

NPN

New Product News



MODURDRILL

MODULAR RUSH

Unique Modular System for Various Drilling Diameters and Depths



KEY POINT

As part of the new technologically advanced SFEED-TEC products, TaeguTec is introducing the **MODU-R-DRILL** modular type tool for holemaking applications, which is part of the **TWIN-RUSH** family.

The new SFEED-TEC modular type **TWIN-RUSH** line, provides superior machining and excellent hole quality for hole machining of 26 mm diameter and above, as well as improved productivity due to the symmetric design which reduces tool cost, yet expands the range of **TWIN-RUSH** applications.

By assembling a modular holder that fits the depth of the hole into a single modular head, the new offering is able to maintain high-feed machining and quality. It also reduces tool cost by only requiring the modular head be removed when changing the tool.

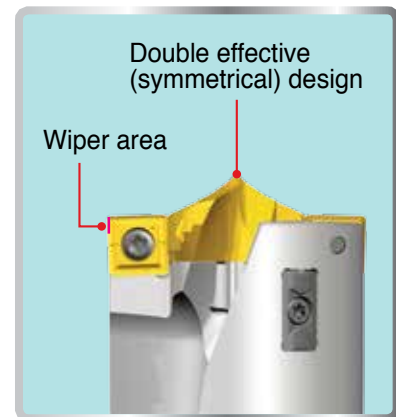
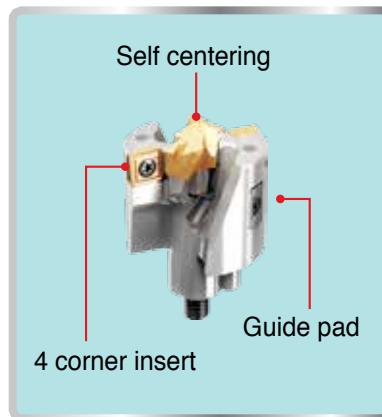
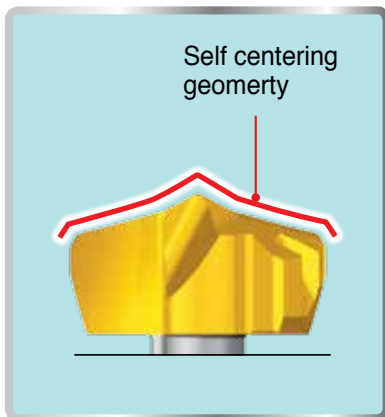
In the center of the modular head, a new uniquely designed head (TCD P-CO+) has been applied with a self-centering capability to improve the hole straightness. In addition, the exterior inserts with wiper area (SPGX-DW) and dedicated guide pads provide excellent surface roughness.

For further technical questions, please contact TaeguTec's product manager.



Features

- Unique cutting edge design improves self-centering and hole straightness
- TCD P-CO will be phased out when stock is sold-out
- Excellent surface roughness due to an insert with a wiper area
- Improved machining stability due to its dedicated guide pads
- Modular body changes enable 3xD and 5xD machining
(Existing all-in-one holder can be delivered on demand)

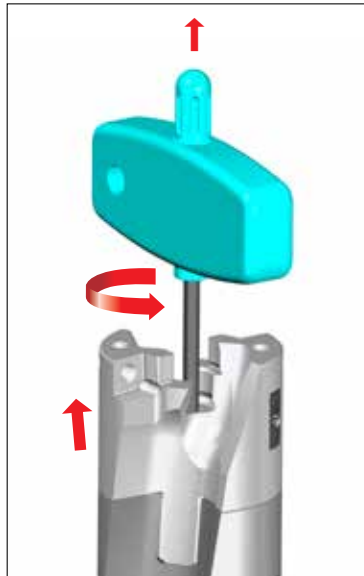


Modular head replacement instructions

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



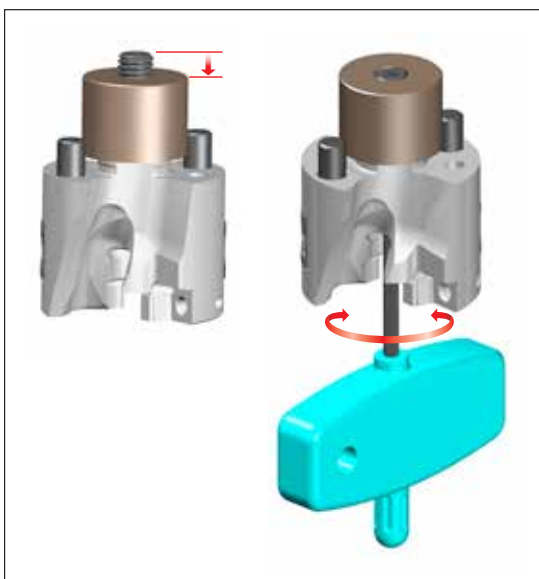
2. Use a wrench to turn the screw counter-clock-wise to remove the modular head.



