
250-259-32T2-5D	25.0-25.9	32	42	129	164.5	60	3.80	25	

D204-D216 | Sleeve D127 | Cutting Condition D258

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

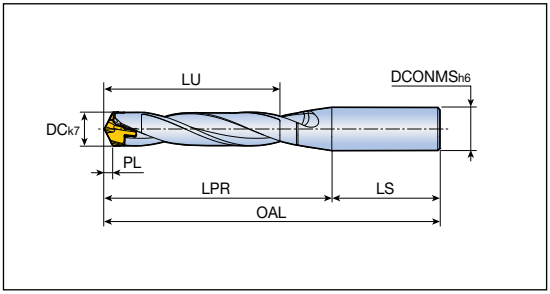
TCD...S0-5D

DRILLRUSH 2 FLUTE

Head changeable drill holders - Cylindrical type shank



• Drilling depth: 5xdiameter



Designation	Dimension (mm)							Clamping key
	DC	DCONMS	LU	LPR	LS	PL	SSC	
TCD 060-064-12S0-5D	6.0-6.4	12	31	44.0	45	0.96	6	K TCD D060-D099
065-069-12S0-5D	6.5-6.9	12	34	46.8	45	1.18	6.5	
070-074-12S0-5D	7.0-7.4	12	36	49.6	45	1.01	7	
075-079-12S0-5D	7.5-7.9	12	39	52.1	45	1.10	7	
080-084-12S0-5D	8.0-8.4	12	41	55.4	45	1.20	8	
085-089-12S0-5D	8.5-8.9	12	44	57.9	45	1.29	8	
090-094-12S0-5D	9.0-9.4	12	46	60.8	45	1.35	9	
095-099-12S0-5D	9.5-9.9	12	49	63.3	45	1.44	9	
100-104-16S0-5D	10.0-10.4	16	52	66.2	48	1.50	10	K TCD D100-D199
105-109-16S0-5D	10.5-10.9	16	55	68.7	48	1.59	10	
110-114-16S0-5D	11.0-11.4	16	57	71.6	48	1.67	11	
115-119-16S0-5D	11.5-11.9	16	60	74.1	48	1.76	11	
120-124-16S0-5D	12.0-12.4	16	62	77.0	48	1.82	12	
125-129-16S0-5D	12.5-12.9	16	64	79.5	48	1.91	12	
130-134-16S0-5D	13.0-13.4	16	67	82.6	48	1.96	13	
135-139-16S0-5D	13.5-13.9	16	70	85.1	48	2.05	13	
140-144-16S0-5D	14.0-14.4	16	72	90.2	48	2.12	14	
145-149-16S0-5D	14.5-14.9	16	75	92.7	48	2.21	14	
150-159-20S0-5D	15.0-15.9	20	77	98.7	50	2.27	15	
160-169-20S0-5D	16.0-16.9	20	82	105.3	50	2.42	16	
170-179-20S0-5D	17.0-17.9	20	88	111.9	50	2.59	17	
180-189-25S0-5D	18.0-18.9	25	93	118.5	56	2.73	18	
190-199-25S0-5D	19.0-19.9	25	98	125.0	56	2.88	19	
200-209-25S0-5D	20.0-20.9	25	103	131.6	56	3.02	20	K TCD D200-D269
210-219-25S0-5D	21.0-21.9	25	108	138.2	56	3.18	21	
220-229-25S0-5D	22.0-22.9	25	113	144.8	56	3.24	22	
230-239-32S0-5D	23.0-23.9	32	118	151.3	60	3.46	23	
240-249-32S0-5D	24.0-24.9	32	124	157.9	60	3.62	24	
250-259-32S0-5D	25.0-25.9	32	129	164.5	60	3.80	25	

D204-D216

Cutting Condition

D258

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

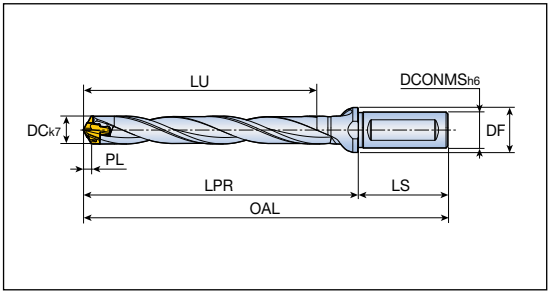
ADVANCE CUTTING TaeguTec

TCD...T...-8D

DRILLRUSH
RUSH 2 FLUTE

Head changeable drill holders - Weldon type shank





• Drilling depth: 8xdiameter

Designation		Dimension (mm)								Clamping key
		DC	DCONMS	DF	LU	LPR	LS	PL	SSC	
TCD	070-074-12T3-8D	7.0-7.4	12	16	57	70.6	45	1.01	7	K TCD D060-D099
	075-079-12T3-8D	7.5-7.9	12	16	61	74.6	45	1.10	7	
	080-084-12T3-8D	8.0-8.4	12	16	65	79.4	45	1.20	8	
	085-089-12T3-8D	8.5-8.9	12	16	69	83.4	45	1.29	8	
	090-094-12T3-8D	9.0-9.4	12	16	73	87.8	45	1.35	9	
	095-099-12T3-8D	9.5-9.9	12	16	77	91.8	45	1.44	9	
	100-104-16T3-8D	10.0-10.4	16	20	82	96.2	48	1.50	10	K TCD D100-D199
	105-109-16T3-8D	10.5-10.9	16	20	86	100.2	48	1.59	10	
	110-114-16T3-8D	11.0-11.4	16	20	90	104.6	48	1.67	11	
	115-119-16T3-8D	11.5-11.9	16	20	94	108.6	48	1.76	11	
	120-124-16T3-8D	12.0-12.4	16	20	98	113.0	48	1.82	12	
	125-129-16T3-8D	12.5-12.9	16	20	102	117.0	48	1.91	12	
	130-134-16T3-8D	13.0-13.4	16	20	106	121.6	48	1.96	13	
	135-139-16T3-8D	13.5-13.9	16	20	110	125.6	48	2.05	13	
	140-144-16T3-8D	14.0-14.4	16	20	114	132.2	48	2.12	14	
	145-149-16T3-8D	14.5-14.9	16	20	118	136.2	48	2.21	14	
	150-159-20T3-8D	15.0-15.9	20	25	122	143.7	50	2.27	15	
	160-169-20T3-8D	16.0-16.9	20	25	130	153.3	50	2.42	16	
	170-179-20T3-8D	17.0-17.9	20	25	139	162.9	50	2.59	17	
	180-189-25T2-8D	18.0-18.9	25	32	147	172.5	56	2.73	18	
	190-199-25T2-8D	19.0-19.9	25	32	155	182.0	56	2.88	19	
	200-209-25T2-8D	20.0-20.9	25	32	163	191.6	56	3.02	20	K TCD D200-D269
	210-219-25T2-8D	21.0-21.9	25	32	171	201.2	56	3.18	21	
	220-229-25T2-8D	22.0-22.9	25	32	179	210.8	56	3.24	22	
	230-239-32T2-8D	23.0-23.9	32	42	187	220.3	60	3.46	23	
	240-249-32T2-8D	24.0-24.9	32	42	196	229.9	60	3.62	24	
	250-259-32T2-8D	25.0-25.9	32	42	204	239.5	60	3.80	25	

D204-D216 | Sleeve D127 | Cutting Condition D258

- It is recommended to make the pilot hole with a 1.5D holder
- OAL: LPR+LS
- SSC: Seat size code

TCD...S0-8D

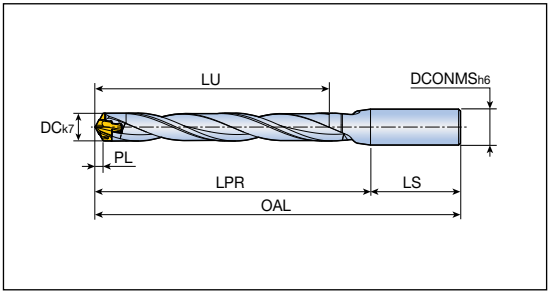
DRILLRUSH

Head changeable drill holders - Cylindrical type shank



• Drilling depth: 8xdiameter





Designation	Dimension (mm)							Clamping key
	DC	DCONMS	LU	LPR	LS	PL	SSC	
TCD 060-064-12S0-8D	6.0-6.4	12	49	62.0	45	0.96	6	K TCD D060-D099
065-069-12S0-8D	6.5-6.9	12	53	66.3	45	1.18	6.5	
070-074-12S0-8D	7.0-7.4	12	57	70.6	45	1.01	7	
075-079-12S0-8D	7.5-7.9	12	61	74.6	45	1.10	7	
080-084-12S0-8D	8.0-8.4	12	65	79.4	45	1.20	8	
085-089-12S0-8D	8.5-8.9	12	69	83.4	45	1.29	8	
090-094-12S0-8D	9.0-9.4	12	73	87.8	45	1.35	9	
095-099-12S0-8D	9.5-9.9	12	77	91.8	45	1.44	9	
100-104-16S0-8D	10.0-10.4	16	82	96.2	48	1.50	10	K TCD D100-D199
105-109-16S0-8D	10.5-10.9	16	86	100.2	48	1.59	10	
110-114-16S0-8D	11.0-11.4	16	90	104.6	48	1.67	11	
115-119-16S0-8D	11.5-11.9	16	94	108.6	48	1.76	11	
120-124-16S0-8D	12.0-12.4	16	98	113.0	48	1.82	12	
125-129-16S0-8D	12.5-12.9	16	102	117.0	48	1.91	12	
130-134-16S0-8D	13.0-13.4	16	106	121.6	48	1.96	13	
135-139-16S0-8D	13.5-13.9	16	110	125.6	48	2.05	13	
140-144-16S0-8D	14.0-14.4	16	114	132.2	48	2.12	14	
145-149-16S0-8D	14.5-14.9	16	118	136.2	48	2.21	14	
150-159-20S0-8D	15.0-15.9	20	122	143.7	50	2.27	15	
160-169-20S0-8D	16.0-16.9	20	130	153.3	50	2.42	16	
170-179-20S0-8D	17.0-17.9	20	139	162.9	50	2.59	17	
180-189-25S0-8D	18.0-18.9	25	147	172.5	56	2.73	18	
190-199-25S0-8D	19.0-19.9	25	155	182.0	56	2.88	19	
200-209-25S0-8D	20.0-20.9	25	163	191.6	56	3.02	20	K TCD D200-D269
210-219-25S0-8D	21.0-21.9	25	171	201.2	56	3.18	21	
220-229-25S0-8D	22.0-22.9	25	179	210.8	56	3.24	22	
230-239-32S0-8D	23.0-23.9	32	187	220.3	60	3.46	23	
240-249-32S0-8D	24.0-24.9	32	196	229.9	60	3.62	24	
250-259-32S0-8D	25.0-25.9	32	204	239.5	60	3.80	25	

D204-D216

Cutting Condition

D258

- It is recommended to make the pilot hole with a 1.5D holder
- OAL: LPR+LS
- SSC: Seat size code

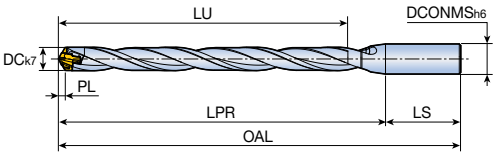
ADVANCE CUTTING TaeguTec

TCD...S0-12D

DRILLRUSH
RUSH 2 FLUTE

Head changeable drill holders - Cylindrical type shank





• Drilling depth: 12xdiameter

Designation	Dimension (mm)							Clamping key
	DC	DCONMS	LU	LPR	LS	PL	SSC	
TCD 080-084-12S0-12D	8.0-8.4	12	97	111.4	45	1.20	8	K TCD D060-D099
085-089-12S0-12D	8.5-8.9	12	103	117.4	45	1.29	8	
090-094-12S0-12D	9.0-9.4	12	109	123.8	45	1.35	9	
095-099-12S0-12D	9.5-9.9	12	115	129.8	45	1.44	9	
100-104-16S0-12D	10.0-10.4	16	122	136.2	48	1.50	10	K TCD D100-D199
105-109-16S0-12D	10.5-10.9	16	128	142.2	48	1.59	10	
110-114-16S0-12D	11.0-11.4	16	134	148.6	48	1.67	11	
115-119-16S0-12D	11.5-11.9	16	140	154.6	48	1.76	11	
120-124-16S0-12D	12.0-12.4	16	146	161.0	48	1.82	12	
125-129-16S0-12D	12.5-12.9	16	152	167.0	48	1.91	12	
130-134-16S0-12D	13.0-13.4	16	158	173.6	48	1.96	13	
135-139-16S0-12D	13.5-13.9	16	164	179.6	48	2.05	13	
140-144-16S0-12D	14.0-14.4	16	170	188.2	48	2.12	14	
145-149-16S0-12D	14.5-14.9	16	176	194.2	48	2.21	14	
150-159-20S0-12D	15.0-15.9	20	182	203.7	50	2.27	15	
160-169-20S0-12D	16.0-16.9	20	194	217.3	50	2.42	16	
170-179-20S0-12D	17.0-17.9	20	207	230.9	50	2.59	17	
180-189-25S0-12D	18.0-18.9	25	219	244.5	56	2.73	18	
190-199-25S0-12D	19.0-19.9	25	221	258.0	56	2.88	19	
200-209-25S0-12D	20.0-20.9	25	243	271.6	56	3.02	20	K TCD D200-D269
210-219-25S0-12D	21.0-21.9	25	255	285.2	56	3.18	21	
220-229-25S0-12D	22.0-22.9	25	267	298.8	56	3.24	22	
230-239-32S0-12D	23.0-23.9	32	289	312.3	60	3.46	23	
240-249-32S0-12D	24.0-24.9	32	292	325.9	60	3.62	24	
250-259-32S0-12D	25.0-25.9	32	304	339.5	60	3.80	25	

D204-D216

Cutting Condition

D258

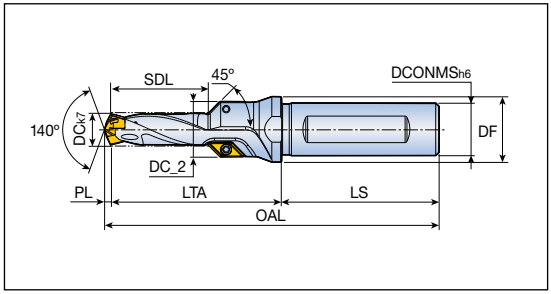
- It is recommended to make the pilot hole with a 1.5D holder
- OAL: LPR+LS
- SSC: Seat size code

TCD...-M

DRILLRUSH
RUSH 2 FLUTE

Head changeable drill holders for pre-thread hole





Designation	ISO thread	DC	Dimension (mm)							Drill dia. range	Insert
			SDL	LTA	LS	DC_2	DCONMS	DF	PL		
TCD 068x21x12T3-M8	M8	6.8	21	43.77	45	13.5	12	16	1.23	6.5-6.9	AOMT 06...-C45
085x26x12T3-M10	M10	8.5	26	48.71	45	15.5	12	16	1.29	8.5-8.9	D217
102x30x16T3-M12	M12	10.2	30	52.46	48	17.0	16	20	1.54	10.0-10.4	
120x35x16T3-M14	M14	12.0	35	59.18	48	19.0	16	20	1.82	12.0-12.4	
140x39x20T3-M16	M16	14.0	39	66.88	50	21.0	20	25	2.12	14.0-14.4	
175x42x20T3-M20	M20	17.5	42	69.32	50	24.5	20	27	2.68	17.0-17.9	
210x48x25T2-M24	M24	21.0	48	76.82	56	28.0	25	32	3.18	21.0-21.9	

▸ OAL: LTA+LS+PL

Spare parts

Designation	Screw	Wrench	Clamping key	
TCD 068	TS 22046I	TD 7	K TCD D060-D099	
TCD 085	TS 22046I	TD 7	K TCD D060-D099	
TCD 102 - 175	TS 22046I	TD 7	K TCD D100-D199	
TCD 210	TS 22046I	TD 7	K TCD D200-D269	

D204-D216 | Sleeve D127 | Cutting Condition D258

Plug for coolant supply in a stationary machines

TaeguTec supplies special plugs with an internal thread for coolant connections used on lathes that can be pressed into the cavity on the back end of the shank.

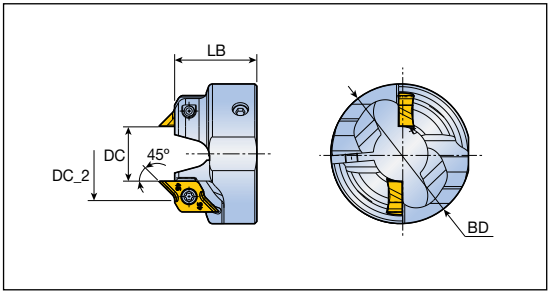
Description	Shank diameter	Internal thread
PL-TCD-12	12	G 1/16
PL-TCD-16	16	G 1/16
PL-TCD-20	20	G 1/8
PL-TCD-25	25	G 1/8
PL-TCD-32	32	G 1/8



CFR D...-A45

Chamfering ring tools





Designation	Dimension (mm)				Chamfer size	Chamfer insert
	DC	DC_2	BD	LB		
CFR D100-A45	9.8	16.56	34	20	2.5	CRNG 08...-45CD
D105-A45	10.3	17.06	34	20	2.5	D217
D110-A45	10.8	17.56	34	20	2.5	
D115-A45	11.3	18.06	34	20	2.5	
D120-A45	11.8	18.56	34	20	2.5	
D125-A45	12.3	19.06	34	20	2.5	
D130-A45	12.8	19.56	34	20	2.5	
D135-A45	13.3	20.06	34	20	2.5	
D140-A45	13.8	20.56	38	22	2.5	
D145-A45	14.3	21.06	38	22	2.5	
D150-A45	14.6	21.36	38	22	2.5	
D160-A45	15.6	22.36	42	23	2.5	
D170-A45	16.6	23.36	42	23	2.5	
D180-A45	17.6	24.36	42	23	2.5	
D190-A45	18.6	25.36	42	24	2.5	
D200-A45	19.6	26.36	42	24	2.5	
D210-A45	20.6	27.36	47	24	2.5	
D220-A45	21.6	28.36	47	24	2.5	
D230-A45	22.6	29.36	47	24	2.5	
D240-A45	23.6	30.36	47	24	2.5	
D250-A45	24.6	31.36	47	24	2.5	

Spare parts

Designation	Insert screw	Wrench	Clamping screw	L-wrench
CFR D100 - D135	SO 25065I	TD 7	SH M3x0.5x10 (1)	L-W2.5
CFR D140 - D150	SO 25065I	TD 7	SH M4x0.7x12 (2)	L-W3
CFR D160 - D250	SO 25065I	TD 7	SH M5x0.8x16 (3)	L-W4

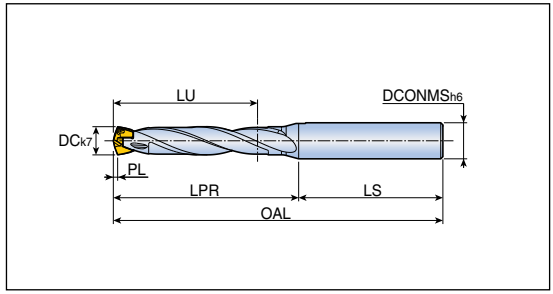
▸ (1) Clamping torque: 2-3 [N•m] (2) Clamping torque: 3.5-4.5 [N•m] (3) Clamping torque: 5-6 [N•m]

Technical Data D288-291

TCD…A0-3D/5D/8D

Head changeable drill holders - Cylindrical type shank





• Drilling depth: 3/5/8xdiameter

Designation	Dimension (mm)							Clamping key
	DC	DCONMS	LU	LPR	LS	PL	SSC	
TCD 060-064-08A0-3D	6.0-6.4	8	19	28.0	36	0.96	6	K TCD D060-D099
065-069-08A0-3D	6.5-6.9	8	21	29.8	36	1.18	6.5	
070-074-08A0-3D	7.0-7.4	8	22	31.6	36	1.01	7	
075-079-08A0-3D	7.5-7.9	8	24	33.1	36	1.10	7.5	
080-084-10A0-3D	8.0-8.4	10	25	35.4	40	1.20	8	
085-089-10A0-3D	8.5-8.9	10	27	36.9	40	1.29	8.5	
090-094-10A0-3D	9.0-9.4	10	28	38.8	40	1.35	9	
095-099-10A0-3D	9.5-9.9	10	30	40.3	40	1.44	9.5	
TCD 060-064-08A0-5D	6.0-6.4	8	31	40.0	36	0.96	6	K TCD D060-D099
065-069-08A0-5D	6.5-6.9	8	34	42.8	36	1.18	6.5	
070-074-08A0-5D	7.0-7.4	8	36	45.6	36	1.01	7	
075-079-08A0-5D	7.5-7.9	8	39	48.1	36	1.10	7.5	
080-084-10A0-5D	8.0-8.4	10	41	51.4	40	1.20	8	
085-089-10A0-5D	8.5-8.9	10	44	53.9	40	1.29	8.5	
090-094-10A0-5D	9.0-9.4	10	46	56.8	40	1.35	9	
095-099-10A0-5D	9.5-9.9	10	49	59.3	40	1.44	9.5	
TCD 060-064-08A0-8D	6.0-6.4	8	49	58.0	36	0.96	6	K TCD D060-D099
065-069-08A0-8D	6.5-6.9	8	53	62.3	36	1.18	6.5	
070-074-08A0-8D	7.0-7.4	8	57	66.6	36	1.01	7	
075-079-08A0-8D	7.5-7.9	8	61	70.6	36	1.10	7.5	
080-084-10A0-8D	8.0-8.4	10	65	75.4	40	1.20	8	
085-089-10A0-8D	8.5-8.9	10	69	79.4	40	1.29	8.5	
090-094-10A0-8D	9.0-9.4	10	73	83.8	40	1.35	9	
095-099-10A0-8D	9.5-9.9	10	77	87.8	40	1.44	9.5	

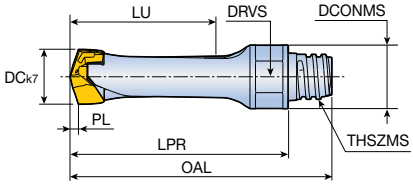
D204-216
Cutting Condition
D258

▸ OAL: LPR+LS
▸ SSC: Seat size code

TCD...-MRS-2D

Head changeable drill holder with MAXI-RUSH type shank





• Drilling depth: 2xdiameter

Designation	Dimension (mm)									Clamping key
	DC	DCONMS	LU	LPR	PL	OAL	DRVS	THSZMS	SSC	
TCD 060-064-MRS06-2D	6.0-6.4	9.6	13.0	28.0	1.0	34.3	8	S06	6	K TCD D060-D099
080-084-MRS06-2D	8.0-8.4	9.6	17.2	32.9	1.2	39.2	8	S06	8	
100-104-MRS08-2D	10.0-10.4	11.6	21.5	39.8	1.5	47.3	10	S08	10	K TCD D100-D199

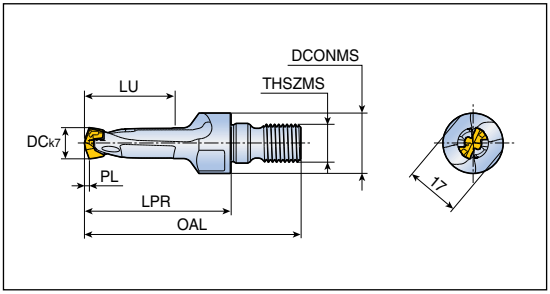
D204-216 Cutting Condition D258

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

TCDM...-M12-2D

Head changeable drill holder with T-FLEXTEC type shank





• Drilling depth: 2xdiameter

Designation		Dimension (mm)								Clamping key
		DC	DCONMS	LU	LPR	PL	OAL	THSZMS	SSC	
TCDM	**100-104-M12-2D**	10.0-10.4	19	28.7	46.2	1.5	68.2	M12	10	K TCD D100-D199
	105-109-M12-2D	10.5-10.9	19	29.7	47.2	1.6	69.2	M12	10	
	110-114-M12-2D	11.0-11.4	19	31.1	48.6	1.7	70.6	M12	11	
	115-119-M12-2D	11.5-11.9	19	32.1	49.6	1.8	71.6	M12	11	
	120-124-M12-2D	12.0-12.4	19	33.5	51.0	1.8	73.0	M12	12	
	125-129-M12-2D	12.5-12.9	19	34.5	52.0	1.9	74.0	M12	12	
	130-134-M12-2D	13.0-13.4	19	36.1	53.6	2.0	75.6	M12	13	
	135-139-M12-2D	13.5-13.9	19	37.1	54.6	2.1	76.6	M12	13	
	140-144-M12-2D	14.0-14.4	19	38.7	56.2	2.1	78.2	M12	14	
	145-149-M12-2D	14.5-14.9	19	39.7	57.2	2.2	79.2	M12	14	
	150-159-M12-2D	15.0-15.9	19	41.2	58.7	2.3	80.7	M12	15	

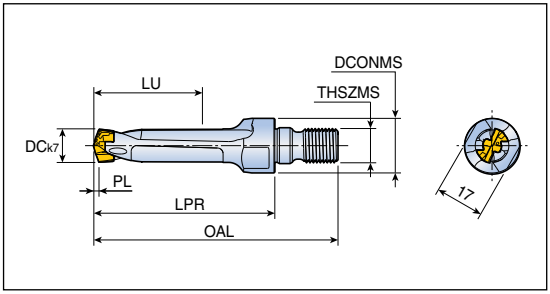
D204-216
Cutting Condition
D258

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

TCDM...-M12-3D

Head changeable drill holder with T-FLEXTEC type shank





- Drilling depth: 3xdiameter

Designation	Dimension (mm)								Clamping key
	DC	DCONMS	LU	LPR	PL	OAL	THSZMS	SSC	
TCDM 060-064-M12-3D	6.0-6.4	19	25.5	42.0	1.0	64.0	M12	6	K TCD D060-D099
065-069-M12-3D	6.5-6.9	19	27.2	44.3	1.2	66.3	M12	6.5	
070-074-M12-3D	7.0-7.4	19	28.5	45.6	1.0	67.6	M12	7	
075-079-M12-3D	7.5-7.9	19	30.1	47.6	1.1	69.6	M12	7	
080-084-M12-3D	8.0-8.4	19	31.7	49.4	1.2	71.4	M12	8	
085-089-M12-3D	8.5-8.9	19	33.3	50.4	1.3	72.4	M12	8	
090-094-M12-3D	9.0-9.4	19	34.9	52.8	1.4	74.8	M12	9	
095-099-M12-3D	9.5-9.9	19	36.4	54.8	1.4	76.8	M12	9	
100-104-M12-3D	10.0-10.4	19	38.0	56.2	1.5	78.2	M12	10	K TCD D100-D199
105-109-M12-3D	10.5-10.9	19	39.6	58.2	1.6	80.2	M12	10	
110-114-M12-3D	11.0-11.4	19	41.2	59.6	1.7	81.6	M12	11	
115-119-M12-3D	11.5-11.9	19	42.8	61.6	1.8	83.6	M12	11	
120-124-M12-3D	12.0-12.4	19	44.3	63.0	1.8	85.0	M12	12	
125-129-M12-3D	12.5-12.9	19	45.9	64.0	1.9	86.0	M12	12.	
130-134-M12-3D	13.0-13.4	19	47.5	66.6	2.0	88.6	M12	13	
135-139-M12-3D	13.5-13.9	19	49.1	68.6	2.1	90.6	M12	13	
140-144-M12-3D	14.0-14.4	19	50.6	70.2	2.1	92.2	M12	14	
145-149-M12-3D	14.5-14.9	19	52.2	72.2	2.2	94.2	M12	14	
150-159-M12-3D	15.0-15.9	19	53.8	73.7	2.3	95.7	M12	15	
160-169-M12-3D	16.0-16.9	19	56.9	77.3	2.4	99.3	M12	16	
170-179-M12-3D	17.0-17.9	19	60.1	80.9	2.6	102.9	M12	17	
180-189-M12-3D	18.0-18.9	19	63.2	84.5	2.7	106.5	M12	18	
190-199-M12-3D	19.0-19.9	19	66.4	88.0	2.9	110.0	M12	19	
200-209-M12-3D	20.0-20.9	19	69.5	91.6	3.0	113.6	M12	20	K TCD D200-D269

D204-216 Cutting Condition D258

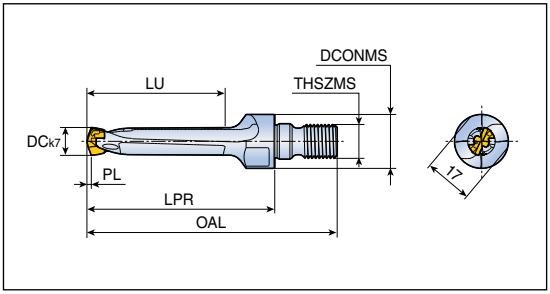
- SSC: Seat size code
- Matched with T-FLEXTEC holder

TCDM...-M12-4D

Head changeable drill holder with T-FLEXTEC type shank



• Drilling depth: 4xdiameter



Designation		Dimension (mm)								Clamping key
		DC	DCONMS	LU	LPR	PL	OAL	THSZMS	SSC	
TCDM	**100-104-M12-4D**	10.0-10.4	19	48.7	66.2	1.5	88.2	M12	10	K TCD D100-D199
	105-109-M12-4D	10.5-10.9	19	50.7	68.2	1.6	90.2	M12	10	
	110-114-M12-4D	11.0-11.4	19	53.1	70.6	1.7	92.6	M12	11	
	115-119-M12-4D	11.5-11.9	19	55.1	72.6	1.8	94.6	M12	11	
	120-124-M12-4D	12.0-12.4	19	57.5	75.0	1.8	97.0	M12	12	
	125-129-M12-4D	12.5-12.9	19	59.5	77.0	1.9	99.0	M12	12	
	130-134-M12-4D	13.0-13.4	19	62.1	79.6	2.0	101.6	M12	13	
	135-139-M12-4D	13.5-13.9	19	64.1	81.6	2.1	103.6	M12	13	
	140-144-M12-4D	14.0-14.4	19	66.7	84.2	2.1	106.2	M12	14	
	145-149-M12-4D	14.5-14.9	19	68.7	86.2	2.2	108.2	M12	14	
	150-159-M12-4D	15.0-15.9	19	71.2	88.7	2.3	110.7	M12	15	

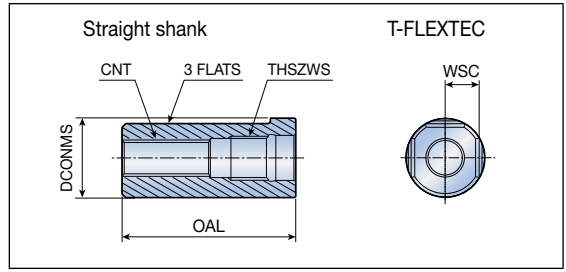
D204-216 D258

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

TFLEX-TCD-M12

T-FLEXTEC shank





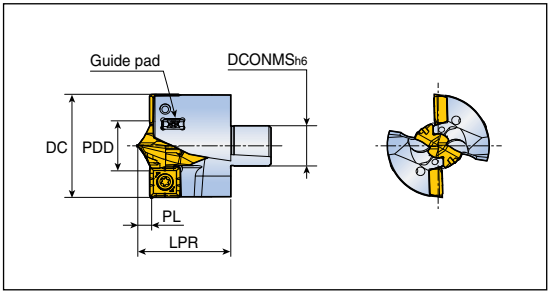
Designation		Dimension (mm)				CNT
		THSZWS	DCONMS	OAL	WSC	
TFLEX	**160X36-TCD-M12**	M12	16	36	7.5	UNF 5/16
	1905X36-TCD-M12	M12	19.05	36	8.5	UNF 5/16
	200X36-TCD-M12	M12	20	36	8.5	G 1/8
	220X48-TCD-M12	M12	22	48	9.5	G 1/8
	250X54-TCD-M12	M12	25	54	11	G 1/8
	254X54-TCD-M12	M12	25.4	54	11	G 1/8

TNDH-TP

Modular drill heads







Designation		Dimension (mm)					Clamping Key	Insert	
		DC	DCONMS	LPR	PL	PDD		Center	Outer
TNDH	2600-C26-TP	26	10.4	24.9	3.98	15.9	K TCD D15-D16 CO	TCD-159-P-CO+	SPGX 06...DW
	2700-C26-TP	27	10.4	25.4	4.14	16.9	K TCD D15-D16 CO	TCD-169-P-CO+	D218
	2800-C28-TP	28	11.2	26.9	4.29	17.9	K TCD D17-D19 CO	TCD-179-P-CO+	
	2900-C28-TP	29	11.2	26.6	3.97	15.9	K TCD D15-D16 CO	TCD-159-P-CO+	SPGX 07...DW
	3000-C30-TP	30	12.0	28.3	4.14	16.9	K TCD D15-D16 CO	TCD-169-P-CO+	D218
	3100-C30-TP	31	12.0	28.5	4.30	17.9	K TCD D17-D19 CO	TCD-179-P-CO+	
	3200-C32-TP	32	12.8	30.3	4.46	18.9	K TCD D17-D19 CO	TCD-189-P-CO+	
	3300-C32-TP	33	12.8	29.8	3.97	15.9	K TCD D15-D16 CO	TCD-159-P-CO+	SPGX 09...DW
	3400-C34-TP	34	13.6	31.6	4.14	16.9	K TCD D15-D16 CO	TCD-169-P-CO+	D218
	3500-C34-TP	35	13.6	31.8	4.30	17.9	K TCD D17-D19 CO	TCD-179-P-CO+	
	3600-C36-TP	36	14.4	33.5	4.46	18.9	K TCD D17-D19 CO	TCD-189-P-CO+	
	3700-C36-TP	37	14.4	33.3	4.14	16.9	K TCD D15-D16 CO	TCD-169-P-CO+	SPGX 11...DW
	3800-C38-TP	38	15.2	35.0	4.30	17.9	K TCD D17-D19 CO	TCD-179-P-CO+	D218
	3900-C38-TP	39	15.2	35.2	4.46	18.9	K TCD D17-D19 CO	TCD-189-P-CO+	
	4000-C40-TP	40	16.0	36.9	4.62	19.9	K TCD D17-D19 CO	TCD-199-P-CO+	
	4100-C40-TP	41	16.0	37.1	4.78	20.9	K TCD D20-D21 CO	TCD-209-P-CO+	
	4200-C42-TP	42	16.8	38.9	4.95	21.9	K TCD D20-D21 CO	TCD-219-P-CO+	
	4300-C42-TP	43	16.8	38.9	5.11	22.9	K TCD D22-D23 CO	TCD-229-P-CO+	

- DCONMS: Holder connection size
- Guide pad is sold separately from drill head

Spare parts

Designation	For double pitch screw		For SPGX		For Guide pad	
	Screw1	Wrench1	Screw2	Wrench2	Screw3	Wrench3
						
TNDH 2600-2800	TDPS 0512-T7	TD 7	TS 22052I/HG	TD 7	TS 20043I/HG-P	TD 6P
TNDH 2900-3200	TDPS 0512-T7	TD 7	TS 25064I	TD 8	TS 20043I/HG-P	TD 6P
TNDH 3300-3500	TDPS 0512-T7	TD 7	TS 35088I	TD 10	TS 20043I/HG-P	TD 6P
TNDH 3600	TDPS 0618-T8	TD 8	TS 35088I	TD 10	TS 20043I/HG-P	TD 6P
TNDH 3700-4300	TDPS 0618-T8	TD 8	TS 40093I	TD 15	TS 20043I/HG-P	TD 6P







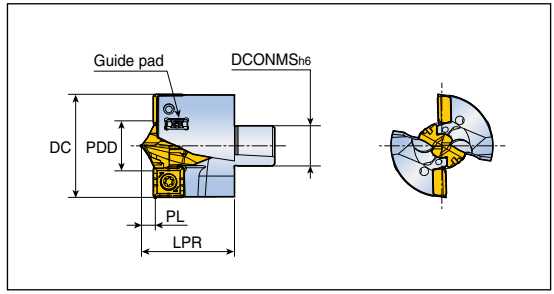


TNDH-TP

Modular drill heads







Designation		Dimension (mm)					Clamping Key	Insert	
		DC	DCONMS	LPR	PL	PDD		Center	Outer
TNDH	**4400-C44-TP**	44	17.6	40.8	5.28	23.9	K TCD D22-D23 CO	TCD-239-P-CO+	SPGX 11...DW
	4500-C44-TP	45	17.6	41.0	5.44	24.9	K TCD D24-D25 CO	TCD-249-P-CO+	D218
	4600-C46-TP	46	18.4	42.2	4.95	21.9	K TCD D20-D21 CO	TCD-219-P-CO+	SPGX 14...DW
	4700-C46-TP	47	18.4	42.3	5.11	22.9	K TCD D22-D23 CO	TCD-229-P-CO+	D218
	4800-C48-TP	48	19.2	44.0	5.28	23.9	K TCD D22-D23 CO	TCD-239-P-CO+	
	4900-C48-TP	49	19.2	44.3	5.44	24.9	K TCD D24-D25 CO	TCD-249-P-CO+	
	5000-C48-TP	50	19.2	46.0	5.61	25.9	K TCD D24-D25 CO	TCD-259-P-CO+	

- DCONMS: Holder connection size
- Guide pad is sold separately from drill head

Spare parts

Designation	For double pitch screw		For SPGX		For Guide pad	
	Screw1	Wrench1	Screw2	Wrench2	Screw3	Wrench3
						
TNDH 4400-4500	TDPS 0722-W3.0	F-W3.0	TS 40093I	TD 15	TS 20043I/HG-P	TD 6P
TNDH 4600-5000	TDPS 0722-W3.0	F-W3.0	SO 50090I	TD 20	TS 20043I/HG-P	TD 6P

D218 Guide Pad D241 Cutting Condition D260 Technical Data D292

ADVANCE CUTTING TaeguTec

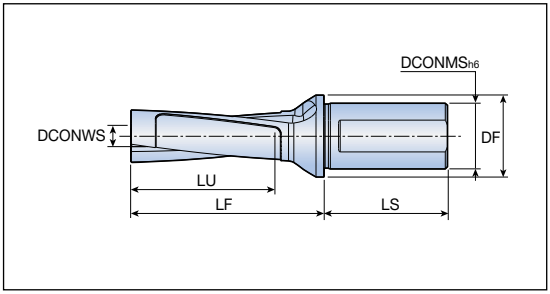
MDB...T2-3

Modular drill holders - Weldon type shank



• Drilling depth: 3xdiameter





Designation		Dimension (mm)						
		DC	DCONWS	DCONMS	DF	LU	LF	LS
MDB	D26/27-081-32T2-C26-3	26-27	10.4	32	40	60	94.3	60
	D28/29-087-32T2-C28-3	28-29	11.2	32	40	64	100.5	60
	D30/31-093-32T2-C30-3	30-31	12.0	32	40	69	105.5	60
	D32/33-099-32T2-C32-3	32-33	12.8	32	40	73	111.7	60
	D34/35-105-40T2-C34-3	34-35	13.6	40	50	78	120.2	68
	D36/37-111-40T2-C36-3	36-37	14.4	40	50	82	126.5	68
	D38/39-117-40T2-C38-3	38-39	15.2	40	50	86	131.4	68
	D40/41-123-40T2-C40-3	40-41	16.0	40	50	91	137.6	68
	D42/43-129-40T2-C42-3	42-43	16.8	40	50	95	143.8	68
	D44/45-135-40T2-C44-3	44-45	17.6	40	50	99	150.0	68
	D46/47-141-50T2-C46-3	46-47	18.4	50	60	104	154.5	80
	D48/50-150-50T2-C48-3	48-50	19.2	50	60	111	160.9	80

▸ DC: Cutting diameter range
▸ DCONWS: Modular head connection size
▸ Refer to the Modular head information on page D75-D76

Spare parts

Designation	Wrench	Wrench handle		
				
MDB D26/27-D34/35-3	BLD H-W2.5x210	SW6-T-SH		
MDB D36/37-D42/43-3	BLD H-W3.0x225	SW6-T-SH		
MDB D44/45-D48/50-3	BLD H-W4.0x255	SW6-T-SH		

▸ Wrench: Disassemble the modular head from the modular body (Insert from the rear shank)

Cutting Condition D260
Technical Data D292

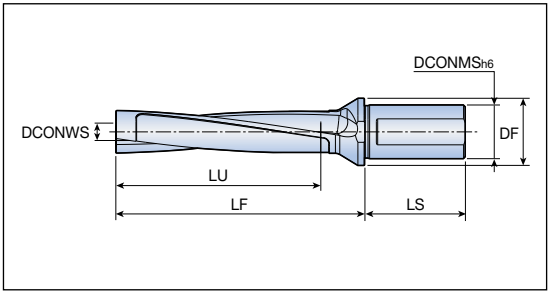
MDB...T2-5

Modular drill holders - Weldon type shank



• Drilling depth: 5xdiameter





Designation		Dimension (mm)						
		DC	DCONWS	DCONMS	DF	LU	LF	LS
MDB	D26/27-135-32T2-C26-5	26-27	10.4	32	40	114	148.3	60
	D28/29-145-32T2-C28-5	28-29	11.2	32	40	122	158.5	60
	D30/31-155-32T2-C30-5	30-31	12.0	32	40	131	167.5	60
	D32/33-165-32T2-C32-5	32-33	12.8	32	40	139	177.7	60
	D34/35-175-40T2-C34-5	34-35	13.6	40	50	148	190.2	68
	D36/37-185-40T2-C36-5	36-37	14.4	40	50	156	200.5	68
	D38/39-195-40T2-C38-5	38-39	15.2	40	50	164	209.4	68
	D40/41-205-40T2-C40-5	40-41	16.0	40	50	173	219.6	68
	D42/43-215-40T2-C42-5	42-43	16.8	40	50	181	229.8	68
	D44/45-225-40T2-C44-5	44-45	17.6	40	50	189	240.0	68
	D46/47-235-50T2-C46-5	46-47	18.4	50	60	198	248.5	80
	D48/50-250-50T2-C48-5	48-50	19.2	50	60	211	258.9	80

▸ DC: Cutting diameter range
▸ DCONWS: Modular head connection size
▸ Refer to the Modular head information on page D75-D76

Spare parts

Designation	Wrench	Wrench handle		
				
MDB D26/27-D34/35-5	BLD H-W2.5x280	SW6-T-SH		
MDB D36/37-D42/43-5	BLD H-W3.0x310	SW6-T-SH		
MDB D44/45-D48/50-5	BLD H-W4.0x350	SW6-T-SH		

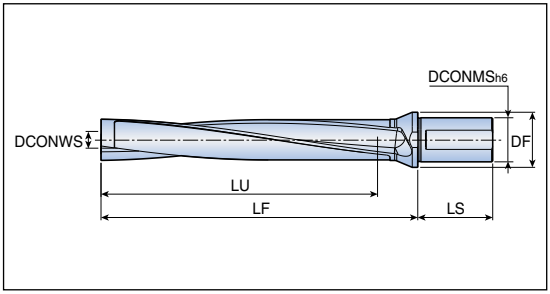
▸ Wrench: Disassemble the modular head from the modular body (Insert from the rear shank)

Cutting Condition D260
Technical Data D292

MDB...T2-7

Modular drill holders - Weldon type shank





• Drilling depth: 7xdiameter



Designation	Dimension (mm)						
	DC	DCONWS	DCONMS	DF	LU	LF	LS
MDB D26/27-189-32T2-C26-7	26-27	10.4	32	40	168	202.3	60
D28/29-203-32T2-C28-7	28-29	11.2	32	40	180	216.5	60
D30/31-217-32T2-C30-7	30-31	12.0	32	40	193	229.5	60
D32/33-231-32T2-C32-7	32-33	12.8	32	40	205	243.7	60
D34/35-245-40T2-C34-7	34-35	13.6	40	50	218	260.2	68
D36/37-259-40T2-C36-7	36-37	14.4	40	50	230	274.5	68
D38/39-273-40T2-C38-7	38-39	15.2	40	50	242	287.4	68
D40/41-287-40T2-C40-7	40-41	16.0	40	50	255	301.6	68

▸ DC: Cutting diameter range
▸ DCONWS: Modular head connection size
▸ Refer to the Modular head information on page D75-D76

Spare parts

Designation	Wrench	Wrench handle		
				
MDB D26/27-7	BLD H-W2.5x280	SW6-T-SH		
MDB D28/29-D34/35-7	BLD H-W2.5x350	SW6-T-SH		
MDB D36/37-D40/41-7	BLD H-W3.0x400	SW6-T-SH		

▸ Wrench: Disassemble the modular head from the modular body (Insert from the rear shank)

Cutting Condition D260
Technical Data D292

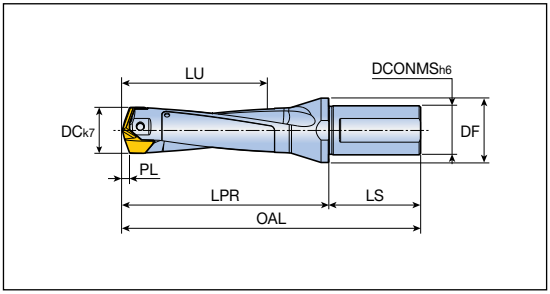
LCD...T2-3D

SPADERUSH

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	

D219-D223 Cutting Condition D262

LCD...T2-5D

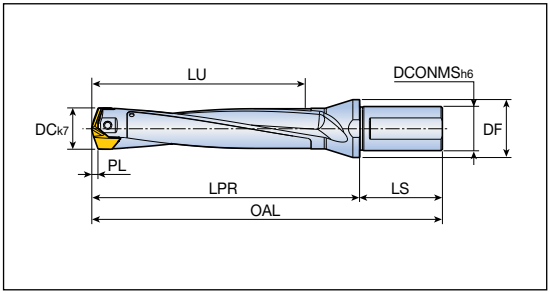
SPADERUSH

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	



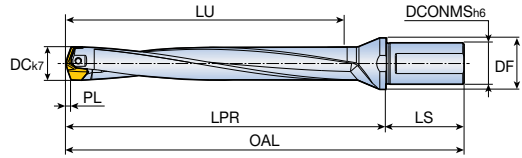


LCD...T2-8D

SPADERUSH

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 ▸ It is recommended to make the pilot hole with a 3D holder

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	

D219-D223
Cutting Condition
D262

ADVANCE CUTTING
TaeguTec

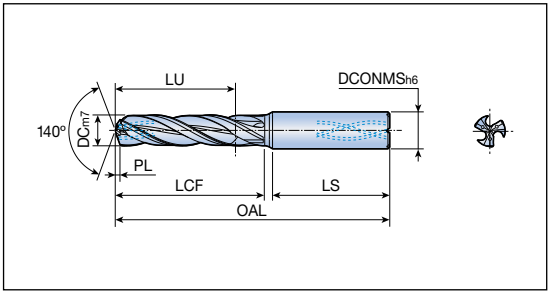
3HD...PI3

3 flute solid carbide drills with oil holes



• Drilling depth: 3xdiameter





Designation		Dimension (mm)							Grade
		DC	DCONMS	OAL	LU	LCF	LS	PL	TT5130
3HD	040-017-06 PI3	4.0	6	66	17	25	35	0.82	●
	045-017-06 PI3	4.5	6	66	17	25	35	0.88	●
	050-020-06 PI3	5.0	6	66	20	29	36	0.96	●
	051-020-06 PI3	5.1	6	66	20	29	36	0.98	●
	055-020-06 PI3	5.5	6	66	20	29	36	1.08	●
	060-020-06 PI3	6.0	6	66	20	29	36	1.17	●
	065-024-08 PI3	6.5	8	79	24	35	36	1.26	●
	068-024-08 PI3	6.8	8	79	24	35	36	1.31	●
	070-024-08 PI3	7.0	8	79	24	35	36	1.35	●
	075-029-08 PI3	7.5	8	79	29	42	36	1.40	●
	080-029-08 PI3	8.0	8	79	29	42	36	1.49	●
	085-035-10 PI3	8.5	10	89	35	48	40	1.63	●
	086-035-10 PI3	8.6	10	89	35	48	40	1.65	●
	090-035-10 PI3	9.0	10	89	35	48	40	1.72	●
	095-035-10 PI3	9.5	10	89	35	48	40	1.75	●
	100-035-10 PI3	10.0	10	89	35	48	40	1.85	●
	103-040-12 PI3	10.3	12	102	40	55	45	1.94	●
	105-040-12 PI3	10.5	12	102	40	55	45	1.98	●
	110-040-12 PI3	11.0	12	102	40	55	45	2.07	●
	115-040-12 PI3	11.5	12	102	40	56	45	2.12	●
	120-040-12 PI3	12.0	12	102	40	56	45	2.21	●

Cutting Condition D264

●: Standard items

3HD...PI5

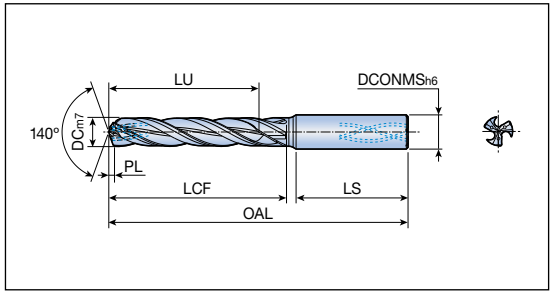
SOLID3DRILL

3 flute solid carbide drills with oil holes



• Drilling depth: 5xdiameter





Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT5130
3HD 040-029-06 PI5	4.0	6	74	29	37	35	0.82	●
045-029-06 PI5	4.5	6	74	29	37	35	0.88	●
050-035-06 PI5	5.0	6	82	35	45	36	0.96	●
051-035-06 PI5	5.1	6	82	35	45	36	0.98	●
055-035-06 PI5	5.5	6	82	35	45	36	1.08	●
060-035-06 PI5	6.0	6	82	35	45	36	1.17	●
065-043-08 PI5	6.5	8	91	43	54	36	1.26	●
068-043-08 PI5	6.8	8	91	43	54	36	1.31	●
070-043-08 PI5	7.0	8	91	43	54	36	1.35	●
075-043-08 PI5	7.5	8	91	43	54	36	1.40	●
080-043-08 PI5	8.0	8	91	43	54	36	1.49	●
085-049-10 PI5	8.5	10	103	49	62	40	1.63	●
086-049-10 PI5	8.6	10	103	49	62	40	1.65	●
090-049-10 PI5	9.0	10	103	49	62	40	1.72	●
095-049-10 PI5	9.5	10	103	49	62	40	1.75	●
100-049-10 PI5	10.0	10	103	49	62	40	1.85	●
103-056-12 PI5	10.3	12	118	56	71	45	1.94	●
105-056-12 PI5	10.5	12	118	56	71	45	1.98	●
110-056-12 PI5	11.0	12	118	56	71	45	2.07	●
115-056-12 PI5	11.5	12	118	56	72	45	2.12	●
120-056-12 PI5	12.0	12	118	56	72	45	2.21	●

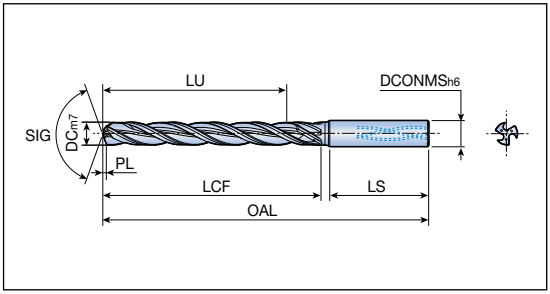
●: Standard items

Cutting Condition D264

3HD...PI8

3 flute solid carbide drills with oil holes





• Drilling depth: 8xdiameter

Designation	Dimension (mm)								Grade
	DC	DCONMS	OAL	SIG	LU	LCF	LS	PL	TT5130
3HD 040-036-06 PI8	4.0	6	81	140	36	43	35	0.82	●
045-036-06 PI8	4.5	6	81	140	36	43	35	0.88	●
050-048-06 PI8	5.0	6	95	140	48	57	36	0.96	●
055-048-06 PI8	5.5	6	95	140	48	57	36	1.08	●
060-048-06 PI8	6.0	6	95	140	48	57	36	1.17	●
065-064-08 PI8	6.5	8	114	140	64	76	36	1.26	●
070-064-08 PI8	7.0	8	114	140	64	76	36	1.35	●
075-064-08 PI8	7.5	8	114	140	64	76	36	1.40	●
080-064-08 PI8	8.0	8	114	140	64	76	36	1.49	●
085-080-10 PI8	8.5	10	142	130	80	95	40	2.04	●
090-080-10 PI8	9.0	10	142	130	80	95	40	2.16	●
095-080-10 PI8	9.5	10	142	130	80	95	40	2.29	●
100-080-10 PI8	10.0	10	142	130	80	95	40	2.33	●
105-096-12 PI8	10.5	12	162	130	96	113	45	2.50	●
110-096-12 PI8	11.0	12	162	130	96	113	45	2.61	●
115-096-12 PI8	11.5	12	162	130	96	113	45	2.67	●
120-096-12 PI8	12.0	12	162	130	96	113	45	2.80	●

Cutting Condition D264

- Ø4.00-Ø8.00: SIG 140°
- Ø8.01-Ø12.00: SIG 130°

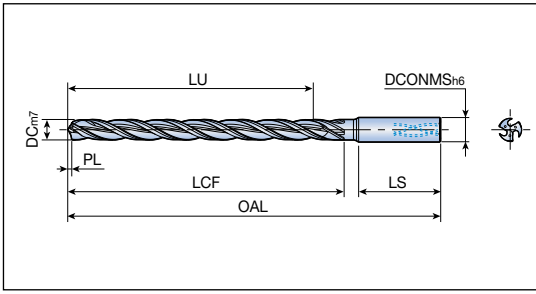
●: Standard items

3HD…CI12

SOLID3DRILL

3 flute solid carbide drill with oil holes





• Drilling depth: 12xdiameter

Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT5130
3HD 060-069-06 CI12	6.0	6	116	69	78	36	1.38	●
065-096-08 CI12	6.5	8	146	96	108	36	1.57	●
070-096-08 CI12	7.0	8	146	96	108	36	1.60	●
075-096-08 CI12	7.5	8	146	96	108	36	1.78	●
080-096-08 CI12	8.0	8	146	96	108	36	1.81	●
085-105-10 CI12	8.5	10	162	105	120	40	2.07	●
090-105-10 CI12	9.0	10	162	105	120	40	2.10	●
095-105-10 CI12	9.5	10	162	105	120	40	2.27	●
100-105-10 CI12	10.0	10	162	105	120	40	2.30	●
105-139-12 CI12	10.5	12	204	139	156	45	2.56	●
110-139-12 CI12	11.0	12	204	139	156	45	2.59	●
115-139-12 CI12	11.5	12	204	139	156	45	2.76	●
120-139-12 CI12	12.0	12	204	139	156	45	2.79	●

●: Standard items

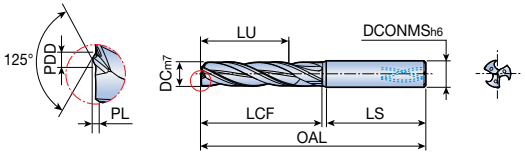
Cutting Condition D264

ADVANCE CUTTING TaeguTec

3HD...FI3

3 flute solid carbide drills for flat bottom holes





• Drilling depth: 3xdiameter

Designation	Dimension (mm)								Grade
	DC	DCONMS	OAL	LU	LCF	LS	PDD	PL	TT5130
3HD 040-017-06 FI3	4.0	6	66	17	25	35	0.77	0.43	●
045-017-06 FI3	4.5	6	66	17	25	35	0.86	0.45	●
050-020-06 FI3	5.0	6	66	20	29	36	0.97	0.47	●
055-020-06 FI3	5.5	6	66	20	29	36	1.08	0.58	●
060-020-06 FI3	6.0	6	66	20	29	36	1.08	0.58	●
065-024-08 FI3	6.5	8	79	24	35	36	1.26	0.62	●
070-024-08 FI3	7.0	8	79	24	35	36	1.26	0.62	●
075-029-08 FI3	7.5	8	79	29	42	36	1.44	0.66	●
080-029-08 FI3	8.0	8	79	29	42	36	1.44	0.66	●
085-035-10 FI3	8.5	10	89	35	48	40	1.62	0.79	●
090-035-10 FI3	9.0	10	89	35	48	40	1.62	0.79	●
095-035-10 FI3	9.5	10	89	35	48	40	1.80	0.82	●
100-035-10 FI3	10.0	10	89	35	48	40	1.80	0.82	●
105-040-12 FI3	10.5	12	102	40	55	45	1.98	0.95	●
110-040-12 FI3	11.0	12	102	40	55	45	1.98	0.95	●
115-040-12 FI3	11.5	12	102	40	56	45	2.16	0.98	●
120-040-12 FI3	12.0	12	102	40	56	45	2.16	0.98	●

Cutting Condition D264

●: Standard items

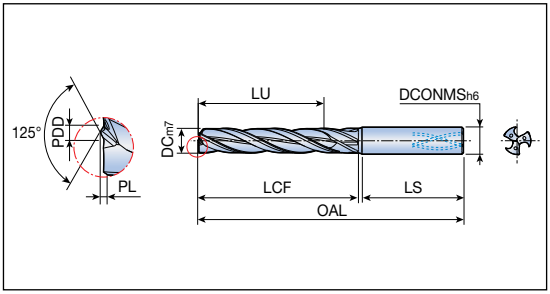
3HD...FI5

3 flute solid carbide drills for flat bottom holes



• Drilling depth: 5xdiameter





Designation	Dimension (mm)								Grade
	DC	DCONMS	OAL	LU	LCF	LS	PDD	PL	TT5130
3HD 040-029-06 FI5	4.0	6	74	29	37	35	0.77	0.43	●
045-029-06 FI5	4.5	6	74	29	37	35	0.86	0.45	●
050-035-06 FI5	5.0	6	82	35	45	36	0.97	0.47	●
055-035-06 FI5	5.5	6	82	35	45	36	1.08	0.58	●
060-035-06 FI5	6.0	6	82	35	45	36	1.08	0.58	●
065-043-08 FI5	6.5	8	91	43	54	36	1.26	0.62	●
070-043-08 FI5	7.0	8	91	43	54	36	1.26	0.62	●
075-043-08 FI5	7.5	8	91	43	54	36	1.44	0.66	●
080-043-08 FI5	8.0	8	91	43	54	36	1.44	0.66	●
085-049-10 FI5	8.5	10	103	49	62	40	1.62	0.79	●
090-049-10 FI5	9.0	10	103	49	62	40	1.62	0.79	●
095-049-10 FI5	9.5	10	103	49	62	40	1.80	0.82	●
100-049-10 FI5	10.0	10	103	49	62	40	1.80	0.82	●
105-056-12 FI5	10.5	12	118	56	71	45	1.98	0.95	●
110-056-12 FI5	11.0	12	118	56	71	45	1.98	0.95	●
115-056-12 FI5	11.5	12	118	56	72	45	2.16	0.98	●
120-056-12 FI5	12.0	12	118	56	72	45	2.16	0.98	●

●: Standard items

Cutting Condition D264

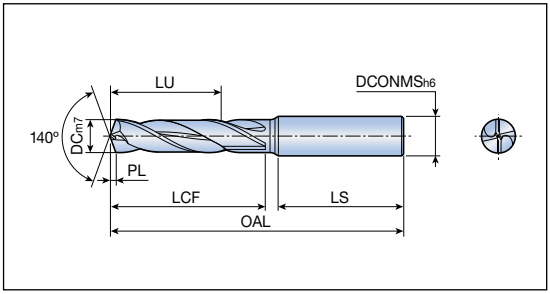
ADVANCE CUTTING TaeguTec

NHD...PE3

Solid carbide drills without oil holes



• Drilling depth: 3xdiameter



Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT9030
NHD 030-014-06 PE3	3.0	6	62	14	21	34	0.5	●
031-014-06 PE3	3.1	6	62	14	21	34	0.5	●
032-014-06 PE3	3.2	6	62	14	21	34	0.5	●
033-014-06 PE3	3.3	6	62	14	21	34	0.5	●
034-014-06 PE3	3.4	6	62	14	21	34	0.5	●
035-014-06 PE3	3.5	6	62	14	21	34	0.6	●
036-014-06 PE3	3.6	6	62	14	21	34	0.6	●
037-014-06 PE3	3.7	6	62	14	21	34	0.6	●
038-017-06 PE3	3.8	6	66	17	25	35	0.6	●
039-017-06 PE3	3.9	6	66	17	25	35	0.6	●
040-017-06 PE3	4.0	6	66	17	25	35	0.6	●
041-017-06 PE3	4.1	6	66	17	25	35	0.7	●
042-017-06 PE3	4.2	6	66	17	25	35	0.7	●
043-017-06 PE3	4.3	6	66	17	25	35	0.7	●
044-017-06 PE3	4.4	6	66	17	25	35	0.7	●
045-017-06 PE3	4.5	6	66	17	25	35	0.7	●
046-017-06 PE3	4.6	6	66	17	25	35	0.7	●
047-017-06 PE3	4.7	6	66	17	25	35	0.8	●
048-020-06 PE3	4.8	6	66	20	29	36	0.8	●
049-020-06 PE3	4.9	6	66	20	29	36	0.8	●
050-020-06 PE3	5.0	6	66	20	29	36	0.8	●
051-020-06 PE3	5.1	6	66	20	29	36	0.8	●
052-020-06 PE3	5.2	6	66	20	29	36	0.8	●
053-020-06 PE3	5.3	6	66	20	29	36	0.8	●
054-020-06 PE3	5.4	6	66	20	29	36	0.8	●
055-020-06 PE3	5.5	6	66	20	29	36	0.9	●
056-020-06 PE3	5.6	6	66	20	29	36	0.9	●
057-020-06 PE3	5.7	6	66	20	29	36	0.9	●
058-020-06 PE3	5.8	6	66	20	29	36	0.9	●
059-020-06 PE3	5.9	6	66	20	29	36	0.9	●
060-020-06 PE3	6.0	6	66	20	29	36	0.9	●
061-024-08 PE3	6.1	8	79	24	35	36	1.0	●
062-024-08 PE3	6.2	8	79	24	35	36	1.0	●
063-024-08 PE3	6.3	8	79	24	35	36	1.0	●
064-024-08 PE3	6.4	8	79	24	35	36	1.0	●

Cutting Condition D266

●: Standard items

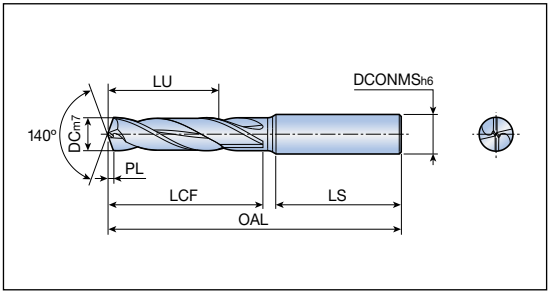
NHD...PE3

Solid carbide drills without oil holes



• Drilling depth: 3xdiameter





Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT9030
NHD 065-024-08 PE3	6.5	8	79	24	35	36	1.0	●
066-024-08 PE3	6.6	8	79	24	35	36	1.0	●
067-024-08 PE3	6.7	8	79	24	35	36	1.1	●
068-024-08 PE3	6.8	8	79	24	35	36	1.1	●
069-024-08 PE3	6.9	8	79	24	35	36	1.1	●
070-024-08 PE3	7.0	8	79	24	35	36	1.1	●
071-029-08 PE3	7.1	8	79	29	42	36	1.1	●
072-029-08 PE3	7.2	8	79	29	42	36	1.1	●
073-029-08 PE3	7.3	8	79	29	42	36	1.1	●
074-029-08 PE3	7.4	8	79	29	42	36	1.2	●
075-029-08 PE3	7.5	8	79	29	42	36	1.2	●
076-029-08 PE3	7.6	8	79	29	42	36	1.2	●
077-029-08 PE3	7.7	8	79	29	42	36	1.2	●
078-029-08 PE3	7.8	8	79	29	42	36	1.2	●
079-029-08 PE3	7.9	8	79	29	42	36	1.3	●
080-029-08 PE3	8.0	8	79	29	42	36	1.3	●
081-035-10 PE3	8.1	10	89	35	48	40	1.3	●
082-035-10 PE3	8.2	10	89	35	48	40	1.3	●
083-035-10 PE3	8.3	10	89	35	48	40	1.3	●
084-035-10 PE3	8.4	10	89	35	48	40	1.3	●
085-035-10 PE3	8.5	10	89	35	48	40	1.3	●
086-035-10 PE3	8.6	10	89	35	48	40	1.4	●
087-035-10 PE3	8.7	10	89	35	48	40	1.4	●
088-035-10 PE3	8.8	10	89	35	48	40	1.4	●
089-035-10 PE3	8.9	10	89	35	48	40	1.4	●
090-035-10 PE3	9.0	10	89	35	48	40	1.4	●
091-035-10 PE3	9.1	10	89	35	48	40	1.4	●
092-035-10 PE3	9.2	10	89	35	48	40	1.4	●
093-035-10 PE3	9.3	10	89	35	48	40	1.5	●
094-035-10 PE3	9.4	10	89	35	48	40	1.5	●
095-035-10 PE3	9.5	10	89	35	48	40	1.5	●
096-035-10 PE3	9.6	10	89	35	48	40	1.5	●
097-035-10 PE3	9.7	10	89	35	48	40	1.5	●
098-035-10 PE3	9.8	10	89	35	48	40	1.6	●
099-035-10 PE3	9.9	10	89	35	48	40	1.6	●

●: Standard items

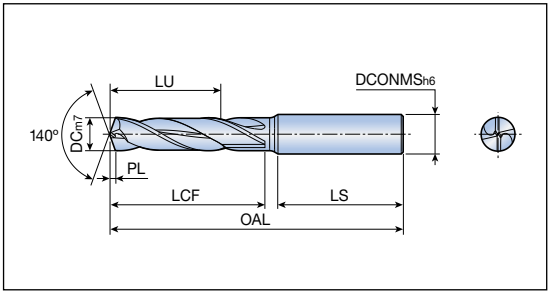
Cutting Condition
D266

NHD...PE3

Solid carbide drills without oil holes



• Drilling depth: 3xdiameter



Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT9030
NHD 100-035-10 PE3	10.0	10	89	35	48	40	1.6	●
101-040-12 PE3	10.1	12	101	40	54	45	1.6	●
102-040-12 PE3	10.2	12	101	40	54	45	1.6	●
103-040-12 PE3	10.3	12	101	40	54	45	1.6	●
104-040-12 PE3	10.4	12	101	40	54	45	1.6	●
105-040-12 PE3	10.5	12	101	40	54	45	1.6	●
106-040-12 PE3	10.6	12	101	40	54	45	1.7	●
107-040-12 PE3	10.7	12	101	40	54	45	1.7	●
108-040-12 PE3	10.8	12	101	40	54	45	1.7	●
109-040-12 PE3	10.9	12	101	40	54	45	1.7	●
110-040-12 PE3	11.0	12	101	40	54	45	1.7	●
111-040-12 PE3	11.1	12	101	40	55	45	1.7	●
112-040-12 PE3	11.2	12	101	40	55	45	1.8	●
113-040-12 PE3	11.3	12	101	40	55	45	1.8	●
114-040-12 PE3	11.4	12	101	40	55	45	1.8	●
115-040-12 PE3	11.5	12	101	40	55	45	1.8	●
116-040-12 PE3	11.6	12	101	40	55	45	1.8	●
117-040-12 PE3	11.7	12	101	40	55	45	1.9	●
118-040-12 PE3	11.8	12	101	40	55	45	1.9	●
119-040-12 PE3	11.9	12	101	40	55	45	1.9	●
120-040-12 PE3	12.0	12	101	40	55	45	1.9	●

Cutting Condition D266

●: Standard items

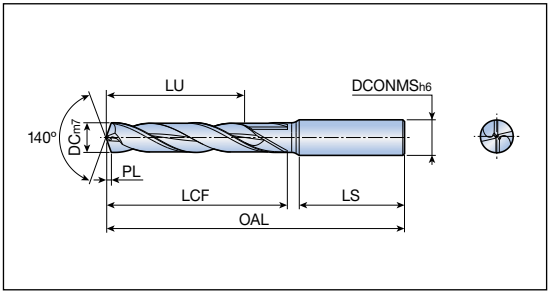
NHD...PE5

Solid carbide drills without oil holes



• Drilling depth: 5xdiameter





Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT9030
NHD 030-023-06 PE5	3.0	6	66	23	29	34	0.5	●
031-023-06 PE5	3.1	6	66	23	29	34	0.5	●
032-023-06 PE5	3.2	6	66	23	29	34	0.5	●
033-023-06 PE5	3.3	6	66	23	29	34	0.5	●
034-023-06 PE5	3.4	6	66	23	29	34	0.5	●
035-023-06 PE5	3.5	6	66	23	29	34	0.6	●
036-023-06 PE5	3.6	6	66	23	29	34	0.6	●
037-023-06 PE5	3.7	6	66	23	29	34	0.6	●
038-029-06 PE5	3.8	6	74	29	37	35	0.6	●
039-029-06 PE5	3.9	6	74	29	37	35	0.6	●
040-029-06 PE5	4.0	6	74	29	37	35	0.6	●
041-029-06 PE5	4.1	6	74	29	37	35	0.7	●
042-029-06 PE5	4.2	6	74	29	37	35	0.7	●
043-029-06 PE5	4.3	6	74	29	37	35	0.7	●
044-029-06 PE5	4.4	6	74	29	37	35	0.7	●
045-029-06 PE5	4.5	6	74	29	37	35	0.7	●
046-029-06 PE5	4.6	6	74	29	37	35	0.7	●
047-029-06 PE5	4.7	6	74	29	37	35	0.8	●
048-035-06 PE5	4.8	6	82	35	45	36	0.8	●
049-035-06 PE5	4.9	6	82	35	45	36	0.8	●
050-035-06 PE5	5.0	6	82	35	45	36	0.8	●
051-035-06 PE5	5.1	6	82	35	45	36	0.8	●
052-035-06 PE5	5.2	6	82	35	45	36	0.8	●
053-035-06 PE5	5.3	6	82	35	45	36	0.8	●
054-035-06 PE5	5.4	6	82	35	45	36	0.8	●
055-035-06 PE5	5.5	6	82	35	45	36	0.9	●
056-035-06 PE5	5.6	6	82	35	45	36	0.9	●
057-035-06 PE5	5.7	6	82	35	45	36	0.9	●
058-035-06 PE5	5.8	6	82	35	45	36	0.9	●
059-035-06 PE5	5.9	6	82	35	45	36	0.9	●
060-035-06 PE5	6.0	6	82	35	45	36	0.9	●
061-043-08 PE5	6.1	8	91	43	54	36	1.0	●
062-043-08 PE5	6.2	8	91	43	54	36	1.0	●
063-043-08 PE5	6.3	8	91	43	54	36	1.0	●
064-043-08 PE5	6.4	8	91	43	54	36	1.0	●

