

YU24
AMERICA
2024



CUTTING TOOLS



THREADING

YG-1 CO., LTD.

THREADING TOOLS

SOLID CARBIDE THREAD MILL (with & without Coolant Holes)

HSS-PM SYNCHRO TAP (Spiral Flute, Spiral Point, Straight Flute & Forming)

HSS-E COMBO TAP (Spiral Flute & Spiral Point Tap)

HSS-PM YG TAP BLUE RING

HSS-E YG TAP STEEL

HSS-PM & HSS-E YG TAP INOX

SOLID CARBIDE & HSS-PM YG TAP CAST IRON

HSS-E YG TAP ALU

HSS-PM YG TAP Ti Ni

HSS-PM YG TAP HARDENED STEEL

HSS-E & HSS YG TAP GENERAL

HSS-PM, HSS-E & HSS YG TAP FORMING

HSS-E & HSS SCREW THREAD INSERT TAP

HSS-E & HSS PIPE TAP

TECHNICAL DATA

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THREADING TOOLS

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SOLID CARBIDE THREAD MILL

HSS-PM & HSS-E MACHINE TAP

SOLID CARBIDE & HSS MACHINE TAP

HSS-PM & HSS-E MACHINE TAP

HSS MACHINE & HAND TAP

HSS-PM & HSS-E MACHINE TAP

HSS PIPE TAP

TECHNICAL DATA

SOLID CARBIDE THREAD MILL (with & without Coolant Holes)

HSS-PM **SYNCHRO TAP** (Spiral Flute, Spiral Point, Straight Flute & Forming)
For High Speed Tapping

HSS-E **COMBO TAP** (Spiral Flute & Spiral Point Tap)
For Multipurpose

HSS-PM **YG TAP BLUE RING**
For Steels & Stainless Steels up to 35HRc

HSS-E **YG TAP STEEL**
For carbon and alloy steel

HSS-PM & HSS-E **YG TAP INOX**
For Stainless Steels

SOLID CARBIDE & HSS-PM **YG TAP CAST IRON**
For Cast Iron or Similar Work Materials

HSS-E **YG TAP ALU**
For long-chipping Aluminum Wrought Alloys

HSS-PM **YG TAP Ti Ni**
For Heat Resistent Super Alloys and Titanium Alloys

HSS-PM **YG TAP HARDENED STEEL**
For Hardened Steels Applications

HSS-E & HSS **YG TAP GENERAL**
For General Purpose Through and Blind Hole Applications

HSS-PM, HSS-E & HSS **YG TAP FORMING**
For Forming Ductile Materials

HSS-E & HSS **SCREW THREAD INSERT TAP**

HSS-E & HSS **PIPE TAP**

TECHNICAL DATA

CARBIDE

HSS

THREAD
MILL

SYNCHRO
TAP

COMBO
TAP

YG TAP
BLUE RING

YG TAP
STEEL

YG TAP
INOX

YG TAP
CAST IRON

YG TAP
ALU

YG TAP
Ti Ni

YG TAP
HARDENED
STEEL

YG TAP
GENERAL

YG TAP
FORMING

STI TAP

PIPE TAP

TECHNICAL
DATA

SELECTION GUIDE



THREADING TOOLS



Please visit globalyg1.com/mat for material search

◎ : Excellent
○ : Good

Table with columns: ISO, VDI 3323, Material Description, HB, HRc, and 6 columns of material compatibility (with/without coolant hole, with chamfer). Includes rows for P, M, K, N, S, H series.

THREAD MILL

Summary table for Thread Mill with columns: TYPE, HOLE TYPE, THREAD FORM, TOOL MATERIAL, FLUTE TYPE, HELIX ANGLE, SERIES, SURFACE TREATMENT / COATING.



THREAD MILL

Summary table for Thread Mill with columns: Miniature, without Coolant Hole, with Coolant Hole, without Coolant Hole, with Coolant Hole, without Coolant Hole, with Coolant Hole.



SELECTION GUIDE



THREADING TOOLS

SYNCHRO TAP

HOLE TYPE	Max. 2.5xD Blind Hole		Max. 3.0xD Through Hole	
	HSS-PM	HSS-PM	HSS-PM	HSS-PM
TOOL MATERIAL	Spiral Flute		Spiral Point	
FLUTE TYPE	Spiral Flute		Spiral Point	
SPIRAL FLUTE ANGLE	R45		-	
SERIES	M			
	M/MF	TTS61 (p.B70)		TTS62 (p.B73)
	UNC			
	UNC/UNF	TTS65 (p.B68)		TTS66 (p.B71)
	UNC/UNF/UNS			
	UNC/UN8			
	NPT			
	NPTF			
NPS/NPSF				
SURFACE TREATMENT / COATING	TIN		TIN	

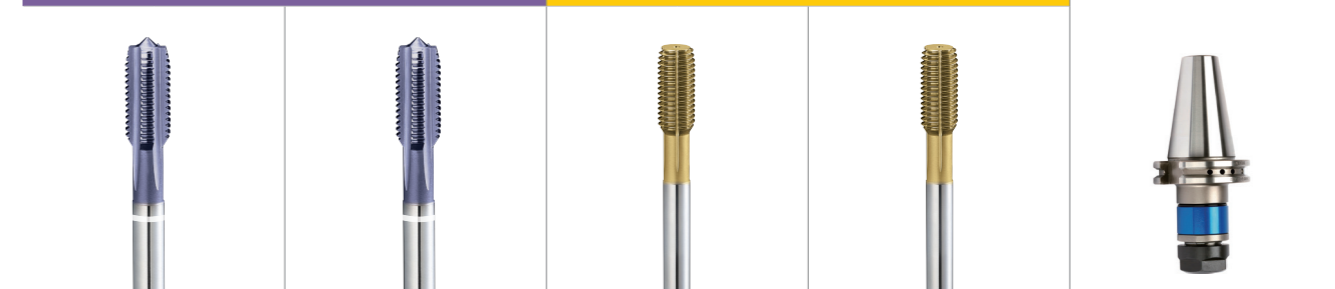
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◎ : Excellent
○ : Good

ISO	VDI 3323	Material Description	HB	HRc									
P	1	Non-alloy steel	125		◎	79-148	◎	79-148	◎	79-148	◎	79-148	
	2		190	13	◎	79-148	◎	79-148	◎	79-148	◎	79-148	
	3		250	25	◎	79-148	◎	79-148	◎	79-148	◎	79-148	
	4		270	28	◎	66-128	◎	66-128	◎	66-128	◎	66-128	
	5		300	32									
	6	180	Low alloy steel	10		◎	66-128	◎	66-128	◎	66-128	◎	66-128
	7	275		29	◎	66-128	◎	66-128	◎	66-128	◎	66-128	
	8	300		32									
	9	350		38									
	10	200		15									
	11	325		35									
M	12	Stainless steel	200	15	◎	39-98	◎	39-98	◎	39-98	◎	39-98	
	13		240	23	◎	39-98	◎	39-98	◎	39-98	◎	39-98	
	14		180	10	○	39-60	○	39-60	○	39-60	○	39-60	
K	15	Grey cast iron	180	10	○	98-148	○	98-148	○	98-148	○	98-148	
	16		260	26									
	17	Nodular cast iron	160	3	◎	82-148	◎	82-148	◎	82-148	◎	82-148	
	18		250	25									
	19		Malleable cast iron	130									
	20			230	21								
N	21	Aluminum-wrought alloy	60										
	22		100										
	23	Aluminum-cast, alloyed	75		◎	148-197	◎	148-197	◎	148-197	◎	148-197	
	24		90		◎	148-197	◎	148-197	◎	148-197	◎	148-197	
	25		130		◎	82-118	◎	82-118	◎	82-118	◎	82-118	
	26		110		◎	98-148	◎	98-148	◎	98-148	◎	98-148	
	27		90										
	28		100		○	82-118	○	82-118	○	82-118	○	82-118	
	29		Non Metallic Materials										
	30		Duroplastic, Fiber Reinforced Plastic, Graphite, CFRP, GFRP, etc.										
S	31	Heat Resistant Super Alloys	200	15									
	32		280	30									
	33		250	25									
	34		350	38									
	35		320	34									
	36	Titanium Alloys	400 Rm										
	37		1050 Rm										
H	38	Hardened steel	550	55									
	39		630	60									
	40	Chilled Cast Iron	400	42									
41	Hardened Cast Iron	550	55										

SYNCHRO TAP

HOLE TYPE	Max. 2.0xD Blind / Through Hole		Max. 3.0xD Blind / Through Hole		SYNCHRO TAPPING CHUCK (ER TYPE)
	HSS-PM	HSS-PM	HSS-PM	HSS-PM	
TOOL MATERIAL	Straight Flute		Forming		CAT (p.B80)
FLUTE TYPE	Straight Flute		Forming		
SPIRAL FLUTE ANGLE	-		-		
SERIES	M				
	M/MF	TKS63 (p.B76)		TTS64 (p.B79)	
	UNC				
	UNC/UNF	TKS67 (p.B74)		TTS68 (p.B77)	
	UNC/UNF/UNS				
UNC/UN8					
NPT					
NPTF					
NPS/NPSF					
SURFACE TREATMENT / COATING	TiCN		TIN		



ISO	VDI 3323	Material Description	HB	HRc									
P	1	Non-alloy steel	125		◎	79-148	◎	79-148	◎	79-148	◎	79-148	
	2		190	13	◎	79-148	◎	79-148	◎	79-148	◎	79-148	
	3		250	25	◎	79-148	◎	79-148	◎	79-148	◎	79-148	
	4		270	28	◎	66-128	◎	66-128	◎	66-128	◎	66-128	
	5		300	32									
	6	180	Low alloy steel	10		◎	66-128	◎	66-128	◎	66-128	◎	66-128
	7	275		29	◎	66-128	◎	66-128	◎	66-128	◎	66-128	
	8	300		32									
	9	350		38									
	10	200		15									
	11	325		35									
M	12	Stainless steel	200	15	◎	39-98	◎	39-98	◎	39-98	◎	39-98	
	13		240	23	◎	39-98	◎	39-98	◎	39-98	◎	39-98	
	14		180	10	○	39-60	○	39-60	○	39-60	○	39-60	
K	15	Grey cast iron	180	10	○	98-148	○	98-148	○	98-148	○	98-148	
	16		260	26									
	17	Nodular cast iron	160	3	◎	82-148	◎	82-148	◎	82-148	◎	82-148	
	18		250	25									
	19		Malleable cast iron	130									
	20			230	21								
N	21	Aluminum-wrought alloy	60										
	22		100										
	23	Aluminum-cast, alloyed	75		◎	148-197	◎	148-197	◎	148-197	◎	148-197	
	24		90		◎	148-197	◎	148-197	◎	148-197	◎	148-197	
	25		130		◎	82-118	◎	82-118	◎	82-118	◎	82-118	
	26		110		◎	98-148	◎	98-148	◎	98-148	◎	98-148	
	27		90										
	28		100		○	82-118	○	82-118	○	82-118	○	82-118	
	29		Non Metallic Materials										
	30		Duroplastic, Fiber Reinforced Plastic, Graphite, CFRP, GFRP, etc.										
S	31	Heat Resistant Super Alloys	200	15									
	32		280	30									
	33		250	25									
	34		350	38									
	35		320	34									
	36	Titanium Alloys	400 Rm										
	37		1050 Rm										
H	38	Hardened steel	550	55									
	39		630	60									
	40	Chilled Cast Iron	400	42									
41	Hardened Cast Iron	550	55										

SELECTION GUIDE



THREADING TOOLS



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⊙ : Excellent
○ : Good

Table with columns: ISO, VDI 3323, Material Description, HB, HRC, and 8 columns of performance indicators (⊙/○) for different hole types and materials.

YG TAP STEEL

Table with columns: HSS-E, HSS-E, HSS-E, HSS-E, HSS-E, HSS-E, HSS-E, HSS-E and 8 columns of performance indicators (⊙/○) for different hole types and materials.

SELECTION GUIDE



THREADING TOOLS



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 ○ : Good

ISO	VDI 3323	Material Description	HB	HRc	YG TAP INOX					
P	1	Non-alloy steel	125		○	○	○	○	○	
	2		190	13	◎	◎	◎	◎	◎	
	3		250	25	◎	◎	◎	◎	◎	
	4		270	28	◎	◎	◎	◎	◎	
	5		300	32						
	6	Low alloy steel	180	10	◎	◎	◎	◎	◎	
	7		275	29						
	8		300	32						
	9		350	38						
	10		High alloyed steel, and tool steel	200	15					
	11			325	35					
M	12	Stainless steel	200	15	◎	◎	◎	◎	◎	
	13		240	23	◎	◎	◎	◎	◎	
	14		180	10	◎	◎	◎	◎	◎	
K	15	Grey cast iron	180	10						
	16		260	26						
	17	Nodular cast iron	160	3						
	18		250	25						
	19		130							
20	Malleable cast iron	230	21							
N	21	Aluminum-wrought alloy	60		○	○	○	○	○	
	22		100							
	23	Aluminum-cast, alloyed	75							
	24		90							
	25		130							
	26	Copper and Copper Alloys (Bronze / Brass)	110		○	○	○	○	○	
	27		90		○	○	○	○	○	
	28		100		○	○	○	○	○	
	29	NonMetallic Materials Duroplastic, Fiber Reinforced Plastic, Graphite, CFRP, GFRP, etc.								
	30									
S	31	Heat Resistant Super Alloys	200	15						
	32		280	30						
	33		250	25						
	34		350	38						
	35	320	34							
	36	Titanium Alloys	400 Rm							
37	1050 Rm									
H	38	Hardened steel	550	55						
	39		630	60						
	40	Chilled Cast Iron	400	42						
	41	Hardened Cast Iron	550	55						

YG TAP INOX

SERIES	HOLE TYPE	Max. 2.5xD Blind Hole				
	TOOL MATERIAL	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-E
	FLUTE TYPE	Spiral Flute				
	SPIRAL FLUTE ANGLE	R45	R45	R45	R45	R45
	M					
	M/MF					
	UNC					
	UNC/UNF	G7 (p.B154)	G8 (p.B154)	G9 (p.B154)	H0 (p.B154)	B1 (p.B155)
	UNC/UNF/UNS					
	UNC/UN8					
	NPT					
	NPTF					
	NPS/NPSF					
	SURFACE TREATMENT / COATING	TIN	TIN	HardSlick	HardSlick	Bright



YG TAP INOX

Max. 2.5xD Blind Hole							
Spiral Flute							
HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
R45	R45	R45	R45	R45	R45	R45	R45
			BS (p.B159)	BT (p.B159)	E6 (p.B159)	E8 (p.B160)	E9 (p.B160)
B0 (p.B155)	B2 (p.B155)	D2 (p.B155)					
Steam Oxide	TIN	HardSlick	Steam Oxide	HardSlick	Steam Oxide	TiCN	HardSlick



○	○	○	○	○	○	○	○	1
◎	◎	◎	◎	◎	◎	◎	◎	2
◎	◎	◎	◎	◎	◎	◎	◎	3
◎	◎	◎	◎	◎	◎	◎	◎	4
								5
◎	◎	◎	◎	◎	◎	◎	◎	6
								7
								8
								9
								10
◎	◎	◎	◎	◎	◎	◎	◎	11
◎	◎	◎	◎	◎	◎	◎	◎	12
◎	◎	◎	◎	◎	◎	◎	◎	13
◎	◎	◎	◎	◎	◎	◎	◎	14
								15
								16
								17
								18
								19
								20
○	○	○	○	○	○	○	○	21
								22
								23
								24
								25
○	○	○	○	○	○	○	○	26
○	○	○	○	○	○	○	○	27
○	○	○	○	○	○	○	○	28
								29
								30
								31
								32
								33
								34
								35
								36
								37
								38
								39
								40
								41

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THREADING TOOLS



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◎ : Excellent
○ : Good

ISO	VDI 3323	Material Description	HB	HRc						
P	1	Non-alloy steel	125		○ 50-80	○ 50-80	○ 50-80	○ 50-80	○ 25-50	
	2		190	13	◎ 50-80	◎ 50-80	◎ 50-80	◎ 50-80	◎ 25-50	
	3		250	25	◎ 50-80	◎ 50-80	◎ 50-80	◎ 50-80	◎ 25-50	
	4		270	28	◎ 10-35	◎ 10-35	◎ 10-35	◎ 10-35	◎ 6-30	
	5		300	32						
	6	Low alloy steel	180	10	◎ 10-35	◎ 10-35	◎ 10-35	◎ 10-35	◎ 6-30	
	7		275	29						
	8		300	32						
	9		350	38						
	10		High alloyed steel, and tool steel	200	15					
	11			325	35					
M	12	Stainless steel	200	15	◎ 20-50	◎ 20-50	◎ 20-50	◎ 20-50	◎ 12-35	
	13		240	23	◎ 20-50	◎ 20-50	◎ 20-50	◎ 20-50	◎ 12-35	
	14		180	10	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	
K	15	Grey cast iron	180	10						
	16		260	26						
	17	Nodular cast iron	160	3						
	18		250	25						
	19		130							
20	Malleable cast iron	230	21							
N	21	Aluminum-wrought alloy	60		○ 50-65	○ 50-65	○ 50-65	○ 50-65	○ 50-65	
	22		100							
	23		75							
	24	Aluminum-cast, alloyed	90							
	25		130							
	26	Copper and Copper Alloys (Bronze / Brass)	110		○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	
	27		90		○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	
	28		100							
	29	Non Metallic Materials Duroplastic, Fiber Reinforced Plastic, Graphite, CFRP, GFRP, etc.								
	30									
S	31	Heat Resistant Super Alloys	200	15						
	32		280	30						
	33		250	25						
	34		350	38						
	35	320	34							
	36	Titanium Alloys	400 Rm							
37	1050 Rm									
H	38	Hardened steel	550	55						
	39		630	60						
	40	Chilled Cast Iron	400	42						
	41	Hardened Cast Iron	550	55						

YG TAP INOX

Max. 3.0xD Through Hole										Max. 2.5xD Blind Hole	
HSS-PM	HSS-PM	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-PM	HSS-PM	HSS-E	HSS-E	
Spiral Point							Spiral Flute		Spiral Flute		
-	-	-	-	-	-	-	L15	L15	R40	R40	
		09 (p.B166)	IA (p.B166)	K3 (p.B167)	K5 (p.B167)	K6 (p.B167)					
I2 (p.B162)	J2 (p.B162)						H2 (p.B168)	H4 (p.B168)			
									BG (p.B169)	BG-GB (p.B169)	
TIN	HardSlick	Steam Oxide	HardSlick	Steam Oxide	TiCN	HardSlick	TiN	HardSlick	HardSlick	Gold & Black	
									Oil Field		
○ 25-50	○ 50-80	○ 25-50	○ 50-80	○ 25-50	○ 50-80	○ 25-50	○ 50-80	○ 50-80	○ 50-80	○ 50-80	
◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	◎ 50-80	◎ 50-80	◎ 50-80	
◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	◎ 50-80	◎ 10-35	◎ 10-35	
◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 10-35	◎ 10-35	◎ 10-35	
◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 10-35	◎ 10-35	◎ 10-35	
◎ 12-35	◎ 20-50	◎ 12-35	◎ 20-50	◎ 12-35	◎ 20-50	◎ 12-35	◎ 20-50	◎ 20-50	◎ 20-50	◎ 20-50	
◎ 12-35	◎ 20-50	◎ 12-35	◎ 20-50	◎ 12-35	◎ 20-50	◎ 12-35	◎ 20-50	◎ 20-50	◎ 20-50	◎ 20-50	
◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	
○ 50-65	○ 50-65	○ 50-65	○ 50-65	○ 50-65	○ 50-65	○ 50-65	○ 50-65	○ 50-65	○ 50-65	○ 50-65	
○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	
○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	

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THREADING TOOLS

	YG TAP CAST IRON				YG TAP ALU	
HOLE TYPE	Max. 3.0xD Through Hole				Max. 2.5xD Blind Hole	
TOOL MATERIAL	HSS-PM	HSS-PM	HSS-PM	Carbide	HSS-E	HSS-E
FLUTE TYPE	Straight Flute				Spiral Flute	
SPIRAL FLUTE ANGLE	-	-	-	-	R50	R50

SERIES	M					
	M/MF	TR (p.B174)	TR-A (p.B177)	TR-R (p.B177)		
	UNC					
	UNC/UNF	TR (p.B173)	TR-A (p.B175)	TR-R (p.B175)	TOC01 (p.B178)	CO (p.B181) D8 (p.B181)
	UNC/UNF/UNS					
	UNC/UN8					
	NPT					
	NPTF					
SURFACE TREATMENT / COATING		TiAIN	TiAIN	TiAIN	Bright	Bright HardSlick

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◎ : Excellent
○ : Good



ISO	VDI 3323	Material Description	HB	HRC				
P	1	Non-alloy steel	125					
	2		190	13				
	3		250	25				
	4		270	28				
	5		300	32				
	6	Low alloy steel	180	10				
	7		275	29				
	8		300	32				
	9		350	38				
	10		High alloyed steel, and tool steel	200	15			
	11		325	35				
M	12	Stainless steel	200	15				
13	240		23					
14	180		10					
K	15	Grey cast iron	180	10	◎ 50-65	◎ 50-65	◎ 50-65	◎ 35-50
	16		260	26	◎ 50-65	◎ 50-65	◎ 50-65	◎ 35-50
	17		160	3	◎ 25-55	◎ 25-55	◎ 25-55	◎ 12-45
	18	Nodular cast iron	250	25	◎ 25-55	◎ 25-55	◎ 25-55	◎ 12-45
	19		130		○ 25-55	○ 25-55	○ 25-55	○ 12-45
	20		230	21	○ 25-55	○ 25-55	○ 25-55	○ 12-45
N	21	Aluminum-wrought alloy	60				○ 50-65	◎ 50-65
	22		100				◎ 50-65	◎ 50-65
	23	Aluminum-cast, alloyed	75		◎ 45-90	◎ 45-90	◎ 45-90	○ 40-65
	24		90		○ 45-90	○ 45-90	○ 45-90	◎ 40-65
	25		130					◎ 40-65
	26		110					
	27		90					
	28	100						
	29	Non Metallic Materials Duroplastic, Fiber Reinforced Plastic, Graphite, CFRP, GFRP, etc.						
	30							
S	31	Heat Resistant Super Alloys	200	15				
	32		280	30				
	33		250	25				
	34		350	38				
	35	320	34					
	36	Titanium Alloys	400 Rm					
	37		1050 Rm					
H	38	Hardened steel	550	55				
	39		630	60				
	40	Chilled Cast Iron	400	42				
	41	Hardened Cast Iron	550	55				

YG TAP ALU				YG TAP TI / NI							
Max. 2.5xD Blind Hole		Max. 3.0xD Through Hole		Max. 2.5xD Blind Hole			Max. 3.0xD Through Hole				
HSS-E	HSS-E	HSS-E	HSS-E	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM
Spiral Flute		Spiral Point		Spiral Flute			Spiral Point				
R50	R50	-	-	R15	R15	R15	-	-	-	-	-

BW (p.B182)	BX (p.B182)		T2K01 (p.B184)								
		T2496 (p.B183)		B3 (p.B187)	B5 (p.B187)	B6 (p.B187)	I3 (p.B185)	M8 (p.B189)	I5 (p.B189)	J6 (p.B189)	
Bright	HardSlick	Bright	Bright	Steam Oxide	TiCN	HardSlick	Steam Oxide	Bright	TiCN	HardSlick	

												1	
												2	
												3	
												4	
												5	
												6	
												7	
							○ 6-30	○ 10-35	○ 10-35	○ 6-30	○ 6-30	○ 10-35	8
							○ 6-30	○ 10-35	○ 10-35	○ 6-30	○ 6-30	○ 10-35	9
												10	
												11	
												12	
												13	
												14	
												15	
												16	
												17	
												18	
												19	
												20	
							◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65		21	
							◎ 50-65	◎ 50-65	◎ 50-65			22	
							◎ 40-65	◎ 45-90	◎ 40-65	◎ 40-65		23	
							◎ 40-65	◎ 45-90	◎ 40-65	◎ 40-65		24	
									○ 40-65	○ 40-65		25	
												26	
									○ 30-65	○ 30-65		27	
									○ 30-65	○ 30-65		28	
												29	
												30	
							◎ 10-15	◎ 10-15	◎ 10-15	◎ 10-15	◎ 10-15	31	
							◎ 10-15	◎ 10-15	◎ 10-15	◎ 10-15	◎ 10-15	32	
							◎ 10-15	◎ 10-15	◎ 10-15	◎ 10-15	◎ 10-15	33	
							○ 10-15	○ 10-15	○ 10-15	○ 10-15	○ 10-15	34	
							○ 10-15	○ 10-15	○ 10-15	○ 10-15	○ 10-15	35	
							◎ 3-15	◎ 3-15	◎ 3-15	◎ 3-15	◎ 3-15	36	
							○ 3-15	○ 3-15	○ 3-15	○ 3-15	○ 3-15	37	
												38	
												39	
									○ 3-15	○ 3-15	○ 3-15	40	
												41	

SELECTION GUIDE



THREADING TOOLS

YG TAP HARDENED STEEL

HOLE TYPE	Max. 2.5xD Blind Hole			Max. 3.0xD Through Hole		
	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM
	Spiral Flute			Spiral Flute		
TOOL MATERIAL	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM
FLUTE TYPE	Spiral Flute			Spiral Flute		
SPIRAL FLUTE ANGLE	R15	R15	R15	R15	R15	R15
SERIES	M					
	M/MF			TQ858 (p.B195)	TK858 (p.B195)	TR858 (p.B195)
	UNC					
	UNC/UNF	H6 (p.B194)	H7 (p.B194)	H8 (p.B194)		
	UNC/UNF/UNS					
	UNC/UN8					
	NPT					
	NPTF					
NPS/NPSF						
SURFACE TREATMENT / COATING	Bright	TiCN	HardSlick	Steam Oxide	TiCN	HardSlick



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◎ : Excellent
○ : Good

ISO	VDI 3323	Material Description	HB	HRC	1	2	3	4	5	6	7	8	9	10	11
P	1	Non-alloy steel	125	13											
	2		190	25											
	3		250	28											
	4		270	32											
	5	300	Low alloy steel	180	10										
	6	275		29	○ 6-30	○ 10-35	○ 10-35	○ 6-30	○ 10-35	○ 10-35					
	7	300		32	◎ 6-30	◎ 10-35	◎ 10-35	◎ 6-30	◎ 10-35	◎ 10-35					
	8	350		38	◎ 6-30	◎ 10-35	◎ 10-35	◎ 6-30	◎ 10-35	◎ 10-35					
	9	200		15	◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12					
	10	325		35	◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12					
	11	High alloyed steel, and tool steel													
M	12	Stainless steel	200	15											
	13		240	23											
	14		180	10											
K	15	Grey cast iron	180	10											
	16		260	26											
	17	Nodular cast iron	160	3											
	18		250	25											
	19	Malleable cast iron	130												
	20		230	21											
N	21	Aluminum-wrought alloy	60												
	22		100												
	23		75												
	24	Aluminum-cast, alloyed	90												
	25		130												
	26	Copper and Copper Alloys (Bronze / Brass)	110												
	27		90												
	28		100												
	29	Non Metallic Materials													
	30	Duroplastic, Fiber Reinforced Plastic, Graphite, CFRP, GFRP, etc.													
S	31	Heat Resistant Super Alloys	200	15											
	32		280	30											
	33		250	25											
	34		350	38											
	35	320	34												
	36	Titanium Alloys	400 Rm												
	37		1050 Rm												
H	38	Hardened steel	550	55											
	39		630	60											
	40	Chilled Cast Iron	400	42											
	41	Hardened Cast Iron	550	55											

YG TAP HARDENED STEEL

Max. 3.0xD Through Hole						
HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM
Spiral Point						
-	-	-	-	-	-	-
				TQ808 (p.B198)	TK808 (p.B198)	TR808 (p.B198)
M4 (p.B197)	M5 (p.B197)	M6 (p.B197)	M7 (p.B197)			
Steam Oxide	Bright	TiCN	HardSlick	Steam Oxide	TiCN	HardSlick



○ 6-30	○ 6-30	○ 10-35	○ 10-35	○ 6-30	○ 10-35	○ 10-35
◎ 6-30	◎ 6-30	◎ 10-35	◎ 10-35	◎ 6-30	◎ 10-35	◎ 10-35
◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12
◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12
○ 3-15	○ 3-15	○ 3-15	○ 3-15	○ 3-15	○ 3-15	○ 3-15
○ 3-15	○ 3-15	○ 3-15	○ 3-15	○ 3-15	○ 3-15	○ 3-15