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

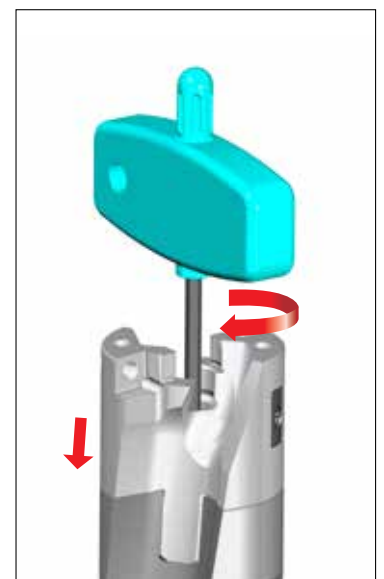


4. Rotate the screw to adjust to the same height as the setting gauge.



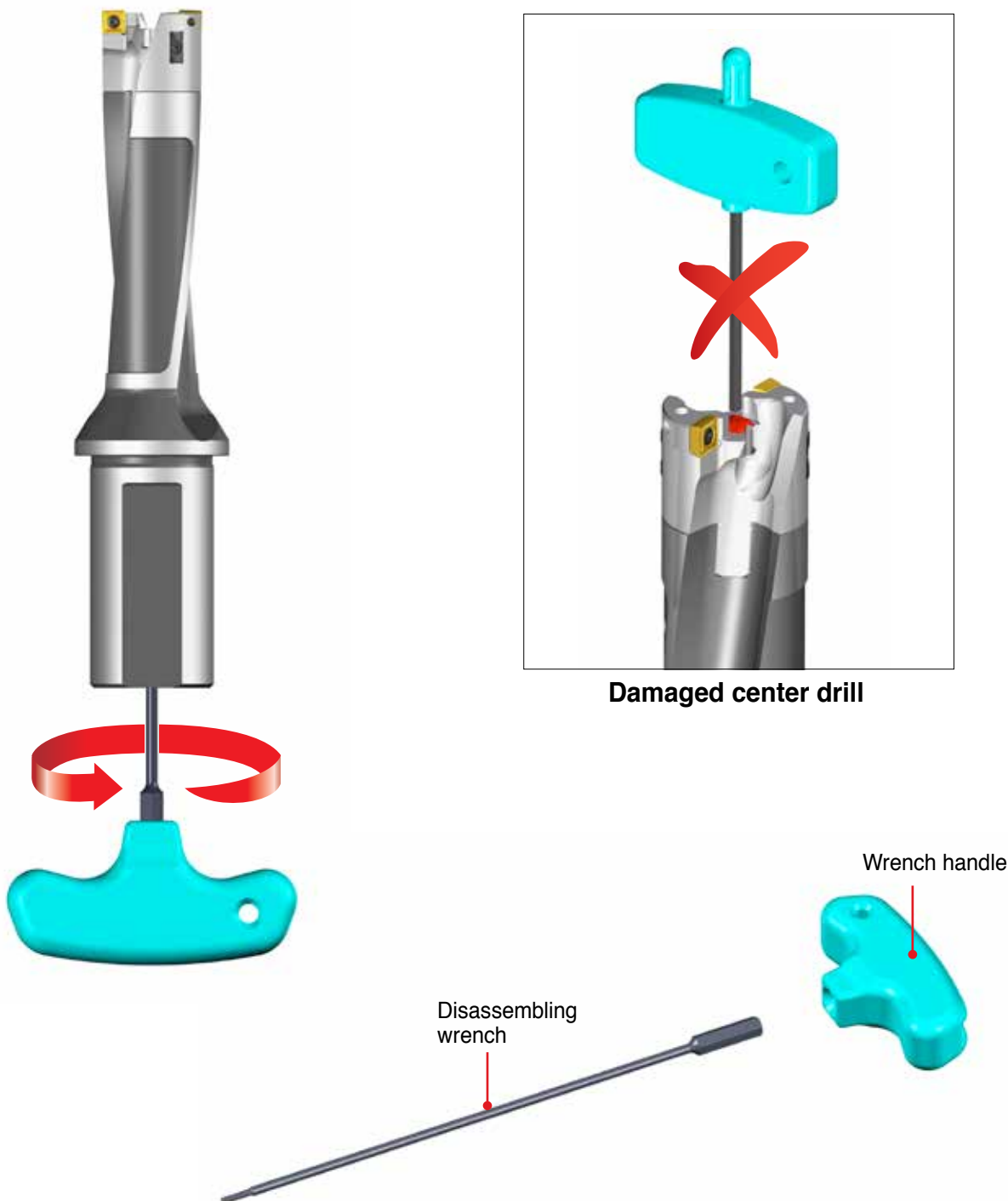
Drill dia.	Designation
D26-D29	SG TNDH D26-29-TP
D30-D35	SG TNDH D30-35-TP
D36-D39	SG TNDH D36-39-TP
D40-D43	SG TNDH D40-43-TP
D44-D50	SG TNDH D44-50-TP