●: Standard items

Cutting Condition
D266

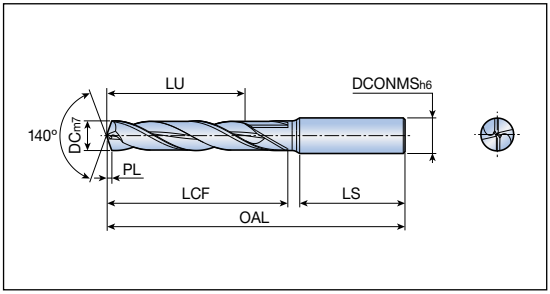
NHD...PE5

Solid carbide drills without oil holes



• Drilling depth: 5xdiameter





Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT9030
NHD 065-043-08 PE5	6.5	8	91	43	54	36	1.0	●
066-043-08 PE5	6.6	8	91	43	54	36	1.0	●
067-043-08 PE5	6.7	8	91	43	54	36	1.1	●
068-043-08 PE5	6.8	8	91	43	54	36	1.1	●
069-043-08 PE5	6.9	8	91	43	54	36	1.1	●
070-043-08 PE5	7.0	8	91	43	54	36	1.1	●
071-043-08 PE5	7.1	8	91	43	54	36	1.1	●
072-043-08 PE5	7.2	8	91	43	54	36	1.1	●
073-043-08 PE5	7.3	8	91	43	54	36	1.1	●
074-043-08 PE5	7.4	8	91	43	54	36	1.2	●
075-043-08 PE5	7.5	8	91	43	54	36	1.2	●
076-043-08 PE5	7.6	8	91	43	54	36	1.2	●
077-043-08 PE5	7.7	8	91	43	54	36	1.2	●
078-043-08 PE5	7.8	8	91	43	54	36	1.2	●
079-043-08 PE5	7.9	8	91	43	54	36	1.3	●
080-043-08 PE5	8.0	8	91	43	54	36	1.3	●
081-049-10 PE5	8.1	10	103	49	62	40	1.3	●
082-049-10 PE5	8.2	10	103	49	62	40	1.3	●
083-049-10 PE5	8.3	10	103	49	62	40	1.3	●
084-049-10 PE5	8.4	10	103	49	62	40	1.3	●
085-049-10 PE5	8.5	10	103	49	62	40	1.3	●
086-049-10 PE5	8.6	10	103	49	62	40	1.4	●
087-049-10 PE5	8.7	10	103	49	62	40	1.4	●
088-049-10 PE5	8.8	10	103	49	62	40	1.4	●
089-049-10 PE5	8.9	10	103	49	62	40	1.4	●
090-049-10 PE5	9.0	10	103	49	62	40	1.4	●
091-049-10 PE5	9.1	10	103	49	62	40	1.4	●
092-049-10 PE5	9.2	10	103	49	62	40	1.4	●
093-049-10 PE5	9.3	10	103	49	62	40	1.5	●
094-049-10 PE5	9.4	10	103	49	62	40	1.5	●
095-049-10 PE5	9.5	10	103	49	62	40	1.5	●
096-049-10 PE5	9.6	10	103	49	62	40	1.5	●
097-049-10 PE5	9.7	10	103	49	62	40	1.5	●
098-049-10 PE5	9.8	10	103	49	62	40	1.6	●
099-049-10 PE5	9.9	10	103	49	62	40	1.6	●

Cutting Condition
D266

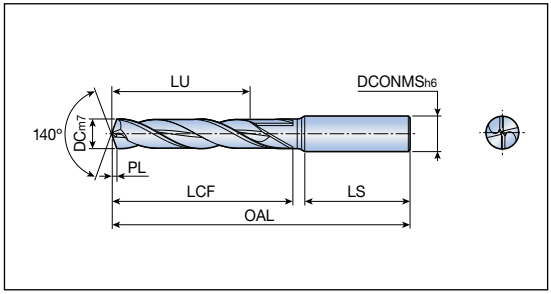
●: Standard items

NHD...PE5

Solid carbide drills without oil holes



• Drilling depth: 5xdiameter



Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT9030
NHD 100-049-10 PE5	10.0	10	103	49	62	40	1.6	●
101-056-12 PE5	10.1	12	118	56	71	45	1.6	●
102-056-12 PE5	10.2	12	118	56	71	45	1.6	●
103-056-12 PE5	10.3	12	118	56	71	45	1.6	●
104-056-12 PE5	10.4	12	118	56	71	45	1.6	●
105-056-12 PE5	10.5	12	118	56	71	45	1.6	●
106-056-12 PE5	10.6	12	118	56	71	45	1.7	●
107-056-12 PE5	10.7	12	118	56	71	45	1.7	●
108-056-12 PE5	10.8	12	118	56	71	45	1.7	●
109-056-12 PE5	10.9	12	118	56	71	45	1.7	●
110-056-12 PE5	11.0	12	118	56	71	45	1.7	●
111-056-12 PE5	11.1	12	118	56	72	45	1.7	●
112-056-12 PE5	11.2	12	118	56	72	45	1.8	●
113-056-12 PE5	11.3	12	118	56	72	45	1.8	●
114-056-12 PE5	11.4	12	118	56	72	45	1.8	●
115-056-12 PE5	11.5	12	118	56	72	45	1.8	●
116-056-12 PE5	11.6	12	118	56	72	45	1.8	●
117-056-12 PE5	11.7	12	118	56	72	45	1.9	●
118-056-12 PE5	11.8	12	118	56	72	45	1.9	●
119-056-12 PE5	11.9	12	118	56	72	45	1.9	●
120-056-12 PE5	12.0	12	118	56	72	45	1.9	●

Cutting Condition D266

●: Standard items

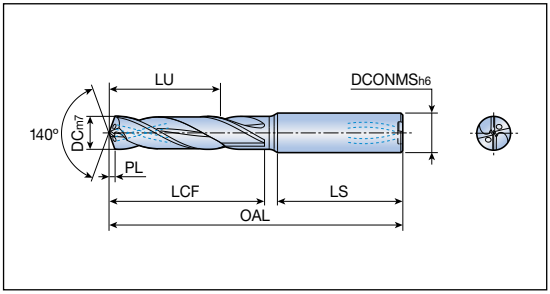
ADVANCE CUTTING TaeguTec

NHD...PI3

Solid carbide drills with oil holes



• Drilling depth: 3xdiameter



Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT9030
NHD 030-014-06 PI3	3.0	6	62	14	21	34	0.5	●
031-014-06 PI3	3.1	6	62	14	21	34	0.5	●
032-014-06 PI3	3.2	6	62	14	21	34	0.5	●
033-014-06 PI3	3.3	6	62	14	21	34	0.5	●
034-014-06 PI3	3.4	6	62	14	21	34	0.5	●
035-014-06 PI3	3.5	6	62	14	21	34	0.6	●
036-014-06 PI3	3.6	6	62	14	21	34	0.6	●
037-014-06 PI3	3.7	6	62	14	21	34	0.6	●
038-017-06 PI3	3.8	6	66	17	25	35	0.6	●
039-017-06 PI3	3.9	6	66	17	25	35	0.6	●
040-017-06 PI3	4.0	6	66	17	25	35	0.6	●
041-017-06 PI3	4.1	6	66	17	25	35	0.7	●
042-017-06 PI3	4.2	6	66	17	25	35	0.7	●
043-017-06 PI3	4.3	6	66	17	25	35	0.7	●
044-017-06 PI3	4.4	6	66	17	25	35	0.7	●
045-017-06 PI3	4.5	6	66	17	25	35	0.7	●
046-017-06 PI3	4.6	6	66	17	25	35	0.7	●
047-017-06 PI3	4.7	6	66	17	25	35	0.8	●
048-020-06 PI3	4.8	6	66	20	29	36	0.8	●
049-020-06 PI3	4.9	6	66	20	29	36	0.8	●
050-020-06 PI3	5.0	6	66	20	29	36	0.8	●
051-020-06 PI3	5.1	6	66	20	29	36	0.8	●
052-020-06 PI3	5.2	6	66	20	29	36	0.8	●
053-020-06 PI3	5.3	6	66	20	29	36	0.8	●
054-020-06 PI3	5.4	6	66	20	29	36	0.8	●
055-020-06 PI3	5.5	6	66	20	29	36	0.9	●
056-020-06 PI3	5.6	6	66	20	29	36	0.9	●
057-020-06 PI3	5.7	6	66	20	29	36	0.9	●
058-020-06 PI3	5.8	6	66	20	29	36	0.9	●
059-020-06 PI3	5.9	6	66	20	29	36	0.9	●
060-020-06 PI3	6.0	6	66	20	29	36	0.9	●
061-024-08 PI3	6.1	8	79	24	35	36	1.0	●
062-024-08 PI3	6.2	8	79	24	35	36	1.0	●
063-024-08 PI3	6.3	8	79	24	35	36	1.0	●
064-024-08 PI3	6.4	8	79	24	35	36	1.0	●

Cutting Condition D266

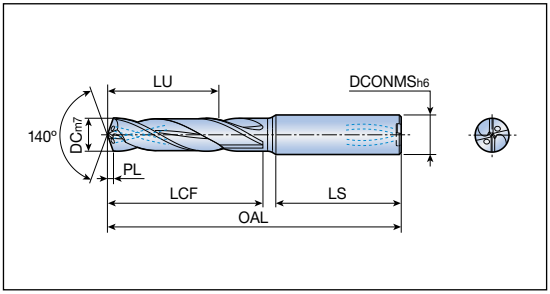
●: Standard items

NHD...PI3

Solid carbide drills with oil holes



• Drilling depth: 3xdiameter



Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT9030
NHD 065-024-08 PI3	6.5	8	79	24	35	36	1.0	●
066-024-08 PI3	6.6	8	79	24	35	36	1.0	●
067-024-08 PI3	6.7	8	79	24	35	36	1.1	●
068-024-08 PI3	6.8	8	79	24	35	36	1.1	●
069-024-08 PI3	6.9	8	79	24	35	36	1.1	●
070-024-08 PI3	7.0	8	79	24	35	36	1.1	●
071-029-08 PI3	7.1	8	79	29	42	36	1.1	●
072-029-08 PI3	7.2	8	79	29	42	36	1.1	●
073-029-08 PI3	7.3	8	79	29	42	36	1.1	●
074-029-08 PI3	7.4	8	79	29	42	36	1.2	●
075-029-08 PI3	7.5	8	79	29	42	36	1.2	●
076-029-08 PI3	7.6	8	79	29	42	36	1.2	●
077-029-08 PI3	7.7	8	79	29	42	36	1.2	●
078-029-08 PI3	7.8	8	79	29	42	36	1.2	●
079-029-08 PI3	7.9	8	79	29	42	36	1.3	●
080-029-08 PI3	8.0	8	79	29	42	36	1.3	●
081-035-10 PI3	8.1	10	89	35	48	40	1.3	●
082-035-10 PI3	8.2	10	89	35	48	40	1.3	●
083-035-10 PI3	8.3	10	89	35	48	40	1.3	●
084-035-10 PI3	8.4	10	89	35	48	40	1.3	●
085-035-10 PI3	8.5	10	89	35	48	40	1.3	●
086-035-10 PI3	8.6	10	89	35	48	40	1.4	●
087-035-10 PI3	8.7	10	89	35	48	40	1.4	●
088-035-10 PI3	8.8	10	89	35	48	40	1.4	●
089-035-10 PI3	8.9	10	89	35	48	40	1.4	●
090-035-10 PI3	9.0	10	89	35	48	40	1.4	●
091-035-10 PI3	9.1	10	89	35	48	40	1.4	●
092-035-10 PI3	9.2	10	89	35	48	40	1.4	●
093-035-10 PI3	9.3	10	89	35	48	40	1.5	●
094-035-10 PI3	9.4	10	89	35	48	40	1.5	●
095-035-10 PI3	9.5	10	89	35	48	40	1.5	●
096-035-10 PI3	9.6	10	89	35	48	40	1.5	●
097-035-10 PI3	9.7	10	89	35	48	40	1.5	●
098-035-10 PI3	9.8	10	89	35	48	40	1.6	●
099-035-10 PI3	9.9	10	89	35	48	40	1.6	●

●: Standard items

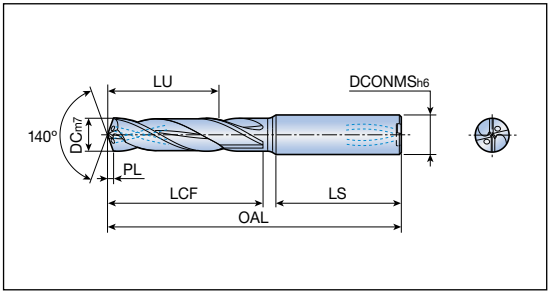
Cutting Condition D266

ADVANCE CUTTING TaeguTec

NHD...PI3

Solid carbide drills with oil holes





• Drilling depth: 3xdiameter

Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT9030
NHD 100-035-10 PI3	10.0	10	89	35	48	40	1.6	●
101-040-12 PI3	10.1	12	102	40	55	45	1.6	●
102-040-12 PI3	10.2	12	102	40	55	45	1.6	●
103-040-12 PI3	10.3	12	102	40	55	45	1.6	●
104-040-12 PI3	10.4	12	102	40	55	45	1.6	●
105-040-12 PI3	10.5	12	102	40	55	45	1.6	●
106-040-12 PI3	10.6	12	102	40	55	45	1.7	●
107-040-12 PI3	10.7	12	102	40	55	45	1.7	●
108-040-12 PI3	10.8	12	102	40	55	45	1.7	●
109-040-12 PI3	10.9	12	102	40	55	45	1.7	●
110-040-12 PI3	11.0	12	102	40	55	45	1.7	●
111-040-12 PI3	11.1	12	102	40	56	45	1.7	●
112-040-12 PI3	11.2	12	102	40	56	45	1.8	●
113-040-12 PI3	11.3	12	102	40	56	45	1.8	●
114-040-12 PI3	11.4	12	102	40	56	45	1.8	●
115-040-12 PI3	11.5	12	102	40	56	45	1.8	●
116-040-12 PI3	11.6	12	102	40	56	45	1.8	●
117-040-12 PI3	11.7	12	102	40	56	45	1.9	●
118-040-12 PI3	11.8	12	102	40	56	45	1.9	●
119-040-12 PI3	11.9	12	102	40	56	45	1.9	●
120-040-12 PI3	12.0	12	102	40	56	45	1.9	●

Cutting Condition D266

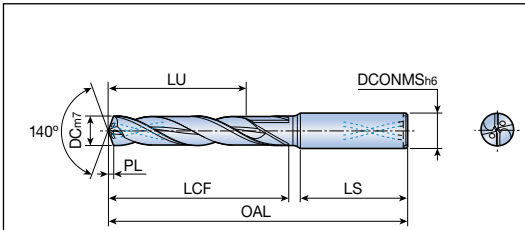
●: Standard items

NHD...PI5

Solid carbide drills with oil holes



• Drilling depth: 5xdiameter



Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT9030
NHD 030-023-06 PI5	3.0	6	66	23	29	34	0.5	●
031-023-06 PI5	3.1	6	66	23	29	34	0.5	●
032-023-06 PI5	3.2	6	66	23	29	34	0.5	●
033-023-06 PI5	3.3	6	66	23	29	34	0.5	●
034-023-06 PI5	3.4	6	66	23	29	34	0.5	●
035-023-06 PI5	3.5	6	66	23	29	34	0.6	●
036-023-06 PI5	3.6	6	66	23	29	34	0.6	●
037-023-06 PI5	3.7	6	66	23	29	34	0.6	●
038-029-06 PI5	3.8	6	74	29	37	35	0.6	●
039-029-06 PI5	3.9	6	74	29	37	35	0.6	●
040-029-06 PI5	4.0	6	74	29	37	35	0.6	●
041-029-06 PI5	4.1	6	74	29	37	35	0.7	●
042-029-06 PI5	4.2	6	74	29	37	35	0.7	●
043-029-06 PI5	4.3	6	74	29	37	35	0.7	●
044-029-06 PI5	4.4	6	74	29	37	35	0.7	●
045-029-06 PI5	4.5	6	74	29	37	35	0.7	●
046-029-06 PI5	4.6	6	74	29	37	35	0.7	●
047-029-06 PI5	4.7	6	74	29	37	35	0.8	●
048-035-06 PI5	4.8	6	82	35	45	36	0.8	●
049-035-06 PI5	4.9	6	82	35	45	36	0.8	●
050-035-06 PI5	5.0	6	82	35	45	36	0.8	●
051-035-06 PI5	5.1	6	82	35	45	36	0.8	●
052-035-06 PI5	5.2	6	82	35	45	36	0.8	●
053-035-06 PI5	5.3	6	82	35	45	36	0.8	●
054-035-06 PI5	5.4	6	82	35	45	36	0.8	●
055-035-06 PI5	5.5	6	82	35	45	36	0.9	●
056-035-06 PI5	5.6	6	82	35	45	36	0.9	●
057-035-06 PI5	5.7	6	82	35	45	36	0.9	●
058-035-06 PI5	5.8	6	82	35	45	36	0.9	●
059-035-06 PI5	5.9	6	82	35	45	36	0.9	●
060-035-06 PI5	6.0	6	82	35	45	36	0.9	●
061-043-08 PI5	6.1	8	91	43	54	36	1.0	●
062-043-08 PI5	6.2	8	91	43	54	36	1.0	●
063-043-08 PI5	6.3	8	91	43	54	36	1.0	●
064-043-08 PI5	6.4	8	91	43	54	36	1.0	●

●: Standard items

Cutting Condition D266

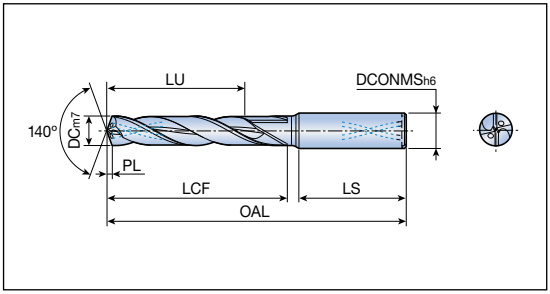
ADVANCE CUTTING TaeguTec

NHD...PI5

Solid carbide drills with oil holes



• Drilling depth: 5xdiameter



Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT9030
NHD 065-043-08 PI5	6.5	8	91	43	54	36	1.0	●
066-043-08 PI5	6.6	8	91	43	54	36	1.0	●
067-043-08 PI5	6.7	8	91	43	54	36	1.1	●
068-043-08 PI5	6.8	8	91	43	54	36	1.1	●
069-043-08 PI5	6.9	8	91	43	54	36	1.1	●
070-043-08 PI5	7.0	8	91	43	54	36	1.1	●
071-043-08 PI5	7.1	8	91	43	54	36	1.1	●
072-043-08 PI5	7.2	8	91	43	54	36	1.1	●
073-043-08 PI5	7.3	8	91	43	54	36	1.1	●
074-043-08 PI5	7.4	8	91	43	54	36	1.2	●
075-043-08 PI5	7.5	8	91	43	54	36	1.2	●
076-043-08 PI5	7.6	8	91	43	54	36	1.2	●
077-043-08 PI5	7.7	8	91	43	54	36	1.2	●
078-043-08 PI5	7.8	8	91	43	54	36	1.2	●
079-043-08 PI5	7.9	8	91	43	54	36	1.3	●
080-043-08 PI5	8.0	8	91	43	54	36	1.3	●
081-049-10 PI5	8.1	10	103	49	62	40	1.3	●
082-049-10 PI5	8.2	10	103	49	62	40	1.3	●
083-049-10 PI5	8.3	10	103	49	62	40	1.3	●
084-049-10 PI5	8.4	10	103	49	62	40	1.3	●
085-049-10 PI5	8.5	10	103	49	62	40	1.3	●
086-049-10 PI5	8.6	10	103	49	62	40	1.4	●
087-049-10 PI5	8.7	10	103	49	62	40	1.4	●
088-049-10 PI5	8.8	10	103	49	62	40	1.4	●
089-049-10 PI5	8.9	10	103	49	62	40	1.4	●
090-049-10 PI5	9.0	10	103	49	62	40	1.4	●
091-049-10 PI5	9.1	10	103	49	62	40	1.4	●
092-049-10 PI5	9.2	10	103	49	62	40	1.4	●
093-049-10 PI5	9.3	10	103	49	62	40	1.5	●
094-049-10 PI5	9.4	10	103	49	62	40	1.5	●
095-049-10 PI5	9.5	10	103	49	62	40	1.5	●
096-049-10 PI5	9.6	10	103	49	62	40	1.5	●
097-049-10 PI5	9.7	10	103	49	62	40	1.5	●
098-049-10 PI5	9.8	10	103	49	62	40	1.6	●
099-049-10 PI5	9.9	10	103	49	62	40	1.6	●

●: Standard items

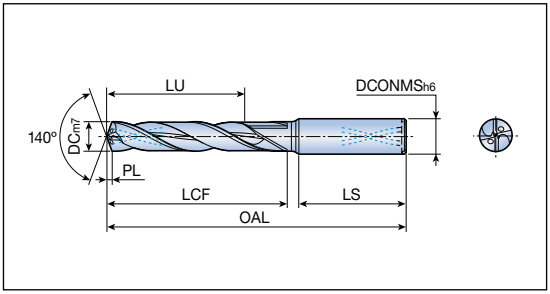
Cutting Condition D266

NHD...PI5

Solid carbide drills with oil holes



• Drilling depth: 5xdiameter



Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT9030
NHD 100-049-10 PI5	10.0	10	103	49	62	40	1.6	●
101-056-12 PI5	10.1	12	118	56	71	45	1.6	●
102-056-12 PI5	10.2	12	118	56	71	45	1.6	●
103-056-12 PI5	10.3	12	118	56	71	45	1.6	●
104-056-12 PI5	10.4	12	118	56	71	45	1.6	●
105-056-12 PI5	10.5	12	118	56	71	45	1.6	●
106-056-12 PI5	10.6	12	118	56	71	45	1.7	●
107-056-12 PI5	10.7	12	118	56	71	45	1.7	●
108-056-12 PI5	10.8	12	118	56	71	45	1.7	●
109-056-12 PI5	10.9	12	118	56	71	45	1.7	●
110-056-12 PI5	11.0	12	118	56	71	45	1.7	●
111-056-12 PI5	11.1	12	118	56	72	45	1.7	●
112-056-12 PI5	11.2	12	118	56	72	45	1.8	●
113-056-12 PI5	11.3	12	118	56	72	45	1.8	●
114-056-12 PI5	11.4	12	118	56	72	45	1.8	●
115-056-12 PI5	11.5	12	118	56	72	45	1.8	●
116-056-12 PI5	11.6	12	118	56	72	45	1.8	●
117-056-12 PI5	11.7	12	118	56	72	45	1.9	●
118-056-12 PI5	11.8	12	118	56	72	45	1.9	●
119-056-12 PI5	11.9	12	118	56	72	45	1.9	●
120-056-12 PI5	12.0	12	118	56	72	45	1.9	●

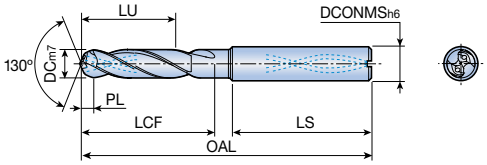
●: Standard items

Cutting Condition D266

NHD…KI3

Solid carbide drills with oil holes for cast iron machining





• Drilling depth: 3xdiameter

Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT9030
NHD 030-014-06 KI3	3.0	6	62	14	20	34	1.4	●
033-014-06 KI3	3.3	6	62	14	20	34	1.6	●
035-014-06 KI3	3.5	6	62	14	20	34	1.7	●
040-017-06 KI3	4.0	6	66	17	24	35	1.9	●
041-017-06 KI3	4.1	6	66	17	24	35	2.0	●
042-017-06 KI3	4.2	6	66	17	24	35	2.0	●
045-017-06 KI3	4.5	6	66	17	24	35	2.2	●
046-017-06 KI3	4.6	6	66	17	24	35	2.2	●
050-020-06 KI3	5.0	6	66	20	27	36	2.4	●
051-020-06 KI3	5.1	6	66	20	27	36	2.5	●
052-020-06 KI3	5.2	6	66	20	27	36	2.5	●
055-020-06 KI3	5.5	6	66	20	27	36	2.6	●
060-020-06 KI3	6.0	6	66	20	27	36	2.9	●
061-024-08 KI3	6.1	8	79	24	34	36	2.9	●
065-024-08 KI3	6.5	8	79	24	34	36	3.1	●
067-024-08 KI3	6.7	8	79	24	34	36	3.2	●
068-024-08 KI3	6.8	8	79	24	34	36	3.3	●
070-024-08 KI3	7.0	8	79	24	34	36	3.4	●
075-029-08 KI3	7.5	8	79	29	40	36	3.6	●
080-029-08 KI3	8.0	8	79	29	40	36	3.8	●
081-035-10 KI3	8.1	10	89	35	45	40	3.9	●
085-035-10 KI3	8.5	10	89	35	45	40	4.1	●
087-035-10 KI3	8.7	10	89	35	45	40	4.2	●
089-035-10 KI3	8.9	10	89	35	45	40	4.3	●
090-035-10 KI3	9.0	10	89	35	45	40	4.3	●
095-035-10 KI3	9.5	10	89	35	45	40	4.6	●
100-035-10 KI3	10.0	10	89	35	45	40	4.8	●
103-040-12 KI3	10.3	12	102	40	53	45	4.9	●
105-040-12 KI3	10.5	12	102	40	53	45	5.0	●
110-040-12 KI3	11.0	12	102	40	53	45	5.3	●
115-040-12 KI3	11.5	12	102	40	53	45	5.5	●
120-040-12 KI3	12.0	12	102	40	53	45	5.8	●

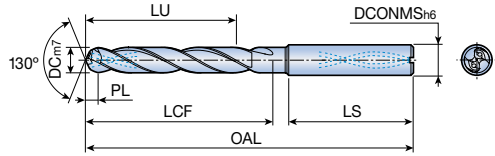
Cutting Condition D266

●: Standard items

NHD…KI5

Solid carbide drills with oil holes for cast iron machining





• Drilling depth: 5xdiameter

Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT9030
NHD 030-023-06 KI5	3.0	6	66	23	27	34	1.4	●
033-023-06 KI5	3.3	6	66	23	27	34	1.6	●
035-023-06 KI5	3.5	6	66	23	27	34	1.7	●
040-029-06 KI5	4.0	6	74	29	34	35	1.9	●
042-029-06 KI5	4.2	6	74	29	34	35	2.0	●
045-029-06 KI5	4.5	6	74	29	35	35	2.2	●
046-029-06 KI5	4.6	6	74	29	35	35	2.2	●
050-035-06 KI5	5.0	6	82	35	43	36	2.4	●
052-035-06 KI5	5.2	6	82	35	43	36	2.5	●
055-035-06 KI5	5.5	6	82	35	43	36	2.6	●
060-035-06 KI5	6.0	6	82	35	43	36	2.9	●
065-043-08 KI5	6.5	8	91	43	52	36	3.1	●
067-043-08 KI5	6.7	8	91	43	52	36	3.2	●
068-043-08 KI5	6.8	8	91	43	52	36	3.3	●
070-043-08 KI5	7.0	8	91	43	52	36	3.4	●
075-043-08 KI5	7.5	8	91	43	52	36	3.6	●
080-043-08 KI5	8.0	8	91	43	52	36	3.8	●
081-049-10 KI5	8.1	10	103	49	59	40	3.9	●
085-049-10 KI5	8.5	10	103	49	59	40	4.1	●
087-049-10 KI5	8.7	10	103	49	59	40	4.2	●
089-049-10 KI5	8.9	10	103	49	59	40	4.3	●
090-049-10 KI5	9.0	10	103	49	59	40	4.3	●
095-049-10 KI5	9.5	10	103	49	59	40	4.6	●
100-049-10 KI5	10.0	10	103	49	59	40	4.8	●
103-056-12 KI5	10.3	12	118	56	69	45	4.9	●
105-056-12 KI5	10.5	12	118	56	69	45	5.0	●
110-056-12 KI5	11.0	12	118	56	69	45	5.3	●
115-056-12 KI5	11.5	12	118	56	69	45	5.5	●
120-056-12 KI5	12.0	12	118	56	69	45	5.8	●

●: Standard items

Cutting Condition D266

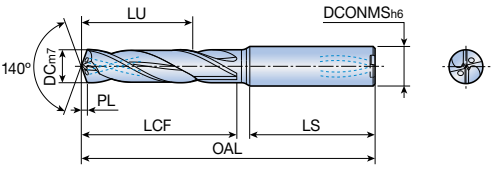
ADVANCE CUTTING TaeguTec

NHD...NI3

Solid carbide drills with oil holes for aluminum machining



• Drilling depth: 3xdiameter



Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	UF10
NHD 030-014-06 NI3	3.0	6	62	14	21	34	0.5	●
031-014-06 NI3	3.1	6	62	14	21	34	0.5	●
032-014-06 NI3	3.2	6	62	14	21	34	0.5	●
033-014-06 NI3	3.3	6	62	14	21	34	0.5	●
034-014-06 NI3	3.4	6	62	14	21	34	0.5	●
035-014-06 NI3	3.5	6	62	14	21	34	0.6	●
036-014-06 NI3	3.6	6	62	14	21	34	0.6	●
037-014-06 NI3	3.7	6	62	14	21	34	0.6	●
038-017-06 NI3	3.8	6	66	17	25	35	0.6	●
039-017-06 NI3	3.9	6	66	17	25	35	0.6	●
040-017-06 NI3	4.0	6	66	17	25	35	0.6	●
041-017-06 NI3	4.1	6	66	17	25	35	0.7	●
042-017-06 NI3	4.2	6	66	17	25	35	0.7	●
043-017-06 NI3	4.3	6	66	17	25	35	0.7	●
044-017-06 NI3	4.4	6	66	17	25	35	0.7	●
045-017-06 NI3	4.5	6	66	17	25	35	0.7	●
046-017-06 NI3	4.6	6	66	17	25	35	0.7	●
047-017-06 NI3	4.7	6	66	17	25	35	0.8	●
048-020-06 NI3	4.8	6	66	20	29	36	0.8	●
049-020-06 NI3	4.9	6	66	20	29	36	0.8	●
050-020-06 NI3	5.0	6	66	20	29	36	0.8	●
051-020-06 NI3	5.1	6	66	20	29	36	0.8	●
052-020-06 NI3	5.2	6	66	20	29	36	0.8	●
053-020-06 NI3	5.3	6	66	20	29	36	0.8	●
054-020-06 NI3	5.4	6	66	20	29	36	0.8	●
055-020-06 NI3	5.5	6	66	20	29	36	0.9	●
056-020-06 NI3	5.6	6	66	20	29	36	0.9	●
057-020-06 NI3	5.7	6	66	20	29	36	0.9	●
058-020-06 NI3	5.8	6	66	20	29	36	0.9	●
059-020-06 NI3	5.9	6	66	20	29	36	0.9	●
060-020-06 NI3	6.0	6	66	20	29	36	0.9	●
061-024-08 NI3	6.1	8	79	24	35	36	1.0	●
062-024-08 NI3	6.2	8	79	24	35	36	1.0	●
063-024-08 NI3	6.3	8	79	24	35	36	1.0	●
064-024-08 NI3	6.4	8	79	24	35	36	1.0	●

Cutting Condition D266

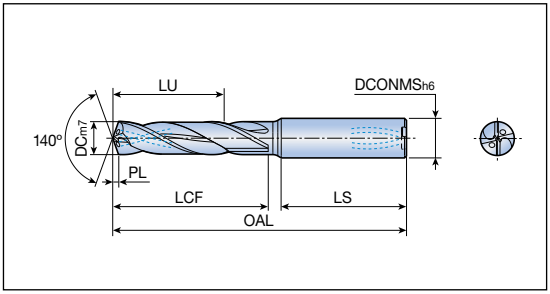
●: Standard items

NHD...NI3

Solid carbide drills with oil holes for aluminum machining



• Drilling depth: 3xdiameter



Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	UF10
NHD 065-024-08 NI3	6.5	8	79	24	35	36	1.0	●
066-024-08 NI3	6.6	8	79	24	35	36	1.0	●
067-024-08 NI3	6.7	8	79	24	35	36	1.1	●
068-024-08 NI3	6.8	8	79	24	35	36	1.1	●
069-024-08 NI3	6.9	8	79	24	35	36	1.1	●
070-024-08 NI3	7.0	8	79	24	35	36	1.1	●
071-029-08 NI3	7.1	8	79	29	42	36	1.1	●
072-029-08 NI3	7.2	8	79	29	42	36	1.1	●
073-029-08 NI3	7.3	8	79	29	42	36	1.1	●
074-029-08 NI3	7.4	8	79	29	42	36	1.2	●
075-029-08 NI3	7.5	8	79	29	42	36	1.2	●
076-029-08 NI3	7.6	8	79	29	42	36	1.2	●
077-029-08 NI3	7.7	8	79	29	42	36	1.2	●
078-029-08 NI3	7.8	8	79	29	42	36	1.2	●
079-029-08 NI3	7.9	8	79	29	42	36	1.3	●
080-029-08 NI3	8.0	8	79	29	42	36	1.3	●
081-035-10 NI3	8.1	10	89	35	48	40	1.3	●
082-035-10 NI3	8.2	10	89	35	48	40	1.3	●
083-035-10 NI3	8.3	10	89	35	48	40	1.3	●
084-035-10 NI3	8.4	10	89	35	48	40	1.3	●
085-035-10 NI3	8.5	10	89	35	48	40	1.3	●
086-035-10 NI3	8.6	10	89	35	48	40	1.4	●
087-035-10 NI3	8.7	10	89	35	48	40	1.4	●
088-035-10 NI3	8.8	10	89	35	48	40	1.4	●
089-035-10 NI3	8.9	10	89	35	48	40	1.4	●
090-035-10 NI3	9.0	10	89	35	48	40	1.4	●
091-035-10 NI3	9.1	10	89	35	48	40	1.4	●
092-035-10 NI3	9.2	10	89	35	48	40	1.4	●
093-035-10 NI3	9.3	10	89	35	48	40	1.5	●
094-035-10 NI3	9.4	10	89	35	48	40	1.5	●
095-035-10 NI3	9.5	10	89	35	48	40	1.5	●
096-035-10 NI3	9.6	10	89	35	48	40	1.5	●
097-035-10 NI3	9.7	10	89	35	48	40	1.5	●
098-035-10 NI3	9.8	10	89	35	48	40	1.6	●
099-035-10 NI3	9.9	10	89	35	48	40	1.6	●

●: Standard items

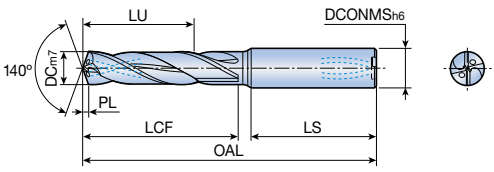
Cutting Condition
D266

NHD...NI3

Solid carbide drills with oil holes for aluminum machining



• Drilling depth: 3xdiameter



Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	UF10
NHD 100-035-10 NI3	10.0	10	89	35	48	40	1.6	●
101-040-12 NI3	10.1	12	102	40	55	45	1.6	●
102-040-12 NI3	10.2	12	102	40	55	45	1.6	●
103-040-12 NI3	10.3	12	102	40	55	45	1.6	●
104-040-12 NI3	10.4	12	102	40	55	45	1.6	●
105-040-12 NI3	10.5	12	102	40	55	45	1.6	●
106-040-12 NI3	10.6	12	102	40	55	45	1.7	●
107-040-12 NI3	10.7	12	102	40	55	45	1.7	●
108-040-12 NI3	10.8	12	102	40	55	45	1.7	●
109-040-12 NI3	10.9	12	102	40	55	45	1.7	●
110-040-12 NI3	11.0	12	102	40	55	45	1.7	●
111-040-12 NI3	11.1	12	102	40	56	45	1.7	●
112-040-12 NI3	11.2	12	102	40	56	45	1.8	●
113-040-12 NI3	11.3	12	102	40	56	45	1.8	●
114-040-12 NI3	11.4	12	102	40	56	45	1.8	●
115-040-12 NI3	11.5	12	102	40	56	45	1.8	●
116-040-12 NI3	11.6	12	102	40	56	45	1.8	●
117-040-12 NI3	11.7	12	102	40	56	45	1.9	●
118-040-12 NI3	11.8	12	102	40	56	45	1.9	●
119-040-12 NI3	11.9	12	102	40	56	45	1.9	●
120-040-12 NI3	12.0	12	102	40	56	45	1.9	●

Cutting Condition D266

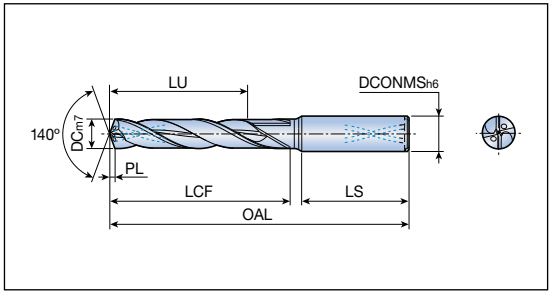
●: Standard items

NHD...NI5

Solid carbide drills with oil holes for aluminum machining



• Drilling depth: 5xdiameter



Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	UF10
NHD 030-023-06 NI5	3.0	6	66	23	29	34	0.5	●
031-023-06 NI5	3.1	6	66	23	29	34	0.5	●
032-023-06 NI5	3.2	6	66	23	29	34	0.5	●
033-023-06 NI5	3.3	6	66	23	29	34	0.5	●
034-023-06 NI5	3.4	6	66	23	29	34	0.5	●
035-023-06 NI5	3.5	6	66	23	29	34	0.6	●
036-023-06 NI5	3.6	6	66	23	29	34	0.6	●
037-023-06 NI5	3.7	6	66	23	29	34	0.6	●
038-029-06 NI5	3.8	6	74	29	37	35	0.6	●
039-029-06 NI5	3.9	6	74	29	37	35	0.6	●
040-029-06 NI5	4.0	6	74	29	37	35	0.6	●
041-029-06 NI5	4.1	6	74	29	37	35	0.7	●
042-029-06 NI5	4.2	6	74	29	37	35	0.7	●
043-029-06 NI5	4.3	6	74	29	37	35	0.7	●
044-029-06 NI5	4.4	6	74	29	37	35	0.7	●
045-029-06 NI5	4.5	6	74	29	37	35	0.7	●
046-029-06 NI5	4.6	6	74	29	37	35	0.7	●
047-029-06 NI5	4.7	6	74	29	37	35	0.8	●
048-035-06 NI5	4.8	6	82	35	45	36	0.8	●
049-035-06 NI5	4.9	6	82	35	45	36	0.8	●
050-035-06 NI5	5.0	6	82	35	45	36	0.8	●
051-035-06 NI5	5.1	6	82	35	45	36	0.8	●
052-035-06 NI5	5.2	6	82	35	45	36	0.8	●
053-035-06 NI5	5.3	6	82	35	45	36	0.8	●
054-035-06 NI5	5.4	6	82	35	45	36	0.8	●
055-035-06 NI5	5.5	6	82	35	45	36	0.9	●
056-035-06 NI5	5.6	6	82	35	45	36	0.9	●
057-035-06 NI5	5.7	6	82	35	45	36	0.9	●
058-035-06 NI5	5.8	6	82	35	45	36	0.9	●
059-035-06 NI5	5.9	6	82	35	45	36	0.9	●
060-035-06 NI5	6.0	6	82	35	45	36	0.9	●
061-043-08 NI5	6.1	8	91	43	54	36	1.0	●
062-043-08 NI5	6.2	8	91	43	54	36	1.0	●
063-043-08 NI5	6.3	8	91	43	54	36	1.0	●
064-043-08 NI5	6.4	8	91	43	54	36	1.0	●

●: Standard items

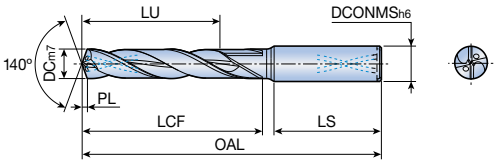
Cutting Condition
D266

NHD...NI5

Solid carbide drills with oil holes for aluminum machining



• Drilling depth: 5xdiameter



Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	UF10
NHD 065-043-08 NI5	6.5	8	91	43	54	36	1.0	●
066-043-08 NI5	6.6	8	91	43	54	36	1.0	●
067-043-08 NI5	6.7	8	91	43	54	36	1.1	●
068-043-08 NI5	6.8	8	91	43	54	36	1.1	●
069-043-08 NI5	6.9	8	91	43	54	36	1.1	●
070-043-08 NI5	7.0	8	91	43	54	36	1.1	●
071-043-08 NI5	7.1	8	91	43	54	36	1.1	●
072-043-08 NI5	7.2	8	91	43	54	36	1.1	●
073-043-08 NI5	7.3	8	91	43	54	36	1.1	●
074-043-08 NI5	7.4	8	91	43	54	36	1.2	●
075-043-08 NI5	7.5	8	91	43	54	36	1.2	●
076-043-08 NI5	7.6	8	91	43	54	36	1.2	●
077-043-08 NI5	7.7	8	91	43	54	36	1.2	●
078-043-08 NI5	7.8	8	91	43	54	36	1.2	●
079-043-08 NI5	7.9	8	91	43	54	36	1.3	●
080-043-08 NI5	8.0	8	91	43	54	36	1.3	●
081-049-10 NI5	8.1	10	103	49	62	40	1.3	●
082-049-10 NI5	8.2	10	103	49	62	40	1.3	●
083-049-10 NI5	8.3	10	103	49	62	40	1.3	●
084-049-10 NI5	8.4	10	103	49	62	40	1.3	●
085-049-10 NI5	8.5	10	103	49	62	40	1.3	●
086-049-10 NI5	8.6	10	103	49	62	40	1.4	●
087-049-10 NI5	8.7	10	103	49	62	40	1.4	●
088-049-10 NI5	8.8	10	103	49	62	40	1.4	●
089-049-10 NI5	8.9	10	103	49	62	40	1.4	●
090-049-10 NI5	9.0	10	103	49	62	40	1.4	●
091-049-10 NI5	9.1	10	103	49	62	40	1.4	●
092-049-10 NI5	9.2	10	103	49	62	40	1.4	●
093-049-10 NI5	9.3	10	103	49	62	40	1.5	●
094-049-10 NI5	9.4	10	103	49	62	40	1.5	●
095-049-10 NI5	9.5	10	103	49	62	40	1.5	●
096-049-10 NI5	9.6	10	103	49	62	40	1.5	●
097-049-10 NI5	9.7	10	103	49	62	40	1.5	●
098-049-10 NI5	9.8	10	103	49	62	40	1.6	●
099-049-10 NI5	9.9	10	103	49	62	40	1.6	●

●: Standard items

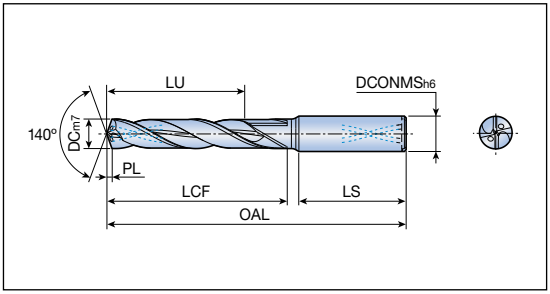
Cutting Condition D266

NHD...NI5

Solid carbide drills with oil holes for aluminum machining



• Drilling depth: 5xdiameter



Designation		Dimension (mm)							Grade
		DC	DCONMS	OAL	LU	LCF	LS	PL	UF10
NHD	100-049-10 NI5	10.0	10	103	49	62	40	1.6	●
	101-056-12 NI5	10.1	12	118	56	71	45	1.6	●
	102-056-12 NI5	10.2	12	118	56	71	45	1.6	●
	103-056-12 NI5	10.3	12	118	56	71	45	1.6	●
	104-056-12 NI5	10.4	12	118	56	71	45	1.6	●
	105-056-12 NI5	10.5	12	118	56	71	45	1.6	●
	106-056-12 NI5	10.6	12	118	56	71	45	1.7	●
	107-056-12 NI5	10.7	12	118	56	71	45	1.7	●
	108-056-12 NI5	10.8	12	118	56	71	45	1.7	●
	109-056-12 NI5	10.9	12	118	56	71	45	1.7	●
	110-056-12 NI5	11.0	12	118	56	71	45	1.7	●
	111-056-12 NI5	11.1	12	118	56	72	45	1.7	●
	112-056-12 NI5	11.2	12	118	56	72	45	1.8	●
	113-056-12 NI5	11.3	12	118	56	72	45	1.8	●
	114-056-12 NI5	11.4	12	118	56	72	45	1.8	●
	115-056-12 NI5	11.5	12	118	56	72	45	1.8	●
	116-056-12 NI5	11.6	12	118	56	72	45	1.8	●
	117-056-12 NI5	11.7	12	118	56	72	45	1.9	●
	118-056-12 NI5	11.8	12	118	56	72	45	1.9	●
	119-056-12 NI5	11.9	12	118	56	72	45	1.9	●
	120-056-12 NI5	12.0	12	118	56	72	45	1.9	●

●: Standard items

Cutting Condition D266

ADVANCE CUTTING TaeguTec

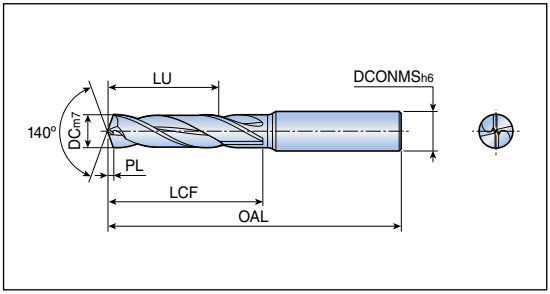
TED S

Solid carbide drills without oil holes



• Drilling depth: 3xdiameter





Designation		Dimension (mm)						Grade
		DC	DCONMS	OAL	LU	LCF	PL	TT5130
TED	S030-4	3.0	4	62	11	18	0.5	●
	S031-4	3.1	4	62	11	18	0.5	●
	S032-4	3.2	4	62	11	18	0.5	●
	S033-4	3.3	4	62	11	18	0.5	●
	S034-4	3.4	4	62	11	18	0.5	●
	S035-4	3.5	4	62	11	18	0.6	●
	S036-4	3.6	4	62	11	18	0.6	●
	S037-4	3.7	4	62	11	18	0.6	●
	S038-4	3.8	4	66	12	18	0.6	●
	S039-4	3.9	4	66	12	18	0.6	●
	S040-4	4.0	4	66	12	18	0.6	●
	S041-5	4.1	5	66	19	27	0.7	●
	S042-5	4.2	5	66	19	27	0.7	●
	S043-5	4.3	5	66	19	27	0.7	●
	S044-5	4.4	5	66	19	27	0.7	●
	S045-5	4.5	5	66	19	27	0.7	●
	S046-5	4.6	5	66	19	27	0.8	●
	S047-5	4.7	5	66	19	27	0.8	●
	S048-5	4.8	5	66	19	27	0.8	●
	S049-5	4.9	5	66	19	27	0.8	●
	S050-5	5.0	5	66	19	27	0.8	●
	S051-6	5.1	6	66	22	31	0.8	●
	S052-6	5.2	6	66	22	31	0.8	●
	S053-6	5.3	6	66	22	31	0.8	●
	S054-6	5.4	6	66	22	31	0.8	●
	S055-6	5.5	6	66	22	31	0.9	●
	S056-6	5.6	6	66	22	31	0.9	●
	S057-6	5.7	6	66	22	31	0.9	●
	S058-6	5.8	6	66	22	31	0.9	●
	S059-6	5.9	6	66	22	31	0.9	●
	S060-6	6.0	6	66	22	31	0.9	●
	S061-7	6.1	7	79	26	37	1	●
	S062-7	6.2	7	79	26	37	1	●
	S063-7	6.3	7	79	26	37	1	●
	S064-7	6.4	7	79	26	37	1	●

Cutting Condition
D266

●: Standard items

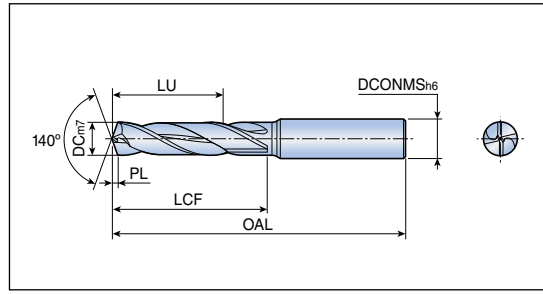
TED S

Solid carbide drills without oil holes



• Drilling depth: 3xdiameter





Designation		Dimension (mm)						Grade
		DC	DCONMS	OAL	LU	LCF	PL	TT5130
TED	S065-7	6.5	7	79	26	37	1	●
	S066-7	6.6	7	79	26	37	1	●
	S067-7	6.7	7	79	26	37	1.1	●
	S068-7	6.8	7	79	26	37	1.1	●
	S069-7	6.9	7	79	26	37	1.1	●
	S070-7	7.0	7	79	26	37	1.1	●
	S071-8	7.1	8	79	28	41	1.1	●
	S072-8	7.2	8	79	28	41	1.1	●
	S073-8	7.3	8	79	28	41	1.1	●
	S074-8	7.4	8	79	28	41	1.2	●
	S075-8	7.5	8	79	28	41	1.2	●
	S076-8	7.6	8	79	28	41	1.2	●
	S077-8	7.7	8	79	28	41	1.2	●
	S078-8	7.8	8	79	28	41	1.2	●
	S079-8	7.9	8	79	28	41	1.3	●
	S080-8	8.0	8	79	28	41	1.3	●
	S081-9	8.1	9	89	32	45	1.3	●
	S082-9	8.2	9	89	32	45	1.3	●
	S083-9	8.3	9	89	32	45	1.3	●
	S084-9	8.4	9	89	32	45	1.3	●
	S085-9	8.5	9	89	32	45	1.3	●
	S086-9	8.6	9	89	32	45	1.4	●
	S087-9	8.7	9	89	32	45	1.4	●
	S088-9	8.8	9	89	32	45	1.4	●
	S089-9	8.9	9	89	32	45	1.4	●
	S090-9	9.0	9	89	32	45	1.4	●
	S091-10	9.1	10	89	35	48	1.4	●
	S092-10	9.2	10	89	35	48	1.4	●
	S093-10	9.3	10	89	35	48	1.5	●
	S094-10	9.4	10	89	35	48	1.5	●
	S095-10	9.5	10	89	35	48	1.5	●
	S096-10	9.6	10	89	35	48	1.5	●
	S097-10	9.7	10	89	35	48	1.5	●
	S098-10	9.8	10	89	35	48	1.6	●
	S099-10	9.9	10	89	35	48	1.6	●

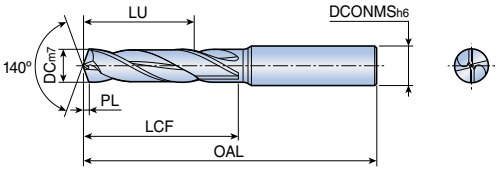
●: Standard items

Cutting Condition
D266

TED S

Solid carbide drills without oil holes





• Drilling depth: 3xdiameter



Designation	Dimension (mm)						Grade
	DC	DCONMS	OAL	LU	LCF	PL	TT5130
TED S100-10	10.0	10	89	35	48	1.6	●
S101-11	10.1	11	102	36	50	1.6	●
S102-11	10.2	11	102	36	50	1.6	●
S103-11	10.3	11	102	36	50	1.6	●
S104-11	10.4	11	102	36	50	1.6	●
S105-11	10.5	11	102	36	50	1.6	●
S106-11	10.6	11	102	36	50	1.7	●
S107-11	10.7	11	102	36	50	1.7	●
S108-11	10.8	11	102	36	50	1.7	●
S109-11	10.9	11	102	36	50	1.7	●
S110-11	11.0	11	102	36	50	1.7	●
S111-12	11.1	12	102	42	57	1.7	●
S112-12	11.2	12	102	42	57	1.8	●
S113-12	11.3	12	102	42	57	1.8	●
S114-12	11.4	12	102	42	57	1.8	●
S115-12	11.5	12	102	42	57	1.8	●
S116-12	11.6	12	102	42	57	1.8	●
S117-12	11.7	12	102	42	57	1.9	●
S118-12	11.8	12	102	42	57	1.9	●
S119-12	11.9	12	102	42	57	1.9	●
S120-12	12.0	12	102	42	57	1.9	●

Cutting Condition D266

●: Standard items

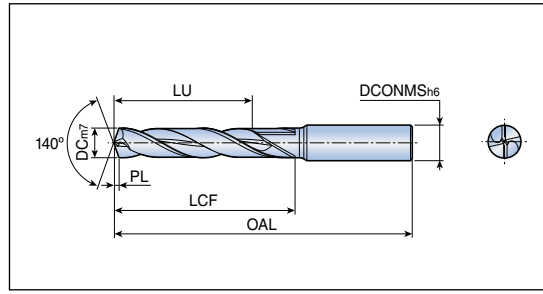
TED R

Solid carbide drills without oil holes



• Drilling depth: 5xdiameter





Designation		Dimension (mm)						Grade
		DC	DCONMS	OAL	LU	LCF	PL	TT5130
TED	R030-4	3.0	4	66	24	30	0.5	●
	R031-4	3.1	4	66	24	30	0.5	●
	R032-4	3.2	4	66	24	30	0.5	●
	R033-4	3.3	4	66	24	30	0.5	●
	R034-4	3.4	4	66	24	30	0.5	●
	R035-4	3.5	4	66	24	30	0.6	●
	R036-4	3.6	4	66	24	30	0.6	●
	R037-4	3.7	4	66	24	30	0.6	●
	R038-4	3.8	4	74	24	30	0.6	●
	R039-4	3.9	4	74	24	30	0.6	●
	R040-4	4.0	4	74	24	30	0.6	●
	R041-5	4.1	5	74	32	40	0.7	●
	R042-5	4.2	5	74	32	40	0.7	●
	R043-5	4.3	5	74	32	40	0.7	●
	R044-5	4.4	5	74	32	40	0.7	●
	R045-5	4.5	5	74	32	40	0.7	●
	R046-5	4.6	5	74	32	40	0.7	●
	R047-5	4.7	5	74	32	40	0.8	●
	R048-5	4.8	5	82	32	40	0.8	●
	R049-5	4.9	5	82	32	40	0.8	●
	R050-5	5.0	5	82	32	40	0.8	●
	R051-6	5.1	6	82	35	45	0.8	●
	R052-6	5.2	6	82	35	45	0.8	●
	R053-6	5.3	6	82	35	45	0.8	●
	R054-6	5.4	6	82	35	45	0.8	●
	R055-6	5.5	6	82	35	45	0.9	●
	R056-6	5.6	6	82	35	45	0.9	●
	R057-6	5.7	6	82	35	45	0.9	●
	R058-6	5.8	6	82	35	45	0.9	●
	R059-6	5.9	6	82	35	45	0.9	●
	R060-6	6.0	6	82	35	45	0.9	●
	R061-7	6.1	7	91	37	48	1	●
	R062-7	6.2	7	91	37	48	1	●
	R063-7	6.3	7	91	37	48	1	●
	R064-7	6.4	7	91	37	48	1	●

●: Standard items

Cutting Condition D266

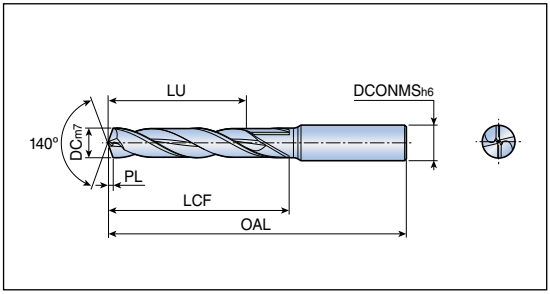
TED R

Solid carbide drills without oil holes



• Drilling depth: 5xdiameter





Designation		Dimension (mm)						Grade
		DC	DCONMS	OAL	LU	LCF	PL	TT5130
TED	R065-7	6.5	7	91	37	48	1	●
	R066-7	6.6	7	91	37	48	1	●
	R067-7	6.7	7	91	37	48	1.1	●
	R068-7	6.8	7	91	37	48	1.1	●
	R069-7	6.9	7	91	37	48	1.1	●
	R070-7	7.0	7	91	37	48	1.1	●
	R071-8	7.1	8	91	42	53	1.1	●
	R072-8	7.2	8	91	42	53	1.1	●
	R073-8	7.3	8	91	42	53	1.1	●
	R074-8	7.4	8	91	42	53	1.2	●
	R075-8	7.5	8	91	42	53	1.2	●
	R076-8	7.6	8	91	42	53	1.2	●
	R077-8	7.7	8	91	42	53	1.2	●
	R078-8	7.8	8	91	42	53	1.2	●
	R079-8	7.9	8	91	42	53	1.3	●
	R080-8	8.0	8	91	42	53	1.3	●
	R081-9	8.1	9	103	46	59	1.3	●
	R082-9	8.2	9	103	46	59	1.3	●
	R083-9	8.3	9	103	46	59	1.3	●
	R084-9	8.4	9	103	46	59	1.3	●
	R085-9	8.5	9	103	46	59	1.3	●
	R086-9	8.6	9	103	46	59	1.4	●
	R087-9	8.7	9	103	46	59	1.4	●
	R088-9	8.8	9	103	46	59	1.4	●
	R089-9	8.9	9	103	46	59	1.4	●
	R090-9	9.0	9	103	46	59	1.4	●
	R091-10	9.1	10	103	50	63	1.4	●
	R092-10	9.2	10	103	50	63	1.4	●
	R093-10	9.3	10	103	50	63	1.5	●
	R094-10	9.4	10	103	50	63	1.5	●
	R095-10	9.5	10	103	50	63	1.5	●
	R096-10	9.6	10	103	50	63	1.5	●
	R097-10	9.7	10	103	50	63	1.5	●
	R098-10	9.8	10	103	50	63	1.6	●
	R099-10	9.9	10	103	50	63	1.6	●

Cutting Condition D266

●: Standard items

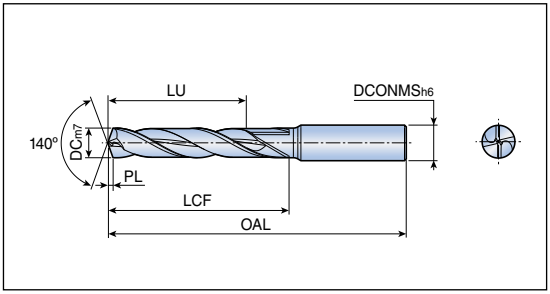
TED R

Solid carbide drills without oil holes



• Drilling depth: 5xdiameter





Designation	Dimension (mm)						Grade
	DC	DCONMS	OAL	LU	LCF	PL	TT5130
TED R100-10	10.0	10	103	50	63	1.6	●
R101-11	10.1	11	118	53	68	1.6	●
R102-11	10.2	11	118	53	68	1.6	●
R103-11	10.3	11	118	53	68	1.6	●
R104-11	10.4	11	118	53	68	1.6	●
R105-11	10.5	11	118	53	68	1.6	●
R106-11	10.6	11	118	53	68	1.7	●
R107-11	10.7	11	118	53	68	1.7	●
R108-11	10.8	11	118	53	68	1.7	●
R109-11	10.9	11	118	53	68	1.7	●
R110-11	11.0	11	118	53	68	1.7	●
R111-12	11.1	12	118	59	75	1.7	●
R112-12	11.2	12	118	59	75	1.8	●
R113-12	11.3	12	118	59	75	1.8	●
R114-12	11.4	12	118	59	75	1.8	●
R115-12	11.5	12	118	59	75	1.8	●
R116-12	11.6	12	118	59	75	1.8	●
R117-12	11.7	12	118	59	75	1.9	●
R118-12	11.8	12	118	59	75	1.9	●
R119-12	11.9	12	118	59	75	1.9	●
R120-12	12.0	12	118	59	75	1.9	●

●: Standard items

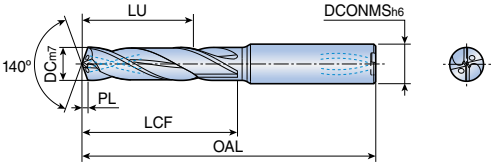
Cutting Condition D266

ADVANCE CUTTING TaeguTec

TEO S

Solid carbide drills with oil holes





• Drilling depth: 3xdiameter

Designation		Dimension (mm)						Grade
		DC	DCONMS	OAL	LU	LCF	PL	TT5130
TEO	S030-6	3.0	6	62	11	18	0.5	●
	S031-6	3.1	6	62	11	18	0.5	●
	S032-6	3.2	6	62	11	18	0.5	●
	S033-6	3.3	6	62	11	18	0.5	●
	S034-6	3.4	6	62	11	18	0.5	●
	S035-6	3.5	6	62	11	18	0.6	●
	S036-6	3.6	6	62	11	18	0.6	●
	S037-6	3.7	6	62	11	18	0.6	●
	S038-6	3.8	6	66	12	18	0.6	●
	S039-6	3.9	6	66	12	18	0.6	●
	S040-6	4.0	6	66	12	18	0.6	●
	S041-6	4.1	6	66	19	27	0.7	●
	S042-6	4.2	6	66	19	27	0.7	●
	S043-6	4.3	6	66	19	27	0.7	●
	S044-6	4.4	6	66	19	27	0.7	●
	S045-6	4.5	6	66	19	27	0.7	●
	S046-6	4.6	6	66	19	27	0.8	●
	S047-6	4.7	6	66	19	27	0.8	●
	S048-6	4.8	6	66	19	27	0.8	●
	S049-6	4.9	6	66	19	27	0.8	●
	S050-6	5.0	6	66	19	27	0.8	●
	S051-6	5.1	6	66	22	31	0.8	●
	S052-6	5.2	6	66	22	31	0.8	●
	S053-6	5.3	6	66	22	31	0.8	●
	S054-6	5.4	6	66	22	31	0.8	●
	S055-6	5.5	6	66	22	31	0.9	●
	S056-6	5.6	6	66	22	31	0.9	●
	S057-6	5.7	6	66	22	31	0.9	●
	S058-6	5.8	6	66	22	31	0.9	●
	S059-6	5.9	6	66	22	31	0.9	●
	S060-6	6.0	6	66	22	31	0.9	●
	S061-7	6.1	7	79	26	37	1	●
	S062-7	6.2	7	79	26	37	1	●
	S063-7	6.3	7	79	26	37	1	●
	S064-7	6.4	7	79	26	37	1	●

Cutting Condition D266

●: Standard items

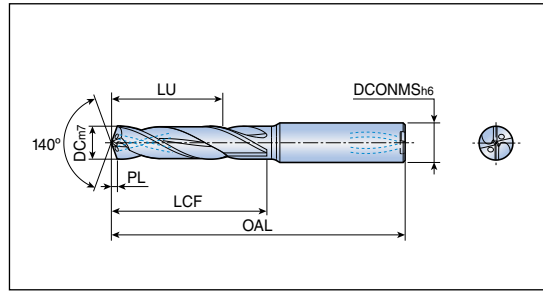
TEO S

Solid carbide drills with oil holes



• Drilling depth: 3xdiameter





Designation		Dimension (mm)						Grade
		DC	DCONMS	OAL	LU	LCF	PL	TT5130
TEO	**S065-7**	6.5	7	79	26	37	1	●
	S066-7	6.6	7	79	26	37	1	●
	S067-7	6.7	7	79	26	37	1.1	●
	S068-7	6.8	7	79	26	37	1.1	●
	S069-7	6.9	7	79	26	37	1.1	●
	S070-7	7.0	7	79	26	37	1.1	●
	S071-8	7.1	8	79	28	41	1.1	●
	S072-8	7.2	8	79	28	41	1.1	●
	S073-8	7.3	8	79	28	41	1.1	●
	S074-8	7.4	8	79	28	41	1.2	●
	S075-8	7.5	8	79	28	41	1.2	●
	S076-8	7.6	8	79	28	41	1.2	●
	S077-8	7.7	8	79	28	41	1.2	●
	S078-8	7.8	8	79	28	41	1.2	●
	S079-8	7.9	8	79	28	41	1.3	●
	S080-8	8.0	8	79	28	41	1.3	●
	S081-9	8.1	9	89	32	45	1.3	●
	S082-9	8.2	9	89	32	45	1.3	●
	S083-9	8.3	9	89	32	45	1.3	●
	S084-9	8.4	9	89	32	45	1.3	●
	S085-9	8.5	9	89	32	45	1.3	●
	S086-9	8.6	9	89	32	45	1.4	●
	S087-9	8.7	9	89	32	45	1.4	●
	S088-9	8.8	9	89	32	45	1.4	●
	S089-9	8.9	9	89	32	45	1.4	●
	S090-9	9.0	9	89	32	45	1.4	●
	S091-10	9.1	10	89	35	48	1.4	●
	S092-10	9.2	10	89	35	48	1.4	●
	S093-10	9.3	10	89	35	48	1.5	●
	S094-10	9.4	10	89	35	48	1.5	●
	S095-10	9.5	10	89	35	48	1.5	●
	S096-10	9.6	10	89	35	48	1.5	●
	S097-10	9.7	10	89	35	48	1.5	●
	S098-10	9.8	10	89	35	48	1.6	●
	S099-10	9.9	10	89	35	48	1.6	●

●: Standard items

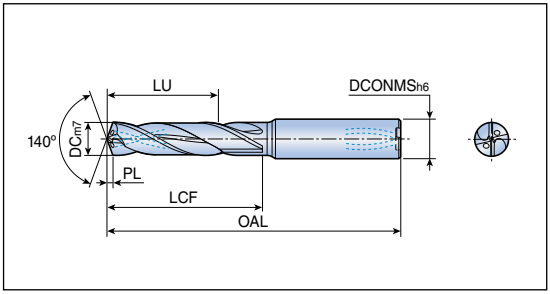
Cutting Condition D266

TEO S

Solid carbide drills with oil holes



• Drilling depth: 3xdiameter



Designation		Dimension (mm)						Grade
		DC	DCONMS	OAL	LU	LCF	PL	TT5130
TEO	S100-10	10.0	10	89	35	48	1.6	●
	S101-11	10.1	11	102	36	50	1.6	●
	S102-11	10.2	11	102	36	50	1.6	●
	S103-11	10.3	11	102	36	50	1.6	●
	S104-11	10.4	11	102	36	50	1.6	●
	S105-11	10.5	11	102	36	50	1.6	●
	S106-11	10.6	11	102	36	50	1.7	●
	S107-11	10.7	11	102	36	50	1.7	●
	S108-11	10.8	11	102	36	50	1.7	●
	S109-11	10.9	11	102	36	50	1.7	●
	S110-11	11.0	11	102	36	50	1.7	●
	S111-12	11.1	12	102	42	57	1.7	●
	S112-12	11.2	12	102	42	57	1.8	●
	S113-12	11.3	12	102	42	57	1.8	●
	S114-12	11.4	12	102	42	57	1.8	●
	S115-12	11.5	12	102	42	57	1.8	●
	S116-12	11.6	12	102	42	57	1.8	●
	S117-12	11.7	12	102	42	57	1.9	●
	S118-12	11.8	12	102	42	57	1.9	●
	S119-12	11.9	12	102	42	57	1.9	●
	S120-12	12.0	12	102	42	57	1.9	●

Cutting Condition D266

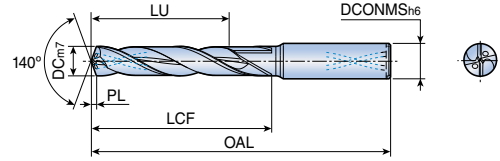
●: Standard items

TEO R

Solid carbide drills with oil holes



• Drilling depth: 5xdiameter



Designation		Dimension (mm)						Grade
		DC	DCONMS	OAL	LU	LCF	PL	TT5130
TEO	R030-6	3.0	6	66	24	30	0.5	●
	R031-6	3.1	6	66	24	30	0.5	●
	R032-6	3.2	6	66	24	30	0.5	●
	R033-6	3.3	6	66	24	30	0.5	●
	R034-6	3.4	6	66	24	30	0.5	●
	R035-6	3.5	6	66	24	30	0.6	●
	R036-6	3.6	6	66	24	30	0.6	●
	R037-6	3.7	6	66	24	30	0.6	●
	R038-6	3.8	6	74	24	30	0.6	●
	R039-6	3.9	6	74	24	30	0.6	●
	R040-6	4.0	6	74	24	30	0.6	●
	R041-6	4.1	6	74	32	40	0.7	●
	R042-6	4.2	6	74	32	40	0.7	●
	R043-6	4.3	6	74	32	40	0.7	●
	R044-6	4.4	6	74	32	40	0.7	●
	R045-6	4.5	6	74	32	40	0.7	●
	R046-6	4.6	6	74	32	40	0.7	●
	R047-6	4.7	6	74	32	40	0.8	●
	R048-6	4.8	6	82	32	40	0.8	●
	R049-6	4.9	6	82	32	40	0.8	●
	R050-6	5.0	6	82	32	40	0.8	●
	R051-6	5.1	6	82	35	45	0.8	●
	R052-6	5.2	6	82	35	45	0.8	●
	R053-6	5.3	6	82	35	45	0.8	●
	R054-6	5.4	6	82	35	45	0.8	●
	R055-6	5.5	6	82	35	45	0.9	●
	R056-6	5.6	6	82	35	45	0.9	●
	R057-6	5.7	6	82	35	45	0.9	●
	R058-6	5.8	6	82	35	45	0.9	●
	R059-6	5.9	6	82	35	45	0.9	●
	R060-6	6.0	6	82	35	45	0.9	●
	R061-7	6.1	7	91	37	48	1	●
	R062-7	6.2	7	91	37	48	1	●
	R063-7	6.3	7	91	37	48	1	●
	R064-7	6.4	7	91	37	48	1	●

●: Standard items

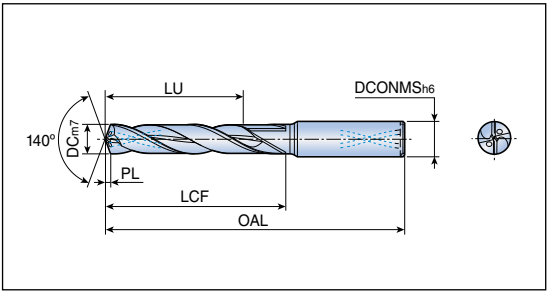
Cutting Condition
D266

TEO R

Solid carbide drills with oil holes



• Drilling depth: 5xdiameter



Designation	Dimension (mm)						Grade
	DC	DCONMS	OAL	LU	LCF	PL	TT5130
TEO R065-7	6.5	7	91	37	48	1	●
R066-7	6.6	7	91	37	48	1	●
R067-7	6.7	7	91	37	48	1.1	●
R068-7	6.8	7	91	37	48	1.1	●
R069-7	6.9	7	91	37	48	1.1	●
R070-7	7.0	7	91	37	48	1.1	●
R071-8	7.1	8	91	42	53	1.1	●
R072-8	7.2	8	91	42	53	1.1	●
R073-8	7.3	8	91	42	53	1.1	●
R074-8	7.4	8	91	42	53	1.2	●
R075-8	7.5	8	91	42	53	1.2	●
R076-8	7.6	8	91	42	53	1.2	●
R077-8	7.7	8	91	42	53	1.2	●
R078-8	7.8	8	91	42	53	1.2	●
R079-8	7.9	8	91	42	53	1.3	●
R080-8	8.0	8	91	42	53	1.3	●
R081-9	8.1	9	103	46	59	1.3	●
R082-9	8.2	9	103	46	59	1.3	●
R083-9	8.3	9	103	46	59	1.3	●
R084-9	8.4	9	103	46	59	1.3	●
R085-9	8.5	9	103	46	59	1.3	●
R086-9	8.6	9	103	46	59	1.4	●
R087-9	8.7	9	103	46	59	1.4	●
R088-9	8.8	9	103	46	59	1.4	●
R089-9	8.9	9	103	46	59	1.4	●
R090-9	9.0	9	103	46	59	1.4	●
R091-10	9.1	10	103	50	63	1.4	●
R092-10	9.2	10	103	50	63	1.4	●
R093-10	9.3	10	103	50	63	1.5	●
R094-10	9.4	10	103	50	63	1.5	●
R095-10	9.5	10	103	50	63	1.5	●
R096-10	9.6	10	103	50	63	1.5	●
R097-10	9.7	10	103	50	63	1.5	●
R098-10	9.8	10	103	50	63	1.6	●
R099-10	9.9	10	103	50	63	1.6	●