SELECTION GUIDE



THREADING TOOLS

YG TAP GENERAL



HOLE TYPE	Max. 2.5xD Blind Hole					
TOOL MATERIAL	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	
FLUTE TYPE	Spiral Flute					
SPIRAL FLUTE ANGLE	R45	R45	R45	R45	R50	
SERIES	M					
	M/MF					
	UNC					
	UNC/UNF	C2 (p.B232)	C3 (p.B232)	C4 (p.B232)	D9 (p.B232)	F4 (p.B234)
	UNC/UNF/UNS					
	UNC/UN8					
	NPT					
	NPTF					
NPS/NPSF						
SURFACE TREATMENT / COATING	Steam Oxide	Bright	TiN	HardSlick	Steam Oxide	



Please visit globalyg1.com/mat for material search

◎ : Excellent
○ : Good

ISO	VDI 3323	Material Description	HB	HRC	25-50	25-50	50-80	50-80	25-50	
P	1	Non-alloy steel	125		◎	◎	◎	◎	◎	
	2		190	13	◎	◎	◎	◎	◎	
	3		250	25	◎	◎	◎	◎	◎	
	4		270	28	◎	○	◎	◎	◎	
	5		300	32	○	○	○	○	○	
	6	Low alloy steel	180	10	◎	◎	◎	◎	◎	
	7		275	29	○	○	○	○	○	
	8		300	32	○	○	○	○	○	
	9		350	38						
	10		High alloyed steel, and tool steel	200	15					
	11			325	35					
M	12	Stainless steel	200	15	○	○	○	○	○	
	13		240	23	○	○	○	○	○	
	14		180	10						
K	15	Grey cast iron	180	10						
	16		260	26						
	17	Nodular cast iron	160	3	○	○	○	○	○	
	18		250	25	○	○	○	○	○	
	19	Malleable cast iron	130							
	20		230	21						
N	21	Aluminum-wrought alloy	60							
	22		100							
	23	Aluminum-cast, alloyed	75		○	○	○	○	○	
	24		90		○	○	○	○		
	25		130							
	26		110		○	○	○	○		
	27	Copper and Copper Alloys (Bronze / Brass)	90		○	○	○	○	○	
	28		100		○	○	○	○		
	29									
	30	NonMetallic Materials (Duroplastic, Fiber Reinforced Plastic, Graphite, CFRP, GFRP, etc.)								
S	31	Heat Resistant Super Alloys	200	15						
	32		280	30						
	33		250	25						
	34		350	38						
	35	320	34							
	36	Titanium Alloys	400 Rm							
	37		1050 Rm							
H	38	Hardened steel	550	55						
	39		630	60						
	40	Chilled Cast Iron	400	42						
	41	Hardened Cast Iron	550	55						

YG TAP GENERAL



HOLE TYPE	Max. 2.5xD Blind Hole							
TOOL MATERIAL	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
FLUTE TYPE	Spiral Flute							
SPIRAL FLUTE ANGLE	R50	R50	R50	R50	R50	R45	R45	R45
SERIES	M							
	M/MF							
	UNC							
	UNC/UNF	G4 (p.B236)		G5 (p.B236)		G6 (p.B236)		
	UNC/UNF/UNS							
	UNC/UN8							
	NPT							
	NPTF							
NPS/NPSF								
SURFACE TREATMENT / COATING	TiN	HardSlick	Bright	TiCN	HardSlick	Bright	TiN	HardSlick



ISO	VDI 3323	Material Description	HB	HRC	50-80	50-80	25-50	50-80	50-80	25-50	25-50	50-80	50-80
P	1	Non-alloy steel	125		◎	◎	◎	◎	◎	◎	◎	◎	◎
	2		190	13	◎	◎	◎	◎	◎	◎	◎	◎	
	3		250	25	◎	◎	◎	◎	◎	◎	◎	◎	
	4		270	28	◎	○	◎	◎	◎	◎	◎	◎	
	5		300	32	○	○	○	○	○	○	○	○	
	6	Low alloy steel	180	10	◎	◎	◎	◎	◎	◎	◎	◎	◎
	7		275	29	○	○	○	○	○	○	○	○	
	8		300	32	○	○	○	○	○	○	○	○	
	9		350	38									
	10		High alloyed steel, and tool steel	200	15								
	11			325	35								
M	12	Stainless steel	200	15	○	○	○	○	○	○	○	○	
	13		240	23	○	○	○	○	○	○	○		
	14		180	10									
K	15	Grey cast iron	180	10									
	16		260	26									
	17	Nodular cast iron	160	3	○	○	○	○	○	○	○	○	
	18		250	25	○	○	○	○	○	○	○		
	19	Malleable cast iron	130										
	20		230	21									
N	21	Aluminum-wrought alloy	60										
	22		100										
	23	Aluminum-cast, alloyed	75		○	○	○	○	○	○	○	○	
	24		90		○	○	○	○	○	○	○		
	25		130										
	26		110		○	○	○	○	○	○	○		
	27	Copper and Copper Alloys (Bronze / Brass)	90		○	○	○	○	○	○	○	○	
	28		100		○	○	○	○	○	○	○		
	29												
	30	NonMetallic Materials (Duroplastic, Fiber Reinforced Plastic, Graphite, CFRP, GFRP, etc.)											
S	31	Heat Resistant Super Alloys	200	15									
	32		280	30									
	33		250	25									
	34		350	38									
	35	320	34										
	36	Titanium Alloys	400 Rm										
	37		1050 Rm										
H	38	Hardened steel	550	55									
	39		630	60									
	40	Chilled Cast Iron	400	42									
	41	Hardened Cast Iron	550	55									

SELECTION GUIDE



THREADING TOOLS

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◎ : Excellent
○ : Good

Table with columns: ISO, VDI 3323, Material Description, HB, Hrc, and 6 columns of hole type compatibility (R50, M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF). Includes material groups P, M, K, N, S, H.

YG TAP GENERAL



YG TAP GENERAL



Table with columns: HSS, HSS, HSS, HSS, HSS, HSS, HSS, HSS, HSS, HSS and 6 columns of hole type compatibility (R50, M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF). Includes material groups T7A86, T6A86, T8A86, T7A85, T6A85, T8A85, T7D01, T8D01, T7D02, T8D02.

SELECTION GUIDE



THREADING TOOLS



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◎ : Excellent
○ : Good

ISO	VDI 3323	Material Description	HB	Hrc								
P	1	Non-alloy steel	125		◎	25-50	◎	25-50	◎	50-80	◎	25-50
	2		190	13	◎	25-50	◎	25-50	◎	50-80	◎	25-50
	3		250	25	◎	25-50	◎	25-50	◎	50-80	◎	25-50
	4		270	28	○	6-30	○	6-30	○	10-35	○	6-30
	5		300	32	○	6-30	○	6-30	○	10-35	○	6-30
	6	180	10	◎	6-30	◎	6-30	◎	10-35	◎	6-30	
	7	275	29	○	6-30	○	6-30	○	10-35	○	6-30	
	8	300	32	○	6-30	○	6-30	○	10-35	○	6-30	
	9	350	38									
	10	High alloyed steel, and tool steel	200	15								
	11	325	35									
M	12	Stainless steel	200	15	○	12-35	○	12-35	○	20-50	○	12-35
	13		240	23	○	12-35	○	12-35	○	20-50	○	12-35
	14		180	10								
K	15	Grey cast iron	180	10								
	16		260	26								
	17	Nodular cast iron	160	3	○	12-45	○	12-45	○	25-55	○	12-45
	18		250	25	○	12-45	○	12-45	○	25-55	○	12-45
	19		130									
20	Malleable cast iron	230	21									
N	21	Aluminum-wrought alloy	60									
	22		100									
	23	Aluminum-cast, alloyed	75		○	40-65	○	40-65	○	45-90	○	40-65
	24		90		○	40-65	○	40-65	○	45-90	○	40-65
	25		130									
	26	Copper and Copper Alloys (Bronze / Brass)	110		○	50-60	○	50-60	○	65-100	○	50-60
	27		90		○	30-65	○	30-65	○	30-65	○	30-65
	28	100										
	29	NonMetallic Materials										
30	Duroplastic, Fiber Reinforced Plastic, Graphite, CFRP, GFRP, etc.											
S	31	Heat Resistant Super Alloys	200	15								
	32		280	30								
	33		250	25								
	34		350	38								
	35		320	34								
	36	Titanium Alloys	400 Rm									
37	1050 Rm											
H	38	Hardened steel	550	55								
	39		630	60								
	40	Chilled Cast Iron	400	42								
	41	Hardened Cast Iron	550	55								

YG TAP GENERAL

HOLE TYPE	Max. 3.0xD Through Hole				
TOOL MATERIAL	HSS	HSS	HSS	HSS	
FLUTE TYPE	Spiral Point				
SPIRAL FLUTE ANGLE	-	-	-	-	
SERIES	M				
	M/MF				
	UNC				
	UNC/UNF	T7216 (p.B250)	T6216 (p.B250)	T8216 (p.B250)	T7C16 (p.B254)
	UNC/UNF/UNS				
	UNC/UN8				
	NPT				
	NPTF				
NPS/NPSF					
SURFACE TREATMENT / COATING	Bright	Steam Oxide	TIN	Bright	



YG TAP GENERAL

HOLE TYPE	Max. 3.0xD Through Hole									
TOOL MATERIAL	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS		
FLUTE TYPE	Spiral Point									
SPIRAL FLUTE ANGLE	-	-	-	-	-	-	-	-		
SERIES	M									
	M/MF									
	UNC									
	UNC/UNF	T6C16 (p.B254)	T8C16 (p.B254)					T7226 (p.B256)	T6226 (p.B256)	T8226 (p.B256)
	UNC/UNF/UNS									
	UNC/UN8									
	NPT									
	NPTF									
NPS/NPSF										
SURFACE TREATMENT / COATING	Steam Oxide	TIN	Bright	Steam Oxide	TIN	Bright	Steam Oxide	TIN		



◎	25-50	◎	50-80	◎	25-50	◎	25-50	◎	25-50	◎	50-80	◎	25-50	◎	25-50	◎	25-50	◎	50-80
◎	25-50	◎	50-80	◎	25-50	◎	25-50	◎	25-50	◎	50-80	◎	25-50	◎	25-50	◎	25-50	◎	50-80
◎	25-50	◎	50-80	◎	25-50	◎	25-50	◎	25-50	◎	50-80	◎	25-50	◎	25-50	◎	25-50	◎	50-80
○	6-30	○	10-35	○	6-30	○	6-30	○	6-30	○	10-35	○	6-30	○	6-30	○	6-30	○	10-35
○	6-30	○	10-35	○	6-30	○	6-30	○	6-30	○	10-35	○	6-30	○	6-30	○	6-30	○	10-35
○	6-30	○	10-35	○	6-30	○	6-30	○	6-30	○	10-35	○	6-30	○	6-30	○	6-30	○	10-35
○	6-30	○	10-35	○	6-30	○	6-30	○	6-30	○	10-35	○	6-30	○	6-30	○	6-30	○	10-35
○	6-30	○	10-35	○	6-30	○	6-30	○	6-30	○	10-35	○	6-30	○	6-30	○	6-30	○	10-35
○	12-35	○	20-50	○	12-35	○	12-35	○	12-35	○	20-50	○	12-35	○	12-35	○	12-35	○	20-50
○	12-35	○	20-50	○	12-35	○	12-35	○	12-35	○	20-50	○	12-35	○	12-35	○	12-35	○	20-50
○	12-45	○	25-55	○	12-45	○	12-45	○	12-45	○	25-55	○	12-45	○	12-45	○	12-45	○	25-55
○	12-45	○	25-55	○	12-45	○	12-45	○	12-45	○	25-55	○	12-45	○	12-45	○	12-45	○	25-55
○	40-65	○	45-90	○	40-65	○	40-65	○	40-65	○	45-90	○	40-65	○	40-65	○	40-65	○	45-90
○	40-65	○	45-90	○	40-65	○	40-65	○	40-65	○	45-90	○	40-65	○	40-65	○	40-65	○	45-90
○	50-60	○	65-100	○	50-60	○	50-60	○	50-60	○	65-100	○	50-60	○	50-60	○	50-60	○	65-100
○	30-65	○	30-65	○	30-65	○	30-65	○	30-65	○	30-65	○	30-65	○	30-65	○	30-65	○	30-65

SELECTION GUIDE



THREADING TOOLS

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◎ : Excellent
○ : Good

Table with columns: ISO, VDI 3323, Material Description, HB, HRC. Rows include P (Non-alloy steel, Low alloy steel, High alloyed steel), M (Stainless steel), K (Grey cast iron, Nodular cast iron, Malleable cast iron), N (Aluminum-wrought alloy, Aluminum-cast alloyed, Copper and Copper Alloys), S (Heat Resistant Super Alloys, Titanium Alloys), H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

YG TAP GENERAL

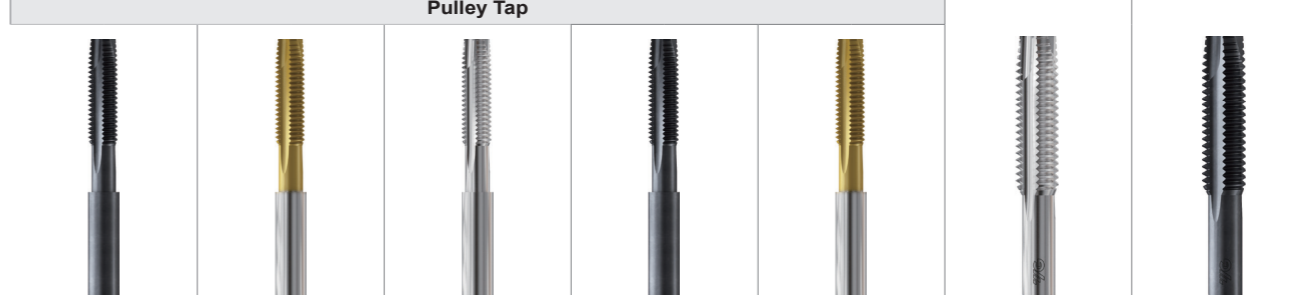
Table with columns: HOLE TYPE, TOOL MATERIAL, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF), SURFACE TREATMENT / COATING. Includes Max. 3.0xD Through Hole icon.



Compatibility table for YG TAP GENERAL. Columns: Material (HSS, HSS, HSS, HSS), ISO, VDI 3323, Material Description, HB, HRC, and performance indicators (◎/○).

YG TAP GENERAL

Table with columns: HOLE TYPE, TOOL MATERIAL, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF), SURFACE TREATMENT / COATING. Includes Max. 3.0xD Through Hole icon.



Compatibility table for YG TAP GENERAL. Columns: Material (HSS, HSS, HSS, HSS, HSS, HSS, HSS), ISO, VDI 3323, Material Description, HB, HRC, and performance indicators (◎/○).

SELECTION GUIDE



THREADING TOOLS

YG TAP FORMING

HOLE TYPE		Max. 3.0xD Blind / Through Hole			
TOOL MATERIAL		HSS-E	HSS-E	HSS-E	HSS-E
FLUTE TYPE		Spiral Flute			
SPIRAL FLUTE ANGLE		-	-	-	-
SERIES	M	ZA (p.B274)	ZC (p.B274)	Z9 (p.B274)	ZB (p.B274)
	M/MF				
	UNC				
	UNC/UNF				
	UNC/UNF/UNS				
	UNC/UN8				
	NPT				
	NPTF				
SURFACE TREATMENT / COATING		TiN	TiCN	Bright	TiN

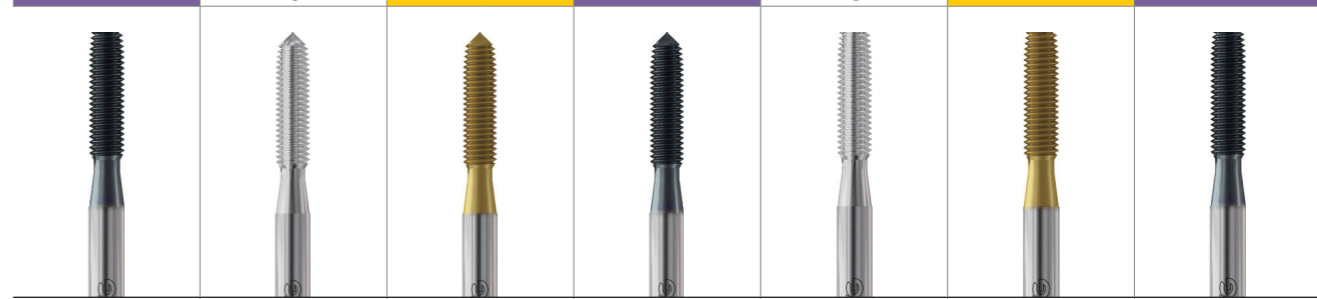
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ISO	VDI 3323	Material Description	HB	HRc	TiN	TiCN	Bright	TiN
P	1	Non-alloy steel	125		◎ 50-80	◎ 50-80	◎ 25-50	◎ 50-80
	2		190	13	◎ 50-80	◎ 50-80	◎ 25-50	◎ 50-80
	3		250	25	◎ 50-80	◎ 50-80	◎ 25-50	◎ 50-80
	4		270	28				
	5	300	32	◎ 10-35	◎ 10-35	◎ 6-30	◎ 10-35	
	6	Low alloy steel	180	10				
	7		275	29				
	8		300	32				
	9		350	38				
	10		High alloyed steel, and tool steel	200	15			
	11	325	35					
M	12	Stainless steel	200	15	◎ 20-50	◎ 20-50	◎ 12-35	◎ 20-50
	13		240	23	◎ 20-50	◎ 20-50	◎ 12-35	◎ 20-50
	14		180	10	○ 12-15	○ 12-15	○ 12-15	○ 12-15
K	15	Grey cast iron	180	10				
	16		260	26				
	17	Nodular cast iron	160	3				
	18		250	25				
	19		130					
20	Malleable cast iron	230	21					
N	21	Aluminum-wrought alloy	60		◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65
	22		100		◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65
	23	Aluminum-cast, alloyed	75		○ 45-90	○ 45-90	○ 40-65	○ 45-90
	24		90		○ 45-90	○ 45-90	○ 40-65	○ 45-90
	25		130					
	26		110		◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65
	27	Copper and Copper Alloys (Bronze / Brass)	90		◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65
	28		100					
	29	NonMetallic Materials						
	30	Duroplastic, Fiber Reinforced Plastic, Graphite, CFRP, GFRP, etc.						
S	31	Heat Resistant Super Alloys	200	15				
	32		280	30				
	33		250	25				
	34		350	38				
	35	320	34					
	36	Titanium Alloys	400 Rm					
37	1050 Rm							
H	38	Hardened steel	550	55				
	39		630	60				
	40	Chilled Cast Iron	400	42				
	41	Hardened Cast Iron	550	55				

YG TAP FORMING

HOLE TYPE		Max. 3.0xD Blind / Through Hole					
TOOL MATERIAL		HSS-E	HSS	HSS	HSS	HSS	HSS
FLUTE TYPE		-					
SPIRAL FLUTE ANGLE		-	-	-	-	-	-
SERIES	ZD (p.B274)						
	T7R01 (p.B275)						
	T8R01 (p.B275)						
	THR01 (p.B275)						
	T7R02 (p.B276)						
	T8R02 (p.B276)						
	THR02 (p.B276)						
	SURFACE TREATMENT / COATING		TiCN	Bright	TiN	TiCN	Bright



◎ 50-80	◎ 25-50	◎ 50-80	◎ 50-80	◎ 25-50	◎ 50-80	◎ 50-80	◎ 50-80
◎ 50-80	◎ 25-50	◎ 50-80	◎ 50-80	◎ 25-50	◎ 50-80	◎ 50-80	◎ 50-80
◎ 50-80	◎ 25-50	◎ 50-80	◎ 50-80	◎ 25-50	◎ 50-80	◎ 50-80	◎ 50-80
◎ 10-35	◎ 6-30	◎ 10-35	◎ 10-35	◎ 6-30	◎ 10-35	◎ 10-35	◎ 10-35
◎ 20-50	◎ 12-35	◎ 20-50	◎ 20-50	◎ 12-35	◎ 20-50	◎ 20-50	◎ 20-50
◎ 20-50	◎ 12-35	◎ 20-50	◎ 20-50	◎ 12-35	◎ 20-50	◎ 20-50	◎ 20-50
○ 12-15	○ 12-15	○ 12-15	○ 12-15	○ 12-15	○ 12-15	○ 12-15	○ 12-15
◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65
◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65
○ 45-90	○ 40-65	○ 45-90	○ 45-90	○ 40-65	○ 45-90	○ 45-90	○ 45-90
○ 45-90	○ 40-65	○ 45-90	○ 45-90	○ 40-65	○ 45-90	○ 45-90	○ 45-90
◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65
◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65

SELECTION GUIDE



THREADING TOOLS

SCREW THREAD INSERT TAP

HOLE TYPE	Max. 2.5xD Blind Hole			Max. 3.0xD Through Hole	
	HSS-E	HSS	HSS	HSS-E	HSS
TOOL MATERIAL	HSS-E	HSS	HSS	HSS-E	HSS
FLUTE TYPE	Spiral Flute			Spiral Point	
SPIRAL FLUTE ANGLE	R40	R50	R50	-	-
SERIES	M				
	M/MF			T7425 (p.B283)	
	UNC				
	UNC/UNF	ST/SI (p.B280)	T7406 (p.B281)		ST/SI (p.B284)
	UNC/UNF/UNS				T7436 (p.B285)
	UNC/UN8				
	NPT				
	NPTF				
NPS/NPSF					
SURFACE TREATMENT / COATING	HardSlick	Bright	Bright	HardSlick	Bright

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◎ : Excellent
○ : Good

ISO	VDI 3323	Material Description	HB	HRc	Hole Type					
P	1	Non-alloy steel	125		◎ 50-80	○ 25-50	○ 25-50	◎ 50-80	○ 25-50	
	2		190	13	◎ 50-80	○ 25-50	○ 25-50	◎ 50-80	○ 25-50	
	3		250	25	◎ 50-80	○ 25-50	○ 25-50	◎ 50-80	○ 25-50	
	4		270	28	○ 10-35	○ 6-30	○ 6-30	○ 10-35	○ 6-30	
	5		300	32						
	6	Low alloy steel	180	10	◎ 10-35	○ 6-30	○ 6-30	◎ 10-35	○ 6-30	
	7		275	29						
	8		300	32						
	9		350	38						
	10		High alloyed steel, and tool steel	200	15					
	11			325	35					
M	12	Stainless steel	200	15						
	13		240	23						
K	14		180	10						
	15	Grey cast iron	180	10	○ 50-65	○ 35-50	○ 35-50	○ 50-65	○ 35-50	
	16		260	26	○ 50-65	○ 35-50	○ 35-50	○ 50-65	○ 35-50	
	17	Nodular cast iron	160	3						
	18		250	25						
	19	Malleable cast iron	130							
	20		230	21						
	N	21	Aluminum-wrought alloy	60		○ 50-65	○ 50-65	○ 50-65	○ 50-65	○ 50-65
22		100			○ 50-65	○ 50-65	○ 50-65	○ 50-65		
23		75			○ 45-90	○ 40-65	○ 40-65	○ 45-90	○ 40-65	
24		Aluminum-cast, alloyed	90		○ 45-90	○ 40-65	○ 40-65	○ 45-90	○ 40-65	
25			130							
26			110							
27		Copper and Copper Alloys (Bronze / Brass)	90							
28			100							
29		Non Metallic Materials Duroplastic, Fiber Reinforced Plastic, Graphite, CFRP, GFRP, etc.								
30										
S	31	Heat Resistant Super Alloys	200	15						
	32		280	30						
	33		250	25						
	34		350	38						
	35	320	34							
	36	Titanium Alloys	400 Rm							
	37		1050 Rm							
H	38	Hardened steel	550	55						
	39		630	60						
	40	Chilled Cast Iron	400	42						
	41	Hardened Cast Iron	550	55						



SCREW THREAD INSERT TAP

PIPE TAP

HOLE TYPE	Max. 3.0xD Through Hole		Max. 2.0xD Blind/Through Hole		Max. 2.5xD Blind Hole			
	HSS	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
Spiral Point	Straight Flute		Spiral Flute					
-	-	-	R15	R15	R15	R15	R15	R15
T7415 (p.B287)	T7405 (p.B290)							
	T7426 (p.B288)							
			Q1 (p.B296)	Q0 (p.B296)	Q6 (p.B296)	Q9 (p.B297)	R0 (p.B297)	R1 (p.B297)
Bright	Bright	Bright	Bright	Steam Oxide	HardSlick	Bright	TiN	HardSlick



○ 25-50	○ 25-50	○ 25-50	○ 15-40	○ 15-40	○ 15-40	◎ 15-40	◎ 15-40	◎ 15-40	1
○ 25-50	○ 25-50	○ 25-50	○ 15-40	○ 15-40	○ 15-40	◎ 15-40	◎ 15-40	◎ 15-40	2
○ 25-50	○ 25-50	○ 25-50	◎ 10-25	◎ 10-25	◎ 10-25	◎ 10-25	◎ 10-25	◎ 10-25	3
○ 6-30	○ 6-30	○ 6-30	○ 10-20	○ 10-20	○ 10-20	○ 10-20	○ 10-20	○ 10-20	4
			○ 10-20	○ 10-20	○ 10-20	○ 10-20	○ 10-20	○ 10-20	5
○ 6-30	○ 6-30	○ 6-30	◎ 10-25	◎ 10-25	◎ 10-25	◎ 10-25	◎ 10-25	◎ 10-25	6
			○ 10-25	○ 10-25	○ 10-25	○ 10-25	○ 10-25	○ 10-25	7
			○ 10-25	○ 10-25	○ 10-25	○ 10-25	○ 10-25	○ 10-25	8
									9
									10
									11
			◎ 10-25	◎ 10-25	◎ 10-25				12
			◎ 10-25	◎ 10-25	◎ 10-25				13
			○ 10-25	○ 10-25	○ 10-25				14
○ 35-50	○ 35-50	○ 35-50				◎ 15-50	◎ 15-50	◎ 15-50	15
○ 35-50	○ 35-50	○ 35-50				◎ 15-50	◎ 15-50	◎ 15-50	16
			○ 15-50	○ 15-50	○ 15-50	◎ 15-50	◎ 15-50	◎ 15-50	17
			○ 15-50	○ 15-50	○ 15-50	◎ 15-50	◎ 15-50	◎ 15-50	18
									19
									20
○ 50-65	○ 50-65	○ 50-65							21
○ 50-65	○ 50-65	○ 50-65							22
○ 40-65	○ 40-65	○ 40-65	○ 20-35	○ 20-35	○ 20-35				23
○ 40-65	○ 40-65	○ 40-65							24
									25
									26
									27
									28
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									37
									38
									39
									40
									41

SELECTION GUIDE



THREADING TOOLS

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Table with columns: ISO, VDI 3323, Material Description, HB, HRC, and performance indicators (circles with 'e' or 'o').

PIPETAP

Table with columns: HOLE TYPE, TOOL MATERIAL, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES, NPT, NPTF, NPS/NPSF, SURFACE TREATMENT / COATING.



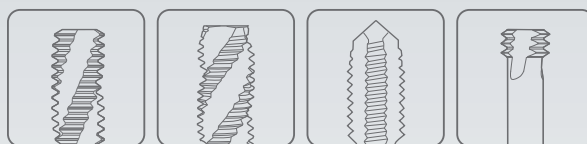
PIPE TAP

Table with columns: HOLE TYPE, TOOL MATERIAL, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES, NPT, NPTF, NPS/NPSF, SURFACE TREATMENT / COATING.