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.



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

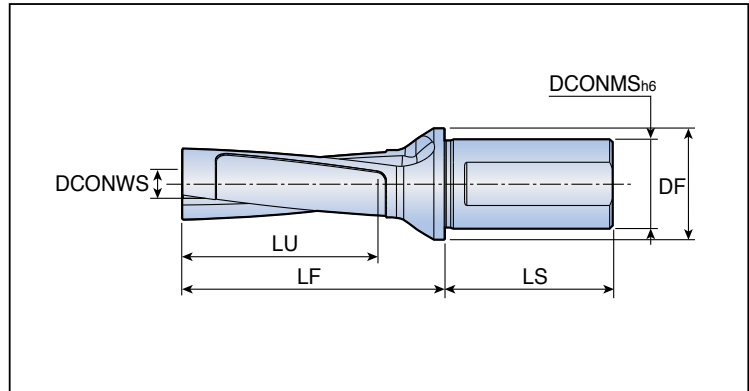
MDB...T2-3



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

Spare parts

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

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

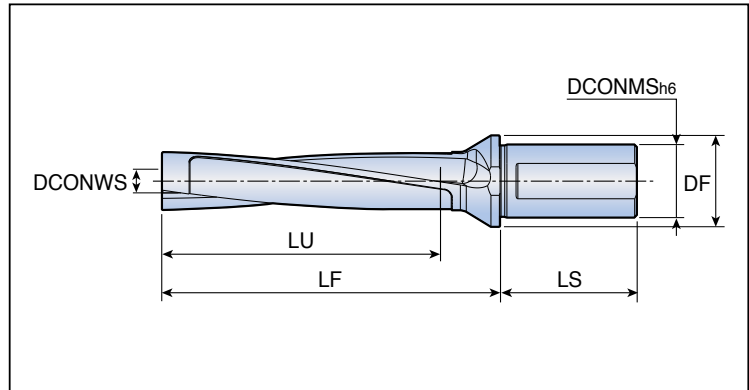
MDB...T2-5



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

Spare parts

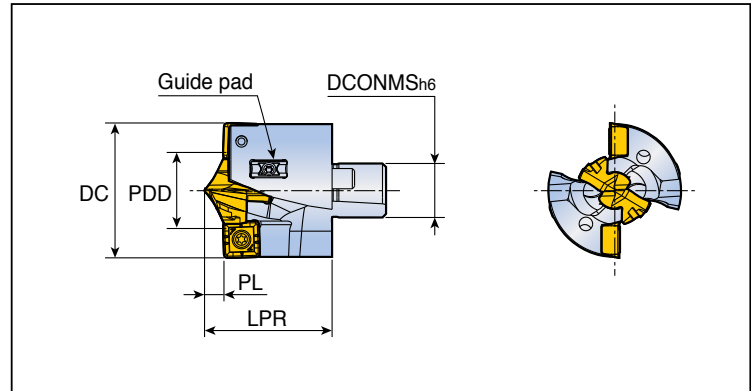
Designation	Wrench	Wrench handle
		 5xD
MDB D26/27-D34/35	BLD H-W2.5x280	SW6-T-SH
MDB D36/37-D42/43	BLD H-W3.0x310	
MDB D44/45-D48/50	BLD H-W4.0x350	