Cutting Condition D266

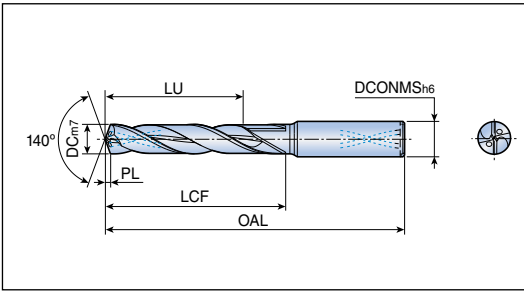
●: Standard items

TEO R

Solid carbide drills with oil holes



• Drilling depth: 5xdiameter



Designation	Dimension (mm)						Grade
	DC	DCONMS	OAL	LU	LCF	PL	TT5130
TEO R100-10	10.0	10	103	50	63	1.6	●
R101-11	10.1	11	118	53	68	1.6	●
R102-11	10.2	11	118	53	68	1.6	●
R103-11	10.3	11	118	53	68	1.6	●
R104-11	10.4	11	118	53	68	1.6	●
R105-11	10.5	11	118	53	68	1.6	●
R106-11	10.6	11	118	53	68	1.7	●
R107-11	10.7	11	118	53	68	1.7	●
R108-11	10.8	11	118	53	68	1.7	●
R109-11	10.9	11	118	53	68	1.7	●
R110-11	11.0	11	118	53	68	1.7	●
R111-12	11.1	12	118	59	75	1.7	●
R112-12	11.2	12	118	59	75	1.8	●
R113-12	11.3	12	118	59	75	1.8	●
R114-12	11.4	12	118	59	75	1.8	●
R115-12	11.5	12	118	59	75	1.8	●
R116-12	11.6	12	118	59	75	1.8	●
R117-12	11.7	12	118	59	75	1.9	●
R118-12	11.8	12	118	59	75	1.9	●
R119-12	11.9	12	118	59	75	1.9	●
R120-12	12.0	12	118	59	75	1.9	●

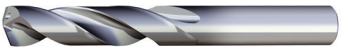
●: Standard items

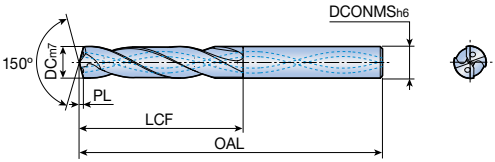
Cutting Condition D266

ADVANCE CUTTING TaeguTec

SHO 3...-PH

Solid pilot drills for solid long drill





• M.Q.L drilling is available

Designation	Dimension (mm)					Grade
	DC	DCONMS	OAL	LCF	PL	TT9030
SHO 30403-PH	4.03	4	66.5	24.5	0.5	●
30503-PH	5.03	5	68.6	30.6	0.6	●
30603-PH	6.03	6	68.7	30.7	0.7	●
30703-PH	7.03	7	73.8	35.8	0.8	●
30803-PH	8.03	8	79.9	41.9	0.9	●
30903-PH	9.03	9	91.0	49.0	1.0	●
31003-PH	10.03	10	91.1	49.1	1.1	●

Cutting Condition D266

●: Standard items

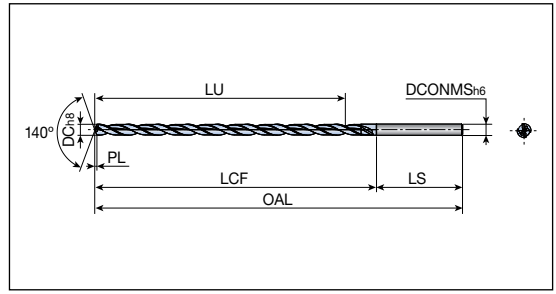
SHO 10/15/20

Solid long drills with oil holes



- Drilling depth: 10/15/20xdiameter
- M.Q.L drilling is available





Designation	Dimension (mm)							Grade
	DC	DCONMS	OAL	LU	LCF	LS	PL	TT9030
SHO 10040	4.0	4	105.6	50	55.6	50	0.6	●
10050	5.0	5	115.8	60	65.8	50	0.8	●
10060	6.0	6	131.0	76	81.0	50	1.0	●
10070	7.0	7	141.1	86	91.1	50	1.1	●
10080	8.0	8	156.3	98	106.3	50	1.3	●
10090	9.0	9	171.4	108	116.4	55	1.4	●
10100	10.0	10	191.6	123	131.6	60	1.6	●
15040	4.0	4	125.6	70	75.6	50	0.6	●
15050	5.0	5	140.8	85	90.8	50	0.8	●
15060	6.0	6	161.0	106	111.0	50	1.0	●
15070	7.0	7	176.1	121	126.1	50	1.1	●
15080	8.0	8	196.3	138	146.3	50	1.3	●
15090	9.0	9	221.4	153	161.4	60	1.4	●
15100	10.0	10	241.6	173	181.6	60	1.6	●
20040	4.0	4	140.6	85	90.6	50	0.6	●
20050	5.0	5	165.8	110	115.8	50	0.8	●
20060	6.0	6	191.0	136	141.0	50	1.0	●
20070	7.0	7	211.1	156	161.1	50	1.1	●
20080	8.0	8	231.3	173	181.3	50	1.3	●
20090	9.0	9	266.4	198	206.4	60	1.4	●
20100	10.0	10	286.6	218	226.6	60	1.6	●

●: Standard items

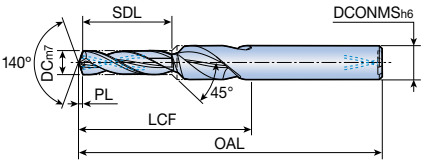
Cutting Condition D266

ADVANCE CUTTING TaeguTec

SHO...-M

Solid carbide drills for pre-thread holes





Designation	ISO thread	Dimension (mm)						Grade
		DC	OAL	SDL	LCF	DCONMS	PL	TT9030
SHO 033x12x6-M4	M4	3.3	62.5	12	26.5	6	0.5	●
042x15x6-M5	M5	4.2	66.6	15	28.6	6	0.6	●
050x18x8-M6	M6	5.0	79.8	18	36.8	8	0.8	●
068x24x10-M8	M8	6.8	91.0	24	49.0	10	1.0	●
085x30x12-M10	M10	8.5	103.3	30	56.3	12	1.3	●

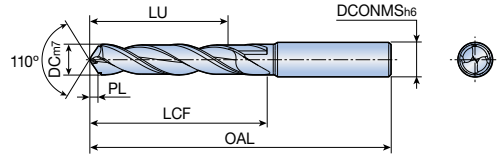
Cutting Condition D266

●: Standard items

CDF

Solid carbide drills for composite material





Designation	Dimension (mm)							Grade
	DC (Metric)	DC (Inch)	DCONMS	OAL	LU	LCF	PL	TTD610
CDF 030-027-06	3	-	6	72.7	28	34.7	0.7	●
040-027-06	4	-	6	73.0	28	35.0	1.0	●
0476-034-06	4.76	3/16	6	81.3	35	43.3	1.3	●
050-034-06	5	-	6	81.3	35	43.3	1.3	●
060-034-06	6	-	6	81.7	36	43.7	1.7	●
0635-040-08	6.35	-	8	89.7	42	51.7	1.7	●
070-040-08	7	-	8	89.9	42	51.9	1.9	●
0794-040-08	7.94	5/16	8	90.2	42	52.2	2.2	●
080-040-08	8	-	8	90.2	42	52.2	2.2	●
090-045-10	9	-	10	101.5	48	59.5	2.5	●
0952-045-10	9.52	3/8	10	101.6	48	59.6	2.6	●
100-045-10	10	-	10	101.8	48	59.8	2.8	●
110-052-12	11	-	12	117.1	55	70.1	3.1	●
1111-052-12	11.11	7/16	12	117.1	55	70.1	3.1	●
120-052-12	12	-	12	117.4	55	70.4	3.4	●
127-055-14	12.7	1/2	14	122.6	59	75.6	3.6	●

●: Standard items

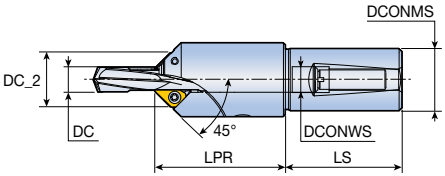
Cutting Condition D278

ADVANCE CUTTING TaeguTec

T-CHAMFER...T1

Chamfering tools with solid carbide drill





Designation	DC	Dimension (mm)					Insert
		DCONWS	DC_2	DCONMS	LPR	LS	
T-CHAMFER 080-20T1-06	7.1-8.0	8	18.8	20	47.4	50	XCGT 06...-C.. D224
090-20T1-06	8.1-9.0	9	19.8	20	47.4	50	
100-32T1-09	9.1-10.0	10	24.9	32	67.3	60	XCGT 09...-C.. D224
110-32T1-09	10.1-11.0	11	25.9	32	67.3	60	
120-32T1-09	11.1-12.0	12	26.9	32	67.3	60	
130-32T1-09	12.1-13.0	13	27.9	32	67.3	60	
140-32T1-09	13.1-14.0	14	28.4	32	67.3	60	
150-32T1-09	14.1-15.0	15	29.4	32	67.3	60	
160-32T1-09	15.1-16.0	16	30.4	32	67.3	60	
170-32T1-09	16.1-17.0	17	31.4	32	67.3	60	
180-32T1-09	17.1-18.0	18	32.4	32	67.3	60	
190-32T1-09	18.1-19.0	19	33.4	32	75.0	60	
200-32T1-09	19.1-20.0	20	34.4	32	75.0	60	

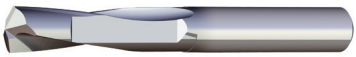
Spare parts

Designation	Side screw	Back screw	L-wrench	Insert screw	Wrench
T-CHAMFER 080 - 090	SS M6x1x6	M6x1-SP	L-W 3	TS 25064I	TD 8
T-CHAMFER 100 - 200	SS M10x1.5x10	M10x1.5-SP	L-W 5	TS 40093I	TD 15

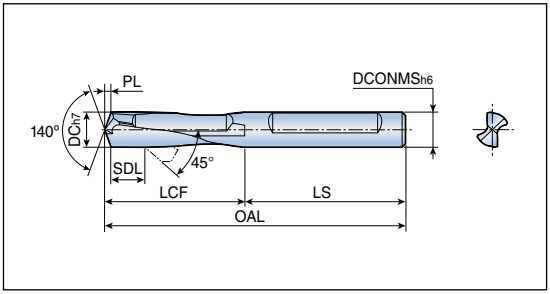
Assembly
D126

SHD 3...-CF

Solid carbide drills for T-CHAMFER







Designation	Dimension (mm)								Grade
	DC	DCONMS	OAL	LCF	LS	SDL min	SDL max	PL	TT9030
SHD 3080-CF	8.0	8.0	80.3	37.3	43	9.5	17.5	1.3	●
3090-CF	9.0	9.0	85.4	42.4	43	13.0	23.5	1.4	●
3100-CF	10.0	10.0	90.6	47.6	43	15.5	25.0	1.6	●
3110-CF	11.0	11.0	96.8	53.8	43	21.5	30.0	1.8	●
3120-CF	12.0	12.0	103.9	60.9	43	25.5	37.0	1.9	●
3130-CF	13.0	13.0	104.1	61.1	43	25.5	35.0	2.1	●
3150-CF	15.0	15.0	113.4	65.4	48	26.5	40.5	2.4	●
3170-CF	17.0	17.0	121.7	71.7	50	24.5	44.0	2.7	●
3180-CF	18.0	18.0	125.9	75.9	50	26.5	48.0	2.9	●
3190-CF	19.0	19.0	130.0	76.0	54	26.5	49.0	3.0	●

▸ 'SDL' is factored with a 45° insert positioned in insert pocket
▸ Solid carbide drill with internal coolant holes is available on request

●: Standard items

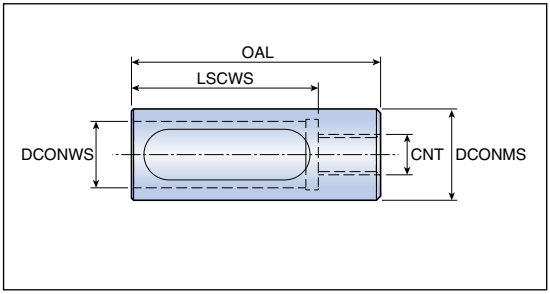
Insert	Chamfer angle (°)	Chamfer size
XCGT 0603-C30	30	1.5
0603-C45	45	4.5
0603-C60	60	2.5
XCGT 0903-C30	30	1.5
0903-C45	45	6.0
0903-C60	60	3.5

▸ The maximum chamfer size is obtained when using the smallest drill diameter in the drilling range

TSL-NC

Drill sleeves for Swiss type automatic lathes (Fixed type, internal coolant)



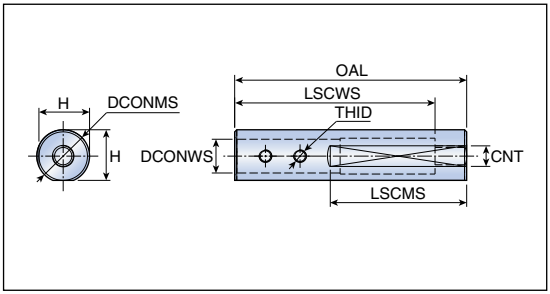


Designation		Dimension (mm)				
		DCONMS	DCONWS	LSCWS	OAL	CNT
TSL-NC	**19.05-12**	19.05	12.0	45	60	Rc 1/8
	19.05-16	19.05	16.0	45	60	Rc 1/8
	20-12	20.0	12.0	45	60	Rc 1/8
	20-16	20.0	16.0	45	60	Rc 1/8
	22-16	22.0	16.0	45	60	Rc 1/8
	25-20	25.0	20.0	45	60	Rc 1/8
	25.4-20	25.4	20.0	45	60	Rc 1/8
	32-25	32.0	25.0	45	60	Rc 1/8

TSL-SW

Drill sleeves for Swiss type automatic lathes (Adjustable type, internal coolant)

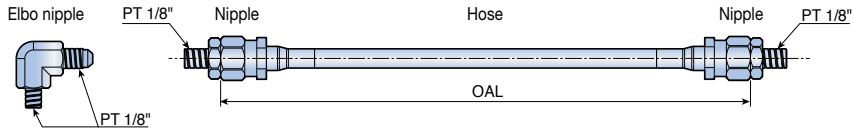




Designation		Dimension (mm)							
		DCONMS	DCONWS	LSCWS	LSCMS	OAL	H	THID	CNT
TSL-SW	**22-12**	22.0	12.0	95	65	110	21.0	M6	Rc 1/8
	25-12	25.0	12.0	95	65	110	24.0	M8	Rc 1/8
	25-16	25.0	16.0	95	65	110	24.0	M6	Rc 1/8
	25.4-12	25.4	12.0	95	65	110	24.4	M8	Rc 1/8
	25.4-16	25.4	16.0	95	65	110	24.4	M6	Rc 1/8
	32-12	32.0	12.0	95	65	110	31.0	M8	Rc 1/8
	32-16	32.0	16.0	95	65	110	31.0	M8	Rc 1/8
	32-20	32.0	20.0	95	65	110	31.0	M8	Rc 1/8

Accessories

Hose set



*Hose set components: 1 hose, 2 nipples, 1 elbo nipple

Designation		Dimension (mm)	
		OAL (mm)	Max. pressure (bar)
S-TSL HOSE	**R1/8-220**	220	100
	R1/8-350	350	100

▸ Hose set is ordered separately

Spare parts

Designation	Mounting screw	Wrench		
				
TSL-SW 22-12	SS M6X1X5	L-W 3		
TSL-SW 25-12	SS M8X1.25X6	L-W 4		
TSL-SW 25-16	SS M6X1X5	L-W 3		
TSL-SW 25.4-12	SS M8X1.25X6	L-W 4		
TSL-SW 25.4-16	SS M6X1X5	L-W 3		
TSL-SW 32-12	SS M8X1.25X6	L-W 4		
TSL-SW 32-16	SS M8X1.25X6	L-W 4		
TSL-SW 32-20	SS M8X1.25X6	L-W 4		

Reaming Tools



XR...-3B/5B-S0

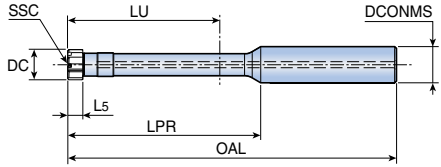
XM-REAM

Head changeable reamer holders for small diameter blind hole



• Cylindrical shank

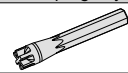




Designation	DC	SSC	Dimension (mm)					Overhang
			DCONMS	L5	OAL	LU	LPR	
XR- **D08-3B-10S0**	8.000-8.999	8	10	4.0	81.0	28.0	36.0	
D09-3B-10S0	9.000-9.999	9	10	4.5	85.5	31.5	40.5	
D10-3B-12S0	10.000-10.999	10	12	5.0	89.0	35.0	44.0	3XD
D11-3B-12S0	11.000-11.999	11	12	5.5	92.5	38.5	47.5	
D12-3B-12S0	12.000-12.999	12	12	6.0	96.0	42.0	51.0	
XR- **D08-5B-10S0**	8.000-8.999	8	10	4.0	97.0	44.0	52.0	
D09-5B-10S0	9.000-9.999	9	10	4.5	103.5	49.5	58.5	
D10-5B-12S0	10.000-10.999	10	12	5.0	109.0	55.0	64.0	5XD
D11-5B-12S0	11.000-11.999	11	12	5.5	114.5	60.5	69.5	
D12-5B-12S0	12.000-12.999	12	12	6.0	120.0	66.0	75.0	

▸ SSC: Seat size code
▸ Matched with XR...-AS reamer heads
▸ Reamer head is sold separately from reamer holder

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



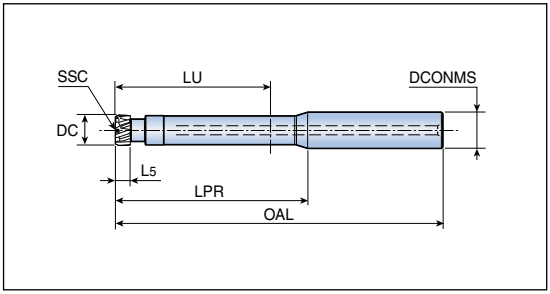
▸ Clamping key & clamping screw are included

ADVANCE CUTTING
TaeguTec

XR...-3T/5T-S0

Head changeable reamer holders for small diameter through hole





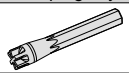
• Cylindrical shank



Designation		DC	SSC	Dimension (mm)					Overhang
				DCONMS	L5	OAL	LU	LPR	
XR-	**D08-3T-10S0**	8.000-8.999	8	10	4.0	81.0	28.0	36.0	
	D09-3T-10S0	9.000-9.999	9	10	4.5	85.5	31.5	40.5	
	D10-3T-12S0	10.000-10.999	10	12	5.0	89.0	35.0	44.0	3XD
	D11-3T-12S0	11.000-11.999	11	12	5.5	92.5	38.5	47.5	
	D12-3T-12S0	12.000-12.999	12	12	6.0	95.0	42.0	50.0	
XR-	**D08-5T-10S0**	8.000-8.999	8	10	4.0	97.0	44.0	52.0	
	D09-5T-10S0	9.000-9.999	9	10	4.5	103.5	49.5	58.5	
	D10-5T-12S0	10.000-10.999	10	12	5.0	109.0	55.0	64.0	5XD
	D11-5T-12S0	11.000-11.999	11	12	5.5	114.5	60.5	69.5	
	D12-5T-12S0	12.000-12.999	12	12	6.0	119.0	66.0	74.0	

▸ SSC: Seat size code
▸ Matched with XR...-BL reamer heads
▸ Reamer head is sold separately from reamer holder

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

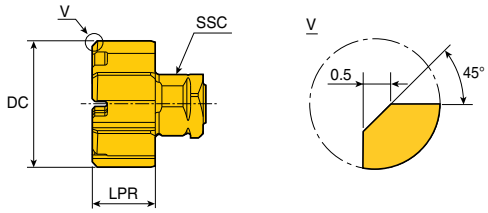
D132 Cutting Condition D279 Technical Data D294

▸ Clamping key & clamping screw are included

XR...-AS

XM-REAM

Head changeable reamer head



- Straight flute for blind hole
- For H7 hole tolerance

Head	Designation	Dimension (mm)		NOF	SSC	Flute type	Edge type	Grade
		DC	LPR					TT9030
	**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	●

D130 D294

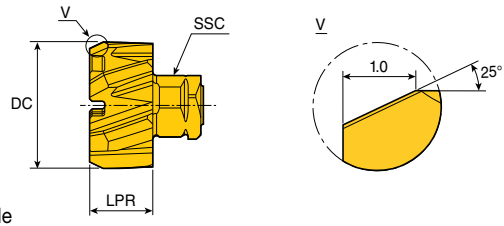
- NOF: Number of flutes
- SSC: Seat size code

●: Standard items

XR...-BL

XM-REAM

Head changeable reamer head



- Helical flute for through hole
- For H7 hole tolerance

Head	Designation	Dimension (mm)		NOF	SSC	Flute type	Edge type	Grade
		DC	LPR					TT9030
	**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	●

D131 D294

- NOF: Number of flutes
- SSC: Seat size code

●: Standard items

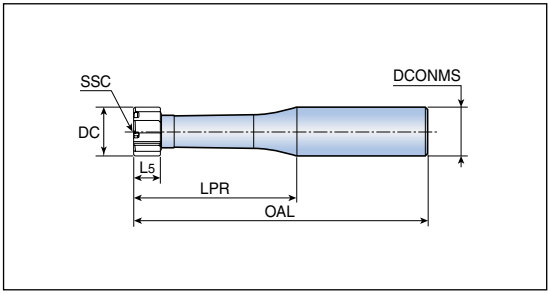
TM...-T0

Head changeable reamer holders



• Cylindrical shank





Designation	DC	SSC	Dimension (mm)				Overhang
			DCONMS	L5	OAL	LPR	
TM-3B5-16T0	11.501-13.500	B5	16	9.3	97.8	49.8	
3B6-16T0	13.501-16.000	B6	16	9.4	105.4	57.4	
3B7-20T0	16.000-20.000	B7	20	10.6	120.6	70.6	3XD
3B8-20T0	20.001-25.400	B8	20	12.8	137.8	87.8	
3B9-32T0	25.401-32.000	B9	32	12.8	167.1	107.1	
5B5-16T0	11.501-13.500	B5	16	9.3	125.0	77.0	
5B6-16T0	13.501-16.000	B6	16	9.4	137.4	89.4	
5B7-20T0	16.000-20.000	B7	20	10.6	160.6	110.6	5XD
5B8-20T0	20.001-25.400	B8	20	12.8	187.8	137.8	
5B9-32T0	25.401-32.000	B9	32	12.8	231.1	171.1	
8B5-16T0	11.501-13.500	B5	16	9.3	165.5	117.5	
8B6-16T0	13.501-16.000	B6	16	9.4	185.4	137.4	
8B7-20T0	16.000-20.000	B7	20	10.6	220.6	170.6	8XD
8B8-20T0	20.001-25.400	B8	20	12.8	262.8	212.8	
8B9-32T0	25.401-32.000	B9	32	12.8	327.1	267.1	

▸ SSC: Seat size code
▸ Reamer head is sold separately from reamer holder

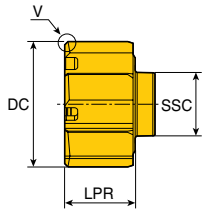
Spare parts

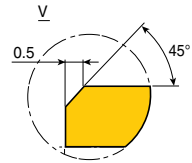
Designation	Clamping screw	Clamping key
		
TM...B5-16T0	TM-B5-SCR	TM-B5-KEY
TM...B6-16T0	TM-B6-SCR	TM-B6-KEY
TM...B7-20T0	TM-B7-SCR	TM-B7-KEY
TM...B8-20T0	TM-B8-SCR	TM-B8-KEY
TM...B9-32T0	TM-B9-SCR	TM-B9-KEY

D134-135
Cutting Condition D280-283

▸ Clamping key & clamping screw are included

Head changeable reamer heads





- Straight flute for blind hole
- For H7 hole tolerance

Head	Designation	Dimension (mm)		NOF	SSC	Flute type	Edge type	Grade
		DC	LPR					TT9030
	TM- 11.501-AS-B5	11.501	9.5	6	B5	S	A	●
	12.000-AS-B5	12.000	9.5	6	B5	S	A	●
	13.000-AS-B5	13.000	9.5	6	B5	S	A	●
	13.500-AS-B5	13.500	9.5	6	B5	S	A	●
	13.501-AS-B6	13.501	9.5	6	B6	S	A	●
	14.000-AS-B6	14.000	9.5	6	B6	S	A	●
	15.000-AS-B6	15.000	9.5	6	B6	S	A	●
	16.000-AS-B6	16.000	9.5	6	B6	S	A	●
	16.001-AS-B7	16.001	10.7	6	B7	S	A	●
	17.000-AS-B7	17.000	10.7	6	B7	S	A	●
	18.000-AS-B7	18.000	10.7	6	B7	S	A	●
	19.000-AS-B7	19.000	10.7	6	B7	S	A	●
	20.000-AS-B7	20.000	10.7	6	B7	S	A	●
	20.001-AS-B8	20.001	12.9	8	B8	S	A	●
	21.000-AS-B8	21.000	12.9	8	B8	S	A	●
	22.000-AS-B8	22.000	12.9	8	B8	S	A	●
	23.000-AS-B8	23.000	12.9	8	B8	S	A	●
	24.000-AS-B8	24.000	12.9	8	B8	S	A	●
	25.000-AS-B8	25.000	12.9	8	B8	S	A	●
	26.000-AS-B9	26.000	12.9	8	B9	S	A	●
	27.000-AS-B9	27.000	12.9	8	B9	S	A	●
	28.000-AS-B9	28.000	12.9	8	B9	S	A	●
	29.000-AS-B9	29.000	12.9	8	B9	S	A	●
	30.000-AS-B9	30.000	12.9	8	B9	S	A	●
	31.000-AS-B9	31.000	12.9	8	B9	S	A	●
	32.000-AS-B9	32.000	12.9	8	B9	S	A	●



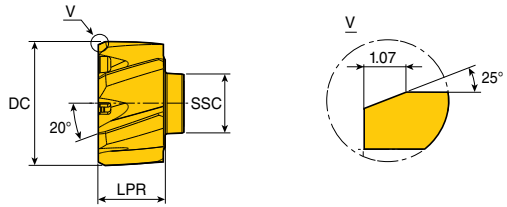
- NOF: Number of flutes
- SSC: Seat size code

●: Standard items

ADVANCE CUTTING TaeguTec

TM...-BL

Head changeable reamer heads



- Helical flute for through hole
- For H7 hole tolerance

Head	Designation	Dimension (mm)		NOF	SSC	Flute type	Edge type	Grade
		DC	LPR					TT9030
	TM - 11.501-BL-B5	11.501	9.5	6	B5	L	B	●
	12.000-BL-B5	12.000	9.5	6	B5	L	B	●
	13.000-BL-B5	13.000	9.5	6	B5	L	B	●
	13.500-BL-B5	13.500	9.5	6	B5	L	B	●
	13.501-BL-B6	13.501	9.5	6	B6	L	B	●
	14.000-BL-B6	14.000	9.5	6	B6	L	B	●
	15.000-BL-B6	15.000	9.5	6	B6	L	B	●
	16.000-BL-B6	16.000	9.5	6	B6	L	B	●
	16.001-BL-B7	16.001	10.7	6	B7	L	B	●
	17.000-BL-B7	17.000	10.7	6	B7	L	B	●
	18.000-BL-B7	18.000	10.7	6	B7	L	B	●
	19.000-BL-B7	19.000	10.7	6	B7	L	B	●
	20.000-BL-B7	20.000	10.7	6	B7	L	B	●
	20.001-BL-B8	20.001	12.9	8	B8	L	B	●
	21.000-BL-B8	21.000	12.9	8	B8	L	B	●
	22.000-BL-B8	22.000	12.9	8	B8	L	B	●
	23.000-BL-B8	23.000	12.9	8	B8	L	B	●
	24.000-BL-B8	24.000	12.9	8	B8	L	B	●
	25.000-BL-B8	25.000	12.9	8	B8	L	B	●
	26.000-BL-B9	26.000	12.9	8	B9	L	B	●
	27.000-BL-B9	27.000	12.9	8	B9	L	B	●
	28.000-BL-B9	28.000	12.9	8	B9	L	B	●
	29.000-BL-B9	29.000	12.9	8	B9	L	B	●
	30.000-BL-B9	30.000	12.9	8	B9	L	B	●
	31.000-BL-B9	31.000	12.9	8	B9	L	B	●
	32.000-BL-B9	32.000	12.9	8	B9	L	B	●



- NOF: Number of flutes
- SSC: Seat size code

●: Standard items

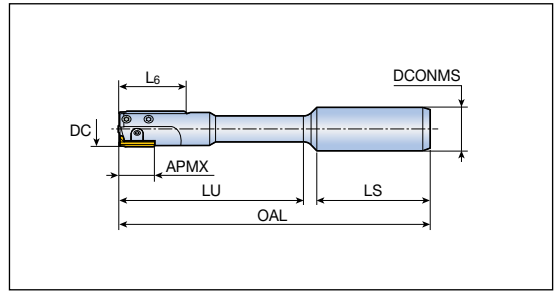
TB-T...-T0

Indexable reamer holders



• For through hole





Designation	Dimension (mm)							SSC
	DC	APMX	OAL	LU	LS	L6	DCONMS	
TB-T08.000-S-16T0-1B	8	15.5	123.5	75	45	30	16	1
T09.000-S-16T0-1B	9	15.5	123.5	75	45	30	16	1
T10.000-S-16T0-2B	10	15.5	123.5	75	45	30	16	2
T11.000-S-16T0-2B	11	15.5	123.5	75	45	30	16	2
T12.000-S-16T0-3B	12	17.0	135	85	45	30	16	3
T13.000-S-16T0-3B	13	17.0	135	85	45	30	16	3
T14.000-S-16T0-3B	14	17.0	135	85	45	30	16	3
T15.000-S-16T0-3B	15	17.0	135	85	45	30	16	3
T16.000-S-20T0-3B	16	17.0	165	110	50	30	20	3
T17.000-S-20T0-3B	17	17.0	165	110	50	30	20	3
T18.000-S-20T0-3B	18	17.0	165	110	50	30	20	3
T19.000-S-20T0-3B	19	17.0	165	110	50	30	20	3
T20.000-S-25T0-3B	20	17.0	171	110	56	30	25	3
T21.000-S-25T0-3B	21	17.0	171	110	56	30	25	3
T22.000-S-25T0-3B	22	17.0	191	130	56	30	25	3
T23.000-S-25T0-3B	23	17.0	191	130	56	30	25	3
T24.000-S-25T0-3B	24	17.0	191	130	56	30	25	3
T25.000-S-25T0-3B	25	17.0	191	130	56	30	25	3
T26.000-S-25T0-4B	26	22.5	221	160	56	30	25	4
T27.000-S-25T0-4B	27	22.5	221	160	56	30	25	4
T28.000-S-25T0-4B	28	22.5	221	160	56	30	25	4
T29.000-S-25T0-4B	29	22.5	221	160	56	30	25	4
T30.000-S-25T0-4B	30	22.5	221	160	56	30	25	4
T31.000-S-25T0-4B	31	22.5	221	160	56	30	25	4
T32.000-S-25T0-4B	32	22.5	221	160	56	30	25	4



▸ SSC: Seat size code

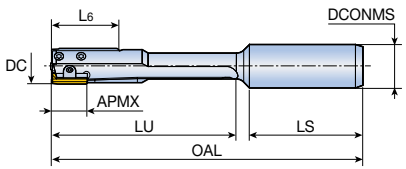
▸ Available upon request

ADVANCE CUTTING TaeguTec

TB-B...-T0

Indexable reamer holders





• For blind hole



Designation	Dimension (mm)							SSC
	DC	APMX	OAL	LU	LS	L6	DCONMS	
TB- B08.000-S-16T0-1B	8	15.5	123.5	75	45	30	16	1
B09.000-S-16T0-1B	9	15.5	123.5	75	45	30	16	1
B10.000-S-16T0-2B	10	15.5	123.5	75	45	30	16	2
B11.000-S-16T0-2B	11	15.5	123.5	75	45	30	16	2
B12.000-S-16T0-3B	12	17.0	135	85	45	30	16	3
B13.000-S-16T0-3B	13	17.0	135	85	45	30	16	3
B14.000-S-16T0-3B	14	17.0	135	85	45	30	16	3
B15.000-S-16T0-3B	15	17.0	135	85	45	30	16	3
B16.000-S-20T0-3B	16	17.0	165	110	50	30	20	3
B17.000-S-20T0-3B	17	17.0	165	110	50	30	20	3
B18.000-S-20T0-3B	18	17.0	165	110	50	30	20	3
B19.000-S-20T0-3B	19	17.0	165	110	50	30	20	3
B20.000-S-25T0-3B	20	17.0	171	110	56	30	25	3
B21.000-S-25T0-3B	21	17.0	171	110	56	30	25	3
B22.000-S-25T0-3B	22	17.0	191	130	56	30	25	3
B23.000-S-25T0-3B	23	17.0	191	130	56	30	25	3
B24.000-S-25T0-3B	24	17.0	191	130	56	30	25	3
B25.000-S-25T0-3B	25	17.0	191	130	56	30	25	3
B26.000-S-25T0-4B	26	22.5	221	160	56	30	25	4
B27.000-S-25T0-4B	27	22.5	221	160	56	30	25	4
B28.000-S-25T0-4B	28	22.5	221	160	56	30	25	4
B29.000-S-25T0-4B	29	22.5	221	160	56	30	25	4
B30.000-S-25T0-4B	30	22.5	221	160	56	30	25	4
B31.000-S-25T0-4B	31	22.5	221	160	56	30	25	4
B32.000-S-25T0-4B	32	22.5	221	160	56	30	25	4



▸ SSC: Seat size code

▸ Available upon request

Indexable reamer holders

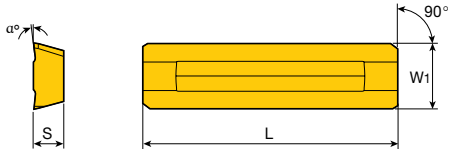
Spare parts

DC (mm)	Clamping wedge	Clamping screw	Adjustment screw	Adjustment pin	SSC
					
8	WDG-TB-1	SR-CL-TB-1	SR-ADJ-M3x2.5	PIN-ADJ-TB-1	1
9	WDG-TB-1	SR-CL-TB-1	SR-ADJ-M3x3	PIN-ADJ-TB-1	1
10	WDG-TB-1	SR-CL-TB-2	SR-ADJ-M3x3	PIN-ADJ-TB-2	2
11	WDG-TB-1	SR-CL-TB-2	SR-ADJ-M3x4	PIN-ADJ-TB-2	2
12	WDG-TB-3	SR-CL-TB-3	SR-ADJ-M4x4	PIN-ADJ-TB-3	3
13	WDG-TB-3	SR-CL-TB-3	SR-ADJ-M4x4	PIN-ADJ-TB-3	3
14	WDG-TB-3	SR-CL-TB-3	SR-ADJ-M4x4	PIN-ADJ-TB-3	3
15	WDG-TB-3	SR-CL-TB-3	SR-ADJ-M4x6	PIN-ADJ-TB-3	3
16	WDG-TB-3	SR-CL-TB-3	SR-ADJ-M4x6	PIN-ADJ-TB-3	3
17	WDG-TB-3	SR-CL-TB-3	SR-ADJ-M4x8	PIN-ADJ-TB-3	3
18	WDG-TB-3	SR-CL-TB-3	SR-ADJ-M4x8	PIN-ADJ-TB-3	3
19	WDG-TB-3	SR-CL-TB-3	SR-ADJ-M4x8	PIN-ADJ-TB-3	3
20	WDG-TB-3	SR-CL-TB-3	SR-ADJ-M4x10	PIN-ADJ-TB-3	3
21	WDG-TB-3	SR-CL-TB-3	SR-ADJ-M4x10	PIN-ADJ-TB-3	3
22	WDG-TB-3	SR-CL-TB-3	SR-ADJ-M4x10	PIN-ADJ-TB-3	3
23	WDG-TB-3	SR-CL-TB-3	SR-ADJ-M4x10	PIN-ADJ-TB-3	3
24	WDG-TB-3	SR-CL-TB-3	SR-ADJ-M4x10	PIN-ADJ-TB-3	3
25	WDG-TB-3	SR-CL-TB-3	SR-ADJ-M4x10	PIN-ADJ-TB-3	3
26	WDG-TB-4	SR-CL-TB-4	SR-ADJ-M4x10	PIN-ADJ-TB-4	4
27	WDG-TB-4	SR-CL-TB-4	SR-ADJ-M4x10	PIN-ADJ-TB-4	4
28	WDG-TB-4	SR-CL-TB-4	SR-ADJ-M4x10	PIN-ADJ-TB-4	4
29	WDG-TB-4	SR-CL-TB-4	SR-ADJ-M4x10	PIN-ADJ-TB-4	4
30	WDG-TB-4	SR-CL-TB-4	SR-ADJ-M4x10	PIN-ADJ-TB-4	4
31	WDG-TB-4	SR-CL-TB-4	SR-ADJ-M4x10	PIN-ADJ-TB-4	4
32	WDG-TB-4	SR-CL-TB-4	SR-ADJ-M4x10	PIN-ADJ-TB-4	4

▸ SSC: Seat size code

TB Blade

Indexable blades



• For H6 hole tolerance

Insert	Designation	Dimension (mm)				SSC	Lead type	Grades	
		Rake angle (α°)	L	W1	S			TT5030	TT5050
	TB-1B06	6	15.5	2.8	1.5	1	B	●	
	1B12	12	15.5	2.8	1.5	1	B	●	
	1A06	6	15.5	2.8	1.5	1	A		●
	1B06	6	15.5	2.8	1.5	1	B		●
	2B06	6	15.5	3.6	1.5	2	B	●	
	2B12	12	15.5	3.6	1.5	2	B	●	
	2A06	6	15.5	3.6	1.5	2	A		●
	2B06	6	15.5	3.6	1.5	2	B		●
	3B06	6	17.0	4.4	2.0	3	B	●	
	3B12	12	17.0	4.4	2.0	3	B	●	
	3A06	6	17.0	4.4	2.0	3	A		●
	3B06	6	17.0	4.4	2.0	3	B		●
	4B06	6	22.5	6.6	3.0	4	B	●	
	4B12	12	22.5	6.6	3.0	4	B	●	
	4A06	6	22.5	6.6	3.0	4	A		●
	4B06	6	22.5	6.6	3.0	4	B		●

D136-137

▸ Grades application
-TT5030: TiAlN coating for steel(P) and stainless steel(M)
-TT5050: TiCN + TiN coating for cast iron(K)

●: Standard items

▸ SSC: Seat size code

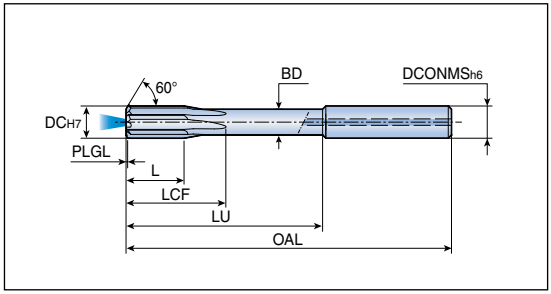
TS-S...-NS

Solid reamers for blind hole



• Straight flute - DIN1420





Designation	Dimension (mm)								NOF	Grade
	DC	L	PLGL	LCF	BD	LU	OAL	DCONMS		TT5040
TS- S0300-NS *	3.0	12	0.25	21	2.4	31	60	4.0	4	●
S0400-NS	4.0	12	0.3	17	3.4	40	68	6.0	4	●
S0500-NS	5.0	12	0.3	17	3.8	40	76	6.0	4	●
S0600-NS	6.0	12	0.3	17	4.5	40	76	6.0	4	●
S0700-NS	7.0	15	0.4	20	5.6	65	101	8.0	6	●
S0800-NS	8.0	15	0.4	20	6.4	65	101	8.0	6	●
S0900-NS	9.0	18	0.4	23	7.2	61	101	10.0	6	●
S1000-NS	10.0	18	0.5	23	8.0	61	101	10.0	6	●
S1050-NS	10.5	18	0.5	23	8.4	85	130	12.0	6	●
S1100-NS	11.0	18	0.5	23	8.8	85	130	12.0	6	●
S1150-NS	11.5	18	0.5	23	9.2	85	130	12.0	6	●
S1200-NS	12.0	18	0.5	23	9.6	85	130	12.0	6	●

Cutting Condition D286

- Special diameters are available on request
- NOF: Number of flutes
- *: Ø3 reamer does not include a coolant hole

●: Standard items

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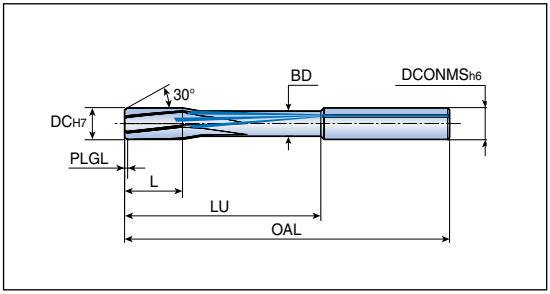
TS-L...-NS

Solid reamers for through hole



• Left flute - DIN1420





Designation	Dimension (mm)							NOF	Grade
	DC	L	PLGL	BD	LU	OAL	DCONMS		TT5040
TS-L0300-NS *	3.0	12	0.7	2.2	31	60	4.0	4	●
L0400-NS	4.0	12	0.7	3.0	40	68	6.0	4	●
L0500-NS	5.0	12	0.9	3.8	40	76	6.0	4	●
L0600-NS	6.0	12	0.9	4.5	40	76	6.0	4	●
L0700-NS	7.0	15	0.9	5.6	65	101	8.0	6	●
L0800-NS	8.0	15	0.9	6.4	65	101	8.0	6	●
L0900-NS	9.0	18	0.95	7.2	61	101	10.0	6	●
L1000-NS	10.0	18	0.95	8.0	61	101	10.0	6	●
L1050-NS	10.5	18	1.05	8.4	85	130	12.0	6	●
L1100-NS	11.0	18	1.05	8.8	85	130	12.0	6	●
L1150-NS	11.5	18	1.05	9.2	85	130	12.0	6	●
L1200-NS	12.0	18	1.05	9.6	85	130	12.0	6	●

Cutting Condition D286

- Special diameters are available on request
- NOF: Number of flutes
- *: Ø3 reamer does not include a coolant hole

●: Standard items

Deep Drilling Tools



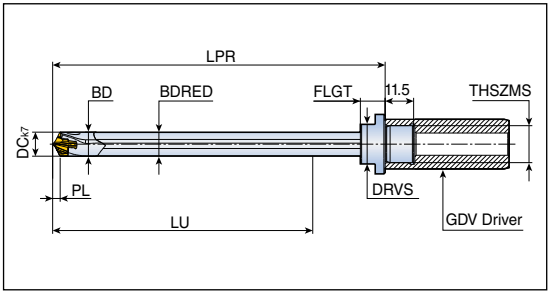
TCDGN

DRILL-RUSH head-changeable and modular shank gundrill holders



• Drilling depth: 16-20xdiameter





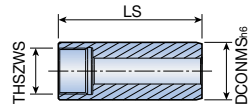
Designation		Dimension (mm)										Clamping Key
		DC	LU	LPR	PL	THSZMS	BD	BDRED	FLGT	DRVS	SSC	
TCDGN	**100X200-MF16X1**	10.0-10.4	200	274	2.33	MF16X1	9.7	9.6	10	16	10	K TCD D100-D199
	100X400-MF16X1	10.0-10.4	400	474	2.33	MF16X1	9.7	9.6	10	16	10	
	110X200-MF16X1	11.0-11.4	200	275	2.50	MF16X1	10.7	10.6	10	16	11	
	110X400-MF16X1	11.0-11.4	400	474	2.50	MF16X1	10.7	10.6	10	16	11	
	120X200-MF16X1	12.0-12.4	200	275	2.67	MF16X1	11.7	11.6	10	16	12	
	120X400-MF16X1	12.0-12.4	400	475	2.67	MF16X1	11.7	11.6	10	16	12	
	130X200-MF16X1	13.0-13.4	200	276	2.85	MF16X1	12.7	12.6	12	16	13	
	130X400-MF16X1	13.0-13.4	400	476	2.85	MF16X1	12.7	12.6	12	16	13	
	140X250-MF16X1	14.0-14.4	250	326	3.02	MF16X1	13.7	13.6	12	16	14	
	140X400-MF16X1	14.0-14.4	400	476	3.02	MF16X1	13.7	13.6	12	16	14	
	145X250-MF16X1	14.5-14.9	250	326	3.02	MF16X1	14.2	14.1	12	18	14	
	145X400-MF16X1	14.5-14.9	400	476	3.02	MF16X1	14.2	14.1	12	18	14	
	150X400-MF16X1	15.0-15.9	400	484	3.19	MF16X1	14.7	14.6	12	18	15	
	160X400-MF20X1	16.0-16.9	400	484	3.46	MF20X1	15.5	15.4	12	18	16	
	170X400-MF20X1	17.0-17.9	400	485	3.63	MF20X1	16.5	16.4	12	22	17	
	180X400-MF20X1	18.0-18.9	400	486	3.81	MF20X1	17.5	17.4	12	22	18	
	190X400-MF20X1	19.0-19.9	400	486	3.98	MF20X1	18.5	18.4	12	22	19	
	200X400-MF20X1	20.0-20.9	400	487	4.15	MF20X1	19.5	19.4	12	22	20	K TCD D200-D269
	210X400-MF20X1	21.0-21.9	400	503	4.32	MF20X1	20.5	20.4	21	28	21	
	220X400-MF20X1	22.0-22.9	400	504	4.50	MF20X1	21.5	21.4	21	28	22	
	230X400-MF20X1	23.0-23.9	400	504	4.67	MF20X1	22.5	22.4	21	28	23	
	240X400-MF20X1	24.0-24.9	400	505	4.84	MF20X1	23.5	23.4	21	28	24	
	250X400-MF20X1	25.0-25.9	400	506	5.01	MF20X1	24.5	24.4	21	28	25	

Assembly D144
D204-D216
Cutting Condition D274

- OAL: LPR+11.5
- Driver is sold separately from drill holder
- SSC: Seat size code

TCDGN holder drivers





Cylindrical (C) Type Weldon (W) Type

Designation		Dimension (mm)				Shank
		DC	THSZWS	DCONMS	LS	
GDV	**10-MF16X1-M-C20-T**	10.0-15.9	MF16X1	20	50	C
	11-MF20X1-M-C25-T	16.0-25.9	MF20X1	25	56	C
	22-MF16X1-M-W20-T	10.0-15.9	MF16X1	20	50	W
	23-MF20X1-M-W25-T	16.0-25.9	MF20X1	25	56	W

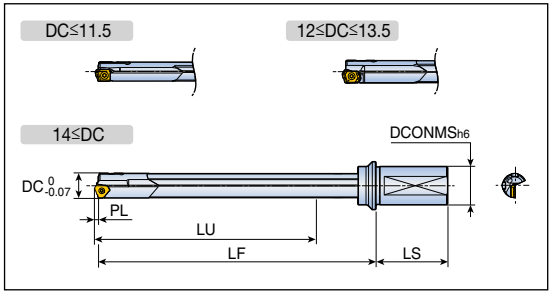
TRGD

Standard gundrill holders



• Drilling depth: 10-45xdiameter





Designation	Dimension (mm)						
	DC	LU	LF	LS	DCONMS	PL	L/D
TRGD 16.00xM25-10	16.0	172	209	56	25	2.2	10
16.50xM25-10	16.5	172	209	56	25	2.2	10
17.00xM25-10	17.0	182	220	56	25	2.2	10
18.00xM25-10	18.0	193	232	56	25	3.0	10
19.00xM25-10	19.0	203	243	56	25	3.0	10
20.00xM32-10	20.0	213	255	60	32	3.2	10
29.00xFM40-10	29.0	294.6	360	69	40	4.6	10
30.00xFM40-10	30.0	314.6	383	69	40	4.6	10
31.00xFM40-10	31.0	314.6	383	69	40	4.6	10
32.00xFM40-10	32.0	324.6	395	69	40	4.6	10
10.00xM20-15	10.0	159.2	184.5	50	20	1.8	15
10.50xM20-15	10.5	166.7	193	50	20	1.8	15
11.00xM20-15	11.0	181.7	209	50	20	1.8	15
11.50xM20-15	11.5	181.7	209	50	20	1.8	15
12.00xM20-15	12.0	196.8	225	50	20	1.8	15
12.50xM20-15	12.5	196.8	226	50	20	1.8	15
13.00xM25-15	13.0	211.8	245	56	25	1.8	15
13.50xM25-15	13.5	211.8	245	56	25	1.8	15
14.00xM25-15	14.0	227	261	56	25	2.0	15
14.50xM25-15	14.5	227	262	56	25	2.0	15
15.00xM25-15	15.0	242	278	56	25	2.0	15
16.00xM25-15	16.0	257	294	56	25	2.2	15
16.50xM25-15	16.5	257	294	56	25	2.2	15
17.00xM25-15	17.0	272	310	56	25	2.2	15
17.50xM25-15	17.5	272	310	56	25	2.2	15
18.00xM25-15	18.0	288	327	56	25	3.0	15
18.50xM25-15	18.5	288	327	56	25	3.0	15
19.00xM25-15	19.0	303	343	56	25	3.0	15
19.50xM25-15	19.5	303	343	56	25	3.0	15
20.00xM32-15	20.0	318	360	60	32	3.2	15
21.00xM32-15	21.0	333	376	60	32	3.2	15
22.00xM32-15	22.0	348	393	60	32	3.4	15
23.00xM32-15	23.0	363	409	60	32	3.4	15
24.00xM32-15	24.0	378	426	60	32	3.4	15
25.00xM32-15	25.0	394	442	60	32	3.7	15

Assembly D148
Cutting Condition D276

▸ Guide pad is sold separately from drill body

▸ Available upon request

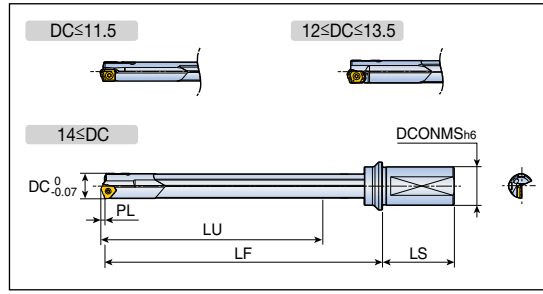
TRGD

Standard gundrill holders



• Drilling depth: 10-45xdiameter





Designation		Dimension (mm)						
		DC	LU	LF	LS	DCONMS	PL	L/D
TRGD	**26.00xM40-15**	26.0	409	449	70	40	3.7	15
	27.00xM40-15	27.0	424	465	70	40	3.7	15
	28.00xM40-15	28.0	424	467	70	40	3.7	15
	8.00xM20-20	8.0	169.2	192	50	20	1.2	20
	10.00xM20-20	10.0	211.7	237	50	20	1.8	20
	10.50xM20-20	10.5	221.7	248	50	20	1.8	20
	11.00xM20-20	11.0	241.7	269	50	20	1.8	20
	11.50xM20-20	11.5	211.7	269	50	20	1.8	20
	12.00xM20-20	12.0	261.8	290	50	20	1.8	20
	12.50xM20-20	12.5	261.8	291	50	20	1.8	20
	13.00xM25-20	13.0	281.8	315	56	25	1.8	20
	13.50xM25-20	13.5	281.8	315	56	25	1.8	20
	14.00xM25-20	14.0	302	336	56	25	2.0	20
	14.50xM25-20	14.5	302	337	56	25	2.0	20
	15.00xM25-20	15.0	322	358	56	25	2.0	20
	29.00xFM40-20	29.0	584.6	650	69	40	4.6	20
	30.00xFM40-20	30.0	624.6	693	69	40	4.6	20
	31.00xFM40-20	31.0	624.6	693	69	40	4.6	20
	32.00xFM40-20	32.0	644.6	715	69	40	4.6	20
	8.00xM20-25	8.0	211.2	234	50	20	1.2	25
	8.50xM20-25	8.5	218.7	242.5	50	20	1.2	25
	9.00xM20-25	9.0	236.1	261	50	20	1.1	25
	10.00xM20-25	10.0	264.5	289.5	50	20	1.8	25
	11.00xM20-25	11.0	301.7	329	50	20	1.8	25
	11.50xM20-25	11.5	301.7	329	50	20	1.8	25
	12.00xM20-25	12.0	326.8	355	50	20	1.8	25
	12.50xM20-25	12.5	326.8	356	50	20	1.8	25
	13.00xM25-25	13.0	351.8	385	56	25	1.8	25
	13.50xM25-25	13.5	351.8	385	56	25	1.8	25
	14.00xM25-25	14.0	377	411	56	25	2.0	25
	14.50xM25-25	14.5	377	412	56	25	2.0	25
	15.00xM25-25	15.0	402	438	56	25	2.0	25
	16.00xM25-25	16.0	427	464	56	25	2.2	25
	16.50xM25-25	16.5	427	464	56	25	2.2	25
	17.00xM25-25	17.0	452	490	56	25	2.2	25

Assembly D148 | Cutting Condition D276

▸ Guide pad is sold separately from drill body

▸ Available upon request

ADVANCE CUTTING TaeguTec

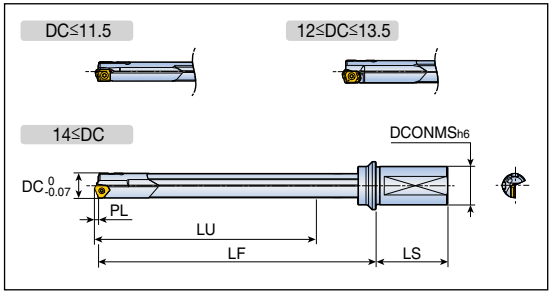
TRGD

Standard gundrill holders



• Drilling depth: 10-45xdiameter





Designation	Dimension (mm)						
	DC	LU	LF	LS	DCONMS	PL	L/D
TRGD 17.50xM25-25	17.5	452	490	56	25	2.2	25
18.00xM25-25	18.0	478	517	56	25	3.0	25
18.50xM25-25	18.5	478	517	56	25	3.0	25
19.00xM25-25	19.0	503	543	56	25	3.0	25
19.50xM25-25	19.5	503	543	56	25	3.0	25
20.00xM32-25	20.0	528	570	60	32	3.2	25
21.00xM32-25	21.0	553	596	60	32	3.2	25
22.00xM32-25	22.0	578	623	60	32	3.4	25
23.00xM32-25	23.0	603	649	60	32	3.4	25
24.00xM32-25	24.0	628	676	60	32	3.4	25
25.00xM32-25	25.0	654	702	60	32	3.7	25
26.00xM40-25	26.0	679	729	70	40	3.7	25
27.00xM40-25	27.0	704	755	70	40	3.7	25
28.00xM40-25	28.0	704	757	70	40	3.7	25
8.00xM20-35	8.0	295.2	318	50	20	1.2	35
12.00xM20-35	12.0	456.8	458	50	20	1.8	35
14.00xM25-35	14.0	527	561	56	25	2.0	35
15.00xM25-35	15.0	562	598	56	25	2.0	35
8.50xM20-40	8.5	349.2	373	50	20	1.2	40
9.00xM20-40	9.0	377.1	402	50	20	1.1	40
12.00xM20-40	12.0	521.8	550	50	20	1.8	40
14.00xM25-40	14.0	602	636	56	25	2.0	40
15.00xM25-40	15.0	642	678	56	25	2.0	40
8.00xM20-45	8.0	379.2	402	50	20	1.2	45
12.00xM20-45	12.0	586.8	615	50	20	1.8	45

Assembly D148
Cutting Condition D276

▸ Guide pad is sold separately from drill body

▸ Available upon request

Insert & guide pad

Tool dia. (mm)	Insert			Guide pad		
	Insert	Screw	Wrench	Guide pad	Screw	Wrench
7.94-8.49	ZSGT 040104 RS	CSPB-2FL3.1	T-6P	PAD-SGP03-12-035-DC-SB	CSPB-2FL2.7-LH	T-6P
8.50-8.99	ZSGT 040104 RS	CSPB-2FL3.1	T-6P	PAD-SGP03-12-040-DC-SB	CSPB-2FL3.1	
9.00-9.99	ZSGT 050104 RS					
10.00-10.99	ZSGT 060204 RS	SR-M2.5X0.35L3.8	T-7F	PAD-GP04-16-045-DC-SB	CSTB-2	T-6
11.00-11.80	ZSGT 060204 RS	SR-M2.5X0.35L3.8	T-7F	PAD-GP04-16-050-DC-SB	CSTB-2	T-6
11.81-11.99	LOGT 060204 RS	SR10503833L040	T-7F			
12.00-13.99	LOGT 060204 RS	SR10503833L040	T-7F	PAD-GP04-16-055-DC-SB PAD-GP04-16-055-DC-SC	TS 20043I/HG-P	T-6P
14.00-15.99	TOGT 070304 RS	SR14-560/S	T-8F	PAD-GP05-18-060-DC-SB PAD-GP05-18-060-DC-SC	SR34-508	T-7F
16.00-18.00	TOGT 080305 RS	SR14-560/S	T-8F	PAD-GP05-18-075-DC-SB PAD-GP05-18-075-DC-SC	SR34-508	T-7F
18.01-20.00	TOGT 090305 RS	SR14-560/S	T-8F	PAD-GP06-20-085-DC-SB PAD-GP06-20-085-DC-SC	SR34-508	T-7F
20.01-21.00	TOGT 100305 RS	SR34-506	T-9F			
21.01-21.99	TOGT 100305 RS	SR34-506	T-9F	PAD-GP06-20-100-DC-SB PAD-GP06-20-100-DC-SC	SR34-508	T-7F
22.00-25.00	TOGT 110405 RS	SR14-571/S	T-10/5			
25.01-28.00	TOGT 120405 RS	SR14-560	T-15F	PAD-GP06-20-120-DC-SB PAD-GP06-20-120-DC-SC	SR34-508	T-7F
28.01-29.99	TOGT 130408 RS	SR16-212/L10	T-20/5	PAD-GP06-20-120-DC-SB PAD-GP06-20-120-DC-SC	SR34-508	T-7F
30.00-32.00	TOGT 130408 RS	SR16-212/L10	T-20/5	PAD-GP07-20-120-DC-SB PAD-GP07-20-120-DC-SC	CSTB-3S	T-9F

D231-D232 | Guide Pad D236 | Cutting Condition D276

- SB: First choice for general purpose
- SC: First choice when using water-soluble coolant
- Inserts and guide pads must be ordered separately

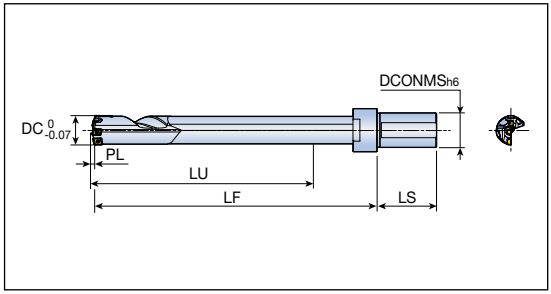
TRGD3

Standard gundrill holders



• Drilling depth: 10-15xdiameter





Designation	Dimension (mm)						
	DC	LU	LF	LS	DCONMS	PL	L/D
TRGD3 29.00xFM40-10	29.0	293	360	69	40	2.6	10
30.00xFM40-10	30.0	313	383	69	40	2.9	10
31.00xFM40-10	31.0	313	383	69	40	2.9	10
32.00xFM40-10	32.0	323	395	69	40	3.0	10
33.00xFM40-10	33.0	333	406	69	40	3.1	10
34.00xFM40-10	34.0	343	418	69	40	3.0	10
35.00xFM40-10	35.0	353	428	69	40	3.1	10
36.00xFM40-10	36.0	363	441	69	40	3.1	10
29.00xFM40-15	29.0	438	505	69	40	2.6	15
30.00xFM40-15	30.0	468	538	69	40	2.9	15
31.00xFM40-15	31.0	468	538	69	40	2.9	15
32.00xFM40-15	32.0	483	555	69	40	3.0	15
33.00xFM40-15	33.0	498	571	69	40	3.1	15
34.00xFM40-15	34.0	513	588	69	40	3.0	15
35.00xFM40-15	35.0	528	603	69	40	3.1	15
36.00xFM40-15	36.0	543	621	69	40	3.1	15

▸ Guide pad is sold separately from drill body.
▸ Supply up to 42.5 mm drill daimeter

▸ Available upon request

Insert & guide pad

Parts		Diameter (mm)			
		28.01-29.99	30.00-33.00	33.01-35.00	35.01-38.00
Insert	Peripheral insert	NPHT 0603...-P	NPHT 0804...-P	NPHT 0804...-P	NPHT 0804...-P
	Screw	CSTB-2.2	CSTB-2.5	CSTB-2.5	CSTB-2.5
	Wrench	T-7F	T-8F	T-8F	T-8F
	Intermediate insert	NPMT 060304R...-I	NPMT 070404R...-I	NPMT 070404R...-I	NPMT 070404R...-I
	Screw	CSTB-2.2	CSTB-2.5	CSTB-2.5	CSTB-2.5
	Wrench	T-7F	T-8F	T-8F	T-8F
	Central insert	NPMT 070408L...-C	NPMT 070408L...-C	NPMT 070408L...-C	NPMT 080408L-L...-C
	Screw	CSTB-2.5	CSTB-2.5	CSTB-2.5	CSTB-2.5
	Wrench	T-8F	T-8F	T-8F	T-8F
Pad	Guide pad	PAD-GP06-20-120-DC-SB	PAD-GP06-20-120-DC-SB	PAD-GP07-20-120-DC-SB	PAD-GP07-20-120-DC-SB
		PAD-GP06-20-120-DC-SC	PAD-GP06-20-120-DC-SC	PAD-GP07-20-120-DC-SC	PAD-GP07-20-120-DC-SC
	Screw	SR34-508	SR34-508	CSTB-3S	CSTB-3S
	Wrench	T-7F	T-7F	T-9F	T-9F

D227-D229 | Guide Pad D236 | Cutting Condition D276

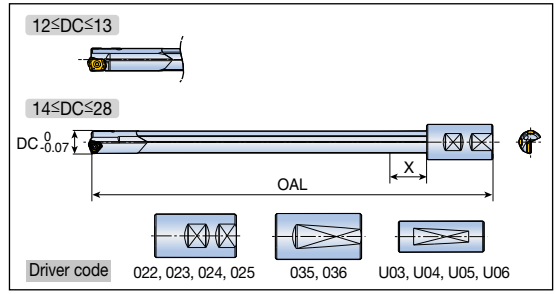
▸ Inserts and guide pads must be ordered separately

TRGDL

Standard gundrill holders







Designation		Driver code	Dimension (mm)		
			DC	OAL	X
TRGDL	**12.00x800-xxx**	U03 022	12	801.8	18
	12.00x800-xxx		12	801.8	18
	12.00x1000-xxx		12	1001.8	18
	12.00x1000-xxx		12	1001.8	18
	12.00x1650-xxx		12	1651.8	18
	12.00x1650-xxx		12	1651.8	18
	12.70x1219-xxx	U04	12.7	1220.8	19
	12.70x1524-xxx		12.7	1525.8	19
	13.00x800-xxx	U04 023	13	801.8	20
	13.00x800-xxx		13	801.8	20
	13.00x1000-xxx		13	1001.8	20
	13.00x1000-xxx		13	1001.8	20
	13.00x1650-xxx		13	1651.8	20
	13.00x1650-xxx		13	1651.8	20
	13.49x1219-xxx	U04	13.49	1220.8	20
	13.49x1527-xxx		13.49	1528.8	20
	14.00x800-xxx	U04 023	14	800	21
	14.00x1000-xxx		14	1000	21
	14.00x1650-xxx		14	1650	21
	14.50x800-xxx		14.5	800	22
	14.50x1000-xxx		14.5	1000	22
	14.50x1650-xxx		14.5	1650	22
	15.00x800-xxx		15	800	23
	15.00x1000-xxx		15	1000	23
	15.00x1650-xxx		15	1650	23
	16.00x800-xxx	U04 023 035	16	800	24
	16.00x1000-xxx		16	1000	24
	16.00x1500-xxx		16	1500	24
	17.00x1000-xxx		17	1000	25
	17.00x1500-xxx		17	1500	25
	18.00x800-xxx		18	800	27
	18.00x1000-xxx		18	1000	27
	18.00x1500-xxx		18	1500	27
	19.00x800-xxx		19	800	28
	19.00x1000-xxx		19	1000	28
	19.00x1500-xxx		19	1500	28

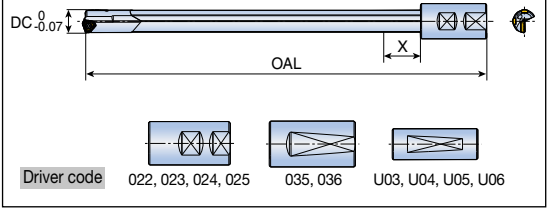
Assembly D152 | Cutting Condition D276

- Guide pad is sold separately from drill body
- Available upon request
- Select "xxx" driver code

TRGDL

Standard gundrill holders







Designation	Driver code	Dimension (mm)		
		DC	OAL	X
TRGDL 20.00x800-xxx	U05 024 036	20	800	30
20.00x1000-xxx		20	1000	30
20.00x1500-xxx		20	1500	30
21.00x1000-xxx		21	1000	31
21.00x1500-xxx		21	1500	31
22.00x1000-xxx		22	1000	33
22.00x1500-xxx		22	1500	33
23.00x1000-xxx		23	1000	34
23.00x1500-xxx		23	1500	34
24.00x1000-xxx		24	1000	36
24.00x1500-xxx		24	1500	36
25.00x1000-xxx		25	1000	37
25.00x1500-xxx		25	1500	37
26.00x1000-xxx	U06 025 026 036	26	1000	39
26.00x1500-xxx		26	1500	39
27.00x1000-xxx		27	1000	40
27.00x1500-xxx		27	1500	40
28.00x1000-xxx		28	1000	42
28.00x1500-xxx		28	1500	42

Assembly D152

Cutting Condition D276

- Guide pad is sold separately from drill body

- Available upon request
- Select "xxx" driver code

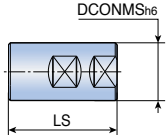
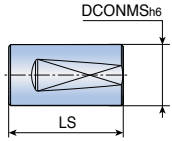
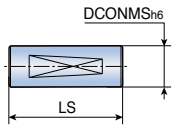
Insert & guide pad

Tool dia. (mm)	Insert			Guide pad		
	Insert	Screw	Wrench	Guide pad	Screw	Wrench
12.00-13.99	LOGT 060204 RS	SR10503833L040	T-7F	PAD-GP04-16-055-DC-SB PAD-GP04-16-055-DC-SC	TS 20043I/HG-P	T-7F
14.00-15.99	TOGT 070304 RS	SR14-560/S	T-8F	PAD-GP05-18-060-DC-SB PAD-GP05-18-060-DC-SC	SR34-508	T-7F
16.00-18.00	TOGT 080305 RS	SR14-560/S	T-8F	PAD-GP05-18-075-DC-SB PAD-GP05-18-075-DC-SC	SR34-508	T-7F
18.01-20.00	TOGT 090305 RS	SR14-560/S	T-8F	PAD-GP06-20-085-DC-SB PAD-GP06-20-085-DC-SC	SR34-508	T-7F
20.01-21.00	TOGT 100305 RS	SR34-506	T-9F			
21.01-21.99	TOGT 100305 RS	SR34-506	T-9F	PAD-GP06-20-100-DC-SB PAD-GP06-20-100-DC-SC	SR34-508	T-7F
22.00-25.00	TOGT 110405 RS	SR14-571/S	T-10/5			
25.01-28.00	TOGT 120405 RS	SR14-560	T-15F	PAD-GP06-20-120-DC-SB PAD-GP06-20-120-DC-SC	SR34-508	T-7F

D231-D232 Guide Pad D236 Cutting Condition D276

- SB: First choice for general purpose
- SC: First choice when using water-soluble coolant
- Inserts and guide pads must be ordered separately

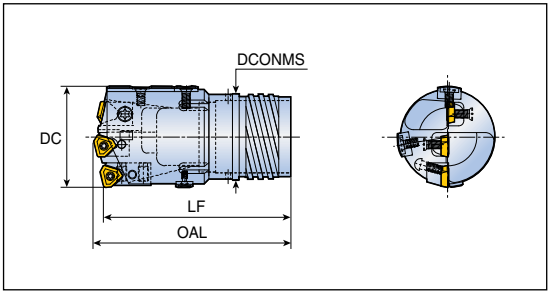
Driver for TRGDL Type

Driver	Driver code	Dimension (mm)	
		LS	DCONMS
	022	50	20.00
	023	56	25.00
	024	60	32.00
	025	70	40.00
	026	80	50.00
	035	56	25.00
	036	60	32.00
	U03	70	19.05
	U04	70	25.40
	U05	70	31.75
	U06	70	38.10

TBTA3...SE4

Single tube system





• Outer four start thread

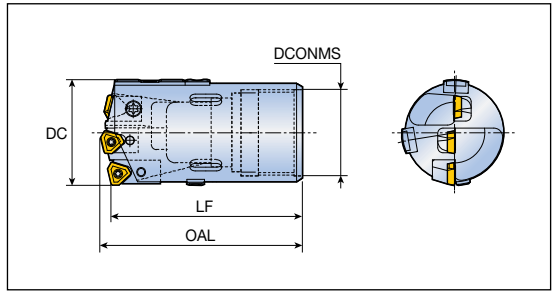
Designation	DC	Dimension (mm)			Tube	
		LF	OAL	DCONMS	Part	Diameter (mm)
TBTA3-xxx.xxSE4-33	38.00-39.60	85	90	30	BTSI 033	33
xxx.xxSE4-36	39.61-43.00	85	91	33	BTSI 036	36
xxx.xxSE4-39	43.01-47.00	95	101	36	BTSI 039	39
xxx.xxSE4-43	47.01-51.70	95	102	39	BTSI 043	43
xxx.xxSE4-47	51.71-56.20	100	107	43	BTSI 047	47
xxx.xxSE4-51	56.21-60.60	110	118	47	BTSI 051	51
xxx.xxSE4-56A	60.61-64.99	110	119	51	BTSI 056A	56
xxx.xxSE4-56B	65.00-66.99	150	159	52	BTSI 056B	56
xxx.xxSE4-62	67.00-72.99	150	159	58	BTSI 062	62
xxx.xxSE4-68	73.00-79.99	150	160	63	BTSI 068	68
xxx.xxSE4-75	80.00-86.99	180	191	70	BTSI 075	75
xxx.xxSE4-82	87.00-99.99	180	193	77	BTSI 082	82
xxx.xxSE4-94	100.00-106.99	180	193	89	BTSI 094	94