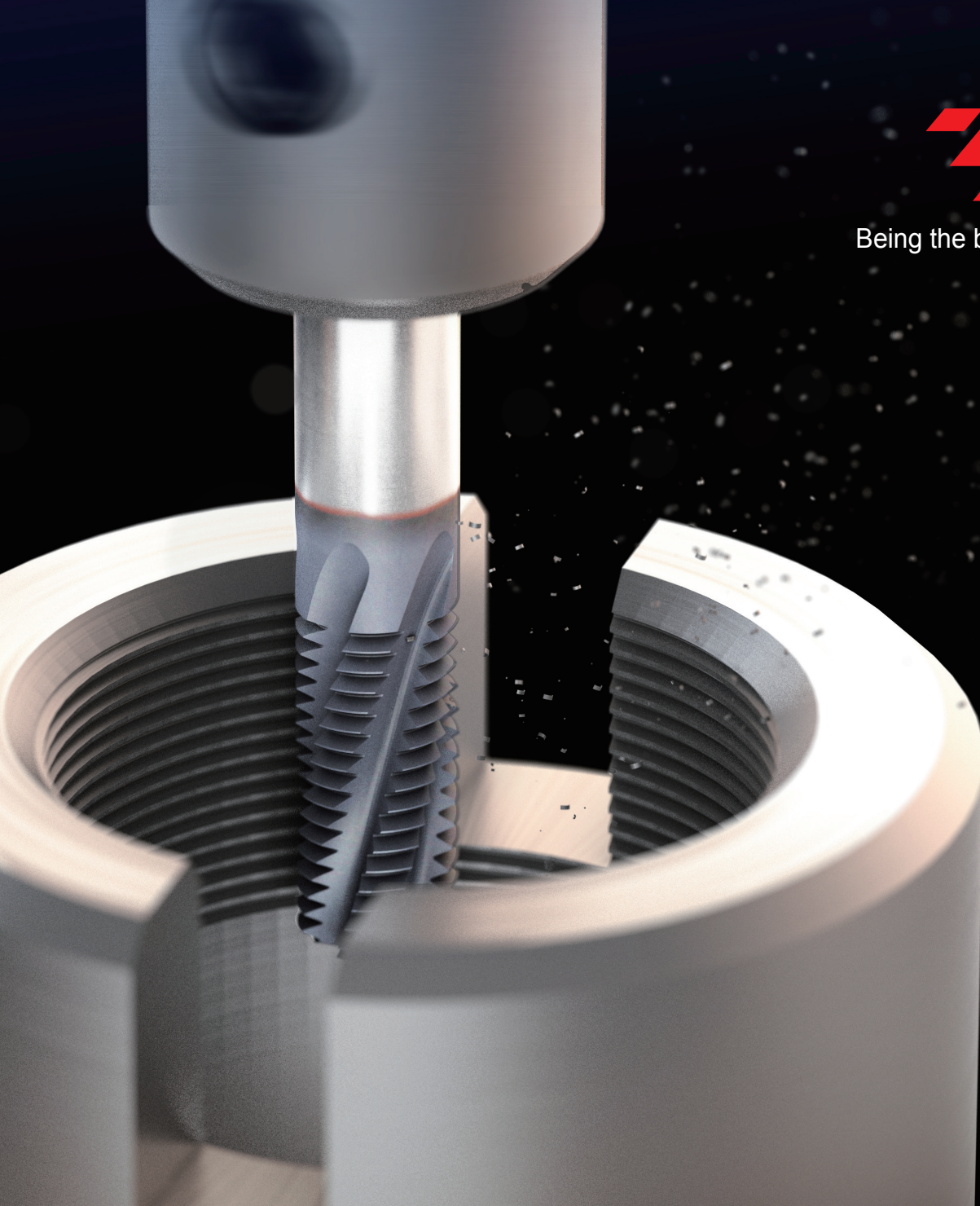
Global Cutting Tool Leader **YG-1**



THREADING



Being the best through innovation



THREAD MILL

- Threading a Range of Hole Sizes with the Same Thread Mill in a Wide Range of Materials

SELECTION GUIDE
THREADING TOOLS

SOLID CARBIDE
THREAD
MILL

- Threading a Range of Hole Sizes with the Same Thread Mill in a Wide Range of Materials

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◎ : Excellent ○ : Good

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRC	Examples	without Coolant Hole	with Coolant Hole	without Coolant Hole
P	1	Non-alloy steel	About 0.15% C Annealed	125		S15C, C15, 1015	◎ 250-400	◎ 250-400	◎ 250-400
	2		About 0.45% C Annealed	190	13	S45C, C45, 1045	◎ 250-370	◎ 250-370	◎ 250-370
	3		About 0.45% C Quenched & Tempered	250	25		◎ 250-360	◎ 250-360	◎ 250-360
	4		About 0.75% C Annealed	270	28	SK5, Ck75, 1080	◎ 230-330	◎ 230-330	◎ 230-330
	5		About 0.75% C Quenched & Tempered	300	32		◎ 230-320	◎ 230-320	◎ 230-320
	6	Low alloy steel	Annealed	180	10		◎ 250-360	◎ 250-360	◎ 250-360
	7		Quenched & Tempered	275	29	SCM440, 42CrMo4, 410	◎ 230-330	◎ 230-330	◎ 230-330
	8		Quenched & Tempered	300	32		◎ 230-320	◎ 230-320	◎ 230-320
	9		Quenched & Tempered	350	38		◎ 200-300	◎ 200-300	◎ 200-300
	10		High alloyed steel, and tool steel	Annealed	200	15	SKD, D2	◎ 230-320	◎ 230-320
	11	Quenched & Tempered		325	35	SKH, SUH, M42	◎ 200-300	◎ 200-300	◎ 200-300
M	12	Stainless steel	Ferritic / Martensitic Annealed	200	15		◎ 200-250	◎ 200-250	◎ 200-250
	13		Martensitic Quenched & Tempered	240	23	SUS 420, X40Cr13, 420	◎ 200-250	◎ 200-250	◎ 200-250
	14		Austenitic	180	10	SUS 316, 316, X5CrNiMo 17 12 2	◎ 150-250	◎ 150-250	◎ 150-250
K	15	Grey cast iron	Pearlitic / ferritic	180	10		◎ 250-400	◎ 250-400	◎ 250-400
	16		Pearlitic (Martensitic)	260	26	FC, GG, EN-GJL-250	◎ 250-360	◎ 250-360	◎ 250-360
	17	Nodular cast iron	Ferritic	160	3		◎ 250-400	◎ 250-400	◎ 250-400
	18		Pearlitic	250	25	FCD, GGG, EN-GJS-500-7	◎ 230-320	◎ 230-320	◎ 230-320
	19		Ferritic	130			◎ 230-320	◎ 230-320	◎ 230-320
	20	Malleable cast iron	Pearlitic	230	21	FCMW, FCMP, GTS, GJMB350-10	◎ 230-350	◎ 230-350	◎ 230-350
N	21	Aluminum-wrought alloy	Not Curable	60		SAE 1000, AIMg 1, 3.3315	◎ 500-1000	◎ 500-1000	◎ 500-1000
	22		Curable Hardened	100		SAE 7050, AlCuMg 1, 3.1325	◎ 400-800	◎ 400-800	◎ 400-800
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable	75		ADC12, G-AISI12, 3.2581	◎ 350-900	◎ 350-900	◎ 350-900
	24		≤ 12% Si, Curable Hardened	90			◎ 350-900	◎ 350-900	◎ 350-900
	25		> 12% Si, Not Curable	130		C4BS, G-AISI10Mg, 3.2381	◎ 350-800	◎ 350-800	◎ 350-800
	26		Cutting Alloys, PB>1%	110		CuZn36Pb 3, 2.0375	◎ 500-800	◎ 500-800	◎ 500-800
	27	Copper and Copper Alloys (Bronze / Brass)	CuZn, CuSnZn (Brass)	90		CuZn 15, 2.0240	◎ 350-800	◎ 350-800	◎ 350-800
	28		CuSn, lead-free copper and electrolytic copper	100		G-CuZn40Fe, 2.0590	◎ 300-600	◎ 300-600	◎ 300-600
	29		Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic Rubber, Wood, etc.			CFRP	◎ 350-900	◎ 350-900
	30						◎ 350-900	◎ 350-900	◎ 350-900
S	31	Heat Resistant Super Alloys	Fe Based Annealed	200	15	X12 NiCrSi 36-16, 1.4864	◎ 100-200	◎ 100-200	◎ 100-200
	32		Fe Based Cured	280	30		◎ 70-180	◎ 70-180	◎ 70-180
	33		Ni or Co Based Annealed	250	25	Inconel 718, NiCr20TiAl, 2.4631	◎ 50-140	◎ 50-140	◎ 50-140
	34		Ni or Co Based Cured	350	38	NiCu30Al, 2.4375	◎ 50-120	◎ 50-120	◎ 50-120
	35	Ni or Co Based Cast	320	34	G-X120Mn12, 1.3401	◎ 50-140	◎ 50-140	◎ 50-140	
	36	Titanium Alloys	Pure Titanium	400 Rm			◎ 100-250	◎ 100-250	◎ 100-250
	37		Alpha + Beta Alloys Hardened	1050 Rm		TiAl6V4, 3.7165	◎ 60-140	◎ 60-140	◎ 60-140
H	38	Hardened steel	Hardened	550	55	SK3			
	39		Hardened	630	60				
	40		Chilled Cast Iron	Cast	400	42			
	41		Hardened Cast Iron	Hardened	550	55			

THREAD MILL TYPE	without Coolant Hole	with Coolant Hole	without Coolant Hole
THREAD STANDARD	UN	UN	M
HOLE TYPE			
TOOL MATERIAL	CARBIDE		
FLUTE TYPE	Helix		
HELIX ANGLE	R15		
SERIES NO.	TE (p.B48)	L421E (p.B50)	TD (p.B51)
COATING	TiAIN	TiAIN	TiAIN



with Coolant Hole	with Coolant Hole & Chamfer		Miniature		without Coolant Hole	with Coolant Hole	without Coolant Hole	with Coolant Hole	without Coolant Hole	with Coolant Hole
M	UN	M	UN	M	NPT	NPT	NPTF	NPTF	NPS	NPS
CARBIDE	CARBIDE		CARBIDE		CARBIDE					
Helix	Helix		Helix		Helix					
R15	R15		R15		R15					
L421D (p.B52)	L427E (p.B53)	L427D (p.B54)	L12DE (p.B55)	L12DD (p.B56)	TF (p.B57)	L621F (p.B58)	TG (p.B59)	L621G (p.B60)	L121K (p.B61)	L421K (p.B62)
TiAIN	TiAIN	TiAIN	TiAIN	TiAIN	TiAIN	TiAIN	TiAIN	TiAIN	TiAIN	TiAIN
◎ 250-400	◎ 250-400	◎ 250-400	◎ 220-380	◎ 220-380	◎ 250-400	◎ 250-400	◎ 250-400	◎ 250-400	◎ 250-400	◎ 250-400
◎ 250-370	◎ 250-370	◎ 250-370	◎ 220-380	◎ 220-380	◎ 250-370	◎ 250-370	◎ 250-370	◎ 250-370	◎ 250-370	◎ 250-370
◎ 250-360	◎ 250-360	◎ 250-360	◎ 220-380	◎ 220-380	◎ 250-360	◎ 250-360	◎ 250-360	◎ 250-360	◎ 250-360	◎ 250-360
◎ 230-330	◎ 230-330	◎ 230-330	◎ 220-350	◎ 220-350	◎ 230-330	◎ 230-330	◎ 230-330	◎ 230-330	◎ 230-330	◎ 230-330
◎ 230-320	◎ 230-320	◎ 230-320	◎ 220-300	◎ 220-300	◎ 230-320	◎ 230-320	◎ 230-320	◎ 230-320	◎ 230-320	◎ 230-320
◎ 250-360	◎ 250-360	◎ 250-360	◎ 220-350	◎ 220-350	◎ 250-360	◎ 250-360	◎ 250-360	◎ 250-360	◎ 250-360	◎ 250-360
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◎ 230-320	◎ 230-320	◎ 230-320	◎ 200-300	◎ 200-300	◎ 230-320	◎ 230-320	◎ 230-320	◎ 230-320	◎ 230-320	◎ 230-320
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HSS

HSS

THREAD MILL

THREAD MILL

SYNCHRO TAP

SYNCHRO TAP

COMBO TAP

COMBO TAP

YG TAP BLUE RING

YG TAP BLUE RING

YG TAP STEEL

YG TAP STEEL

YG TAP INOX

YG TAP INOX

YG TAP CAST IRON

YG TAP CAST IRON

YG TAP ALU

YG TAP ALU

YG TAP Ti Ni

YG TAP Ti Ni

YG TAP HARDENED STEEL

YG TAP HARDENED STEEL

YG TAP GENERAL

YG TAP GENERAL

YG TAP FORMING

YG TAP FORMING

STI TAP

STI TAP

PIPE TAP

PIPE TAP

TECHNICAL DATA

TECHNICAL DATA

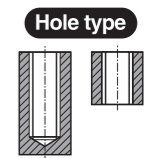
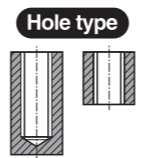
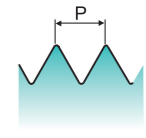
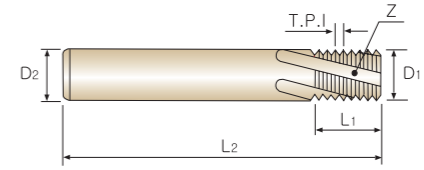
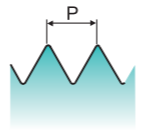
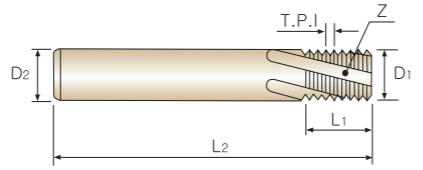


TE SERIES

TE SERIES

Solid Carbide Thread Mill for Unified Internal Threads - ANSI B1.1 UN

Solid Carbide Thread Mill for Unified Internal Threads - ANSI B1.1 UN



MU CARBIDE PLAIN 60° R15° TiAlN P.B63

MU CARBIDE PLAIN 60° R15° TiAlN P.B63

Unit : Inch

Unit : Inch

SIZE	Pitch	EDP No.	Cutter Diameter	Shank Diameter	Thread Length		Overall Length	No. of Flute
	TPI				TiAlN	D1		
#2	64	TE100	.065	.125	.125	2.000	3	
#2	56	TE080	.065	.125	.125	2.000	3	
#3	48	TE120	.075	.125	.167	2.000	3	
#5	44	TE220	.095	.125	.228	2.000	3	
#4	40	TE160	.085	.125	.175	2.000	3	
#8	36	TE300	.115	.125	.250	2.000	3	
#6	32	TE240	.100	.125	.218	2.000	3	
#8	32	TE280	.115	.125	.250	2.000	3	
#10	32	TE340	.120	.125	.312	2.000	3	
1/2	32	TEF90	.370	.375	1.000	3.500	4	
#10	28	TEK90	.120	.125	.312	2.000	3	
1/4	28	TE420	.180	.187	.500	2.500	3	
1/2	28	TE590	.370	.375	1.000	3.500	4	
#10	24	TE320	.120	.125	.312	2.000	3	
5/16	24	TE460	.235	.250	.625	2.500	3	
3/8	24	TE500	.285	.312	.750	3.000	4	
1/2	24	TE570	.370	.375	1.000	3.500	4	
1/4	20	TE400	.180	.187	.500	2.500	3	
7/16	20	TE540	.335	.375	.875	3.500	4	
1/2	20	TE580	.370	.375	1.000	3.500	4	
5/16	18	TE440	.235	.250	.625	2.500	3	
9/16	18	TE620	.370	.375	.875	3.500	4	
3/8	16	TE480	.285	.312	.750	3.000	4	
3/4	16	TE720	.490	.500	1.250	3.500	4	

SIZE	Pitch	EDP No.	Cutter Diameter	Shank Diameter	Thread Length		Overall Length	No. of Flute
	TPI				TiAlN	D1		
7/16	14	TE520	.305	.312	.750	3.000	4	
7/8	14	TE760	.490	.500	1.250	3.500	4	
1/2	13	TE560	.350	.375	.875	3.500	4	
9/16	12	TE600	.370	.375	.875	3.500	4	
3/4	12	TE710	.495	.500	1.250	3.500	4	
1	12	TE800	.745	.750	1.500	4.000	5	
5/8	11	TE640	.470	.500	1.250	3.500	4	
3/4	10	TE700	.495	.500	1.250	3.500	4	
7/8	9	TE740	.620	.625	1.375	4.000	4	
1	8	TE780	.620	.625	1.375	4.000	4	
1-1/8 & 1-1/4	7	TE820	.745	.750	1.572	4.500	5	
1-3/8	6	TE900	.745	.750	1.500	4.500	5	

▶ NEXT PAGE

◎ : Excellent ○ : Good

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	35	10	29	32	38	15	35	15	23	10	10	26	3	25	21	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								
	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
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41		
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41		
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41		
HB	60	100	75	90	130	110	90	100			200	280	250	38	34	320	400Rm	1050Rm	55	60	42	55	
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

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

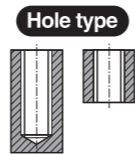
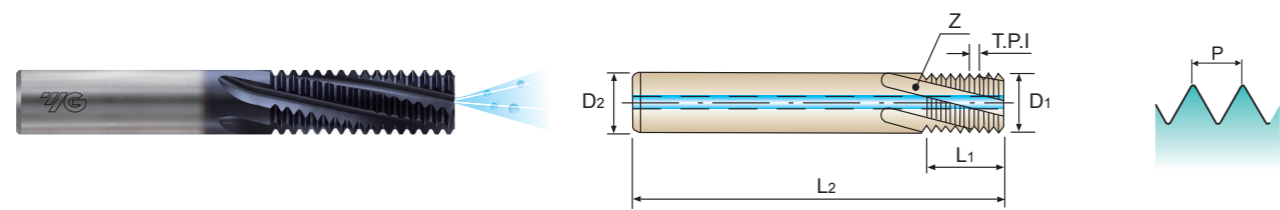
ISO	N										S				H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials		Heat Resistant Super Alloys				Titanium Alloys		Hardened steel		Chilled Cast Iron		Hardened Cast Iron
Material Description	21	22	23	24	25	26	27	28	29	30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



L421E SERIES

Solid Carbide Thread Mill with Coolant Hole for Unified Internal Threads - ANSI B1.1

UN



Material groups: MU CARBIDE PLAIN 60° R15° TiAlN P.B63

Unit : Inch

SIZE	Pitch	EDP No.	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	No. of Flute
	TPI						
1/2	32	L421EF90	.370	.375	1.000	3.500	4
1/4	28	L421E420	.180	.187	.500	2.500	3
1/2	28	L421E590	.370	.375	1.000	3.500	4
5/16	24	L421E460	.235	.250	.625	2.500	3
3/8	24	L421E500	.285	.312	.750	3.000	4
1/2	24	L421E570	.370	.375	1.000	3.500	4
1/4	20	L421E400	.180	.187	.500	2.500	3
7/16	20	L421E540	.335	.375	.875	3.500	4
1/2	20	L421E580	.370	.375	1.000	3.500	4
5/16	18	L421E440	.235	.250	.625	2.500	3
9/16	18	L421E620	.370	.375	.875	3.500	4
3/8	16	L421E480	.285	.312	.750	3.000	4
3/4	16	L421E720	.490	.500	1.250	3.500	4
7/16	14	L421E520	.305	.312	.750	3.000	4
7/8	14	L421E760	.490	.500	1.250	3.500	4
1/2	13	L421E560	.350	.375	.875	3.500	4
9/16	12	L421E600	.370	.375	.875	3.500	4
3/4	12	L421E710	.495	.500	1.250	3.500	4
1	12	L421E800	.745	.750	1.500	4.000	5
5/8	11	L421E640	.470	.500	1.250	3.500	4
3/4	10	L421E700	.495	.500	1.250	3.500	4
7/8	9	L421E740	.620	.625	1.375	4.000	4
1	8	L421E780	.620	.625	1.375	4.000	4
1-1/8" & 1-1/4"	7	L421E820	.745	.750	1.572	4.500	5
1-3/8"	6	L421E900	.745	.750	1.500	4.500	5

© : Excellent ○ : Good

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

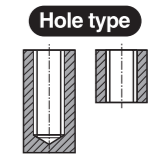
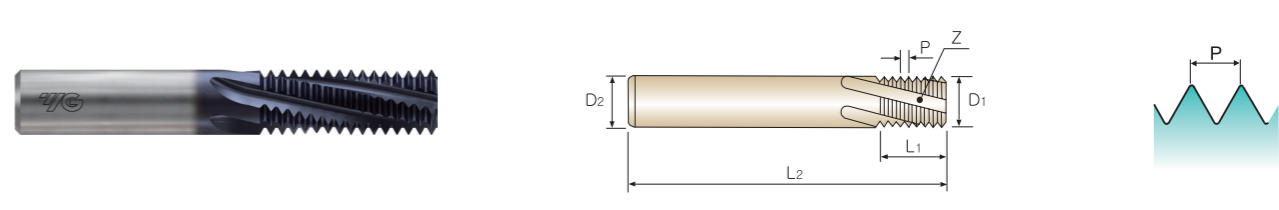
ISO	N					S					H											
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30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



TD SERIES

Solid Carbide Thread Mill for Metric Internal Thread - DIN13

M



Material groups: MU CARBIDE PLAIN 60° R15° TiAlN P.B63

Unit : Inch

SIZE	Pitch (mm)	EDP No.	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	No. of Flute
	P						
M3	0.50	TD200	.085	.125	.178	2.000	3
M4	0.70	TD240	.115	.125	.276	2.000	3
M4.5	0.75	TD260	.120	.125	.250	2.000	3
M8	0.75	TD380	.235	.250	.625	2.500	3
M5	0.80	TD280	.120	.125	.312	2.000	3
M6	1.00	TD310	.170	.187	.500	2.500	3
M10	1.00	TD440	.300	.312	.750	3.000	4
M12	1.00	TD530	.360	.375	.875	3.500	4
M8	1.25	TD360	.235	.250	.625	2.500	3
M10	1.50	TD420	.300	.312	.750	3.000	4
M14	1.50	TD550	.370	.375	.875	3.500	4
M18	1.50	TD670	.490	.500	1.250	3.500	4
M12	1.75	TD500	.360	.375	.875	3.500	4
M14	2.00	TD540	.370	.375	1.125	3.500	4
M16	2.00	TD600	.470	.500	1.250	3.500	4
M20	2.50	TD700	.495	.500	1.250	3.500	4
M24	3.00	TD780	.620	.625	1.375	4.000	4

© : Excellent ○ : Good

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

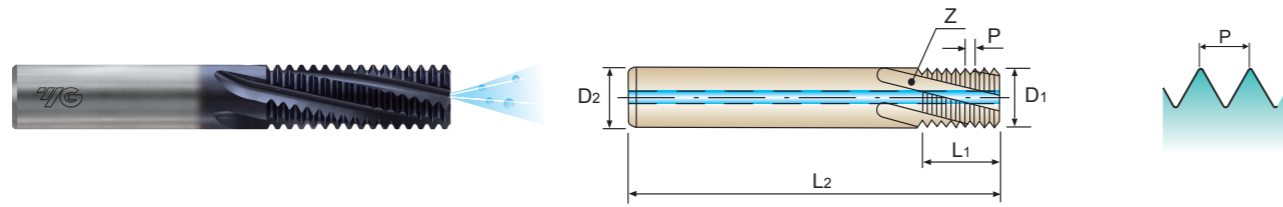
ISO	N					S					H											
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30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



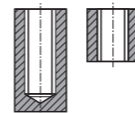
L421D SERIES

Solid Carbide Thread Mill with Coolant Hole for Metric Internal Thread - DIN13

M



Hole type



Unit : Inch

SIZE	Pitch (mm)	EDP No.	Cutter Diameter	Shank Diameter	Thread Length		Overall Length	No. of Flute
	P				TiAlN	D1		
M8	0.75	L421D380	.235	.250	.625	2.500	3	
M6	1.00	L421D310	.170	.187	.500	2.500	3	
M10	1.00	L421D440	.300	.312	.750	3.000	4	
M12	1.00	L421D530	.360	.375	.875	3.500	4	
M8	1.25	L421D360	.235	.250	.625	2.500	3	
M10	1.50	L421D420	.300	.312	.750	3.000	4	
M14	1.50	L421D550	.370	.375	.875	3.500	4	
M18	1.50	L421D670	.490	.500	1.250	3.500	4	
M12	1.75	L421D500	.360	.375	.875	3.500	4	
M14	2.00	L421D540	.370	.375	1.125	3.500	4	
M16	2.00	L421D600	.470	.500	1.250	3.500	4	
M20	2.50	L421D700	.495	.500	1.250	3.500	4	
M24	3.00	L421D780	.620	.625	1.375	4.000	4	

◎ : Excellent ○ : Good

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

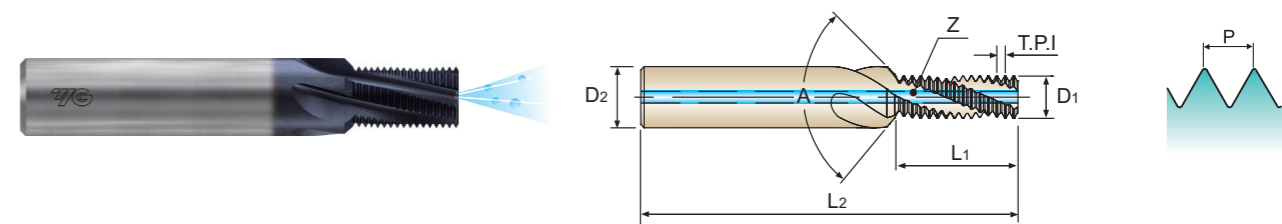
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
Material Description	21	22	23	24	25	26	27	28	29	30	31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



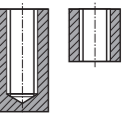
L427E SERIES

Solid Carbide Thread Mill with Coolant Hole & Chamfer for Unified Internal Threads - ANSI B1.1

UN



Hole type



Unit : Inch

SIZE	Pitch	EDP No.	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	Angle	No. of Flute
	TPI							
1/4	28	L427E420	.205	.312	.500	2.500	90°	3
3/8	24	L427E500	.325	.500	.750	3.000	90°	4
1/4	20	L427E400	.190	.312	.500	2.500	90°	3
1/2	20	L427E580	.435	.625	1.000	3.500	90°	4
5/16	18	L427E440	.240	.375	.625	2.500	90°	3
3/8	16	L427E480	.290	.375	.750	3.000	90°	4
3/4	16	L427E720	.655	.750	1.500	4.000	90°	5
7/16	14	L427E520	.335	.500	.750	3.500	90°	4
1/2	13	L427E560	.385	.500	1.000	3.500	90°	4
9/16	12	L427E600	.455	.625	1.200	3.500	90°	4
5/8	11	L427E640	.515	.625	1.250	3.500	90°	4
3/4	10	L427E700	.630	.750	1.500	4.000	90°	5

◎ : Excellent ○ : Good

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

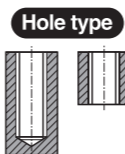
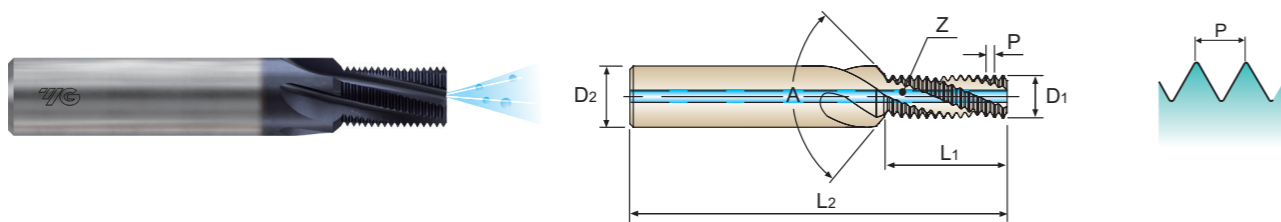
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
Material Description	21	22	23	24	25	26	27	28	29	30	31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



L427D SERIES

Solid Carbide Thread Mill with Coolant Hole & Chamfer for Metric Internal Thread - DIN13

M



MU CARBIDE PLAIN 60° R15° TiAlN P.B63

Unit : Inch

SIZE	Pitch (mm)	EDP No.	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	Angle	No. of Flute
	P							
M6	1.00	L427D310	.185	.312	.500	2.500	90°	3
M8	1.25	L427D360	.250	.375	.630	2.500	90°	3
M10	1.50	L427D420	.315	.500	.790	3.000	90°	4
M12	1.75	L427D500	.370	.500	.950	3.500	90°	4

◎ : Excellent ○ : Good

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

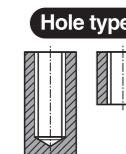
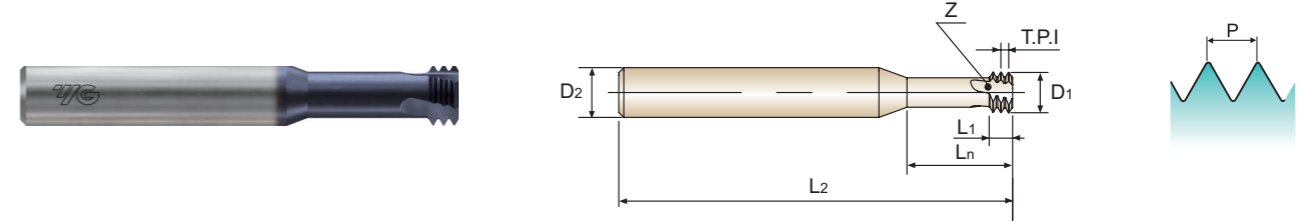
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
Material Description	21	22	23	24	25	26	27	28	29	30	31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