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

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-CO	TCD-159-P-CO+	SPGX 06...DW
2700-C26-TP	27	10.4	25.4	4.14	16.9	K TCD D16-CO	TCD-169-P-CO+	SPGX 06...DW
2800-C28-TP	28	11.2	26.9	4.29	17.9	K TCD D17-CO	TCD-179-P-CO+	SPGX 06...DW
2900-C28-TP	29	11.2	26.6	3.97	15.9	K TCD D15-CO	TCD-159-P-CO+	SPGX 07...DW
3000-C30-TP	30	12.0	28.3	4.14	16.9	K TCD D16-CO	TCD-169-P-CO+	SPGX 07...DW
3100-C30-TP	31	12.0	28.5	4.30	17.9	K TCD D17-CO	TCD-179-P-CO+	SPGX 07...DW
3200-C32-TP	32	12.8	30.3	4.46	18.9	K TCD D18-CO	TCD-189-P-CO+	SPGX 07...DW
3300-C32-TP	33	12.8	29.8	3.97	15.9	K TCD D15-CO	TCD-159-P-CO+	SPGX 09...DW
3400-C34-TP	34	13.6	31.6	4.14	16.9	K TCD D16-CO	TCD-169-P-CO+	SPGX 09...DW
3500-C34-TP	35	13.6	31.8	4.30	17.9	K TCD D17-CO	TCD-179-P-CO+	SPGX 09...DW
3600-C36-TP	36	14.4	33.5	4.46	18.9	K TCD D18-CO	TCD-189-P-CO+	SPGX 09...DW
3700-C36-TP	37	14.4	33.3	4.14	16.9	K TCD D16-CO	TCD-169-P-CO+	SPGX 11...DW
3800-C38-TP	38	15.2	35.0	4.30	17.9	K TCD D17-CO	TCD-179-P-CO+	SPGX 11...DW
3900-C38-TP	39	15.2	35.2	4.46	18.9	K TCD D18-CO	TCD-189-P-CO+	SPGX 11...DW
4000-C40-TP	40	16.0	36.9	4.62	19.9	K TCD D19-CO	TCD-199-P-CO+	SPGX 11...DW
4100-C40-TP	41	16.0	37.1	4.78	20.9	K TCD D20-CO	TCD-209-P-CO+	SPGX 11...DW
4200-C42-TP	42	16.8	38.9	4.95	21.9	K TCD D21-CO	TCD-219-P-CO+	SPGX 11...DW
4300-C42-TP	43	16.8	38.9	5.11	22.9	K TCD D22-CO	TCD-229-P-CO+	SPGX 11...DW
4400-C44-TP	44	17.6	40.8	5.28	23.9	K TCD D23-CO	TCD-239-P-CO+	SPGX 11...DW
4500-C44-TP	45	17.6	41.0	5.44	24.9	K TCD D24-CO	TCD-249-P-CO+	SPGX 11...DW
4600-C46-TP	46	18.4	42.2	4.95	21.9	K TCD D21-CO	TCD-219-P-CO+	SPGX 14...DW
4700-C46-TP	47	18.4	42.3	5.11	22.9	K TCD D22-CO	TCD-229-P-CO+	SPGX 14...DW
4800-C48-TP	48	19.2	44.0	5.28	23.9	K TCD D23-CO	TCD-239-P-CO+	SPGX 14...DW
4900-C48-TP	49	19.2	44.3	5.44	24.9	K TCD D24-CO	TCD-249-P-CO+	SPGX 14...DW
5000-C48-TP	50	19.2	46.0	5.61	25.9	K TCD D25-CO	TCD-259-P-CO+	SPGX 14...DW