Assembly D159 | Tube D185-D186 | Cutting Condition D268

TBTA3...SI1

Single tube system





• Inner single start thread

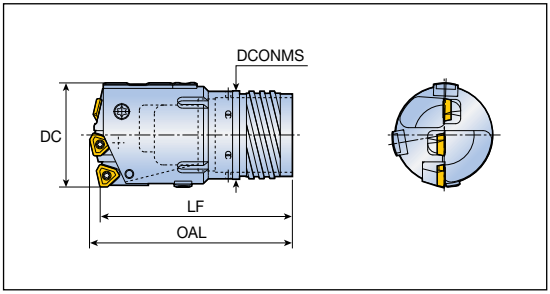
Designation	DC	Dimension (mm)			Tube	
		LF	OAL	DCONMS	Part	Diameter (mm)
TBTA3- xxx.xxSI1-33	38.00-39.99	80	85	30	BTSE 033	33
xxx.xxSI1-36	40.00-43.99	80	86	33	BTSE 036	36
xxx.xxSI1-39	44.00-46.99	90	96	37	BTSE 039	39
xxx.xxSI1-43	47.00-51.99	90	97	41	BTSE 043	43
xxx.xxSI1-47	52.00-56.99	100	107	44	BTSE 047	47
xxx.xxSI1-51	57.00-60.99	110	118	49	BTSE 051	51
xxx.xxSI1-56	61.00-67.99	110	119	53	BTSE 056	56
xxx.xxSI1-62	68.00-74.99	120	129	59	BTSE 062	62
xxx.xxSI1-68	75.00-80.99	150	161	65	BTSE 068	68
xxx.xxSI1-75	81.00-90.99	150	162	71	BTSE 075	75
xxx.xxSI1-82	91.00-98.99	150	162	79	BTSE 082	82
xxx.xxSI1-94	99.00-106.99	150	163	90	BTSE 094	94

Assembly D159 | Tube D187-D188 | Cutting Condition D268

TBTA3...DE4

Double tube system





• Outer four start thread

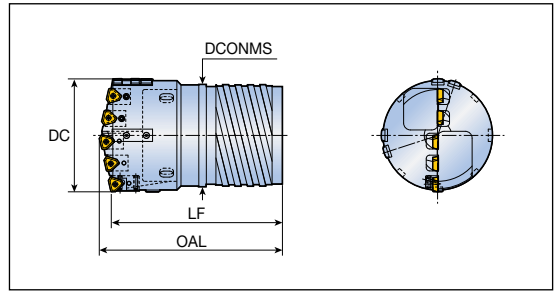
Designation		DC	Dimension (mm)			Tube		
			LF	OAL	DCONMS	Outer tube	Inner tube	Diameter (mm)
TBTA3-	**xxx.xxDE4-35.5**	38.00-39.60	85	90	33	BTDO 035.5	BTDI 026	35.5
	xxx.xxDE4-39	39.61-43.00	85	91	36	BTDO 039	BTDI 029	39.0
	xxx.xxDE4-42.5	43.01-47.00	95	101	39	BTDO 042.5	BTDI 032	42.5
	xxx.xxDE4-46.5	47.01-51.70	100	102	43	BTDO 046.5	BTDI 035	46.5
	xxx.xxDE4-51	51.71-56.20	100	107	47	BTDO 051	BTDI 039	51.0
	xxx.xxDE4-55.5	56.21-65.00	110	119	51	BTDO 055.5	BTDI 043A	55.5
	xxx.xxDE4-56	65.00-66.99	150	159	52	BTDO 056	BTDI 043B	56.0
	xxx.xxDE4-62	67.00-72.99	150	159	58	BTDO 062	BTDI 048	62.0
	xxx.xxDE4-68	73.00-79.99	150	160	63	BTDO 068	BTDI 053	68.0
	xxx.xxDE4-75	80.00-86.99	180	191	70	BTDO 075	BTDI 059	75.0
	xxx.xxDE4-82	87.00-99.99	180	193	77	BTDO 082	BTDI 066	82.0
	xxx.xxDE4-94	100.00-106.99	180	193	89	BTDO 094	BTDI 078	94.0

Assembly D159 | Tube D189-D190 | Cutting Condition D268

TBTA5...SE4

Single tube system





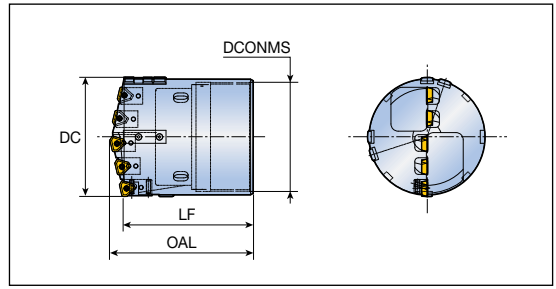
• Outer four start thread

Designation	DC	Dimension (mm)			Tube	
		LF	OAL	DCONMS	Part	Diameter (mm)
TBTA5- xxx.xxSE4-094	107.00-111.99	180	197	89	BTSI 094	94
xxx.xxSE4-106	112.00-123.99	205	221	101	BTSI 106	106
xxx.xxSE4-118	124.00-135.99	205	222	113	BTSI 118	118
xxx.xxSE4-130	136.00-147.99	205	223	125	BTSI 130	130
xxx.xxSE4-142	148.00-159.99	225	245	137	BTSI 142	142
xxx.xxSE4-154	160.00-168.99	225	246	149	BTSI 154	154

TBTA5...SI1

Single tube system





• Inner single start thread

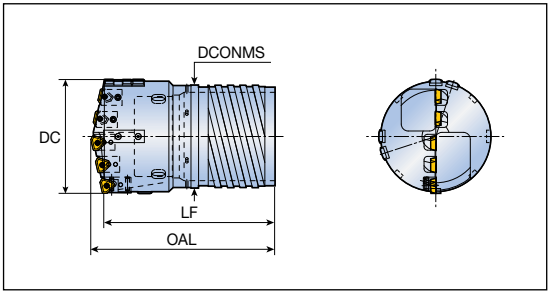
Designation	DC	Dimension (mm)			Tube	
		LF	OAL	DCONMS	Part	Diameter (mm)
TBTA5- xxx.xxSI1-094	107.00-110.99	150	164	90	BTSE 094	94
xxx.xxSI1-106	111.00-122.99	150	165	102	BTSE 106	106
xxx.xxSI1-118	123.00-134.99	150	167	114	BTSE 118	118
xxx.xxSI1-130	135.00-148.99	150	168	126	BTSE 130	130
xxx.xxSI1-142	149.00-161.99	150	170	139	BTSE 142	142
xxx.xxSI1-154	162.00-168.99	190	211	151	BTSE 154	154

Assembly D160 | Tube D186, D188 | Cutting Condition D268

TBTA5...DE4

Double tube system





• Outer four start thread

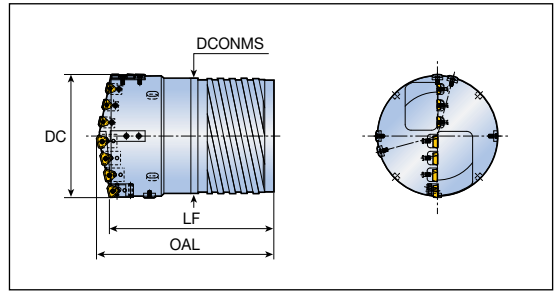
Designation	DC	Dimension (mm)			Tube		
		LF	OAL	DCONMS	Outer Tube	Inner Tube	Diameter (mm)
TBTA5 - xxx.xxDE4-094	107.00-111.99	180	197	89	BTDO 094	BTDI 078	94
xxx.xxDE4-106	112.00-123.99	205	221	101	BTDO 106	BTDI 090	106
xxx.xxDE4-118	124.00-135.99	205	222	113	BTDO 118	BTDI 092	118
xxx.xxDE4-130	136.00-147.99	205	223	125	BTDO 130	BTDI 104	130
xxx.xxDE4-142	148.00-159.99	225	245	137	BTDO 142	BTDI 116	142
xxx.xxDE4-154	160.00-168.99	225	246	149	BTDO 154	BTDI 128	154

Assembly D160 | Tube D189 | Cutting Condition D268

TBTA7...SE4

Single tube system





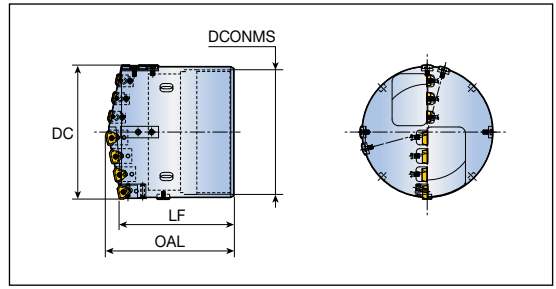
- Outer four start thread
- Double tube system also available on request

Designation	DC	Dimension (mm)			Tube	
		LF	OAL	DCONMS	Part	Diameter (mm)
TBTA7- xxx.xxSE4-154	169.00-171.99	225	246	149	BTSI 154	154
xxx.xxSE4-166	172.00-183.99	225	247	161	BTSI 166	166
xxx.xxSE4-178	184.00-195.99	245	267	173	BTSI 178	178
xxx.xxSE4-190	196.00-207.99	245	270	185	BTSI 190	190
xxx.xxSE4-202	208.00-219.99	245	271	197	BTSI 202	202
xxx.xxSE4-214	220.00-231.99	265	293	208	BTSI 214	214
xxx.xxSE4-226	232.00-232.99	265	293	220	BTSI 226	226

TBTA7...SI1

Single tube system





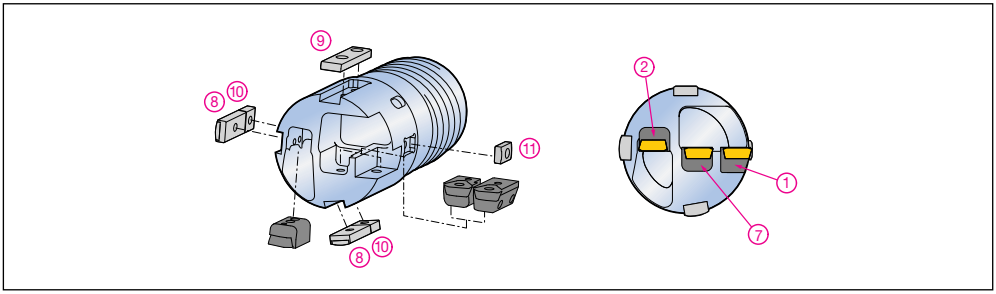
- Inner single start thread

Designation	DC	Dimension (mm)			Tube	
		LF	OAL	DCONMS	Part	Diameter (mm)
TBTA7- xxx.xxSI1-154	169.00-173.99	190	211	151	BTSE 154	154
xxx.xxSI1-166	174.00-185.99	190	213	163	BTSE 166	166
xxx.xxSI1-178	186.00-197.99	190	212	175	BTSE 178	178
xxx.xxSI1-190	198.00-209.99	190	215	187	BTSE 190	190
xxx.xxSI1-202	210.00-221.99	190	217	199	BTSE 202	202
xxx.xxSI1-214	222.00-232.99	190	218	211	BTSE 214	214

Assembly D161 | Tube D186,D188 | Cutting Condition D268

TBTA3 Series

Assembly of TBTA3 series



Cartridge (1,2,7)

DCN - DCX	Peripheral ①	Intermediate ②	Central ⑦
38 - 39.99	PERC 05R	CENC 05R	CENC 05R
40 - 44.99	PERC 402 - 04	CENC 05R	CENC 05R
45 - 47.99	PERC 402 - 04	CENC 05R	CENC 402 - 04
48 - 51.99	PERC 402 - 04	CENC 402 - 04	CENC 402 - 04
52 - 54.99	PERC 402 - 32	CENC 402 - 04	CENC 402 - 04
55 - 57.99	PERC 402 - 32	CENC 402 - 04	CENC 402 - 32
58 - 59.99	PERC 402 - 32	CENC 402 - 32	CENC 402 - 32
60 - 63.99	PERC 402 - 32	CENC 402 - 32	CENC 402 - 32
64 - 67.99	PERC 402 - 43	CENC 402 - 32	CENC 402 - 32
68 - 77.99	PERC 402 - 32	CENC 402 - 43	CENC 402 - 43
78 - 84.99	PERC 402 - 43	CENC 402 - 43	CENC 402 - 43
85 - 91.99	PERC 402 - 63	CENC 402 - 43	CENC 402 - 43
92 - 98.99	PERC 402 - 43	CENC 402 - 63	CENC 402 - 63
99 - 106.99	PERC 402 - 63	CENC 402 - 63	CENC 402 - 63

Cartridge & Insert (1,2,7)

Peripheral ①		Intermediate & Central ②⑦	
Cartridge	Insert	Cartridge	Insert
PERC 05R	NPMX 080308R-G	CENC 05R	NPMX 080308R-G
PERC 402 - 04	TPMX 140308R-G	CENC 402 - 04	TPMX 140308R-G
PERC 402 - 32	TPMX 170408R-G	CENC 402 - 32	TPMX 170408R-G
PERC 402 - 43	TPMX 240512R-G	CENC 402 - 43	TPMX 240512R-G
PERC 402 - 63	TPMX 280716R-G	CENC 402 - 63	TPMX 280716R-G

Guide Pad (8,9,10,11)

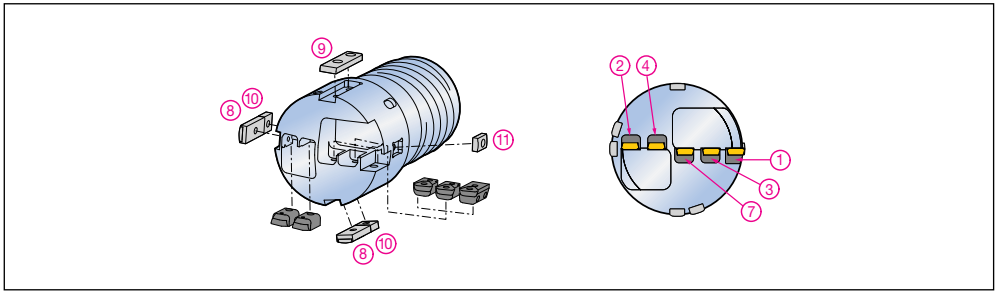
DCN - DCX	Guide Pad ⑧	QTY	Filler ⑨	QTY	Protector ⑩	QTY	Sub guide pad ⑪	QTY
38 - 44.99	PAD-GP08-25-155-DC-SB	2	FILLER08	1	PAD-P08	2	PAD-S08	1
45 - 59.99	PAD-GP10-35-200-DC-SB	2	FILLER10	1	PAD-P10	2	PAD-S08	1
60 - 63.99	PAD-GP14-40-250-DC-SB	2	FILLER14	1	PAD-P14	2	PAD-S08	1
64 - 98.99	PAD-GP14-40-250-DC-SB	2	FILLER14	1	PAD-P14	2	PAD-S10	1
99 - 106.99	PAD-GP18-40-300-DC-SB	2	FILLER18	1	PAD-P18	2	PAD-S14	1

D230 | Guide Pad D234 | Cartridge D239

▸ Insert and guide pad are sold separately from drill body.

TBTA5 Series

Assembly of TBTA5 series



Cartridge (1,2,3, 4,7)

DCN - DCX	Peripheral ①	Intermediate ②	Intermediate ③	Intermediate ④	Central ⑦
107 - 117.99	PERC 402 - 43	CENC 402 - 32	CENC 402 - 32	CENC 402 - 32	CENC 402 - 43
118 - 135.99	PERC 402 - 43	CENC 402 - 43	CENC 402 - 43	CENC 402 - 43	CENC 402 - 43
136 - 144.99	PERC 402 - 43	CENC 402 - 43	CENC 402 - 43	CENC 402 - 43	CENC 402 - 63
145 - 150.99	PERC 402 - 43	CENC 402 - 43	CENC 402 - 63	CENC 402 - 43	CENC 402 - 63
151 - 156.99	PERC 402 - 63	CENC 402 - 43	CENC 402 - 63	CENC 402 - 43	CENC 402 - 63
157 - 162.99	PERC 402 - 63	CENC 402 - 43	CENC 402 - 63	CENC 402 - 63	CENC 402 - 63
163 - 168.99	PERC 402 - 63	CENC 402 - 63	CENC 402 - 63	CENC 402 - 63	CENC 402 - 63

Cartridge & Insert (1,2,3, 4,7)

Peripheral ①		Intermediate & Central ②③④⑦	
Cartridge	Insert	Cartridge	Insert
-	-	CENC 402 - 32	TPMX 170408R-G
PERC 402 - 43	TPMX 240512R-G	CENC 402 - 43	TPMX 240512R-G
PERC 402 - 63	TPMX 280716R-G	CENC 402 - 63	TPMX 280716R-G

Guide Pad (8,9,10,11)

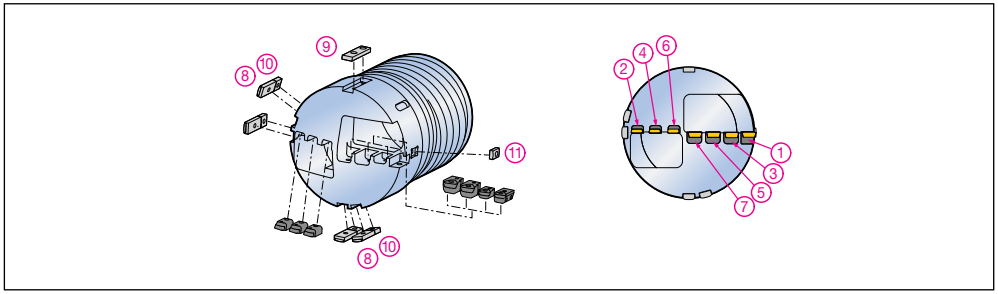
DCN - DCX	Guide Pad ⑧	QTY	Filler ⑨	QTY	Protector ⑩	QTY	Sub guide pad ⑪	QTY
107 - 135.99	PAD-GP18-40-300-DC-SB	2	FILLER18	1	PAD-P18	2	PAD-S14	1
136 - 168.99	PAD-GP18-40-300-DC-SB	4	FILLER18	1	PAD-P18	4	PAD-S14	1

D230 Guide Pad D234 Cartridge D239

▸ Insert and guide pad are sold separately from drill body.

TBTA7 Series

Assembly of TBTA7 series



Cartridge (1,2,3,4,5,6,7)

DCN - DCX	Peripheral	Intermediate					Central
	①	②	③	④	⑤	⑥	⑦
169 - 188.99	PERC 402 - 43	CENC 402 - 43	CENC 402 - 43	CENC 402 - 43	CENC 402 - 43	CENC 402 - 43	CENC 402 - 43
189 - 196.99	PERC 402 - 43	CENC 402 - 43	CENC 402 - 43	CENC 402 - 43	CENC 402 - 43	CENC 402 - 43	CENC 402 - 63
197 - 202.99	PERC 402 - 43	CENC 402 - 43	CENC 402 - 43	CENC 402 - 43	CENC 402 - 63	CENC 402 - 43	CENC 402 - 63
203 - 208.99	PERC 402 - 43	CENC 402 - 43	CENC 402 - 63	CENC 402 - 43	CENC 402 - 63	CENC 402 - 43	CENC 402 - 63
209 - 214.99	PERC 402 - 63	CENC 402 - 43	CENC 402 - 63	CENC 402 - 43	CENC 402 - 63	CENC 402 - 43	CENC 402 - 63
215 - 220.99	PERC 402 - 63	CENC 402 - 43	CENC 402 - 63	CENC 402 - 43	CENC 402 - 63	CENC 402 - 63	CENC 402 - 63
221 - 226.99	PERC 402 - 63	CENC 402 - 43	CENC 402 - 63	CENC 402 - 63	CENC 402 - 63	CENC 402 - 63	CENC 402 - 63
227 - 232.99	PERC 402 - 63	CENC 402 - 63	CENC 402 - 63	CENC 402 - 63	CENC 402 - 63	CENC 402 - 63	CENC 402 - 63

Cartridge & Insert (1,2,3,4,5,6,7)

Peripheral ①		Intermediate & Central ②③④⑤⑥⑦	
Cartridge	Insert	Cartridge	Insert
PERC 402 - 43	TPMX 240512R-G	CENC 402 - 43	TPMX 240512R-G
PERC 402 - 63	TPMX 280716R-G	CENC 402 - 63	TPMX 280716R-G

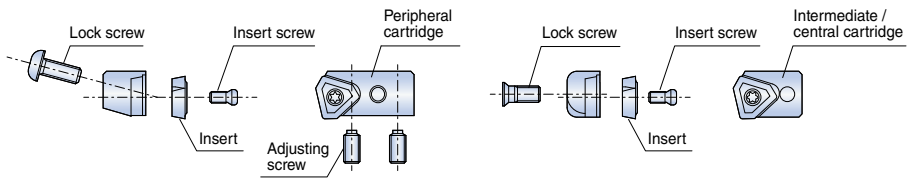
Guide Pad (8,9,10,11)

DCN - DCX	Guide Pad ⑧		Filler ⑨		Protector ⑩		Sub guide pad ⑪	
		QTY		QTY		QTY		QTY
165 - 232.99	PAD-GP18-40-300-DC-SB	4	FILLER18	1	PAD-P18	4	PAD-S14	1

D230 | Guide Pad D234 | Cartridge D239

▸ Insert and guide pad are sold separately from drill body.

Accessories of TBTA series



Peripheral inserts and accessories

Cartridge	Insert	Adjusting screw	Wrench	Lock screw	Wrench
PERC 05R	NPMX 080308R-G	AS0003-5	H1.5	LS1803RH	H2
PERC 402-04	TPMX 140308R-G	AS0004-8	H2	LS1803.5RH	H2.5
PERC 402-32	TPMX 170408R-G	AS0005-10	H2.5	LS1805RH	H3
PERC 402-43	TPMX 240512R-G	AS0005-15	H2.5	LS1806RH	H4
PERC 402-63	TPMX 280716R-G	AS0006-15	H3	LS1806RH	H4

Central and intermediate inserts and accessories

Cartridge	Insert	Lock screw		Wrench	
		Inter. Cart.	Cen. Cart.	< ø151.00	ø151.00 =<
CENC 05R	NPMX 080308R-G	CSTB-3		T-9D	
CENC 402-04	TPMX 140308R-G	CSTB-3.5		T-15D	
CENC 402-32	TPMX 170408R-G	CSTA-5		T-15D	
CENC 402-43	TPMX 240512R-G	LS1206		H3	H3L
CENC 402-63	TPMX 280716R-G	LS1206	LS1206S (CICT3) LS1206 (CICT5, 7)	H3	H3L

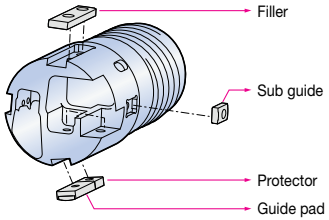
Spare part for Inserts

Insert	Insert screw	Wrench
NPMX 080308R-G	CSTB-2.2	T-7LB-L
TPMX 140308R-G	CSTB-2.5	T-8LB-L
TPMX 170408R-G	CSTB-3.5D	T-9LB-L
TPMX 240512R-G	CSTB-4M	T-15LB-L
TPMX 280716R-G	CSTB-5	T-20LB-L

- Peripheral cartridges are supplied with the adjusting screws and insert screw (inserts, lock screw and wrenches are not included)
- Central and intermediate cartridges are supplied with insert screw (inserts, lock screw and wrenches are not included)

Cartridge
D230
D239

Assembly of TBTA series



Guide pads, protectors, fillers and accessories

Guide pad	Protector	Filler	Lock screw	Wrench
				
PAD-GP08-25-155-DC-SB	PAD-P08	FILLER08	CSTB-3S	T-9D
PAD-GP10-35-200-DC-SB	PAD-P10	FILLER10	CSTB-4S	T-15D
PAD-GP14-40-250-DC-SB	PAD-P14	FILLER14	CSTA-5S	T-15D
PAD-GP18-40-300-DC-SB	PAD-P18	FILLER18	LS1206S / LS1206SS	H3

Sub guide pad and accessories

Guide pad	Lock screw	Wrench
		
PAD-GP08-25-155-DC-SB	PAD-P08	T-9D
PAD-GP10-35-200-DC-SB	PAD-P10	T-15D
PAD-GP14-40-250-DC-SB	PAD-P14	T-15D
PAD-GP18-40-300-DC-SB	PAD-P18	H3

Guide Pad

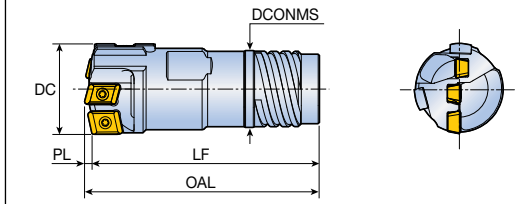
D234

▸ Insert and guide pad are sold separately from drill body.

TBTA-FB...SE4

Single tube system





• Outer four start thread

Designation		DC	Dimension (mm)				Tube	
			LF	OAL	DCONMS	PL	Part	Diameter (mm)
TBTA-FB	**xx.xxSE4-22**	25.00-26.40	70	73	19.5	3	BTSI 022	22
	xx.xxSE4-24	26.41-28.70	70	73	21.0	3	BTSI 024	24
	xx.xxSE4-26	28.71-31.00	75	78	23.5	3	BTSI 026	26
	xx.xxSE4-28	31.01-33.30	75	78	25.5	3	BTSI 028	28
	xx.xxSE4-30	33.31-36.20	80	83	28.0	3	BTSI 030	30
	xx.xxSE4-33	36.21-39.60	90	93	30.0	3	BTSI 033	33
	xx.xxSE4-36	39.61-43.00	95	99	33.0	4	BTSI 036	36
	xx.xxSE4-39	43.01-47.00	100	104	36.0	4	BTSI 039	39
	xx.xxSE4-43	47.01-51.70	100	104	39.0	4	BTSI 043	43
	xx.xxSE4-47	51.71-56.20	110	114	43.0	4	BTSI 047	47
	xx.xxSE4-51	56.21-60.60	115	120	47.0	5	BTSI 051	51
	xx.xxSE4-51	60.61-65.00	115	120	47.0	5	BTSI 051	51
	xx.xxSE4-56A	60.61-65.00	115	120	51.0	5	BTSI 056A	56
	xx.xxSE4-56B	65.01-66.99	141	149	52.0	8	BTSI 056B	56
	xx.xxSE4-62	67.00-72.99	141	149	58.0	8	BTSI 062	62
	xx.xxSE4-68	73.00-79.99	141	150	63.0	9	BTSI 068	68
	xx.xxSE4-75	80.00-86.99	164	173	70.0	9	BTSI 075	75
	xx.xxSE4-82	87.00-89.00	164	173	77.0	9	BTSI 082	82

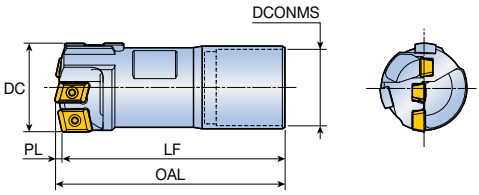
Assembly D167-D169
Tube D185-D186
Cutting Condition D270

▸ Insert and guide pad are sold separately from drill body

TBTA-FB...SI1

Single tube system





• Inner single start thread

Designation	DC	Dimension (mm)				Tube	
		LF	OAL	DCONMS	PL	Part	Diameter (mm)
TBTA-FB xx.xxSI1-22	25.00-26.99	70	73	20	3	BTSE 022	22
xx.xxSI1-24	27.00-29.00	70	73	22	3	BTSE 024	24
xx.xxSI1-24	29.01-29.99	70	73	22	3	BTSE 024	24
xx.xxSI1-26	30.00-31.99	75	78	24	3	BTSE 026	26
xx.xxSI1-28	32.00-33.99	75	78	26	3	BTSE 028	28
xx.xxSI1-30	34.00-36.99	90	93	27	3	BTSE 030	30
xx.xxSI1-33	37.00-39.99	95	98	30	3	BTSE 033	33
xx.xxSI1-36	40.00-43.99	100	104	33	4	BTSE 036	36
xx.xxSI1-39	44.00-46.99	105	109	37	4	BTSE 039	39
xx.xxSI1-43	47.00-51.99	105	109	41	4	BTSE 043	43
xx.xxSI1-47	52.00-56.99	110	114	44	4	BTSE 047	47
xx.xxSI1-51	57.00-60.99	115	120	49	5	BTSE 051	51
xx.xxSI1-56	61.00-65.00	115	120	53	5	BTSE 056	56
xx.xxSI1-56	65.01-67.99	104	112	53	8	BTSE 056	56
xx.xxSI1-62	68.00-74.99	104	113	59	9	BTSE 062	62
xx.xxSI1-68	75.00-80.99	134	143	65	9	BTSE 068	68
xx.xxSI1-75	81.00-89.00	134	143	71	9	BTSE 075	75

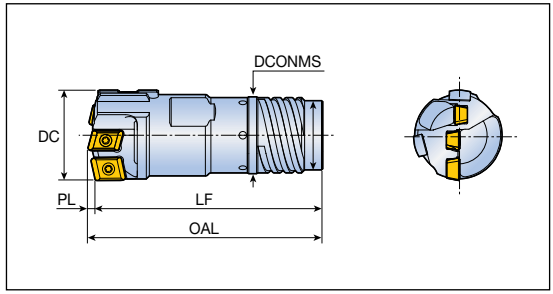
Assembly D167-D169
Tube D187-D188
Cutting Condition D270

▸ Insert and guide pad are sold separately from drill body

TBTA-FB...DE4

Double tube system





• Outer four start thread

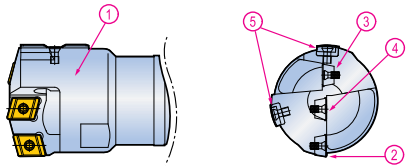
Designation	DC	Dimension (mm)				Tube		
		LF	OAL	DCONMS	PL	Outer tube	Inner tube	Diameter (mm)
TBTA-FB xx.xxDE4-23.5	25.00-26.40	70	73	21.0	3	BTDO 023.5	BTDI 016	23.5
xx.xxDE4-26	26.41-28.70	75	78	23.5	3	BTDO 026	BTDI 018	26.0
xx.xxDE4-28	28.71-31.00	75	78	25.5	3	BTDO 028	BTDI 020	28.0
xx.xxDE4-30.5	31.01-33.30	80	83	28.0	3	BTDO 030.5	BTDI 022	30.5
xx.xxDE4-33	33.31-36.20	90	93	30.0	3	BTDO 033	BTDI 024	33.0
xx.xxDE4-35.5	36.21-39.60	95	99	33.0	4	BTDO 035.5	BTDI 026	35.5
xx.xxDE4-39	39.61-43.00	100	104	36.0	4	BTDO 039	BTDI 029	39.0
xx.xxDE4-42.5	43.01-47.00	100	104	39.0	4	BTDO 042.5	BTDI 032	42.5
xx.xxDE4-46.5	47.01-51.70	110	114	43.0	4	BTDO 046.5	BTDI 035	46.5
xx.xxDE4-51	51.71-56.20	115	120	47.5	5	BTDO 051	BTDI 039	51.0
xx.xxDE4-55.5	56.21-65.00	115	120	51.0	5	BTDO 055.5	BTDI 043A	55.5

Assembly D167-D169 | Tube D189 | Cutting Condition D270

▸ Insert and guide pad are sold separately from drill body

TBTA-FB Series

Assembly of TBTA-FB series



1. Head shank
2. Peripheral insert
3. Intermediate insert
4. Central insert
5. Guide pad

	Parts	Diameter (mm)			
		25.00-28.00	28.01-29.99	30.00-35.00	35.01-38.00
Insert	Peripheral	NPHT 060304R-G-P	NPHT 060304R-G-P	NPHT 080404R-G-P	NPHT 080404R-G-P
	Screw	CSTB-2.2	CSTB-2.2	SR14-560-HG	SR14-560-HG
	Wrench	T-7F	T-7F	T-8F	T-8F
	Intermediate	NPMT 060304R-G-I	NPMT 060304R-G-I	NPMT 070404R-G-I	NPMT 070404R-G-I
	Screw	CSTB-2.2	CSTB-2.2	SR14-560-HG	SR14-560-HG
	Wrench	T-7F	T-7F	T-8F	T-8F
	Central	NPMT 060308L-G-C	NPMT 070408L-G-C	NPMT 070408L-G-C	NPMT 080480L-G-C
	Screw	CSTB-2.2	SR14-560-HG	SR14-560-HG	SR14-560-HG
	Wrench	T-7F	T-8F	T-8F	T-8F
Pad	PAD	PAD-GP06-20-120-DC-SB	PAD-GP06-20-120-DC-SB	PAD-GP07-20-120-DC-SB	PAD-GP07-20-120-DC-SB
		PAD-GP06-20-120-DC-SC	PAD-GP06-20-120-DC-SC	PAD-GP07-20-120-DC-SC	PAD-GP07-20-120-DC-SC
	Screw	CSTB-2.2S	CSTB-2.2S	CSTB-3S	CSTB-3S
	Wrench	T-7F	T-7F	T-9F	T-9F

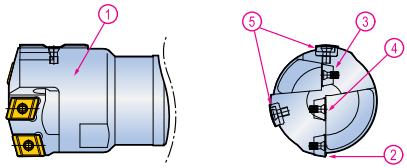
	Parts	Diameter (mm)			
		38.01-39.00	39.01-41.00	41.01-44.00	44.01-45.00
Insert	Peripheral	NPHT 090404R-G-P	NPHT 090404R-G-P	NPHT 090404R-G-P	NPHT 090404R-G-P
	Screw	SR14-560-HG	SR14-560-HG	SR14-560-HG	SR14-560-HG
	Wrench	T-8F	T-8F	T-8F	T-8F
	Intermediate	NPMT 070404R-G-I	NPMT 070404R-G-I	NPMT 080404R-G-I	NPMT 080404R-G-I
	Screw	SR14-560-HG	SR14-560-HG	SR14-560-HG	SR14-560-HG
	Wrench	T-8F	T-8F	T-8F	T-8F
	Central	NPMT 080408L-G-C	NPMT 080408L-G-C	NPMT 080408L-G-C	NPMT 100408L-G-C
	Screw	SR14-560-HG	SR14-560-HG	SR14-560-HG	SR14-560-HG
	Wrench	T-8F	T-8F	T-8F	T-8F
Pad	PAD	PAD-GP07-20-120-DC-SB	PAD-GP08-25-155-DC-SB	PAD-GP08-25-155-DC-SB	PAD-GP08-25-155-DC-SB
		PAD-GP07-20-120-DC-SC	PAD-GP08-25-155-DC-SC	PAD-GP08-25-155-DC-SC	PAD-GP08-25-155-DC-SC
	Screw	CSTB-3S	CSTB-3S	CSTB-3S	CSTB-3S
	Wrench	T-9F	T-9F	T-9F	T-9F

D227-D229 Guide Pad D235

▸ Insert and guide pad are sold separately from drill body

TBTA-FB Series

Assembly of TBTA-FB series



1. Head shank
2. Peripheral insert
3. Intermediate insert
4. Central insert
5. Guide pad

	Parts	Diameter (mm)			
		45.01-47.00	47.01-51.00	51.01-54.00	54.01-57.00
Insert	Peripheral	NPHT 090404R-G-P	NPHT 110404R-G-P	NPHT 110404R-G-P	NPHT 110404R-G-P
	Screw	SR14-560-HG	SR14-560-HG	SR14-560-HG	SR14-560-HG
	Wrench	T-8F	T-8F	T-8F	T-8F
	Intermediate	NPMT 080404R-G-I	NPMT 080404R-G-I	NPMT 100404R-G-I	NPMT 100404R-G-I
	Screw	SR14-560-HG	SR14-560-HG	SR14-560-HG	SR14-560-HG
	Wrench	T-8F	T-8F	T-8F	T-8F
	Central	NPMT 100408L-G-C	NPMT 100408L-G-C	NPMT 100408L-G-C	NPMT 130408L-G-C
	Screw	SR14-560-HG	SR14-560-HG	SR14-560-HG	SR14-560-HG
	Wrench	T-8F	T-8F	T-8F	T-8F
Pad	PAD	PAD-GP10-30-200-DC-SB	PAD-GP10-30-200-DC-SB	PAD-GP10-30-200-DC-SB	PAD-GP10-30-200-DC-SB
		PAD-GP10-30-200-DC-SC	PAD-GP10-30-200-DC-SC	PAD-GP10-30-200-DC-SC	PAD-GP10-30-200-DC-SC
	Screw	CSTB-3.5	CSTB-3.5	CSTB-3.5	CSTB-3.5
	Wrench	T-15F	T-15F	T-15F	T-15F

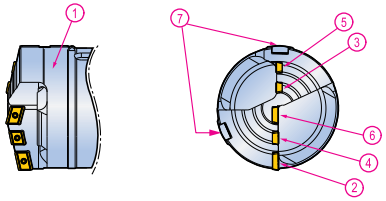
	Parts	Diameter (mm)		
		57.01-60.00	60.01-64.00	64.01-65.00
Insert	Peripheral	NPHT 110404R-G-P	NPHT 130404R-G-P	NPHT 130404R-G-P
	Screw	SR14-560-HG	SR14-560-HG	SR14-560-HG
	Wrench	T-8F	T-8F	T-8F
	Intermediate	NPMT 100404R-G-I	NPMT 100404R-G-I	NPMT 130404R-G-I
	Screw	SR14-560-HG	SR14-560-HG	SR14-560-HG
	Wrench	T-8F	T-8F	T-8F
	Central	NPMT 130408L-G-C	NPMT 130408L-G-C	NPMT 130408L-G-C
	Screw	SR14-560-HG	SR14-560-HG	SR14-560-HG
	Wrench	T-8F	T-8F	T-8F
Pad	PAD	PAD-GP12-35-250-DC-SB	PAD-GP12-35-250-DC-SB	PAD-GP12-35-250-DC-SB
		PAD-GP12-35-250-DC-SC	PAD-GP12-35-250-DC-SC	PAD-GP12-35-250-DC-SC
	Screw	CSTB-3.5	CSTB-3.5	CSTB-3.5
	Wrench	T-15F	T-15F	T-15F

D227-D229 Guide Pad D235

▸ Insert and guide pad are sold separately from drill body

TBTA-FB Series

Assembly of TBTA-FB series



1. Head shank
2. Peripheral insert
3. Intermediate insert1
4. Intermediate insert2
5. Intermediate insert3
6. Central insert
7. Guide pad

	Parts	Diameter (mm)		
		65.01-71.00	71.01-83.00	83.01-89.00
Insert	Peripheral	NPHT 110404R-G-P	NPHT 130404R-G-P	NPHT 130404R-G-P
	Screw	SR14-560-HG	SR14-560-HG	SR14-560-HG
	Wrench	T-8F	T-8F	T-8F
	Intermediate1	NPMT 080404R-G-I	NPMT 080404R-G-I	NPMT 080404R-G-I
	Screw	SR14-560-HG	SR14-560-HG	SR14-560-HG
	Wrench	T-8F	T-8F	T-8F
	Intermediate2	NPMT 080404R-G-I	NPMT 080404R-G-I	NPMT 100404R-G-I
	Screw	SR14-560-HG	SR14-560-HG	SR14-560-HG
	Wrench	T-8F	T-8F	T-8F
	Intermediate3	NPMT 070404R-G-I	NPMT 080404R-G-I	NPMT 080404R-G-I
	Screw	SR14-560-HG	SR14-560-HG	SR14-560-HG
	Wrench	T-8F	T-8F	T-8F
	Central	NPMT 100408L-G-C	NPMT 100408L-G-C	NPMT 130408L-G-C
	Screw	SR14-560-HG	SR14-560-HG	SR14-560-HG
	Wrench	T-8F	T-8F	T-8F
Pad	PAD	PAD-GP12-35-250-DC-SB	PAD-GP12-35-250-DC-SB	PAD-GP12-35-250-DC-SB
		PAD-GP12-35-250-DC-SC	PAD-GP12-35-250-DC-SC	PAD-GP12-35-250-DC-SC
	Screw	CSTB-3.5	CSTB-3.5	CSTB-3.5
	Wrench	T-15F	T-15F	T-15F

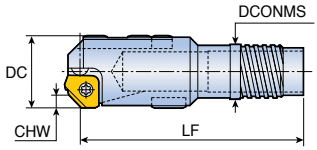
D227-D229 | Guide Pad D235

▸ Insert and guide pad are sold separately from drill body

TBTA-R...SE4

Single tube system





- Outer four start thread

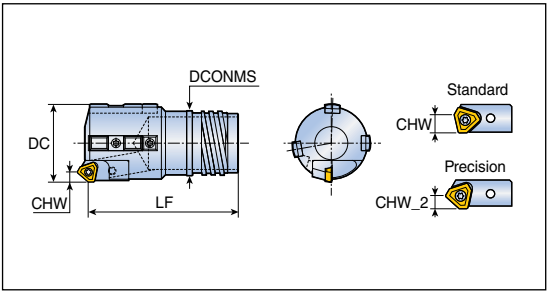
Designation	DC	CHW	Dimension (mm)		Tube	
			LF	DCONMS	Part	Diameter (mm)
TBTA-R xxx.xxSE4-22	25.00-26.40	2.8	72.5	19.5	BTSI 022	22
xxx.xxSE4-24	26.41-28.70	2.8	72.5	21.0	BTSI 024	24
xxx.xxSE4-26	28.71-31.00	2.8	72.5	23.5	BTSI 026	26
xxx.xxSE4-28	31.01-33.30	2.8	75.5	25.5	BTSI 028	28
xxx.xxSE4-30	33.31-36.20	2.8	75.5	28.0	BTSI 030	30
xxx.xxSE4-33	36.21-39.60	2.8	90.5	30.0	BTSI 033	33
xxx.xxSE4-36	39.61-39.99	2.8	90.5	33.0	BTSI 036	36

Assembly D173 | Tube D185 | Cutting Condition D268

TBTA-R...SE4

Single tube system





- Outer four start thread

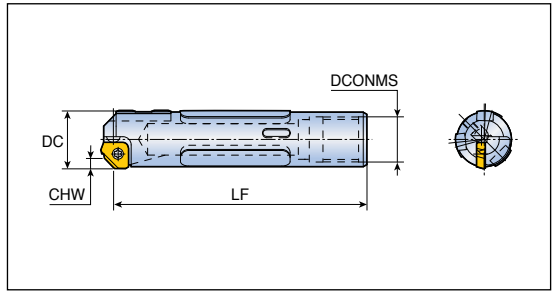
Designation		DC	CHW (mm)		Dimension (mm)		Tube	
			Standard	Precision	LF	DCONMS	Part	Diameter (mm)
TBTA-R	**xxx.xxSE4-36**	40.00-43.00	6.4	4	90	33.0	BTSI 036	36
	xxx.xxSE4-39	43.01-47.00	6.4	4	95	36.0	BTSI 039	39
	xxx.xxSE4-43	47.01-51.70	6.4	4	95	39.0	BTSI 043	43
	xxx.xxSE4-47	51.71-56.20	6.4/7.2	4/4.8	100	43.0	BTSI 047	47
	xxx.xxSE4-51	56.21-60.60	7.2	4.8	110	47.0	BTSI 051	51
	xxx.xxSE4-56A	60.61-65.00	7.2	4.8	110	51.0	BTSI 056A	56
	xxx.xxSE4-56B	65.00-66.99	7.2	4.8	150	52.0	BTSI 056B	56
	xxx.xxSE4-62	67.00-72.99	10.4	6.4	150	58.0	BTSI 062	62
	xxx.xxSE4-68	73.00-79.99	10.4	6.4	150	63.0	BTSI 068	68
	xxx.xxSE4-75	80.00-86.99	10.4	6.4	180	70.0	BTSI 075	75
	xxx.xxSE4-82	87.00-99.99	10.4	6.4	180	77.0	BTSI 082	82

Assembly D174-D175 | Tube D185-D186 | Cutting Condition D268

TBTA-R...SI1

Single tube system





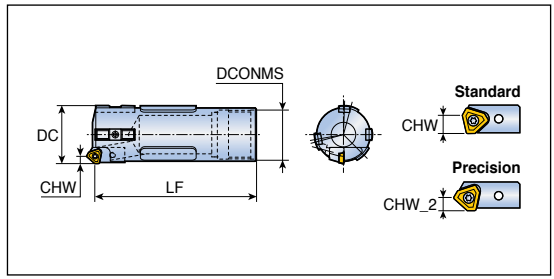
• Inner single start thread

Designation		DC	CHW (mm)	Dimension (mm)		Tube	
				LF	DCONMS	Part	Diameter (mm)
TBTA-R-	**xxx.xxSI1-22**	25.00-26.99	2.8	110.5	20	BTSE 022	22
	xxx.xxSI1-24	27.00-29.99	2.8	110.5	22	BTSE 024	24
	xxx.xxSI1-26	30.00-31.99	2.8	110.5	24	BTSE 026	26
	xxx.xxSI1-28	32.00-33.99	2.8	110.5	26	BTSE 028	28
	xxx.xxSI1-30	34.00-36.99	2.8	135.5	27	BTSE 030	30
	xxx.xxSI1-33	37.00-39.99	2.8	135.5	30	BTSE 033	33

TBTA-R...SI1

Single tube system





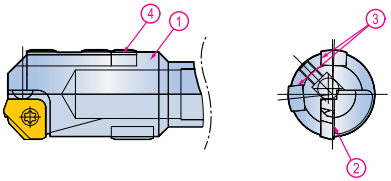
• Inner single start thread

Designation		DC	CHW (mm)		Dimension (mm)		Tube	
			Standard	Precision	LF	DCONMS	Part	Diameter (mm)
TBTA-R-	**xxx.xxSI1-36**	40.00-43.99	6.4	4	135	33	BTSE 036	36
	xxx.xxSI1-39	44.00-46.99	6.4	4	135	37	BTSE 039	39
	xxx.xxSI1-43	47.00-51.99	6.4	4	145	41	BTSE 043	43
	xxx.xxSI1-47	52.00-56.99	7.2	4.8	145	44	BTSE 047	47
	xxx.xxSI1-51	57.00-60.99	7.2	4.8	170	49	BTSE 051	51
	xxx.xxSI1-56	61.00-67.99	7.2/10.4	4.8/6.4	170	53	BTSE 056	56
	xxx.xxSI1-62	68.00-74.99	10.4	6.4	170	59	BTSE 062	62
	xxx.xxSI1-68	75.00-80.99	10.4	6.4	205	65	BTSE 068	68
	xxx.xxSI1-75	81.00-90.99	10.4	6.4	215	71	BTSE 075	75
	xxx.xxSI1-82	91.00-98.99	10.4	6.4	225	79	BTSE 082	82
	xxx.xxSI1-94	99.00-110.99	10.4	6.4	235	90	BTSE 094	94

Assembly D173-D175 | Tube D187-D188 | Cutting Condition D268

TBTA-R Series

Assembly of TBTA-R series



1. Head shank
2. Insert
3. Guide pad
4. Guide pad protector

Parts			Diameter (mm)			
			25.00-27.99	28.00-29.99	30.00-37.99	38.00-39.99
Close tolerance	Cartridge	Adjust ball	BALL5	BALL5	BALL5	BALL5
		Adjust screw	AS0005-5	AS0005-5	AS0005-5	AS0005-5
		Wrench	H2.5	H2.5	H2.5	H2.5
		Screw	-	-	-	-
		Wrench	-	-	-	-
	Insert	Insert	XPMT 16002-45	XPMT 16002-45	XPMT 16002-45	XPMT 16002-45
		Screw	CSTA-NO3	CSTA-NO3	CSTA-NO3	CSTA-NO3
		Wrench	T-9D	T-9D	T-9D	T-9D
Normal tolerance	Cartridge	Peripheral	-	-	-	-
		Adjust screw	-	-	-	-
		Wrench	-	-	-	-
		Screw	-	-	-	-
		Wrench	-	-	-	-
	Insert	Insert	XPMT 16002-45	XPMT 16002-45	XPMT 16002-45	XPMT 16002-45
		Screw	CSTA-NO3	CSTA-NO3	CSTA-NO3	CSTA-NO3
		Wrench	T-9D	T-9D	T-9D	T-9D
Pad		Guide pad (A)	PAD-GP06-20-120-DC-SB	PAD-GP06-20-120-DC-SB	PAD-GP07-20-120-DC-SB	PAD-GP08-25-155-DC-SB
			PAD-GP06-20-120-DC-SC	PAD-GP06-20-120-DC-SC	PAD-GP07-20-120-DC-SC	PAD-GP08-25-155-DC-SC
		Screw	CSTB-2.2S	CSTB-2.2S	CSTB-3S	CSTB-3S
		Wrench	T-9D	T-9D	T-9D	T-9D
		Guide pad protector (B)	-	-	-	PAD-P08
		Screw	-	-	-	CSTB-3S
		Wrench	-	-	-	T-9D
		Resin guide pad (C)	PAD-R10	PAD-R10	PAD-R12	PAD-R15
		Screw	LS0902, 5-6	LS0902, 5-6	LS0903-8	LS0904-10
		Wrench	-	-	H2	H2.5



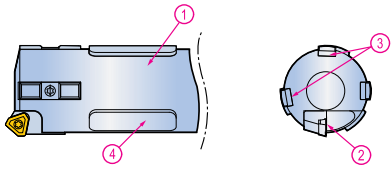




- A+B is for outer four start thread connection type
- A+C is for inner single start thread connection type

TBTA-R Series

Assembly of TBTA-R series



1. Head shank
2. Cartridge & lock screw
3. Guide pad
4. Resin guide pad & lock screw

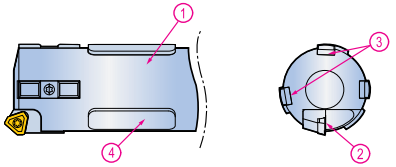
Parts			Diameter (mm)			
			40.00-45.99	46.00-51.99	52.00-56.99	57.00-59.99
Close tolerance	Cartridge	Peripheral	PERC P04R	PERC P04R	PERC P32R	PERC P32R
		Adjust screw	AS0004-8	AS0004-8	AS0005-10	AS0005-10
		Wrench	H2	H2	H2.5	H2.5
		Screw	LS1803.5RH	LS1803.5RH	LS1805RH	LS1805RH
		Wrench	H2.5	H2.5	H3	H3
	Insert	Insert	TPMX 1403LG	TPMX 1403LG	TPMX 1704LG	TPMX 1704LG
		Screw	CSTB-2.5	CSTB-2.5	CSTB-3.5D	CSTB-3.5D
		Wrench	T-8D	T-8D	T-8D	T-8D
Normal tolerance	Cartridge	Peripheral	PERC 402-04	PERC 402-04	PERC 402-32	PERC 402-32
		Adjust screw	AS0004-8	AS0004-8	AS0005-10	AS0005-10
		Wrench	H2	H2	H2.5	H2.5
		Screw	LS1803.5RH	LS1803.5RH	LS1805RH	LS1805RH
		Wrench	H2.5	H2.5	H3	H3
	Insert	Insert	TPMX 140308R-G	TPMX 140308R-G	TPMX 170408R-G	TPMX 170408R-G
		Screw	CSTB-2.5	CSTB-2.5	CSTB-3.5D	CSTB-3.5D
		Wrench	T-8D	T-8D	T-8D	T-8D
Pad		Guide pad (A)	PAD-GP08-25-155-DC-SB	PAD-GP10-35-200-DC-SB	PAD-GP10-35-200-DC-SB	PAD-GP10-35-200-DC-SB
			PAD-GP08-25-155-DC-SC	PAD-GP10-35-200-DC-SC	PAD-GP10-35-200-DC-SC	PAD-GP10-35-200-DC-SC
		Screw	CSTB-3S	CSTB-4S	CSTB-4S	CSTB-4S
		Wrench	T-9D	T-15D	T-15D	T-15D
		Guide pad protector (B)	PAD-P08	PAD-P10	PAD-P10	PAD-P14
		Screw	CSTB-3S	CSTB-4S	CSTB-4S	CSTB-4S
		Wrench	T-9D	T-15D	T-15D	T-15D
		Resin guide pad (C)	PAD-R15	PAD-R15	PAD-R15	PAD-R20
		Screw	LS0904-10	LS0904-10	LS0904-10	LS0905-12
		Wrench	H2.5	H2.5	H2.5	H3

D230,D233 | Guide Pad D238 | Cartridge D240

- A+B is for outer four start thread connection type
- A+C is for inner single start thread connection type

TBTA-R Series

Assembly of TBTA-R series



1. Head shank
2. Cartridge & lock screw
3. Guide pad
4. Resin guide pad & lock screw

Parts			Diameter (mm)		
			60.00-66.99	67.00-99.99	100.00-122.99
Close tolerance	Cartridge	Peripheral	PERC P32R	PERC P43R	PERC P43R
		Adjust screw	AS0005-10	AS0005-15	AS0005-15
		Wrench	H2.5	H2.5	H2.5
		Screw	LS1805RH	LS1806RH	LS1806RH
		Wrench	H3	H4	H4
	Insert	Insert	TPMX 1704LG	TPMX 2405LG	TPMX 2405LG
		Screw	CSTB-3.5D	CSTB-4M	CSTB-4M
		Wrench	T-8D	T-15D	T-15D
Normal tolerance	Cartridge	Peripheral	PERC 402-32	PERC 402-43	PERC 402-43
		Adjust screw	AS0005-10	AS0005-15	AS0005-15
		Wrench	H2.5	H2.5	H2.5
		Screw	LS1805RH	LS1806RH	LS1806RH
		Wrench	H3	H4	H4
	Insert	Insert	TPMX 170408R-G	TPMX 240512R-G	TPMX 240512R-G
		Screw	CSTB-3.5D	CSTB-4M	CSTB-4M
		Wrench	T-8D	T-15D	T-15D
Pad		Guide pad (A)	PAD-GP14-40-250-DC-SB	PAD-GP14-40-250-DC-SB	PAD-GP18-40-300-DC-SB
			PAD-GP14-40-250-DC-SC	PAD-GP14-40-250-DC-SC	PAD-GP18-40-300-DC-SC
		Screw	CSTA-5S	CSTA-5S	LS1206S
		Wrench	T-15D	T-15D	H3
		Guide pad protector (B)	PAD-P14	PAD-P14	PAD-P18
		Screw	CSTA-5S	CSTA-5S	LS1206S
		Wrench	T-15D	T-15D	H3
		Resin guide pad (C)	PAD-R20	PAD-R35	PAD-R35
		Screw	LS0905-12	LS0906-15	LS0906-15
		Wrench	H3	H4	H4





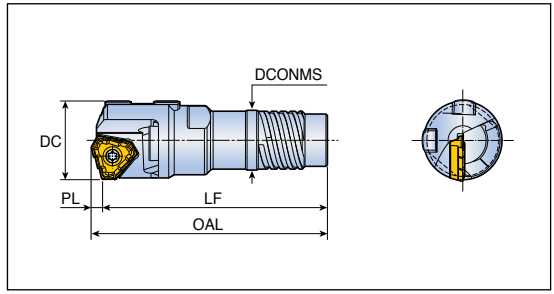


- A+B is for outer four start thread connection type
- A+C is for inner single start thread connection type

TBTA-TR…SE4

Single tube system





• Outer four start thread

Designation		DC	Dimension (mm)				Tube	
			LF	OAL	DCONMS	PL	Part	Diameter (mm)
TBTA-	**TRxx.xxSE4-12**	14.00-14.60	57.0	59.0	10.6	2.0	BTSI 012	12
	TRxx.xxSE4-13	14.61-15.59	57.0	59.0	11.6	2.0	BTSI 013	13
	TRxx.xxSE4-14	15.60-15.99	57.0	59.0	12.6	2.0	BTSI 014	14
	TRxx.xxSE4-14A	16.00-16.70	55.0	57.2	12.6	2.2	BTSI 014	14
	TRxx.xxSE4-15A	16.71-17.70	55.0	57.2	13.6	2.2	BTSI 015	15
	TRxx.xxSE4-16A	17.71-18.00	56.0	59.0	14.5	3.0	BTSI 016	16
	TRxx.xxSE4-16	18.01-18.90	56.0	59.0	14.5	3.0	BTSI 016	16
	TRxx.xxSE4-17	18.91-20.00	56.0	59.0	15.5	3.0	BTSI 017	17
	TRxx.xxSE4-18	20.01-21.80	60.0	63.2	16.0	3.2	BTSI 018	18
	TRxx.xxSE4-20	21.81-21.99	63.5	66.7	18.0	3.2	BTSI 020	20
	TRxx.xxSE4-20	22.00-24.10	65.5	68.9	18.0	3.4	BTSI 020	20
	TRxx.xxSE4-22	24.11-26.40	65.5	69.1	19.5	3.6	BTSI 022	22
	TRxx.xxSE4-24	26.41-28.00	65.6	69.1	21.0	3.6	BTSI 024	24
	TRxx.xxSE4-24	28.01-28.70	70.0	74.6	21.0	4.6	BTSI 024	24
	TRxx.xxSE4-26	28.71-29.99	75.0	79.6	23.5	4.6	BTSI 026	26
	TRxx.xxSE4-26	30.00-31.00	75.0	79.6	23.5	4.6	BTSI 026	26
	TRxx.xxSE4-28	31.01-32.00	75.0	79.6	25.5	4.6	BTSI 028	28
	TRxx.xxSE4-28	32.01-33.30	74.5	79.9	25.5	5.4	BTSI 028	28
	TRxx.xxSE4-30	33.31-36.20	79.5	84.9	28.0	5.4	BTSI 030	30
	TRxx.xxSE4-33	36.21-39.00	89.5	94.9	30.0	5.4	BTSI 033	33
	TRxx.xxSE4-33	39.01-39.60	89.5	94.9	30.0	5.4	BTSI 033	33
	TRxx.xxSE4-36	39.61-40.00	94.5	99.9	33.0	5.4	BTSI 036	36

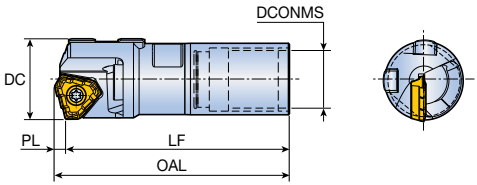
Assembly D179 | Tube D185 | Cutting Condition D276

▸ Insert and guide pad are sold separately from drill body

TBTA-TR…SI

Single tube system





• Inner single start thread

Designation		DC	Dimension (mm)				Tube	
			LF	OAL	DCONMS	PL	Part	Diameter (mm)
TBTA-	**TRxx.xxSI-12A**	14.50-15.00	54.5	56.4	11.5	1.9	BTSE 012A	12
	TRxx.xxSI-12B	15.01-15.50	54.5	56.4	11.8	1.9	BTSE 012B	12
	TRxx.xxSI-13A	15.51-15.99	54.5	56.4	12.4	1.9	BTSE 013A	13
	TR16.00SI-13AA	16.00	53.5	55.7	10.8	2.2	BTSE 013A	13
	TRxx.xxSI-13BA	16.01-16.50	53.5	55.7	11.1	2.2	BTSE 013B	13
	TRxx.xxSI-14AA	16.51-17.25	53.5	55.7	11.8	2.2	BTSE 014A	14
	TRxx.xxSI-14BA	17.26-18.00	53.5	55.7	12.1	2.2	BTSE 014B	14
	TRxx.xxSI-15	18.01-19.00	53.5	56.5	12.8	3.0	BTSE 015	15
	TRxx.xxSI-16.5	19.01-19.99	53.5	56.7	13.8	3.2	BTSE 016.5	16.5
	TRxx.xxSI-18	20.00-21.99	58.0	61.2	14.5	3.2	BTSE 018	18
	TRxx.xxSI-20	22.00-24.99	60.0	63.4	16.0	3.4	BTSE 020	20
	TRxx.xxSI-22	25.00	60.0	63.5	17.0	3.5	BTSE 022	22
	TRxx.xxSI-22	25.01-26.99	65.0	68.5	17.0	3.5	BTSE 022	22
	TRxx.xxSI-24	27.00-28.00	65.0	68.5	19.0	3.5	BTSE 024	24
	TRxx.xxSI-24	28.01-29.99	70.0	74.6	22.0	4.6	BTSE 024	24
	TRxx.xxSI-26	30.00-31.99	75.0	79.6	24.0	4.6	BTSE 026	26
	TRxx.xxSI-28	32.00	75.0	79.6	26.0	4.6	BTSE 028	28
	TRxx.xxSI-28	32.01-33.99	74.5	79.9	26.0	5.4	BTSE 028	28
	TRxx.xxSI-30	34.00-36.99	89.5	94.9	27.0	5.4	BTSE 030	30
	TRxx.xxSI-33	37.00-39.00	94.5	99.9	30.0	5.4	BTSE 033	33
	TRxx.xxSI-33	39.01-39.99	94.5	99.9	30.0	5.4	BTSE 033	33
	TRxx.xxSI-36	40.00	99.5	104.9	33.0	5.4	BTSE 036	36

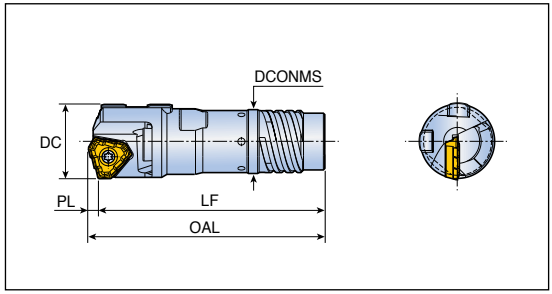
Assembly D179 | Tube D186 | Cutting Condition D276

▸ Insert and guide pad are sold separately from drill body

TBTA-TR…DE4

Double tube system





• Outer four start thread

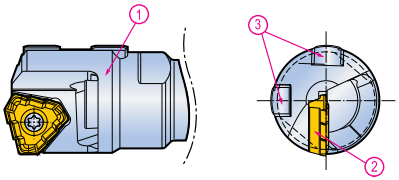
Designation		DC	Dimension (mm)				Tube	
			LF	OAL	DCONMS	PL	Part	Diameter (mm)
TBTA-	**TRxx.xxDE4-18**	18.40-20.00	59.0	62.0	16.0	3.0	BTDO 018	18
	TRxx.xxDE4-19.5	20.01-21.80	63.5	66.7	18.0	3.2	BTDO 019.5	19.5
	TRxx.xxDE4-21.5	21.81-21.99	63.5	66.7	19.5	3.2	BTDO 021.5	21.5
	TRxx.xxDE4-21.5	22.00-24.10	65.5	68.9	19.5	3.4	BTDO 021.5	21.5
	TRxx.xxDE4-23.5	24.11-25.00	65.5	68.9	21.0	3.4	BTDO 023.5	23.5
	TRxx.xxDE4-23.5	25.01-26.40	65.5	71.1	21.0	3.6	BTDO 023.5	23.5
	TRxx.xxDE4-26	26.41-28.00	70.5	74.1	23.5	3.6	BTDO 026	26
	TRxx.xxDE4-26	28.01-28.70	75.0	79.6	23.5	4.6	BTDO 026	26
	TRxx.xxDE4-28	28.71-29.99	75.0	79.6	25.5	4.6	BTDO 026	28
	TRxx.xxDE4-28	30.00-31.00	75.0	79.6	25.5	4.6	BTDO 028	28
	TRxx.xxDE4-30.5	31.01-32.00	80.0	84.6	28.0	4.6	BTDO 030.5	30.5
	TRxx.xxDE4-30.5	32.01-33.30	79.5	84.9	28.0	5.4	BTDO 030.5	30.5
	TRxx.xxDE4-33	33.31-36.20	89.5	94.9	30.0	5.4	BTDO 033	33
	TRxx.xxDE4-35.5	36.21-39.00	94.5	99.9	33.0	5.4	BTDO 035.5	35.5
	TRxx.xxDE4-35.5	39.01-39.60	94.5	99.9	33.0	5.4	BTDO 035.5	35.5
	TRxx.xxDE4-39	39.61-40.00	99.5	104.9	36.0	5.4	BTDO 039	39

Assembly D179 | Tube D189 | Cutting Condition D276

▸ Insert and guide pad are sold separately from drill body.

TBTA-TR Series

Assembly of TBTA-TR series



1. Head shank
2. Insert
3. Guide pad

	Parts	Diameter (mm)			
		14.00-15.99	16.00-18.00	18.01-20.00	20.01-21.00
Insert	Insert	TOGT 070304 RS	TOGT 080305 RS	TOGT 090305 RS	TOGT 100305 RS
	Screw	SR14-560/S	SR14-560/S	SR14-560/S	SR34-506
	Wrench	T-8F	T-8F	T-8F	T-9F
Guide Pad	Guide Pad	PAD-GP05-18-060-DC-SB	PAD-GP05-18-075-DC-SB	PAD-GP06-20-085-DC-SB	PAD-GP06-20-085-DC-SB
		PAD-GP05-18-060-DC-SC	PAD-GP05-18-075-DC-SC	PAD-GP06-20-085-DC-SC	PAD-GP06-20-085-DC-SC
	Screw	SR34-508	SR34-508	SR34-508	SR34-508
	Wrench	T-7F	T-7F	T-7F	T-7F

	Parts	Diameter (mm)		
		21.01-21.99	22.00-25.00	25.01-28.00
Insert	Insert	TOGT 100305 RS	TOGT 110405 RS	TOGT 120405 RS
	Screw	SR34-506	SR14-571/S	SR14-506
	Wrench	T-9F	T-10/5	T-15F
Guide Pad	Guide Pad	PAD-GP06-20-100-DC-SB	PAD-GP06-20-100-DC-SB	PAD-GP06-20-120-DC-SB
		PAD-GP06-20-100-DC-SC	PAD-GP06-20-100-DC-SC	PAD-GP06-20-120-DC-SC
	Screw	SR34-508	SR34-508	SR34-508
	Wrench	T-7F	T-7F	T-7F

	Parts	Diameter (mm)			
		28.01-29.99	30.00-32.00	32.01-39.00	39.01-40.00
Insert	Insert	TOGT 130408 RS	TOGT 130408 RS	TOGT 140510 RS	TOGT 140510 RS
	Screw	SR16-212/L10	SR16-212/L10	SR16-212/L10	SR16-212/L10
	Wrench	T-20/5	T-20/5	T-20/5	T-20/5
Guide Pad	Guide Pad	PAD-GP06-20-120-DC-SB	PAD-GP07-20-120-DC-SB	PAD-GP07-20-120-DC-SB	PAD-GP08-25-155-DC-SB
		PAD-GP06-20-120-DC-SC	PAD-GP07-20-120-DC-SC	PAD-GP07-20-120-DC-SC	PAD-GP08-25-155-DC-SC
	Screw	CSTB-2.2	CSTB-3S	CSTB-3S	CSTB-3S
	Wrench	T-7F	T-9F	T-9F	T-9F

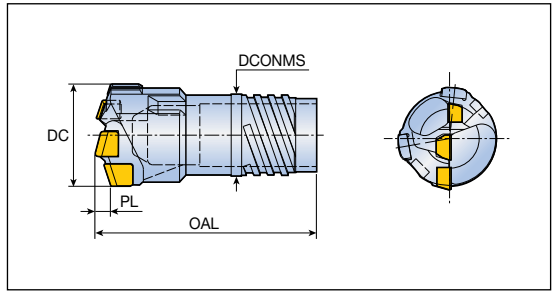
D232 Guide Pad D236

▸ Insert and guide pad are sold separately from drill body.