L12DE SERIES

Solid Carbide Miniature Thread Mill for Unified Internal Threads - ANSI B1.1

UN



MU CARBIDE PLAIN 60° R15° TiAlN P.B63

Unit : Inch

SIZE	Pitch	EDP No.	Cutter Diameter	Shank Diameter	Thread Length	Neck Length	Overall Length	No. of Flute
	TPI							
#1	64	L12DE040	.055	.250	.047	.165	2.500	3
#2	56	L12DE080	.065	.250	.054	.197	2.500	3
#3	48	L12DE120	.075	.250	.063	.236	2.500	3
#4	40	L12DE160	.083	.250	.075	.236	2.500	3
#8	36	L12DE300	.130	.250	.083	.343	2.500	3
#6	32	L12DE240	.100	.250	.094	.292	2.500	3
#8	32	L12DE280	.126	.250	.094	.394	2.500	3
#10	32	L12DE340	.150	.250	.094	.406	2.500	3
1/4	28	L12DE420	.207	.250	.107	.520	2.500	3
#10	24	L12DE320	.141	.250	.125	.402	2.500	3
5/16	24	L12DE460	.263	.312	.125	.650	2.500	3
1/4	20	L12DE400	.192	.250	.150	.528	2.500	3
7/16	20	L12DE540	.360	.375	.150	.906	2.500	4
5/16	18	L12DE440	.242	.312	.167	.650	2.500	3
3/8	16	L12DE480	.264	.375	.188	.752	2.500	3
7/16	14	L12DE520	.354	.375	.214	.917	2.500	4
1/2	13	L12DE560	.407	.500	.231	1.080	3.000	4
9/16	12	L12DE600	.465	.500	.250	1.240	3.500	4

◎ : Excellent ○ : Good

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

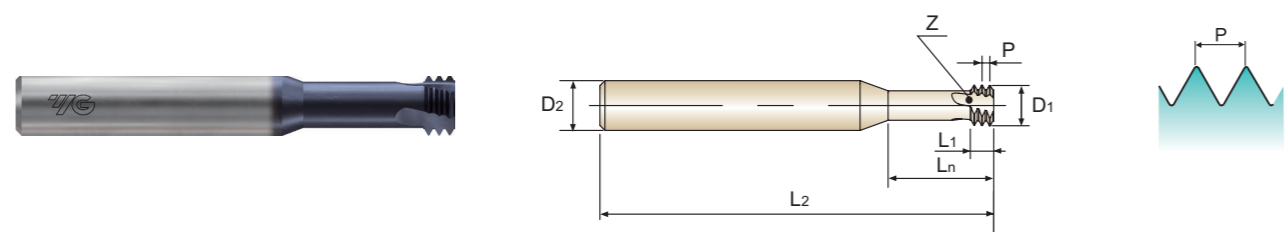
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron					
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36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



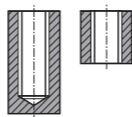
L12DD SERIES

Solid Carbide Miniature Thread Mill for Metric Internal Thread - DIN13

M



Hole type



Material groups: MU CARBIDE PLAIN 60° R15° TiAlN P.B63

Unit : Inch

SIZE	Pitch (mm)	EDP No.	Cutter Diameter	Shank Diameter	Thread Length		Overall Length	No. of Flute
	P				TiAlN	D1		
M1.6	0.35	L12DD090	.047	.125	.041	.134	2.500	3
M2	0.40	L12DD130	.061	.250	.047	.165	2.500	3
M2.2	0.45	L12DD150	.065	.250	.053	.181	2.500	3
M2.5	0.45	L12DD170	.077	.250	.053	.205	2.500	3
M3	0.50	L12DD200	.094	.250	.059	.244	2.500	3
M3.5	0.60	L12DD220	.108	.250	.071	.287	2.500	3
M4	0.70	L12DD240	.124	.250	.083	.327	2.500	3
M4.5	0.75	L12DD260	.133	.250	.089	.369	2.500	3
M5	0.80	L12DD280	.159	.250	.094	.409	2.500	3
M6	1.00	L12DD310	.189	.250	.118	.492	2.500	3
M8	1.25	L12DD360	.256	.312	.148	.654	2.500	3
M10	1.50	L12DD420	.323	.375	.177	.819	2.500	4
M12	1.75	L12DD500	.371	.375	.207	.984	2.500	4

◎ : Excellent ○ : Good

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

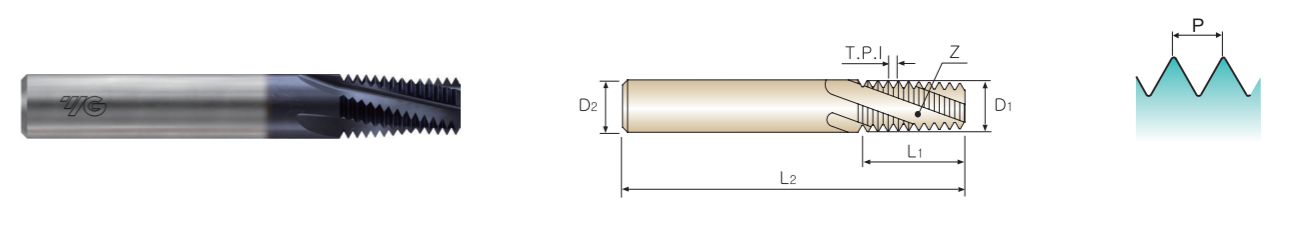
ISO	N					S					H											
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron		Hardened Cast Iron
Material Description	21	22	23	24	25	26	27	28	29	30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



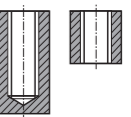
TF SERIES

Solid Carbide Thread Mill for NPT Thread - ANSI B 1.20.1

NPT



Hole type



Material groups: MU CARBIDE PLAIN 60° R15° TiAlN P.B63

Unit : Inch

SIZE	Pitch	EDP No.	Cutter Diameter	Shank Diameter	Thread Length		Overall Length	No. of Flute
	TPI				TiAlN	D1		
1/16 & 1/8	27	TF020	.245	.250	.437	2.500	3	
1/4 & 3/8	18	TF400	.305	.312	.625	3.000	4	
1/4 & 3/8	18	TF480	.363	.375	.680	3.500	4	
1/2 & 3/4	14	TF560	.495	.500	.875	3.500	4	
1" - 2"	11.5	TF780	.620	.625	1.125	4.000	4	
2-1/2" - 6"	8	TFF40	.745	.750	1.500	5.000	4	

◎ : Excellent ○ : Good

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

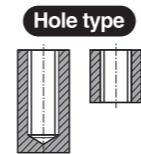
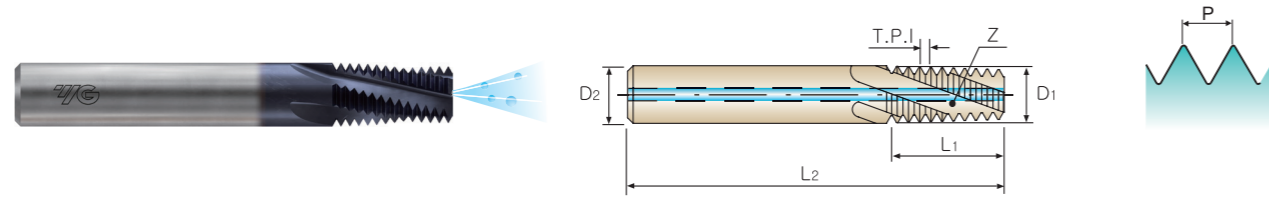
ISO	N					S					H											
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron		Hardened Cast Iron
Material Description	21	22	23	24	25	26	27	28	29	30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



L621F SERIES

Solid Carbide Thread Mill with Coolant Hole for NPT Thread - ANSI B 1.20.1

NPT



Unit : Inch

SIZE	Pitch	EDP No.	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	No. of Flute
	TPI						
1/6 & 1/8	27	L621F020	.245	.250	.437	2.500	3
1/4 & 3/8	18	L621F400	.305	.312	.625	3.000	4
1/4 & 3/8	18	L621F480	.363	.375	.680	3.500	4
1/2 & 3/4	14	L621F560	.495	.500	.875	3.500	4
1" - 2"	11.5	L621F780	.620	.625	1.125	4.000	4
2-1/2" - 6"	8	L621FF40	.745	.750	1.500	5.000	4

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	35	38	42	45	48	52	55	58	62	65	68	72	75	78	82	85	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

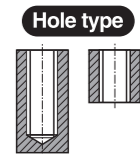
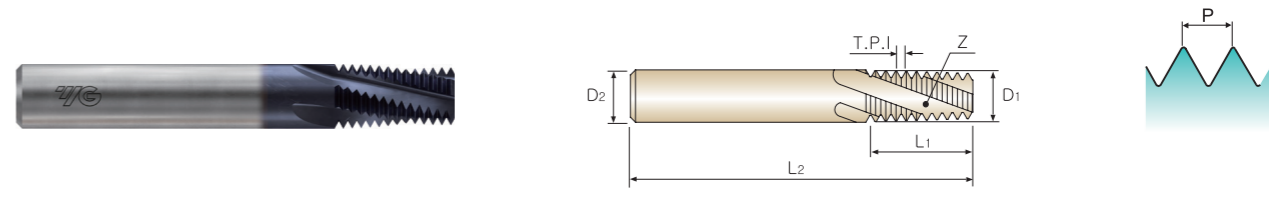
ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron					
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37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



TG SERIES

Solid Carbide Thread Mill for NPTF Thread - ANSI B 1.20.3

NPTF



Unit : Inch

SIZE	Pitch	EDP No.	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	No. of Flute
	TPI						
1/16 & 1/8	27	TG020	.245	.250	.437	2.500	3
1/4 & 3/8	18	TG400	.305	.312	.625	3.000	4
1/2 & 3/4	14	TG560	.495	.500	.875	3.500	4
1" - 2"	11.5	TG780	.620	.625	1.125	4.000	4
2-1/2" - 6"	8	TGF40	.745	.750	1.500	5.000	4

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	35	38	42	45	48	52	55	58	62	65	68	72	75	78	82	85	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

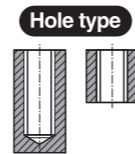
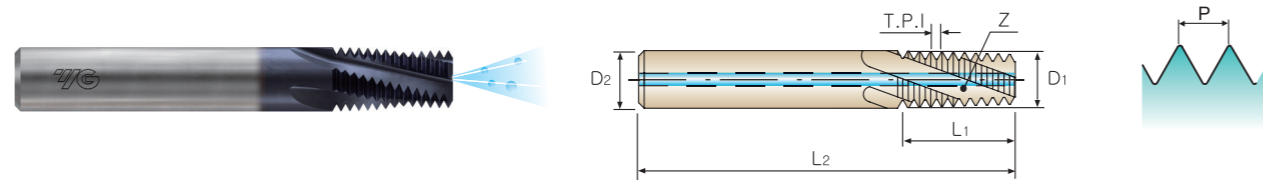
ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron					
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37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



L621G SERIES

Solid Carbide Thread Mill with Coolant Hole for NPTF Thread - ANSI B 1.20.3

NPTF



Unit : Inch

SIZE	Pitch	EDP No.	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	No. of Flute
	TPI						
1/16 & 1/8	27	L621G020	.245	.250	.437	2.500	3
1/4 & 3/8	18	L621G400	.305	.312	.625	3.000	4
1/2 & 3/4	14	L621G560	.495	.500	.875	3.500	4
1" - 2"	11.5	L621G780	.620	.625	1.125	4.000	4
2-1/2" - 6"	8	L621GF40	.745	.750	1.500	5.000	4

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	35	38	42	45	48	52	55	58	62	65	68	72	75	78	82	85	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

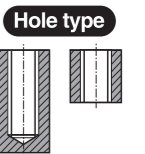
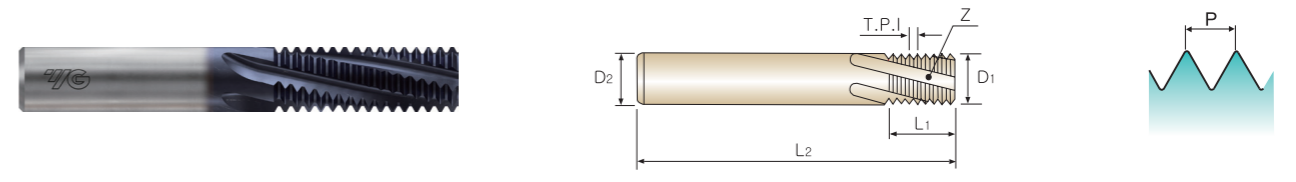
ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38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



L121K SERIES

Solid Carbide Thread Mill for NPS Thread - ANSI B 1.20.1

NPS



Unit : Inch

SIZE	Pitch	EDP No.	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	No. of Flute
	TPI						
1/8	27	L121K020	.245	.250	.556	2.500	3
1/4 & 3/8	18	L121K400	.363	.375	.833	3.500	4
1/2 & 3/4	14	L121K560	.495	.500	1.071	3.500	4
1" - 2"	11.5	L121K780	.620	.625	1.304	4.000	4

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	35	38	42	45	48	52	55	58	62	65	68	72	75	78	82	85	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

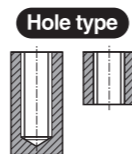
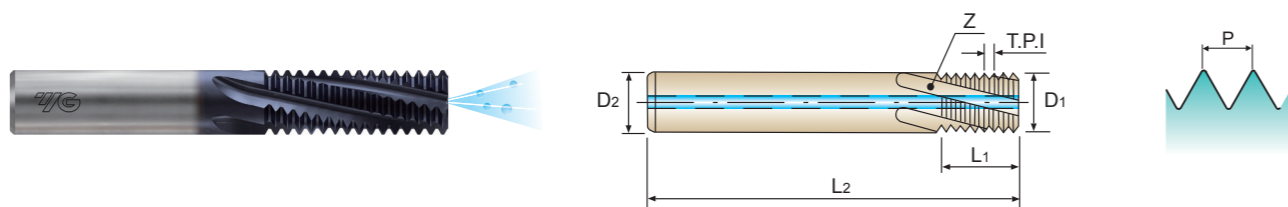
ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38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



L421K SERIES

Solid Carbide Thread Mill with Coolant Hole for NPS Thread - ANSI B 1.20.1

NPS



Unit : Inch

SIZE	Pitch	EDP No.	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	No. of Flute
	TPI	TiAlN	D1	D2	L1	L2	Z
1/8	27	L421K020	.245	.250	.556	2.500	3
1/4 & 3/8	18	L421K400	.363	.375	.833	3.500	4
1/2 & 3/4	14	L421K560	.495	.500	1.071	3.500	4
1" - 2"	11.5	L421K780	.620	.625	1.304	4.000	4

◎ : 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	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	60	100	75	90	130	110	90	100	29	30	15	30	25	38	34	55	60	42	55		
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	60	100	75	90	130	110	90	100	29	30	15	30	25	38	34	55	60	42	55		
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		



RECOMMENDED CUTTING CONDITIONS

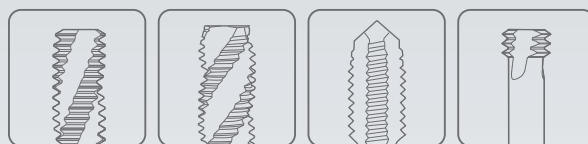
RECOMMENDED CUTTING SPEED AND FEED

ISO	VDI 3323	Material Description	HB	HRC	Cutting Speed (SFM)		Feed per tooth (inch/tooth)			
					without Coolant Hole with Coolant Hole with Coolant & Chamfer	Miniature	without Coolant Hole with Coolant Hole with Coolant & Chamfer		Miniature	
							D1≤.3125	D1>.3125	D1≤.3125	D1>.3125
P	1	Non-alloy steel	125		250-400	220-380	.0010-.0020	.0020-.0038	.0008-.0022	.0022-.0042
			190	13	250-370	220-380	.0008-.0016	.0016-.0034	.0008-.0018	.0018-.0038
			250	25	250-360	220-380	.0008-.0016	.0016-.0034	.0008-.0018	.0018-.0038
			270	28	230-330	220-350	.0006-.0014	.0014-.0030	.0006-.0016	.0016-.0036
	Low alloy steel	300	32	230-320	220-300	.0006-.0014	.0014-.0030	.0006-.0016	.0016-.0036	
		180	10	250-360	220-350	.0008-.0016	.0016-.0034	.0008-.0020	.0020-.0040	
		275	29	230-330	220-350	.0006-.0014	.0014-.0030	.0006-.0018	.0018-.0038	
		300	32	230-320	200-300	.0006-.0014	.0014-.0030	.0006-.0018	.0018-.0038	
		350	38	200-300	200-300	.0006-.0014	.0014-.0030	.0006-.0018	.0018-.0038	
		200	15	230-320	220-350	.0008-.0016	.0016-.0034	.0008-.0020	.0020-.0040	
		325	35	200-300	220-350	.0006-.0014	.0014-.0026	.0006-.0018	.0018-.0042	
M	12	Stainless steel	200	15	200-250	200-250	.0006-.0010	.0010-.0022	.0006-.0016	.0016-.0028
			240	23	200-250	200-250	.0004-.0008	.0008-.0018	.0004-.0014	.0014-.0026
			180	10	150-250	180-220	.0006-.0010	.0010-.0022	.0006-.0016	.0016-.0028
K	15	Grey cast iron	180	10	250-400	300-500	.0012-.0020	.0020-.0041	.0012-.0024	.0024-.0046
			260	26	250-360	300-500	.0008-.0016	.0016-.0034	.0008-.0020	.0020-.0042
	Nodular cast iron	160	3	250-400	280-450	.0012-.0020	.0020-.0041	.0012-.0024	.0024-.0046	
		250	25	230-320	250-400	.0008-.0016	.0016-.0034	.0008-.0020	.0020-.0042	
		130		230-320	250-400	.0008-.0016	.0016-.0034	.0008-.0020	.0020-.0042	
Malleable cast iron	230	21	230-350	280-450	.0012-.0020	.0020-.0041	.0012-.0024	.0024-.0046		
N	21	Aluminum-wrought alloy	60		500-1000	400-1000	.0024-.0032	.0032-.0049	.0020-.0034	.0034-.0060
			100		400-800	400-900	.0020-.0028	.0028-.0041	.0016-.0030	.0030-.0056
	Aluminum-cast, alloyed	75		350-900	300-900	.0012-.0020	.0020-.0034	.0008-.0022	.0022-.0048	
		90		350-900	300-900	.0012-.0020	.0020-.0034	.0008-.0022	.0022-.0048	
		130		350-800	350-800	.0008-.0016	.0016-.0030	.0004-.0018	.0018-.0044	
	Copper and Copper Alloys (Bronze / Brass)	110		500-800	400-700	.0016-.0024	.0024-.0038	.0012-.0026	.0026-.0052	
		90		350-800	350-700	.0016-.0024	.0024-.0038	.0012-.0026	.0026-.0052	
	Non Metallic Materials	100		300-600	300-600	.0012-.0020	.0020-.0034	.0008-.0022	.0022-.0048	
				350-900	350-700	.0012-.0020	.0020-.0034	.0008-.0022	.0022-.0048	
				350-900	350-700	.0012-.0020	.0020-.0034	.0008-.0022	.0022-.0048	
S	31	Heat Resistant Super Alloys	200	15	100-200	150-250	.0004-.0008	.0008-.0014	.0004-.0008	.0008-.0018
			280	30	70-180	130-200	.0002-.0006	.0006-.0014	.0002-.0006	.0006-.0016
			250	25	50-140	100-160	.0002-.0006	.0006-.0010	.0002-.0006	.0006-.0016
			350	38	50-120	100-160	.0002-.0006	.0006-.0010	.0002-.0006	.0006-.0016
	Titanium Alloys	320	34	50-140	120-180	.0002-.0006	.0006-.0009	.0002-.0006	.0006-.0016	
		400 Rm		100-250	80-200	.0006-.0010	.0010-.0022	.0006-.0010	.0010-.0026	
		1050 Rm		60-140	80-120	.0002-.0006	.0006-.0010	.0002-.0006	.0006-.0016	

- without Coolant Hole : TE, TD, TF, TG, L121K
- with Coolant Hole : L421E, L421D, L621F, L621G, L421K
- with Coolant & Chamfer : L427E, L427D
- Miniature : L12DE, L12DD



Global Cutting Tool Leader **YG-1**



THREADING



Being the best through innovation

HSS-PM

SYNCHRO TAP

- High Speed Tapping with Rigid CNC Machines

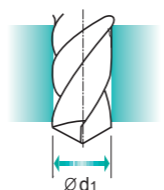
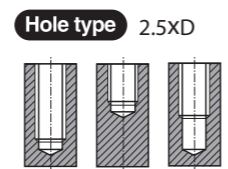
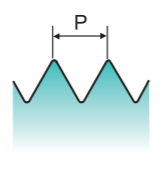
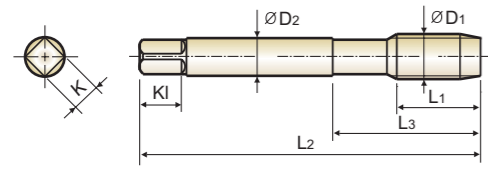


TTS65 SERIES

SPIRAL FLUTE for High Speed Tapping



- ▶ 2-3 times faster when tapping the GS material group
- ▶ Precision Threads
- ▶ Unsurpassed chip handling



Material groups: **GS** HSS PM UNC UNF H 60° R45° 2P~3P TiN P.B66

Refer to B323~B336 for tap drill sizes

Unit : Inch

Size	TPI	EDP No.	Limit	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
				L1	L2	L3				
#4 - 40 UNC		TTS65162	H2	.250	1.88	.563	.141	.110	.190	3
#4 - 48 UNF		TTS65181	H1	.209	1.88	.563	.141	.110	.190	3
#4 - 48 UNF		TTS65182	H2	.209	1.88	.563	.141	.110	.190	3
#5 - 40 UNC		TTS65202	H2	.250	1.94	.626	.141	.110	.190	3
#5 - 44 UNF		TTS65221	H1	.227	1.94	.626	.141	.110	.190	3
#5 - 44 UNF		TTS65222	H2	.227	1.94	.626	.141	.110	.190	3
#6 - 32 UNC		TTS65242	H2	.313	2.00	.689	.141	.110	.190	3
#6 - 32 UNC		TTS65243	H3	.313	2.00	.689	.141	.110	.190	3
#6 - 40 UNF		TTS65262	H2	.250	2.00	.689	.141	.110	.190	3
#8 - 32 UNC		TTS65282	H2	.313	2.13	.752	.168	.131	.250	3
#8 - 32 UNC		TTS65283	H3	.313	2.13	.752	.168	.131	.250	3
#8 - 36 UNF		TTS65302	H2	.278	2.13	.752	.168	.131	.250	3
#10 - 24 UNC		TTS65323	H3	.417	2.38	.906	.194	.152	.250	3
#10 - 32 UNF		TTS65342	H2	.313	2.38	.906	.194	.152	.250	3
#10 - 32 UNF		TTS65343	H3	.313	2.38	.906	.194	.152	.250	3
#12 - 24 UNC		TTS65363	H3	.417	2.38	.906	.220	.165	.280	3
#12 - 28 UNF		TTS65383	H3	.357	2.38	.906	.220	.165	.280	3
1/4 - 20 UNC		TTS65403	H3	.500	2.50	1.000	.255	.191	.310	3
1/4 - 20 UNC		TTS65405	H5	.500	2.50	1.000	.255	.191	.310	3
1/4 - 28 UNF		TTS65423	H3	.357	2.50	1.000	.255	.191	.310	3
1/4 - 28 UNF		TTS65424	H4	.357	2.50	1.000	.255	.191	.310	3
5/16 - 18 UNC		TTS65443	H3	.556	2.72	1.126	.318	.238	.380	3
5/16 - 18 UNC		TTS65445	H5	.556	2.72	1.126	.318	.238	.380	3
5/16 - 24 UNF		TTS65463	H3	.417	2.72	1.126	.318	.238	.380	3
5/16 - 24 UNF		TTS65464	H4	.417	2.72	1.126	.318	.238	.380	3
3/8 - 16 UNC		TTS65483	H3	.625	2.94	1.252	.381	.286	.440	3

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	30	29	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

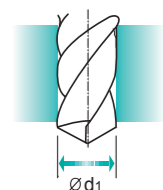
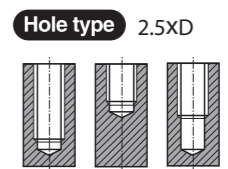
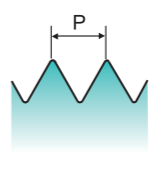
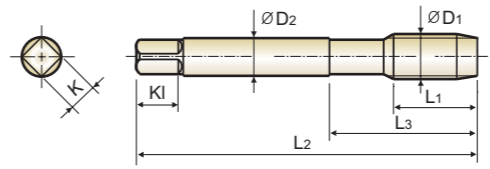


TTS65 SERIES

SPIRAL FLUTE for High Speed Tapping



- ▶ 2-3 times faster when tapping the GS material group
- ▶ Precision Threads
- ▶ Unsurpassed chip handling



Material groups: **GS** HSS PM UNC UNF H 60° R45° 2P~3P TiN P.B66

Refer to B323~B336 for tap drill sizes

Unit : Inch

Size	TPI	EDP No.	Limit	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
				L1	L2	L3				
3/8 - 16 UNC		TTS65485	H5	.625	2.94	1.252	.381	.286	.440	3
3/8 - 24 UNF		TTS65503	H3	.417	2.94	1.252	.381	.286	.440	3
3/8 - 24 UNF		TTS65504	H4	.417	2.94	1.252	.381	.286	.440	3
7/16 - 14 UNC		TTS65523	H3	.714	3.16	1.850	.323	.242	.410	3
7/16 - 14 UNC		TTS65525	H5	.714	3.16	1.850	.323	.242	.410	3
7/16 - 20 UNF		TTS65543	H3	.500	3.16	1.850	.323	.242	.410	3
7/16 - 20 UNF		TTS65545	H5	.500	3.16	1.850	.323	.242	.410	3
1/2 - 13 UNC		TTS65563	H3	.769	3.38	2.067	.367	.275	.440	3
1/2 - 13 UNC		TTS65565	H5	.769	3.38	2.067	.367	.275	.440	3
1/2 - 20 UNF		TTS65583	H3	.500	3.38	2.067	.367	.275	.440	3
1/2 - 20 UNF		TTS65585	H5	.500	3.38	2.067	.367	.275	.440	3
9/16 - 12 UNC		TTS65603	H3	.833	3.59	2.067	.429	.322	.500	3
9/16 - 12 UNC		TTS65605	H5	.833	3.59	2.067	.429	.322	.500	3
9/16 - 18 UNF		TTS65623	H3	.556	3.59	2.067	.429	.322	.500	3
9/16 - 18 UNF		TTS65625	H5	.556	3.59	2.067	.429	.322	.500	3
5/8 - 11 UNC		TTS65643	H3	.909	3.81	2.205	.480	.360	.560	3
5/8 - 11 UNC		TTS65645	H5	.909	3.81	2.205	.480	.360	.560	3
5/8 - 18 UNF		TTS65663	H3	.556	3.81	2.205	.480	.360	.560	3
5/8 - 18 UNF		TTS65665	H5	.556	3.81	2.205	.480	.360	.560	3
3/4 - 10 UNC		TTS65705	H5	1.000	4.25	2.480	.590	.442	.690	4
3/4 - 16 UNF		TTS65723	H3	.625	4.25	2.480	.590	.442	.690	4
3/4 - 16 UNF		TTS65725	H5	.625	4.25	2.480	.590	.442	.690	4

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	30	29	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

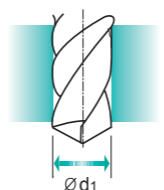
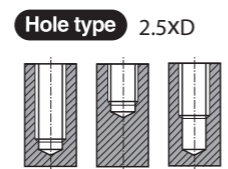
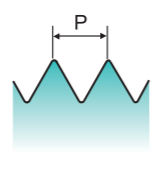
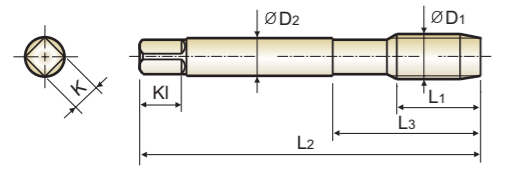


TTS61 SERIES

SPIRAL FLUTE for High Speed Tapping



- ▶ 2-3 times faster when tapping the GS material group
- ▶ Precision Threads
- ▶ Unsurpassed chip handling



Refer to B323~B336 for tap drill sizes

Material groups: **GS** (Yellow), **HSS PM** (Green), **M/MF** (Blue), **D** (Red), **60°** (Grey), **R45°** (Blue), **2P~3P** (Blue), **TiN** (Yellow), **P.B66** (Green)

Unit : Metric

Size	Pitch	EDP No.	Limit	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
D1	P	TiN		L1	L2	L3	D2	K	KI	Z
M3	x 0.5	TTS61203	D3	.197	1.94	.646	.141	.110	.190	3
M4	x 0.7	TTS61244	D4	.276	2.13	.768	.168	.131	.250	3
M5	x 0.8	TTS61284	D4	.315	2.38	.933	.194	.152	.250	3
M6	x 1.0	TTS61315	D5	.394	2.50	1.000	.255	.191	.310	3
M8	x 1.25	TTS61365	D5	.512	2.72	1.126	.318	.238	.380	3
M8	x 1.0	TTS61375	D5	.394	2.72	1.126	.318	.238	.380	3
M10	x 1.5	TTS61426	D6	.591	2.94	1.252	.381	.286	.440	3
M10	x 1.25	TTS61435	D5	.512	2.94	1.252	.381	.286	.440	3
M12	x 1.75	TTS61506	D6	.709	3.38	2.067	.367	.275	.440	3
M12	x 1.25	TTS61525	D5	.512	3.38	2.067	.367	.275	.440	3
M14	x 2.0	TTS61547	D7	.787	3.59	2.067	.429	.322	.500	3
M14	x 1.5	TTS61556	D6	.591	3.59	2.067	.429	.322	.500	3
M16	x 2.0	TTS61607	D7	.787	3.81	2.205	.480	.360	.560	3
M16	x 1.5	TTS61616	D6	.591	3.81	2.205	.480	.360	.560	3
M18	x 2.5	TTS61657	D7	.984	4.03	2.205	.542	.406	.630	4
M18	x 1.5	TTS61676	D6	.591	4.03	2.205	.542	.406	.630	4
M20	x 2.5	TTS61707	D7	.984	4.47	2.480	.652	.489	.690	4
M20	x 1.5	TTS61726	D6	.591	4.47	2.480	.652	.489	.690	4