• DCONMS: Holder connection size

TNDH-TP



Spare parts

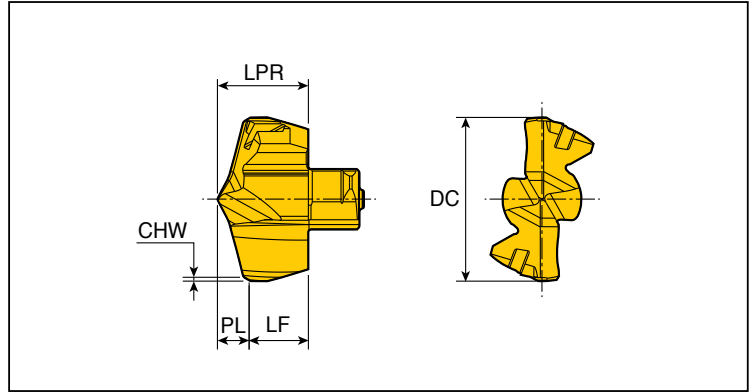
Designation	For double pitch screw		For SPGX		For Guide pad	
	Screw1	Wrench1	Screw2	Wrench2	Screw3	Wrench3
						
TNDH 2600-2800	TDPS 0512-W2.0	F-W2.0	TS 22052I/HG	TD 7	TS 20043I/HG-P	TD 6P
TNDH 2900-3200	TDPS 0512-W2.0	F-W2.0	TS 25064I	TD 8	TS 20043I/HG-P	TD 6P
TNDH 3300-3500	TDPS 0512-W2.0	F-W2.0	TS 35088I	TD 10	TS 20043I/HG-P	TD 6P
TNDH 3600	TDPS 0618-W2.5	F-W2.5	TS 35088I	TD 10	TS 20043I/HG-P	TD 6P
TNDH 3700-4300	TDPS 0618-W2.5	F-W2.5	TS 40093I	TD 15	TS 20043I/HG-P	TD 6P
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

Designation	Setting gauge
TNDH 2600-C26-TP	SG TNDH D26-29-TP
TNDH 2700-C26-TP	
TNDH 2800-C28-TP	
TNDH 2900-C28-TP	
TNDH 3000-C30-TP	SG TNDH D30-35-TP
TNDH 3100-C30-TP	
TNDH 3200-C32-TP	
TNDH 3300-C32-TP	
TNDH 3400-C34-TP	
TNDH 3500-C34-TP	
TNDH 3600-C36-TP	SG TNDH D36-39-TP
TNDH 3700-C36-TP	
TNDH 3800-C38-TP	
TNDH 3900-C38-TP	
TNDH 4000-C40-TP	SG TNDH D40-43-TP
TNDH 4100-C40-TP	
TNDH 4200-C42-TP	
TNDH 4300-C42-TP	
TNDH 4400-C44-TP	
TNDH 4500-C44-TP	
TNDH 4600-C46-TP	SG TNDH D44-50-TP
TNDH 4700-C46-TP	
TNDH 4800-C48-TP	
TNDH 4900-C48-TP	
TNDH 5000-C48-TP	

TCD...P-CO+



Self-centering drill heads



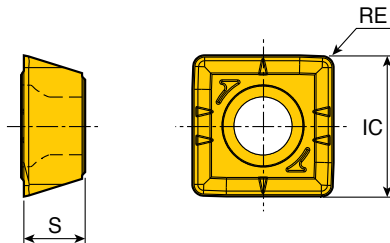
Designation	Dimension (mm)						Grade
	DC	LPR	PL	LF	CHW	SSC	TT9080
TCD-159-P-CO+	15.9	8.73	3.17	5.56	0.38	15	●
169-P-CO+	16.9	9.30	3.34	5.96	0.38	16	●
179-P-CO+	17.9	9.90	3.50	6.40	0.38	17	●
189-P-CO+	18.9	10.50	3.66	6.84	0.38	18	●
199-P-CO+	19.9	11.00	3.82	7.18	0.38	19	●
209-P-CO+	20.9	11.60	3.98	7.62	0.38	20	●
219-P-CO+	21.9	12.18	4.15	8.03	0.38	21	●
229-P-CO+	22.9	12.76	4.31	8.45	0.38	22	●
239-P-CO+	23.9	13.33	4.48	8.85	0.38	23	●
249-P-CO+	24.9	13.90	4.64	9.26	0.38	24	●
259-P-CO+	25.9	14.50	4.81	9.69	0.38	25	●