BTA...SE2/SE4

Single tube system





• Outer four start thread

Designation	DC	Dimension (mm)			Tube	
		OAL	PL	DCONMS	Part	Diameter (mm)
BTA xxx.xx SE2-11*	12.60-13.10	43.0	1.1	9.6	BTSI 011	11
xxx.xx SE2-11*	13.11-13.60	43.0	1.1	9.6	BTSI 011	11
xxx.xx SE2-12*	13.61-14.10	43.0	1.2	10.6	BTSI 012	12
xxx.xx SE2-12*	14.11-14.60	43.0	1.2	10.6	BTSI 012	12
xxx.xx SE2-13*	14.61-15.10	43.0	1.3	11.6	BTSI 013	13
xxx.xx SE2-13*	15.11-15.59	43.0	1.3	11.6	BTSI 013	13
xxx.xx SE4-14	15.60-16.20	43.0	2.7	12.6	BTSI 014	14
xxx.xx SE4-14	16.21-16.70	43.0	2.7	12.6	BTSI 014	14
xxx.xx SE4-15	16.71-17.20	43.0	2.7	13.6	BTSI 015	15
xxx.xx SE4-15	17.21-17.70	43.0	2.7	13.6	BTSI 015	15
xxx.xx SE4-16	17.71-18.40	47.0	2.8	14.5	BTSI 016	16
xxx.xx SE4-16	18.41-18.90	47.0	2.9	14.5	BTSI 016	16
xxx.xx SE4-17	18.91-19.20	47.0	2.9	15.5	BTSI 017	17
xxx.xx SE4-17	19.21-20.00	47.0	2.9	15.5	BTSI 017	17
xxx.xx SE4-18	20.01-20.90	52.5	3.2	16.0	BTSI 018	18
xxx.xx SE4-18	20.91-21.80	52.5	3.2	16.0	BTSI 018	18
xxx.xx SE4-20	21.81-22.90	56.0	3.2	18.0	BTSI 020	20
xxx.xx SE4-20	22.91-24.10	56.0	3.2	18.0	BTSI 020	20
xxx.xx SE4-22	24.11-25.20	57.5	3.5	19.5	BTSI 022	22
xxx.xx SE4-22	25.21-26.40	57.5	3.5	19.5	BTSI 022	22
xxx.xx SE4-24	26.41-27.50	57.5	3.7	21.0	BTSI 024	24
xxx.xx SE4-24	27.51-28.70	57.5	3.7	21.0	BTSI 024	24
xxx.xx SE4-26	28.71-29.80	63.5	4.0	23.5	BTSI 026	26
xxx.xx SE4-26	29.81-31.00	63.5	4.0	23.5	BTSI 026	26
xxx.xx SE4-28	31.01-32.10	63.5	4.3	25.5	BTSI 028	28
xxx.xx SE4-28	32.11-33.30	63.5	4.3	25.5	BTSI 028	28
xxx.xx SE4-30	33.31-34.80	63.5	4.5	28.0	BTSI 030	30
xxx.xx SE4-30	34.81-36.20	63.5	4.5	28.0	BTSI 030	30
xxx.xx SE4-33	36.21-37.30	73.5	4.8	30.0	BTSI 033	33
xxx.xx SE4-33	37.31-38.40	73.5	4.8	30.0	BTSI 033	33
xxx.xx SE4-33	38.41-39.60	73.5	4.8	30.0	BTSI 033	33
xxx.xx SE4-36	39.61-40.60	73.5	5.6	33.0	BTSI 036	36
xxx.xx SE4-36	40.61-41.80	73.5	5.6	33.0	BTSI 036	36
xxx.xx SE4-36	41.81-43.00	73.5	5.6	33.0	BTSI 036	36
xxx.xx SE4-39	43.01-44.30	75.0	5.4	36.0	BTSI 039	39

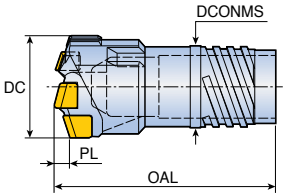
Tube D185 | Cutting Condition D272

▸ *: 2 cutting edge head, 2 start thread

BTA...SE4

Single tube system





• Outer four start thread

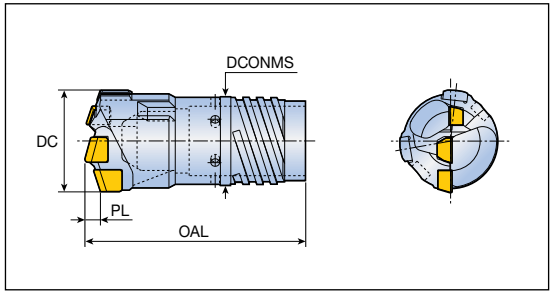
Designation	DC	Dimension (mm)			Tube	
		OAL	PL	DCONMS	Part	Diameter (mm)
BTA xxx.xx SE4-39	44.31-45.60	75.0	5.4	36.0	BTSI 039	39
xxx.xx SE4-39	45.61-47.00	75.0	5.4	36.0	BTSI 039	39
xxx.xx SE4-43	47.01-48.50	75.0	6.1	39.0	BTSI 043	43
xxx.xx SE4-43	48.51-50.10	75.0	6.1	39.0	BTSI 043	43
xxx.xx SE4-43	50.11-51.70	75.0	6.1	39.0	BTSI 043	43
xxx.xx SE4-47	51.71-53.20	82.0	6.5	43.0	BTSI 047	47
xxx.xx SE4-47	53.21-54.70	82.0	6.5	43.0	BTSI 047	47
xxx.xx SE4-47	54.71-56.20	82.0	6.5	43.0	BTSI 047	47
xxx.xx SE4-51	56.21-58.40	84.0	6.6	47.0	BTSI 051	51
xxx.xx SE4-51	58.41-60.60	84.0	6.6	47.0	BTSI 051	51
xxx.xx SE4-51	60.61-62.80	84.0	7.0	47.0	BTSI 051	51
xxx.xx SE4-51	62.81-65.00	84.0	7.0	47.0	BTSI 051	51
xxx.xx SE4-56	60.61-62.80	84.0	7.0	51.0	BTSI 056	56
xxx.xx SE4-56	62.81-65.00	84.0	7.0	51.0	BTSI 056	56

Tube D186
Cutting Condition D272

BTA...DE4

Double tube system





• Outer four start thread

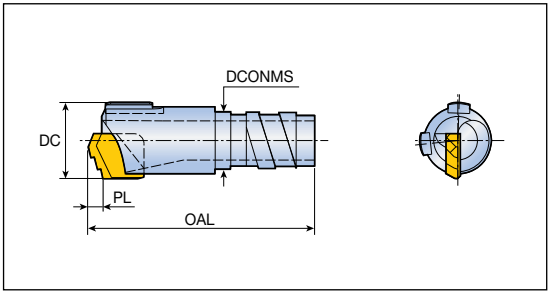
Designation	DC	Dimension (mm)			Tube		
		OAL	PL	DCONMS	Outer tube	Inner tube	Diameter (mm)
BTA xxx.xx DE4-18	18.41-19.20	50.0	2.9	16.0	BTDO 018	BTDI 012	18.0
xxx.xx DE4-18	19.21-20.00	50.0	2.9	16.0	BTDO 018	BTDI 012	18.0
xxx.xx DE4-19.5	20.01-20.90	56.0	3.2	18.0	BTDO 019.5	BTDI 014	19.5
xxx.xx DE4-19.5	20.91-21.80	56.0	3.2	18.0	BTDO 019.5	BTDI 014	19.5
xxx.xx DE4-21.5	21.81-22.90	56.0	3.2	19.5	BTDO 021.5	BTDI 015	21.5
xxx.xx DE4-21.5	22.91-24.10	56.0	3.2	19.5	BTDO 021.5	BTDI 015	21.5
xxx.xx DE4-23.5	24.11-25.20	57.5	3.5	21.0	BTDO 023.5	BTDI 016	23.5
xxx.xx DE4-23.5	25.21-26.40	57.5	3.5	21.0	BTDO 023.5	BTDI 016	23.5
xxx.xx DE4-26	26.41-27.50	60.5	3.7	23.5	BTDO 026	BTDI 018	26.0
xxx.xx DE4-26	27.51-28.70	60.5	3.7	23.5	BTDO 026	BTDI 018	26.0
xxx.xx DE4-28	28.71-29.80	63.5	4.0	25.5	BTDO 028	BTDI 020	28.0
xxx.xx DE4-28	29.81-31.00	63.5	4.0	25.5	BTDO 028	BTDI 020	28.0
xxx.xx DE4-30.5	31.01-32.10	63.5	4.1	28.0	BTDO 030.5	BTDI 022	30.5
xxx.xx DE4-30.5	32.11-33.30	63.5	4.1	28.0	BTDO 030.5	BTDI 022	30.5
xxx.xx DE4-33	33.31-34.80	70.5	4.5	30.0	BTDO 033.0	BTDI 024	33.0
xxx.xx DE4-33	34.81-36.20	70.5	4.5	30.0	BTDO 033.0	BTDI 024	33.0
xxx.xx DE4-35.5	36.21-37.30	73.5	4.8	33.0	BTDO 035.5	BTDI 026	35.5
xxx.xx DE4-35.5	37.31-38.40	73.5	4.8	33.0	BTDO 035.5	BTDI 026	35.5
xxx.xx DE4-35.5	38.41-39.60	73.5	4.8	33.0	BTDO 035.5	BTDI 026	35.5
xxx.xx DE4-39	39.61-40.60	73.5	5.3	36.0	BTDO 039	BTDI 029	39.0
xxx.xx DE4-39	40.61-41.80	73.5	5.3	36.0	BTDO 039	BTDI 029	39.0
xxx.xx DE4-39	41.81-43.00	73.5	5.3	36.0	BTDO 039	BTDI 029	39.0
xxx.xx DE4-42.5	43.01-44.30	75.0	5.5	39.0	BTDO 042.5	BTDI 032	42.5
xxx.xx DE4-42.5	44.31-45.60	75.0	5.5	39.0	BTDO 042.5	BTDI 032	42.5
xxx.xx DE4-42.5	45.61-47.00	75.0	5.5	39.0	BTDO 042.5	BTDI 032	42.5
xxx.xx DE4-46.5	47.01-48.50	79.0	6.1	43.0	BTDO 046.5	BTDI 035	46.5
xxx.xx DE4-46.5	48.51-50.10	79.0	6.1	43.0	BTDO 046.5	BTDI 035	46.5
xxx.xx DE4-46.5	50.11-51.70	79.0	6.1	43.0	BTDO 046.5	BTDI 035	46.5
xxx.xx DE4-51	51.71-53.20	82.0	6.5	47.0	BTDO 051	BTDI 039	51.0
xxx.xx DE4-51	53.21-54.70	82.0	6.5	47.0	BTDO 051	BTDI 039	51.0
xxx.xx DE4-51	54.71-56.20	82.0	6.5	47.0	BTDO 051	BTDI 039	51.0
xxx.xx DE4-55.5	56.21-58.40	84.0	6.6	51.0	BTDO 055.5	BTDI 043A	55.5
xxx.xx DE4-55.5	58.41-60.60	84.0	6.6	51.0	BTDO 055.5	BTDI 043A	55.5
xxx.xx DE4-55.5	60.61-62.80	84.0	6.6	51.0	BTDO 055.5	BTDI 043A	55.5
xxx.xx DE4-55.5	62.81-65.00	84.0	6.6	51.0	BTDO 055.5	BTDI 043A	55.5

Tube D189
Cutting Condition D272

BTS...SE1

Single tube system





• Outer single start thread

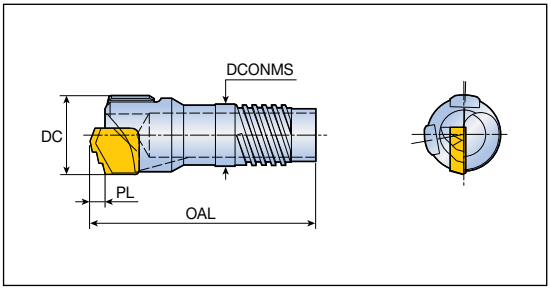
Designation	DC	Dimension (mm)			Tube	
		OAL	PL	DCONMS	Part	Diameter (mm)
BTS xxx.xx SE1-7.1	8.00-8.99	34	2.0	6.0	BTSO 071	7.1
xxx.xx SE1-8.3	9.00-9.99	34	2.0	7.2	BTSO 083	8.3
xxx.xx SE1-9	10.00-10.99	34	2.2	7.6	BTSO 090	9.0
xxx.xx SE1-10	11.00-11.99	34	2.2	8.6	BTSO 100	10.0
xxx.xx SE1-11	12.00-13.49	34	2.3	9.1	BTSO 110	11.0
xxx.xx SE1-12	13.50-14.79	34	2.4	10.8	BTSO 120	12.0

Tube D188 Cutting Condition D272

BTS...SE2/SE4

Single tube system





• Outer four start thread

Designation	DC	Dimension (mm)			Tube	
		OAL	PL	DCONMS	Part	Diameter (mm)
BTS xxx.xx SE2-11*	12.60-13.60	40	2.3	9.6	BTSI 011	11
xxx.xx SE2-12*	13.61-14.60	40	2.4	10.6	BTSI 012	12
xxx.xx SE2-13*	14.61-15.59	40	3.0	11.6	BTSI 013	13
xxx.xx SE4-14	15.60-16.70	40	2.4	12.6	BTSI 014	14
xxx.xx SE4-15	16.71-17.70	40	3.0	13.6	BTSI 015	15
xxx.xx SE4-16	17.71-18.90	40	3.3	14.5	BTSI 016	16
xxx.xx SE4-17	18.91-20.00	40	3.3	15.5	BTSI 017	17

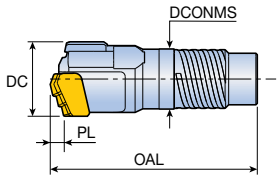
Tube D185 Cutting Condition D272

▸ *: Designates outer two start thread

BTE…SE4

Single tube system





• Outer four start thread

Designation	DC	Dimension (mm)			Tube	
		OAL	PL	DCONMS	Part	Diameter (mm)
BTE xxx.xx SE4-14	15.60-16.70	43.4	3.4	12.6	BTSI 014	14

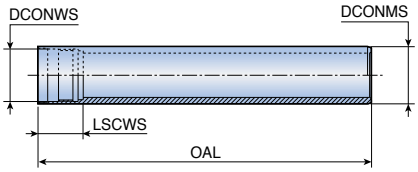
Tube D185 | Cutting Condition D270

ADVANCE CUTTING TaeguTec

BTSI

Single tube





• Inner four start thread

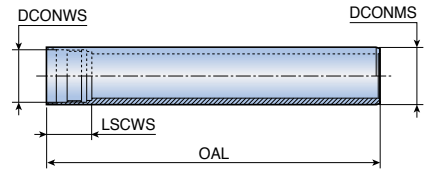
Designation		DC	Dimension (mm)		
			DCONMS	DCONWS	LSCWS
BTSI	**011 ***	12.60-13.60	11.0	9.6	22
	012 *	13.61-14.60	12.0	10.6	22
	013 *	14.61-15.59	13.0	11.6	22
	014	15.60-16.70	14.0	12.6	21
	015	16.71-17.70	15.0	13.6	21
	016	17.71-18.90	16.0	14.5	22
	017	18.91-20.00	17.0	15.5	22
	018	20.01-21.80	18.0	16.0	27.5
	020	21.81-24.10	20.0	18.0	30
	022	24.11-26.40	22.0	19.5	30
	024	26.41-28.70	24.0	21.0	30
	026	28.71-31.00	26.0	23.5	33
	028	31.01-33.30	28.0	25.5	33
	030	33.31-36.20	30.0	28.0	33
	033	36.21-39.60	33.0	30.0	40
	036	39.61-43.00	36.0	33.0	40
	039	43.01-47.00	39.0	36.0	40
	043	47.01-51.70	43.0	39.0	40
	047	51.71-56.20	47.0	43.0	44

▸ Please indicate overall length (OAL) when ordering
▸ *: Indicates parts are inner two start thread

BTSI

Single tube





• Inner four start thread

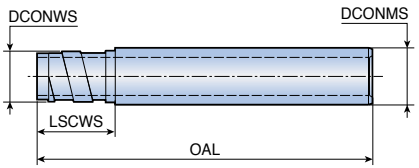
Designation		DC	Dimension (mm)		
			DCONMS	DCONWS	LSCWS
BTSI	**051**	56.21-60.60	51.0	47.0	44
	056A	60.61-65.00	56.0	51.0	44
	056B	65.00-66.99	56.0	52.0	75
	062	67.00-72.99	62.0	58.0	75
	068	73.00-79.99	68.0	63.0	75
	075	80.00-86.99	75.0	70.0	97
	082	87.00-99.99	82.0	77.0	97
	094	100.00-111.99	94.0	89.0	97
	106	112.00-123.99	106.0	101.0	118
	118	124.00-135.99	118.0	113.0	118
	130	136.00-147.99	130.0	125.0	118
	142	148.00-159.99	142.0	137.0	139
	154	160.00-171.99	154.0	149.0	139
	166	172.00-183.99	166.0	161.0	139
	178	184.00-195.99	178.0	173.0	144
	190	196.00-207.99	190.0	185.0	144
	202	208.00-219.99	202.0	197.0	144
	214	220.00-231.99	214.0	208.0	164
	226	232.00-243.99	226.0	220.0	164
	238	244.00-255.99	238.0	232.0	164
	250	256.00-267.99	250.0	244.0	184
	262	268.00-279.99	262.0	256.0	184
	274	280.00-291.99	274.0	268.0	184

▸ Please indicate overall length (OAL) when ordering

BTSE

Single tube





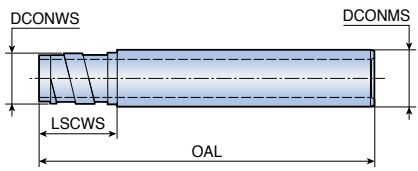
• Outer single start thread

Designation		DC	Dimension (mm)		
			DCONMS	DCONWS	LSCWS
BTSE	**012A**	14.50-15.00	12.0	11.5	23
	012B	15.01-15.50	12.0	11.8	23
	013A	15.51-16.00	13.0	12.4	23
	013B	16.01-16.50	13.0	12.7	23
	014A	16.51-17.25	14.0	13.4	23
	014B	17.26-18.00	14.0	13.7	23
	015	18.01-19.00	15.0	14.4	23
	016.5	19.01-19.99	16.5	15.4	23
	018	20.00-21.99	18.0	16.5	26
	020	22.00-24.99	20.0	19.0	26
	022	25.00-26.99	22.0	20.0	26
	024	27.00-29.99	24.0	22.0	26
	026	30.00-31.99	26.0	24.0	26
	028	32.00-33.99	28.0	26.0	26
	030	34.00-36.99	30.0	27.0	41
	033	37.00-39.99	33.0	30.0	41
	036	40.00-43.99	36.0	33.0	41
	039	44.00-46.99	39.0	37.0	41
	043	47.00-51.99	43.0	41.0	41

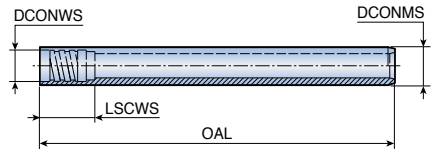
▸ Please indicate overall length (OAL) when ordering

BTSE / BTSO

Single tube



BTSE
Outer single start thread



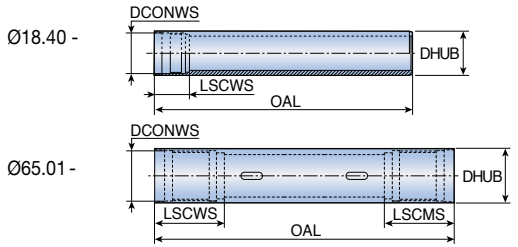
BTSO
Inner single start thread

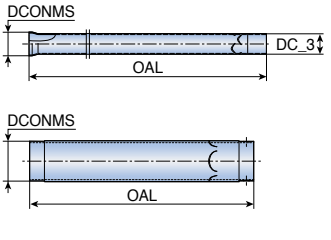
Designation		DC	Dimension (mm)			
			DCONMS	DCONWS		LSCWS
BTSE	**047**	52.00-56.99	47.0	44	-	41
	051	57.00-60.99	51.0	49	-	41
	056	61.00-67.99	56.0	53	-	41
	062	68.00-74.99	62.0	59	-	41
	068	75.00-80.99	68.0	65	-	71
	075	81.00-90.99	75.0	71	-	71
	082	91.00-98.99	82.0	79	-	71
	094	99.00-110.99	94.0	90	-	71
	106	111.00-122.99	106.0	102	-	71
	118	123.00-134.99	118.0	114	-	71
	130	135.00-148.99	130.0	126	-	71
	142	149.00-161.99	142.0	139	-	71
	154	162.00-173.99	154.0	151	-	86
	166	174.00-185.99	166.0	163	-	86
	178	186.00-197.99	178.0	175	-	86
	190	198.00-209.99	190.0	187	-	86
	202	210.00-221.99	202.0	199	-	86
	214	222.00-233.99	214.0	211	-	86
	226	234.00-245.99	226.0	223	-	86
	238	246.00-257.99	238.0	235	-	86
	250	258.00-269.99	250.0	247	-	121
	262	270.00-281.99	262.0	259	-	121
	274	282.00-293.99	274.0	271	-	121
BTSO	**071**	8.00-8.99	7.1	-	6.0	13.5
	083	9.00-9.99	8.3	-	7.2	13.5
	090	10.00-10.99	9.0	-	7.6	13.5
	100	11.00-11.99	10.0	-	8.6	13.5
	110	12.00-13.49	11.0	-	9.1	13.5
	120	13.50-14.79	12.0	-	10.8	13.5

▸ Please indicate overall length (OAL) when ordering

BTDO / BTDI

Double tube



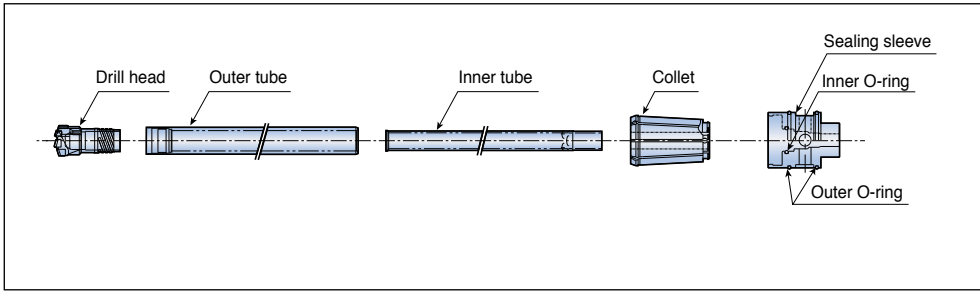


DC	Outer tube	Dimension (mm)			Inner tube	Dimension (mm)	
		DHUB	DCONWS	LSCWS		DCONMS	DC_3
18.40-20.00	**BTDO 018**	18.0	16	27.5	**BTDI 012**	12	10
20.01-21.80	**019.5**	19.5	18	30	**014**	14	12
21.81-24.10	**021.5**	21.5	19.5	30	**015**	15	13
24.11-26.40	**023.5**	23.5	21	30	**016**	16	14
26.41-28.70	**026**	26.0	23.5	33	**018**	18	16
28.71-31.00	**028**	28.0	25.5	33	**020**	20	18
31.01-33.30	**030.5**	30.5	28	33	**022**	22	20
33.31-36.20	**033**	33.0	30	40	**024**	24	22
36.21-39.60	**035.5**	35.5	33	40	**026**	26	24
39.61-43.00	**039**	39.0	36	40	**029**	29	27
43.01-47.00	**042.5**	42.5	39	40	**032**	32	30
47.01-51.70	**046.5**	46.5	43	44	**035**	35	32
51.71-56.20	**051**	51.0	47	44	**039**	39	36
56.21-65.00	**055.5**	55.5	51	44	**043A**	43	40
65.01-69.99	**056**	56.0	52	75	**043B**	40	-
70.00-72.99	**062**	62.0	58	75	**048**	44	-
73.00-79.99	**068**	68.0	63	75	**053**	48	-
80.00-86.99	**075**	75.0	70	97	**059**	54	-
87.00-99.99	**082**	82.0	77	97	**066**	60	-
100.00-111.99	**094**	94.0	89	97	**078**	70	-
112.00-123.99	**106**	106.0	101	118	**090**	80	-
124.00-135.99	**118**	118.0	113	118	**092**	80	-
136.00-147.99	**130**	130.0	125	118	**104**	95	-
148.00-159.99	**142**	142.0	137	139	**116**	100	-
160.00-171.99	**154**	154.0	149	139	**128**	120	-
172.00-183.99	**166**	166.0	161	139	**138**	130	-

▸ Please indicate overall length (OAL) when ordering

- For diameter range 18.40-65.00 (BTDO 055.5) the inner tube should be ordered 30mm longer than outer tube
- For diameter range 65.01-123.99 (BTDO 056-BTDO 106) the inner tube should be ordered 190mm longer than outer tube
- For diameter range 124.00-183.99 (BTDO 118-BTDO 166) the inner tube should be ordered 220mm longer than outer tube

Assembly of Double Tube System

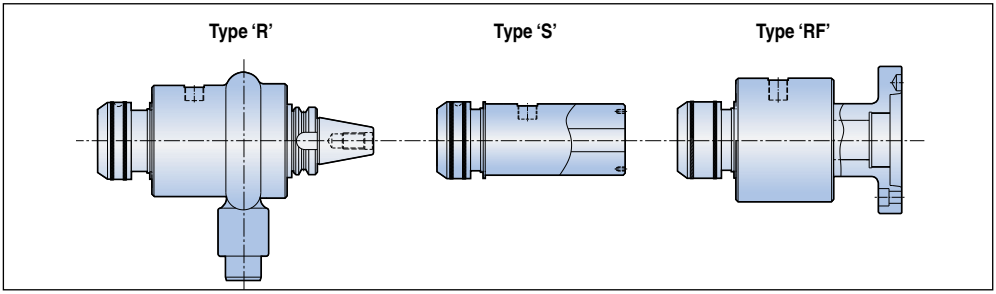


Designation		DC	Collet
BTDO 018	**BTDI 012**	18.40-19.20	COLLET 4-18
018	**012**	19.21-20.00	COLLET 4-18
019.5	**014**	20.01-20.90	COLLET 4-19.5
019.5	**014**	20.91-21.80	COLLET 4-19.5
021.5	**015**	21.81-22.90	COLLET 4-21.5
021.5	**015**	22.91-24.10	COLLET 4-21.5
023.5	**016**	24.11-25.20	COLLET 4-23.5
023.5	**016**	25.21-26.40	COLLET 4-23.5
026	**018**	26.41-27.50	COLLET 4-26
026	**018**	27.51-28.70	COLLET 4-26
028	**020**	28.71-29.80	COLLET 4-28
028	**020**	29.81-31.00	COLLET 4-28
030.5	**022**	31.01-32.10	COLLET 4-30.5
030.5	**022**	32.11-33.30	COLLET 4-30.5
033	**024**	33.31-34.80	COLLET 4-33
033	**024**	34.81-36.20	COLLET 4-33
035.5	**026**	36.21-37.30	COLLET 4-35.5
035.5	**026**	37.31-38.40	COLLET 4-35.5
035.5	**026**	38.41-39.60	COLLET 4-35.5
039	**029**	39.61-40.60	COLLET 4-39
039	**029**	40.61-41.80	COLLET 4-39
039	**029**	41.81-43.00	COLLET 4-39
042.5	**032**	43.01-44.30	COLLET 4-42.5
042.5	**032**	44.31-45.60	COLLET 4-42.5
042.5	**032**	45.61-47.00	COLLET 4-42.5
046.5	**035**	47.01-48.50	COLLET 4-46.5
046.5	**035**	48.51-50.10	COLLET 4-46.5
046.5	**035**	50.11-51.70	COLLET 4-46.5
051	**039**	51.71-53.20	COLLET 4-51
051	**039**	53.21-54.70	COLLET 4-51
051	**039**	54.71-56.20	COLLET 4-51
055.5	**043A**	56.21-58.40	COLLET 4-55.5
055.5	**043A**	58.41-60.60	COLLET 4-55.5
055.5	**043A**	60.61-62.80	COLLET 4-55.5
055.5	**043A**	62.81-65.00	COLLET 4-55.5

▸ Inner tube should be longer than outer tube. Please refer to page D189 for details

Assembly of Double Tube System

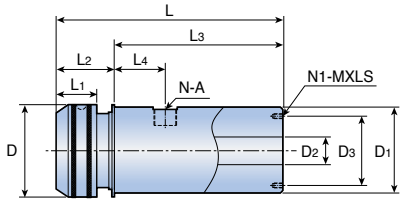
Connector



Sealing sleeve	Outer O-ring	Inner O-ring	Connector
SEALING SLEEVE 4R-18	OOR-25.24	IOR-18	DTC-4S/4R/4RF
SEALING SLEEVE 4R-18		IOR-18	
SEALING SLEEVE 4R-19.5		IOR-19.5	
SEALING SLEEVE 4R-19.5		IOR-19.5	
SEALING SLEEVE 4R-21.5		IOR-21.5	
SEALING SLEEVE 4R-21.5		IOR-21.5	
SEALING SLEEVE 4R-23.5		IOR-23.5	
SEALING SLEEVE 4R-23.5		IOR-23.5	
SEALING SLEEVE 4R-26		IOR-26	
SEALING SLEEVE 4R-26		IOR-26	
SEALING SLEEVE 4R-28		IOR-28	
SEALING SLEEVE 4R-28		IOR-28	
SEALING SLEEVE 4R-30.5		IOR-30.5	
SEALING SLEEVE 4R-30.5		IOR-30.5	
SEALING SLEEVE 4R-33		IOR-33	
SEALING SLEEVE 4R-33		IOR-33	
SEALING SLEEVE 4R-35.5	OOR-65	IOR-35.5	
SEALING SLEEVE 4R-35.5		IOR-35.5	
SEALING SLEEVE 4R-35.5		IOR-35.5	
SEALING SLEEVE 4R-39		IOR-39	
SEALING SLEEVE 4R-39		IOR-39	
SEALING SLEEVE 4R-39		IOR-39	
SEALING SLEEVE 4R-42.5		IOR-42.5	
SEALING SLEEVE 4R-42.5		IOR-42.5	
SEALING SLEEVE 4R-42.5		IOR-42.5	
SEALING SLEEVE 4R-46.5		IOR-46.5	
SEALING SLEEVE 4R-46.5		IOR-46.5	
SEALING SLEEVE 4R-46.5		IOR-46.5	
SEALING SLEEVE 4R-51		IOR-51	
SEALING SLEEVE 4R-51		IOR-51	
SEALING SLEEVE 4R-51		IOR-51	
SEALING SLEEVE 4R-55.5		IOR-55.5	
SEALING SLEEVE 4R-55.5		IOR-55.5	
SEALING SLEEVE 4R-55.5		IOR-55.5	
SEALING SLEEVE 4R-55.5		IOR-55.5	

DTC-S

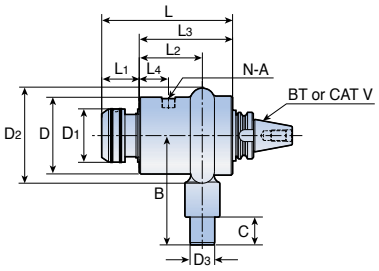
'S' type connector



Designation	DC	D	D1	D2	D3	L	L1	L2	L3	L4	N-A	N1-MXLS
DTC 4S	18.4-65.0	115	100	45	80	310	50	60	250	68	2-PT3/4"	4-M8x15
5S	65.0-123.9	164	140	81	120	415	47	115	300		2-PT1"	6-M8x20

DTC-R

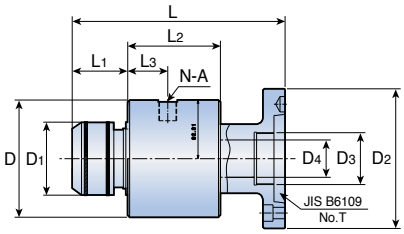
'R' type connector



Designation	DC	D	D1	D2	D3	B	C	L	L1	L2	L3	L4	N-A
DTC 4R	18.4-65.0	165	115	206	53	186.5	60	319.7	59.2	152	228	75	2-PT1"
5R	65.0-123.9	225	164	312	100	310	100	382	62	201	320	95	2-PT1 1/4"
6R	124.0-183.9	350	244	445	152.4	412	120	487	75	250	412	118	4-PT1-1/4"

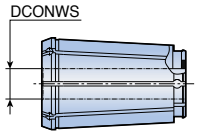
DTC-RF

'RF' type connector

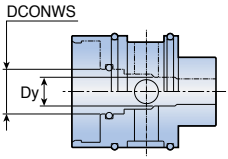


Designation	DC	D	D1	D2	D3	D4	L	L1	L2	L3	N-A
DTC 4RF	18.4-65.0	160	115	210	M62x2	46	291.5	64.5	150	75	2-PT1"

Collet / Sealing Sleeve



Collet



Sealing sleeve

Designation	DC	DCONWS	Designation	DC	DCONWS	Dy	Outer O-ring	Inner O-ring
COLLET 4-18	18.40-20.00	18.0	**SEALING SLEEVE 4-18**	18.40-20.00	18.0	10		IOR 18
4-19.5	20.01-21.80	19.5	**4-19.5**	20.01-21.80	19.5	12		IOR 19.5
4-21.5	21.81-24.10	21.5	**4-21.5**	21.81-24.10	21.5	13		IOR 21.5
4-23.5	24.11-26.40	23.5	**4-23.5**	24.11-26.40	23.5	14		IOR 23.5
4-26	26.41-28.70	26.0	**4-26**	26.41-28.70	26.0	16		IOR 26
4-28	28.71-31.00	28.0	**4-28**	28.71-31.00	28.0	18		IOR 28
4-30.5	31.01-33.30	30.5	**4-30.5**	31.01-33.30	30.5	20	OOR-65	IOR 30.5
4-33	33.31-36.20	33.0	**4-33**	33.31-36.20	33.0	22		IOR 33
4-35.5	36.21-39.60	35.5	**4-35.5**	36.21-39.60	35.5	24		IOR 35.5
4-39	39.61-43.00	39.0	**4-39**	39.61-43.00	39.0	27		IOR 39
4-42.5	43.01-47.00	42.5	**4-42.5**	43.01-47.00	42.5	30		IOR 42.5
4-46.5	47.01-51.70	46.5	**4-46.5**	47.01-51.70	46.5	32		IOR 46.5
4-51	51.71-56.20	51.0	**4-51**	51.71-56.20	51.0	36		IOR 51
4-55.5	56.21-65.00	55.5	**4-55.5**	56.21-65.00	55.5	40		IOR 55.5

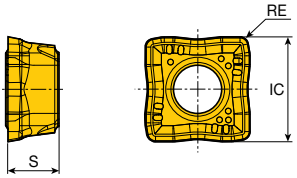
Drilling Heads & Inserts



SOMT...DP

TOPDRILL

Inserts for general purpose



Size	Dimension (mm)		
	IC	S	RE
04	4.4	2.38	0.4
05	4.9	2.38	0.4
06	5.7	2.38	0.4
07	6.8	2.80	0.6
08	7.9	3.97	0.6
09	9.2	3.97	0.8
11	11.0	3.97	0.8
13	12.8	4.40	0.8
15	15.0	4.80	1.0

Insert	Designation	Coated						Uncoated				
		TT9080	TT8020	TT9300	TT9030	TT6030	TT7400	K10				
	**SOMT 040204 DP**	●	●	●								
	050204 DP	●	●	●								
	060204 DP	●	●	●								
	070306 DP	●	●	●								
	08T306 DP	●	●	●								
	09T308 DP	●	●	●								
	11T308 DP	●	●	●								
	130408 DP	●	●	●								
	150510 DP	●	●	●								

D18-D33

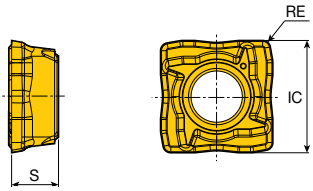
- TT9080: First choice for general purpose
- TT8020: For unstable condition
- TT9300: For high speed machining on a steel application (Peripheral **ONLY**)

●: Standard items

SOMT...DL

TOPDRILL

Inserts for low carbon steel



Size	Dimension (mm)		
	IC	S	RE
05	4.9	2.38	0.4
06	5.7	2.38	0.4
07	6.8	2.80	0.6
08	7.9	3.97	0.6
09	9.2	3.97	0.8
11	11.0	3.97	0.8
13	12.8	4.40	0.8
15	15.0	4.80	1.0

Insert	Designation	Coated						Uncoated				
		TT9080	TT9030	TT8020	TT6030	TT9300	TT7400	K10				
	**SOMT 050204 DL**	●										
	060204 DL	●										
	070306 DL	●										
	08T306 DL	●										
	09T308 DL	●										
	11T308 DL	●										
	130408 DL	●										
	150510 DL	●										

D18-D33

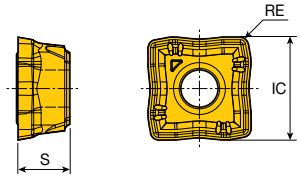
- TT9080: First choice for general purpose

●: Standard items

SOMT...DK

TOPDRILL

Inserts for cast iron



Size	Dimension (mm)		
	IC	S	RE
05	4.9	2.38	0.4
06	5.7	2.38	0.4
07	6.8	2.80	0.6
08	7.9	3.97	0.6
09	9.2	3.97	0.8
11	11.0	3.97	0.8
13	12.8	4.40	0.8
15	15.0	4.80	1.0

Insert	Designation	Coated								Uncoated			
		TT9080	TT8020	TT9300	TT9030	TT6030	TT6080	TT7400		K10			
	**SOMT 050204 DK**						●						
	060204 DK						●						
	070306 DK						●						
	08T306 DK						●						
	09T308 DK						●						
	11T308 DK						●						
	130408 DK						●						
	150510 DK						●						

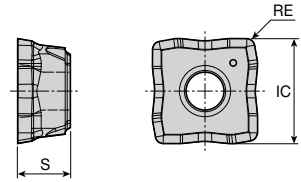
●: Standard items

D18-D33

SOMT...DA

TOPDRILL

Inserts for aluminum alloy



Size	Dimension (mm)		
	IC	S	RE
05	4.9	2.38	0.4
06	5.7	2.38	0.4
07	6.8	2.80	0.6
08	7.9	3.97	0.6
09	9.2	3.97	0.8
11	11.0	3.97	0.8
13	12.8	4.40	0.8
15	15.0	4.80	1.0

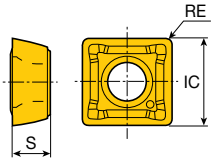
Insert	Designation	Coated								Uncoated			
		TT9080	TT8020	TT9300	TT9030	TT6030	TT6080	TT7400		K10			
	**SOMT 050204 DA**									●			
	060204 DA									●			
	070306 DA									●			
	08T306 DA									●			
	09T308 DA									●			
	11T308 DA									●			
	130408 DA									●			
	150510 DA									●			

●: Standard items

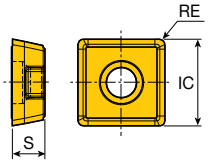
D18-D33

SPMG...DG

Inserts for general purpose



05/06



07/09/11/12/14

Size	Dimension (mm)		
	IC	S	RE
05	5.00	2.38	0.4
06	6.00	2.38	0.4
07	7.94	3.97	0.8
09	9.80	4.30	0.8
11	11.50	4.80	0.8
12	12.70	4.76	0.8
14	14.30	5.20	1.2

Insert	Designation	Coated						Uncoated			
		TT9080	TT9030	TT8020	TT6030	TT9300	TT7400	K10			
	**SPMG 050204 DG**		●	●			●				
	060204 DG		●	●			●				
	07T308 DG		●	●			●				
	090408 DG		●	●			●				
	110408 DG		●	●			●				
	120408 DG		●								
	140512 DG		●	●			●				

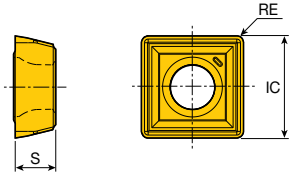
D34-D49

- TT9030: First choice for general purpose
- TT8020: For unstable condition
- TT7400: For high speed machining on a steel application (Peripheral **ONLY**)

●: Standard items

SPMG...DK

Inserts for cast iron



Size	Dimension (mm)		
	IC	S	RE
05	5.00	2.38	0.4
06	6.00	2.38	0.4
07	7.94	3.97	0.8
09	9.80	4.30	0.8
11	11.50	4.80	0.8
14	14.30	5.20	1.2

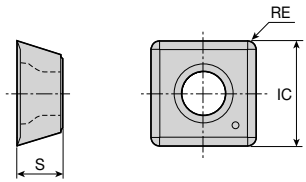
Insert	Designation	Coated						Uncoated			
		TT9080	TT9030	TT8020	TT6030	TT9300	TT7400	K10			
	**SPMG 050204 DK**				●						
	060204 DK				●						
	07T308 DK				●						
	090408 DK				●						
	110408 DK				●						
	140512 DK				●						

D34-D49

●: Standard items

SPGG...DA

Inserts for aluminum alloy



Size	Dimension (mm)		
	IC	S	RE
05	5.00	2.38	0.4
06	6.00	2.38	0.4
07	7.94	3.97	0.8
09	9.80	4.30	0.8
11	11.50	4.80	0.8
14	14.30	5.20	1.2

Insert	Designation	Coated						Uncoated			
		TT9080	TT9030	TT8020	TT6030	TT9300	TT7400	K10			
	**SPGG 050204 DA**							●			
	060204 DA							●			
	07T308 DA							●			
	090408 DA							●			
	110408 DA							●			
	140512 DA							●			

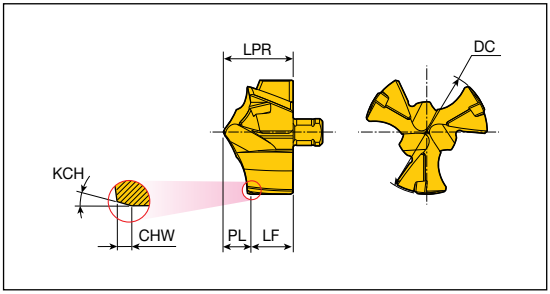
●: Standard items

3ED...-P+

DRILLSPEED INDEXABLE 3 FLUTE

3 flute drill heads





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

D55-D57

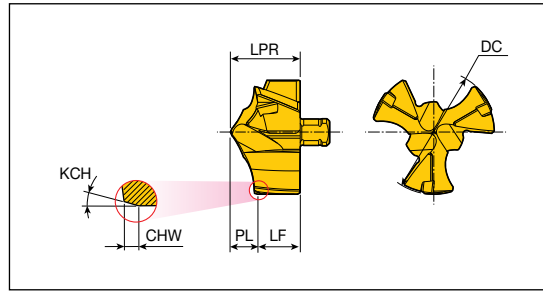
▸ SSC: Seat size code

●: Standard items

3ED...-P+

3 flute drill heads





Designation	Dimension (mm)							Grade
	DC	LPR	PL	LF	CHW	KCH	SSC	TT5130
3ED- 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	●
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	●


D55-D57

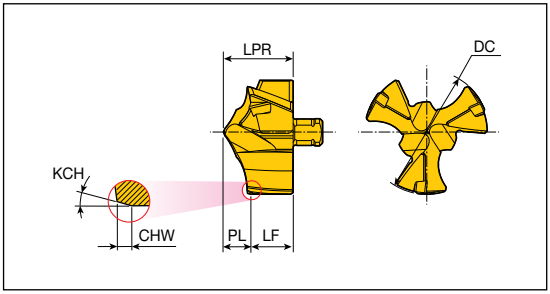
▸ SSC: Seat size code

●: Standard items

3ED...-P+

3 flute drill heads





Designation	Dimension (mm)							Grade
	DC	LPR	PL	LF	CHW	KCH	SSC	TT5130
3ED- 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	●
210-P+	21.0	11.8	4.62	7.18	0.4	15	21	●
215-P+	21.5	11.8	4.64	7.16	0.4	15	21	●
220-P+	22.0	12.4	4.78	7.62	0.4	15	22	●
225-P+	22.5	12.4	4.80	7.60	0.4	15	22	●
230-P+	23.0	12.8	5.02	7.78	0.4	15	23	●
235-P+	23.5	12.8	5.04	7.76	0.4	15	23	●
240-P+	24.0	13.4	5.18	8.22	0.4	15	24	●
245-P+	24.5	13.4	5.20	8.20	0.4	15	24	●
250-P+	25.0	14.0	5.29	8.71	0.4	15	25	●
255-P+	25.5	14.0	5.31	8.69	0.4	15	25	●

D55-D57

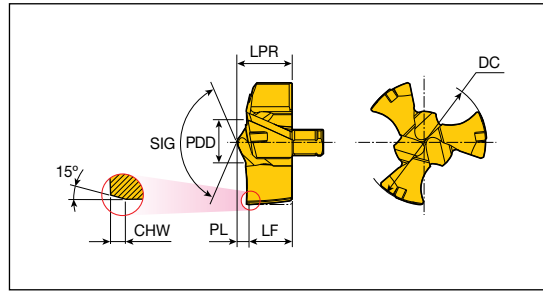
▸ SSC: Seat size code

●: Standard items

3ED...-F

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

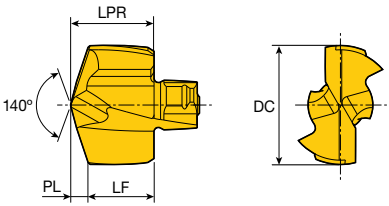
●: Standard items

D55-D57

TCD...-P

Drill heads





Designation	Dimension (mm)					Grade
	DC	LPR	PL	LF	SSC	TT9080
TCD - 040-P	4.0	3.10	0.62	2.48	4	●
041-P	4.1	3.10	0.64	2.46	4	●
042-P	4.2	3.10	0.66	2.44	4	●
043-P	4.3	3.10	0.67	2.43	4	●
044-P	4.4	3.10	0.69	2.41	4	●
045-P	4.5	3.55	0.66	2.89	4.5	●
046-P	4.6	3.55	0.68	2.87	4.5	●
047-P	4.7	3.55	0.70	2.85	4.5	●
048-P	4.8	3.55	0.71	2.84	4.5	●
049-P	4.9	3.55	0.73	2.82	4.5	●
050-P	5.0	3.70	0.73	2.97	5	●
051-P	5.1	3.70	0.75	2.95	5	●
052-P	5.2	3.70	0.77	2.93	5	●
053-P	5.3	3.70	0.78	2.92	5	●
054-P	5.4	3.70	0.80	2.90	5	●
055-P	5.5	3.85	0.80	3.05	5.5	●
056-P	5.6	3.85	0.82	3.03	5.5	●
057-P	5.7	3.85	0.84	3.01	5.5	●
058-P	5.8	3.85	0.85	3.00	5.5	●
059-P	5.9	3.85	0.87	2.98	5.5	●

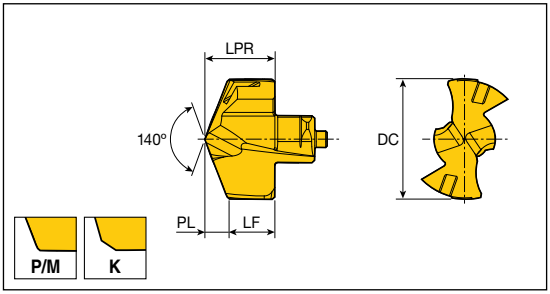
D58

●: Standard items

Steel

Drill heads





Designation	Dimension (mm)					Grade
	DC	LPR	PL	LF	SSC	TT9080
TCD - 060-P/M/K	6.0	4.0	0.96	3.04	6	●
061-P/M/K	6.1	4.0	0.98	3.02	6	●
062-P/M/K	6.2	4.0	1.00	3.00	6	●
063-P/M/K	6.3	4.0	1.01	2.99	6	●
064-P/M/K	6.4	4.0	1.03	2.97	6	●
065-P/M/K	6.5	4.3	1.18	3.12	6.5	●
066-P/M/K	6.6	4.3	1.20	3.10	6.5	●
067-P/M/K	6.7	4.3	1.22	3.08	6.5	●
068-P/M/K	6.8	4.3	1.23	3.07	6.5	●
069-P/M/K	6.9	4.3	1.25	3.05	6.5	●
070-P/M/K	7.0	4.6	1.01	3.59	7	●
071-P/M/K	7.1	4.6	1.03	3.57	7	●
072-P/M/K	7.2	4.6	1.05	3.55	7	●
073-P/M/K	7.3	4.6	1.06	3.54	7	●
074-P/M/K	7.4	4.6	1.08	3.52	7	●
075-P/M/K	7.5	4.6	1.10	3.50	7	●
076-P/M/K	7.6	4.6	1.12	3.48	7	●
077-P/M/K	7.7	4.6	1.14	3.46	7	●
078-P/M/K	7.8	4.6	1.16	3.44	7	●
079-P/M/K	7.9	4.6	1.17	3.43	7	●
080-P/M/K	8.0	5.4	1.20	4.20	8	●
081-P/M/K	8.1	5.4	1.22	4.18	8	●
082-P/M/K	8.2	5.4	1.24	4.16	8	●
083-P/M/K	8.3	5.4	1.25	4.15	8	●
084-P/M/K	8.4	5.4	1.27	4.13	8	●
085-P/M/K	8.5	5.4	1.29	4.11	8	●
086-P/M/K	8.6	5.4	1.31	4.09	8	●
087-P/M/K	8.7	5.4	1.33	4.07	8	●
088-P/M/K	8.8	5.4	1.35	4.05	8	●
089-P/M/K	8.9	5.4	1.36	4.04	8	●
090-P/M/K	9.0	5.8	1.35	4.45	9	●
091-P/M/K	9.1	5.8	1.37	4.43	9	●
092-P/M/K	9.2	5.8	1.39	4.41	9	●
093-P/M/K	9.3	5.8	1.40	4.40	9	●
094-P/M/K	9.4	5.8	1.42	4.38	9	●

D59-D74 D143

▸ Drill head can be ordered by an application
Order example) Diameter 10.0mm drill head for ISO P application: TCD-100-P TT9080

●: Standard items

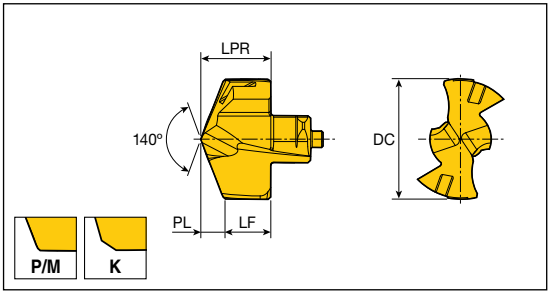
Steel Stainless steel Cast iron

TCD...P/M/K

DRILLRUSH
RUSH 2 FLUTE

Drill heads





Designation	Dimension (mm)					Grade
	DC	LPR	PL	LF	SSC	TT9080
TCD - 095-P/M/K	9.5	5.8	1.44	4.36	9	●
096-P/M/K	9.6	5.8	1.46	4.34	9	●
097-P/M/K	9.7	5.8	1.48	4.32	9	●
098-P/M/K	9.8	5.8	1.50	4.30	9	●
099-P/M/K	9.9	5.8	1.51	4.29	9	●
100-P/M/K	10.0	6.2	1.50	4.70	10	●
101-P/M/K	10.1	6.2	1.52	4.68	10	●
102-P/M/K	10.2	6.2	1.54	4.66	10	●
103-P/M/K	10.3	6.2	1.55	4.65	10	●
104-P/M/K	10.4	6.2	1.57	4.63	10	●
105-P/M/K	10.5	6.2	1.59	4.61	10	●
106-P/M/K	10.6	6.2	1.61	4.59	10	●
107-P/M/K	10.7	6.2	1.63	4.57	10	●
108-P/M/K	10.8	6.2	1.65	4.55	10	●
109-P/M/K	10.9	6.2	1.66	4.54	10	●
110-P/M/K	11.0	6.6	1.67	4.93	11	●
111-P/M/K	11.1	6.6	1.69	4.91	11	●
112-P/M/K	11.2	6.6	1.71	4.89	11	●
113-P/M/K	11.3	6.6	1.72	4.88	11	●
114-P/M/K	11.4	6.6	1.74	4.86	11	●
115-P/M/K	11.5	6.6	1.76	4.84	11	●
116-P/M/K	11.6	6.6	1.78	4.82	11	●
117-P/M/K	11.7	6.6	1.80	4.80	11	●
118-P/M/K	11.8	6.6	1.82	4.78	11	●
119-P/M/K	11.9	6.6	1.83	4.77	11	●
120-P/M/K	12.0	7.0	1.82	5.18	12	●
121-P/M/K	12.1	7.0	1.84	5.16	12	●
122-P/M/K	12.2	7.0	1.86	5.14	12	●
123-P/M/K	12.3	7.0	1.87	5.13	12	●
124-P/M/K	12.4	7.0	1.89	5.11	12	●
125-P/M/K	12.5	7.0	1.91	5.09	12	●
126-P/M/K	12.6	7.0	1.93	5.07	12	●
127-P/M/K	12.7	7.0	1.95	5.05	12	●
128-P/M/K	12.8	7.0	1.97	5.03	12	●
129-P/M/K	12.9	7.0	1.98	5.02	12	●



▸ Drill head can be ordered by an application
Order example) Diameter 10.0mm drill head for ISO P application: TCD-100-P TT9080

●: Standard items

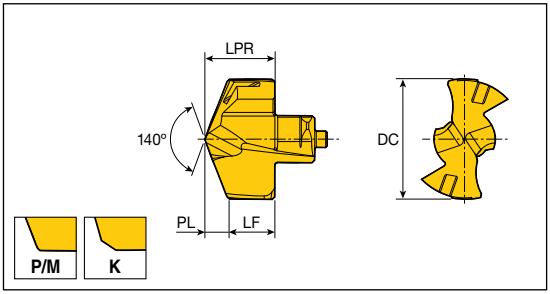
P Steel M Stainless steel K Cast iron

TaeguTec Member IMC Group

DRILLRUSH
RUSH 2 FLUTE

Drill heads





Designation	Dimension (mm)					Grade
	DC	LPR	PL	LF	SSC	TT9080
TCD - 130-P/M/K	13.0	7.6	1.96	5.64	13	●
131-P/M/K	13.1	7.6	1.98	5.62	13	●
132-P/M/K	13.2	7.6	2.00	5.60	13	●
133-P/M/K	13.3	7.6	2.01	5.59	13	●
134-P/M/K	13.4	7.6	2.03	5.57	13	●
135-P/M/K	13.5	7.6	2.05	5.55	13	●
136-P/M/K	13.6	7.6	2.07	5.53	13	●
137-P/M/K	13.7	7.6	2.09	5.51	13	●
138-P/M/K	13.8	7.6	2.11	5.49	13	●
139-P/M/K	13.9	7.6	2.12	5.48	13	●
140-P/M/K	14.0	8.1	2.12	5.98	14	●
141-P/M/K	14.1	8.1	2.14	5.96	14	●
142-P/M/K	14.2	8.1	2.16	5.94	14	●
143-P/M/K	14.3	8.1	2.17	5.93	14	●
144-P/M/K	14.4	8.1	2.19	5.91	14	●
145-P/M/K	14.5	8.1	2.21	5.89	14	●
146-P/M/K	14.6	8.1	2.23	5.87	14	●
147-P/M/K	14.7	8.1	2.25	5.85	14	●
148-P/M/K	14.8	8.1	2.27	5.83	14	●
149-P/M/K	14.9	8.1	2.28	5.82	14	●
150-P/M/K	15.0	8.7	2.27	6.43	15	●
151-P/M/K	15.1	8.7	2.29	6.41	15	●
152-P/M/K	15.2	8.7	2.31	6.39	15	●
153-P/M/K	15.3	8.7	2.32	6.38	15	●
154-P/M/K	15.4	8.7	2.34	6.36	15	●
155-P/M/K	15.5	8.7	2.36	6.34	15	●
156-P/M/K	15.6	8.7	2.38	6.32	15	●
157-P/M/K	15.7	8.7	2.40	6.30	15	●
158-P/M/K	15.8	8.7	2.42	6.28	15	●
159-P/M/K	15.9	8.7	2.43	6.27	15	●
160-P/M/K	16.0	9.3	2.42	6.88	16	●
161-P/M/K	16.1	9.3	2.44	6.86	16	●
162-P/M/K	16.2	9.3	2.46	6.84	16	●
163-P/M/K	16.3	9.3	2.47	6.83	16	●
164-P/M/K	16.4	9.3	2.49	6.81	16	●



▸ Drill head can be ordered by an application
Order example) Diameter 10.0mm drill head for ISO P application: TCD-100-P TT9080

●: Standard items

Steel Stainless steel Cast iron

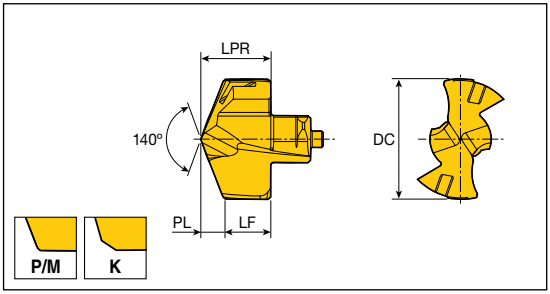
ADVANCE CUTTING
TaeguTec

TCD...P/M/K

DRILLRUSH
KUSH 2 FLUTE

Drill heads





Designation	Dimension (mm)					Grade
	DC	LPR	PL	LF	SSC	TT9080
TCD - 165-P/M/K	16.5	9.3	2.51	6.79	16	●
166-P/M/K	16.6	9.3	2.53	6.77	16	●
167-P/M/K	16.7	9.3	2.55	6.75	16	●
168-P/M/K	16.8	9.3	2.57	6.73	16	●
169-P/M/K	16.9	9.3	2.58	6.72	16	●
170-P/M/K	17.0	9.9	2.59	7.31	17	●
171-P/M/K	17.1	9.9	2.61	7.29	17	●
172-P/M/K	17.2	9.9	2.63	7.27	17	●
173-P/M/K	17.3	9.9	2.64	7.26	17	●
174-P/M/K	17.4	9.9	2.66	7.24	17	●
175-P/M/K	17.5	9.9	2.68	7.22	17	●
176-P/M/K	17.6	9.9	2.70	7.20	17	●
177-P/M/K	17.7	9.9	2.72	7.18	17	●
178-P/M/K	17.8	9.9	2.74	7.16	17	●
179-P/M/K	17.9	9.9	2.75	7.15	17	●
180-P/M/K	18.0	10.5	2.73	7.77	18	●
181-P/M/K	18.1	10.5	2.75	7.75	18	●
182-P/M/K	18.2	10.5	2.77	7.73	18	●
183-P/M/K	18.3	10.5	2.78	7.72	18	●
184-P/M/K	18.4	10.5	2.80	7.70	18	●
185-P/M/K	18.5	10.5	2.82	7.68	18	●
186-P/M/K	18.6	10.5	2.84	7.66	18	●
187-P/M/K	18.7	10.5	2.86	7.64	18	●
188-P/M/K	18.8	10.5	2.88	7.62	18	●
189-P/M/K	18.9	10.5	2.89	7.61	18	●
190-P/M/K	19.0	11.0	2.88	8.12	19	●
191-P/M/K	19.1	11.0	2.90	8.10	19	●
192-P/M/K	19.2	11.0	2.92	8.08	19	●
193-P/M/K	19.3	11.0	2.93	8.07	19	●
194-P/M/K	19.4	11.0	2.95	8.05	19	●
195-P/M/K	19.5	11.0	2.97	8.03	19	●
196-P/M/K	19.6	11.0	2.99	8.01	19	●
197-P/M/K	19.7	11.0	3.01	7.99	19	●
198-P/M/K	19.8	11.0	3.03	7.97	19	●
199-P/M/K	19.9	11.0	3.04	7.96	19	●



▸ Drill head can be ordered by an application
Order example) Diameter 10.0mm drill head for ISO P application: TCD-100-P TT9080

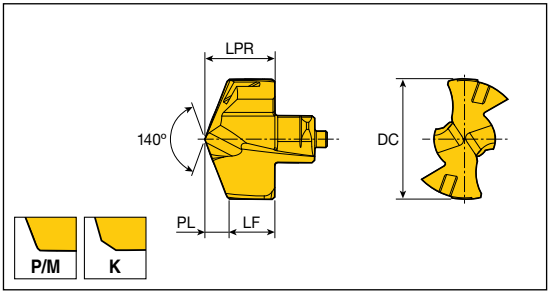
●: Standard items

P Steel M Stainless steel K Cast iron

TaeguTec Member IMC Group

Drill heads





Designation	Dimension (mm)					Grade
	DC	LPR	PL	LF	SSC	TT9080
TCD - 200-P/M/K	20.0	11.6	3.02	8.58	20	●
201-P/M/K	20.1	11.6	3.04	8.56	20	●
202-P/M/K	20.2	11.6	3.06	8.54	20	●
203-P/M/K	20.3	11.6	3.07	8.53	20	●
204-P/M/K	20.4	11.6	3.09	8.51	20	●
205-P/M/K	20.5	11.6	3.11	8.49	20	●
206-P/M/K	20.6	11.6	3.13	8.47	20	●
207-P/M/K	20.7	11.6	3.15	8.45	20	●
208-P/M/K	20.8	11.6	3.17	8.43	20	●
209-P/M/K	20.9	11.6	3.18	8.42	20	●
210-P/M/K	21.0	12.1	3.18	8.92	21	●
211-P/M/K	21.1	12.1	3.20	8.90	21	●
212-P/M/K	21.2	12.1	3.22	8.88	21	●
213-P/M/K	21.3	12.1	3.23	8.87	21	●
214-P/M/K	21.4	12.1	3.25	8.85	21	●
215-P/M/K	21.5	12.1	3.27	8.83	21	●
216-P/M/K	21.6	12.1	3.29	8.81	21	●
217-P/M/K	21.7	12.1	3.31	8.79	21	●
218-P/M/K	21.8	12.1	3.33	8.77	21	●
219-P/M/K	21.9	12.1	3.34	8.76	21	●
220-P/M/K	22.0	12.7	3.24	9.46	22	●
221-P/M/K	22.1	12.7	3.26	9.44	22	●
222-P/M/K	22.2	12.7	3.28	9.42	22	●
223-P/M/K	22.3	12.7	3.29	9.41	22	●
224-P/M/K	22.4	12.7	3.31	9.39	22	●
225-P/M/K	22.5	12.7	3.33	9.37	22	●
226-P/M/K	22.6	12.7	3.35	9.35	22	●
227-P/M/K	22.7	12.7	3.37	9.33	22	●
228-P/M/K	22.8	12.7	3.39	9.31	22	●
229-P/M/K	22.9	12.7	3.40	9.30	22	●
230-P/M/K	23.0	13.3	3.46	9.84	23	●
231-P/M/K	23.1	13.3	3.48	9.82	23	●
232-P/M/K	23.2	13.3	3.50	9.80	23	●
233-P/M/K	23.3	13.3	3.51	9.79	23	●
234-P/M/K	23.4	13.3	3.53	9.77	23	●

D59-D74 D143

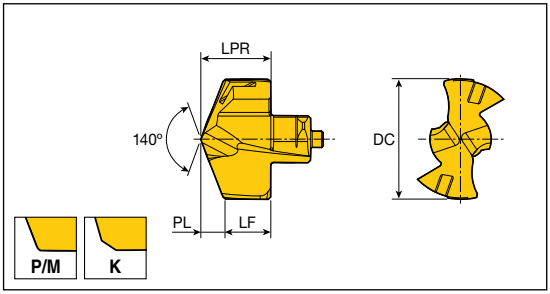
▸ Drill head can be ordered by an application
Order example) Diameter 10.0mm drill head for ISO P application: TCD-100-P TT9080

●: Standard items

Steel Stainless steel Cast iron

Drill heads





Designation	Dimension (mm)					Grade
	DC	LPR	PL	LF	SSC	TT9080
TCD - 235-P/M/K	23.5	13.3	3.55	9.75	23	●
236-P/M/K	23.6	13.3	3.57	9.73	23	●
237-P/M/K	23.7	13.3	3.59	9.71	23	●
238-P/M/K	23.8	13.3	3.61	9.69	23	●
239-P/M/K	23.9	13.3	3.62	9.68	23	●
240-P/M/K	24.0	13.9	3.62	10.28	24	●
241-P/M/K	24.1	13.9	3.64	10.26	24	●
242-P/M/K	24.2	13.9	3.66	10.24	24	●
243-P/M/K	24.3	13.9	3.67	10.23	24	●
244-P/M/K	24.4	13.9	3.69	10.21	24	●
245-P/M/K	24.5	13.9	3.71	10.19	24	●
246-P/M/K	24.6	13.9	3.73	10.17	24	●
247-P/M/K	24.7	13.9	3.75	10.15	24	●
248-P/M/K	24.8	13.9	3.77	10.13	24	●
249-P/M/K	24.9	13.9	3.78	10.12	24	●
250-P/M/K	25.0	14.5	3.80	10.70	25	●
251-P/M/K	25.1	14.5	3.82	10.68	25	●
252-P/M/K	25.2	14.5	3.84	10.66	25	●
253-P/M/K	25.3	14.5	3.85	10.65	25	●
254-P/M/K	25.4	14.5	3.87	10.63	25	●
255-P/M/K	25.5	14.5	3.89	10.61	25	●
256-P/M/K	25.6	14.5	3.91	10.59	25	●
257-P/M/K	25.7	14.5	3.93	10.57	25	●
258-P/M/K	25.8	14.5	3.95	10.55	25	●
259-P/M/K	25.9	14.5	3.96	10.54	25	●



▸ Drill head can be ordered by an application
Order example) Diameter 10.0mm drill head for ISO P application: TCD-100-P TT9080

●: Standard items

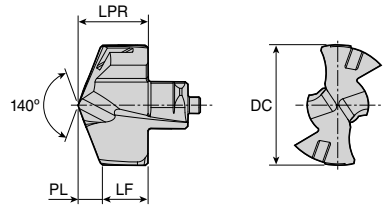
P Steel M Stainless steel K Cast iron

TCD...N

DRILLRUSH
RUSH 2 FLUTE

Drill heads for aluminum alloy





Designation	Dimension (mm)					Grade
	DC	LPR	PL	LF	SSC	UF10
TCD - 060-N	6.0	4.00	0.96	3.04	6	●
065-N	6.5	4.30	1.18	3.12	6.5	●
070-N	7.0	4.60	1.01	3.59	7	●
075-N	7.5	4.60	1.10	3.50	7	●
080-N	8.0	5.40	1.20	4.20	8	●
085-N	8.5	5.40	1.29	4.11	8	●
090-N	9.0	5.80	1.35	4.45	9	●
095-N	9.5	5.80	1.44	4.36	9	●
100-N	10.0	6.20	1.50	4.70	10	●
105-N	10.5	6.20	1.59	4.61	10	●
110-N	11.0	6.60	1.67	4.93	11	●
115-N	11.5	6.60	1.76	4.84	11	●
120-N	12.0	7.00	1.82	5.18	12	●
125-N	12.5	7.00	1.91	5.09	12	●
130-N	13.0	7.60	1.96	5.64	13	●
135-N	13.5	7.60	2.05	5.55	13	●
140-N	14.0	8.15	2.12	6.03	14	●
145-N	14.5	8.15	2.21	5.94	14	●
150-N	15.0	8.73	2.27	6.46	15	●
155-N	15.5	8.73	2.36	6.37	15	●
160-N	16.0	9.30	2.42	6.88	16	●
165-N	16.5	9.30	2.51	6.79	16	●
170-N	17.0	9.90	2.59	7.31	17	●
175-N	17.5	9.90	2.68	7.22	17	●
180-N	18.0	10.50	2.73	7.77	18	●
185-N	18.5	10.50	2.82	7.68	18	●
190-N	19.0	11.00	2.88	8.12	19	●
195-N	19.5	11.00	2.97	8.03	19	●



▸ SSC: Seat size code

●: Standard items

N Nonferrous

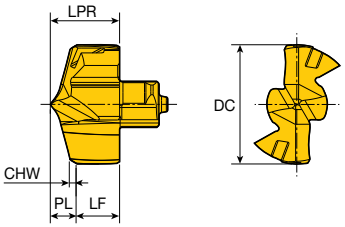
ADVANCE CUTTING
TaeguTec

TCD-P+

DRILLRUSH
RUSH 2 FLUTE

Self-centering drill heads





Designation	Dimension (mm)						Grade
	DC	LPR	PL	LF	CHW	SSC	TT9080
TCD-060-P+	6.0	4.00	1.46	2.54	0.5	6	●
065-P+	6.5	4.30	1.55	2.75	0.5	6.5	●
068-P+	6.8	4.30	1.59	2.71	0.5	6.5	●
070-P+	7.0	4.60	1.64	2.96	0.5	7	●
072-P+	7.2	4.60	1.67	2.93	0.5	7	●
075-P+	7.5	4.60	1.71	2.89	0.5	7	●
080-P+	8.0	5.40	1.81	3.59	0.5	8	●
081-P+	8.1	5.40	1.82	3.58	0.5	8	●
082-P+	8.2	5.40	1.84	3.56	0.5	8	●
083-P+	8.3	5.40	1.85	3.55	0.5	8	●
085-P+	8.5	5.40	1.88	3.52	0.5	8	●
086-P+	8.6	5.40	1.89	3.51	0.5	8	●
087-P+	8.7	5.40	1.90	3.50	0.5	8	●
088-P+	8.8	5.40	1.92	3.48	0.5	8	●
089-P+	8.9	5.40	1.93	3.47	0.5	8	●
090-P+	9.0	5.80	1.98	3.82	0.5	9	●
093-P+	9.3	5.80	2.02	3.78	0.5	9	●
095-P+	9.5	5.80	2.05	3.75	0.5	9	●
096-P+	9.6	5.80	2.06	3.74	0.5	9	●
097-P+	9.7	5.80	2.07	3.73	0.5	9	●
098-P+	9.8	5.80	2.09	3.71	0.5	9	●
099-P+	9.9	5.80	2.10	3.70	0.5	9	●
100-P+	10.0	6.20	2.33	3.87	0.7	10	●
101-P+	10.1	6.20	2.34	3.86	0.7	10	●
102-P+	10.2	6.20	2.36	3.84	0.7	10	●
103-P+	10.3	6.20	2.37	3.83	0.7	10	●
105-P+	10.5	6.20	2.40	3.80	0.7	10	●
106-P+	10.6	6.20	2.41	3.79	0.7	10	●
107-P+	10.7	6.20	2.42	3.78	0.7	10	●
108-P+	10.8	6.20	2.44	3.76	0.7	10	●
109-P+	10.9	6.20	2.45	3.75	0.7	10	●
110-P+	11.0	6.60	2.50	4.10	0.7	11	●
111-P+	11.1	6.60	2.51	4.09	0.7	11	●
112-P+	11.2	6.60	2.53	4.07	0.7	11	●
113-P+	11.3	6.60	2.54	4.06	0.7	11	●



▸ SSC: Seat size code

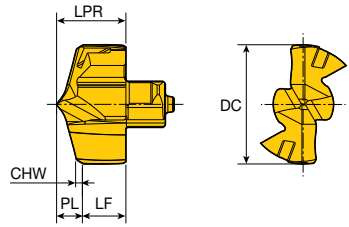
●: Standard items

TCD-P+

DRILLRUSH
RUSH 2 FLUTE

Self-centering drill heads





Designation	Dimension (mm)						Grade
	DC	LPR	PL	LF	CHW	SSC	TT9080
TCD-114-P+	11.4	6.60	2.55	4.05	0.7	11	●
115-P+	11.5	6.60	2.57	4.03	0.7	11	●
116-P+	11.6	6.60	2.58	4.02	0.7	11	●
117-P+	11.7	6.60	2.59	4.01	0.7	11	●
118-P+	11.8	6.60	2.61	3.99	0.7	11	●
119-P+	11.9	6.60	2.62	3.98	0.7	11	●
120-P+	12.0	7.00	2.67	4.33	0.7	12	●
121-P+	12.1	7.00	2.68	4.32	0.7	12	●
122-P+	12.2	7.00	2.70	4.30	0.7	12	●
123-P+	12.3	7.00	2.71	4.29	0.7	12	●
124-P+	12.4	7.00	2.72	4.28	0.7	12	●
125-P+	12.5	7.00	2.74	4.26	0.7	12	●
126-P+	12.6	7.00	2.75	4.25	0.7	12	●
127-P+	12.7	7.00	2.76	4.24	0.7	12	●
128-P+	12.8	7.00	2.78	4.22	0.7	12	●
130-P+	13.0	7.60	2.85	4.75	0.7	13	●
131-P+	13.1	7.60	2.86	4.74	0.7	13	●
132-P+	13.2	7.60	2.88	4.72	0.7	13	●
133-P+	13.3	7.60	2.89	4.71	0.7	13	●
134-P+	13.4	7.60	2.90	4.70	0.7	13	●
135-P+	13.5	7.60	2.92	4.68	0.7	13	●
136-P+	13.6	7.60	2.93	4.67	0.7	13	●
137-P+	13.7	7.60	2.94	4.66	0.7	13	●
138-P+	13.8	7.60	2.96	4.64	0.7	13	●
139-P+	13.9	7.60	2.97	4.63	0.7	13	●
140-P+	14.0	8.15	3.02	5.13	0.7	14	●
141-P+	14.1	8.15	3.03	5.12	0.7	14	●
142-P+	14.2	8.15	3.05	5.10	0.7	14	●
143-P+	14.3	8.15	3.06	5.09	0.7	14	●
144-P+	14.4	8.15	3.07	5.08	0.7	14	●
145-P+	14.5	8.15	3.09	5.06	0.7	14	●
146-P+	14.6	8.15	3.10	5.05	0.7	14	●
147-P+	14.7	8.15	3.11	5.04	0.7	14	●
148-P+	14.8	8.15	3.13	5.02	0.7	14	●
150-P+	15.0	8.73	3.19	5.54	0.7	15	●