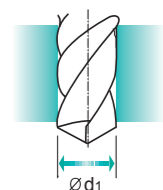
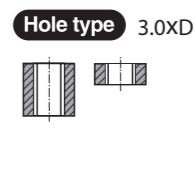
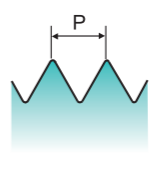
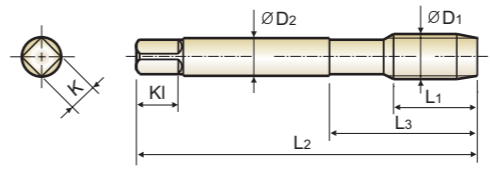


TTS66 SERIES

SPIRAL POINT for High Speed Tapping



- ▶ 2-3 times faster when tapping the GS material group
- ▶ Precision Threads
- ▶ Unsurpassed chip handling



Refer to B323~B336 for tap drill sizes

Material groups: **GS** (Yellow), **HSS PM** (Green), **UNC UNF** (Blue), **H** (Red), **60°** (Grey), **4P~5P** (Blue), **TiN** (Yellow), **P.B66** (Green)

Unit : Inch

Size	TPI	EDP No.	Limit	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
D1	P	TiN		L1	L2	L3	D2	K	KI	Z
#4 - 40 UNC		TTS66162	H2	.250	1.88	.563	.141	.110	.190	3
#4 - 48 UNF		TTS66181	H1	.209	1.88	.563	.141	.110	.190	3
#4 - 48 UNF		TTS66182	H2	.209	1.88	.563	.141	.110	.190	3
#5 - 40 UNC		TTS66202	H2	.250	1.94	.626	.141	.110	.190	3
#5 - 44 UNF		TTS66221	H1	.227	1.94	.626	.141	.110	.190	3
#5 - 44 UNF		TTS66222	H2	.227	1.94	.626	.141	.110	.190	3
#6 - 32 UNC		TTS66242	H2	.313	2.00	.689	.141	.110	.190	3
#6 - 32 UNC		TTS66243	H3	.313	2.00	.689	.141	.110	.190	3
#6 - 40 UNF		TTS66262	H2	.250	2.00	.689	.141	.110	.190	3
#8 - 32 UNC		TTS66282	H2	.313	2.13	.752	.168	.131	.250	3
#8 - 32 UNC		TTS66283	H3	.313	2.13	.752	.168	.131	.250	3
#8 - 36 UNF		TTS66302	H2	.278	2.13	.752	.168	.131	.250	3
#10 - 24 UNC		TTS66323	H3	.417	2.38	.906	.194	.152	.250	3
#10 - 32 UNF		TTS66342	H2	.313	2.38	.906	.194	.152	.250	3
#10 - 32 UNF		TTS66343	H3	.313	2.38	.906	.194	.152	.250	3
#12 - 24 UNC		TTS66363	H3	.417	2.38	.906	.220	.165	.280	3
#12 - 28 UNF		TTS66383	H3	.357	2.38	.906	.220	.165	.280	3
1/4 - 20 UNC		TTS66403	H3	.500	2.50	1.000	.255	.191	.310	3
1/4 - 20 UNC		TTS66405	H5	.500	2.50	1.000	.255	.191	.310	3
1/4 - 28 UNF		TTS66423	H3	.357	2.50	1.000	.255	.191	.310	3
1/4 - 28 UNF		TTS66424	H4	.357	2.50	1.000	.255	.191	.310	3
5/16 - 18 UNC		TTS66443	H3	.556	2.72	1.126	.318	.238	.380	3
5/16 - 18 UNC		TTS66445	H5	.556	2.72	1.126	.318	.238	.380	3
5/16 - 24 UNF		TTS66463	H3	.417	2.72	1.126	.318	.238	.380	3
5/16 - 24 UNF		TTS66464	H4	.417	2.72	1.126	.318	.238	.380	3
3/8 - 16 UNC		TTS66483	H3	.625	2.94	1.252	.381	.286	.440	3

▶ NEXT PAGE

◎ : 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			◎	◎	◎	◎	◎	◎														

◎ : 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			◎	◎	◎	◎	◎	◎														

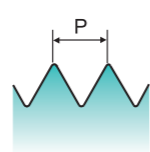
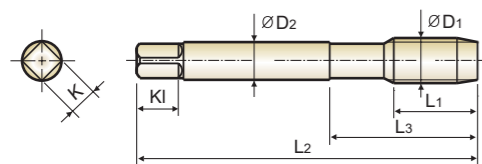


TTS66 SERIES

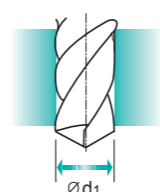
SPIRAL POINT for High Speed Tapping



- ▶ 2-3 times faster when tapping the GS material group
- ▶ Precision Threads
- ▶ Unsurpassed chip handling



Hole type 3.0XD



Refer to B323~B336 for tap drill sizes

Material groups: **GS** (Yellow), **HSS PM** (Green), **UNC UNF** (Blue), **H** (Red), **60°** (Grey), **4P~5P** (Blue), **TiN** (Yellow), **P.B66** (Green)

Unit : Inch

Size	TPI	EDP No.	Limit	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
				L1	L2	L3		D2	K	
3/8 - 16 UNC		TTS66485	H5	.625	2.94	1.252	.381	.286	.440	3
3/8 - 24 UNF		TTS66503	H3	.417	2.94	1.252	.381	.286	.440	3
3/8 - 24 UNF		TTS66504	H4	.417	2.94	1.252	.381	.286	.440	3
7/16 - 14 UNC		TTS66523	H3	.714	3.16	1.850	.323	.242	.410	4
7/16 - 14 UNC		TTS66525	H5	.714	3.16	1.850	.323	.242	.410	4
7/16 - 20 UNF		TTS66543	H3	.500	3.16	1.850	.323	.242	.410	4
7/16 - 20 UNF		TTS66545	H5	.500	3.16	1.850	.323	.242	.410	4
1/2 - 13 UNC		TTS66563	H3	.769	3.38	2.067	.367	.275	.440	4
1/2 - 13 UNC		TTS66565	H5	.769	3.38	2.067	.367	.275	.440	4
1/2 - 20 UNF		TTS66583	H3	.500	3.38	2.067	.367	.275	.440	4
1/2 - 20 UNF		TTS66585	H5	.500	3.38	2.067	.367	.275	.440	4
9/16 - 12 UNC		TTS66603	H3	.833	3.59	2.067	.429	.322	.500	4
9/16 - 12 UNC		TTS66605	H5	.833	3.59	2.067	.429	.322	.500	4
9/16 - 18 UNF		TTS66623	H3	.556	3.59	2.067	.429	.322	.500	4
9/16 - 18 UNF		TTS66625	H5	.556	3.59	2.067	.429	.322	.500	4
5/8 - 11 UNC		TTS66643	H3	.909	3.81	2.205	.480	.360	.560	4
5/8 - 11 UNC		TTS66645	H5	.909	3.81	2.205	.480	.360	.560	4
5/8 - 18 UNF		TTS66663	H3	.556	3.81	2.205	.480	.360	.560	4
5/8 - 18 UNF		TTS66665	H5	.556	3.81	2.205	.480	.360	.560	4
3/4 - 10 UNC		TTS66703	H3	1.000	4.25	2.480	.590	.442	.690	4
3/4 - 10 UNC		TTS66705	H5	1.000	4.25	2.480	.590	.442	.690	4
3/4 - 16 UNF		TTS66723	H3	.625	4.25	2.480	.590	.442	.690	4
3/4 - 16 UNF		TTS66725	H5	.625	4.25	2.480	.590	.442	.690	4

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	30	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					
	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	
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

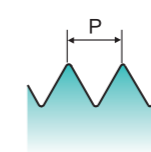
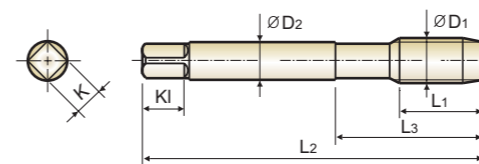


TTS62 SERIES

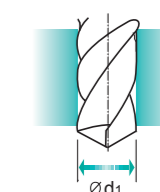
SPIRAL POINT for High Speed Tapping



- ▶ 2-3 times faster when tapping the GS material group
- ▶ Precision Threads
- ▶ Unsurpassed chip handling



Hole type 3.0XD



Refer to B323~B336 for tap drill sizes

Material groups: **GS** (Yellow), **HSS PM** (Green), **M/MF** (Blue), **D** (Red), **60°** (Grey), **4P~5P** (Blue), **TiN** (Yellow), **P.B66** (Green)

Unit : Metric

Size	Pitch	EDP No.	Limit	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
				L1	L2	L3		D2	K	
M3 x 0.5		TTS62203	D3	.197	1.94	.646	.141	.110	.190	3
M4 x 0.7		TTS62244	D4	.276	2.13	.768	.168	.131	.250	3
M5 x 0.8		TTS62284	D4	.315	2.38	.933	.194	.152	.250	3
M6 x 1.0		TTS62315	D5	.394	2.50	1.000	.255	.191	.310	3
M8 x 1.25		TTS62365	D5	.512	2.72	1.126	.318	.238	.380	3
M8 x 1.0		TTS62375	D5	.394	2.72	1.126	.318	.238	.380	3
M10 x 1.5		TTS62426	D6	.591	2.94	1.252	.381	.286	.440	3
M10 x 1.25		TTS62435	D5	.512	2.94	1.252	.381	.286	.440	3
M12 x 1.75		TTS62506	D6	.709	3.38	2.067	.367	.275	.440	4
M12 x 1.25		TTS62525	D5	.512	3.38	2.067	.367	.275	.440	4
M14 x 2.0		TTS62547	D7	.787	3.59	2.067	.429	.322	.500	4
M14 x 1.5		TTS62556	D6	.591	3.59	2.067	.429	.322	.500	4
M16 x 2.0		TTS62607	D7	.787	3.81	2.205	.480	.360	.560	4
M16 x 1.5		TTS21616	D6	.591	3.81	2.205	.480	.360	.560	4
M18 x 2.5		TTS62657	D7	.984	4.03	2.205	.542	.406	.630	4
M18 x 1.5		TTS62676	D6	.591	4.03	2.205	.542	.406	.630	4
M20 x 2.5		TTS62707	D7	.984	4.47	2.480	.652	.489	.690	4
M20 x 1.5		TTS62726	D6	.591	4.47	2.480	.652	.489	.690	4

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	30	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					
	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	
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

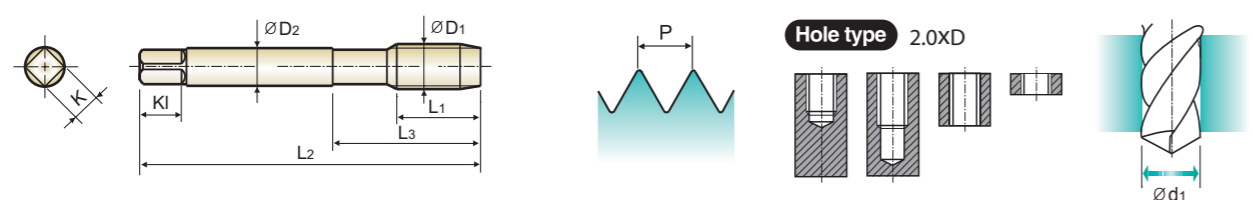


TKS67 SERIES

STRAIGHT FLUTE for High Speed Tapping



- ▶ 2-3 times faster when tapping the GG material group
- ▶ Precision Threads
- ▶ Unsurpassed chip handling



Material groups: **GG** HSS PM UNC UNF H 60° 2P~3P TiCN P.B66

Refer to B323~B336 for tap drill sizes

Unit : Inch

Size	TPI	EDP No.	Limit	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
				L1	L2	L3				
#4 - 40 UNC	TKS67162	H2	.250	1.88	.563	.141	.110	.190	3	
#4 - 48 UNF	TKS67181	H1	.209	1.88	.563	.141	.110	.190	3	
#4 - 48 UNF	TKS67182	H2	.209	1.88	.563	.141	.110	.190	3	
#5 - 40 UNC	TKS67202	H2	.250	1.94	.626	.141	.110	.190	3	
#5 - 44 UNF	TKS67221	H1	.227	1.94	.626	.141	.110	.190	3	
#5 - 44 UNF	TKS67222	H2	.227	1.94	.626	.141	.110	.190	3	
#6 - 32 UNC	TKS67242	H2	.313	2.00	.689	.141	.110	.190	3	
#6 - 32 UNC	TKS67243	H3	.313	2.00	.689	.141	.110	.190	3	
#6 - 40 UNF	TKS67262	H2	.250	2.00	.689	.141	.110	.190	3	
#8 - 32 UNC	TKS67282	H2	.313	2.13	.752	.168	.131	.250	3	
#8 - 32 UNC	TKS67283	H3	.313	2.13	.752	.168	.131	.250	3	
#8 - 36 UNF	TKS67302	H2	.278	2.13	.752	.168	.131	.250	3	
#10 - 24 UNC	TKS67323	H3	.417	2.38	.906	.194	.152	.250	3	
#10 - 32 UNF	TKS67342	H2	.313	2.38	.906	.194	.152	.250	3	
#10 - 32 UNF	TKS67343	H3	.313	2.38	.906	.194	.152	.250	3	
#12 - 24 UNC	TKS67363	H3	.417	2.38	.906	.220	.165	.280	3	
#12 - 28 UNF	TKS67383	H3	.357	2.38	.906	.220	.165	.280	3	
1/4 - 20 UNC	TKS67403	H3	.500	2.50	1.000	.255	.191	.310	3	
1/4 - 20 UNC	TKS67405	H5	.500	2.50	1.000	.255	.191	.310	3	
1/4 - 28 UNF	TKS67423	H3	.357	2.50	1.000	.255	.191	.310	3	
1/4 - 28 UNF	TKS67424	H4	.357	2.50	1.000	.255	.191	.310	3	
5/16 - 18 UNC	TKS67443	H3	.556	2.72	1.126	.318	.238	.380	3	
5/16 - 18 UNC	TKS67445	H5	.556	2.72	1.126	.318	.238	.380	3	
5/16 - 24 UNF	TKS67463	H3	.417	2.72	1.126	.318	.238	.380	3	
5/16 - 24 UNF	TKS67464	H4	.417	2.72	1.126	.318	.238	.380	3	
3/8 - 16 UNC	TKS67483	H3	.625	2.94	1.252	.381	.286	.440	4	

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO	P										M				K						
	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	30	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										
	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	○	○	○	○	○																

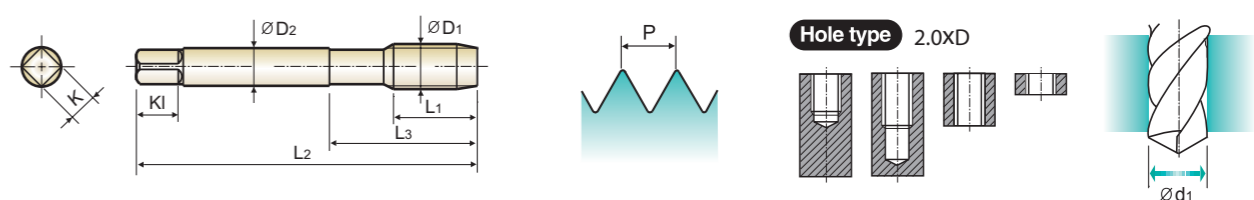


TKS67 SERIES

STRAIGHT FLUTE for High Speed Tapping



- ▶ 2-3 times faster when tapping the GG material group
- ▶ Precision Threads
- ▶ Unsurpassed chip handling



Material groups: **GG** HSS PM UNC UNF H 60° 2P~3P TiCN P.B66

Refer to B323~B336 for tap drill sizes

Unit : Inch

Size	TPI	EDP No.	Limit	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
				L1	L2	L3				
3/8 - 16 UNC	TKS67485	H5	.625	2.94	1.252	.381	.286	.440	4	
3/8 - 24 UNF	TKS67503	H3	.417	2.94	1.252	.381	.286	.440	4	
3/8 - 24 UNF	TKS67504	H4	.417	2.94	1.252	.381	.286	.440	4	
7/16 - 14 UNC	TKS67523	H3	.714	3.16	1.850	.323	.242	.410	4	
7/16 - 14 UNC	TKS67525	H5	.714	3.16	1.850	.323	.242	.410	4	
7/16 - 20 UNF	TKS67543	H3	.500	3.16	1.850	.323	.242	.410	4	
7/16 - 20 UNF	TKS67545	H5	.500	3.16	1.850	.323	.242	.410	4	
1/2 - 13 UNC	TKS67563	H3	.769	3.38	2.067	.367	.275	.440	4	
1/2 - 13 UNC	TKS67565	H5	.769	3.38	2.067	.367	.275	.440	4	
1/2 - 20 UNF	TKS67583	H3	.500	3.38	2.067	.367	.275	.440	4	
1/2 - 20 UNF	TKS67585	H5	.500	3.38	2.067	.367	.275	.440	4	
9/16 - 12 UNC	TKS67603	H3	.833	3.59	2.067	.429	.322	.500	4	
9/16 - 12 UNC	TKS67605	H5	.833	3.59	2.067	.429	.322	.500	4	
9/16 - 18 UNF	TKS67623	H3	.556	3.59	2.067	.429	.322	.500	4	
9/16 - 18 UNF	TKS67625	H5	.556	3.59	2.067	.429	.322	.500	4	
5/8 - 11 UNC	TKS67643	H3	.909	3.81	2.205	.480	.360	.560	4	
5/8 - 11 UNC	TKS67645	H5	.909	3.81	2.205	.480	.360	.560	4	
5/8 - 18 UNF	TKS67663	H3	.556	3.81	2.205	.480	.360	.560	4	
5/8 - 18 UNF	TKS67665	H5	.556	3.81	2.205	.480	.360	.560	4	
3/4 - 10 UNC	TKS67703	H3	1.000	4.25	2.480	.590	.442	.690	4	
3/4 - 10 UNC	TKS67705	H5	1.000	4.25	2.480	.590	.442	.690	4	
3/4 - 16 UNF	TKS67723	H3	.625	4.25	2.480	.590	.442	.690	4	
3/4 - 16 UNF	TKS67725	H5	.625	4.25	2.480	.590	.442	.690	4	

◎ : Excellent ○ : Good

ISO	P										M				K						
	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	30	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										
	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	○	○	○	○	○																

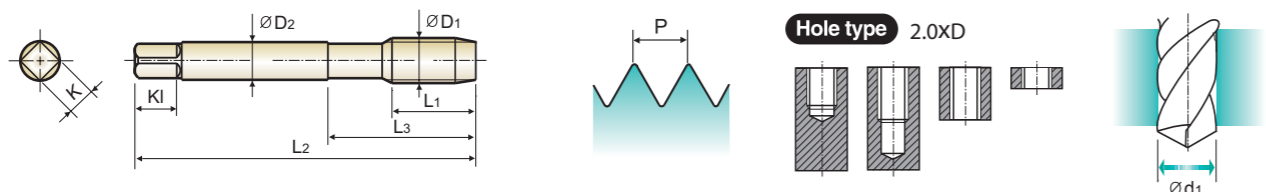


TKS63 SERIES

STRAIGHT FLUTE for High Speed Tapping



- ▶ 2-3 times faster when tapping the GG material group
- ▶ Precision Threads
- ▶ Unsurpassed chip handling



Material groups: **GG** HSS PM M/MF D 60° 2P~3P TiCN P.B66

Refer to B323~B336 for tap drill sizes

Unit : Metric

Size	Pitch	EDP No.	Limit	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
D1	P	TiN		L1	L2	L3	D2	K	Kl	Z
M3 x 0.5		TKS63203	D3	.197	1.94	.646	.141	.110	.190	3
M4 x 0.7		TKS63244	D4	.276	2.13	.768	.168	.131	.250	3
M5 x 0.8		TKS63284	D4	.315	2.38	.933	.194	.152	.250	3
M6 x 1.0		TKS63315	D5	.394	2.50	1.000	.255	.191	.310	3
M8 x 1.25		TKS63365	D5	.512	2.72	1.126	.318	.238	.380	3
M8 x 1.0		TKS63375	D5	.394	2.72	1.126	.318	.238	.380	3
M10 x 1.5		TKS63426	D6	.591	2.94	1.252	.381	.286	.440	4
M10 x 1.25		TKS63435	D5	.512	2.94	1.252	.381	.286	.440	4
M12 x 1.75		TKS63506	D6	.709	3.38	2.067	.367	.275	.440	4
M12 x 1.25		TKS63525	D5	.512	3.38	2.067	.367	.275	.440	4
M14 x 2.0		TKS63547	D7	.787	3.59	2.067	.429	.322	.500	4
M14 x 1.5		TKS63556	D6	.591	3.59	2.067	.429	.322	.500	4
M16 x 2.0		TKS63607	D7	.787	3.81	2.205	.480	.360	.560	4
M16 x 1.5		TKS63616	D6	.591	3.81	2.205	.480	.360	.560	4
M18 x 2.5		TKS63657	D7	.984	4.03	2.205	.542	.406	.630	4
M18 x 1.5		TKS63676	D6	.591	4.03	2.205	.542	.406	.630	4
M20 x 2.5		TKS63707	D7	.984	4.47	2.480	.652	.489	.690	4
M20 x 1.5		TKS63726	D6	.591	4.47	2.480	.652	.489	.690	4

◎ : 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	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

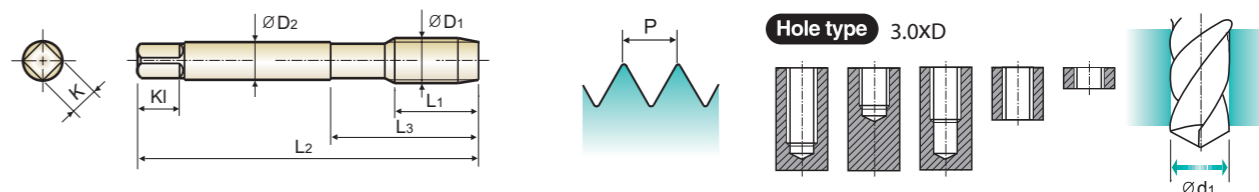


TTS68 SERIES

FORMING for High Speed Tapping



- ▶ 2-3 times faster when machining the GV material group
- ▶ Precision Threads



Material groups: **GV** HSS PM UNC UNF H 60° 2P~3P TiN P.B66

Refer to B323~B336 for tap drill sizes

Unit : Inch

Size	TPI	EDP No.	Limit	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
D1	P	TiN		L1	L2	L3	D2	K	Kl	Z
#4 - 40 UNC		TTS68163	H3	.250	1.88	.563	.141	.110	.190	4
#4 - 40 UNC		TTS68165	H5	.250	1.88	.563	.141	.110	.190	4
#4 - 48 UNF		TTS68183	H3	.209	1.88	.563	.141	.110	.190	4
#4 - 48 UNF		TTS68185	H5	.209	1.88	.563	.141	.110	.190	4
#5 - 40 UNC		TTS68203	H3	.250	1.94	.626	.141	.110	.190	5
#5 - 40 UNC		TTS68205	H5	.250	1.94	.626	.141	.110	.190	5
#5 - 44 UNF		TTS68223	H3	.227	1.94	.626	.141	.110	.190	5
#5 - 44 UNF		TTS68225	H5	.227	1.94	.626	.141	.110	.190	5
#6 - 32 UNC		TTS68243	H3	.313	2.00	.689	.141	.110	.190	5
#6 - 32 UNC		TTS68245	H5	.313	2.00	.689	.141	.110	.190	5
#6 - 40 UNF		TTS68263	H3	.250	2.00	.689	.141	.110	.190	5
#6 - 40 UNF		TTS68265	H5	.250	2.00	.689	.141	.110	.190	5
#8 - 32 UNC		TTS68283	H3	.313	2.13	.752	.168	.131	.250	5
#8 - 32 UNC		TTS68285	H5	.313	2.13	.752	.168	.131	.250	5
#8 - 36 UNF		TTS68303	H3	.278	2.13	.752	.168	.131	.250	5
#8 - 36 UNF		TTS68305	H5	.278	2.13	.752	.168	.131	.250	5
#10 - 24 UNC		TTS68324	H4	.417	2.38	.906	.194	.152	.250	5
#10 - 24 UNC		TTS68326	H6	.417	2.38	.906	.194	.152	.250	5
#10 - 32 UNF		TTS68344	H4	.313	2.38	.906	.194	.152	.250	5
#10 - 32 UNF		TTS68346	H6	.313	2.38	.906	.194	.152	.250	5
#12 - 24 UNC		TTS68364	H4	.417	2.38	.906	.220	.165	.280	5
#12 - 24 UNC		TTS68366	H6	.417	2.38	.906	.220	.165	.280	5
1/4 - 20 UNC		TTS68404	H4	.500	2.50	1.000	.255	.191	.310	5
1/4 - 20 UNC		TTS68406	H6	.500	2.50	1.000	.255	.191	.310	5
1/4 - 28 UNF		TTS68424	H4	.357	2.50	1.000	.255	.191	.310	5
1/4 - 28 UNF		TTS68426	H6	.357	2.50	1.000	.255	.191	.310	5
5/16 - 18 UNC		TTS68445	H5	.556	2.72	1.126	.318	.238	.380	5

▶ NEXT PAGE

◎ : 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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

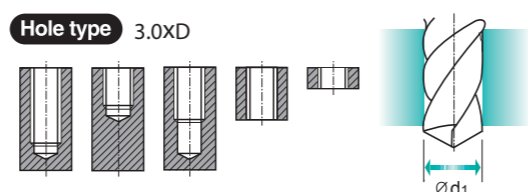
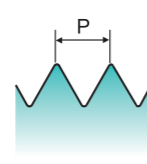
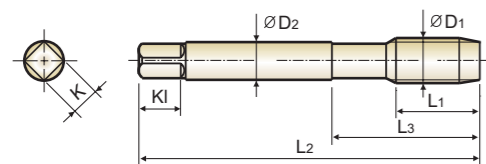
ISO	N					S					H											
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel		Chilled Cast Iron		Hardened Cast Iron		
VDI 3323	21	22	23	24	25	26	27	28	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎



TTS68 SERIES

FORMING for High Speed Tapping

▶ 2-3 times faster when machining the GV material group
▶ Precision Threads



Refer to B323~B336 for tap drill sizes

Material groups: **GV** (Green), **HSS PM** (Blue), **UNC UNF** (Red), **H** (Yellow), **60°** (Grey), **2P~3P** (Blue), **TiN** (Yellow), **P.B66** (Green)

Unit : Inch

Size	TPI	EDP No.	Limit	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
				L1	L2	L3				
5/16 - 18 UNC	TTS68447	H7	.556	2.72	1.126	.318	.238	.380	5	
5/16 - 24 UNF	TTS68465	H5	.417	2.72	1.126	.318	.238	.380	5	
5/16 - 24 UNF	TTS68467	H7	.417	2.72	1.126	.318	.238	.380	5	
3/8 - 16 UNC	TTS68485	H5	.625	2.94	1.252	.381	.286	.440	6	
3/8 - 16 UNC	TTS68487	H7	.625	2.94	1.252	.381	.286	.440	6	
3/8 - 24 UNF	TTS68505	H5	.417	2.94	1.252	.381	.286	.440	6	
3/8 - 24 UNF	TTS68507	H7	.417	2.94	1.252	.381	.286	.440	6	
7/16 - 14 UNC	TTS68525	H5	.714	3.16	1.850	.323	.242	.410	6	
7/16 - 14 UNC	TTS68528	H8	.714	3.16	1.850	.323	.242	.410	6	
7/16 - 20 UNF	TTS68545	H5	.500	3.16	1.850	.323	.242	.410	6	
7/16 - 20 UNF	TTS68548	H8	.500	3.16	1.850	.323	.242	.410	6	
1/2 - 13 UNC	TTS68566	H6	.769	3.38	2.067	.367	.275	.440	6	
1/2 - 13 UNC	TTS68568	H8	.769	3.38	2.067	.367	.275	.440	6	
1/2 - 20 UNF	TTS68585	H5	.500	3.38	2.067	.367	.275	.440	6	
1/2 - 20 UNF	TTS68588	H8	.500	3.38	2.067	.367	.275	.440	6	
9/16 - 12 UNC	TTS68607	H7	.833	3.59	2.067	.429	.322	.500	8	
9/16 - 12 UNC	TTS68600	H10	.833	3.59	2.067	.429	.322	.500	8	
9/16 - 18 UNF	TTS68627	H7	.556	3.59	2.067	.429	.322	.500	8	
9/16 - 18 UNF	TTS68620	H10	.556	3.59	2.067	.429	.322	.500	8	
5/8 - 11 UNC	TTS68647	H7	.909	3.81	2.205	.480	.360	.560	8	
5/8 - 11 UNC	TTS68640	H10	.909	3.81	2.205	.480	.360	.560	8	
5/8 - 18 UNF	TTS68667	H7	.556	3.81	2.205	.480	.360	.560	8	
5/8 - 18 UNF	TTS68660	H10	.556	3.81	2.205	.480	.360	.560	8	
3/4 - 10 UNC	TTS68707	H7	1.000	4.25	2.480	.590	.442	.690	8	
3/4 - 10 UNC	TTS68700	H10	1.000	4.25	2.480	.590	.442	.690	8	
3/4 - 16 UNF	TTS68727	H7	.625	4.25	2.480	.590	.442	.690	8	
3/4 - 16 UNF	TTS68720	H10	.625	4.25	2.480	.590	.442	.690	8	

