G(BSP) X-COATED HSS-PM SPIRAL FLUTE TAPS for MULTI-PURPOSE
Whitworth PIPE Threads DIN ISO 228/1

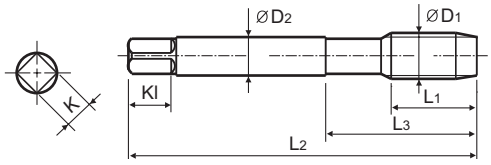
NEW SERIES
TRE38

- ▶ High performance on various ductile materials
- ▶ Specially designed to prevent oversized threads and reduce gauging problems

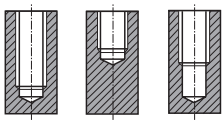
DIN 5156

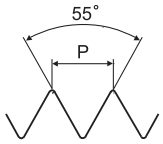


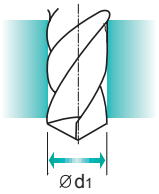
Short Chamfer



Hole type 2.5×D







Material groups **MU** | HSS PM | DIN 5156 | 55° | E | R45 | X Coating

p.6

Machine Taps

Unit : mm

SIZE ØD1	TPI	EDP No. X-Coating	Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length Kl	No. of Flute Z	Tapping Drill Diameter Ød1
G1/16 -	28	**TRE38020GS**	10	90	36	6	4.9	7.8	3	6.8
G1/8 -	28	**TRE38200GS**	12	90	36	7	5.5	7.8	3	8.8
G1/4 -	19	**TRE38400GS**	14	100	48	11	9	11.8	3	11.8
G3/8 -	19	**TRE38480GS**	16	100	52	12	9	11.8	4	15.25
G1/2 -	14	**TRE38560GS**	18	125	70	16	12	14.8	4	19
G3/4 -	14	**TRE38700GS**	22	140	82	20	16	19	4	24.5
G1" -	11	**TRE38780GS**	24	160	95	25	20	23	4	30.75

◎ : Excellent ○ : Good

ISO	P											M			K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	○	◎	◎	◎	◎	◎	◎	◎	○	○	○	◎	◎	◎	○	○	◎	◎		

ISO	N										S							H			
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended	○	○	◎	◎	○	◎	◎	◎													

HSS-PM
PRIME TAP

HOLE TYPE			Max. 2.5xD Blind Hole					
TOOL MATERIAL			HSS-PM					
CHAMFER LEAD ACC. TO DIN2197			C	C	E	C	C	E
FLUTE TYPE			Spiral Flute					
SPIRAL FLUTE ANGLE			R45					
CLASS OF THREAD			6HX	6GX	6HX	2BX	-	-
SERIES	M	DIN371/376	TRE30 (p.9)	TRE35 (p.10)	TRE34 (p.11)			
	MF	DIN374	TRE31 (p.12)	TRE36 (p.14)				
	UNC	DIN371/376				TRE32 (p.15)		
	UNF	DIN371/374				TRE33 (p.16)		
	G(BSP)	DIN5156					TRE37 (p.17)	TRE38 (p.18)
SURFACE TREATMENT / COATING			X-Coating					
MODEL				 NEW			 NEW	 NEW