▸ SSC: Seat size code

●: Standard items

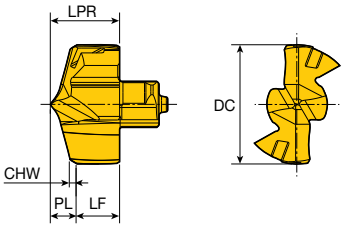
ADVANCE CUTTING
TaeguTec

TCD-P+

DRILLRUSH
RUSH 2 FLUTE

Self-centering drill heads





Designation	Dimension (mm)						Grade
	DC	LPR	PL	LF	CHW	SSC	TT9080
TCD-151-P+	15.1	8.73	3.20	5.53	0.7	15	●
152-P+	15.2	8.73	3.22	5.51	0.7	15	●
153-P+	15.3	8.73	3.23	5.50	0.7	15	●
154-P+	15.4	8.73	3.24	5.49	0.7	15	●
155-P+	15.5	8.73	3.26	5.47	0.7	15	●
156-P+	15.6	8.73	3.27	5.46	0.7	15	●
157-P+	15.7	8.73	3.28	5.45	0.7	15	●
158-P+	15.8	8.73	3.30	5.43	0.7	15	●
159-P+	15.9	8.73	3.31	5.42	0.7	15	●
160-P+	16.0	9.30	3.46	5.84	0.81	16	●
161-P+	16.1	9.30	3.47	5.83	0.81	16	●
162-P+	16.2	9.30	3.49	5.81	0.81	16	●
163-P+	16.3	9.30	3.50	5.80	0.81	16	●
164-P+	16.4	9.30	3.51	5.79	0.81	16	●
165-P+	16.5	9.30	3.53	5.77	0.81	16	●
166-P+	16.6	9.30	3.54	5.76	0.81	16	●
167-P+	16.7	9.30	3.55	5.75	0.81	16	●
168-P+	16.8	9.30	3.57	5.73	0.81	16	●
170-P+	17.0	9.90	3.63	6.27	0.81	17	●
171-P+	17.1	9.90	3.64	6.26	0.81	17	●
172-P+	17.2	9.90	3.66	6.24	0.81	17	●
173-P+	17.3	9.90	3.67	6.23	0.81	17	●
174-P+	17.4	9.90	3.68	6.22	0.81	17	●
175-P+	17.5	9.90	3.70	6.20	0.81	17	●
176-P+	17.6	9.90	3.71	6.19	0.81	17	●
177-P+	17.7	9.90	3.72	6.18	0.81	17	●
178-P+	17.8	9.90	3.74	6.16	0.81	17	●
179-P+	17.9	9.90	3.75	6.15	0.81	17	●
180-P+	18.0	10.50	3.81	6.69	0.81	18	●
181-P+	18.1	10.50	3.82	6.68	0.81	18	●
182-P+	18.2	10.50	3.84	6.66	0.81	18	●
183-P+	18.3	10.50	3.85	6.65	0.81	18	●
185-P+	18.5	10.50	3.88	6.62	0.81	18	●
186-P+	18.6	10.50	3.89	6.61	0.81	18	●
187-P+	18.7	10.50	3.90	6.60	0.81	18	●
188-P+	18.8	10.50	3.92	6.58	0.81	18	●



▸ SSC: Seat size code

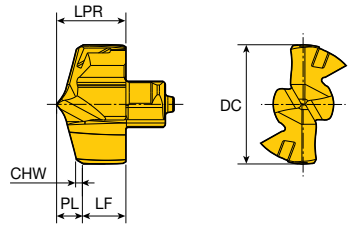
●: Standard items

TCD-P+

DRILLRUSH
RUSH 2 FLUTE

Self-centering drill heads





Designation	Dimension (mm)						Grade
	DC	LPR	PL	LF	CHW	SSC	TT9080
TCD-190-P+	19.0	11.00	3.98	7.02	0.81	19	●
191-P+	19.1	11.00	3.99	7.01	0.81	19	●
192-P+	19.2	11.00	4.01	6.99	0.81	19	●
193-P+	19.3	11.00	4.02	6.98	0.81	19	●
194-P+	19.4	11.00	4.03	6.97	0.81	19	●
195-P+	19.5	11.00	4.05	6.95	0.81	19	●
196-P+	19.6	11.00	4.06	6.94	0.81	19	●
197-P+	19.7	11.00	4.07	6.93	0.81	19	●
198-P+	19.8	11.00	4.09	6.91	0.81	19	●
199-P+	19.9	11.00	4.10	6.90	0.81	19	●
200-P+	20.0	11.60	4.15	7.45	0.81	20	●
201-P+	20.1	11.60	4.16	7.44	0.81	20	●
202-P+	20.2	11.60	4.18	7.42	0.81	20	●
205-P+	20.5	11.60	4.22	7.38	0.81	20	●
206-P+	20.6	11.60	4.23	7.37	0.81	20	●
207-P+	20.7	11.60	4.24	7.36	0.81	20	●
210-P+	21.0	12.18	4.32	7.86	0.81	21	●
212-P+	21.2	12.18	4.35	7.83	0.81	21	●
213-P+	21.3	12.18	4.36	7.82	0.81	21	●
214-P+	21.4	12.18	4.37	7.81	0.81	21	●
215-P+	21.5	12.18	4.39	7.79	0.81	21	●
218-P+	21.8	12.18	4.43	7.75	0.81	21	●
220-P+	22.0	12.76	4.50	8.26	0.81	22	●
225-P+	22.5	12.76	4.57	8.19	0.81	22	●
229-P+	22.9	12.76	4.62	8.14	0.81	22	●
230-P+	23.0	13.33	4.67	8.66	0.81	23	●
235-P+	23.5	13.33	4.74	8.59	0.81	23	●
240-P+	24.0	13.90	4.84	9.06	0.81	24	●
245-P+	24.5	13.90	4.91	8.99	0.81	24	●
250-P+	25.0	14.50	5.01	9.49	0.81	25	●
254-P+	25.4	14.50	5.06	9.44	0.81	25	●
255-P+	25.5	14.50	5.08	9.42	0.81	25	●
256-P+	25.6	14.50	5.09	9.41	0.81	25	●
257-P+	25.7	14.50	5.10	9.40	0.81	25	●
258-P+	25.8	14.50	5.12	9.38	0.81	25	●
259-P+	25.9	14.50	5.13	9.37	0.81	25	●



▸ SSC: Seat size code

●: Standard items

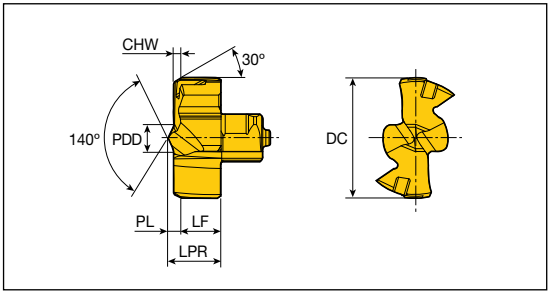
ADVANCE CUTTING
TaeguTec

TCD...F

DRILLRUSH
RUSH 2 FLUTE

Drill heads for flat bottom hole





Designation	Dimension (mm)							Grade
	DC	PDD	LPR	PL	LF	CHW	SSC	TT9080
TCD - 080-F	8.0	2.33	4.4	1.09	3.3	0.7	8	●
085-F	8.5	2.33	4.4	1.09	3.3	0.7	8	●
090-F	9.0	2.29	4.6	1.11	3.5	0.7	9	●
095-F	9.5	2.29	4.6	1.11	3.5	0.7	9	●
100-F	10.0	2.44	4.9	1.17	3.7	0.7	10	●
105-F	10.5	2.44	4.9	1.17	3.7	0.7	10	●
110-F	11.0	3.09	5.1	1.25	3.8	0.7	11	●
115-F	11.5	3.09	5.1	1.25	3.8	0.7	11	●
120-F	12.0	2.95	5.4	1.26	4.1	0.7	12	●
125-F	12.5	2.95	5.4	1.26	4.1	0.7	12	●
130-F	13.0	3.04	5.7	1.30	4.4	0.7	13	●
135-F	13.5	3.04	5.7	1.30	4.4	0.7	13	●
140-F	14.0	3.30	6.1	1.31	4.8	0.7	14	●
145-F	14.5	3.30	6.1	1.31	4.8	0.7	14	●
150-F	15.0	3.54	6.6	1.35	5.23	0.7	15	●
155-F	15.5	3.54	6.6	1.35	5.23	0.7	15	●
160-F	16.0	3.74	7.0	1.39	5.6	0.7	16	●
165-F	16.5	3.74	7.0	1.39	5.6	0.7	16	●
170-F	17.0	3.75	7.3	1.40	5.9	0.7	17	●
175-F	17.5	3.75	7.3	1.40	5.9	0.7	17	●
180-F	18.0	3.85	7.6	1.42	6.18	0.7	18	●
185-F	18.5	3.85	7.6	1.42	6.18	0.7	18	●
190-F	19.0	3.86	7.9	1.44	6.5	0.7	19	●
195-F	19.5	3.86	7.9	1.44	6.5	0.7	19	●
200-F	20.0	6.76	9.3	1.77	7.5	0.7	20	●
205-F	20.5	6.76	9.3	1.77	7.5	0.7	20	●
210-F	21.0	6.98	9.7	1.79	7.9	0.7	21	●
215-F	21.5	6.98	9.7	1.79	7.9	0.7	21	●
220-F	22.0	7.42	10.0	1.81	8.2	0.7	22	●
225-F	22.5	7.42	10.0	1.81	8.2	0.7	22	●
230-F	23.0	7.60	10.4	1.83	8.6	0.7	23	●
235-F	23.5	7.60	10.4	1.83	8.6	0.7	23	●
240-F	24.0	8.13	10.9	1.86	9.0	0.7	24	●
245-F	24.5	8.13	10.9	1.86	9.0	0.7	24	●
250-F	25.0	8.16	11.3	1.89	9.4	0.7	25	●





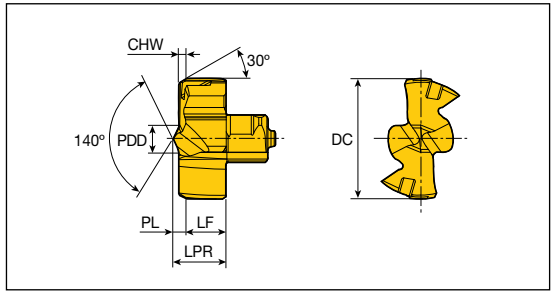
▸ SSC: Seat size code

●: Standard items

TCD...F

Drill heads for flat bottom hole





Designation	Dimension (mm)							Grade
	DC	PDD	LPR	PL	LF	CHW	SSC	TT9080
TCD - 254-F	25.4	8.16	11.3	1.89	9.4	0.7	25	●
255-F	25.5	8.16	11.3	1.89	9.4	0.7	25	●



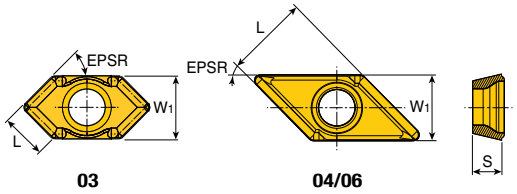
▸ SSC: Seat size code

●: Standard items

ADVANCE CUTTING
TaeguTec

AOMT

Chamfering inserts for pre-thread hole



Size	Dimension (mm)			
	W1	L	S	EPSR
03-C30	4.0	4.00	1.59	30
03-C45	4.0	2.80	1.59	45
04-C45	3.6	5.20	1.80	45
06-C45	4.5	5.66	1.96	45

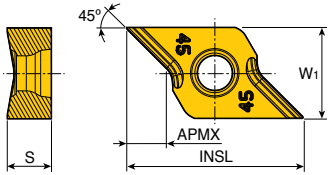
Insert	Designation	Coated								Uncoated			
		TT9080	TT9030	TT8020	TT6030	TT9300	TT7400			K10			
	**AOMT 030204-C30**	●											
	030204-C45	●											
	**AOMT 040204-C45**	●											
	060204-C45	●											

●: Standard items

D68

CRNG 0802-45CD

Chamfering inserts for chamfering ring



Size	Dimension (mm)			
	W1	INSL	S	APMX
08	7.5	14.80	3.65	3.3

Insert	Designation	Coated								Uncoated			
		TT9080	TT9030	TT8020	TT6030	TT9300	TT7400			K10			
	**CRNG 0802-45CD**	●											

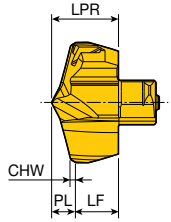
●: Standard items

D69

TCD...P-CO+

Drill heads





Designation	Dimension (mm)						Grade
	DC	LPR	PL	LF	CHW	SSC	TT9080
TCD-159-P-CO+	15.9	8.73	3.17	5.56	0.7	15	●
169-P-CO+	16.9	9.30	3.34	5.96	0.81	16	●
179-P-CO+	17.9	9.90	3.50	6.40	0.81	17	●
189-P-CO+	18.9	10.50	3.66	6.84	0.81	18	●
199-P-CO+	19.9	11.00	3.82	7.18	0.81	19	●
209-P-CO+	20.9	11.60	3.98	7.62	0.81	20	●
219-P-CO+	21.9	12.18	4.15	8.03	0.81	21	●
229-P-CO+	22.9	12.76	4.31	8.45	0.81	22	●
239-P-CO+	23.9	13.33	4.48	8.85	0.81	23	●
249-P-CO+	24.9	13.90	4.64	9.26	0.81	24	●
259-P-CO+	25.9	14.50	4.81	9.69	0.81	25	●

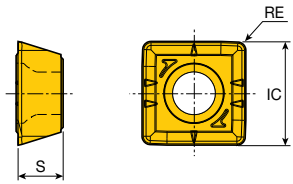
D75-D76

▸ SSC: Seat size code

●: Standard items

SPGX...DW

Inserts



Size	Dimension (mm)			
	IC	S	RE	
06	6.07	2.38	0.4	
07	8.02	3.97	0.8	
09	9.91	4.30	0.8	
11	11.62	4.80	0.8	
14	14.41	5.20	1.2	

Insert	Designation	Coated								Uncoated			
		TT9080	TT8020	TT9300	TT9030	TT6030	TT7400			K10			
	**SPGX 060204 DW**	●											
	07T308 DW	●											
	090408 DW	●											
	110408 DW	●											
	140512 DW	●											

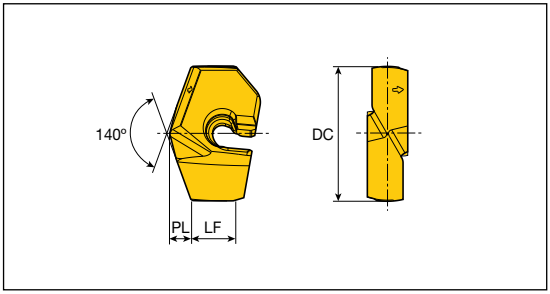
●: Standard items

D75-D76

LCD...-P

Drill heads





Designation	Dimension (mm)				Grade
	DC	PL	LF	SSC	TT9080
LCD- 200-P	20.0	3.11	6.54	20	●
205-P	20.5	3.20	6.45	20	●
210-P	21.0	3.29	6.36	21	●
215-P	21.5	3.38	6.27	21	●
220-P	22.0	3.42	7.12	22	●
225-P	22.5	3.51	7.03	22	●
230-P	23.0	3.60	6.94	23	●
235-P	23.5	3.69	6.85	23	●
240-P	24.0	3.73	7.03	24	●
245-P	24.5	3.82	6.94	24	●
250-P	25.0	3.91	6.85	25	●
255-P	25.5	4.00	6.76	25	●
260-P	26.0	4.04	7.51	26	●
265-P	26.5	4.13	7.42	26	●
270-P	27.0	4.22	7.33	27	●
275-P	27.5	4.31	7.24	27	●
280-P	28.0	4.35	7.39	28	●
285-P	28.5	4.44	7.30	28	●
290-P	29.0	4.53	7.21	29	●
295-P	29.5	4.62	7.12	29	●
300-P	30.0	4.67	9.47	30	●
305-P	30.5	4.76	9.38	30	●
310-P	31.0	4.85	9.29	31	●
315-P	31.5	4.94	9.20	31	●
320-P	32.0	4.98	9.55	32	●
325-P	32.5	5.07	9.46	32	●
330-P	33.0	5.16	9.37	33	●
335-P	33.5	5.25	9.28	33	●
340-P	34.0	5.34	9.19	34	●
345-P	34.5	5.44	9.10	34	●
350-P	35.0	5.44	11.12	35	●
355-P	35.5	5.53	11.03	35	●
360-P	36.0	5.62	10.94	36	●
365-P	36.5	5.71	10.85	36	●
370-P	37.0	5.80	10.76	37	●



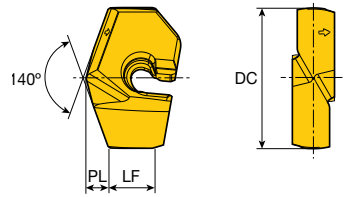
▸ SSC: Seat size code

●: Standard items

LCD...-P

Drill heads





Designation	Dimension (mm)				Grade
	DC	PL	LF	SSC	TT9080
LCD- 375-P	37.5	5.90	10.67	37	●
380-P	38.0	5.91	11.09	38	●
385-P	38.5	6.00	11.00	38	●
390-P	39.0	6.09	10.91	39	●
395-P	39.5	6.18	10.82	39	●
400-P	40.0	6.27	10.73	40	●
405-P	40.5	6.37	10.64	40	●
410-P	41.0	6.46	10.54	40	●

▸ SSC: Seat size code

●: Standard items

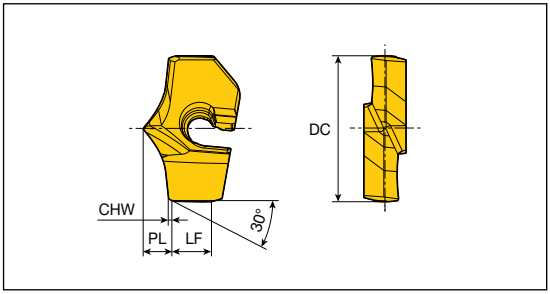
D80-D82

LCD...-P+

SPADERUSH

Self-centering drill head





Designation	Dimension (mm)					Grade
	DC	PL	LF	CHW	SSC	TT9080
LCD- 200-P+	20.0	4.55	5.83	0.86	20	●
205-P+	20.5	4.58	5.60	0.86	20	●
210-P+	21.0	4.60	5.36	0.86	21	●
215-P+	21.5	4.63	5.13	0.86	21	●
220-P+	22.0	4.92	6.21	0.86	22	●
225-P+	22.5	4.95	5.98	0.86	22	●
230-P+	23.0	4.97	5.74	0.86	23	●
235-P+	23.5	5.00	5.51	0.86	23	●
240-P+	24.0	5.30	5.93	0.86	24	●
245-P+	24.5	5.33	5.70	0.86	24	●
250-P+	25.0	5.35	5.46	0.86	25	●
255-P+	25.5	5.38	5.23	0.86	25	●
260-P+	26.0	5.67	7.39	0.86	26	●
265-P+	26.5	5.70	7.16	0.86	26	●
270-P+	27.0	5.72	6.92	0.86	27	●
275-P+	27.5	5.75	6.69	0.86	27	●
280-P+	28.0	5.73	7.26	0.86	28	●
285-P+	28.5	5.76	7.03	0.86	28	●
290-P+	29.0	5.78	6.79	0.86	29	●
295-P+	29.5	5.81	6.56	0.86	29	●
300-P+	30.0	6.08	9.17	0.86	30	●
305-P+	30.5	6.11	8.94	0.86	30	●
310-P+	31.0	6.13	8.70	0.86	31	●
315-P+	31.5	6.16	8.47	0.86	31	●
320-P+	32.0	6.43	9.18	0.86	32	●
325-P+	32.5	6.46	8.95	0.86	32	●
330-P+	33.0	6.48	8.71	0.86	33	●
335-P+	33.5	6.51	8.48	0.86	33	●
340-P+	34.0	6.53	8.24	0.86	34	●
345-P+	34.5	6.56	8.01	0.86	34	●

D80-D82

▸ SSC: Seat size code

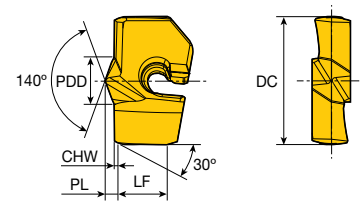
●: Standard items

TaeguTec

LCD...-F

Drill heads for flat bottom hole





Designation	Dimension (mm)						Grade
	DC	PL	LF	CHW	SSC	PDD	TT9080
LCD - 200-F	20.0	2.18	7.63	0.7	20	8.3	●
205-F	20.5	2.18	7.63	0.7	20	8.3	●
210-F	21.0	2.18	7.63	0.7	21	8.3	●
215-F	21.5	2.18	7.63	0.7	21	8.3	●
220-F	22.0	2.38	8.17	0.7	22	9.0	●
225-F	22.5	2.38	8.17	0.7	22	9.0	●
230-F	23.0	2.38	8.17	0.7	23	9.0	●
235-F	23.5	2.38	8.17	0.7	23	9.0	●
240-F	24.0	2.52	8.10	0.7	24	10.0	●
245-F	24.5	2.52	8.10	0.7	24	10.0	●
250-F	25.0	2.52	8.10	0.7	25	10.0	●
255-F	25.5	2.52	8.10	0.7	25	10.0	●
260-F	26.0	2.48	9.84	0.7	26	10.5	●
265-F	26.5	2.48	9.84	0.7	26	10.5	●
270-F	27.0	2.48	9.84	0.7	27	10.5	●
275-F	27.5	2.48	9.84	0.7	27	10.5	●
280-F	28.0	2.72	9.50	0.7	28	11.6	●
285-F	28.5	2.72	9.50	0.7	28	11.6	●
290-F	29.0	2.72	9.50	0.7	29	11.6	●
295-F	29.5	2.72	9.50	0.7	29	11.6	●
300-F	30.0	2.80	11.63	0.7	30	12.4	●
305-F	30.5	2.80	11.63	0.7	30	12.4	●
310-F	31.0	2.80	11.63	0.7	31	12.4	●
315-F	31.5	2.80	11.63	0.7	31	12.4	●
320-F	32.0	3.13	11.59	0.7	32	13.6	●
325-F	32.5	3.13	11.59	0.7	32	13.6	●
330-F	33.0	3.13	11.59	0.7	33	13.6	●
335-F	33.5	3.13	11.59	0.7	33	13.6	●
340-F	34.0	3.13	11.59	0.7	34	13.6	●
345-F	34.5	3.13	11.59	0.7	34	13.6	●
350-F	35.0	3.31	13.20	0.7	35	14.6	●
355-F	35.5	3.31	13.20	0.7	35	14.6	●
360-F	36.0	3.31	13.20	0.7	36	14.6	●
365-F	36.5	3.31	13.20	0.7	36	14.6	●
370-F	37.0	3.31	13.20	0.7	37	14.6	●



D80-D82

▸ SSC: Seat size code

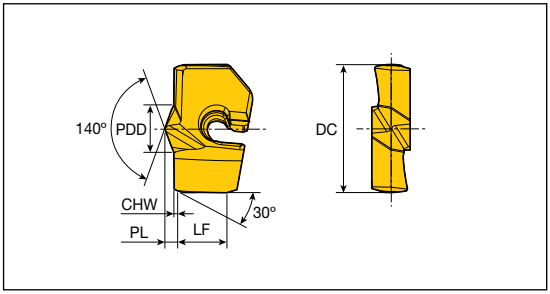
●: Standard items

LCD...-F

SPADERUSH

Drill heads for flat bottom hole





Designation	Dimension (mm)						Grade
	DC	PL	LF	CHW	SSC	PDD	TT9080
LCD - 375-F	37.5	3.31	13.20	0.7	37	14.6	●
380-F	38.0	3.49	13.32	0.7	38	15.9	●
385-F	38.5	3.49	13.32	0.7	38	15.9	●
390-F	39.0	3.49	13.32	0.7	39	15.9	●
395-F	39.5	3.49	13.32	0.7	39	15.9	●
400-F	40.0	3.49	13.32	0.7	40	15.9	●
405-F	40.5	3.49	13.32	0.7	40	15.9	●
410-F	41.0	3.49	13.32	0.7	40	15.9	●



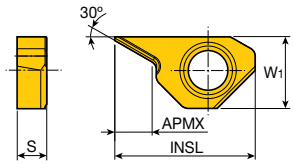
▸ SSC: Seat size code

●: Standard items

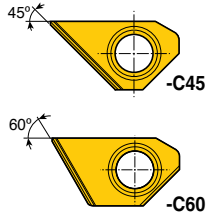
XCGT ...-C

T-CHAMFER

Chamfering inserts for T-CHAMFER holder



-C30



Size	Dimension (mm)			
	W1	INSL	S	APMX
06-C30	6.18	12.3	2.8	3.49
09-C30	8.50	16.0	3.3	4.43
06-C45	6.18	12.3	2.8	5.89
09-C45	8.50	16.0	3.3	8.07
06-C60	6.18	12.3	2.8	3.43
09-C60	8.50	16.0	3.3	4.78

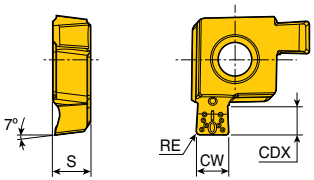
Insert	Designation	Coated						Uncoated
		TT9080	TT9030	TT8020	TT6030	TT9300	TT7400	K10
	**XCGT 0603-C30**	●						
	0903-C30	●						
	**XCGT 0603-C45**	●						
	0903-C45	●						
	**XCGT 0603-C60**	●						
	0903-C60	●						

●: Standard items

XCMT..R-GV

TOPCAP

Inserts



Size	Dimension (mm)			
	CW	CDX	S	RE
05	2.0	1.8	2.27	0.2
06	2.0	2.0	2.62	0.2
07	2.5	2.0	3.42	0.2
08	2.5	2.5	3.50	0.2
10	3.0	3.0	4.37	0.3
13	3.5	3.5	5.24	0.3
17	4.0	4.0	6.06	0.4

• For grooving

Insert	Designation	Coated								Uncoated			
		TT9080	TT8020	TT9300	TT9030	TT6030	TT7400			K10			
	**XCMT 05R-200020GV**	●	●										
	06R-200020GV	●	●										
	07R-250020GV	●	●										
	08R-250020GV	●	●										
	10R-300030GV	●	●										
	13R-350030GV	●	●										
	17R-400040GV	●	●										



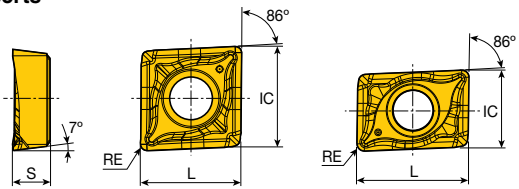
▸ Grooving insert is available only for right handed type

●: Standard items

XCGT...TA

TOPCAP

Inserts



XCGT 0401

Size	Dimension (mm)			
	IC	L	S	RE
04	4.4	6.4	1.70	0.4
05	5.6	5.6	2.10	0.4
06	6.4	6.4	2.38	0.4
07	7.5	7.5	3.18	0.4
08	8.4	8.4	3.18	0.4
10	10.5	10.5	3.97	0.4
13	13.4	13.4	4.76	0.4
17	17.5	17.5	5.56	0.8

• For aluminum alloy

Insert	Designation	Turning		Drilling	Coated						Uncoated		
		ap (mm)	Feed (mm/rev)	Feed (mm/rev)	TT9080	TT8020	TT9300	TT9030	TT6030	TT7400	K10		
 Right-hand shown (XCGT 0401) 	**XCGT 040104R TA**	0.2-1.8	0.02-0.15	0.02-0.09							●		
	040104L TA	0.2-1.8	0.02-0.15	0.02-0.09							●		
	050204 TA	0.2-2.2	0.03-0.18	0.02-0.11							●		
	060204 TA	0.3-2.5	0.03-0.20	0.03-0.12							●		
	070304 TA	0.4-2.8	0.05-0.22	0.03-0.13							●		
	080304 TA	0.4-3.2	0.06-0.25	0.03-0.13							●		
	10T304 TA	0.5-3.5	0.06-0.30	0.03-0.13							●		
	130404 TA	0.6-4.3	0.08-0.33	0.03-0.13							●		
	170508 TA	0.7-5.3	0.10-0.38	0.03-0.13							●		

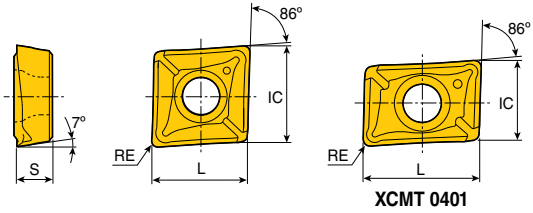


●: Standard items

XCMT...TC

TOPCAP

Inserts



XCMT 0401

Size	Dimension (mm)			
	IC	L	S	RE
04	4.4	6.4	1.70	0.4
05	5.6	5.6	2.10	0.4
06	6.4	6.4	2.38	0.4
07	7.5	7.5	3.18	0.4
08	8.4	8.4	3.18	0.4
10	10.5	10.5	3.97	0.4/0.8
13	13.4	13.4	4.76	0.4/0.8
17	17.4	17.4	5.56	0.8

• For drilling, boring and turning



Right-hand shown
(XCMT 0401)



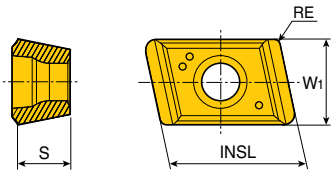
Insert	Designation	Turning		Drilling	Coated						Uncoated
		ap (mm)	Feed (mm/rev)	Feed (mm/rev)	TT9080	TT8020	TT9300	TT9030	TT6030	TT7400	K10
	XCMT 040104R TC	0.2-1.8	0.02-0.15	0.02-0.09	●	●		●			
	040104L TC	0.2-1.8	0.02-0.15	0.02-0.09	●	●		●			
	050204 TC	0.2-2.2	0.03-0.18	0.02-0.11	●	●		●			
	060204 TC	0.3-2.5	0.03-0.20	0.03-0.12	●	●		●			
	070304 TC	0.4-2.8	0.05-0.22	0.03-0.13	●	●		●			
	080304 TC	0.4-3.2	0.06-0.25	0.03-0.13	●	●		●			
	10T304 TC	0.5-3.5	0.06-0.30	0.03-0.13	●	●		●			
	10T308 TC	0.5-3.5	0.06-0.30	0.03-0.13	●	●		●			
	130404 TC	0.6-4.3	0.08-0.33	0.03-0.13	●	●		●			
	130408 TC	0.6-4.3	0.08-0.33	0.03-0.13	●	●		●			
	170508 TC	0.7-5.3	0.10-0.38	0.03-0.13	●	●		●			

●: Standard items

D51-D53

NPHT...R-G-P/R-HF-P

Inserts for TBTA-FB & TRGD3



Size	Dimension (mm)			
	W1	INSL	S	RE
06	6.0	8	3.0	0.4/0.8
08	7.5	10	4.0	0.4/0.8
09	9.0	10	4.0	0.4/0.8
11	11.0	10	4.0	0.4/0.8
13	13.0	10	4.0	0.4/0.8

Insert	Designation	Pocket			Coated							Uncoated
		Center	Inner	Outer	TT9030	TT9130	TT8125	TT7200	TT6130	TT6020	TT5100	TT5030	K10
	**NPHT 060304R-G-P**			●	●				●			●	
	060308R-G-P			●	●	●			●			●	
	060308R-HF-P			●	●	●			●			●	
	080404R-G-P			●	●				●			●	
	080408R-G-P			●	●	●			●			●	
	080408R-HF-P			●	●	●			●			●	
	090404R-G-P			●	●				●			●	
	090408R-G-P			●	●	●			●			●	
	090408R-HF-P			●	●	●			●			●	
	110404R-G-P			●	●				●			●	
	110408R-G-P			●	●	●			●			●	
	110408R-HF-P			●	●	●			●			●	
	130404R-G-P			●	●				●			●	
	130408R-G-P			●	●	●			●			●	
	130404R-HF-P			●	●	●			●			●	

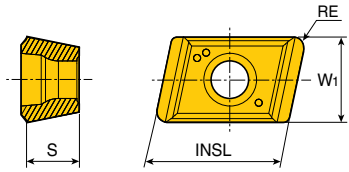
D164-D169 D149

- **-G- : General chipbreaker type
- **-HF-: High feed chipbreaker type

●: Standard items

NPMT...L-G-C/L-HF-C

Inserts for TBTA-FB & TRGD3



Size	Dimension (mm)			
	W1	INSL	S	RE
06	5.5	8	3.0	0.8
07	6.5	10	4.0	0.8
08	8.0	10	4.0	0.8
10	10.0	10	4.0	0.8
13	12.5	10	4.0	0.8

Insert	Designation	Pocket			Coated							Uncoated		
		Center	Inner	Outer	TT9030	TT9130	TT8125	TT7200	TT6130	TT6020	TT5100	TT5030	K10	
	**NPMT 060308L-G-C**	●			●	●	●		●			●		
	060308L-HF-C	●			●	●	●		●			●		
	070408L-G-C	●			●	●	●		●			●		
	070408L-HF-C	●			●	●	●		●			●		
	080408L-G-C	●			●	●	●		●			●		
	080408L-HF-C	●			●	●	●		●			●		
	100408L-G-C	●			●	●	●		●			●		
	100408L-HF-C	●			●	●	●		●			●		
	130408L-G-C	●			●	●	●		●			●		
	130408L-HF-C	●			●	●	●		●			●		

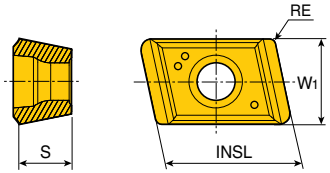


▸ ✱✱-G-✱ : General chipbreaker type
▸ ✱✱-HF-✱: High feed chipbreaker type

●: Standard items

NPMT...R-G-I/R-HF-I

Inserts for TBTA-FB & TRGD3



Size	Dimension (mm)			
	W1	INSL	S	RE
06	5.5	8	3.0	0.4
07	6.5	10	4.0	0.4
08	8.0	10	4.0	0.4
10	10.0	10	4.0	0.4
13	12.5	10	4.0	0.4

Insert	Designation	Pocket			Coated							Uncoated
		Center	Inner	Outer	TT9030	TT9130	TT8125	TT7200	TT6130	TT6020	TT5100	TT5030	K10
	**NPMT 060304R-G-I**		●		●	●	●		●			●	
	060304R-HF-I		●		●	●	●		●			●	
	070404R-G-I		●		●	●	●		●			●	
	070404R-HF-I		●		●	●	●		●			●	
	080404R-G-I		●		●	●	●		●			●	
	080404R-HF-I		●		●	●	●		●			●	
	100404R-G-I		●		●	●	●		●			●	
	100404R-HF-I		●		●	●	●		●			●	
	130404R-G-I		●		●	●	●		●			●	
	130404R-HF-I		●		●	●	●		●			●	

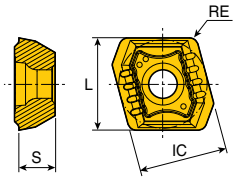


- **-G- : General chipbreaker type
- **-HF-: High feed chipbreaker type

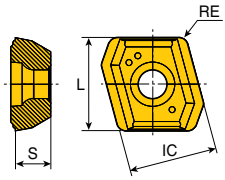
●: Standard items

NPMX...R-B/R-G

Inserts for TBTA...3/5/7



R-B



R-G

Size	Dimension (mm)			
	IC	L	S	RE
08	8.0	8.36	3.18	0.8

Insert	Designation	Pocket			Coated							Uncoated	
		Center	Inner	Outer	TT9030	TT8125	TT7200	TT6130	TT6020	TT5100	TT5030	K10	
	**NPMX 080308R-B**	●	●	●	●	●		●					
	080308R-G	●	●	●	●	●			●	●			

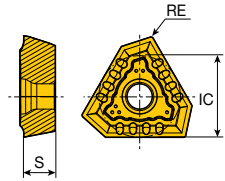


- G: General chipbreaker
- B: Good chip control for heat-resistant alloy

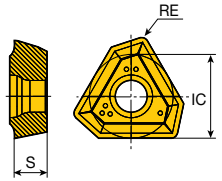
●: Standard items

TPMX...R-B/R-G

Inserts for TBTA...3/5/7 & TBTA-R



R-B



R-G

Size	Dimension (mm)			
	IC	S	RE	
140304 R-B	8.45	3.5	0.4	
140308 R-B/R-G	8.45	3.5	0.8	
170404 R-B	10.30	4.0	0.4	
170408 R-B/R-G	10.30	4.0	0.8	
240504 R-B	14.20	5.5	0.4	
240512 R-B/R-G	14.20	5.5	1.2	
280708 R-B	17.00	7.5	0.8	
280716 R-B/R-G	17.00	7.5	1.6	

Insert	Designation	Pocket			Coated								Uncoated	
		Center	Inner	Outer	TT9030	TT9130	TT8125	TT7200	TT6130	TT6020	TT5100	TT5030	K10	
	**TPMX 140304R-B**	●	●	●	●		●		●					
	140308R-B	●	●	●		●						●		
	140308R-G	●	●	●	●	●	●	●		●	●	●		
	170404R-B	●	●	●	●		●		●					
	170408R-B	●	●	●		●						●		
	170408R-G	●	●	●	●	●	●	●		●	●	●		
	240504R-B	●	●	●	●		●		●					
	240512R-B	●	●	●		●						●		
	240512R-G	●	●	●	●	●	●	●		●	●	●		
	280708R-B	●	●	●	●		●		●					
	280716R-B	●	●	●		●						●		
	280716R-G	●	●	●	●	●	●	●		●	●	●		



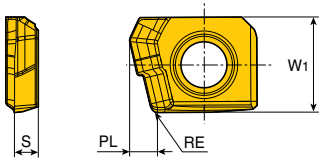


- G: General chipbreaker
- B: Good chip control for heat-resistant alloy

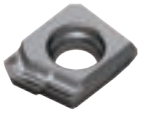
●: Standard items

ZSGT

Inserts for TRGD



Size	Dimension (mm)			
	W1	RE	PL	S
04	4.80	0.4	1.2	1.5
05	5.30	0.4	1.1	1.5
06	6.00	0.4	1.8	1.5

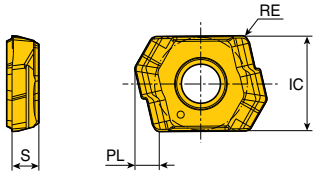
Insert	Designation	Coated							Uncoated		
		TT9030	TT9130	TT8125	TT7200	TT6130	TT6020	TT5100	TT5030	K10	
	**ZSGT 040104 RS**		●								
	050104 RS		●								
	060204 RS		●								

●: Standard items

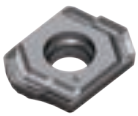
D145-D148

LOGT

Inserts for TRGD / TRGDL



Size	Dimension (mm)			
	IC	RE	PL	S
06	7.00	0.4	1.8	2.0

Insert	Designation	Coated							Uncoated		
		TT9030	TT9130	TT8125	TT7200	TT6130	TT6020	TT5100	TT5030	K10	
	**LOGT 060204 RS**	●	●								

●: Standard items

D145-D152

TOGT…RS/GF

Inserts for TBTA-TR & TRGD

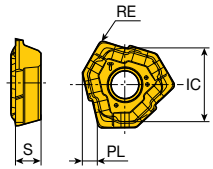


Fig.1

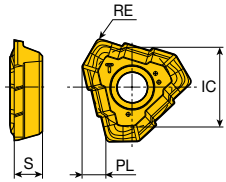


Fig.2

Size	Dimension (mm)			
	IC	PL	S	RE
07	7.69	2.0	2.3	0.4
08	8.32	2.2	2.8	0.5
09	8.55	3.0	3.0	0.5
10	9.23	3.2	3.3	0.5
11	10.40	3.4	3.8	0.5
12	11.59	3.7	4.3	0.5
13	12.85	4.6	4.8	0.8
14	16.85	5.4	5.3	1.0

Insert	Designation	Fig.	Coated						Uncoated	
			TT9030	TT9130	TT7200	TT6130	TT6020	TT5100	TT5030	K10	
	**TOGT 070304 RS**	1	●	●							
	070304 GF	1	●								
	080305 RS	1	●	●							
	080305 GF	1	●								
	090305 RS	2	●	●							
	090305 GF	2	●								
	100305 RS	2	●	●							
	100305 GF	2	●								
	110405 RS	2	●	●							
	110405 GF	2	●								
	120405 RS	2	●	●							
	120405 GF	2	●								
	130408 RS	2	●								
	130408 GF	2	●								
	140510 RS	2	●								

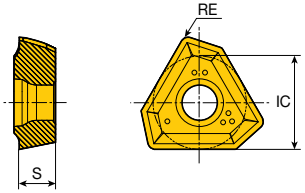


- RS: First choice for general purpose
- GF: Exotic materials

●: Standard items

TPMX...LG

Inserts for TBTA-R



Size	Dimension (mm)			
	IC	S	RE	
14	8.45	3.5	0.8	
17	10.30	4.0	0.8	
24	14.20	5.5	1.2	

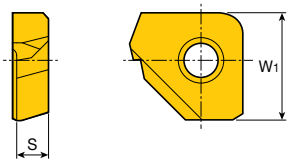
Insert	Designation	Pocket			Coated							Uncoated		
		Center	Inner	Outer	TT9030	TT9130	TT8125	TT7200	TT6130	TT6020	TT5100	TT5030	K10	
	**TPMX 140308 LG**			●	●							●		
	170408 LG			●	●	●				●		●		
	240512 LG			●	●	●				●		●		

●: Standard items

D170-D175

XPMT...-45

Inserts for TBTA-R



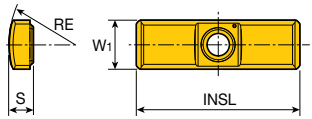
Size	Dimension (mm)			
	W1	S		
16	9.5	2.70		

Insert	Designation	Pocket			Coated							Uncoated		
		Center	Inner	Outer	TT9030	TT8125	TT7100	TT3500	TT6020	TT9300	TT7400	K10		
	**XPMT 16002-45**			●	●									

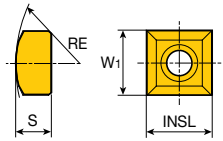
●: Standard items

D170-D175

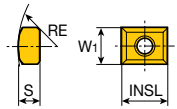
Pad for TBTA 3.../5.../7...



Guide pad



Guide pad protector



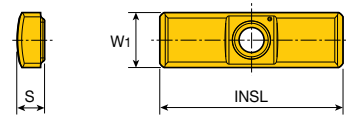
Sub guide pad

Designation		Dimension (mm)				Screw
		W1	S	INSL	RE	
Guide pad	**PAD - GP08-25-155-DC-SB**	8	4.5	25	15.5	CSTB-3S
	GP08-25-155-DC-SC	8	4.5	25	15.5	CSTB-3S
	GP10-35-200-DC-SB	10	6.0	35	20.0	CSTB-4S
	GP10-35-200-DC-SC	10	6.0	35	20.0	CSTB-4S
	GP14-40-250-DC-SB/SC	14	7.5	40	25.0	CSTA-5S
	GP18-40-300-DC-SB/SC	18	9.0	40	30.0	LS1206S
Guide pad protector	**PAD - P08**	8	4.5	8	17.5	CSTB-3S
	P10	10	6.0	10	20.0	CSTB-4S
	P14	14	7.5	14	25.0	CSTA-5S
	P18	18	9.0	18	30.0	LS1206S
Sub guide pad	**PAD - S08**	8	4.5	10	17.5	CSTB-3S
	S10	10	5.0	10	29.0	CSTB-3S
	S14	14	7.0	20	45.0	CSTA-5S

D153-D163

Plus Guide Pad for TBTA 3.../5.../7...





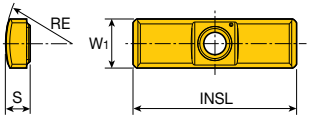
• Plus guide pad for diameter enlargement

Designation								
DC	PAD-GC08	S	PAD-GC10	S	PAD-GC14	S	PAD-GC18	S
DC+1mm	**PAD-GC08-DC+1**	5.0	**PAD-GC10-DC+1**	6.5	**PAD-GC14-DC+1**	8.0	**PAD-GC18-DC+1**	9.5
DC+2mm	**PAD-GC08-DC+2**	5.5	**PAD-GC10-DC+2**	7.0	**PAD-GC14-DC+2**	8.5	**PAD-GC18-DC+2**	10.0
DC+3mm	**PAD-GC08-DC+3**	6.0	**PAD-GC10-DC+3**	7.5	**PAD-GC14-DC+3**	9.0	**PAD-GC18-DC+3**	10.5
DC+4mm	-	-	**PAD-GC10-DC+4**	8.0	**PAD-GC14-DC+4**	9.5	**PAD-GC18-DC+4**	11.0
DC+5mm	-	-	-	-	**PAD-GC14-DC+5**	10.0	**PAD-GC18-DC+5**	11.5

D153-D163

Pad for TBTA-FB





Guide pad

Designation		Dimension (mm)				Screw
		W1	S	INSL	RE	
Guide pad	**PAD - GP06-20-120-DC-SB**	6	3.0	20	12.0	CSTB-2.2S
	GP06-20-120-DC-SC	6	3.0	20	12.0	CSTB-2.2S
	GP07-20-120-DC-SB	7	3.5	20	12.0	CSTB-3S
	GP07-20-120-DC-SC	7	3.5	20	12.0	CSTB-3S
	GP08-25-155-DC-SB	8	4.5	25	15.5	CSTB-3S
	GP08-25-155-DC-SC	8	4.5	25	15.5	CSTB-3S
	GP10-30-200-DC-SB	10	4.5	30	20.0	CSTB-3.5
	GP10-30-200-DC-SC	10	4.5	30	20.0	CSTB-3.5
	GP12-35-250-DC-SB	12	5.5	35	25.0	CSTB-3.5
	GP12-35-250-DC-SC	12	5.5	35	25.0	CSTB-3.5

D164-D169

Pad for TBTA-TR & TRGD, TRGD3, TRGDL

Solid carbide guide pads

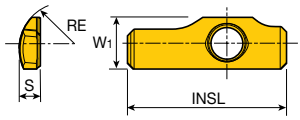


Fig.1

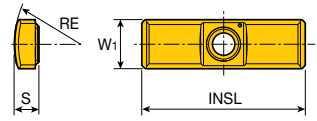


Fig.2

Designation		Fig.	Dimension (mm)				Screw
			W_1	S	INSL	RE	
Guide pad	**PAD - SGP03-12-035-DC-SB**	1	3.9	1.6	12	3.5	CSPB-2FL2.7-LH
	SGP03-12-040-DC-SB	1	3.9	1.6	12	4.0	CSPB-2FL3.1
	GP04-16-045-DC-SB	2	4	1.8	16	4.5	CSTB-2
	GP04-16-050-DC-SB	2	4	1.8	16	5.0	CSTB-2
	GP04-16-055-DC-SB	2	4	2.0	16	5.5	TS 20043I/HG-P
	GP04-16-055-DC-SC	2	4	2.0	16	5.5	TS 20043I/HG-P
	GP05-18-060-DC-SB	2	5	2.5	18	6.0	SR34-508
	GP05-18-060-DC-SC	2	5	2.5	18	6.0	SR34-508
	GP05-18-075-DC-SB	2	5	2.5	18	7.5	SR34-508
	GP05-18-075-DC-SC	2	5	2.5	18	7.5	SR34-508
	GP06-20-085-DC-SB	2	6	3.0	20	8.5	SR34-508
	GP06-20-085-DC-SC	2	6	3.0	20	8.5	SR34-508
	GP06-20-100-DC-SB	2	6	3.0	20	10.0	SR34-508
	GP06-20-100-DC-SC	2	6	3.0	20	10.0	SR34-508
	GP06-20-120-DC-SB	2	6	3.0	20	12.0	SR34-508
	GP06-20-120-DC-SC	2	6	3.0	20	12.0	SR34-508
	GP07-20-120-DC-SB	2	7	3.5	20	12.0	CSTB-3S
	GP07-20-120-DC-SC	2	7	3.5	20	12.0	CSTB-3S
	GP08-25-155-DC-SB	2	8	4.5	25	15.5	CSTB-3S
	GP08-25-155-DC-SC	2	8	4.5	25	15.5	CSTB-3S



D176-D179 D145-D152

- SB: First choice for general purpose
- SC: First choice when using water-soluble coolant

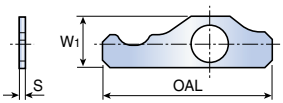
ADVANCE CUTTING
TaeguTec

Pad for TBTA-TR & TRGD, TRGD3, TRGDL

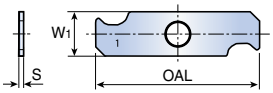
Shim thickness:

There are numbers marked on each shim: 1-5.
The number on the shim indicates the shim's thickness.
1=0.01 mm, 2=0.02 mm, 3=0.03 mm
4=0.04 mm, 5=0.05 mm

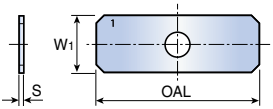




SHIMSET-SGP03



SHIMSET-GP04
SHIMSET-GP05

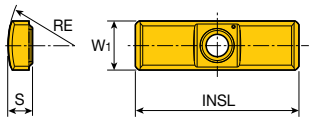


SHIMSET-GP06

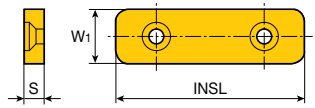
Item #	Designation	W1 (mm)	OAL (mm)	S (mm)	Applicable guide pad size
6285255	**SHIMSET-SGP03**	3.45	11.4	0.01-0.05	PAD-SGP03
6285255	**SHIMSET-GP03**	4	16	0.01-0.05	PAD-GP04
6285255	**SHIMSET-GP05** Fig.1	5	18	0.01-0.05	PAD-GP05
6285255	**SHIMSET-GP06**	6	20	0.01-0.05	PAD-GP06

- The shim set consists of five shims in different thickness: 0.01, 0.02, 0.03, 0.04, 0.05 mm
- Shims are sold by set only, and are not to be sold separately

Pad for TBTA-R



Guide pad



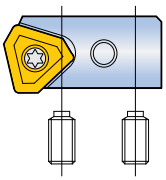
Resin guide pad

Designation		Dimension (mm)				Screw
		W_1	S	INSL	RE	
Guide pad	**PAD - GP08-25-155-DC-SB**	8	4.5	25	15.5	CSTB-3S
	GP08-25-155-DC-SC	8	4.5	25	15.5	CSTB-3S
	GP10-35-200-DC-SB	10	6.0	35	20.0	CSTB-4S
	GP10-35-200-DC-SC	10	6.0	35	20.0	CSTB-4S
	GP14-40-250-DC-SB	14	7.5	40	25.0	CSTA-5S
	GP14-40-250-DC-SC	14	7.5	40	25.0	CSTA-5S
	GP18-40-300-DC-SB	18	9.0	40	30.0	LS1206S
	GP18-40-300-DC-SC	18	9.0	40	30.0	LS1206S
Resin guide pad	**PAD - R10**	10	4.0	40	-	LS0902.5-6
	R12	12	5.0	45	-	LS0903-8
	R15	15	5.8	50	-	LS0904-10
	R20	20	7.5	70	-	LS0905-12
	R30	30	12.5	80	-	LS0906-15
	R35	35	15.5	100	-	LS0906-15

D170-D175

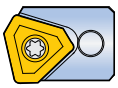
Cartridge for TBTA 3.../5.../7...





Peripheral





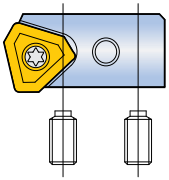
Intermediate & Central

Designation		Adjust screw	Wrench	Lock screw	Wrench	Insert
Peripheral	**PERC 05R**	AS0003-5	H1.5	LS1803RH	H2	NPMX0803..
	402-04	AS0004-8	H2	LS1803.5RH	H2.5	TPMX1403..
	402-32	AS0005-10	H2.5	LS1805RH	H3	TPMX1704..
	402-43	AS0005-15	H2.5	LS1806RH	H4	TPMX2405..
	402-63	AS0006-15	H3	LS1806RH	H4	TPMX2807..
Intermediate & central	**CENC 05R**	-	-	CSTB-3	T9	NPMX0803..
	402-04	-	-	CSTB-3.5	T15	TPMX1403..
	402-32	-	-	CSTA-5	T15	TPMX1704..
	402-43	-	-	LS1206	H3	TPMX2405..
	402-63	-	-	LS1206	H3	TPMX2807..


D153-D163

Plus Cartridge for TBTA 3.../5.../7...



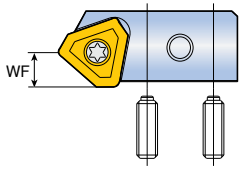


• Plus cartridge for diameter enlargement

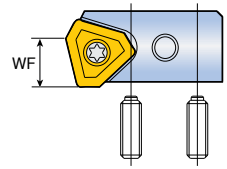
Designation					
DC	DC+1mm	DC+2mm	DC+3mm	DC+4mm	DC+5mm
PERC 05R	**PERC 05R+1**	**PERC 05R+2**	-	-	-
PERC 402-04	**PERC 402-04+1**	**PERC 402-04+2**	**PERC 402-04+3**	-	-
PERC 402-32	**PERC 402-32+1**	**PERC 402-32+2**	**PERC 402-32+3**	**PERC 402-32+4**	-
PERC 402-43	**PERC 402-43+1**	**PERC 402-43+2**	**PERC 402-43+3**	**PERC 402-43+4**	**PERC 402-43+5**
PERC 402-63	**PERC 402-63+1**	**PERC 402-63+2**	**PERC 402-63+3**	**PERC 402-63+4**	**PERC 402-63+5**


D153-D163

Cartridge for TBTA-R



Accurate tolerance applications



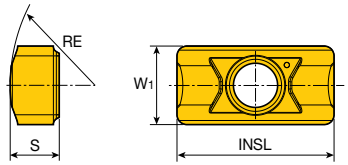
Open tolerance applications

Designation		WF (mm)	Adjust screw	Wrench	Lock screw	Wrench	Insert
Accurate tolerance applications	**PERC P04R**	5	AS0004-8	H2	LS1803.5RH	H2.5	TPMX1403..LG
	P32R	6	AS0005-10	H2.5	LS1805RH	H3	TPMX1704..LG
	P43R	8	AS0005-15	H2.5	LS1806RH	H4	TPMX2405..LG
Open tolerance applications	**PERC 402-04**	8	AS0004-8	H2	LS1803.5RH	H2.5	TPMX1403..RG
	402-32	9	AS0005-10	H2.5	LS1805RH	H3	TPMX1704..RG
	402-43	13	AS0005-15	H2.5	LS1806RH	H4	TPMX2405..RG

D170-D175

▸ PERC P□□□ and PERC 402-□□ cartridges are interchangable in the same pocket

Guide pad for TNDH-TP



Designation	Dimension (mm)				Screw	Grade
	W1	S	INSL	RE		TT9030
PAD-G04-08	4	2.5	8	9	TS 20043I/HG-P	●

D75-D76

▸ Guide pad is sold separately from drill heads

●: Standard items

Recommended Cutting Conditions

TOP DRILL

Machining data for TOP-DRILL 2,3,4xD

ISO	Material		Condition	Tensile strength (N/mm^2)	Hardness HB	Material No.	Cutting speed Vc (m/min)
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	220-350
		>=0.25%C	Annealed	650	190	2	180-280
		<0.55%C	Quenched and tempered	850	250	3	140-240
		>=0.55%C	Annealed	750	220	4	140-240
			Quenched and tempered	1000	300	5	140-240
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	140-240
			Quenched and tempered	930	275	7	100-180
				1000	300	8	100-180
				1200	350	9	100-180
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	140-200
			Quenched and tempered	1100	325	11	100-160
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	150-250
			Martensitic	820	240	13	150-250
			Austenitic	600	180	14	150-250
K	Gray cast iron (GG)		Ferritic		160	15	160-260
			Pearlitic		250	16	160-260
	Cast iron nodular (GGG)		Ferritic		180	17	160-260
			Pearlitic		260	18	160-260
	Malleable cast iron		Ferritic		130	19	120-220
			Pearlitic		230	20	120-220
N	Aluminum - Wrought alloy		Not cureable		60	21	200-350
			Cured		100	22	200-350
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	200-350
			Cured		90	24	200-350
		>12% Si	High temp.		130	25	200-350
	Copper alloys	>1% Pb	Free cutting		110	26	150-250
			Brass		90	27	150-250
			Electrolitic copper		100	28	150-250
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29	150-250
			Hard rubber		55 Shore D	30	150-250
S	High temp. alloys	Fe based	Annealed		200	31	30-60
			Cured		280	32	30-60
		Ni or Co based	Annealed		250	33	30-60
			Cured		350	34	30-60
			Cast		320	35	30-60
	Titanium,Ti alloys		Pure	Rm 400	190	36	50-80
			Alpha+beta alloys cured	Rm 1050	310	37	50-80
H	Hardened steel		Hardened		55HRC	38	30-60
			Hardened		60HRC	39	30-60
	Chilled cast iron		Cast		400	40	30-60
	Cast iron nodular		Hardened		55HRC	41	30-60

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

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

Recommended Cutting Conditions

TOP-DRILL

Machining data for TOP-DRILL 2,3,4xD

Feed (mm/rev) vs. drill diameter Drill length 2,3,4xD								
SOMT 04 Ø12 - Ø13.5	SOMT 05 Ø14 - Ø16	SOMT 06 Ø17 - Ø19	SOMT 07 Ø20 - Ø22	SOMT 08 Ø23 - Ø26	SOMT 09 Ø27 - Ø31	SOMT 11 Ø32 - Ø36	SOMT 13 Ø37 - Ø43	SOMT 15 Ø44 - Ø50
0.04-0.06	0.04-0.06	0.04-0.06	0.04-0.08	0.04-0.08	0.06-0.10	0.06-0.10	0.08-0.12	0.08-0.12
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.12	0.06-0.12	0.08-0.14	0.08-0.14	0.08-0.16	0.10-0.16
0.08-0.12	0.08-0.12	0.08-0.12	0.08-0.16	0.08-0.16	0.10-0.16	0.10-0.16	0.10-0.18	0.10-0.18
0.08-0.12	0.08-0.12	0.08-0.12	0.08-0.16	0.08-0.16	0.10-0.16	0.10-0.16	0.10-0.18	0.10-0.18
0.08-0.12	0.08-0.12	0.08-0.12	0.08-0.16	0.08-0.16	0.10-0.16	0.10-0.16	0.10-0.18	0.10-0.18
0.06-0.16	0.06-0.16	0.06-0.16	0.08-0.20	0.08-0.20	0.08-0.20	0.10-0.22	0.10-0.22	0.10-0.24
0.06-0.16	0.06-0.16	0.06-0.16	0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.22	0.10-0.22	0.10-0.22
0.06-0.16	0.06-0.16	0.06-0.16	0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.22	0.10-0.22	0.10-0.22
0.06-0.16	0.06-0.16	0.06-0.16	0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.22	0.10-0.22	0.10-0.22
0.06-0.12	0.06-0.12	0.06-0.12	0.08-0.16	0.08-0.16	0.08-0.18	0.08-0.20	0.10-0.20	0.10-0.20
0.06-0.12	0.06-0.12	0.06-0.12	0.08-0.16	0.08-0.16	0.08-0.18	0.08-0.20	0.10-0.20	0.10-0.20
0.06-0.12	0.06-0.12	0.06-0.12	0.06-0.16	0.06-0.16	0.08-0.18	0.08-0.20	0.10-0.20	0.10-0.20
0.06-0.12	0.06-0.12	0.06-0.12	0.06-0.16	0.06-0.16	0.08-0.18	0.08-0.20	0.10-0.20	0.10-0.20
0.06-0.12	0.06-0.12	0.06-0.12	0.06-0.16	0.06-0.16	0.08-0.18	0.08-0.20	0.10-0.20	0.10-0.20
0.08-0.18	0.08-0.18	0.08-0.18	0.10-0.20	0.10-0.20	0.10-0.20	0.10-0.20	0.10-0.22	0.10-0.22
0.08-0.18	0.08-0.18	0.08-0.18	0.10-0.20	0.10-0.20	0.10-0.20	0.10-0.20	0.10-0.22	0.10-0.22
0.08-0.18	0.08-0.18	0.08-0.18	0.10-0.20	0.10-0.20	0.10-0.20	0.10-0.20	0.10-0.22	0.10-0.22
0.08-0.18	0.08-0.18	0.08-0.18	0.10-0.20	0.10-0.20	0.10-0.20	0.10-0.20	0.10-0.22	0.10-0.22
0.08-0.14	0.08-0.14	0.08-0.14	0.10-0.16	0.10-0.16	0.10-0.16	0.10-0.18	0.10-0.18	0.10-0.18
0.08-0.14	0.08-0.14	0.08-0.14	0.10-0.16	0.10-0.16	0.10-0.16	0.10-0.18	0.10-0.18	0.10-0.18
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.08-0.18	0.08-0.18	0.10-0.18	0.10-0.18
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.08-0.18	0.08-0.18	0.10-0.18	0.10-0.18
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.08-0.18	0.08-0.18	0.10-0.18	0.10-0.18
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.08-0.18	0.08-0.18	0.10-0.18	0.10-0.18
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.08-0.18	0.08-0.18	0.10-0.18	0.10-0.18
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.17	0.10-0.18	0.10-0.18
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.17	0.10-0.18	0.10-0.18
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.17	0.10-0.18	0.10-0.18
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.10-0.17	0.10-0.17	0.10-0.18	0.10-0.18
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.10-0.17	0.10-0.17	0.10-0.18	0.10-0.18
0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.06-0.10	0.06-0.10	0.06-0.12	0.06-0.12
0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.06-0.10	0.06-0.10	0.06-0.12	0.06-0.12
0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.06-0.10	0.06-0.10	0.06-0.12	0.06-0.12
0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.06-0.10	0.06-0.10	0.06-0.12	0.06-0.12
0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.06-0.10	0.06-0.10	0.06-0.12	0.06-0.12
0.06-0.09	0.06-0.09	0.06-0.09	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.06-0.09	0.06-0.09	0.06-0.09	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.05-0.09	0.05-0.09	0.05-0.09	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10
0.05-0.09	0.05-0.09	0.05-0.09	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10
0.05-0.09	0.05-0.09	0.05-0.09	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10
0.05-0.09	0.05-0.09	0.05-0.09	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10

Recommended Cutting Conditions

TOP DRILL

Machining data for TOP-DRILL 5xD

ISO	Material		Condition	Tensile strength (N/mm^2)	Hardness HB	Material No.	Cutting speed Vc (m/min)
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	220-350
		>=0.25%C	Annealed	650	190	2	180-280
		<0.55%C	Quenched and tempered	850	250	3	140-240
		>=0.55%C	Annealed	750	220	4	140-240
			Quenched and tempered	1000	300	5	140-240
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	140-240
			Quenched and tempered	930	275	7	100-180
				1000	300	8	100-180
				1200	350	9	100-180
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	140-200
			Quenched and tempered	1100	325	11	100-160
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	150-250
			Martensitic	820	240	13	150-250
			Austenitic	600	180	14	150-250
K	Gray cast iron (GG)		Ferritic		160	15	160-260
			Pearlitic		250	16	160-260
	Cast iron nodular (GGG)		Ferritic		180	17	160-260
			Pearlitic		260	18	160-260
	Malleable cast iron		Ferritic		130	19	120-220
			Pearlitic		230	20	120-220
N	Aluminum - Wrought alloy		Not cureable		60	21	200-350
			Cured		100	22	200-350
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	200-350
			Cured		90	24	200-350
		>12% Si	High temp.		130	25	200-350
	Copper alloys	>1% Pb	Free cutting		110	26	150-250
			Brass		90	27	150-250
			Electrolitic copper		100	28	150-250
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29	150-250
			Hard rubber		55 Shore D	30	150-250
S	High temp. alloys	Fe based	Annealed		200	31	30-60
			Cured		280	32	30-60
		Ni or Co based	Annealed		250	33	30-60
			Cured		350	34	30-60
			Cast		320	35	30-60
	Titanium, Ti alloys		Pure	Rm 400	190	36	50-80
			Alpha+beta alloys cured	Rm 1050	310	37	50-80
H	Hardened steel		Hardened		55HRC	38	30-60
			Hardened		60HRC	39	30-60
	Chilled cast iron		Cast		400	40	30-60
	Cast iron nodular		Hardened		55HRC	41	30-60

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

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

Recommended Cutting Conditions

TOP-DRILL

Machining data for TOP-DRILL 5xD

Feed (mm/rev) vs. drill diameter Drill length 5xD								
SOMT 04 Ø12 - Ø13.5	SOMT 05 Ø14 - Ø16	SOMT 06 Ø17 - Ø19	SOMT 07 Ø20 - Ø22	SOMT 08 Ø23 - Ø26	SOMT 09 Ø27 - Ø31	SOMT 11 Ø32 - Ø36	SOMT 13 Ø37 - Ø43	SOMT 15 Ø44 - Ø50
0.04-0.05	0.04-0.05	0.04-0.05	0.04-0.05	0.04-0.06	0.06-0.08	0.06-0.08	0.08-0.10	0.08-0.10
0.06-0.08	0.06-0.08	0.06-0.08	0.06-0.10	0.06-0.10	0.08-0.12	0.08-0.12	0.08-0.14	0.10-0.14
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.12	0.06-0.12	0.10-0.15	0.10-0.15	0.10-0.17	0.10-0.17
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.12	0.06-0.12	0.10-0.15	0.10-0.15	0.10-0.17	0.10-0.17
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.12	0.06-0.12	0.10-0.15	0.10-0.15	0.10-0.17	0.10-0.17
0.06-0.12	0.06-0.12	0.06-0.12	0.08-0.16	0.08-0.16	0.08-0.18	0.10-0.20	0.10-0.20	0.10-0.22
0.06-0.12	0.06-0.12	0.06-0.12	0.08-0.16	0.08-0.16	0.08-0.18	0.10-0.20	0.10-0.20	0.10-0.22
0.06-0.12	0.06-0.12	0.06-0.12	0.08-0.16	0.08-0.16	0.08-0.18	0.10-0.20	0.10-0.20	0.10-0.22
0.06-0.12	0.06-0.12	0.06-0.12	0.08-0.16	0.08-0.16	0.08-0.18	0.10-0.20	0.10-0.20	0.10-0.22
0.06-0.10	0.06-0.10	0.06-0.10	0.08-0.12	0.08-0.12	0.08-0.16	0.08-0.18	0.10-0.18	0.10-0.20
0.06-0.10	0.06-0.10	0.06-0.10	0.08-0.12	0.08-0.12	0.08-0.16	0.08-0.18	0.10-0.18	0.10-0.20
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.12	0.06-0.12	0.08-0.16	0.08-0.18	0.10-0.18	0.10-0.20
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.12	0.06-0.12	0.08-0.16	0.08-0.18	0.10-0.18	0.10-0.20
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.12	0.06-0.12	0.08-0.16	0.08-0.18	0.10-0.18	0.10-0.20
0.08-0.14	0.08-0.14	0.08-0.14	0.08-0.16	0.08-0.16	0.10-0.18	0.10-0.18	0.10-0.20	0.10-0.20
0.08-0.14	0.08-0.14	0.08-0.14	0.08-0.16	0.08-0.16	0.10-0.18	0.10-0.18	0.10-0.20	0.10-0.20
0.08-0.14	0.08-0.14	0.08-0.14	0.08-0.16	0.08-0.16	0.10-0.18	0.10-0.18	0.10-0.20	0.10-0.20
0.08-0.14	0.08-0.14	0.08-0.14	0.08-0.16	0.08-0.16	0.10-0.18	0.10-0.18	0.10-0.20	0.10-0.20
0.08-0.12	0.08-0.12	0.08-0.14	0.08-0.16	0.08-0.16	0.10-0.16	0.10-0.16	0.10-0.16	0.10-0.16
0.08-0.12	0.08-0.12	0.08-0.14	0.08-0.16	0.08-0.16	0.10-0.16	0.10-0.16	0.10-0.16	0.10-0.16
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.16	0.10-0.17	0.10-0.17
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.16	0.10-0.17	0.10-0.17
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.16	0.10-0.17	0.10-0.17
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.16	0.10-0.17	0.10-0.17
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.16	0.10-0.17	0.10-0.17
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.08-0.15	0.08-0.16	0.10-0.17	0.10-0.17
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.08-0.15	0.08-0.16	0.10-0.17	0.10-0.17
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.08-0.15	0.08-0.16	0.10-0.17	0.10-0.17
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.10-0.16	0.10-0.16	0.10-0.17	0.10-0.17
0.06-0.15	0.06-0.15	0.06-0.15	0.08-0.16	0.08-0.16	0.10-0.16	0.10-0.16	0.10-0.17	0.10-0.17
0.05-0.07	0.05-0.07	0.05-0.08	0.05-0.08	0.05-0.08	0.06-0.09	0.06-0.09	0.06-0.10	0.06-0.10
0.05-0.07	0.05-0.07	0.05-0.08	0.05-0.08	0.05-0.08	0.06-0.09	0.06-0.09	0.06-0.10	0.06-0.10
0.05-0.07	0.05-0.07	0.05-0.08	0.05-0.08	0.05-0.08	0.06-0.09	0.06-0.09	0.06-0.10	0.06-0.10
0.05-0.07	0.05-0.07	0.05-0.08	0.05-0.08	0.05-0.08	0.06-0.09	0.06-0.09	0.06-0.10	0.06-0.10
0.05-0.07	0.05-0.07	0.05-0.08	0.05-0.08	0.05-0.08	0.06-0.09	0.06-0.09	0.06-0.10	0.06-0.10
0.05-0.08	0.05-0.08	0.05-0.08	0.06-0.09	0.06-0.09	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.05-0.08	0.05-0.08	0.05-0.08	0.06-0.09	0.06-0.09	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10
0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10
0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10
0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10

Recommended Cutting Conditions

TOP DRILL

Machining data for TOP-DRILL cartridge

ISO	Material		Condition	Tensile strength (N/mm^2)	Hardness HB	Material No.	Cutting speed Vc (m/min)
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	250-350
		>=0.25%C	Annealed	650	190	2	160-250
		<0.55%C	Quenched and tempered	850	250	3	140-240
		>=0.55%C	Annealed	750	220	4	140-240
			Quenched and tempered	1000	300	5	140-240
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	140-240
			Quenched and tempered	930	275	7	100-180
				1000	300	8	100-180
				1200	350	9	100-180
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	140-200
			Quenched and tempered	1100	325	11	100-160
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	150-250
			Martensitic	820	240	13	150-250
			Austenitic	600	180	14	150-250
K	Gray cast iron (GG)		Ferritic		160	15	160-260
			Pearlitic		250	16	160-260
	Cast iron nodular (GGG)		Ferritic		180	17	160-260
			Pearlitic		260	18	160-260
	Malleable cast iron		Ferritic		130	19	120-220
			Pearlitic		230	20	120-220
N	Aluminum - Wrought alloy		Not cureable		60	21	200-350
			Cured		100	22	200-350
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	200-350
			Cured		90	24	200-350
		>12% Si	High temp.		130	25	200-350
	Copper alloys	>1% Pb	Free cutting		110	26	150-250
			Brass		90	27	150-250
			Electrolitic copper		100	28	150-250
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29	150-250
			Hard rubber		55 Shore D	30	150-250
S	High temp. alloys	Fe based	Annealed		200	31	30-60
			Cured		280	32	30-60
		Ni or Co based	Annealed		250	33	30-60
			Cured		350	34	30-60
			Cast		320	35	30-60
	Titanium, Ti alloys		Pure	Rm 400	190	36	50-80
			Alpha+beta alloys cured	Rm 1050	310	37	50-80
H	Hardened steel		Hardened		55HRC	38	30-60
			Hardened		60HRC	39	30-60
	Chilled cast iron		Cast		400	40	30-60
	Cast iron nodular		Hardened		55HRC	41	30-60