◎ : Excellent ○ : Good

ISO	P										M				K						
	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

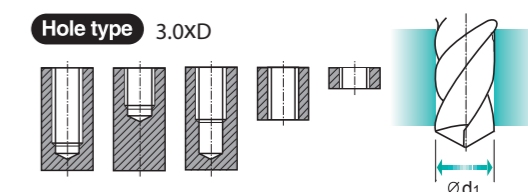
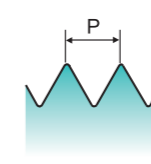
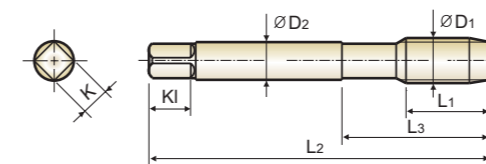
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys		Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎



TTS64 SERIES

FORMING for High Speed Tapping

▶ 2-3 times faster when machining the GV material group
▶ Precision Threads



Refer to B323~B336 for tap drill sizes

Material groups: **GV** (Green), **HSS PM** (Blue), **M/MF** (Red), **D M** (Yellow), **6H MF** (Grey), **60°** (Blue), **2P~3P** (Blue), **TiN** (Yellow), **P.B66** (Green)

Unit : Metric

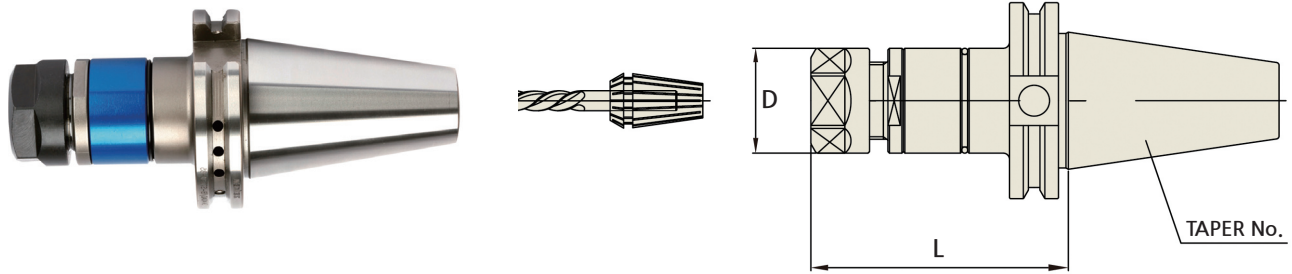
Size	Pitch	EDP No.	Limit	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe
				L1	L2	L3				
M3 x 0.5	TTS64205	D5	.197	1.94	0.646	.141	.110	.190	5	
M4 x 0.7	TTS64246	D6	.276	2.13	0.768	.168	.131	.250	5	
M5 x 0.8	TTS64287	D7	.315	2.38	0.933	.194	.152	.250	5	
M6 x 1.0	TTS64318	D8	.394	2.50	1.000	.255	.191	.310	5	
M8 x 1.0	TTS64378	D8	.394	2.72	1.126	.318	.238	.380	5	
M8 x 1.25	TTS64369	D9	.512	2.72	1.126	.318	.238	.380	5	
M10 x 1.25	TTS64439	D9	.492	2.94	1.252	.381	.286	.440	6	
M10 x 1.5	TTS64420	D10	.591	2.94	1.252	.381	.286	.440	6	
M12 x 1.25	TTS64520	D10	.492	3.38	2.067	.367	.275	.440	6	
M12 x 1.75	TTS6450A	D11	.709	3.38	2.067	.367	.275	.440	6	
M14 x 1.5	TTS64550	D10	.591	3.59	2.067	.429	.322	.500	8	
M14 x 2.0	TTS6454B	D12	.787	3.59	2.067	.429	.322	.500	8	
M16 x 1.5	TTS64610	D10	.591	3.81	2.205	.480	.360	.560	8	
M16 x 2.0	TTS6460B	D12	.787	3.81	2.205	.480	.360	.560	8	
M18 x 1.5	TTS64670	D10	.591	4.03	2.205	.542	.406	.630	8	
M18 x 2.5	TTS6465B	D12	.984	4.03	2.205	.542	.406	.630	8	
M20 x 1.5	TTS64720	D10	.984	4.47	2.48	.652	.489	.690	8	
M20 x 2.5	TTS6470B	D12	.984	4.47	2.48	.652	.489	.690	8	

◎ : Excellent ○ : Good

ISO	P										M				K						
	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										
	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

SYNCHRO TAPPING CHUCK (ER TYPE)



Unit : Metric

EDP No.	TAPER No.	MODEL No.	Tap Size	Clamping Range	Nut	D	L
JK060SYT	40	CAT40AD/B-SYTER12-79	M3~M12	3.5~10	ER16	28	79
JK062SYT		CAT40AD/B-SYTER16-85	M3~M16	3.5~10	ER20	35	85
JK064SYT		CAT40AD/B-SYTER20-90	M3~M20	3.5~16	ER25	42	90
JK066SYT		CAT40AD/B-SYTER27-100	M4~M27	3.5~16	ER32	50	100
JK068SYT		CAT40AD/B-SYTER33-105	M4~M33	7~16	ER40	63	105
JL060SYT		50	CAT50AD/B-SYTER12-79	M3~M12	3.5~10	ER16	28
JL062SYT	CAT50AD/B-SYTER16-85		M3~M16	3.5~10	ER20	35	85
JL064SYT	CAT50AD/B-SYTER20-90		M3~M20	3.5~16	ER25	42	90
JL066SYT	CAT50AD/B-SYTER27-100		M4~M27	3.5~16	ER32	50	100
JL068SYT	CAT50AD/B-SYTER33-105		M4~M33	7~16	ER40	63	105

► Feature :

- To compensate for synchronization errors to extend tap life and to improve thread quality
- To compensate for lead tolerances of taps
- For machines with synchronous tapping cycles

- BT(JIS B6339/MAS-403), HSK(DIN 69893/ISO 12164-1) AND K-STRAIGHT TAPER PRODUCTS ARE AVAILABLE



Being the best through innovation

HSS-E

COMBO TAP

- HSS-E Taps for Multipurpose

SELECTION GUIDE



HSS-E COMBO TAP

- HSS-E Taps for Multipurpose



Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

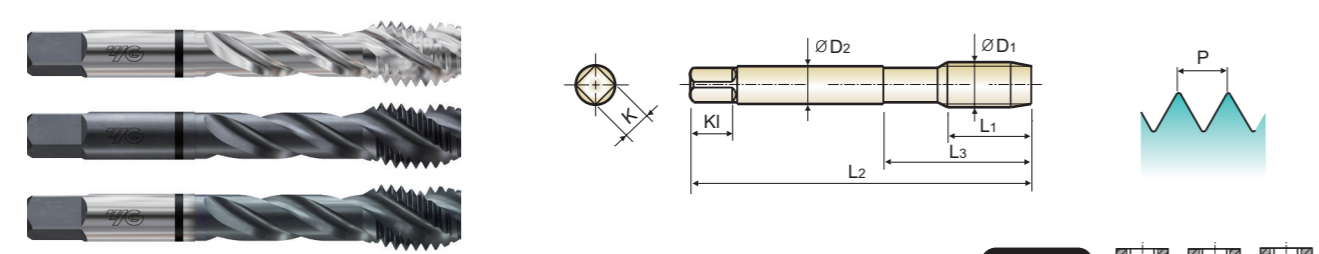
Table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, Examples, Hole Type, Form Type, Tool Material, Chamfer Lead Acc. to DIN2197, Flute Type, Spiral Flute Angle, M, M/MF, UNC, UNC/UNF, Surface Treatment / Coating, Model.

Table with columns: Standard, with Internal Coolant, Short Chamfer, DIN Length-ANSI Shank, and various tap specifications (2p-3p, R40, T5, T6, T7, T8, T9, T10, T11, T12, T13, T14, T15, T16, T17, T18, T19, T20).

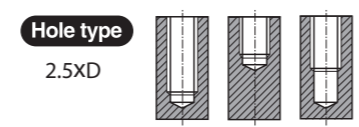


T2 SERIES
T2-S SERIES
T2-C SERIES

SPIRAL FLUTE for Multipurpose



Material groups: MU, HSS-E, UNC UNF, USCTI 302A, 2P~3P, Bright, Steam Oxide, TiCN, R40



Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	TiCN								
#2	- 56UNC	T2082	T2082S	T2082C	H2	1.752	.157	.433	.141	.110	.190	2
#3	- 48UNC	T2122	T2122S	T2122C	H2	1.811	.197	.492	.141	.110	.190	2
#4	- 40UNC	T2162	T2162S	T2162C	H2	1.874	.236	.563	.141	.110	.190	2
#4	- 40UNC	T2163	T2163S	T2163C	H3	1.874	.236	.563	.141	.110	.190	2
#4	- 40UNC	T2164	T2164S	T2164C	H4	1.874	.236	.563	.141	.110	.190	2
#4	- 40UNC	T2165	T2165S	T2165C	H5	1.874	.236	.563	.141	.110	.190	2
#4	- 48UNF	T2182	T2182S	T2182C	H2	1.874	.236	.563	.141	.110	.190	2
#5	- 40UNC	T2202	T2202S	T2202C	H2	1.937	.236	.626	.141	.110	.190	3
#5	- 44UNF	T2222	T2222S	T2222C	H2	1.937	.236	.626	.141	.110	.190	3
#6	- 32UNC	T2242	T2242S	T2242C	H2	2.000	.276	.689	.141	.110	.190	3
#6	- 32UNC	T2243	T2243S	T2243C	H3	2.000	.276	.689	.141	.110	.190	3
#6	- 32UNC	T2245	T2245S	T2245C	H5	2.000	.276	.689	.141	.110	.190	3
#6	- 32UNC	T2247	T2247S	T2247C	H7	2.000	.276	.689	.141	.110	.190	3
#6	- 32UNC	T224A	T224AS	T224AC	H11	2.000	.276	.689	.141	.110	.190	3
#6	- 40UNF	T2262	T2262S	T2262C	H2	2.000	.276	.689	.141	.110	.190	3
#8	- 32UNC	T2282	T2282S	T2282C	H2	2.126	.276	.752	.168	.131	.250	3
#8	- 32UNC	T2283	T2283S	T2283C	H3	2.126	.276	.752	.168	.131	.250	3
#8	- 32UNC	T2285	T2285S	T2285C	H5	2.126	.276	.752	.168	.131	.250	3
#8	- 32UNC	T2287	T2287S	T2287C	H7	2.126	.276	.752	.168	.131	.250	3
#8	- 32UNC	T228A	T228AS	T228AC	H11	2.126	.276	.752	.168	.131	.250	3
#8	- 36UNF	T2302	T2302S	T2302C	H2	2.126	.276	.752	.168	.131	.250	3
#10	- 24UNC	T2323	T2323S	T2323C	H3	2.374	.354	.906	.194	.152	.250	3
#10	- 24UNC	T2325	T2325S	T2325C	H5	2.374	.354	.906	.194	.152	.250	3
#10	- 24UNC	T232A	T232AS	T232AC	H11	2.374	.354	.906	.194	.152	.250	3
#10	- 32UNF	T2342	T2342S	T2342C	H2	2.374	.276	.906	.194	.152	.250	3
#10	- 32UNF	T2343	T2343S	T2343C	H3	2.374	.276	.906	.194	.152	.250	3
#10	- 32UNF	T2345	T2345S	T2345C	H5	2.374	.276	.906	.194	.152	.250	3
#10	- 32UNF	T2347	T2347S	T2347C	H7	2.374	.276	.906	.194	.152	.250	3

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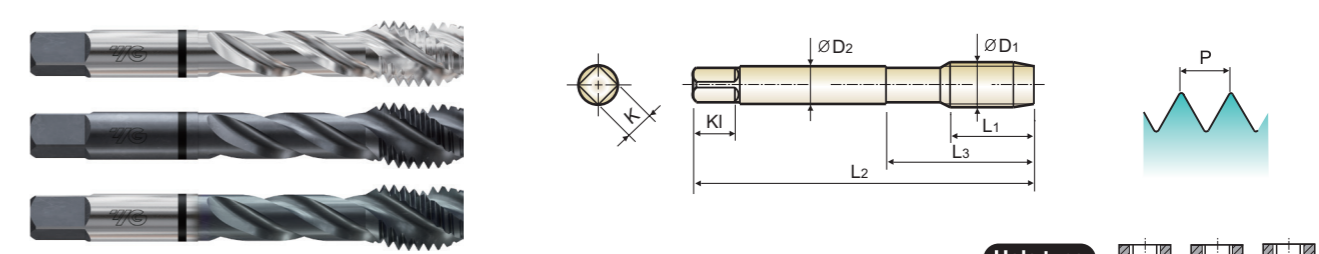
◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	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	○	◎	◎	◎	◎	◎	◎	◎	◎	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	

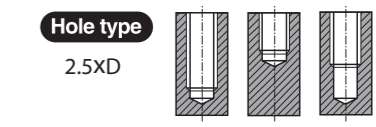
T2 SERIES
T2-S SERIES
T2-C SERIES



SPIRAL FLUTE for Multipurpose



Material groups: MU, HSS-E, UNC UNF, USCTI 302A, 2P~3P, Bright, Steam Oxide, TiCN, R40



Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	TiCN								
#10	- 32UNF	T234A	T234AS	T234AC	H11	2.374	.276	.906	.194	.152	.250	3
#12	- 24UNC	T2363	T2363S	T2363C	H3	2.374	.354	.906	.220	.165	.280	3
#12	- 28UNF	T2383	T2383S	T2383C	H3	2.374	.276	.906	.220	.165	.280	3
1/4	- 20UNC	T2403	T2403S	T2403C	H3	2.500	.433	1.000	.255	.191	.310	3
1/4	- 20UNC	T2405	T2405S	T2405C	H5	2.500	.433	1.000	.255	.191	.310	3
1/4	- 20UNC	T240A	T240AS	T240AC	H11	2.500	.433	1.000	.255	.191	.310	3
1/4	- 28UNF	T2422	T2422S	T2422C	H2	2.500	.354	1.000	.255	.191	.310	3
1/4	- 28UNF	T2423	T2423S	T2423C	H3	2.500	.354	1.000	.255	.191	.310	3
1/4	- 28UNF	T2424	T2424S	T2424C	H4	2.500	.354	1.000	.255	.191	.310	3
1/4	- 28UNF	T2425	T2425S	T2425C	H5	2.500	.354	1.000	.255	.191	.310	3
1/4	- 28UNF	T2427	T2427S	T2427C	H7	2.500	.354	1.000	.255	.191	.310	3
1/4	- 28UNF	T242A	T242AS	T242AC	H11	2.500	.354	1.000	.255	.191	.310	3
5/16	- 18UNC	T2442	T2442S	T2442C	H2	2.720	.472	1.126	.318	.238	.380	3
5/16	- 18UNC	T2443	T2443S	T2443C	H3	2.720	.472	1.126	.318	.238	.380	3
5/16	- 18UNC	T2445	T2445S	T2445C	H5	2.720	.472	1.126	.318	.238	.380	3
5/16	- 18UNC	T2447	T2447S	T2447C	H7	2.720	.472	1.126	.318	.238	.380	3
5/16	- 18UNC	T244A	T244AS	T244AC	H11	2.720	.472	1.126	.318	.238	.380	3
5/16	- 24UNF	T2462	T2462S	T2462C	H2	2.720	.394	1.126	.318	.238	.380	3
5/16	- 24UNF	T2463	T2463S	T2463C	H3	2.720	.394	1.126	.318	.238	.380	3
5/16	- 24UNF	T2464	T2464S	T2464C	H4	2.720	.394	1.126	.318	.238	.380	3
5/16	- 24UNF	T2465	T2465S	T2465C	H5	2.720	.394	1.126	.318	.238	.380	3
5/16	- 24UNF	T2466	T2466S	T2466C	H6	2.720	.394	1.126	.318	.238	.380	3
5/16	- 24UNF	T2467	T2467S	T2467C	H7	2.720	.394	1.126	.318	.238	.380	3
5/16	- 24UNF	T246A	T246AS	T246AC	H11	2.720	.394	1.126	.318	.238	.380	3
3/8	- 16UNC	T2482	T2482S	T2482C	H2	2.937	.551	1.252	.381	.286	.440	3
3/8	- 16UNC	T2483	T2483S	T2483C	H3	2.937	.551	1.252	.381	.286	.440	3
3/8	- 16UNC	T2485	T2485S	T2485C	H5	2.937	.551	1.252	.381	.286	.440	3
3/8	- 16UNC	T2487	T2487S	T2487C	H7	2.937	.551	1.252	.381	.286	.440	3

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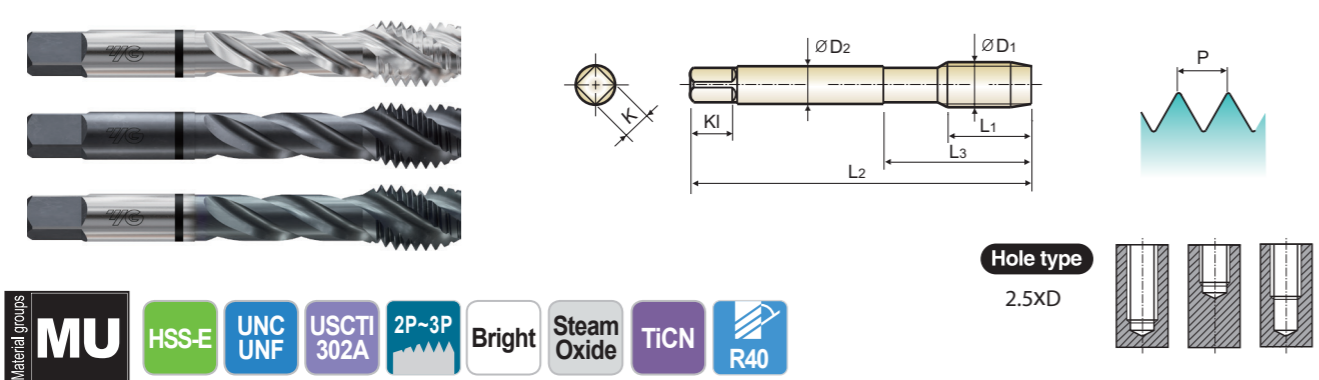
◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	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	○	◎	◎	◎	◎	◎	◎	◎	◎	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	

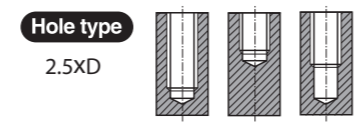


T2 SERIES
T2-S SERIES
T2-C SERIES

SPIRAL FLUTE for Multipurpose



Material groups: MU, HSS-E, UNC UNF, USCTI 302A, 2P~3P, Bright, Steam Oxide, TiCN, R40



Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	TiCN								
3/8 - 16UNC		T248A	T248AS	T248AC	H11	2.937	.551	1.252	.381	.286	.440	3
3/8 - 24UNF		T2502	T2502S	T2502C	H2	2.937	.394	1.252	.381	.286	.440	3
3/8 - 24UNC		T2503	T2503S	T2503C	H3	2.937	.394	1.252	.381	.286	.440	3
3/8 - 24UNF		T2504	T2504S	T2504C	H4	2.937	.394	1.252	.381	.286	.440	3
3/8 - 24UNC		T2505	T2505S	T2505C	H5	2.937	.394	1.252	.381	.286	.440	3
3/8 - 24UNF		T2507	T2507S	T2507C	H7	2.937	.394	1.252	.381	.286	.440	3
3/8 - 24UNC		T250A	T250AS	T250AC	H11	2.937	.394	1.252	.381	.286	.440	3
7/16 - 14UNC		T2523	T2523S	T2523C	H3	3.157	.591	1.850	.323	.242	.410	3
7/16 - 14UNC		T2525	T2525S	T2525C	H5	3.157	.591	1.850	.323	.242	.410	3
7/16 - 14UNC		T2527	T2527S	T2527C	H7	3.157	.591	1.850	.323	.242	.410	3
7/16 - 14UNC		T252A	T252AS	T252AC	H11	3.157	.591	1.850	.323	.242	.410	3
7/16 - 20UNF		T2543	T2543S	T2543C	H3	3.157	.472	1.850	.323	.242	.410	3
7/16 - 20UNF		T2545	T2545S	T2545C	H5	3.157	.472	1.850	.323	.242	.410	3
7/16 - 20UNF		T2547	T2547S	T2547C	H7	3.157	.472	1.850	.323	.242	.410	3
7/16 - 20UNC		T254A	T254AS	T254AC	H11	3.157	.472	1.850	.323	.242	.410	3
1/2 - 13UNC		T2563	T2563S	T2563C	H3	3.374	.630	2.067	.367	.275	.440	3
1/2 - 13UNC		T2565	T2565S	T2565C	H5	3.374	.630	2.067	.367	.275	.440	3
1/2 - 13UNC		T2567	T2567S	T2567C	H7	3.374	.630	2.067	.367	.275	.440	3
1/2 - 13UNC		T256A	T256AS	T256AC	H11	3.374	.630	2.067	.367	.275	.440	3
1/2 - 20UNF		T2582	T2582S	T2582C	H2	3.374	.472	2.067	.367	.275	.440	3
1/2 - 20UNF		T2583	T2583S	T2583C	H3	3.374	.472	2.067	.367	.275	.440	3
1/2 - 20UNF		T2585	T2585S	T2585C	H5	3.374	.472	2.067	.367	.275	.440	3
1/2 - 20UNF		T2587	T2587S	T2587C	H7	3.374	.472	2.067	.367	.275	.440	3
1/2 - 20UNC		T258A	T258AS	T258AC	H11	3.374	.472	2.067	.367	.275	.440	3
9/16 - 12UNC		T2603	T2603S	T2603C	H3	3.594	.709	2.067	.429	.322	.500	3
9/16 - 12UNC		T2605	T2605S	T2605C	H5	3.594	.709	2.067	.429	.322	.500	3
9/16 - 18UNF		T2623	T2623S	T2623C	H3	3.594	.512	2.067	.429	.322	.500	3
9/16 - 18UNF		T2625	T2625S	T2625C	H5	3.594	.512	2.067	.429	.322	.500	3

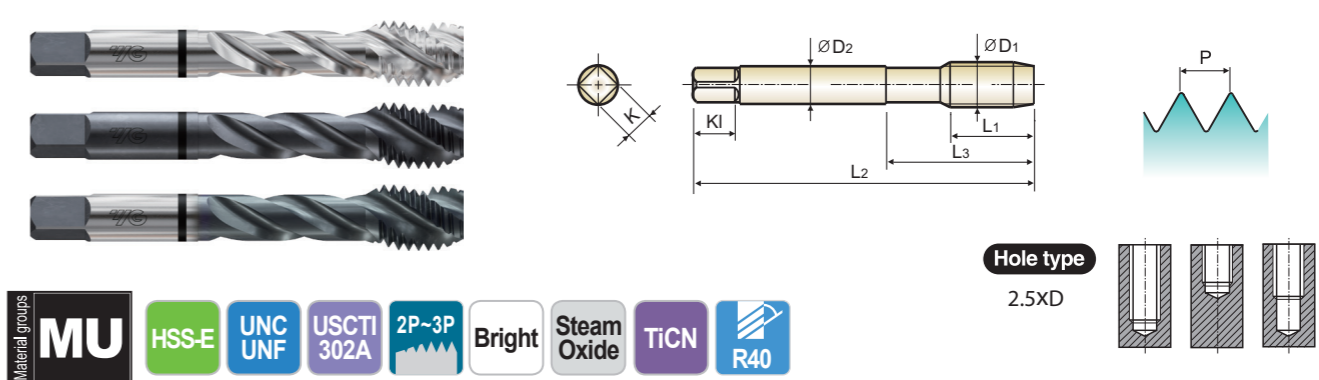
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◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	38	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	○	◎	◎	◎	◎	◎	◎	◎	◎	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

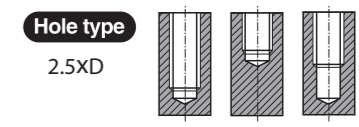


T2 SERIES
T2-S SERIES
T2-C SERIES

SPIRAL FLUTE for Multipurpose



Material groups: MU, HSS-E, UNC UNF, USCTI 302A, 2P~3P, Bright, Steam Oxide, TiCN, R40



Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	TiCN								
5/8 - 11UNC		T2645	T2645S	T2645C	H5	3.811	.748	2.205	.480	.360	.560	4
5/8 - 18UNF		T2663	T2663S	T2663C	H3	3.811	.512	2.205	.480	.360	.560	4
5/8 - 18UNC		T2665	T2665S	T2665C	H5	3.811	.512	2.205	.480	.360	.560	4
3/4 - 10UNC		T2703	T2703S	T2703C	H3	4.252	.827	2.480	.590	.442	.690	4
3/4 - 10UNC		T2705	T2705S	T2705C	H5	4.252	.827	2.480	.590	.442	.690	4
3/4 - 16UNF		T2723	T2723S	T2723C	H3	4.252	.591	2.480	.590	.442	.690	4
3/4 - 16UNF		T2725	T2725S	T2725C	H5	4.252	.591	2.480	.590	.442	.690	4
7/8 - 9UNC		T2746	T2746S	T2746C	H6	4.689	.827	2.815	.697	.523	.750	4
7/8 - 14UNF		T2764	T2764S	T2764C	H4	4.689	.709	2.815	.697	.523	.750	4
7/8 - 14UNF		T2766	T2766S	T2766C	H6	4.689	.709	2.815	.697	.523	.750	4
1" - 8UNC		T2786	T2786S	T2786C	H6	5.126	.984	3.091	.800	.600	.810	4
1" - 12UNF		T2806	T2806S	T2806C	H6	5.126	.709	3.091	.800	.600	.810	4
1 1/8 - 7UNC		T2826	T2826S	T2826C	H6	5.437	1.024	3.150	.896	.672	.880	4
1 1/8 - 8UNC		T2836	T2836S	T2836C	H6	5.437	1.024	3.150	.896	.672	.880	4
1 1/8 - 12UNF		T2845	T2845S	T2845C	H5	5.437	.787	3.150	.896	.672	.880	4
1 1/4 - 7UNC		T2866	T2866S	T2866C	H6	5.752	1.024	3.150	1.021	.766	1.00	4
1 1/4 - 8UNC		T2876	T2876S	T2876C	H6	5.752	1.024	3.150	1.021	.766	1.00	4
1 1/4 - 12UNF		T2885	T2885S	T2885C	H5	5.752	.787	3.150	1.021	.766	1.00	4
1 3/8 - 6UNC		T2906	T2906S	T2906C	H6	6.063	1.181	3.583	1.108	.831	1.06	4
1 3/8 - 8UNC		T2916	T2916S	T2916C	H6	6.063	1.181	3.583	1.108	.831	1.06	4
1 3/8 - 12UNF		T2925	T2925S	T2925C	H5	6.063	.866	3.583	1.108	.831	1.06	4
1 1/2 - 6UNC		T2946	T2946S	T2946C	H6	6.374	1.181	3.583	1.233	.925	1.13	4
1 1/2 - 8UNC		T2956	T2956S	T2956C	H6	6.374	1.181	3.583	1.233	.925	1.13	4
1 1/2 - 12UNF		T2965	T2965S	T2965C	H5	6.374	.866	3.583	1.233	.925	1.13	4

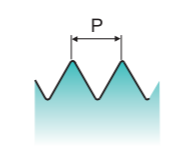
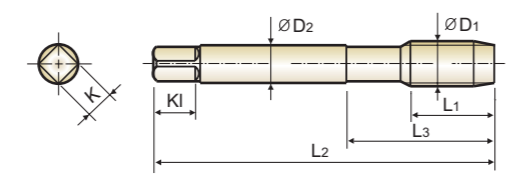
◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	38	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	○	◎	◎	◎	◎	◎	◎	◎	◎	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	



T5 SERIES
T5-S SERIES
T5-C SERIES

SPIRAL FLUTE for Multipurpose



Hole type
 2.5XD

Material groups: **MU** HSS-E M/MF USCTI 302A 2P~3P Bright Steam Oxide TiCN R40

Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	TiCN								
M3	x 0.5	T520A	T520AS	T520AC	D11	1.937	.197	.646	.141	.110	.190	3
M3	x 0.5	T5203	T5203S	T5203C	D3	1.937	.197	.646	.141	.110	.190	3
M3.5	x 0.6	T522A	T522AS	T522AC	D11	2.000	.276	.709	.141	.110	.190	3
M3.5	x 0.6	T5224	T5224S	T5224C	D4	2.000	.276	.709	.141	.110	.190	3
M4	x 0.7	T524A	T524AS	T524AC	D11	2.126	.276	.768	.168	.131	.250	3
M4	x 0.7	T5244	T5244S	T5244C	D4	2.126	.276	.768	.168	.131	.250	3
M5	x 0.8	T528A	T528AS	T528AC	D11	2.374	.354	.933	.194	.152	.250	3
M5	x 0.8	T5284	T5284S	T5284C	D4	2.374	.354	.933	.194	.152	.250	3
M6	x 1.0	T531A	T531AS	T531AC	D11	2.500	.433	1.000	.255	.191	.310	3
M6	x 1.0	T5315	T5315S	T5315C	D5	2.500	.433	1.000	.255	.191	.310	3
M7	x 1.0	T534A	T534AS	T534AC	D11	2.720	.433	1.126	.318	.238	.380	3
M7	x 1.0	T5345	T5345S	T5345C	D5	2.720	.433	1.126	.318	.238	.380	3
M8	x 1.25	T536A	T536AS	T536AC	D11	2.720	.472	1.126	.318	.238	.380	3
M8	x 1.25	T5365	T5365S	T5365C	D5	2.720	.472	1.126	.318	.238	.380	3
M8	x 1.0	T537A	T537AS	T537AC	D11	2.720	.433	1.126	.318	.238	.380	3
M8	x 1.0	T5375	T5375S	T5375C	D5	2.720	.433	1.126	.318	.238	.380	3
M10	x 1.5	T542A	T542AS	T542AC	D11	2.937	.512	1.252	.381	.286	.440	3
M10	x 1.5	T5426	T5426S	T5426C	D6	2.937	.512	1.252	.381	.286	.440	3
M10	x 1.25	T543A	T543AS	T543AC	D11	2.937	.472	1.252	.381	.286	.440	3
M10	x 1.25	T5435	T5435S	T5435C	D5	2.937	.472	1.252	.381	.286	.440	3
M10	x 1.00	T544A	T544AS	T544AC	D11	2.937	.433	1.252	.381	.286	.440	3
M10	x 1.00	T5445	T5445S	T5445C	D5	2.937	.433	1.252	.381	.286	.440	3
M12	x 1.75	T550A	T550AS	T550AC	D11	3.374	.591	2.067	.367	.275	.440	3
M12	x 1.75	T5506	T5506S	T5506C	D6	3.374	.591	2.067	.367	.275	.440	3
M12	x 1.50	T551A	T551AS	T551AC	D11	3.374	.591	2.067	.367	.275	.440	3

- ▶ Coating (TiN, TiAlN or Hardslick) is available on your request.
- ▶ Coating Codes for Combo Tap
Bright Finish No. + N(TiN), F(TiAlN), H(Hardslick)
- ▶ Steam Oxide is not recommended for Aluminum and Aluminum alloys.