● SSC: Seat size code ● Standard items

SPGX...DW



Inserts

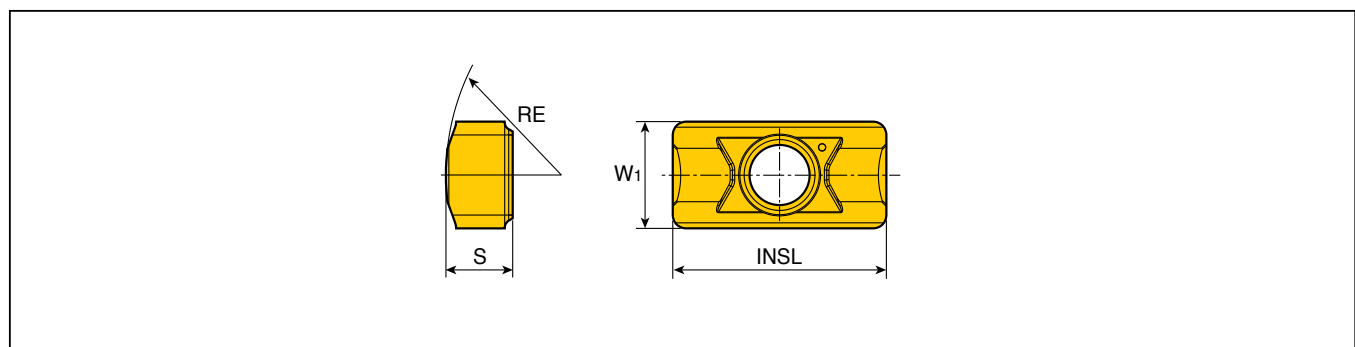


Size	Dimension (mm)		
	IC	S	RE
06	6.07	2.38	0.4
07	8.02	3.97	0.8
09	9.91	4.30	0.8
11	11.62	4.80	0.8
14	14.41	5.20	1.2

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

●: Standard items

Guide Pad for TNDH-TP



Designation	Dimension (mm)				Grade
	W1	S	INSL	RE	TT9030
PAD-G04-08	4	2.5	8	9	●

• Guide pad is sold separately from drill body.

●: Standard items

Recommended Cutting Conditions

ISO	Material	Condition	Tensile Strength (N/mm ²)	Hardness HB	Material Group No.	Cutting speed Vc (m/min)	Feed vs. Drill Diameter (mm/rev)				
							SPGX 06 Ø26-Ø28	SPGX 07 Ø29-Ø32	SPGX 09 Ø33-Ø36	SPGX11 Ø37-Ø43	SPGX 11/14 Ø44-Ø50
P	Non-alloy steel and cast steel, free cutting steel	<0.25%C Annealed	420	125	1	120-200	0.2-0.35	0.25-0.35	0.25-0.4	0.25-0.4	0.28-0.45
		>=0.25%C Annealed	650	190	2						
		<0.55%C Quenched and tempered	850	250	3	130-190					
		>=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	100-200					
		Quenched and tempered	930	275	7						
			1000	300	8						
			1200	350	9						
	High alloy steel, cast steel and tool steel	Annealed	680	200	10	100-160					
Quenched and tempered		1100	325	11							
M	Stainless steel and cast steel	Ferritic / martensitic	680	200	12	80-140					
		Martensitic	820	240	13						
		Austenitic	600	180	14						
K	Grey cast iron (GG)	Ferritic / pearlitic		180	15	100-250					
		Pearlitic		260	16						
	Cast iron nodular (GGG)	Ferritic		160	17						
		Pearlitic		250	18						
	Malleable cast iron	Ferritic		130	19						
		Pearlitic		230	20						
N	Aluminum-wrought alloy	Not cureable		60	21	160-260					
		Cured		100	22						
	Aluminum-cast, alloyed	<=12% Si Not cureable		75	23						
		Cured		90	24						
		High temperature		130	25						
	Copper alloys	>12% Si Free cutting		110	26						
		>1% Pb Brass		90	27						
	Non-metallic	Duroplastics, fiber plastics			-		29				
Hard rubber			-	30							
S	High temp. alloys	Fe based	Annealed		200	31	30-80				
			Cured		280	32					
		Ni or Co based	Annealed		250	33					
			Cured		350	34					
	Titanium and Ti alloys	Cast			320	35					
					-	36					
			Alpa+bata alloys cured		-	37					
H	Hardened steel	Hardened		55HRC	38	20-50					
		Hardened		60HRC	39						
	Chilled cast iron	Cast		400	40	-					
	Cast iron nodular (GGG)	Hardened		55HRC	41	-					

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