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

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

Recommended Cutting Conditions

TOP-DRILL

Machining data for TOP-DRILL cartridge

Feed (mm/rev) vs. drill diameter Drill length 2,3,4xD					
SOMT 09 Ø51 - Ø55	SOMT 11 Ø56 - Ø60	SOMT 11 Ø61 - Ø65	SOMT 11 Ø66 - Ø70	SOMT 13 Ø71 - Ø75	SOMT 13 Ø76 - Ø80
0.06-0.12	0.06-0.12	0.06-0.12	0.06-0.12	0.06-0.12	0.06-0.12
0.06-0.16	0.06-0.16	0.06-0.16	0.06-0.16	0.06-0.16	0.06-0.16
0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18
0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18
0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18
0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.20
0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.20
0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.20
0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.20
0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.20	0.08-0.20
0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18
0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18
0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18
0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18
0.10-0.22	0.10-0.22	0.10-0.22	0.10-0.22	0.10-0.22	0.10-0.22
0.10-0.22	0.10-0.22	0.10-0.22	0.10-0.22	0.10-0.22	0.10-0.22
0.10-0.22	0.10-0.22	0.10-0.22	0.10-0.22	0.10-0.22	0.10-0.22
0.10-0.22	0.10-0.22	0.10-0.22	0.10-0.22	0.10-0.22	0.10-0.22
0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18
0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18
0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18
0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18
0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18
0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18
0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18
0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18
0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18
0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18
0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18
0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18
0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10
0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10
0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10
0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10

Recommended Cutting Conditions

T-DRILL

Machining data for T-DRILL 2,3,4xD

ISO	Material		Condition	Tensile strength (N/mm^2)	Hardness HB	Material No.	Cutting speed Vc (m/min)
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	250-350
		>=0.25%C	Annealed	650	190	2	180-250
		<0.55%C	Quenched and tempered	850	250	3	160-220
		>=0.55%C	Annealed	750	220	4	160-220
			Quenched and tempered	1000	300	5	160-220
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	150-220
			Quenched and tempered	930	275	7	120-160
				1000	300	8	120-160
				1200	350	9	120-160
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	140-180
			Quenched and tempered	1100	325	11	130-180
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	170-240
			Martensitic	820	240	13	170-240
			Austenitic	600	180	14	170-240
K	Gray cast iron (GG)		Ferritic		160	15	180-250
			Pearlitic		250	16	180-250
	Cast iron nodular (GGG)		Ferritic		180	17	180-250
			Pearlitic		260	18	180-250
	Malleable cast iron		Ferritic		130	19	130-200
			Pearlitic		230	20	130-200
N	Aluminum - Wrought alloy		Not cureable		60	21	330-380
			Cured		100	22	330-380
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	330-380
			Cured		90	24	330-380
		>12% Si	High temp.		130	25	330-380
	Copper alloys	>1% Pb	Free cutting		110	26	150-230
			Brass		90	27	150-230
			Electrolitic copper		100	28	150-230
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29	150-230
			Hard rubber		55 Shore D	30	150-230
S	High temp. alloys	Fe based	Annealed		200	31	30-60
			Cured		280	32	30-60
		Ni or Co based	Annealed		250	33	30-60
			Cured		350	34	30-60
			Cast		320	35	30-60
	Titanium, Ti alloys		Pure	Rm 400	190	36	30-60
			Alpha+beta alloys cured	Rm 1050	310	37	30-60
H	Hardened steel		Hardened		55HRC	38	30-60
			Hardened		60HRC	39	30-60
	Chilled cast iron		Cast		400	40	30-60
	Cast iron nodular		Hardened		55HRC	41	30-60

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

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

Recommended Cutting Conditions

Machining data for T-DRILL 2,3,4xD

Feed (mm/rev) vs. drill diameter Drill length 2,3,4xD					
SPMG 05 Ø12.5 - Ø15	SPMG 06 Ø16 - Ø21	SPMG 07 Ø22 - Ø27	SPMG 09 Ø28 - Ø33	SPMG 11 Ø34 - Ø41	SPMG 14 Ø42 - Ø50
0.04-0.06	0.04-0.06	0.04-0.08	0.04-0.08	0.06-0.10	0.06-0.12
0.05-0.08	0.06-0.10	0.06-0.12	0.07-0.13	0.08-0.15	0.08-0.16
0.06-0.12	0.08-0.15	0.10-0.18	0.12-0.22	0.12-0.24	0.13-0.25
0.06-0.12	0.08-0.15	0.10-0.18	0.12-0.22	0.12-0.24	0.13-0.25
0.06-0.12	0.08-0.15	0.10-0.18	0.12-0.22	0.12-0.24	0.13-0.25
0.06-0.12	0.08-0.14	0.10-0.18	0.12-0.20	0.12-0.20	0.13-0.20
0.06-0.15	0.06-0.15	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18
0.06-0.15	0.06-0.15	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18
0.06-0.15	0.06-0.15	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18
0.06-0.10	0.06-0.10	0.08-0.12	0.08-0.14	0.08-0.14	0.08-0.14
0.06-0.10	0.08-0.12	0.10-0.15	0.12-0.15	0.12-0.18	0.13-0.18
0.05-0.10	0.06-0.12	0.08-0.15	0.09-0.16	0.10-0.17	0.11-0.18
0.05-0.10	0.06-0.12	0.08-0.15	0.09-0.16	0.10-0.17	0.11-0.18
0.05-0.10	0.06-0.12	0.08-0.15	0.09-0.16	0.10-0.17	0.11-0.18
0.06-0.12	0.08-0.16	0.12-0.20	0.15-0.25	0.16-0.28	0.18-0.30
0.06-0.12	0.08-0.16	0.12-0.20	0.15-0.25	0.16-0.28	0.18-0.30
0.06-0.12	0.08-0.16	0.12-0.20	0.15-0.25	0.16-0.28	0.18-0.30
0.06-0.12	0.08-0.16	0.12-0.20	0.15-0.25	0.16-0.28	0.18-0.30
0.06-0.10	0.08-0.15	0.10-0.18	0.12-0.20	0.15-0.23	0.16-0.25
0.06-0.10	0.08-0.15	0.10-0.18	0.12-0.20	0.15-0.23	0.16-0.25
0.06-0.14	0.08-0.15	0.10-0.20	0.12-0.22	0.14-0.23	0.15-0.26
0.06-0.14	0.08-0.15	0.10-0.20	0.12-0.22	0.14-0.23	0.15-0.26
0.06-0.14	0.08-0.15	0.10-0.20	0.12-0.22	0.14-0.23	0.15-0.26
0.06-0.14	0.08-0.15	0.10-0.20	0.12-0.22	0.14-0.23	0.15-0.26
0.06-0.14	0.08-0.15	0.10-0.20	0.12-0.22	0.14-0.23	0.15-0.26
0.06-0.13	0.06-0.13	0.08-0.15	0.08-0.15	0.08-0.15	0.08-0.15
0.06-0.13	0.06-0.13	0.08-0.15	0.08-0.15	0.08-0.15	0.08-0.15
0.06-0.13	0.06-0.13	0.08-0.15	0.08-0.15	0.08-0.15	0.08-0.15
0.06-0.13	0.06-0.13	0.08-0.15	0.08-0.15	0.08-0.15	0.08-0.15
0.06-0.13	0.06-0.13	0.08-0.15	0.08-0.15	0.08-0.15	0.08-0.15
0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.05-0.09	0.05-0.09
0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.05-0.09	0.05-0.09
0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.05-0.09	0.05-0.09
0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.05-0.09	0.05-0.09
0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.05-0.09	0.05-0.09
0.05-0.10	0.06-0.14	0.08-0.18	0.10-0.22	0.14-0.23	0.15-0.24
0.05-0.10	0.06-0.14	0.08-0.18	0.10-0.22	0.14-0.23	0.15-0.24
0.05-0.09	0.05-0.09	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10
0.05-0.09	0.05-0.09	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10
0.05-0.09	0.05-0.09	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10
0.05-0.09	0.05-0.09	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10

Recommended Cutting Conditions

T-DRILL

Machining data for T-DRILL 5xD

ISO	Material		Condition	Tensile strength (N/mm²)	Hardness HB	Material No.	Cutting speed Vc (m/min)
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	250-350
		>=0.25%C	Annealed	650	190	2	180-250
		<0.55%C	Quenched and tempered	850	250	3	160-220
		>=0.55%C	Annealed	750	220	4	160-220
			Quenched and tempered	1000	300	5	160-220
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	150-220
			Quenched and tempered	930	275	7	120-160
				1000	300	8	120-160
				1200	350	9	120-160
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	140-180
			Quenched and tempered	1100	325	11	130-180
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	170-240
			Martensitic	820	240	13	170-240
			Austenitic	600	180	14	170-240
K	Gray cast iron (GG)		Ferritic		160	15	180-250
			Pearlitic		250	16	180-250
	Cast iron nodular (GGG)		Ferritic		180	17	180-250
			Pearlitic		260	18	180-250
	Malleable cast iron		Ferritic		130	19	130-200
			Pearlitic		230	20	130-200
N	Aluminum - Wrought alloy		Not cureable		60	21	330-380
			Cured		100	22	330-380
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	330-380
			Cured		90	24	330-380
		>12% Si	High temp.		130	25	330-380
	Copper alloys	>1% Pb	Free cutting		110	26	150-230
			Brass		90	27	150-230
			Electrolitic copper		100	28	150-230
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29	150-230
			Hard rubber		55 Shore D	30	150-230
S	High temp. alloys	Fe based	Annealed		200	31	30-60
			Cured		280	32	30-60
		Ni or Co based	Annealed		250	33	30-60
			Cured		350	34	30-60
			Cast		320	35	30-60
	Titanium, Ti alloys		Pure	Rm 400	190	36	30-60
			Alpha+beta alloys cured	Rm 1050	310	37	30-60
H	Hardened steel		Hardened		55HRC	38	30-60
			Hardened		60HRC	39	30-60
	Chilled cast iron		Cast		400	40	30-60
	Cast iron nodular		Hardened		55HRC	41	30-60

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

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

Recommended Cutting Conditions

Machining data for T-DRILL 5xD

Feed (mm/rev) vs. drill diameter Drill length 5xD					
SPMG 05 Ø12.5 - Ø15	SPMG 06 Ø16 - Ø21	SPMG 07 Ø22 - Ø27	SPMG 09 Ø28 - Ø33	SPMG 11 Ø34 - Ø41	SPMG 14 Ø42 - Ø50
0.04-0.05	0.04-0.05	0.04-0.06	0.04-0.07	0.06-0.08	0.06-0.10
0.06-0.08	0.06-0.08	0.06-0.10	0.07-0.12	0.08-0.13	0.08-0.14
0.06-0.10	0.08-0.13	0.10-0.16	0.12-0.20	0.12-0.22	0.13-0.23
0.06-0.10	0.08-0.13	0.10-0.16	0.12-0.20	0.12-0.22	0.13-0.23
0.06-0.10	0.08-0.13	0.10-0.16	0.12-0.20	0.12-0.22	0.13-0.23
0.06-0.10	0.08-0.12	0.10-0.16	0.12-0.18	0.12-0.18	0.13-0.18
0.06-0.12	0.06-0.13	0.08-0.16	0.08-0.16	0.08-0.17	0.08-0.17
0.06-0.12	0.06-0.13	0.08-0.16	0.08-0.16	0.08-0.17	0.08-0.17
0.06-0.12	0.06-0.13	0.08-0.16	0.08-0.16	0.08-0.17	0.08-0.17
0.06-0.08	0.06-0.08	0.08-0.10	0.08-0.12	0.08-0.12	0.08-0.12
0.06-0.09	0.08-0.10	0.10-0.13	0.12-0.13	0.12-0.15	0.12-0.16
0.05-0.09	0.06-0.10	0.08-0.13	0.09-0.15	0.10-0.15	0.10-0.17
0.05-0.09	0.06-0.10	0.08-0.13	0.09-0.15	0.10-0.15	0.10-0.17
0.05-0.09	0.06-0.10	0.08-0.13	0.09-0.15	0.10-0.15	0.10-0.17
0.06-0.10	0.08-0.15	0.12-0.18	0.15-0.22	0.16-0.25	0.18-0.28
0.06-0.10	0.08-0.15	0.12-0.18	0.15-0.22	0.16-0.25	0.18-0.28
0.06-0.10	0.08-0.15	0.12-0.18	0.15-0.22	0.16-0.25	0.18-0.28
0.06-0.10	0.08-0.15	0.12-0.18	0.15-0.22	0.16-0.25	0.18-0.28
0.06-0.08	0.08-0.12	0.10-0.16	0.12-0.18	0.15-0.22	0.16-0.23
0.06-0.08	0.08-0.12	0.10-0.16	0.12-0.18	0.15-0.22	0.16-0.23
0.06-0.12	0.08-0.15	0.10-0.13	0.12-0.18	0.14-0.20	0.14-0.24
0.06-0.12	0.08-0.15	0.10-0.13	0.12-0.18	0.14-0.20	0.14-0.24
0.06-0.12	0.08-0.15	0.10-0.13	0.12-0.18	0.14-0.20	0.14-0.24
0.06-0.12	0.08-0.15	0.10-0.13	0.12-0.18	0.14-0.20	0.14-0.24
0.06-0.12	0.08-0.15	0.10-0.13	0.12-0.18	0.14-0.20	0.14-0.24
0.06-0.12	0.06-0.12	0.08-0.13	0.08-0.13	0.08-0.14	0.08-0.14
0.06-0.12	0.06-0.12	0.08-0.13	0.08-0.13	0.08-0.14	0.08-0.14
0.06-0.12	0.06-0.12	0.08-0.13	0.08-0.13	0.08-0.14	0.08-0.14
0.06-0.12	0.06-0.12	0.08-0.13	0.08-0.13	0.08-0.14	0.08-0.14
0.06-0.12	0.06-0.12	0.08-0.13	0.08-0.13	0.08-0.14	0.08-0.14
0.05-0.07	0.05-0.07	0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.08
0.05-0.07	0.05-0.07	0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.08
0.05-0.07	0.05-0.07	0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.08
0.05-0.07	0.05-0.07	0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.08
0.05-0.07	0.05-0.07	0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.08
0.05-0.09	0.08-0.13	0.08-0.17	0.10-0.20	0.14-0.22	0.14-0.24
0.05-0.09	0.08-0.13	0.08-0.17	0.10-0.20	0.14-0.22	0.14-0.24
0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.05-0.09	0.05-0.09
0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.05-0.09	0.05-0.09
0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.05-0.09	0.05-0.09
0.05-0.08	0.05-0.08	0.05-0.09	0.05-0.09	0.05-0.09	0.05-0.09

Recommended Cutting Conditions

T-DRILL

Machining data for T-DRILL cartridge

ISO	Material		Condition	Tensile strength (N/mm^2)	Hardness HB	Material No.	Cutting speed Vc (m/min)
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	250-350
		>=0.25%C	Annealed	650	190	2	180-250
		<0.55%C	Quenched and tempered	850	250	3	160-220
		>=0.55%C	Annealed	750	220	4	160-220
			Quenched and tempered	1000	300	5	160-220
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	150-220
			Quenched and tempered	930	275	7	120-160
				1000	300	8	120-160
				1200	350	9	120-160
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	140-180
			Quenched and tempered	1100	325	11	130-180
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	170-240
			Martensitic	820	240	13	170-240
			Austenitic	600	180	14	170-240
K	Gray cast iron (GG)		Ferritic		160	15	180-250
			Pearlitic		250	16	180-250
	Cast iron nodular (GGG)		Ferritic		180	17	180-250
			Pearlitic		260	18	180-250
	Malleable cast iron		Ferritic		130	19	130-200
			Pearlitic		230	20	130-200
N	Aluminum - Wrought alloy		Not cureable		60	21	330-380
			Cured		100	22	330-380
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	330-380
			Cured		90	24	330-380
		>12% Si	High temp.		130	25	330-380
	Copper alloys	>1% Pb	Free cutting		110	26	150-230
			Brass		90	27	150-230
			Electrolitic copper		100	28	150-230
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29	150-230
			Hard rubber		55 Shore D	30	150-230
S	High temp. alloys	Fe based	Annealed		200	31	30-60
			Cured		280	32	30-60
		Ni or Co based	Annealed		250	33	30-60
			Cured		350	34	30-60
			Cast		320	35	30-60
	Titanium, Ti alloys		Pure	Rm 400	190	36	30-60
			Alpha+beta alloys cured	Rm 1050	310	37	30-60
H	Hardened steel		Hardened		55HRC	38	30-60
			Hardened		60HRC	39	30-60
	Chilled cast iron		Cast		400	40	30-60
	Cast iron nodular		Hardened		55HRC	41	30-60

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

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

Recommended Cutting Conditions

Machining data for T-DRILL cartridge

Feed (mm/rev) vs. drill diameter Drill length 5xD					
SPMG 07 Ø51 - Ø53	SPMG 07 Ø54 - Ø56	SPMG 09 Ø57 - Ø62	SPMG 09 Ø63- Ø66	SPMG 11 Ø67 - Ø73	SPMG 12 Ø74 - Ø80
0.06-0.12	0.06-0.12	0.06-0.12	0.06-0.12	0.06-0.12	0.06-0.12
0.06-0.16	0.06-0.12	0.06-0.16	0.06-0.16	0.06-0.16	0.06-0.16
0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.18	0.08-0.18
0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.18	0.08-0.18
0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.18	0.08-0.18
0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18
0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18
0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18
0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18
0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18	0.08-0.18
0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.16	0.08-0.16
0.06-0.12	0.06-0.12	0.08-0.15	0.08-0.15	0.08-0.15	0.08-0.15
0.06-0.12	0.06-0.12	0.08-0.15	0.08-0.15	0.08-0.15	0.08-0.15
0.06-0.12	0.06-0.12	0.08-0.15	0.08-0.15	0.08-0.15	0.08-0.15
0.12-0.20	0.12-0.20	0.12-0.20	0.12-0.20	0.15-0.22	0.15-0.22
0.12-0.20	0.12-0.20	0.12-0.20	0.12-0.20	0.15-0.22	0.15-0.22
0.12-0.20	0.12-0.20	0.12-0.20	0.12-0.20	0.15-0.22	0.15-0.22
0.12-0.20	0.12-0.20	0.12-0.20	0.12-0.20	0.15-0.22	0.15-0.22
0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.12-0.20	0.12-0.20
0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.12-0.20	0.12-0.20
0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18
0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18
0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18
0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18
0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.18
0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18
0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18
0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18
0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18
0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10	0.06-0.10
0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10
0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10
0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10
0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.10

Recommended Cutting Conditions

TOPCAP

Machining data for TOP-CAP

ISO	Material		Condition	Tensile strength (N/mm²)	Hardness HB	Material No.
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1
		>=0.25%C	Annealed	650	190	2
		<0.55%C	Quenched and tempered	850	250	3
		>=0.55%C	Annealed	750	220	4
			Quenched and tempered	1000	300	5
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6
			Quenched and tempered	930	275	7
				1000	300	8
				1200	350	9
	High alloy steel, cast steel and tool steel		Annealed	680	200	10
			Quenched and tempered	1100	325	11
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12
			Martensitic	820	240	13
			Austenitic	600	180	14
K	Gray cast iron (GG)		Ferritic		160	15
			Pearlitic		250	16
	Cast iron nodular (GGG)		Ferritic		180	17
			Pearlitic		260	18
	Malleable cast iron		Ferritic		130	19
			Pearlitic		230	20
N	Aluminum - Wrought alloy		Not cureable		60	21
			Cured		100	22
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23
			Cured		90	24
		>12% Si	High temp.		130	25
	Copper alloys	>1% Pb	Free cutting		110	26
			Brass		90	27
			Electrolitic copper		100	28
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29
			Hard rubber		55 Shore D	30
S	High temp. alloys	Fe based	Annealed		200	31
			Cured		280	32
		Ni or Co based	Annealed		250	33
			Cured		350	34
			Cast		320	35
	Titanium, Ti alloys		Pure	Rm 400	190	36
			Alpha+beta alloys cured	Rm 1050	310	37
H	Hardened steel		Hardened		55HRC	38
			Hardened		60HRC	39
	Chilled cast iron		Cast		400	40
	Cast iron nodular		Hardened		55HRC	41

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

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

Recommended Cutting Conditions

TOP-CAP

Machining data for TOP-CAP

Drilling		Turning & boring		Grooving	
Vc (m/min)	Feed (mm/rev)	Vc (m/min)	Feed (mm/rev)	Vc (m/min)	Feed (mm/rev)
120-260	0.05-0.06	140-280	0.04-0.14	120-250	0.04-0.25
80-190	0.05-0.15	90-200	0.04-0.12	80-180	0.04-0.25
100-280	0.06-0.18	100-200	0.04-0.15	80-180	0.04-0.25
100-280	0.06-0.18	100-200	0.04-0.15	80-180	0.04-0.25
100-280	0.06-0.18	100-200	0.04-0.15	80-180	0.04-0.25
100-280	0.06-0.18	100-200	0.04-0.15	80-180	0.04-0.25
60-180	0.04-0.15	80-180	0.07-0.12	60-160	0.04-0.25
60-180	0.04-0.15	80-180	0.07-0.12	60-160	0.04-0.25
60-180	0.04-0.15	80-180	0.07-0.12	60-160	0.04-0.25
80-190	0.05-0.15	80-200	0.04-0.12	80-160	0.04-0.25
50-150	0.04-0.14	60-150	0.04-0.12	50-120	0.04-0.25
50-210	0.04-0.15	60-230	0.07-0.12	50-200	0.04-0.25
50-210	0.04-0.15	60-230	0.07-0.12	50-200	0.04-0.25
50-210	0.04-0.15	60-230	0.07-0.12	50-200	0.04-0.25
100-300	0.06-0.23	120-230	0.07-0.2	100-200	0.04-0.25
100-300	0.06-0.23	120-230	0.07-0.2	100-200	0.04-0.25
100-300	0.06-0.23	120-230	0.07-0.2	100-200	0.04-0.25
100-300	0.06-0.23	120-230	0.07-0.2	100-200	0.04-0.25
100-200	0.06-0.15	120-230	0.04-0.13	100-200	0.04-0.25
100-200	0.06-0.15	120-230	0.04-0.13	100-200	0.04-0.25
120-500	0.05-0.3	120-700	0.04-0.25	100-700	0.04-0.25
120-500	0.05-0.3	120-700	0.04-0.25	100-700	0.04-0.25
120-500	0.05-0.3	120-700	0.04-0.25	100-700	0.04-0.25
120-500	0.05-0.3	120-700	0.04-0.25	100-700	0.04-0.25
120-500	0.05-0.3	120-700	0.04-0.25	100-700	0.04-0.25
80-380	0.05-0.23	80-500	0.04-0.2	80-350	0.04-0.25
80-380	0.05-0.23	80-500	0.04-0.2	80-350	0.04-0.25
80-380	0.05-0.23	80-500	0.04-0.2	80-350	0.04-0.25
50-140	0.04-0.14	50-160	0.04-0.12	50-140	0.04-0.25
50-140	0.04-0.14	50-160	0.04-0.12	50-140	0.04-0.25
20-50	0.04-0.05	20-80	0.04-0.05	20-50	0.04-0.05
20-50	0.04-0.05	20-80	0.04-0.05	20-50	0.04-0.05
20-50	0.04-0.05	20-80	0.04-0.05	20-50	0.04-0.05
20-50	0.04-0.05	20-80	0.04-0.05	20-50	0.04-0.05
20-50	0.04-0.05	20-80	0.04-0.05	20-50	0.04-0.05
30-60	0.04-0.05	30-100	0.04-0.05	30-80	0.04-0.05
30-60	0.04-0.05	30-100	0.04-0.05	30-80	0.04-0.05
20-40	0.04-0.05	20-70	0.04-0.05	20-50	0.04-0.05
20-40	0.04-0.05	20-70	0.04-0.05	20-50	0.04-0.05
20-40	0.04-0.05	20-70	0.04-0.05	20-50	0.04-0.05
20-40	0.04-0.05	20-70	0.04-0.05	20-50	0.04-0.05

Recommended Cutting Conditions

DRILL SFEED INDEXABLE 3 FLUTE

Machining data for DRILL-SFEED 3,5,8xD

ISO	Material		Condition	Tensile strength (N/mm^2)	Hardness HB	Material No.
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1
		>=0.25%C	Annealed	650	190	2
		<0.55%C	Quenched and tempered	850	250	3
		>=0.55%C	Annealed	750	220	4
			Quenched and tempered	1000	300	5
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6
			Quenched and tempered	930	275	7
				1000	300	8
				1200	350	9
	High alloy steel, cast steel and tool steel		Annealed	680	200	10
			Quenched and tempered	1100	325	11
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12
			Martensitic	820	240	13
			Austenitic	600	180	14
K	Gray cast iron (GG)		Ferritic		160	15
			Pearlitic		250	16
	Cast iron nodular (GGG)		Ferritic		180	17
			Pearlitic		260	18
	Malleable cast iron		Ferritic		130	19
			Pearlitic		230	20
N	Aluminum - Wrought alloy		Not cureable		60	21
			Cured		100	22
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23
			Cured		90	24
		>12% Si	High temp.		130	25
	Copper alloys	>1% Pb	Free cutting		110	26
			Brass		90	27
			Electrolitic copper		100	28
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29
			Hard rubber		55 Shore D	30
S	High temp. alloys	Fe based	Annealed		200	31
			Cured		280	32
		Ni or Co based	Annealed		250	33
			Cured		350	34
			Cast		320	35
	Titanium, Ti alloys		Pure	Rm 400	190	36
			Alpha+beta alloys cured	Rm 1050	310	37
H	Hardened steel		Hardened		55HRC	38
			Hardened		60HRC	39
	Chilled cast iron		Cast		400	40
	Cast iron nodular		Hardened		55HRC	41

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

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

Recommended Cutting Conditions

Machining data for DRILL-SFEED 3,5,8xD

Cutting speed Vc (m/min)	Feed (mm/rev) vs. drill diameter			
	Ø12 - Ø13.9	Ø14 - Ø15.9	Ø16 - Ø19.9	Ø20 - Ø25.9
80-140	0.25-0.45	0.30-0.50	0.35-0.55	0.40-0.60
80-130	0.25-0.45	0.30-0.50	0.35-0.55	0.40-0.60
80-120	0.25-0.45	0.30-0.50	0.35-0.55	0.40-0.60
70-110	0.25-0.45	0.30-0.50	0.35-0.55	0.40-0.60
50-90	0.25-0.45	0.30-0.50	0.35-0.55	0.40-0.60
80-120	0.20-0.40	0.25-0.45	0.30-0.50	0.35-0.55
70-110	0.20-0.40	0.25-0.45	0.30-0.50	0.35-0.55
50-90	0.20-0.40	0.25-0.45	0.30-0.50	0.35-0.55
40-70	0.20-0.40	0.25-0.45	0.30-0.50	0.35-0.55
50-90	0.20-0.35	0.25-0.40	0.30-0.45	0.35-0.50
40-80	0.20-0.35	0.25-0.40	0.30-0.45	0.35-0.50
90-160	0.35-0.50	0.40-0.60	0.45-0.65	0.50-0.70
80-140	0.35-0.50	0.40-0.60	0.45-0.65	0.50-0.70
90-180	0.30-0.45	0.35-0.55	0.40-0.60	0.45-0.65
80-140	0.30-0.45	0.35-0.55	0.40-0.60	0.45-0.65
90-160	0.30-0.45	0.35-0.55	0.40-0.60	0.45-0.65
80-140	0.30-0.45	0.35-0.55	0.40-0.60	0.45-0.65

Recommended Cutting Conditions

Machining data for DRILL-RUSH

ISO	Material		Condition	Tensile strength (N/mm^2)	Hardness HB	Material No.	Cutting speed Vc (m/min)
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	80-140
		>=0.25%C	Annealed	650	190	2	80-130
		<0.55%C	Quenched and tempered	850	250	3	80-120
		>=0.55%C	Annealed	750	220	4	70-110
			Quenched and tempered	1000	300	5	50-90
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	70-120
			Quenched and tempered	930	275	7	70-110
				1000	300	8	50-90
				1200	350	9	40-70
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	50-90
			Quenched and tempered	1100	325	11	40-80
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	40-70
			Martensitic	820	240	13	40-70
			Austenitic	600	180	14	30-70
K	Gray cast iron (GG)		Ferritic		160	15	90-160
			Pearlitic		250	16	80-140
	Cast iron nodular (GGG)		Ferritic		180	17	90-180
			Pearlitic		260	18	80-140
	Malleable cast iron		Ferritic		130	19	90-160
			Pearlitic		230	20	80-140
N	Aluminum - Wrought alloy		Not cureable		60	21	90-220
			Cured		100	22	90-220
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	90-220
			Cured		90	24	90-220
		>12% Si	High temp.		130	25	80-160
	Copper alloys	>1% Pb	Free cutting		110	26	90-220
			Brass		90	27	90-220
			Electrolitic copper		100	28	90-220
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29	
			Hard rubber		55 Shore D	30	
S	High temp. alloys	Fe based	Annealed		200	31	30-60
			Cured		280	32	20-50
		Ni or Co based	Annealed		250	33	20-50
			Cured		350	34	20-50
			Cast		320	35	20-50
	Titanium, Ti alloys		Pure	Rm 400	190	36	20-50
			Alpha+beta alloys cured	Rm 1050	310	37	20-50
H	Hardened steel		Hardened		55HRC	38	20-50
			Hardened		60HRC	39	20-50
	Chilled cast iron		Cast		400	40	
	Cast iron nodular		Hardened		55HRC	41	

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

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

Recommended Cutting Conditions

Machining data for DRILL-RUSH

Feed (mm/rev) vs. drill diameter								
Ø4 - Ø4.9	Ø5 - Ø5.9	Ø6 - Ø7.9	Ø8 - Ø9.9	Ø10 - Ø11.9	Ø12 - Ø13.9	Ø14 - Ø15.9	Ø16 - Ø19.9	Ø20 - Ø25.9
0.04-0.08	0.07-0.11	0.09-0.13	0.12-0.22	0.15-0.28	0.18-0.30	0.20-0.35	0.25-0.45	0.25-0.45
0.04-0.08	0.07-0.11	0.09-0.13	0.12-0.22	0.15-0.28	0.18-0.30	0.20-0.35	0.25-0.45	0.25-0.45
0.04-0.08	0.07-0.11	0.09-0.13	0.12-0.22	0.15-0.28	0.18-0.30	0.20-0.35	0.25-0.45	0.25-0.45
0.04-0.08	0.07-0.11	0.09-0.13	0.12-0.22	0.15-0.28	0.18-0.30	0.20-0.35	0.25-0.45	0.25-0.45
0.04-0.08	0.07-0.11	0.09-0.13	0.12-0.22	0.15-0.28	0.18-0.30	0.20-0.35	0.25-0.45	0.25-0.45
0.04-0.08	0.07-0.13	0.09-0.15	0.12-0.25	0.14-0.28	0.16-0.32	0.18-0.35	0.23-0.40	0.25-0.45
0.04-0.08	0.07-0.13	0.09-0.15	0.12-0.25	0.14-0.28	0.16-0.32	0.18-0.35	0.23-0.40	0.25-0.45
0.04-0.08	0.07-0.13	0.09-0.15	0.12-0.25	0.14-0.28	0.16-0.32	0.18-0.35	0.23-0.40	0.25-0.45
0.04-0.08	0.07-0.13	0.09-0.15	0.12-0.25	0.14-0.28	0.16-0.32	0.18-0.35	0.23-0.40	0.25-0.45
0.06-0.08	0.07-0.11	0.09-0.12	0.12-0.20	0.12-0.22	0.15-0.25	0.18-0.28	0.20-0.30	0.22-0.33
0.06-0.08	0.07-0.11	0.09-0.12	0.12-0.20	0.12-0.22	0.15-0.25	0.18-0.28	0.20-0.30	0.22-0.33
0.05-0.07	0.06-0.08	0.08-0.10	0.10-0.15	0.12-0.18	0.14-0.20	0.16-0.24	0.16-0.26	0.18-0.30
0.05-0.07	0.06-0.08	0.08-0.10	0.10-0.15	0.12-0.18	0.14-0.20	0.16-0.24	0.16-0.26	0.18-0.30
0.05-0.07	0.06-0.08	0.08-0.10	0.10-0.15	0.12-0.18	0.14-0.20	0.16-0.24	0.16-0.26	0.18-0.30
0.04-0.08	0.10-0.15	0.12-0.18	0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45	0.35-0.55	0.35-0.60
0.04-0.08	0.10-0.15	0.12-0.18	0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45	0.35-0.55	0.35-0.60
0.04-0.08	0.10-0.15	0.12-0.18	0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45	0.35-0.55	0.35-0.60
0.04-0.08	0.10-0.15	0.12-0.18	0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45	0.35-0.55	0.35-0.60
0.04-0.08	0.10-0.15	0.12-0.18	0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45	0.35-0.55	0.35-0.60
0.04-0.08	0.10-0.15	0.12-0.18	0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45	0.35-0.55	0.35-0.60
		0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45	0.35-0.50	0.40-0.60	0.45-0.70
		0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45	0.35-0.50	0.40-0.60	0.45-0.70
		0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45	0.35-0.50	0.40-0.60	0.45-0.70
		0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45	0.35-0.50	0.40-0.60	0.45-0.70
		0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45	0.35-0.50	0.40-0.60	0.45-0.70
		0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45	0.35-0.50	0.40-0.60	0.45-0.70
		0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45	0.35-0.50	0.40-0.60	0.45-0.70
		0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45	0.35-0.50	0.40-0.60	0.45-0.70
		0.05-0.07	0.06-0.11	0.08-0.13	0.10-0.15	0.12-0.18	0.12-0.20	0.14-0.22
		0.05-0.07	0.06-0.11	0.08-0.13	0.10-0.15	0.12-0.18	0.12-0.20	0.14-0.22
		0.05-0.07	0.06-0.11	0.08-0.13	0.10-0.15	0.12-0.18	0.12-0.20	0.14-0.22
		0.05-0.07	0.06-0.11	0.08-0.13	0.10-0.15	0.12-0.18	0.12-0.20	0.14-0.22
		0.05-0.07	0.06-0.11	0.08-0.13	0.10-0.15	0.12-0.18	0.12-0.20	0.14-0.22
		0.05-0.07	0.06-0.12	0.08-0.15	0.10-0.18	0.12-0.20	0.14-0.22	0.16-0.25
		0.05-0.07	0.06-0.12	0.08-0.15	0.10-0.18	0.12-0.20	0.14-0.22	0.16-0.25
		0.05-0.07	0.06-0.12	0.08-0.15	0.10-0.18	0.12-0.20	0.14-0.22	0.16-0.25
		0.05-0.07	0.06-0.12	0.08-0.15	0.10-0.18	0.12-0.20	0.14-0.22	0.16-0.25

Recommended Cutting Conditions

MODU-R-DRILL

Machining data for MODU-R-DRILL

ISO	Material		Condition	Tensile strength (N/mm²)	Hardness HB	Material No.	Cutting speed Vc (m/min)
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	120-200
		>=0.25%C	Annealed	650	190	2	120-200
		<0.55%C	Quenched and tempered	850	250	3	130-190
		>=0.55%C	Annealed	750	220	4	130-190
			Quenched and tempered	1000	300	5	130-190
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	100-200
			Quenched and tempered	930	275	7	100-200
				1000	300	8	100-200
				1200	350	9	100-200
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	100-160
			Quenched and tempered	1100	325	11	100-160
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	80-140
			Martensitic	820	240	13	80-140
			Austenitic	600	180	14	80-140
K	Gray cast iron (GG)		Ferritic		160	15	100-250
			Pearlitic		250	16	100-250
	Cast iron nodular (GGG)		Ferritic		180	17	100-250
			Pearlitic		260	18	100-250
	Malleable cast iron		Ferritic		130	19	100-250
			Pearlitic		230	20	100-250
N	Aluminum - Wrought alloy		Not cureable		60	21	160-260
			Cured		100	22	160-260
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	160-260
			Cured		90	24	160-260
		>12% Si	High temp.		130	25	160-260
	Copper alloys	>1% Pb	Free cutting		110	26	160-260
			Brass		90	27	160-260
			Electrolitic copper		100	28	160-260
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29	
			Hard rubber		55 Shore D	30	
S	High temp. alloys	Fe based	Annealed		200	31	30-60
			Cured		280	32	30-80
		Ni or Co based	Annealed		250	33	30-80
			Cured		350	34	30-80
			Cast		320	35	30-80
	Titanium, Ti alloys		Pure	Rm 400	190	36	30-80
			Alpha+beta alloys cured	Rm 1050	310	37	30-80
H	Hardened steel		Hardened		55HRC	38	20-50
			Hardened		60HRC	39	20-50
	Chilled cast iron		Cast		400	40	
	Cast iron nodular		Hardened		55HRC	41	

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

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

Recommended Cutting Conditions

MODU-R-DRILL
MODULAR RUSH

Machining data for MODU-R-DRILL

Feed (mm/rev) vs. drill diameter					
SPGX 06 Ø26 - Ø28	SPGX 07 Ø29 - Ø32	SPGX 09 Ø33 - Ø36	SPGX 11 Ø37 - Ø43	SPGX 11 Ø44 - Ø45	SPGX 14 Ø46 - Ø50
0.20-0.35	0.25-0.35	0.2-0.4	0.25-0.4	0.28-0.45	0.28-0.45
0.20-0.35	0.25-0.35	0.2-0.4	0.25-0.4	0.28-0.45	0.28-0.45
0.20-0.35	0.25-0.35	0.2-0.4	0.25-0.4	0.28-0.45	0.28-0.45
0.20-0.35	0.25-0.35	0.2-0.4	0.25-0.4	0.28-0.45	0.28-0.45
0.20-0.35	0.25-0.35	0.2-0.4	0.25-0.4	0.28-0.45	0.28-0.45
0.20-0.33	0.25-0.33	0.25-0.36	0.25-0.36	0.25-0.40	0.25-0.40
0.20-0.33	0.25-0.33	0.25-0.36	0.25-0.36	0.25-0.40	0.25-0.40
0.20-0.33	0.25-0.33	0.25-0.36	0.25-0.36	0.25-0.40	0.25-0.40
0.20-0.33	0.25-0.33	0.25-0.36	0.25-0.36	0.25-0.40	0.25-0.40
0.20-0.33	0.25-0.33	0.25-0.36	0.25-0.36	0.25-0.40	0.25-0.40
0.20-0.33	0.25-0.33	0.25-0.36	0.25-0.36	0.25-0.40	0.25-0.40
0.12-0.24	0.15-0.24	0.16-0.25	0.18-0.28	0.18-0.30	0.18-0.30
0.12-0.24	0.15-0.24	0.16-0.25	0.18-0.28	0.18-0.30	0.18-0.30
0.12-0.24	0.15-0.24	0.16-0.25	0.18-0.28	0.18-0.30	0.18-0.30
0.25-0.45	0.25-0.45	0.3-0.5	0.3-0.5	0.35-0.55	0.35-0.55
0.25-0.45	0.25-0.45	0.3-0.5	0.3-0.5	0.35-0.55	0.35-0.55
0.25-0.45	0.25-0.45	0.3-0.5	0.3-0.5	0.35-0.55	0.35-0.55
0.25-0.45	0.25-0.45	0.3-0.5	0.3-0.5	0.35-0.55	0.35-0.55
0.25-0.45	0.25-0.45	0.3-0.5	0.3-0.5	0.35-0.55	0.35-0.55
0.25-0.45	0.25-0.45	0.3-0.5	0.3-0.5	0.35-0.55	0.35-0.55
0.3-0.5	0.3-0.5	0.35-0.55	0.35-0.55	0.4-0.6	0.4-0.6
0.3-0.5	0.3-0.5	0.35-0.55	0.35-0.55	0.4-0.6	0.4-0.6
0.3-0.5	0.3-0.5	0.35-0.55	0.35-0.55	0.4-0.6	0.4-0.6
0.3-0.5	0.3-0.5	0.35-0.55	0.35-0.55	0.4-0.6	0.4-0.6
0.3-0.5	0.3-0.5	0.35-0.55	0.35-0.55	0.4-0.6	0.4-0.6
0.3-0.5	0.3-0.5	0.35-0.55	0.35-0.55	0.4-0.6	0.4-0.6
0.3-0.5	0.3-0.5	0.35-0.55	0.35-0.55	0.4-0.6	0.4-0.6
0.3-0.5	0.3-0.5	0.35-0.55	0.35-0.55	0.4-0.6	0.4-0.6
0.1-0.16	0.10-0.18	0.15-0.20	0.15-0.22	0.16-0.24	0.16-0.24
0.1-0.16	0.10-0.18	0.15-0.20	0.15-0.22	0.16-0.24	0.16-0.24
0.1-0.16	0.10-0.18	0.15-0.20	0.15-0.22	0.16-0.24	0.16-0.24
0.1-0.16	0.10-0.18	0.15-0.20	0.15-0.22	0.16-0.24	0.16-0.24
0.1-0.16	0.10-0.18	0.15-0.20	0.15-0.22	0.16-0.24	0.16-0.24
0.1-0.16	0.10-0.18	0.15-0.20	0.15-0.22	0.16-0.24	0.16-0.24
0.1-0.16	0.10-0.18	0.15-0.20	0.15-0.22	0.16-0.24	0.16-0.24
0.1-0.16	0.12-0.18	0.14-0.20	0.14-0.20	0.16-0.22	0.16-0.22
0.1-0.16	0.12-0.18	0.14-0.20	0.14-0.20	0.16-0.22	0.16-0.22

Recommended Cutting Conditions

SPADE-RUSH

Machining data for SPADE-RUSH

ISO	Material		Condition	Tensile strength (N/mm²)	Hardness HB	Material No.	Cutting speed Vc (m/min)
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	80-140
		>=0.25%C	Annealed	650	190	2	80-130
		<0.55%C	Quenched and tempered	850	250	3	80-120
		>=0.55%C	Annealed	750	220	4	70-110
			Quenched and tempered	1000	300	5	50-90
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	80-120
			Quenched and tempered	930	275	7	70-110
				1000	300	8	50-90
				1200	350	9	40-70
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	50-90
			Quenched and tempered	1100	325	11	40-80
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	40-70
			Martensitic	820	240	13	40-70
			Austenitic	600	180	14	30-70
K	Gray cast iron (GG)		Ferritic		160	15	90-180
			Pearlitic		250	16	80-140
	Cast iron nodular (GGG)		Ferritic		180	17	90-165
			Pearlitic		260	18	80-140
	Malleable cast iron		Ferritic		130	19	90-160
			Pearlitic		230	20	80-140
N	Aluminum - Wrought alloy		Not cureable		60	21	90-220
			Cured		100	22	90-220
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	90-220
			Cured		90	24	90-220
		>12% Si	High temp.		130	25	80-160
	Copper alloys	>1% Pb	Free cutting		110	26	90-220
			Brass		90	27	90-220
			Electrolitic copper		100	28	90-220
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29	
			Hard rubber		55 Shore D	30	
S	High temp. alloys	Fe based	Annealed		200	31	30-60
			Cured		280	32	20-50
		Ni or Co based	Annealed		250	33	20-50
			Cured		350	34	20-50
			Cast		320	35	20-50
	Titanium, Ti alloys		Pure	Rm 400	190	36	20-50
			Alpha+beta alloys cured	Rm 1050	310	37	20-50
H	Hardened steel		Hardened		55HRC	38	20-50
			Hardened		60HRC	39	20-50
	Chilled cast iron		Cast		400	40	
	Cast iron nodular		Hardened		55HRC	41	

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

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

Recommended Cutting Conditions

SPADE-RUSH

Machining data for SPADE-RUSH

Feed (mm/rev) vs. drill diameter						
Ø20 - Ø25.9		Ø26 - Ø29.9		Ø30 - Ø34.9		Ø35 - Ø41
LCD...-P	LCD...-P+	LCD...-P	LCD...-P+	LCD...-P	LCD...-P+	
0.30-0.50	0.25-0.45	0.30-0.50	0.30-0.50	0.30-0.50	0.30-0.50	0.35-0.55
0.30-0.50	0.25-0.45	0.30-0.50	0.30-0.50	0.30-0.50	0.30-0.50	0.35-0.55
0.30-0.50	0.25-0.45	0.30-0.50	0.30-0.50	0.30-0.50	0.30-0.50	0.35-0.55
0.30-0.50	0.25-0.45	0.30-0.50	0.30-0.50	0.30-0.50	0.30-0.50	0.35-0.55
0.30-0.50	0.25-0.45	0.30-0.50	0.30-0.50	0.30-0.50	0.30-0.50	0.35-0.55
0.25-0.45	0.20-0.40	0.25-0.45	0.25-0.45	0.25-0.45	0.25-0.45	0.30-0.50
0.25-0.45	0.20-0.40	0.25-0.45	0.25-0.45	0.25-0.45	0.25-0.45	0.30-0.50
0.25-0.45	0.20-0.40	0.25-0.45	0.25-0.45	0.25-0.45	0.25-0.45	0.30-0.50
0.25-0.45	0.20-0.40	0.25-0.45	0.25-0.45	0.25-0.45	0.25-0.45	0.30-0.50
0.25-0.35	0.20-0.30	0.25-0.35	0.25-0.35	0.25-0.35	0.25-0.35	0.30-0.40
0.25-0.35	0.20-0.30	0.25-0.35	0.25-0.35	0.25-0.35	0.25-0.35	0.30-0.40
0.15-0.30		0.15-0.30		0.15-0.30		0.20-0.35
0.15-0.30		0.15-0.30		0.15-0.30		0.20-0.35
0.15-0.30		0.15-0.30		0.15-0.30		0.20-0.35
0.35-0.55	0.30-0.50	0.35-0.55	0.35-0.55	0.35-0.55	0.35-0.55	0.40-0.60
0.35-0.55	0.30-0.50	0.35-0.55	0.35-0.55	0.35-0.55	0.35-0.55	0.40-0.60
0.35-0.55	0.30-0.50	0.35-0.55	0.35-0.55	0.35-0.55	0.35-0.55	0.40-0.60
0.35-0.55	0.30-0.50	0.35-0.55	0.35-0.55	0.35-0.55	0.35-0.55	0.40-0.60
0.35-0.55	0.30-0.50	0.35-0.55	0.35-0.55	0.35-0.55	0.35-0.55	0.40-0.60
0.35-0.55	0.30-0.50	0.35-0.55	0.35-0.55	0.35-0.55	0.35-0.55	0.40-0.60
0.40-0.60		0.40-0.60		0.40-0.60		0.50-0.70
0.40-0.60		0.40-0.60		0.40-0.60		0.50-0.70
0.40-0.60		0.40-0.60		0.40-0.60		0.50-0.70
0.40-0.60		0.40-0.60		0.40-0.60		0.50-0.70
0.40-0.60		0.40-0.60		0.40-0.60		0.50-0.70
0.40-0.60		0.40-0.60		0.40-0.60		0.50-0.70
0.40-0.60		0.40-0.60		0.40-0.60		0.50-0.70
0.40-0.60		0.40-0.60		0.40-0.60		0.50-0.70
0.10-0.20		0.10-0.20		0.15-0.25		0.15-0.25
0.10-0.20		0.10-0.20		0.15-0.25		0.15-0.25
0.10-0.20		0.10-0.20		0.15-0.25		0.15-0.25
0.10-0.20		0.10-0.20		0.15-0.25		0.15-0.25
0.10-0.20		0.10-0.20		0.15-0.25		0.15-0.25
0.10-0.20		0.10-0.20		0.15-0.25		0.15-0.25
0.10-0.20		0.10-0.20		0.15-0.25		0.15-0.25
0.10-0.20		0.10-0.20		0.15-0.25		0.15-0.25
0.10-0.20		0.10-0.20		0.15-0.25		0.15-0.25

Recommended Cutting Conditions

SOLID 3 DRILL 3 FLUTE

Machining data for SOLID-3-DRILL

ISO	Material		Condition	Tensile strength (N/mm²)	Hardness HB	Material No.	Cutting speed Vc (m/min)
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	80-140
		>=0.25%C	Annealed	650	190	2	80-130
		<0.55%C	Quenched and tempered	850	250	3	80-120
		>=0.55%C	Annealed	750	220	4	70-110
			Quenched and tempered	1000	300	5	50-90
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	80-120
			Quenched and tempered	930	275	7	70-110
				1000	300	8	50-90
				1200	350	9	40-70
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	50-90
			Quenched and tempered	1100	325	11	40-80
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	
			Martensitic	820	240	13	
			Austenitic	600	180	14	
K	Gray cast iron (GG)		Ferritic		160	15	80-140
			Pearlitic		250	16	70-120
	Cast iron nodular (GGG)		Ferritic		180	17	80-120
			Pearlitic		260	18	70-110
	Malleable cast iron		Ferritic		130	19	80-120
			Pearlitic		230	20	70-110
N	Aluminum - Wrought alloy		Not cureable		60	21	
			Cured		100	22	
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	
			Cured		90	24	
		>12% Si	High temp.		130	25	
	Copper alloys	>1% Pb	Free cutting		110	26	
			Brass		90	27	
			Electrolitic copper		100	28	
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29	
			Hard rubber		55 Shore D	30	
S	High temp. alloys	Fe based	Annealed		200	31	
			Cured		280	32	
		Ni or Co based	Annealed		250	33	
			Cured		350	34	
			Cast		320	35	
	Titanium, Ti alloys		Pure	Rm 400	190	36	
			Alpha+beta alloys cured	Rm 1050	310	37	
H	Hardened steel		Hardened		55HRC	38	
			Hardened		60HRC	39	
	Chilled cast iron		Cast		400	40	
	Cast iron nodular		Hardened		55HRC	41	

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

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

Recommended Cutting Conditions

SOLID 3 DRILL 3 FLUTE

Machining data for SOLID-3-DRILL

Feed (mm/rev) vs. drill diameter 3,5,8xD					Feed (mm/rev) vs. drill diameter 12xD			
Ø4 - Ø5	Ø5.1 - Ø6	Ø6.1 - Ø8	Ø8.1 - Ø10	Ø10.1 - Ø12	Ø6	Ø6.1 - Ø8	Ø8.1 - Ø10	Ø10.1 - Ø12
0.15-0.25	0.20-0.35	0.25-0.45	0.30-0.55	0.35-0.60	0.15-0.30	0.20-0.40	0.25-0.45	0.30-0.50
0.15-0.25	0.20-0.35	0.25-0.45	0.30-0.55	0.35-0.60	0.15-0.30	0.20-0.40	0.25-0.45	0.30-0.50
0.15-0.25	0.20-0.35	0.25-0.45	0.30-0.55	0.35-0.60	0.15-0.30	0.20-0.40	0.25-0.45	0.30-0.50
0.15-0.25	0.20-0.35	0.25-0.45	0.30-0.55	0.35-0.60	0.15-0.30	0.20-0.40	0.25-0.45	0.30-0.50
0.15-0.25	0.20-0.35	0.25-0.45	0.30-0.55	0.35-0.60	0.15-0.30	0.20-0.40	0.25-0.45	0.30-0.50
0.15-0.25	0.20-0.35	0.25-0.40	0.30-0.50	0.35-0.55	0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45
0.15-0.25	0.20-0.35	0.25-0.40	0.30-0.50	0.35-0.55	0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45
0.15-0.25	0.20-0.35	0.25-0.40	0.30-0.50	0.35-0.55	0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45
0.15-0.25	0.20-0.35	0.25-0.40	0.30-0.50	0.35-0.55	0.15-0.30	0.20-0.35	0.25-0.40	0.30-0.45
0.15-0.20	0.20-0.30	0.25-0.35	0.30-0.45	0.35-0.50	0.15-0.25	0.20-0.30	0.25-0.35	0.30-0.40
0.15-0.20	0.20-0.30	0.25-0.35	0.30-0.45	0.35-0.50	0.15-0.25	0.20-0.30	0.25-0.35	0.30-0.40
0.20-0.30	0.25-0.45	0.35-0.55	0.40-0.60	0.45-0.65	0.20-0.40	0.30-0.50	0.35-0.55	0.40-0.60
0.20-0.30	0.25-0.45	0.35-0.55	0.40-0.60	0.45-0.65	0.20-0.40	0.30-0.50	0.35-0.55	0.40-0.60
0.20-0.30	0.20-0.40	0.30-0.50	0.35-0.55	0.40-0.60	0.15-0.35	0.25-0.45	0.30-0.50	0.35-0.55
0.20-0.30	0.20-0.40	0.30-0.50	0.35-0.55	0.40-0.60	0.15-0.35	0.25-0.45	0.30-0.50	0.35-0.55
0.20-0.30	0.20-0.40	0.30-0.50	0.35-0.55	0.40-0.60	0.15-0.35	0.25-0.45	0.30-0.50	0.35-0.55
0.20-0.30	0.20-0.40	0.30-0.50	0.35-0.55	0.40-0.60	0.15-0.35	0.25-0.45	0.30-0.50	0.35-0.55

Recommended Cutting Conditions

HDRILL

Machining data for H-DRILL

ISO	Material		Condition	Tensile strength (N/mm^2)	Hardness HB	Material No.	Cutting speed Vc (m/min)
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	80-120
		>=0.25%C	Annealed	650	190	2	80-110
		<0.55%C	Quenched and tempered	850	250	3	70-100
		>=0.55%C	Annealed	750	220	4	70-100
			Quenched and tempered	1000	300	5	70-100
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	70-90
			Quenched and tempered	930	275	7	70-90
				1000	300	8	50-80
				1200	350	9	40-70
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	50-80
			Quenched and tempered	1100	325	11	40-70
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	30-60
			Martensitic	820	240	13	30-60
			Austenitic	600	180	14	30-60
K	Gray cast iron (GG)		Ferritic		160	15	65-80
			Pearlitic		250	16	65-80
	Cast iron nodular (GGG)		Ferritic		180	17	85-105
			Pearlitic		260	18	75-90
	Malleable cast iron		Ferritic		130	19	65-80
			Pearlitic		230	20	65-80
N	Aluminum - Wrought alloy		Not cureable		60	21	70-200
			Cured		100	22	70-200
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	70-200
			Cured		90	24	70-200
		>12% Si	High temp.		130	25	70-150
	Copper alloys	>1% Pb	Free cutting		110	26	70-200
			Brass		90	27	70-200
			Electrolitic copper		100	28	70-200
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29	
			Hard rubber		55 Shore D	30	
S	High temp. alloys	Fe based	Annealed		200	31	15-40
			Cured		280	32	15-40
		Ni or Co based	Annealed		250	33	15-40
			Cured		350	34	15-40
			Cast		320	35	15-40
	Titanium, Ti alloys		Pure	Rm 400	190	36	
			Alpha+beta alloys cured	Rm 1050	310	37	
H	Hardened steel		Hardened		55HRC	38	10-40
			Hardened		60HRC	39	10-40
	Chilled cast iron		Cast		400	40	
	Cast iron nodular		Hardened		55HRC	41	

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

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

Recommended Cutting Conditions

Machining data for H-DRILL

Feed (mm/rev) vs. drill diameter		
Ø3 - Ø5	Ø5.1 - Ø8	Ø8.1 - Ø12
0.10-0.20	0.15-0.25	0.20-0.30
0.10-0.20	0.15-0.25	0.20-0.30
0.10-0.20	0.15-0.25	0.20-0.30
0.10-0.20	0.15-0.25	0.20-0.30
0.10-0.20	0.15-0.25	0.20-0.30
0.10-0.20	0.15-0.25	0.20-0.30
0.10-0.20	0.15-0.25	0.20-0.30
0.10-0.20	0.15-0.25	0.20-0.30
0.10-0.20	0.15-0.25	0.20-0.30
0.08-0.18	0.10-0.20	0.15-0.25
0.08-0.18	0.10-0.20	0.15-0.25
0.06-0.12	0.10-0.15	0.12-0.18
0.06-0.12	0.10-0.15	0.12-0.18
0.06-0.12	0.10-0.15	0.12-0.18
0.10-0.20	0.15-0.25	0.20-0.30
0.10-0.20	0.15-0.25	0.20-0.30
0.10-0.20	0.15-0.25	0.20-0.30
0.10-0.20	0.15-0.25	0.20-0.30
0.10-0.20	0.15-0.25	0.20-0.30
0.10-0.20	0.15-0.25	0.20-0.30
0.10-0.25	0.15-0.35	0.25-0.45
0.10-0.25	0.15-0.35	0.25-0.45
0.10-0.25	0.15-0.35	0.25-0.45
0.10-0.25	0.15-0.35	0.25-0.45
0.10-0.25	0.15-0.35	0.25-0.45
0.08-0.18	0.15-0.25	0.20-0.35
0.08-0.18	0.15-0.25	0.20-0.35
0.08-0.18	0.15-0.25	0.20-0.35
0.02-0.08	0.04-0.10	0.06-0.12
0.02-0.08	0.04-0.10	0.06-0.12
0.02-0.08	0.04-0.10	0.06-0.12
0.02-0.08	0.04-0.10	0.06-0.12
0.02-0.08	0.04-0.10	0.06-0.12
0.02-0.08	0.04-0.10	0.06-0.12
0.02-0.08	0.04-0.10	0.06-0.12

Recommended Cutting Conditions

Machining data for TBTA 3/5/7 & TBTA-R

ISO	Material		Condition	Tensile strength (N/mm^2)	Hardness HB	Material No.	Cutting speed Vc (m/min)
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	60-120
		>=0.25%C	Annealed	650	190	2	60-120
		<0.55%C	Quenched and tempered	850	250	3	60-120
		>=0.55%C	Annealed	750	220	4	60-120
			Quenched and tempered	1000	300	5	50-100
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	50-100
			Quenched and tempered	930	275	7	50-100
				1000	300	8	50-100
				1200	350	9	50-100
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	60-120
			Quenched and tempered	1100	325	11	60-120
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	60-110
			Martensitic	820	240	13	60-110
			Austenitic	600	180	14	60-110
K	Gray cast iron (GG)		Ferritic		160	15	60-100
			Pearlitic		250	16	60-100
	Cast iron nodular (GGG)		Ferritic		180	17	60-100
			Pearlitic		260	18	60-100
	Malleable cast iron		Ferritic		130	19	60-100
			Pearlitic		230	20	60-100
N	Aluminum - Wrought alloy		Not cureable		60	21	60-130
			Cured		100	22	60-130
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	60-130
			Cured		90	24	60-130
		>12% Si	High temp.		130	25	60-130
	Copper alloys	>1% Pb	Free cutting		110	26	60-130
			Brass		90	27	60-130
			Electrolitic copper		100	28	60-130
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29	
			Hard rubber		55 Shore D	30	
S	High temp. alloys	Fe based	Annealed		200	31	20-65
			Cured		280	32	20-65
		Ni or Co based	Annealed		250	33	20-65
			Cured		350	34	20-65
			Cast		320	35	20-65
	Titanium, Ti alloys		Pure	Rm 400	190	36	30-100
			Alpha+beta alloys cured	Rm 1050	310	37	30-100
H	Hardened steel		Hardened		55HRC	38	
			Hardened		60HRC	39	
	Chilled cast iron		Cast		400	40	
	Cast iron nodular		Hardened		55HRC	41	

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

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

Recommended Cutting Conditions

Machining data for TBTA 3/5/7 & TBTA-R

Feed (mm/rev) vs. drill diameter				
Ø38.00 - Ø39.99	Ø40.00 - Ø51.99	Ø52.00 - Ø63.99	Ø64.00 - Ø84.99	Ø85.00 -
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.13	0.10-0.15	0.13-0.18	0.15-0.20	0.18-0.23
0.08-0.13	0.10-0.15	0.13-0.18	0.15-0.20	0.18-0.23
0.08-0.13	0.10-0.15	0.13-0.18	0.15-0.20	0.18-0.23
0.08-0.13	0.10-0.15	0.13-0.18	0.15-0.20	0.18-0.23
0.08-0.13	0.10-0.15	0.13-0.18	0.15-0.20	0.18-0.23
0.08-0.13	0.10-0.15	0.13-0.18	0.15-0.20	0.18-0.23
0.08-0.20	0.10-0.25	0.13-0.28	0.15-0.30	0.18-0.33
0.08-0.20	0.10-0.25	0.13-0.28	0.15-0.30	0.18-0.33
0.08-0.20	0.10-0.25	0.13-0.28	0.15-0.30	0.18-0.33
0.08-0.20	0.10-0.25	0.13-0.28	0.15-0.30	0.18-0.33
0.08-0.20	0.10-0.25	0.13-0.28	0.15-0.30	0.18-0.33
0.08-0.20	0.10-0.25	0.13-0.28	0.15-0.30	0.18-0.33
0.08-0.20	0.10-0.25	0.13-0.28	0.15-0.30	0.18-0.33
0.08-0.20	0.10-0.25	0.13-0.28	0.15-0.30	0.18-0.33
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30
0.08-0.15	0.10-0.20	0.13-0.23	0.15-0.25	0.18-0.30

Recommended Cutting Conditions

TDEEP

Machining data for TBTA-FB, BTE

ISO	Material		Condition	Tensile strength (N/mm^2)	Hardness HB	Material No.	Cutting speed Vc (m/min)
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	70-130
		>=0.25%C	Annealed	650	190	2	70-130
		<0.55%C	Quenched and tempered	850	250	3	70-130
		>=0.55%C	Annealed	750	220	4	70-130
			Quenched and tempered	1000	300	5	70-130
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	70-120
			Quenched and tempered	930	275	7	60-120
				1000	300	8	60-120
				1200	350	9	60-120
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	70-130
			Quenched and tempered	1100	325	11	70-130
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	70-130
			Martensitic	820	240	13	70-130
			Austenitic	600	180	14	70-130
K	Gray cast iron (GG)		Ferritic		160	15	60-110
			Pearlitic		250	16	60-110
	Cast iron nodular (GGG)		Ferritic		180	17	50-110
			Pearlitic		260	18	50-110
	Malleable cast iron		Ferritic		130	19	70-110
			Pearlitic		230	20	70-110
N	Aluminum - Wrought alloy		Not cureable		60	21	65-130
			Cured		100	22	65-130
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	65-130
			Cured		90	24	65-130
		>12% Si	High temp.		130	25	65-130
	Copper alloys	>1% Pb	Free cutting		110	26	65-130
			Brass		90	27	65-130
			Electrolitic copper		100	28	65-130
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29	
			Hard rubber		55 Shore D	30	
S	High temp. alloys	Fe based	Annealed		200	31	20-50
			Cured		280	32	20-50
		Ni or Co based	Annealed		250	33	20-50
			Cured		350	34	20-50
			Cast		320	35	20-50
	Titanium, Ti alloys		Pure	Rm 400	190	36	30-60
			Alpha+beta alloys cured	Rm 1050	310	37	30-60
H	Hardened steel		Hardened		55HRC	38	
			Hardened		60HRC	39	
	Chilled cast iron		Cast		400	40	
	Cast iron nodular		Hardened		55HRC	41	

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

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

Recommended Cutting Conditions

Machining data for TBTA-FB, BTE

TBTA-FB		BTE	
Feed (mm/rev) vs. drill diameter		Cutting speed Vc (m/min)	Feed (mm/rev) vs. drill diameter
Ø25.00 - Ø43.00	Ø43.01 - Ø65.00		Ø15.60 - Ø16.70
0.10-0.30	0.12-0.35	80-140	0.10-0.16
0.10-0.30	0.12-0.35	80-130	0.10-0.16
0.10-0.30	0.12-0.35	80-120	0.10-0.16
0.10-0.30	0.12-0.35	70-110	0.10-0.16
0.10-0.30	0.12-0.35	50-90	0.10-0.12
0.10-0.30	0.12-0.35	70-120	0.10-0.16
0.10-0.30	0.12-0.35	70-110	0.10-0.12
0.10-0.30	0.12-0.35	50-90	0.10-0.12
0.10-0.30	0.12-0.35	40-70	0.10-0.12
0.10-0.30	0.12-0.35	50-90	0.10-0.16
0.10-0.30	0.12-0.35	40-80	0.10-0.12
0.10-0.30	0.12-0.35	40-70	0.04-0.16
0.10-0.30	0.12-0.35	40-70	0.04-0.16
0.10-0.30	0.12-0.35	30-70	0.04-0.14
0.10-0.25	0.12-0.35	90-160	0.06-0.16
0.10-0.25	0.12-0.35	80-140	0.06-0.16
0.10-0.25	0.12-0.35	90-180	0.06-0.16
0.10-0.25	0.12-0.35	80-140	0.06-0.16
0.10-0.25	0.12-0.35	90-160	0.06-0.16
0.10-0.25	0.12-0.35	80-140	0.06-0.16
0.10-0.25	0.12-0.35	90-220	0.08-0.16
0.08-0.23	0.12-0.27	90-220	0.08-0.16
0.08-0.23	0.12-0.27	90-220	0.08-0.16
0.08-0.23	0.12-0.27	90-220	0.08-0.16
0.08-0.23	0.12-0.27	80-160	0.08-0.16
0.08-0.23	0.12-0.27	90-220	0.08-0.16
0.08-0.23	0.12-0.27	90-220	0.08-0.16
0.08-0.23	0.12-0.27	90-220	0.08-0.16
0.08-0.23	0.12-0.27	30-60	0.06-0.14
0.08-0.23	0.12-0.27	20-50	0.06-0.14
0.08-0.23	0.12-0.27	20-50	0.06-0.14
0.08-0.23	0.12-0.27	20-50	0.06-0.14
0.08-0.23	0.12-0.27	20-50	0.06-0.14
0.08-0.23	0.12-0.27	20-50	0.06-0.12
0.08-0.23	0.12-0.27	20-50	0.06-0.12

Recommended Cutting Conditions

Machining data for BTA & BTS

ISO	Material		Condition	Tensile strength (N/mm^2)	Hardness HB	Material No.	Cutting speed Vc (m/min)
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	70-120
		>=0.25%C	Annealed	650	190	2	70-120
		<0.55%C	Quenched and tempered	850	250	3	40-70
		>=0.55%C	Annealed	750	220	4	70-120
			Quenched and tempered	1000	300	5	55-100
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	70-100
			Quenched and tempered	930	275	7	55-100
				1000	300	8	55-100
				1200	350	9	55-100
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	50-85
			Quenched and tempered	1100	325	11	55-100
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	60-100
			Martensitic	820	240	13	60-100
			Austenitic	600	180	14	60-100
K	Gray cast iron (GG)		Ferritic		160	15	60-100
			Pearlitic		250	16	60-100
	Cast iron nodular (GGG)		Ferritic		180	17	80-100
			Pearlitic		260	18	80-100
	Malleable cast iron		Ferritic		130	19	50-100
			Pearlitic		230	20	50-100
N	Aluminum - Wrought alloy		Not cureable		60	21	65-130
			Cured		100	22	65-100
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	65-130
			Cured		90	24	65-130
		>12% Si	High temp.		130	25	65-130
	Copper alloys	>1% Pb	Free cutting		110	26	65-130
			Brass		90	27	65-130
			Electrolitic copper		100	28	65-130
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29	
			Hard rubber		55 Shore D	30	
S	High temp. alloys	Fe based	Annealed		200	31	10-50
			Cured		280	32	10-50
		Ni or Co based	Annealed		250	33	10-50
			Cured		350	34	10-50
			Cast		320	35	10-50
	Titanium, Ti alloys		Pure	Rm 400	190	36	30-50
			Alpha+beta alloys cured	Rm 1050	310	37	30-50
H	Hardened steel		Hardened		55HRC	38	
			Hardened		60HRC	39	
	Chilled cast iron		Cast		400	40	
	Cast iron nodular		Hardened		55HRC	41	

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

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

Recommended Cutting Conditions

Machining data for BTA & BTS

Feed (mm/rev) vs. drill diameter				
Ø8.00 - Ø20.00	Ø15.60 - Ø20.00	Ø20.01 - Ø31.00	Ø31.01 - Ø43.00	Ø43.01 - Ø65.00
0.05-0.13	0.08-0.15	0.10-0.17	0.13-0.20	0.16-0.30
0.05-0.13	0.08-0.15	0.10-0.17	0.13-0.20	0.16-0.30
0.05-0.13	0.08-0.15	0.10-0.17	0.13-0.20	0.16-0.30
0.05-0.13	0.08-0.15	0.10-0.17	0.13-0.20	0.16-0.30
0.05-0.10	0.08-0.12	0.10-0.15	0.13-0.17	0.15-0.28
0.05-0.13	0.08-0.15	0.10-0.17	0.13-0.20	0.16-0.30
0.05-0.10	0.08-0.12	0.10-0.15	0.13-0.17	0.15-0.28
0.05-0.10	0.08-0.12	0.10-0.15	0.13-0.17	0.15-0.28
0.05-0.10	0.08-0.12	0.10-0.15	0.13-0.17	0.15-0.28
0.05-0.13	0.08-0.15	0.10-0.17	0.13-0.20	0.16-0.30
0.05-0.10	0.08-0.12	0.10-0.15	0.13-0.17	0.15-0.28
0.05-0.13	0.08-0.15	0.10-0.28	0.13-0.30	0.16-0.35
0.05-0.13	0.08-0.15	0.10-0.28	0.13-0.30	0.16-0.35
0.05-0.12	0.05-0.12	0.08-0.25	0.10-0.28	0.15-0.33
0.05-0.13	0.06-0.13	0.08-0.18	0.10-0.20	0.15-0.25
0.05-0.13	0.06-0.13	0.08-0.18	0.10-0.20	0.15-0.25
0.05-0.13	0.08-0.15	0.10-0.17	0.13-0.20	0.16-0.30
0.05-0.13	0.08-0.15	0.10-0.17	0.13-0.20	0.16-0.30
0.05-0.13	0.06-0.13	0.08-0.18	0.10-0.20	0.15-0.25
0.05-0.13	0.06-0.13	0.08-0.18	0.10-0.20	0.15-0.25
0.05-0.13	0.08-0.15	0.10-0.20	0.15-0.25	0.16-0.30
0.05-0.13	0.08-0.15	0.10-0.20	0.15-0.25	0.16-0.30
0.05-0.13	0.08-0.15	0.10-0.20	0.15-0.25	0.16-0.30
0.05-0.13	0.08-0.15	0.10-0.20	0.15-0.25	0.16-0.30
0.05-0.13	0.08-0.15	0.10-0.20	0.15-0.25	0.16-0.30
0.05-0.13	0.08-0.15	0.10-0.20	0.15-0.25	0.16-0.30
0.05-0.13	0.08-0.15	0.10-0.20	0.15-0.25	0.16-0.30
0.05-0.13	0.08-0.15	0.10-0.20	0.15-0.25	0.16-0.30
0.05-0.12	0.06-0.12	0.08-0.15	0.12-0.18	0.15-0.25
0.05-0.12	0.06-0.12	0.08-0.15	0.12-0.18	0.15-0.25
0.05-0.12	0.06-0.12	0.08-0.15	0.12-0.18	0.15-0.25
0.05-0.12	0.06-0.12	0.08-0.15	0.12-0.18	0.15-0.25
0.05-0.12	0.06-0.12	0.08-0.15	0.12-0.18	0.15-0.25
0.05-0.10	0.05-0.10	0.08-0.12	0.10-0.15	0.12-0.20
0.05-0.10	0.05-0.10	0.08-0.12	0.10-0.15	0.12-0.20