▶ NEXT PAGE

◎ : Excellent ○ : Good

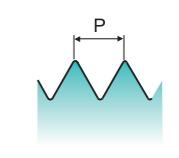
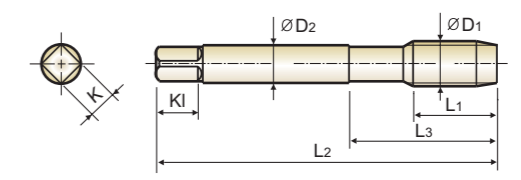
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRC	13	25	28	32	30	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								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

T5 SERIES
T5-S SERIES
T5-C SERIES



SPIRAL FLUTE for Multipurpose



Hole type
 2.5XD

Material groups: **MU** HSS-E M/MF USCTI 302A 2P~3P Bright Steam Oxide TiCN R40

Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	TiCN								
M12	x 1.50	T5516	T5516S	T5516C	D6	3.374	.591	2.067	.367	.275	.440	3
M12	x 1.25	T552A	T552AS	T552AC	D11	3.374	.551	2.067	.367	.275	.440	3
M12	x 1.25	T5525	T5525S	T5525C	D5	3.374	.551	2.067	.367	.275	.440	3
M14	x 2.0	T5547	T5547S	T5547C	D7	3.594	.709	2.067	.429	.322	.500	3
M14	x 1.5	T5556	T5556S	T5556C	D6	3.594	.551	2.067	.429	.322	.500	3
M16	x 2.0	T5607	T5607S	T5607C	D7	3.811	.709	2.205	.480	.360	.560	3
M16	x 1.5	T5616	T5616S	T5616C	D6	3.811	.551	2.205	.480	.360	.560	3
M18	x 2.5	T5657	T5657S	T5657C	D7	4.031	.787	2.205	.542	.406	.630	4
M18	x 1.5	T5676	T5676S	T5676C	D6	4.031	.551	2.205	.542	.406	.630	4
M20	x 2.5	T5707	T5707S	T5707C	D7	4.469	.787	2.480	.652	.489	.690	4
M20	x 1.5	T5726	T5726S	T5726C	D6	4.469	.551	2.480	.652	.489	.690	4
M22	x 2.5	T5747	T5747S	T5747C	D7	4.689	.787	2.815	.697	.523	.750	4
M22	x 1.5	T5766	T5766S	T5766C	D6	4.689	.551	2.815	.697	.523	.750	4
M24	x 3.0	T5788	T5788S	T5788C	D8	4.906	.945	2.815	.760	.570	.750	4
M24	x 1.5	T5806	T5806S	T5806C	D6	4.906	.551	2.815	.760	.570	.750	4
M27	x 3.0	T5869	T5869S	T5869C	D9	5.126	.945	3.091	.896	.672	.880	4
M27	x 3.0	T5868	T5868S	T5868C	D8	5.126	.945	3.091	.896	.672	.880	4
M27	x 3.0	T5866	T5866S	T5866C	D6	5.126	.945	3.091	.896	.672	.880	4
M27	x 1.5	T5886	T5886S	T5886C	D6	5.126	.591	3.091	.896	.672	.880	4

- ▶ Coating (TiN, TiAlN or Hardslick) is available on your request.
- ▶ Coating Codes for Combo Tap
Bright Finish No. + N(TiN), F(TiAlN), H(Hardslick)
- ▶ Steam Oxide is not recommended for Aluminum and Aluminum alloys.

◎ : Excellent ○ : Good

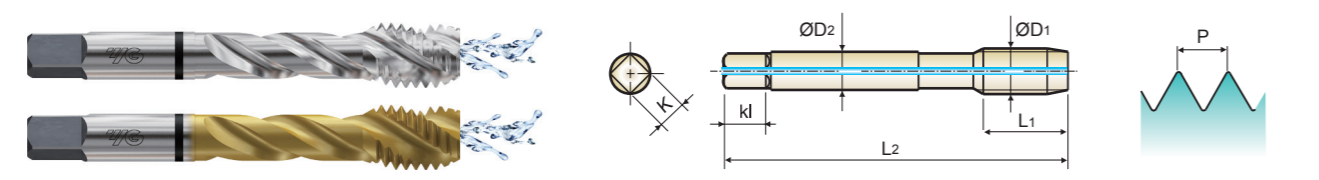
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRC	13	25	28	32	30	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								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎



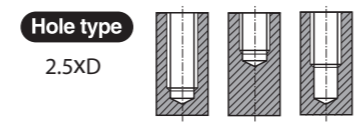
T6 SERIES
T6-N SERIES

SPIRAL FLUTE for Multipurpose



with Internal Coolant

Material groups: **MU** HSS-E UNC UNF USCTI 302A 2P~3P Bright TiN R40



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiN								
1/4	- 20UNC	T6405	T6405N	H5	2.500	.433	1.000	.255	.191	.310	3
1/4	- 28UNF	T6424	T6424N	H4	2.500	.354	1.000	.255	.191	.310	3
5/16	- 18UNC	T6445	T6445N	H5	2.720	.472	1.126	.318	.238	.380	3
5/16	- 24UNF	T6464	T6464N	H4	2.720	.394	1.126	.318	.238	.380	3
3/8	- 16UNC	T6485	T6485N	H5	2.937	.551	1.252	.381	.286	.440	3
3/8	- 24UNF	T6504	T6504N	H4	2.937	.394	1.252	.381	.286	.440	3
7/16	- 14UNC	T6525	T6525N	H5	3.157	.591	1.850	.323	.242	.410	3
7/16	- 20UNF	T6545	T6545N	H5	3.157	.472	1.850	.323	.242	.410	3
1/2	- 13UNC	T6565	T6565N	H5	3.374	.630	2.067	.367	.275	.440	3
1/2	- 20UNF	T6585	T6585N	H5	3.374	.472	2.067	.367	.275	.440	3
9/16	- 12UNC	T6605	T6605N	H5	3.594	.709	2.067	.429	.322	.500	3
9/16	- 18UNF	T6625	T6625N	H5	3.594	.512	2.067	.429	.322	.500	3
5/8	- 11UNC	T6645	T6645N	H5	3.811	.748	2.205	.480	.360	.560	4
5/8	- 18UNF	T6665	T6665N	H5	3.811	.512	2.205	.480	.360	.560	4
3/4	- 10UNC	T6705	T6705N	H5	4.252	.827	2.480	.590	.442	.690	4
3/4	- 16UNF	T6725	T6725N	H5	4.252	.591	2.480	.590	.442	.690	4
7/8	- 9UNC	T6746	T6746N	H6	4.689	.827	2.815	.697	.523	.750	4
7/8	- 14UNF	T6766	T6766N	H6	4.689	.709	2.815	.697	.523	.750	4
1"	- 8UNC	T6786	T6786N	H6	5.126	.984	3.091	.800	.600	.810	4
1"	- 12UNF	T6806	T6806N	H6	5.126	.709	3.091	.800	.600	.810	4

- ▶ Coating(TiCN, TiAlN or Hardslick) or Surface Treatment(Steam Oxide) is available on your request.
- ▶ Coating Codes for Combo Tap
Bright Finish No. + C(TiCN), F(TiAlN), H(Hardslick), S(Steam Oxide)

◎ : Excellent ○ : Good

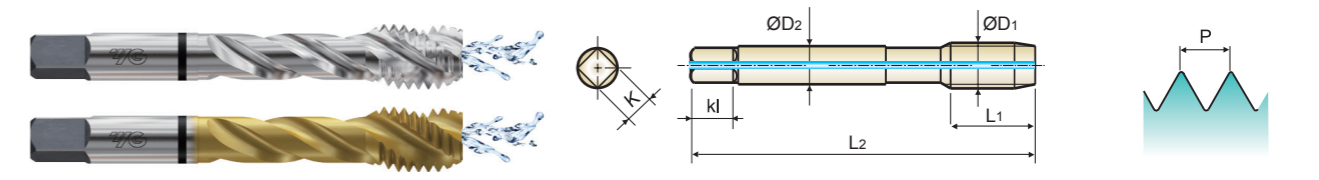
ISO	P										M			K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel			Stainless steel			Grey cast iron	Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18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

ISO	N					S					H										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRC	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			15	30	25	38	34	400 Rm	1050 Rm	55	60	42	55
Recommended	◎	◎	◎	◎	◎	◎	◎	◎			◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎



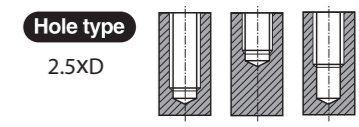
T8 SERIES
T8-N SERIES

SPIRAL FLUTE for Multipurpose



with Internal Coolant

Material groups: **MU** HSS-E M USCTI 302A 2P~3P Bright TiN R40



Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiN								
M6	x 1.0	T8315	T8315N	D5	2.500	.433	1.000	.255	.191	.310	3
M8	x 1.25	T8365	T8365N	D5	2.720	.472	1.126	.318	.238	.380	3
M10	x 1.5	T8426	T8426N	D6	2.937	.512	1.252	.381	.286	.440	3
M12	x 1.75	T8506	T8506N	D6	3.374	.591	2.067	.367	.275	.440	3
M14	x 2.0	T8547	T8547N	D7	3.594	.709	2.067	.429	.322	.500	3
M16	x 2.0	T8607	T8607N	D7	3.811	.709	2.205	.480	.360	.560	3
M18	x 2.5	T8657	T8657N	D7	4.031	.787	2.205	.542	.406	.630	4
M24	x 2.5	T8707	T8707N	D7	4.469	.787	2.480	.652	.489	.690	4

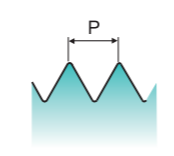
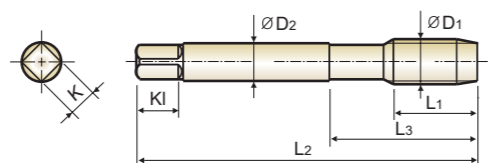
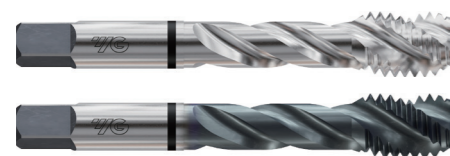
- ▶ Coating(TiCN, TiAlN or Hardslick) or Surface Treatment(Steam Oxide) is available on your request.
- ▶ Coating Codes for Combo Tap
Bright Finish No. + C(TiCN), F(TiAlN), H(Hardslick), S(Steam Oxide)

◎ : Excellent ○ : Good

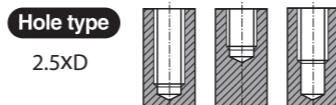
ISO	P										M			K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel			Stainless steel			Grey cast iron	Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18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

ISO	N					S					H										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRC	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			15	30	25	38	34	400 Rm	1050 Rm	55	60	42	55
Recommended	◎	◎	◎	◎	◎	◎	◎	◎			◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

SPIRAL FLUTE for Multipurpose



Short Chamfer



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiCN								
D1					L2	L1	L3	D2	K	KI	
#4 - 40UNC	T7162	T7162C	H2	1.874	.236	.563	.141	.110	.190	2	
#4 - 48UNF	T7182	T7182C	H2	1.874	.236	.563	.141	.110	.190	2	
#5 - 40UNC	T7202	T7202C	H2	1.937	.236	.626	.141	.110	.190	3	
#5 - 44UNF	T7222	T7222C	H2	1.937	.236	.626	.141	.110	.190	3	
#6 - 32UNC	T7243	T7243C	H3	2.000	.276	.689	.141	.110	.190	3	
#6 - 40UNF	T7262	T7262C	H2	2.000	.276	.689	.141	.110	.190	3	
#8 - 32UNC	T7283	T7283C	H3	2.126	.276	.752	.168	.131	.250	3	
#8 - 36UNF	T7302	T7302C	H2	2.126	.276	.752	.168	.131	.250	3	
#10 - 24UNC	T7323	T7323C	H3	2.374	.354	.906	.194	.152	.250	3	
#10 - 32UNF	T7343	T7343C	H3	2.374	.276	.906	.194	.152	.250	3	
#12 - 24UNC	T7363	T7363C	H3	2.374	.354	.906	.220	.165	.280	3	
#12 - 28UNF	T7383	T7383C	H3	2.374	.276	.906	.220	.165	.280	3	
1/4 - 20UNC	T7405	T7405C	H5	2.500	.433	1.000	.255	.191	.310	3	
1/4 - 28UNF	T7424	T7424C	H4	2.500	.354	1.000	.255	.191	.310	3	
5/16 - 18UNC	T7445	T7445C	H5	2.720	.472	1.126	.318	.238	.380	3	
5/16 - 24UNF	T7465	T7465C	H4	2.720	.394	1.126	.318	.238	.380	3	
3/8 - 16UNC	T7485	T7485C	H5	2.937	.551	1.252	.381	.286	.440	3	
3/8 - 24UNF	T7504	T7504C	H4	2.937	.394	1.252	.381	.286	.440	3	
7/16 - 14UNC	T7525	T7525C	H5	3.157	.591	1.850	.323	.242	.410	3	
7/16 - 20UNF	T7545	T7545C	H5	3.157	.472	1.850	.323	.242	.410	3	
1/2 - 13UNC	T7565	T7565C	H5	3.374	.630	2.067	.367	.275	.440	3	
1/2 - 20UNF	T7585	T7585C	H5	3.374	.472	2.067	.367	.275	.440	3	
9/16 - 12UNC	T7605	T7605C	H5	3.594	.709	2.067	.429	.322	.500	3	
9/16 - 18UNF	T7625	T7625C	H5	3.594	.512	2.067	.429	.322	.500	3	
5/8 - 11UNC	T7645	T7645C	H5	3.811	.748	2.205	.480	.360	.560	4	
5/8 - 18UNF	T7665	T7665C	H5	3.811	.512	2.205	.480	.360	.560	4	

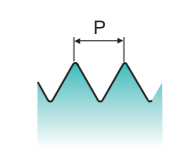
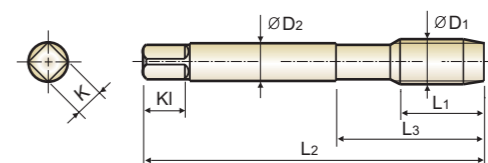
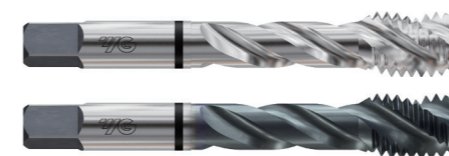
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◎ : Excellent ○ : Good

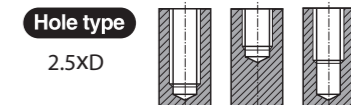
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRC	13	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										
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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		◎				◎	◎	◎													

SPIRAL FLUTE for Multipurpose



Short Chamfer



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiCN								
D1					L2	L1	L3	D2	K	KI	
3/4 - 10UNC	T7705	T7705C	H5	4.252	.827	2.480	.590	.442	.690	4	
3/4 - 16UNF	T7725	T7725C	H5	4.252	.591	2.480	.590	.442	.690	4	
7/8 - 9UNC	T7746	T7746C	H6	4.689	.827	2.815	.697	.523	.750	4	
7/8 - 14UNF	T7766	T7766C	H6	4.689	.709	2.815	.697	.523	.750	4	
1" - 8UNC	T7786	T7786C	H6	5.126	.984	3.091	.800	.600	.810	4	
1" - 12UNF	T7806	T7806C	H6	5.126	.709	3.091	.800	.600	.810	4	

- ▶ Coating(TiN, TiAlN or Hardslick) or Surface Treatment(Steam Oxide) is available on your request.
- ▶ Coating Codes for Combo Tap
Bright Finish No. + N(TiN), F(TiAlN), H(Hardslick), S(Steam Oxide)

◎ : Excellent ○ : Good

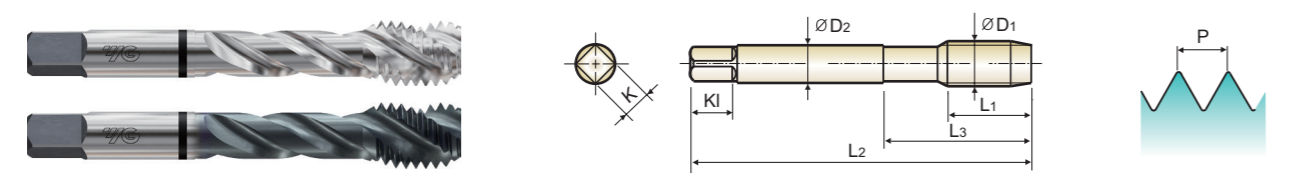
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRC	13	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										
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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		◎				◎	◎	◎													

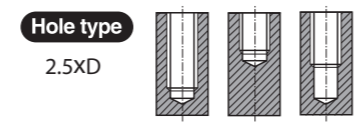


T9 SERIES
T9-C SERIES

SPIRAL FLUTE for Multipurpose



Short Chamfer



Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiCN								
M3	x 0.5	T9203	T9203C	D3	97mm	.197	.646	.141	.110	.190	3
M3.5	x 0.6	T9224	T9224C	D4	2.000	.276	.709	.141	.110	.190	3
M4	x 0.7	T9244	T9244C	D4	2.126	.276	.768	.168	.131	.250	3
M5	x 0.8	T9284	T9284C	D4	2.374	.354	.933	.194	.152	.250	3
M6	x 1.0	T9315	T9315C	D5	2.500	.433	1.000	.255	.191	.310	3
M7	x 1.0	T9345	T9345C	D5	2.720	.433	1.126	.318	.238	.380	3
M8	x 1.25	T9365	T9365C	D5	2.720	.472	1.126	.318	.238	.380	3
M8	x 1.0	T9375	T9375C	D5	2.720	.433	1.126	.318	.238	.380	3
M10	x 1.5	T9426	T9426C	D6	2.937	.512	1.252	.381	.286	.440	3
M10	x 1.25	T9435	T9435C	D5	2.937	.472	1.252	.381	.286	.440	3
M12	x 1.75	T9506	T9506C	D6	3.374	.591	2.067	.367	.275	.440	3
M12	x 1.25	T9525	T9525C	D5	3.374	.551	2.067	.367	.275	.440	3
M14	x 2.0	T9547	T9547C	D7	3.594	.709	2.067	.429	.322	.500	3
M14	x 1.5	T9556	T9556C	D6	3.594	.551	2.067	.429	.322	.500	3
M16	x 2.0	T9607	T9607C	D7	3.811	.709	2.205	.480	.360	.560	3
M16	x 1.5	T9616	T9616C	D6	3.811	.551	2.205	.480	.360	.560	3
M18	x 2.5	T9657	T9657C	D7	4.031	.787	2.205	.542	.406	.630	4
M18	x 1.5	T9676	T9676C	D6	4.031	.551	2.205	.542	.406	.630	4
M20	x 2.5	T9707	T9707C	D7	4.469	.787	2.480	.652	.489	.690	4
M20	x 1.5	T9726	T9726C	D6	4.469	.551	2.480	.652	.489	.690	4
M22	x 2.5	T9747	T9747C	D7	4.689	.787	2.815	.697	.523	.750	4
M22	x 1.5	T9766	T9766C	D6	4.689	.551	2.815	.697	.523	.750	4
M24	x 3.0	T9788	T9788C	D8	4.906	.945	2.815	.760	.570	.750	4

▶ Coating(TiN, TiAlN or Hardslick) or Surface Treatment(Steam Oxide) is available on your request.
▶ Coating Codes for Combo Tap
Bright Finish No. + N(TiN), F(TiAlN), H(Hardslick), S(Steam Oxide)

◎ : Excellent ○ : Good

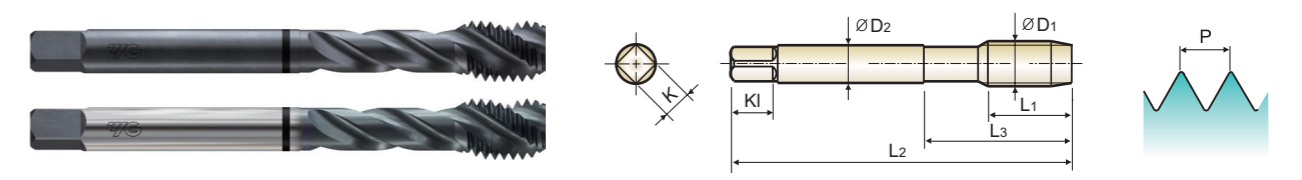
ISO	P										M			K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRC	13	25	28	32	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	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										
	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
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	◎	◎	◎	◎	◎	◎	◎	◎													

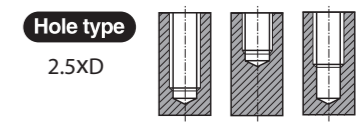


T1-S SERIES
T1-C SERIES

SPIRAL FLUTE for Multipurpose



DIN Length-ANSI Shank



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	TiCN								
#2	- 56UNC	T1082S	T1082C	H2	1.772	.157	.433	.141	.110	.190	2
#3	- 48UNC	T1122S	T1122C	H2	1.969	.197	.492	.141	.110	.190	2
#4	- 40UNC	T1162S	T1162C	H2	2.205	.236	.563	.141	.110	.190	2
#4	- 48UNF	T1182S	T1182C	H2	2.205	.236	.563	.141	.110	.190	2
#5	- 40UNC	T1202S	T1202C	H2	2.205	.236	.626	.141	.110	.190	3
#6	- 32UNC	T1243S	T1243C	H3	2.205	.276	.689	.141	.110	.190	3
#6	- 40UNF	T1262S	T1262C	H2	2.205	.276	.689	.141	.110	.190	3
#8	- 32UNC	T1283S	T1283C	H3	2.480	.276	.752	.168	.131	.250	3
#10	- 24UNC	T1323S	T1323C	H3	2.756	.354	.906	.194	.152	.250	3
#10	- 32UNF	T1343S	T1343C	H3	2.756	.276	.906	.194	.152	.250	3
#12	- 24UNC	T1363S	T1363C	H3	3.150	.354	.906	.220	.165	.280	3
#12	- 28UNF	T1383S	T1383C	H3	3.150	.276	.906	.220	.165	.280	3
1/4	- 20UNC	T1405S	T1405C	H5	3.150	.433	1.000	.255	.191	.310	3
1/4	- 28UNF	T1424S	T1424C	H4	3.150	.354	1.000	.255	.191	.310	3
5/16	- 18UNC	T1445S	T1445C	H5	3.543	.472	1.126	.318	.238	.380	3
5/16	- 24UNF	T1464S	T1464C	H4	3.543	.394	1.126	.318	.238	.380	3
3/8	- 16UNC	T1485S	T1485C	H5	3.937	.551	1.252	.381	.286	.440	3
3/8	- 24UNF	T1504S	T1504C	H4	3.937	.394	1.252	.381	.286	.440	3
7/16	- 14UNC	T1525S	T1525C	H5	3.937	.591	1.850	.323	.242	.410	3
7/16	- 20UNF	T1545S	T1545C	H5	3.937	.472	1.850	.323	.242	.410	3
1/2	- 13UNC	T1565S	T1565C	H5	4.331	.630	2.067	.367	.275	.440	3
1/2	- 20UNF	T1585S	T1585C	H5	3.937	.472	2.067	.367	.275	.440	3
9/16	- 12UNC	T1605S	T1605C	H5	4.331	.709	2.067	.429	.322	.500	3
9/16	- 18UNF	T1625S	T1625C	H5	3.937	.512	2.067	.429	.322	.500	3
5/8	- 11UNC	T1645S	T1645C	H5	4.331	.748	2.205	.480	.360	.560	4
5/8	- 18UNF	T1665S	T1665C	H5	3.937	.512	2.205	.480	.360	.560	4

▶ Steam Oxide is not recommended for Aluminum and Aluminum alloys.

▶ NEXT PAGE

◎ : Excellent ○ : Good

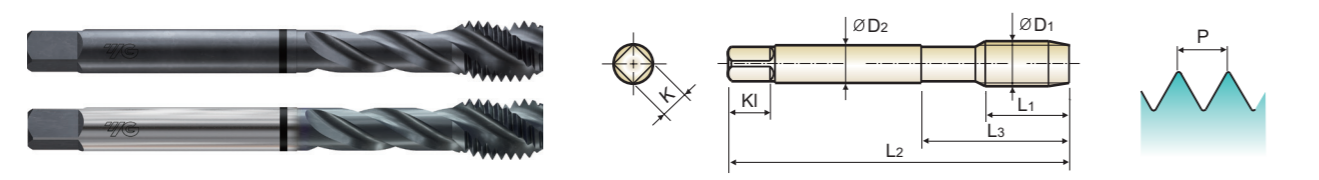
ISO	P										M			K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRC	13	25	28	32	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	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										
	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
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	◎	◎	◎	◎	◎	◎	◎	◎													

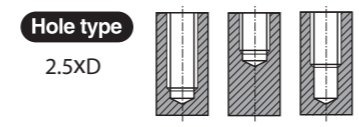


T1-S SERIES
T1-C SERIES

SPIRAL FLUTE for Multipurpose



DIN Length-ANSI Shank



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	TiCN								
3/4	- 10UNC	T1705S	T1705C	H5	4.921	.827	2.480	.590	.442	.690	4
3/4	- 16UNF	T1725S	T1725C	H5	4.331	.591	2.480	.590	.442	.690	4
7/8	9UNC	T1746S	T1746C	H6	5.512	.827	2.815	.697	.523	.750	4
7/8	14UNF	T1766S	T1766C	H6	4.921	.709	2.815	.697	.523	.750	4
1"	8UNC	T1786S	T1786C	H6	6.299	.984	3.091	.800	.600	.810	4
1"	12UNF	T1806S	T1806C	H6	5.512	.709	3.091	.800	.600	.810	4

► Steam Oxide is not recommended for Aluminum and Aluminum alloys.