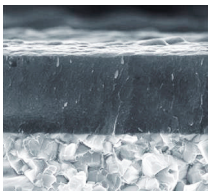
Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc	Recommended cutting conditions Vc (m/min.)					
P	1	Non-alloy steel	About 0.15% C	Annealed	125		○ (5-20)	○ (5-20)	○ (5-20)	○ (5-20)	○ (5-20)	○ (5-20)
	2		About 0.45% C	Annealed	190	13	◎ (10-50)	◎ (10-50)	◎ (10-50)	◎ (10-50)	◎ (10-50)	◎ (10-50)
	3		About 0.45% C	Quenched & tempered	250	25	◎ (10-50)	◎ (10-50)	◎ (10-50)	◎ (10-50)	◎ (10-50)	◎ (10-50)
	4		About 0.75% C	Annealed	270	28	◎ (15-40)	◎ (15-40)	◎ (15-40)	◎ (15-40)	◎ (15-40)	◎ (15-40)
	5		About 0.75% C	Quenched & tempered	300	32	◎ (15-40)	◎ (15-40)	◎ (15-40)	◎ (15-40)	◎ (15-40)	◎ (15-40)
	6	Low alloy steel		Annealed	180	10	◎ (8-30)	◎ (8-30)	◎ (8-30)	◎ (8-30)	◎ (8-30)	◎ (8-30)
	7			Quenched & tempered	275	29	◎ (8-30)	◎ (8-30)	◎ (8-30)	◎ (8-30)	◎ (8-30)	◎ (8-30)
	8			Quenched & tempered	300	32	◎ (8-30)	◎ (8-30)	◎ (8-30)	◎ (8-30)	◎ (8-30)	◎ (8-30)
	9			Quenched & tempered	350	38	○ (8-30)	○ (8-30)	○ (8-30)	○ (8-30)	○ (8-30)	○ (8-30)
	10	High alloyed steel, and tool steel		Annealed	200	15	○ (8-30)	○ (8-30)	○ (8-30)	○ (8-30)	○ (8-30)	○ (8-30)
	11			Quenched & Tempered	325	35	○ (8-30)	○ (8-30)	○ (8-30)	○ (8-30)	○ (8-30)	○ (8-30)
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15	◎ (5-15)	◎ (5-15)	◎ (5-15)	◎ (5-15)	◎ (5-15)	◎ (5-15)
	13		Martensitic	Quenched & Tempered	240	23	◎ (5-15)	◎ (5-15)	◎ (5-15)	◎ (5-15)	◎ (5-15)	◎ (5-15)
	14			Austenitic	180	10	◎ (5-15)	◎ (5-15)	◎ (5-15)	◎ (5-15)	◎ (5-15)	◎ (5-15)
K	15	Grey cast iron	Pearlitic / ferritic		180	10	○ (15-35)	○ (15-35)	○ (15-35)	○ (15-35)	○ (15-35)	○ (15-35)
	16		Pearlitic (Martensitic)		260	26	○ (15-35)	○ (15-35)	○ (15-35)	○ (15-35)	○ (15-35)	○ (15-35)
	17	Nodular cast iron	Ferritic		160	3	◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)
	18		Pearlitic		250	25	◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)
	19	Malleable cast iron	Ferritic		130							
	20		Pearlitic		230	21						
N	21	Aluminum-wrought alloy	Not Curable		60		○ (15-35)	○ (15-35)	○ (15-35)	○ (15-35)	○ (15-35)	○ (15-35)
	22		Curable	Hardened	100		○ (15-35)	○ (15-35)	○ (15-35)	○ (15-35)	○ (15-35)	○ (15-35)
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable		75		◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)
	24		≤ 12% Si, Curable	Hardened	90		◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)
	25		> 12% Si, Not Curable		130		○ (15-35)	○ (15-35)	○ (15-35)	○ (15-35)	○ (15-35)	○ (15-35)
	26	Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%		110		◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)
	27		CuZn, CuSnZn (Brass)		90		◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)
	28		CuSn, lead-free copper and electrolytic copper		100		◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)	◎ (15-35)
	29	Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic									
	30		Rubber, Wood, etc.									
S	31	Heat Resistant Super Alloys	Fe Based	Annealed	200	15						
	32			Cured	280	30						
	33		Ni or Co Based	Annealed	250	25						
	34			Cured	350	38						
	35			Cast	320	34						
	36	Titanium Alloys	Pure Titanium		400 Rm							
	37		Alpha + Beta Alloys	Hardened	1050 Rm							
H	38	Hardened steel		Hardened	550	55						
	39			Hardened	630	60						
	40	Chilled Cast Iron		Cast	400	42						
	41	Hardened Cast Iron		Hardened	550	55						

FEATURES & BENEFITS

High and Reliable Performance on Various Ductile Materials



YG-1's X-Coating

- YG-1's High Performance Coating for high heat and wear resistance



YG-1 Special Thread Structure

- Reduction in torque, wear, and the risk of over feeding as compared to conventional taps

Extra Short Threaded Body and Recess

- Minimize bird nesting, reduced chipping, improved thread finish

Optimized Edge Preparation

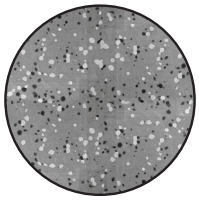
- Consistent performance and process stability to prevent chipping

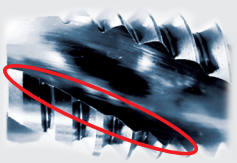
Optimized Flute Geometry for Excellent Chip Flow

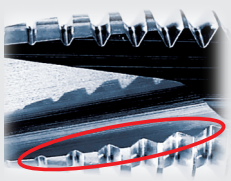
- Increased tool life as a result of an optimum combination of material, geometry, and coating which gives unrestricted chip flow

HSS-PM(Powder Metallurgy) Premium Taps

Powdered Metal Technology for a tough-chipping resistant cutting edge for long tool life and reliable thread finish







Premium Cutting Edge Strength

- More controlled structure with high wear resistance
- Consistent performance and process stability with chipping resistance