Recommended Cutting Conditions

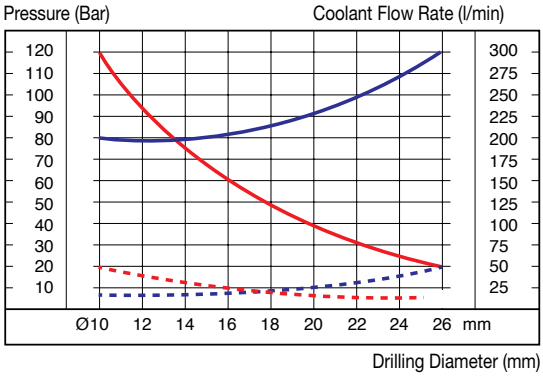
Machining data for WIN-GUN

ISO	Material		Condition	Tensile strength (N/mm²)	Hardness HB	Material No.	Cutting speed Vc (m/min)
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	80-110-140
		>=0.25%C	Annealed	650	190	2	80-105-130
		<0.55%C	Quenched and tempered	850	250	3	80-100-120
		>=0.55%C	Annealed	750	220	4	70-90-110
			Quenched and tempered	1000	300	5	50-70-90
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	80-100-120
			Quenched and tempered	930	275	7	70-90-110
				1000	300	8	50-70-90
				1200	350	9	40-55-70
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	50-70-90
			Quenched and tempered	1100	325	11	40-60-80
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	40-55-70
			Martensitic	820	240	13	
K	Gray cast iron (GG)		Ferritic		160	15	90-125-160
			Pearlitic		250	16	80-110-140
	Cast iron nodular (GGG)		Ferritic		180	17	90-135-180
			Pearlitic		260	18	80-110-140
	Malleable cast iron		Ferritic		130	19	90-125-160
			Pearlitic		230	20	80-110-140
N	Aluminum - Wrought alloy		Not cureable		60	21	90-155-220
			Cured		100	22	
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	
			Cured		90	24	
		>12% Si	High temp.		130	25	80-120-160

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

Steel | Stainless steel | Cast iron | Nonferrous

Pressure and Coolant Flow Rate for WIN-GUN



Recommended Cutting Conditions

Machining data for WIN-GUN

Feed (mm/rev) vs. drill diameter				
Ø10 - Ø11.9	Ø12 - Ø13.9	Ø14 - Ø15.9	Ø16 - Ø19.9	Ø20 - Ø25.9
0.15 0.18 0.21	0.18 0.21 0.24	0.20 0.23 0.27	0.25 0.30 0.35	0.25 0.30 0.35
0.14 0.17 0.21	0.16 0.20 0.24	0.18 0.22 0.26	0.23 0.27 0.31	0.25 0.30 0.35
0.12 0.14 0.17	0.15 0.17 0.20	0.18 0.20 0.23	0.20 0.22 0.25	0.22 0.24 0.27
0.12 0.13 0.15	0.14 0.15 0.17	0.16 0.18 0.20	0.16 0.19 0.21	0.18 0.21 0.24
0.20 0.23 0.27	0.25 0.28 0.32	0.30 0.33 0.37	0.35 0.40 0.45	0.35 0.42 0.47
0.25 0.28 0.32	0.30 0.33 0.37	0.35 0.38 0.42	0.40 0.45 0.50	0.45 0.50 0.57

- Red text: Recommended cutting data
- Mandatory use of emulsion or oil when drilling
- For the 400 mm long tools, please reduce the cutting speed by 20%

Recommended Cutting Conditions

Machining data for TRGD / TRGD3 / TRGDL / TBTA-TR

ISO	Material		Condition	Tensile strength (N/mm²)	Hardness HB	Material No.
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1
		>=0.25%C	Annealed	650	190	2
		<0.55%C	Quenched and tempered	850	250	3
		>=0.55%C	Annealed	750	220	4
			Quenched and tempered	1000	300	5
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6
			Quenched and tempered	930	275	7
				1000	300	8
				1200	350	9
	High alloy steel, cast steel and tool steel		Annealed	680	200	10
			Quenched and tempered	1100	325	11
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12
			Martensitic	820	240	13
			Austenitic	600	180	14
K	Gray cast iron (GG)		Ferritic		160	15
			Pearlitic		250	16
	Cast iron nodular (GGG)		Ferritic		180	17
			Pearlitic		260	18
	Malleable cast iron		Ferritic		130	19
			Pearlitic		230	20
N	Aluminum - Wrought alloy		Not cureable		60	21
			Cured		100	22
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23
			Cured		90	24
		>12% Si	High temp.		130	25
	Copper alloys	>1% Pb	Free cutting		110	26
			Brass		90	27
			Electrolitic copper		100	28
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29
			Hard rubber		55 Shore D	30
S	High temp. alloys	Fe based	Annealed		200	31
			Cured		280	32
		Ni or Co based	Annealed		250	33
			Cured		350	34
			Cast		320	35
	Titanium, Ti alloys		Pure	Rm 400	190	36
			Alpha+beta alloys cured	Rm 1050	310	37
H	Hardened steel		Hardened		55 HRC	38
			Hardened		60 HRC	39
	Chilled cast iron		Cast		400	40
	Cast iron nodular		Hardened		55 HRC	41

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

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

Recommended Cutting Conditions

Machining data for TRGD / TRGD3 / TRGDL / TBTA-TR

Feed (mm/rev) vs. drill diameter							
TRGD / TRGD3 / TRGDL						TBTA-TR	
Cutting speed Vc (m/min)	Ø10.00-Ø11.80	Ø12.00-Ø13.99	Ø14.00-Ø15.99	Ø16.00-Ø28.00	Ø28.01-Ø40.00	Cutting speed Vc (m/min)	Ø16.00-Ø28.00
80-140	0.05-0.08	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.15	90-130	0.15-0.20
80-140	0.05-0.14	0.05-0.16	0.05-0.10	0.05-0.10	0.05-0.15	90-130	0.15-0.20
80-140	0.05-0.14	0.05-0.16	0.05-0.16	0.05-0.20	0.05-0.20	90-130	0.15-0.20
80-140	0.05-0.14	0.05-0.16	0.05-0.16	0.05-0.20	0.05-0.20	70-130	0.10-0.25
80-140	0.05-0.14	0.05-0.16	0.05-0.16	0.05-0.20	0.05-0.20	70-130	0.10-0.25
80-140	0.05-0.14	0.05-0.16	0.05-0.10	0.05-0.10	0.05-0.15	70-120	0.10-0.25
80-120	0.05-0.14	0.05-0.16	0.05-0.16	0.05-0.20	0.05-0.20	60-120	0.10-0.25
80-120			0.05-0.16	0.05-0.20	0.05-0.20	60-120	0.10-0.25
80-120			0.05-0.16	0.05-0.20	0.05-0.20	60-120	0.10-0.25
80-140			0.05-0.10	0.05-0.10	0.05-0.15	70-130	0.10-0.25
80-120			0.05-0.16	0.05-0.20	0.05-0.20	70-130	0.10-0.25
60-100	0.05-0.08	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.15	80-130	0.06-0.10
60-100	0.05-0.08	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.15	80-130	0.06-0.10
60-100	0.05-0.08	0.05-0.10	0.05-0.10	0.05-0.10	0.05-0.15	80-130	0.06-0.10
80-140	0.05-0.20	0.05-0.25	0.05-0.25	0.05-0.30	0.05-0.30	50-110	0.10-0.20
80-140	0.05-0.20	0.05-0.25	0.05-0.25	0.05-0.30	0.05-0.30	50-110	0.10-0.20
80-140	0.05-0.20	0.05-0.25	0.05-0.25	0.05-0.30	0.05-0.30	60-110	0.10-0.20
80-140	0.05-0.20	0.05-0.25	0.05-0.25	0.05-0.30	0.05-0.30	60-110	0.10-0.20
80-140			0.05-0.25	0.05-0.30	0.05-0.30	70-110	0.10-0.20
80-140			0.05-0.25	0.05-0.30	0.05-0.30	70-110	0.10-0.20
100-200	0.05-0.18	0.05-0.20	0.05-0.20	0.05-0.20	0.05-0.25	65-130	0.08-0.18
100-200	0.05-0.18	0.05-0.20	0.05-0.20	0.05-0.20	0.05-0.25	65-130	0.08-0.18
100-200	0.05-0.18	0.05-0.20	0.05-0.20	0.05-0.20	0.05-0.25	65-130	0.08-0.18
100-200	0.05-0.18	0.05-0.20	0.05-0.20	0.05-0.20	0.05-0.25	65-130	0.08-0.18
						65-130	0.08-0.18
						65-130	0.08-0.18
						65-130	0.08-0.18
						65-130	0.08-0.18
						65-130	0.08-0.18
						65-130	0.08-0.18
20-50	0.04-0.06	0.04-0.08	0.04-0.08	0.04-0.10	0.04-0.13	20-50	0.08-0.18
20-50	0.04-0.06	0.04-0.08	0.04-0.08	0.04-0.10	0.04-0.13	20-50	0.08-0.18
20-50	0.04-0.06	0.04-0.08	0.04-0.08	0.04-0.10	0.04-0.13	20-50	0.08-0.18
20-50	0.04-0.06	0.04-0.08	0.04-0.08	0.04-0.10	0.04-0.13	20-50	0.08-0.18
20-50	0.04-0.06	0.04-0.08	0.04-0.08	0.04-0.10	0.04-0.13	20-50	0.08-0.18
30-60	0.04-0.10	0.05-0.13	0.05-0.13	0.05-0.15	0.05-0.18	30-60	0.08-0.18
30-60	0.04-0.10	0.05-0.13	0.05-0.13	0.05-0.15	0.05-0.18	30-60	0.08-0.18
50-100	0.04-0.06	0.04-0.08	0.04-0.08	0.04-0.10	0.04-0.13		
50-100	0.04-0.06	0.04-0.08	0.04-0.08	0.04-0.10	0.04-0.13		
50-100	0.04-0.06	0.04-0.08	0.04-0.08	0.04-0.10	0.04-0.13		
50-100	0.04-0.06	0.04-0.08	0.04-0.08	0.04-0.10	0.04-0.13		

Recommended Cutting Conditions

HDRILL

Machining data for CDF

Material	Tensile strength (N/mm^2)	Hardness HB	Cutting speed Vc (m/min)	Feed (mm/rev) vs. drill diameter			
				Ø3.0 - Ø6.0	Ø6.1- Ø8.0	Ø8.1- Ø10.0	Ø10.1- Ø12.7
CFRP	420	125	50-150	0.02-0.07	0.03-0.08	0.03-0.08	0.04-0.10
GFRP	650	190	40-120	0.02-0.07	0.03-0.08	0.03-0.08	0.04-0.10

Recommended Cutting Conditions

XM-REAM

Machining data for XM-REAM

ISO	Material		Condition	Tensile strength (N/mm²)	Hardness HB	Material No.	Cutting speed Vc (m/min)	Feed (mm/rev) vs. reamer diameter		
								Ø8-9.99	Ø10-11.99	Ø12-12.99
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	50-150	0.25-0.50	0.30-0.60	0.35-0.80
		>=0.25%C	Annealed	650	190	2	50-150	0.25-0.50	0.30-0.60	0.35-0.80
		<0.55%C	Quenched and tempered	850	250	3	50-150	0.25-0.50	0.30-0.60	0.35-0.80
		>=0.55%C	Annealed	750	220	4	50-150	0.25-0.50	0.30-0.60	0.35-0.80
			Quenched and tempered	1000	300	5	50-150	0.25-0.50	0.30-0.60	0.35-0.80
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	50-150	0.25-0.50	0.30-0.60	0.35-0.80
			Quenched and tempered	930	275	7	50-150	0.25-0.50	0.30-0.60	0.35-0.80
				1000	300	8	50-150	0.25-0.50	0.30-0.60	0.35-0.80
				1200	350	9	50-150	0.25-0.50	0.30-0.60	0.35-0.80
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	20-60	0.20-0.30	0.25-0.40	0.30-0.50
			Quenched and tempered	1100	325	11	20-60	0.20-0.30	0.25-0.40	0.30-0.50
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	20-40	0.20-0.30	0.25-0.40	0.30-0.50
			Martensitic	820	240	13	20-40	0.20-0.30	0.25-0.40	0.30-0.50
			Austenitic	600	180	14	20-40	0.20-0.30	0.25-0.40	0.30-0.50
K	Gray cast iron (GG)		Ferritic		160	15	50-200	0.30-0.60	0.35-0.80	0.40-1.00
			Pearlitic		250	16	50-200	0.30-0.60	0.35-0.80	0.40-1.00
	Cast iron nodular (GGG)		Ferritic		180	17	50-200	0.30-0.60	0.35-0.80	0.40-1.00
			Pearlitic		260	18	50-200	0.30-0.60	0.35-0.80	0.40-1.00
	Malleable cast iron		Ferritic		130	19	50-200	0.30-0.60	0.35-0.80	0.40-1.00
			Pearlitic		230	20	50-200	0.30-0.60	0.35-0.80	0.40-1.00
N	Aluminum - Wrought alloy		Not cureable		60	21	100-250	0.30-0.60	0.35-0.80	0.40-1.00
			Cured		100	22	100-250	0.30-0.60	0.35-0.80	0.40-1.00
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	100-250	0.30-0.60	0.35-0.80	0.40-1.00
			Cured		90	24	100-250	0.30-0.60	0.35-0.80	0.40-1.00
		>12% Si	High temp.		130	25	100-250	0.30-0.60	0.35-0.80	0.40-1.00
	Copper alloys	>1% Pb	Free cutting		110	26	100-250	0.30-0.60	0.35-0.80	0.40-1.00
			Brass		90	27	100-250	0.30-0.60	0.35-0.80	0.40-1.00
			Electrolitic copper		100	28	100-250	0.30-0.60	0.35-0.80	0.40-1.00
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29				
			Hard rubber		55 Shore D	30				
S	High temp. alloys	Fe based	Annealed		200	31				
			Cured		280	32				
		Ni or Co based	Annealed		250	33				
			Cured		350	34				
			Cast		320	35				
	Titanium, Ti alloys		Pure	Rm 400	190	36				
			Alpha+beta alloys cured	Rm 1050	310	37				
H	Hardened steel		Hardened		55 HRC	38				
			Hardened		60 HRC	39				
	Chilled cast iron		Cast		400	40				
	Cast iron nodular		Hardened		55 HRC	41				

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

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

Recommended Cutting Conditions

TM-REAM

Machining data for TM-REAM - Through hole

ISO	Material		Condition	Material No.	Through hole		Interrupted through Hole	
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	1	TT9030	BL	TT9030	BL
		>=0.25%C	Annealed	2	Vc = 80 - 200		Vc = 60 - 120	
		<0.55%C	Quenched and tempered	3	B4 - B6	fz = 0.08 - 0.21	B4 - B6	fz = 0.08 - 0.21
		>=0.55%C	Annealed	4				
			Quenched and tempered	5	B7 - B9	fz = 0.12 - 0.27	B7 - B9	fz = 0.09 - 0.21
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	6	TT9030	BL	TT9030	BL
			Quenched and tempered	7	Vc = 80 - 200		Vc = 60 - 120	
				8	B4 - B6	fz = 0.08 - 0.21	B4 - B6	fz = 0.08 - 0.21
				9	B7 - B9	fz = 0.12 - 0.27	B7 - B9	fz = 0.09 - 0.21
	High alloy steel, cast steel and tool steel		Annealed	10	TT9030	BL	TT9030	BL
					Vc = 20 - 60		Vc = 20 - 60	
			Quenched and tempered	11	B4 - B6	fz = 0.05 - 0.13	B4 - B6	fz = 0.04 - 0.11
					B7 - B9	fz = 0.07 - 0.17	B7 - B9	fz = 0.05 - 0.14
M	Stainless steel and cast steel		Ferritic / martensitic	12	TT9030	BL	TT9030	BL
					Vc = 20 - 40		Vc = 20 - 40	
			Martensitic	13	B4 - B6	fz = 0.05 - 0.13	B4 - B6	fz = 0.04 - 0.11
			Austenitic	14	B7 - B9	fz = 0.07 - 0.17	B7 - B9	fz = 0.05 - 0.14
K	Gray cast iron (GG)		Ferritic	15	TT9030	BL	TT9030	BL
					Vc = 120 - 220		Vc = 80 - 200	
			Pearlitic	16	B4 - B6	fz = 0.08 - 0.18	B4 - B6	fz = 0.05 - 0.13
					B7 - B9	fz = 0.10 - 0.24	B7 - B9	fz = 0.07 - 0.17
	Cast iron nodular (GGG)		Ferritic	17	TT9030	AS or BL	TT9030	BL
					Vc = 160 - 280		Vc = 150 - 250	
			Pearlitic	18	B4 - B6	fz = 0.11 - 0.20	B4 - B6	fz = 0.06 - 0.15
					B7 - B9	fz = 0.11 - 0.24	B7 - B9	fz = 0.08 - 0.19
	Malleable cast iron		Ferritic	19	TT9030	AS or BL	TT9030	BL
					Vc = 100 - 220		Vc = 100 - 220	
			Pearlitic	20	B4 - B6	fz = 0.11 - 0.20	B4 - B6	fz = 0.06 - 0.15
					B7 - B9	fz = 0.11 - 0.24	B7 - B9	fz = 0.08 - 0.20

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

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

Recommended Cutting Conditions

TM-REAM

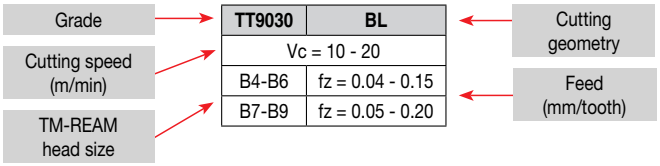
Machining data for TM-REAM - Through hole

ISO	Material		Condition	Material No.	Through hole		Interrupted through Hole	
N	Aluminum - Wrought alloy		Not cureable	21	UF10	BL or GS	UF10	BL
			Cured	22	Vc = 150 - 400		Vc = 150 - 400	
	Aluminum-cast, alloyed	<=12% Si	Not cureable	23	B4 - B6	fz = 0.08 - 0.16	B4 - B6	fz = 0.08 - 0.16
			Cured	24				
		>12% Si	High temp.	25	B7 - B9	fz = 0.10 - 0.20	B7 - B9	fz = 0.10 - 0.20
	Copper alloys	>1% Pb	Free cutting	26	TT9030	BL	TT9030	BL
					Vc = 50 - 200		Vc = 50 - 200	
			Brass	27	B4 - B6	fz = 0.08 - 0.18	B4 - B6	fz = 0.05 - 0.13
			Electrolitic copper	28	B7 - B9	fz = 0.10 - 0.23	B7 - B9	fz = 0.07 - 0.16
	Non-metallic		Duroplastics, fiber plastics	29	TT9030	AS	TT9030	AS
					Vc = 25 - 80		Vc = 25 - 80	
			Hard rubber	30	B4 - B6	fz = 0.05 - 0.10	B4 - B6	fz = 0.05 - 0.10
					B7 - B9	fz = 0.10 - 0.20	B7 - B9	fz = 0.10 - 0.20
S	High temp. alloys	Fe based	Annealed	31	TT9030	L *	TT9030	L *
			Cured	32	Vc = 15 - 50		Vc = 15 - 50	
		Ni or Co based	Annealed	33				
			Cured	34	B4 - B6	fz = 0.04 - 0.10	B4 - B6	fz = 0.03 - 0.08
			Cast	35				
	Titanium, Ti alloys		Pure	36	B7 - B9	fz = 0.05 - 0.13	B4 - B6	fz = 0.04 - 0.11
			Alpha+beta alloys cured	37				
H	Hardened steel		Hardened	38	TT9030	BL	TT9030	BL
			Hardened	39	Vc = 25 - 50		Vc = 25 - 50	
	Chilled cast iron		Cast	40	B4 - B6	fz = 0.06 - 0.15	B4 - B6	fz = 0.06 - 0.15
	Cast iron nodular		Hardened	41	B7 - B9	fz = 0.10 - 0.20	B7 - B9	fz = 0.10 - 0.20

* Standard edge geometries are not suitable for reaming titanium and high temperature alloys.
In order to choose a proper geometry, please ask for our recommendations.

- The given cutting data recommendations refer to the short holders (3xD effective reaming overhang). For longer holders, the cutting speed to be reduced proportionally.
- For relatively large leading angles (spot-facing geometries), the feed to be reduced up to 30%.
- All the given cutting data recommendations refer to the machines with spindle through coolant supply.

Legend:



Recommended Cutting Conditions

TM-REAM

Machining data for TM-REAM - Blind hole

ISO	Material		Condition	Material No.	Blind hole		Interrupted blind hole	
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	1	TT9030	AS	TT9030	AS
		>=0.25%C	Annealed	2	Vc = 60-160		Vc = 60 - 120	
		<0.55%C	Quenched and tempered	3	B4 - B6	fz = 0.06 - 0.18	B4 - B6	fz = 0.05 - 0.15
		>=0.55%C	Annealed	4				
			Quenched and tempered	5	B7 - B9	fz = 0.08 - 0.20	B7 - B9	fz = 0.07 - 0.16
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	6	TT9030	AS	TT9030	AS
			Quenched and tempered	7	Vc = 60-160		Vc = 60 - 120	
				8	B4 - B6	fz = 0.06 - 0.18	B4 - B6	fz = 0.05 - 0.15
				9	B7 - B9	fz = 0.08 - 0.20	B7 - B9	fz = 0.07 - 0.16
	High alloy steel, cast steel and tool steel		Annealed	10	TT9030	AS	TT9030	AS
					Vc = 20 - 60		Vc = 20 - 60	
			Quenched and tempered	11	B4 - B6	fz = 0.04 - 0.10	B4 - B6	fz = 0.03 - 0.08
					B7 - B9	fz = 0.05 - 0.13	B7 - B9	fz = 0.04 - 0.10
M	Stainless steel and cast steel		Ferritic / martensitic	12	TT9030	AS	TT9030	AS
					Vc = 20 - 40		Vc = 20 - 40	
			Martensitic	13	B4 - B6	fz = 0.04 - 0.10	B4 - B6	fz = 0.03 - 0.08
			Austenitic	14	B7 - B9	fz = 0.05 - 0.13	B7 - B9	fz = 0.05 - 0.10
K	Gray cast iron (GG)		Ferritic	15	TT9030	AS	TT9030	AS
					Vc = 80 - 200		Vc = 60 - 120	
			Pearlitic	16	B4 - B6	fz = 0.06 - 0.18	B4 - B6	fz = 0.05 - 0.13
					B7 - B9	fz = 0.08 - 0.23	B7 - B9	fz = 0.08 - 0.18
	Cast iron nodular (GGG)		Ferritic	17	TT9030	AS	TT9030	AS
					Vc = 160 - 280		Vc = 160 - 240	
			Pearlitic	18	B4 - B6	fz = 0.06 - 0.18	B4 - B6	fz = 0.06 - 0.16
					B7 - B9	fz = 0.08 - 0.23	B7 - B9	fz = 0.08 - 0.18
	Malleable cast iron		Ferritic	19	TT9030	AS	TT9030	AS
					Vc = 100 - 220		Vc = 100 - 220	
			Pearlitic	20	B4 - B6	fz = 0.06 - 0.18	B4 - B6	fz = 0.05 - 0.15
					B7 - B9	fz = 0.08 - 0.23	B7 - B9	fz = 0.08 - 0.20

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

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

Recommended Cutting Conditions

TM-REAM

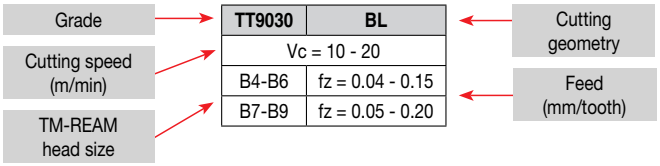
Machining data for TM-REAM - Blind hole

ISO	Material		Condition	Material No.	Blind hole		Interrupted blind hole	
N	Aluminum - Wrought alloy		Not cureable	21	UF10	GS or AS	UF10	GS or AS
			Cured	22	Vc = 150 - 400		Vc = 150 - 300	
	Aluminum-cast, alloyed	<=12% Si	Not cureable	23	B4 - B6	fz = 0.08 - 0.16	B4 - B6	fz = 0.07 - 0.15
			Cured	24				
		>12% Si	High temp.	25	B7 - B9	fz = 0.11 - 0.20	B7 - B9	fz = 0.11 - 0.20
	Copper alloys	>1% Pb	Free cutting	26	TT9030	AS	TT9030	AS
					Vc = 50 - 200		Vc = 50 - 200	
			Brass	27	B4 - B6	fz = 0.08 - 0.16	B4 - B6	fz = 0.08 - 0.16
			Electrolitic copper	28	B7 - B9	fz = 0.10 - 0.20	B7 - B9	fz = 0.10 - 0.20
	Non-metallic		Duroplastics, fiber plastics	29	TT9030	AS	TT9030	AS
					Vc = 25 - 80		Vc = 25 - 80	
			Hard rubber	30	B4 - B6	fz = 0.05 - 0.10	B4 - B6	fz = 0.05 - 0.10
					B7 - B9	fz = 0.10 - 0.20	B7 - B9	fz = 0.10 - 0.20
S	High temp. alloys	Fe based	Annealed	31	TT9030	L *	TT9030	L *
			Cured	32	Vc = 15 - 50		Vc = 15 - 50	
		Ni or Co based	Annealed	33				
			Cured	34	B4 - B6	fz = 0.03 - 0.08	B4 - B6	fz = 0.03 - 0.08
			Cast	35				
	Titanium, Ti alloys		Pure	36	B7 - B9	fz = 0.04 - 0.11	B7 - B9	fz = 0.04 - 0.11
			Alpha+beta alloys cured	37				
H	Hardened steel		Hardened	38	TT9030	AS	TT9030	AS
			Hardened	39	Vc = 25 - 50		Vc = 25 - 50	
	Chilled cast iron		Cast	40	B4 - B6	fz = 0.05 - 0.13	B4 - B6	fz = 0.05 - 0.13
	Cast iron nodular		Hardened	41	B7 - B9	fz = 0.10 - 0.20	B7 - B9	fz = 0.10 - 0.20

* Standard edge geometries are not suitable for reaming titanium and high temperature alloys.
In order to choose a proper geometry, please ask for our recommendations.

- The given cutting data recommendations refer to the short holders (3xD effective reaming overhang).
For longer holders, the cutting speed to be reduced proportionally.
- For relatively large leading angles (spot-facing geometries), the feed to be reduced up to 30%.
- All the given cutting data recommendations refer to the machines with spindle through coolant supply.

Legend:



Recommended Cutting Conditions

TB-REAM

Machining data for TB-REAM

ISO	Material	Material No.	Lead A (15°/3°) (Reaming allowance: 0.1 ~ 0.3) Feed (mm/rev)	Rake (°)	Cutting speed Vc (m/min) Carbide	Coated carbide	Cermet	PCD	CBN
P	Non-alloy steel and cast steel, free cutting steel	1 - 5	0.1-0.4	6	40-60	60-80	110-160		
P	Low alloy steel and cast steel (Less than 5% of alloying elements)	6 - 9	0.1-0.4	6	20-40	40-60	110-160		
P	High alloyed steel, cast steel and tool steel	10 - 11	0.1-0.4	6	20-40	20-60	20-60		
M	Stainless steel, cast steel	12 - 14	0.1-0.3	12	20-40	40-60	20-60		
K	Grey cast iron (GG)	15 - 16	0.1-0.3	0 / 6	40-60	60-100			Please ask
K	Cast iron nodular (GGG)	17 - 18	0.1-0.3	0 / 6	40-60	60-100			
K	Malleable cast iron	19 - 20	0.1-0.3	0 / 6	40-60	60-100			
N	Aluminum wrought alloy	21 - 22						Please ask	
N	Aluminum-cast,alloyed	23 - 25							
N	Copper alloys	26 - 28							
N	Non-metallic	29 - 30							

ISO	Material	Material No.	Lead C (75°) (Reaming allowance: 0.2 ~ 0.4) Feed (mm/rev)	Rake (°)	Cutting speed Vc (m/min) Carbide	Coated carbide	Cermet	PCD	CBN
P	Non-alloy steel and cast steel, free cutting steel	1 - 5							
P	Low alloy steel and cast steel (Less than 5% of alloying elements)	6 - 9							
P	High alloyed steel, cast steel and tool steel	10 - 11							
M	Stainless steel, cast steel	12 - 14							
K	Grey cast iron (GG)	15 - 16							Please ask
K	Cast iron nodular (GGG)	17 - 18							
K	Malleable cast iron	19 - 20							
N	Aluminum wrought alloy	21 - 22	0.15-0.3	12	150-250			Please ask	
N	Aluminum-cast,alloyed	23 - 25	0.15-0.3	12	150-250				
N	Copper alloys	26 - 28							
N	Non-metallic	29 - 30							

▸ The cutting conditions in the table below should be used to start a new application. Optimal conditions for a specific application should be evaluated by examining the results and changing the machining conditions accordingly.

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

Steel Stainless steel Cast iron Nonferrous

Recommended Cutting Conditions

TB-REAM

Machining data for TB-REAM

			Lead B (30°/3°) (Reaming allowance: 0.1 ~ 0.3)						
			Feed (mm/rev)	Rake (°)	Cutting speed Vc (m/min)				
ISO	Material	Material No.			Carbide	Coated carbide	Cermet	PCD	CBN
P	Non-alloy steel and cast steel, free cutting steel	1 - 5	0.1-0.4	6	60-80	80-120	110-160		
P	Low alloy steel and cast steel (Less than 5% of alloying elements)	6 - 9	0.1-0.4	6	60-80	80-120	110-160		
P	High alloyed steel, cast steel and tool steel	10 - 11	0.1-0.4	6	40-60	40-80	40-80		
M	Stainless steel, cast steel	12 - 14	0.1-0.3	12	40-60	60-80	60-80		
K	Grey cast iron (GG)	15 - 16	0.1-0.3	0 / 6	60-80	80-120			Please ask
K	Cast iron nodular (GGG)	17 - 18	0.1-0.3	0 / 6	60-80	80-120			
K	Malleable cast iron	19 - 20	0.1-0.3	0 / 6	60-80	80-120			
N	Aluminum wrought alloy	21 - 22		12	160-200			Please ask	
N	Aluminum-cast,alloyed	23 - 25		12	160-200				
N	Copper alloys	26 - 28		0	80-100				
N	Non-metallic	29 - 30		0	10-70				

			Lead D (30°/3°) (Reaming allowance: 0.1 ~ 0.2)						
			Feed (mm/rev)	Rake (°)	Cutting speed Vc (m/min)				
ISO	Material	Material No.			Carbide	Coated carbide	Cermet	PCD	CBN
P	Non-alloy steel and cast steel, free cutting steel	1 - 5	0.1-0.4	6	60-80	80-120	110-160		
P	Low alloy steel and cast steel (Less than 5% of alloying elements)	6 - 9	0.1-0.4	6	60-80	80-120	110-160		
P	High alloyed steel, cast steel and tool steel	10 - 11	0.1-0.4	6	40-60	40-80	40-80		
M	Stainless steel, cast steel	12 - 14	0.1-0.3	12	40-60	60-80	60-80		
K	Grey cast iron (GG)	15 - 16	0.1-0.3	0 / 6	60-80	80-120			Please ask
K	Cast iron nodular (GGG)	17 - 18	0.1-0.3	0 / 6	60-80	80-120			
K	Malleable cast iron	19 - 20	0.1-0.3	0 / 6	60-80	80-120			
N	Aluminum wrought alloy	21 - 22		12	110-200			Please ask	
N	Aluminum-cast,alloyed	23 - 25		12	160-200				
N	Copper alloys	26 - 28		0	80-100				
N	Non-metallic	29 - 30							

▸ The cutting conditions in the table below should be used to start a new application. Optimal conditions for a specific application should be evaluated by examining the results and changing the machining conditions accordingly.

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

Steel Stainless steel Cast iron Nonferrous

Recommended Cutting Conditions

TSREAM

Machining data for TS-REAM

ISO	Material		Condition	Tensile strength (N/mm^2)	Hardness HB	Material No.	Cutting speed Vc (m/min)
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	120-250
		>=0.25%C	Annealed	650	190	2	120-250
		<0.55%C	Quenched and tempered	850	250	3	120-250
		>=0.55%C	Annealed	750	220	4	
			Quenched and tempered	1000	300	5	
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	120-250
			Quenched and tempered	930	275	7	120-250
				1000	300	8	120-250
				1200	350	9	120-250
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	120-250
			Quenched and tempered	1100	325	11	120-250
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	60-120
			Martensitic	820	240	13	60-120
			Austenitic	600	180	14	60-120
K	Gray cast iron (GG)		Ferritic		160	15	60-120
			Pearlitic		250	16	60-120
	Cast iron nodular (GGG)		Ferritic		180	17	60-120
			Pearlitic		260	18	60-120
	Malleable cast iron		Ferritic		130	19	60-120
			Pearlitic		230	20	60-120
N	Aluminum - Wrought alloy		Not cureable		60	21	250-500
			Cured		100	22	250-500
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	250-500
			Cured		90	24	250-500
		>12% Si	High temp.		130	25	
	Copper alloys	>1% Pb	Free cutting		110	26	
			Brass		90	27	
			Electrolitic copper		100	28	
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29	
			Hard rubber		55 Shore D	30	
S	High temp. alloys	Fe based	Annealed		200	31	
			Cured		280	32	
		Ni or Co based	Annealed		250	33	25-50
			Cured		350	34	25-50
			Cast		320	35	
	Titanium, Ti alloys		Pure	Rm 400	190	36	30-80
			Alpha+beta alloys cured	Rm 1050	310	37	30-80
H	Hardened steel		Hardened		55HRC	38	25-60
			Hardened		60HRC	39	
	Chilled cast iron		Cast		400	40	
	Cast iron nodular		Hardened		55HRC	41	

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

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

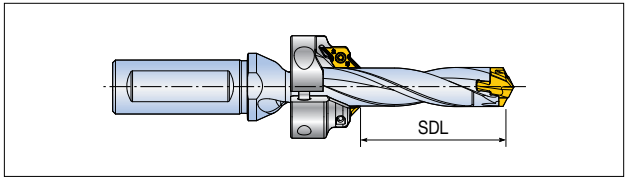
Recommended Cutting Conditions

TS REAM

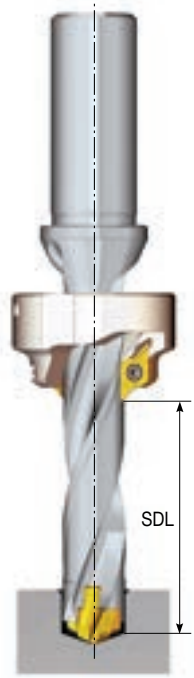
Machining data for TS-REAM

Feed (mm/rev) vs. reamer diameter			
Ø3.0 - Ø5.0	Ø6.0 - Ø7.0	Ø8.0 - Ø10.0	Ø10.5 - Ø12.0
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60
0.10-0.40	0.15-0.70	0.50-1.40	0.80-1.60

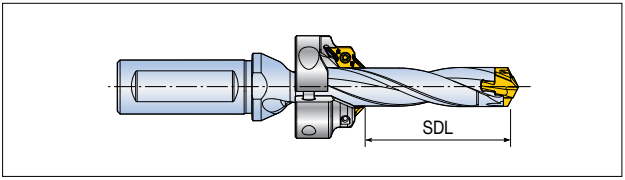
Chamfering ring designation - DRILL-RUSH



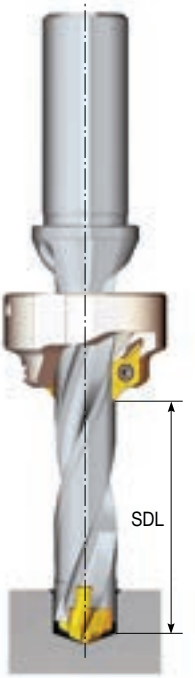
	Designation	CFR designation	SDL	
			min	max
3D	TCD 130-134-16T3/S0-3D	CFR D130-A45	19	19
	135-139-16T3/S0-3D	CFR D135-A45	19	20
	140-144-16T3/S0-3D	CFR D140-A45	21	22
	145-149-16T3/S0-3D	CFR D145-A45	22	23
	150-159-20T3/S0-3D	CFR D150-A45	23	23
	160-169-20T3/S0-3D	CFR D160-A45	24	25
	170-179-20T3/S0-3D	CFR D170-A45	26	28
	180-189-25T2/S0-3D	CFR D180-A45	27	30
	190-199-25T2/S0-3D	CFR D190-A45	29	33
	200-209-25T2/S0-3D	CFR D200-A45	30	36
	210-219-25T2/S0-3D	CFR D210-A45	32	39
	220-229-25T2/S0-3D	CFR D220-A45	33	42
	230-239-32T2/S0-3D	CFR D230-A45	35	45
	240-249-32T2/S0-3D	CFR D240-A45	36	48
	250-259-32T2/S0-3D	CFR D250-A45	38	51
5D	TCD 100-104-16T3/S0-5D	CFR D100-A45	28	28
	105-109-16T3/S0-5D	CFR D105-A45	29	30
	110-114-16T3/S0-5D	CFR D110-A45	31	33
	115-119-16T3/S0-5D	CFR D115-A45	32	35
	120-124-16T3/S0-5D	CFR D120-A45	33	45
	125-129-16T3/S0-5D	CFR D125-A45	34	40
	130-134-16T3/S0-5D	CFR D130-A45	36	43
	135-139-16T3/S0-5D	CFR D135-A45	37	43
	140-144-16T3/S0-5D	CFR D140-A45	38	48
	145-149-16T3/S0-5D	CFR D145-A45	39	48
	150-159-20T3/S0-5D	CFR D150-A45	41	53
	160-169-20T3/S0-5D	CFR D160-A45	43	58
	170-179-20T3/S0-5D	CFR D170-A45	46	63
	180-189-25T2/S0-5D	CFR D180-A45	48	68
	190-199-25T2/S0-5D	CFR D190-A45	51	73
	200-209-25T2/S0-5D	CFR D200-A45	53	78
	210-219-25T2/S0-5D	CFR D210-A45	56	79
	220-229-25T2/S0-5D	CFR D220-A45	58	84
	230-239-32T2/S0-5D	CFR D230-A45	61	89
	240-249-32T2/S0-5D	CFR D240-A45	63	94
	250-259-32T2/S0-5D	CFR D250-A45	66	99



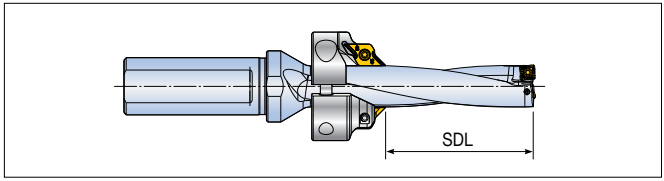
Chamfering ring designation - DRILL-RUSH



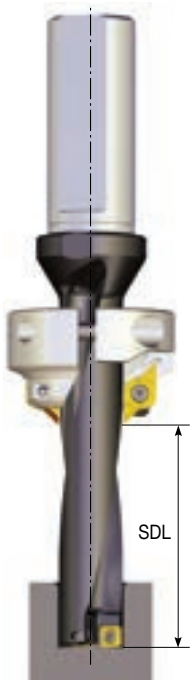
	Designation	CFR designation	SDL	
			min	max
8D	TCD 100-104-16T3/S0-8D	CFR D100-A45	45	58
	105-109-16T3/S0-8D	CFR D105-A45	49	62
	110-114-16T3/S0-8D	CFR D110-A45	49	66
	115-119-16T3/S0-8D	CFR D115-A45	53	70
	120-124-16T3/S0-8D	CFR D120-A45	53	74
	125-129-16T3/S0-8D	CFR D125-A45	57	78
	130-134-16T3/S0-8D	CFR D130-A45	57	82
	135-139-16T3/S0-8D	CFR D135-A45	61	84
	140-144-16T3/S0-8D	CFR D140-A45	61	88
	145-149-16T3/S0-8D	CFR D145-A45	65	92
	150-159-20T3/S0-8D	CFR D150-A45	65	96
	160-169-20T3/S0-8D	CFR D160-A45	69	103
	170-179-20T3/S0-8D	CFR D170-A45	73	111
	180-189-25T2/S0-8D	CFR D180-A45	77	118
	190-199-25T2/S0-8D	CFR D190-A45	81	126
	200-209-25T2/S0-8D	CFR D200-A45	85	134
	210-219-25T2/S0-8D	CFR D210-A45	89	142
	220-229-25T2/S0-8D	CFR D220-A45	93	150
	230-239-32T2/S0-8D	CFR D230-A45	97	158
	240-249-32T2/S0-8D	CFR D240-A45	101	166
	250-259-32T2/S0-8D	CFR D250-A45	105	174
12D	TCD 120-124-16S0-12D	CFR D120-A45	87	121
	125-129-16S0-12D	CFR D125-A45	90	127
	130-134-16S0-12D	CFR D130-A45	93	133
	135-139-16S0-12D	CFR D135-A45	96	137
	140-144-16S0-12D	CFR D140-A45	99	143
	145-149-16S0-12D	CFR D145-A45	102	149
	150-159-20S0-12D	CFR D150-A45	105	155
	160-169-20S0-12D	CFR D160-A45	111	166
	170-179-20S0-12D	CFR D170-A45	117	178
	180-189-25S0-12D	CFR D180-A45	123	189
	190-199-25S0-12D	CFR D190-A45	129	201
	200-209-25S0-12D	CFR D200-A45	135	213
	210-219-25S0-12D	CFR D210-A45	141	225
	220-229-25S0-12D	CFR D220-A45	147	237



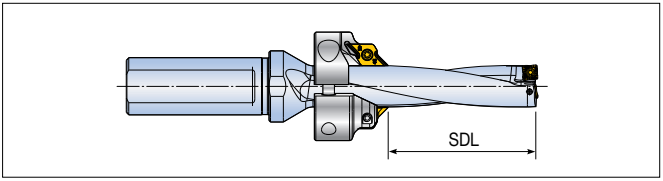
Chamfering ring designation - TOP-DRILL and T-DRILL



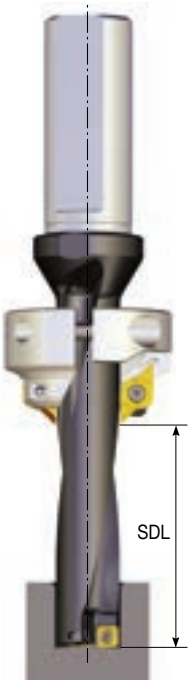
	TOP-DRILL		T-DRILL		CFR designation	SDL	
						min	max
3D	TOP	-	TDR	3125-20T2-05	CFR D125-A45	16	16
		-		3130-20T2-05	CFR D130-A45	16	16
		-		3135-20T2-05	CFR D135-A45	17	18
		3140-20T2-05		3140-20T2-05	CFR D140-A45	17	18
		3145-20T2-05		3145-20T2-05	CFR D145-A45	18	19
		3150-20T2-05		3150-20T2-05	CFR D150-A45	18	19
		3155-20T2-05		3155-25T2-06	CFR D160-A45	19	21
		3160-20T2-05		3160-25T2-06	CFR D160-A45	19	21
		3165-25T2-06		3165-25T2-06	CFR D170-A45	21	24
		3170-25T2-06		3170-25T2-06	CFR D170-A45	22	24
		3175-25T2-06		3175-25T2-06	CFR D180-A45	23	27
		3180-25T2-06		3180-25T2-06	CFR D180-A45	23	26
		3185-25T2-06		3185-25T2-06	CFR D180-A45	24	29
		3190-25T2-06		3190-25T2-06	CFR D190-A45	25	29
		3195-25T2-07		3195-25T2-06	CFR D190-A45	25	32
		3200-25T2-07		3200-25T2-06	CFR D200-A45	26	32
		3205-25T2-07		3205-25T2-06	CFR D200-A45	27	35
		3210-25T2-07		3210-25T2-06	CFR D210-A45	27	35
		3215-25T2-07		3215-25T2-07	CFR D210-A45	28	38
		3220-25T2-07		3220-25T2-07	CFR D220-A45	29	38
		3225-25T2-08		3225-25T2-07	CFR D220-A45	29	41
		3230-25T2-08		3230-25T2-07	CFR D230-A45	30	41
		3235-25T2-08		3235-25T2-07	CFR D230-A45	31	44
		3240-25T2-08		3240-25T2-07	CFR D240-A45	31	44
		3245-25T2-08		3245-25T2-07	CFR D240-A45	32	47
		3250-25T2-08		3250-25T2-07	CFR D250-A45	33	47



Chamfering ring designation - TOP-DRILL and T-DRILL



	TOP-DRILL		T-DRILL		CFR designation	SDL	
						min	max
4D	TOP	-	TDR	4125-20T2-05	CFR D125-A45	25	26
		-		4130-20T2-05	CFR D130-A45	25	26
		-		4135-20T2-05	CFR D135-A45	27	30
		4140-20T2-05		4140-20T2-05	CFR D140-A45	28	30
		4145-20T2-05		4145-20T2-05	CFR D145-A45	29	34
		4150-20T2-05		4150-20T2-05	CFR D150-A45	30	34
		4155-20T2-05		4155-25T2-06	CFR D160-A45	31	37
		4160-20T2-05		4160-25T2-06	CFR D160-A45	32	37
		4165-25T2-06		4165-25T2-06	CFR D170-A45	33	41
		4170-25T2-06		4170-25T2-06	CFR D170-A45	34	41
		4175-25T2-06		4175-25T2-06	CFR D180-A45	35	45
		4180-25T2-06		4180-25T2-06	CFR D180-A45	36	44
		4185-25T2-06		4185-25T2-06	CFR D180-A45	37	48
		4190-25T2-06		4190-25T2-06	CFR D190-A45	38	48
		4195-25T2-07		4195-25T2-06	CFR D190-A45	39	52
		4200-25T2-07		4200-25T2-06	CFR D200-A45	40	52
		4205-25T2-07		4205-25T2-06	CFR D200-A45	41	56
		4210-25T2-07		4210-25T2-06	CFR D210-A45	42	56
		4215-25T2-07		4215-25T2-07	CFR D210-A45	43	60
		4220-25T2-07		4220-25T2-07	CFR D220-A45	44	60
		4225-25T2-08		4225-25T2-07	CFR D220-A45	45	64
		4230-25T2-08		4230-25T2-07	CFR D230-A45	46	64
		4235-25T2-08		4235-25T2-07	CFR D230-A45	47	68
		4240-25T2-08		4240-25T2-07	CFR D240-A45	48	68
		4245-25T2-08		4245-25T2-07	CFR D240-A45	49	72
		4250-25T2-08		4250-25T2-07	CFR D250-A45	50	72

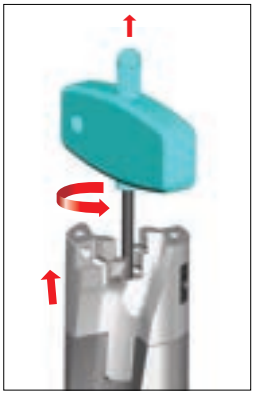


Modular head replacement instructions

1. Remove both outer inserts, then remove the center drill head. (When clamping, go in the reverse order)



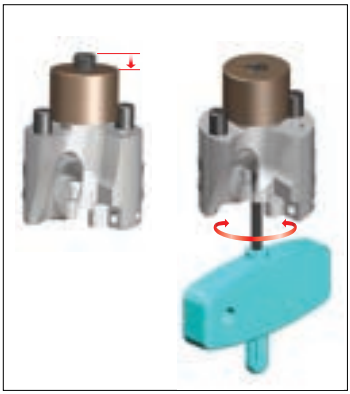
2. Use a wrench to turn the screw counter-clock-wise to remove the modular head.



3. Insert the setting gauge into the bottom of the disconnected modular head.



4. Rotate the screw to adjust to the same height with the setting gauge.

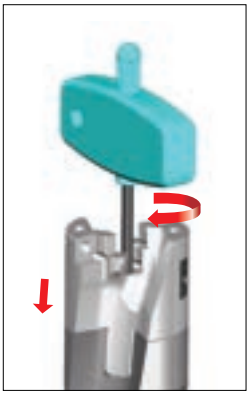




Setting gauge

Drill dia.	Designation
D26-D29	SG TNDH D26-29-TP
D30-D35	SG TNDH D30-35-TP
D36-D39	SG TNDH D36-39-TP
D40-D43	SG TNDH D40-43-TP
D44-D50	SG TNDH D44-50-TP

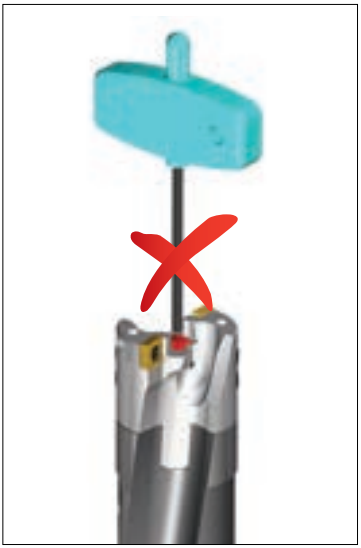
5. Remove the height adjusted modular head from the setting gauge and attach it to the holder.



Modular head disassembly in the event of center drill damage

If the modular head cannot be unclamped due to center drill damage, insert the wrench into the rear section of the shank. Then, turn it clock-wise to disassemble the modular head.





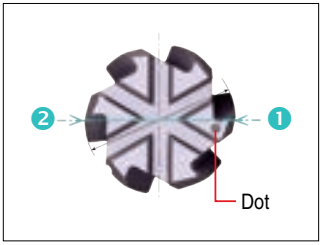
Damaged center drill



- Disassembling wrench and handle are included with the modular drill holder. (MDB Dxx/xx…)

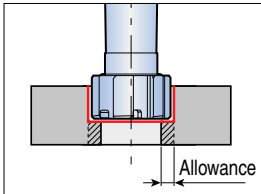
XM-REAM user guide and notice

How to check reamer diameter



Measure the dot side edge ❶ and opposite side edge ❷.

Reaming allowance



Material	Diameter	
	< Ø10	Ø10-12
Steel & Cast iron	0.07-0.10	0.07-0.15
Aluminum & brass	0.07-0.10	0.10-0.15

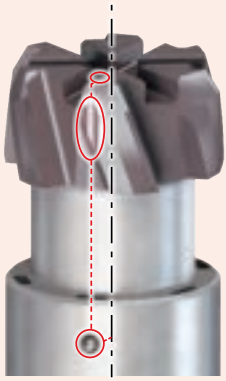
* Based on diameter

Ex) Ø9.85-9.93 mm pre-hole is recommended for Ø10H7 reaming in cast iron.

Caution

- To ensure smooth coolant flow, the dot and slot orientation of the head must be aligned as illustrated.

O



Dot orientation match between head and holder

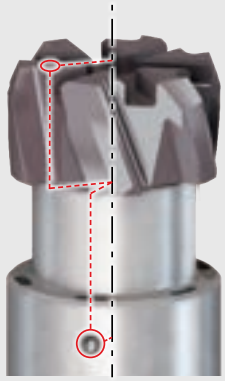


Coolant hole slightly visible through flutes



Smooth coolant flow

X



Dot orientation mismatch between head and holder



Coolant hole is hidden by the flute

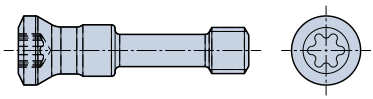


Reduced coolant flow

Screw torque

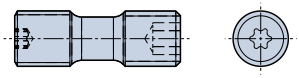
For SPADE-RUSH

Designation	Thread	Length	Torx	Tightening Torque
TS 30138D33	M3	13.8	Torx 10	2.0 Nm
TS 40178D25	M4	17.8	Torx 20	4.5 Nm
TS 40198D28	M4	19.8	Torx 20	4.5 Nm
TS 40210D3	M4	21	Torx 20	5.0 Nm
TS 50230D3	M5	23	Torx 20	5.0 Nm
TS 50250D35	M5	25	Torx 25	5.5 Nm
TS 60265D4	M6	26.5	Torx 25	6.0 Nm
TS 60285D42	M6	28.5	Torx 25	6.0 Nm
TS 60320D5	M6	31	Torx 25	6.0 Nm
TS 80340D6	M8	34	Torx 25	7.0 Nm



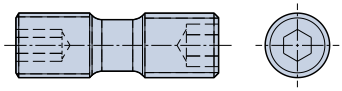
For MODU-R-DRILL

Designation	Thread	Length	Torx	Tightening Torque
TDPS 0512-T7	M5	12	Torx 7	1.0 Nm
TDPS 0618-T8	M6	18	Torx 8	2.0 Nm



For MODU-R-DRILL

Designation	Thread	Length	Torx	Tightening Torque
TDPS 0722-W3.0	M7	22	Hexa 3.0 mm	5.0 Nm



Technical Data

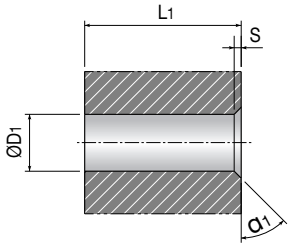
Hole tolerance

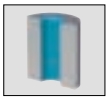
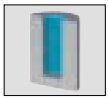
Diameter D(mm)		Tolerance (μm)															
>D	≤D	B10	C9	C10	D8	D9	D10	E7	E8	E9	F6	F7	F8	G6	G7	H6	H7
–	3	+180 +140	+85 +60	+100 +60	+34 +20	+45 +20	+60 +20	+24 +14	+28 +14	+39 +14	+12 +6	+16 +6	+20 +6	+8 +2	+12 +2	+6 0	+10 0
3	6	+180 +140	+100 +70	+118 +70	+48 +30	+60 +30	+78 +30	+32 +20	+38 +20	+50 +20	+18 +10	+22 +10	+28 +10	+12 +4	+16 +4	+8 0	+12 0
6	10	+208 +150	+116 +80	+138 +80	+62 +40	+76 +40	+98 +40	+40 +25	+47 +25	+61 +25	+22 +13	+28 +13	+35 +13	+14 +5	+20 +5	+9 0	+15 0
10	14	+220 +150	+138 +95	+165 +95	+77 +50	+93 +50	+120 +50	+50 +32	+59 +32	+75 +32	+27 +16	+34 +16	+43 +16	+17 +6	+24 +6	+11 0	+18 0
14	18																
18	24	+244 +160	+162 +110	+194 +110	+98 +65	+117 +65	+149 +65	+61 +40	+73 +40	+92 +40	+33 +20	+41 +20	+53 +20	+20 +7	+28 +7	+13 0	+21 0
24	30																
30	40	+270 +170	+182 +120	+220 +120	+119 +80	+142 +80	+180 +80	+75 +50	+89 +50	+112 +50	+41 +25	+50 +25	+64 +25	+25 +9	+34 +9	+16 0	+25 0
40	50	+280 +180	+192 +130	+230 +130													
50	65	+310 +190	+214 +140	+260 +140	+146 +100	+174 +100	+220 +146	+90 +60	+106 +60	+134 +60	+49 +30	+60 +30	+76 +30	+29 +10	+40 +10	+19 0	+30 0
65	80	+320 +200	+224 +150	+270 +150													

Hole tolerance

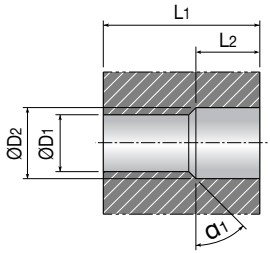
Tolerance (μm)																
H8	H9	H10	JS6	JS7	K6	K7	M6	M7	N6	N7	P6	P7	R7	S7	T7	U7	X7
+14 0	+25 0	+40 0	±3	±5	0 -6	0 -10	-2 -8	-2 -12	-4 -10	-4 -14	-6 -12	-6 -16	-10 -20	-14 -24	–	-18 -28	-20 -30
+18 0	+30 0	+48 0	±4	±6	+2 -6	+3 -9	-1 -9	0 -12	-5 -13	-4 -16	-9 -17	-8 -20	-11 -23	-15 -27	–	-19 -31	-24 -36
+22 0	+36 0	+58 0	±4.5	±7.5	+2 -7	+5 -10	-3 -12	0 -15	-7 -16	-4 -19	-12 -21	-9 -24	-13 -28	-17 -32	–	-22 -37	-28 -43
+27 0	+43 0	+70 0	±5.5	±9	+2 -9	+6 -12	-4 -15	0 -18	-9 -20	-5 -23	-15 -26	-11 -29	-16 -34	-21 -39	–	-26 -44	-33 -51 -38 -56
+33 0	+52 0	+84 0	±6.5	±10.5	+2 -11	+6 -15	-4 -17	0 -21	-11 -24	-7 -28	-18 -31	-14 -35	-20 -41	-27 -48	– -33 -54	-33 -54 -40 -61	-46 -67 -56 -77
+39 0	+62 0	+100 0	±8	±12.5	+3 -13	+7 -18	-4 -20	0 -25	-12 -28	-8 -33	-21 -37	-17 -42	-25 -50	-34 -59	-39 -64 -45 -70	-51 -76 -61 -86	–
+46 0	+74 0	+120 0	±9.5	±15	+4 -15	+9 -21	-5 -24	0 -30	-14 -33	-9 -39	-26 -45	-21 -51	-30 -60 -32 -62	-42 -72 -48 -78	-55 -85 -64 -94	-76 -106 -91 -121	–

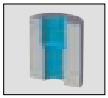
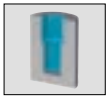
Specific dimensions



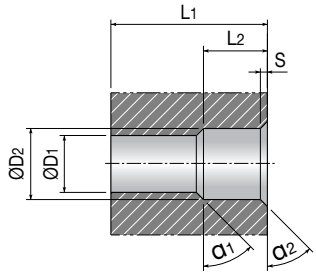



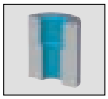
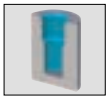
Through ☐ Blind ☐
ØD1 _____ L1 _____
α1 _____ S _____
•Hole tolerance _____



Through ☐ Blind ☐
ØD1 _____ ØD2 _____
L1 _____ L2 _____
α1 _____
•Hole tolerance _____



Through ☐ Blind ☐
ØD1 _____ ØD2 _____
L1 _____ L2 _____
α1 _____ α2 _____
S _____
•Hole tolerance _____

Comment

Drill type

•TOPDRILL _____ ☐
•T-DRILL _____ ☐

Technical data

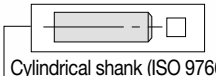
•Machine type
MCT ☐ Lathe ☐
Vertical ☐ Horizontal ☐
Machine name _____
Power _____ kW

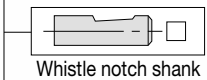
•Coolant supply
Internal ☐ External ☐
Coolant pressure _____ bar
Coolant type _____

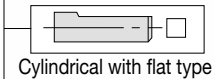
Workpiece

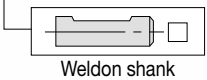
•Part _____
•Material _____
•Hardness _____

Shank type


Cylindrical shank (ISO 9766)


Whistle notch shank

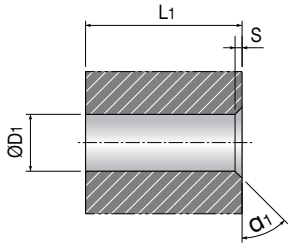

Cylindrical with flat type

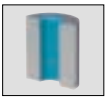

Weldon shank

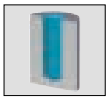
Tailor-made Order Form

DRILLRUSH
RUSH 2 FLUTE

Specific dimensions





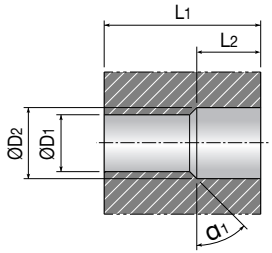


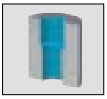
Through ☐ Blind ☐

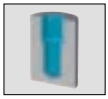
ØD1 _____ L1 _____

α1 _____ S _____

•Hole tolerance _____







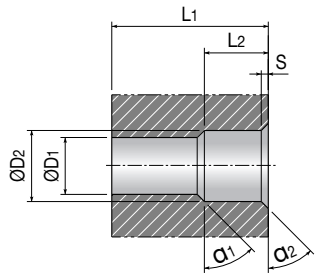
Through ☐ Blind ☐

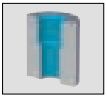
ØD1 _____ ØD2 _____

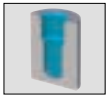
L1 _____ L2 _____

α1 _____

•Hole tolerance _____







Through ☐ Blind ☐

ØD1 _____ ØD2 _____

L1 _____ L2 _____

α1 _____ α2 _____

S _____

•Hole tolerance _____

Comment

Technical data

•Machine type

MCT ☐ Lathe ☐

Vertical ☐ Horizontal ☐

Machine name _____

Power _____ kW

•Coolant supply

Internal ☐ External ☐

Coolant pressure _____ bar

Coolant type _____

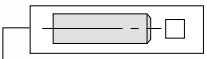
Workpiece

•Part _____

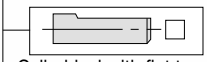
•Material _____

•Hardness _____

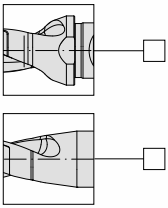
Shank type


Cylindrical shank (ISO 9766)


Whistle notch shank


Cylindrical with flat type


Weldon shank

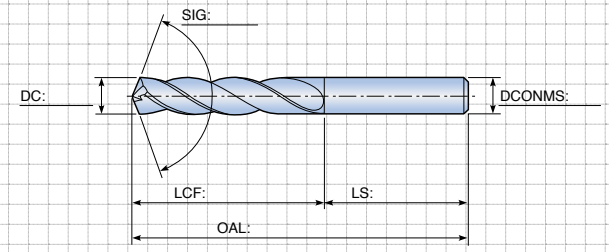


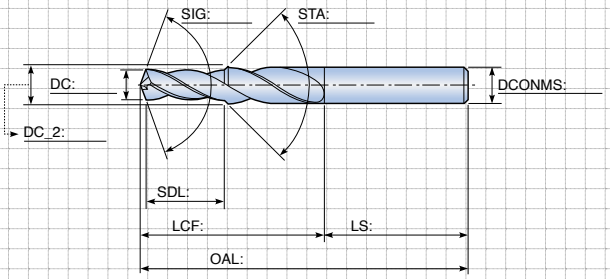
•Shank dia: _____

•Shank length: _____

Tailor-made Order Form

Specific dimensions





• DC, DC_2 would be hole dimensions and please note hole tolerance if possible

Technical data

•Machine type

MCT ☐ Lathe ☐

Vertical ☐ Horizontal ☐

Machine name _____

Power _____ kW

•Coolant supply

Internal ☐ External ☐

Coolant pressure _____ bar

Coolant type _____

Workpiece

•Part _____

•Material _____

•Hardness _____

Hole type

•Blind hole _____ ☐

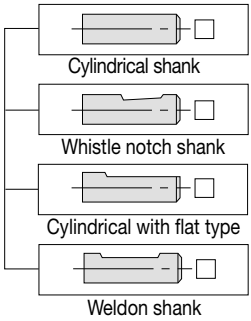
•Through hole _____ ☐

Coating

•TiAlN _____ ☐

•Non-coated _____ ☐

Shank type



Comment

Tailor-made Order Form

Deep hole drilling order form

★: Mandatory data field

Campany name :	Inquiry number :
Address :	Inquiry date :
Contact person :	Customer No :

Workpiece (If possible,please attach a drawing)			
Product name			
Hole diameter (ø)	(mm)		
Hole depth (drilling length)	(mm)		
No. of holes			
Tolerance (of hole)			
Surface finish (Rz,Ra...)			
Deviation (mm/100)			
Straightness (mm/100)			
Material			
Material (DIN,AISI,JIS...)			
Hardness (HB,HS,HRC...)			
Condition ★	☐ Annealed	☐ Quenched	☐ Tempered
	☐ Cast	☐	
	☐ Other	☐	

Machine			
Machine supplier name			
Machine type/model			
Rigidity	☐ Good	☐ Normal	☐ Bad
Date of manufacture			
Retrofitted	☐ NC lathe	☐ M/C	☐ Other
Double rotation (TR/WR)	☐ Tool and workpiece		
Rotating workpiece (WR)	☐		
Rotating tool (TR)	☐		
Safety devices			
Motor power	(kW)		

Type of coolant			
Coolant supplier name			
Water based	☐ Soluble	☐ Emulsion	%
Oil based	☐		
Coolant pressure	(bar)		
Coolant volume	(L/min)		

Tailor-made Order Form

Deep hole drilling order form

★: Mandatory data field

Tool (Drill head)			
Drill diameter(ø)		(mm)	
Thread	☐ Inner	☐ Outer	
Brazed	☐		
Indexable	☐ Adjustable	☐ Direct mount	☐
Coating	☐ Coated	☐ Uncoated	
Coating type	☐ TiN	☐ TiAlN	☐ Other
• Solid drilling	☐		
• Counterboring	☐		
Cutting angle★ Brazed indexable	☐ 20°	☐ 45°	
	☐ Nomal angle	☐ Close angle	
Pre-bored size(per side)		(mm)	
Bottom finishing★	☐ Fullball R	☐ Flatbottom R	☐ Corner R
	☐ Compound R		
• Trepanning	☐		
Core size(ø)		(mm)	☐
Tube inner dia(ø)		(mm)	
Tube outer dia(ø)		(mm)	
Tube			
Outside dia(ø)		(mm)	
Total length(L)		(mm)	
Internal thread	☐		
External thread	☐ 4 Starts	☐ 2 Starts	☐ 1 Starts
Tube thread	☐ 1 end	☐ Both ends	
Inner tube length		(mm)	
Inner tube slit	☐ 1 end	☐ Both ends	

Drilling system		
Single tube system	☐	STS
Double tube system	☐	DTS

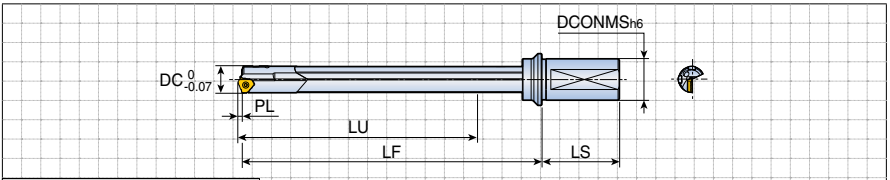
Boring conditions	
Through hole drilling	☐
Blind hole drilling	☐
Cross hole drilling★	☐

★ **Please sketch your drilling application**

General information	Production			
Quantity per year:				
Present performance status:				
grade, tool life, etc:				
Cutting data:	Vc=	m/min,	N=	rpm
	f=	mm/rev,	F=	mm/min

Tailor-made Order Form

▶ Deep hole drilling order form



Sketch of drilling application

• Note: It may be necessary to change several of the parameters that you indicated based on our experience with your application.

Tool	
Quantity	
Nominal diameter and tolerance	
- Please fill in dimensions on the sketch above.	
Driver	
Code No	

- For standard drivers, please use codes from next pages and for special drivers, please attach sketch and specifications.

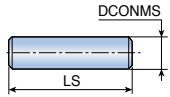
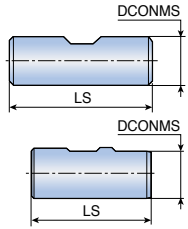
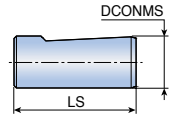
Workpiece (If possible, please attach a drawing)		
Material description (DIN material number or any other standard)		
Hardness and properties		
Hole type		☐ Blind hole ☐ Through hole ☐ Drilling into pre-hole ☐ Angled entry ☐ Drilling into solid ☐ Boring ☐ Angled exit
Drilling depth		mm
Hole tolerance		
Application	Workpiece	☐ Stationary ☐ Rotating
	Tool	☐ Stationary ☐ Rotating

Machine			
Machine type			
Power		kW	
Cutting data	Cutting speed (Vc)	m/min	
	Revolutions	**N**min : RPM	**N**max : RPM
	Feed	**F**min : mm/rev	**F**min : mm/rev
	Feed rate (VF)	mm/min	
Coolant	Coolant type	☐ Oil ☐ Soluble oil ☐ Other	
	Coolant pressure	Bar	
	Coolant volume	liter/min	

Standard gundrill drivers for machining centers and lathes

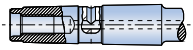
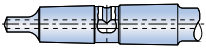
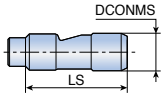
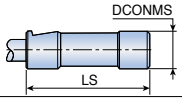
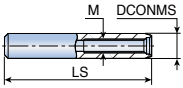
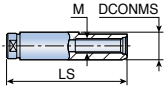
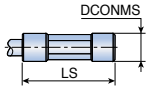
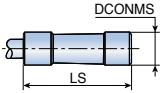
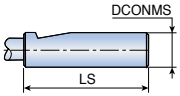
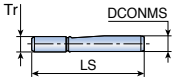
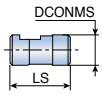
Drivers

Drivers are available for dedicated and CNC machines as well as any specified diameter or length. Please note that the driver codes and technical data can be found in the chart below.

Driver type	Drawing	DCONMS x LS	Driver code
Cylindrical DIN1835A DIN6535HA		20x50	10
		25x56	11
		32x60	12
		40x70	13
		.75x2.03"	95
		1.00x2.28"	96
		1.25x2.28"	97
Weldon DIN1835B DIN6535HB		20x50	22
		25x56	23
		32x60	24
		40x70	25
		.75x2.03"	99
		1.00x2.28"	100
		1.25x2.28"	101
Whistle notch DIN1835E		20x50	34
		25x56	35
		32x60	36
		40x70	37

Tailor-made Order Form

Standard drivers for gundrill machines

Driver type	Drawing	DCONMS x LS	Driver code
DIN228AK		CM2	46
		CM3	47
		CM4	48
DIN228BK		CM2	50
		CM3	51
		CM4	52
Central clamping surface 15°		.750x2.75”	56
		25x70	57
		1.00x2.75”	58
		1.25x2.75”	59
		1.50x2.75”	60
Frontal clamping surface 15°		16x50	61
Cylindrical with thread		25x100 M16x1.5	66
		36x120 M24x1.5	67
VDI design		25x112 M16x1.5	70
		36x135 M24x1.5	71
Central clamping hexagonal		25x70	72
		32x70	73
Central clamping tapered		.75x2.75”	76
		20x70	77
Frontal clamping surface 2°		1.00x2.75”	80
		1.00x3.94”	81
		1.25x2.75”	82
		1.25x3.94”	83
		1.50x2.75”	84
		1.50x3.94”	85
Trapezoidal thread		28x126 Tr 28x2	88
		36x162 Tr 36x2	89
Spraymist driver		25x50	91
		35x60	92

Reamer order form

★: Mandatory data field

Date: Subsidiary:

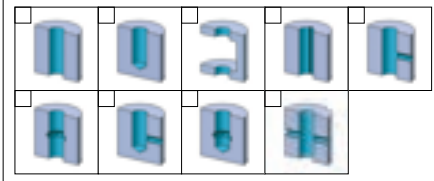
Company★ : Enquiry dead line:

Contact person:

Address:

Request reason	
New tool ☐ Problem ☐	
Quality	
Cycle time	
Alternative supplier	
Other	

Existing tool	
Maker	
Tool type	
Speed & Feed	
Tool life	
No of teeth	
Coolant type	

Workpiece	
Description★	
Hardness★	
Pre-hole size★	(Tolerance :)
Depth★	
Bore type	
Clamping information	

Machine	
Model	
Type★	vertical ☐
	horizontal ☐
	multi-spindle ☐
Adaption★	
Max RPM	
Power	
Spindle accuracy	
Coolant	

Lubricant	
Oil	☐
MQL	☐
Emulsion	☐
Ratio of mixture	
Coolant pressure	

Quality requirement	
Tolerance★	
Surface finish(Ra)★	
Roundness	
Straightness	
Cylindricity	
Concentricity	

Tool			
Type★	TM(Index multi-edge) ☐	TB(Single blade) ☐	TS(Solid) ☐ Other ☐ ( )
Diameter★			
Depth of cut★			
Coolant★	Internal ☐	External ☐	
Shank type★			
Holder type	Collet ☐	Hydraulic ☐	Other ☐
Adjustable adaptor	Yes ☐	No ☐	