◎ : Excellent ○ : Good

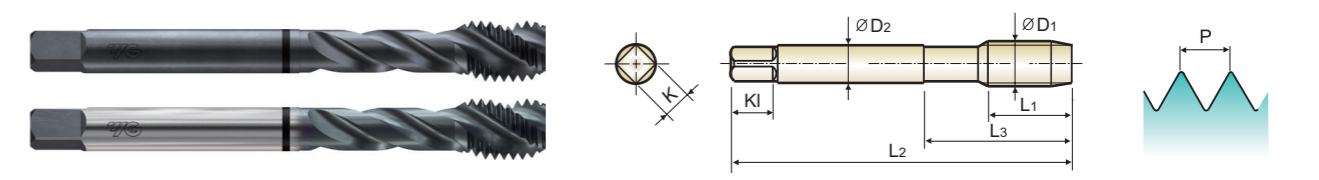
ISO	P										M			K							
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel			Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRC	13	25	28	32	38	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									
	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		
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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		◎				◎	◎	◎													

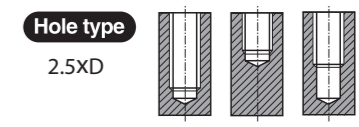


TA-S SERIES
TA-C SERIES

SPIRAL FLUTE for Multipurpose



DIN Length-ANSI Shank



Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	TiCN								
M3	x 0.5	TA203S	TA203C	D3	2.205	.197	.646	.141	.110	.190	3
M3.5	x 0.6	TA224S	TA224C	D4	2.205	.276	.709	.141	.110	.190	3
M4	x 0.7	TA244S	TA244C	D4	2.480	.276	.768	.168	.131	.250	3
M5	x 0.8	TA284S	TA284C	D4	2.756	.354	.933	.194	.152	.250	3
M6	x 1.0	TA315S	TA315C	D5	3.150	.433	1.000	.255	.191	.310	3
M7	x 1.0	TA345S	TA345C	5	3.150	.433	1.126	.318	.238	.380	3
M8	x 1.25	TA365S	TA365C	D5	3.543	.472	1.126	.318	.238	.380	3
M8	x 1.0	TA375S	TA375C	D5	3.543	.433	1.126	.318	.238	.380	3
M10	x 1.5	TA426S	TA426C	D6	3.937	.512	1.252	.381	.286	.440	3
M10	x 1.25	TA435S	TA435C	D5	3.937	.472	1.252	.381	.286	.440	3
M12	x 1.75	TA506S	TA506C	D6	4.331	.591	2.067	.367	.275	.440	3
M12	x 1.5	TA51AS	TA51AC	D11	3.937	.551	2.067	.367	.275	.440	3
M12	x 1.25	TA525S	TA525C	D5	3.937	.551	2.067	.367	.275	.440	3
M14	x 2.0	TA547S	TA547C	D7	4.331	.709	2.067	.429	.322	.500	3
M14	x 1.5	TA556S	TA556C	D6	3.937	.551	2.067	.429	.322	.500	3
M16	x 2.0	TA607S	TA607C	D7	4.331	.709	2.205	.480	.360	.560	3
M16	1.5	TA616S	TA616C	D6	3.937	.551	2.205	.480	.360	.560	3
M18	2.5	TA657S	TA657C	D7	4.921	.787	2.205	.542	.406	.630	4
M18	1.5	TA676S	TA676C	D6	4.331	.551	2.205	.542	.406	.630	4
M20	1.5	TA726S	TA726C	D6	4.921	.551	2.480	.652	.489	.690	4
M20	2.5	TA707S	TA707C	D7	5.512	.787	2.815	.652	.489	.690	4

► Steam Oxide is not recommended for Aluminum and Aluminum alloys.

◎ : Excellent ○ : Good

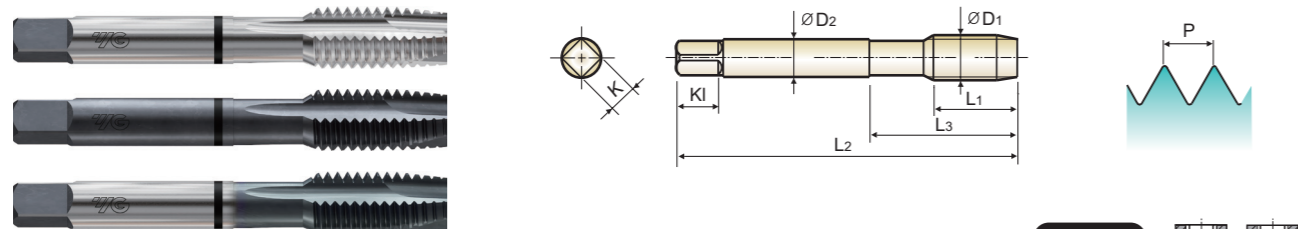
ISO	P										M			K							
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel			Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRC	13	25	28	32	38	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									
	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		
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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		◎				◎	◎	◎													



T4 SERIES
T4-S SERIES
T4-C SERIES

SPIRAL POINT for Multipurpose



Material groups: **MU** HSS-E UNC UNF USCTI 302A 4P~5P Bright Steam Oxide TiCN

Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	TiCN								
#2 - 56UNC		T4082	T4082S	T4082C	H2	1.752	.256	.433	.141	.110	.190	2
#3 - 48UNC		T4122	T4122S	T4122C	H2	1.811	.295	.492	.141	.110	.190	2
#4 - 40UNC		T4162	T4162S	T4162C	H2	1.874	.335	.563	.141	.110	.190	2
#4 - 40UNC		T4163	T4163S	T4163C	H3	1.874	.335	.563	.141	.110	.190	2
#4 - 40UNC		T4164	T4164S	T4164C	H4	1.874	.335	.563	.141	.110	.190	2
#4 - 40UNC		T4165	T4165S	T4165C	H5	1.874	.335	.563	.141	.110	.190	2
#4 - 48UNF		T4182	T4182S	T4182C	H2	1.874	.335	.563	.141	.110	.190	2
#5 - 40UNC		T4202	T4202S	T4202C	H2	1.937	.374	.626	.141	.110	.190	3
#5 - 44UNF		T4222	T4222S	T4222C	H2	1.937	.374	.626	.141	.110	.190	3
#6 - 32UNC		T4243	T4243S	T4243C	H3	2.000	.413	.689	.141	.110	.190	3
#6 - 32UNC		T4242	T4242S	T4242C	H2	2.000	.413	.689	.141	.110	.190	3
#6 - 32UNC		T4244	T4244S	T4244C	H4	2.000	.413	.689	.141	.110	.190	3
#6 - 32UNC		T4245	T4245S	T4245C	H5	2.000	.413	.689	.141	.110	.190	3
#6 - 32UNC		T4246	T4246S	T4246C	H6	2.000	.413	.689	.141	.110	.190	3
#6 - 32UNC		T4247	T4247S	T4247C	H7	2.000	.413	.689	.141	.110	.190	3
#6 - 32UNC		T424A	T424AS	T424AC	H11	2.000	.413	.689	.141	.110	.190	3
#6 - 40UNF		T4262	T4262S	T4262C	H2	2.000	.413	.689	.141	.110	.190	3
#8 - 32UNC		T4283	T4283S	T4283C	H3	2.126	.453	.752	.168	.131	.250	3
#8 - 32UNC		T4282	T4282S	T4282C	H2	2.126	.453	.752	.168	.131	.250	3
#8 - 32UNC		T4284	T4284S	T4284C	H4	2.126	.453	.752	.168	.131	.250	3
#8 - 32UNC		T4285	T4285S	T4285C	H5	2.126	.453	.752	.168	.131	.250	3
#8 - 32UNC		T4286	T4286S	T4286C	H6	2.126	.453	.752	.168	.131	.250	3
#8 - 32UNC		T4287	T4287S	T4287C	H7	2.126	.453	.752	.168	.131	.250	3
#8 - 32UNC		T428A	T428AS	T428AC	H11	2.126	.453	.752	.168	.131	.250	3
#8 - 36UNF		T4302	T4302S	T4302C	H2	2.126	.453	.752	.168	.131	.250	3
#10 - 24UNC		T4323	T4323S	T4323C	H3	2.374	.531	.906	.194	.152	.250	3

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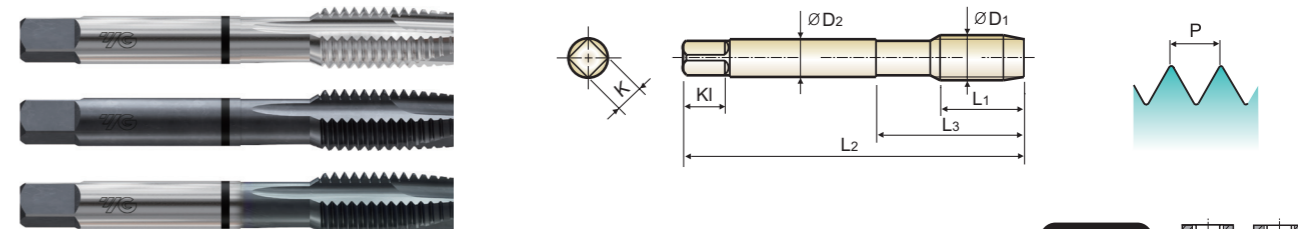
◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	30	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	○	◎	◎	◎	◎	◎	◎	◎	◎	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	



T4 SERIES
T4-S SERIES
T4-C SERIES

SPIRAL POINT for Multipurpose



Material groups: **MU** HSS-E UNC UNF USCTI 302A 4P~5P Bright Steam Oxide TiCN

Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	TiCN								
#10 - 24UNC		T4325	T4325S	T4325C	H5	2.374	.531	.906	.194	.152	.250	3
#10 - 24UNC		T432A	T432AS	T432AC	H11	2.374	.531	.906	.194	.152	.250	3
#10 - 32UNC		T4343	T4343S	T4343C	H3	2.374	.531	.906	.194	.152	.250	3
#10 - 32UNC		T4342	T4342S	T4342C	H2	2.374	.531	.906	.194	.152	.250	3
#10 - 32UNC		T4344	T4344S	T4344C	H4	2.374	.531	.906	.194	.152	.250	3
#10 - 32UNC		T4345	T4345S	T4345C	H5	2.374	.531	.906	.194	.152	.250	3
#10 - 32UNC		T4346	T4346S	T4346C	H6	2.374	.531	.906	.194	.152	.250	3
#10 - 32UNC		T4347	T4347S	T4347C	H7	2.374	.531	.906	.194	.152	.250	3
#10 - 32UNC		T434A	T434AS	T434AC	H11	2.374	.531	.906	.194	.152	.250	3
#12 - 24UNC		T4363	T4363S	T4363C	H3	2.374	.571	.906	.220	.165	.280	3
#12 - 28UNF		T4383	T4383S	T4383C	H3	2.374	.571	.906	.220	.165	.280	3
1/4 - 20UNC		T4403	T4403S	T4403C	H3	2.500	.591	1.000	.255	.191	.310	3
1/4 - 20UNC		T4405	T4405S	T4405C	H5	2.500	.591	1.000	.255	.191	.310	3
1/4 - 20UNC		T4402	T4402S	T4402C	H2	2.500	.591	1.000	.255	.191	.310	3
1/4 - 20UNC		T4407	T4407S	T4407C	H7	2.500	.591	1.000	.255	.191	.310	3
1/4 - 20UNC		T440A	T440AS	T440AC	H11	2.500	.591	1.000	.255	.191	.310	3
1/4 - 28UNF		T4423	T4423S	T4423C	H3	2.500	.591	1.000	.255	.191	.310	3
1/4 - 28UNF		T4424	T4424S	T4424C	H4	2.500	.591	1.000	.255	.191	.310	3
1/4 - 28UNF		T4422	T4422S	T4422C	H2	2.500	.591	1.000	.255	.191	.310	3
1/4 - 28UNF		T4425	T4425S	T4425C	H5	2.500	.591	1.000	.255	.191	.310	3
1/4 - 28UNF		T4426	T4426S	T4426C	H6	2.500	.591	1.000	.255	.191	.310	3
1/4 - 28UNF		T4427	T4427S	T4427C	H7	2.500	.591	1.000	.255	.191	.310	3
1/4 - 28UNF		T442A	T442AS	T442AC	H11	2.500	.591	1.000	.255	.191	.310	3
5/16 - 18UNC		T4443	T4443S	T4443C	H3	2.720	.669	1.126	.318	.238	.380	3
5/16 - 18UNC		T4445	T4445S	T4445C	H5	2.720	.669	1.126	.318	.238	.380	3
5/16 - 18UNC		T4447	T4447S	T4447C	H7	2.720	.669	1.126	.318	.238	.380	3

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	30	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	○	◎	◎	◎	◎	○	◎	◎	◎	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	



T4 SERIES
T4-S SERIES
T4-C SERIES

SPIRAL POINT for Multipurpose

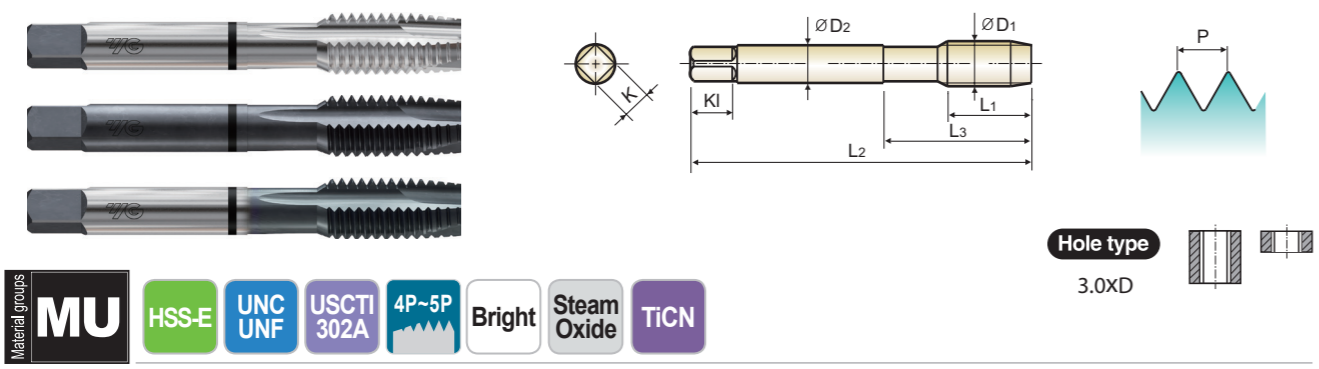


Table with 13 columns: Size (D1, TPI), EDP No. (Bright, Steam Oxide, TiCN), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), and No. of Flute. Lists various sizes from 5/16 to 7/16 inches.

Unit : Inch

▶ NEXT PAGE

ISO material compatibility chart for T4 series. Columns include Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel, and tool steel), M (Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), S (Aluminum-wrought alloy, Aluminum-cast, alloyed, Copper and Copper Alloys, Non Metallic Materials, Heat Resistant Super Alloys, Titanium Alloys), and H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

T4 SERIES
T4-S SERIES
T4-C SERIES



SPIRAL POINT for Multipurpose

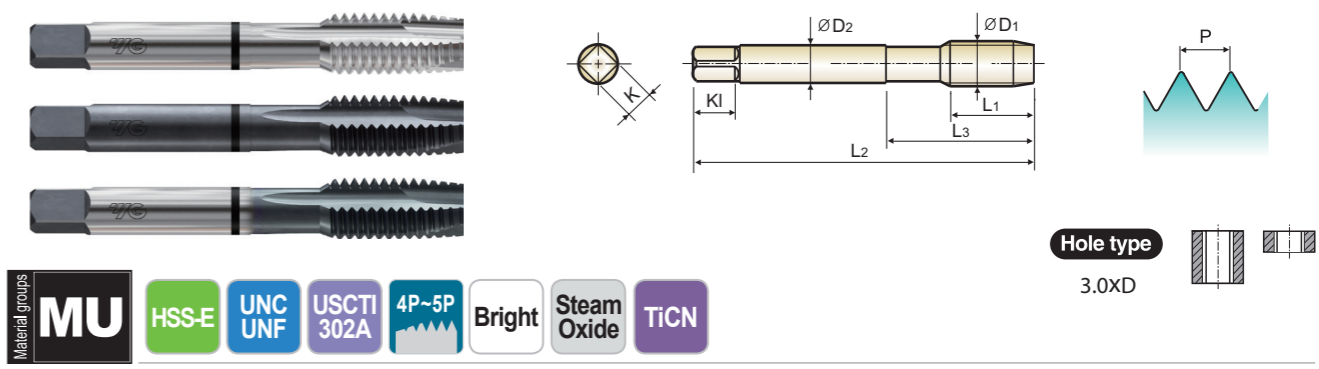


Table with 13 columns: Size (D1, TPI), EDP No. (Bright, Steam Oxide, TiCN), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), and No. of Flute. Lists various sizes from 7/16 to 7/8 inches.

Unit : Inch

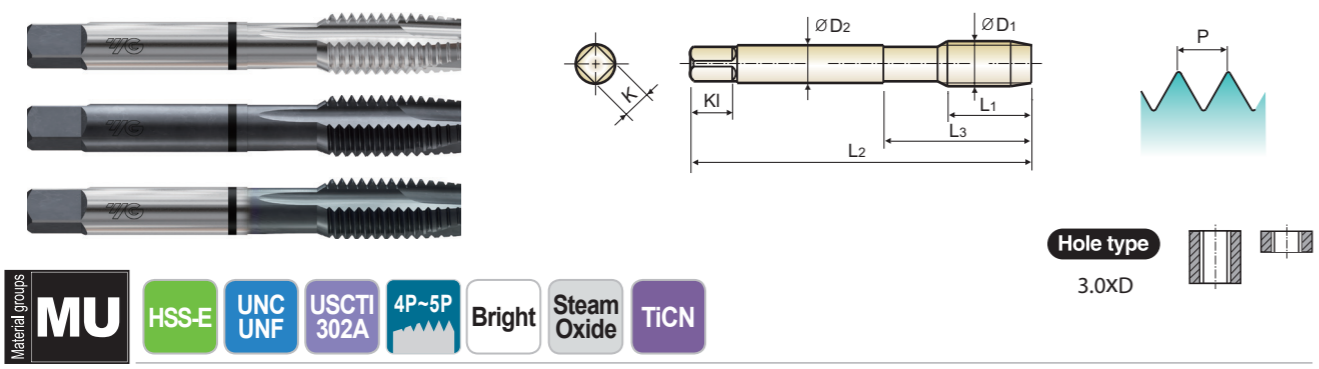
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ISO material compatibility chart for T4 series. Columns include Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel, and tool steel), M (Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), S (Aluminum-wrought alloy, Aluminum-cast, alloyed, Copper and Copper Alloys, Non Metallic Materials, Heat Resistant Super Alloys, Titanium Alloys), and H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).



T4 SERIES
T4-S SERIES
T4-C SERIES

SPIRAL POINT for Multipurpose



Material groups: MU, HSS-E, UNC UNF, USCTI 302A, 4P~5P, Bright, Steam Oxide, TiCN

Unit : Inch

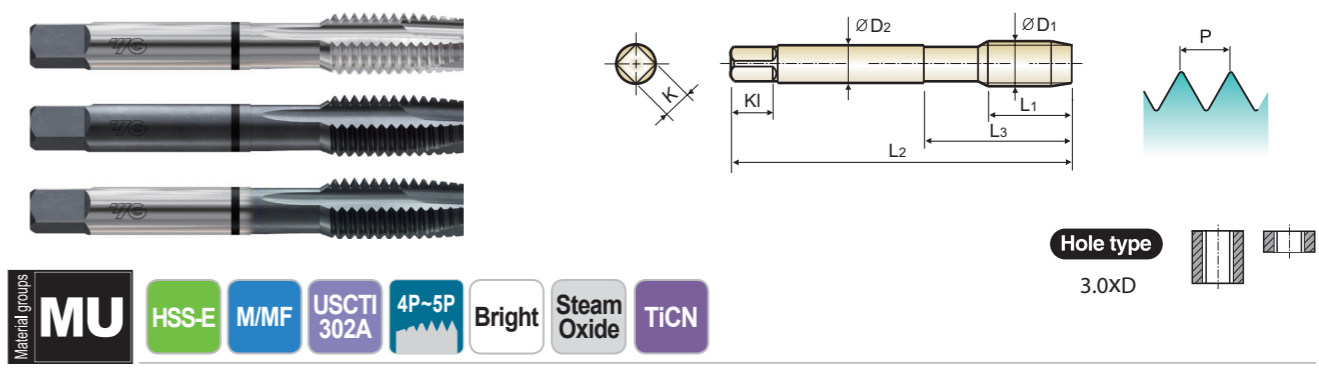
Table with 13 columns: Size (D1, TPI), EDP No. (Bright, Steam Oxide, TiCN), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute.

ISO material compatibility chart for T4 series. Columns include Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel), M (Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), S (Aluminum-wrought alloy, Aluminum-cast, alloyed, Copper and Copper Alloys, Non Metallic Materials, Heat Resistant Super Alloys, Titanium Alloys), and H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

T3 SERIES
T3-S SERIES
T3-C SERIES



SPIRAL POINT for Multipurpose



Material groups: MU, HSS-E, M/MF, USCTI 302A, 4P~5P, Bright, Steam Oxide, TiCN

Unit : Inch

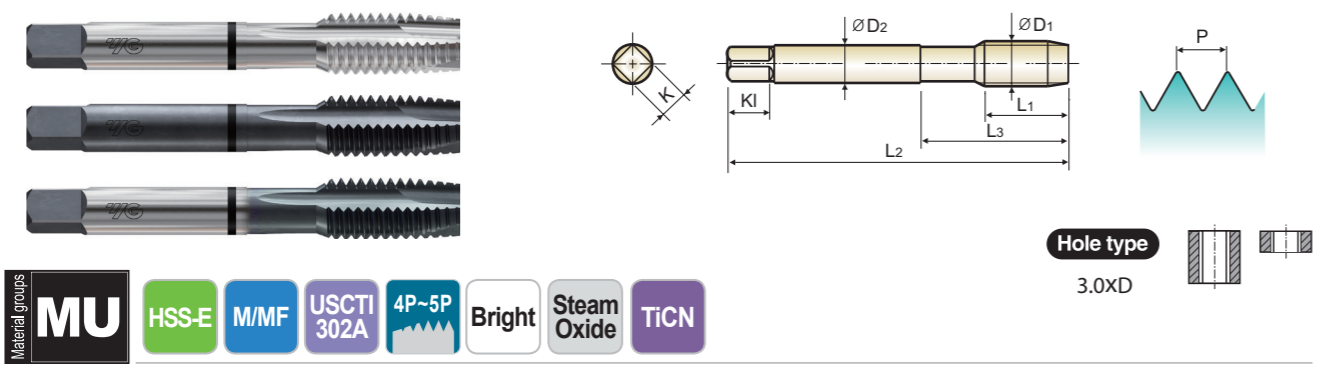
Table with 13 columns: Size (D1, Pitch), EDP No. (Bright, Steam Oxide, TiCN), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute.

ISO material compatibility chart for T3 series. Columns include Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel), M (Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), S (Aluminum-wrought alloy, Aluminum-cast, alloyed, Copper and Copper Alloys, Non Metallic Materials, Heat Resistant Super Alloys, Titanium Alloys), and H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).



T3 SERIES
T3-S SERIES
T3-C SERIES

SPIRAL POINT for Multipurpose



Material groups: **MU** HSS-E M/MF USCTI 302A 4P~5P Bright Steam Oxide TiCN

Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	TiCN								
M12	x 1.25	T3525	T3525S	T3525C	D5	3.374	.984	1.657	.367	.275	.440	3
M12	x 1.25	T352A	T352AS	T352AC	D11	3.374	.984	1.657	.367	.275	.440	3
M14	x 2.0	T3547	T3547S	T3547C	D7	3.594	.984	1.657	.429	.322	.500	3
M14	x 1.5	T3556	T3556S	T3556C	D6	3.594	.984	1.657	.429	.322	.500	3
M16	x 2.0	T3607	T3607S	T3607C	D7	3.811	1.083	1.811	.480	.360	.560	3
M16	x 1.5	T3616	T3616S	T3616C	D6	3.811	1.083	1.811	.480	.360	.560	3
M18	x 2.5	T3657	T3657S	T3657C	D7	4.031	1.083	1.811	.542	.406	.630	3
M18	x 1.5	T3676	T3676S	T3676C	D6	4.031	1.083	1.811	.542	.406	.630	3
M20	x 2.5	T3707	T3707S	T3707C	D7	4.469	1.201	2.000	.652	.489	.690	3
M20	x 1.5	T3726	T3726S	T3726C	D6	4.469	1.201	2.000	.652	.489	.690	3
M22	x 2.5	T3747	T3747S	T3747C	D7	4.689	1.339	2.220	.697	.523	.750	3
M22	x 1.5	T3766	T3766S	T3766C	D6	4.689	1.339	2.220	.697	.523	.750	3
M24	x 3.0	T3788	T3788S	T3788C	D8	4.906	1.339	2.220	.760	.570	.750	3
M24	x 1.5	T3806	T3806S	T3806C	D6	4.906	1.339	2.220	.760	.570	.750	3
M27	x 1.5	T3886	T3886S	T3886C	D6	5.126	1.496	2.500	.896	.672	.880	4
M27	x 3.0	T3868	T3868S	T3868C	D8	5.126	1.496	2.500	.896	.672	.880	4
M30	x 1.5	T3976	T3976S	T3976C	D6	5.437	1.535	2.638	1.021	.766	1.000	4
M30	x 3.0	T3949	T3949S	T3949C	D9	5.437	1.535	2.638	1.021	.766	1.000	4
M30	x 3.5	T3949	T3949S	T3949C	D9	5.437	1.535	2.638	1.021	.766	1.000	4

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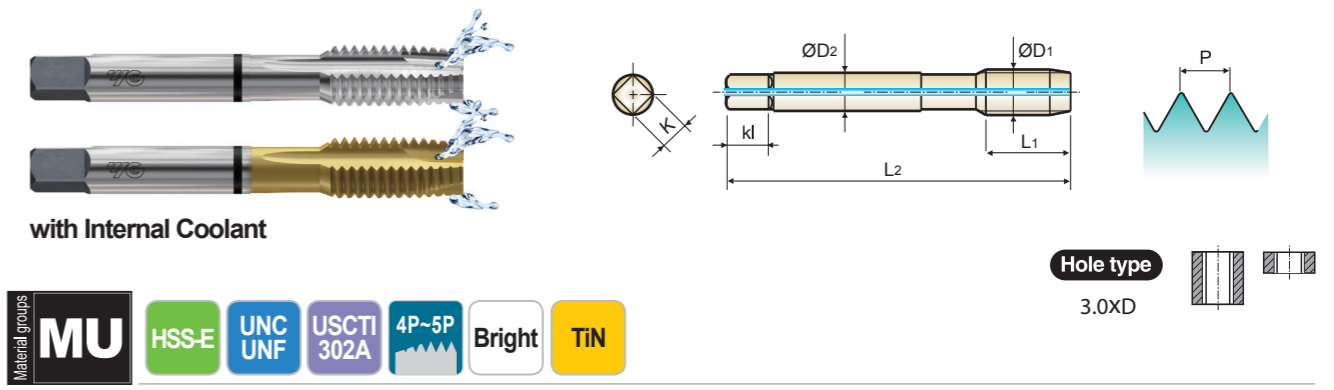
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRC	13	25	28	32	38	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										
	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						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	○	○	○	○	○	○	○	○			○	○	○	○	○	○	○	○	○	○	○



TB SERIES
TB-N SERIES

SPIRAL POINT for Multipurpose



Material groups: **MU** HSS-E UNC UNF USCTI 302A 4P~5P Bright TiN

Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiN								
1/4	- 20UNC	TB405	TB405N	H5	2.500	.591	1.000	.255	.191	.310	3
1/4	- 28UNF	TB424	TB424N	H4	2.500	.591	1.000	.255	.191	.310	3
5/16	- 18UNF	TB445	TB445N	H5	2.720	.669	1.126	.318	.238	.380	3
5/16	- 24UNF	TB464	TB464N	H4	2.720	.669	1.126	.318	.238	.380	3
3/8	- 16UNC	TB485	TB485N	H5	2.937	.748	1.252	.381	.286	.440	3
3/8	- 24UNF	TB504	TB504N	H4	2.937	.748	1.252	.381	.286	.440	3
7/16	- 14UNC	TB525	TB525N	H5	3.157	.866	1.437	.323	.242	.410	3
7/16	- 20UNF	TB545	TB545N	H5	3.157	.866	1.437	.323	.242	.410	3
1/2	- 13UNC	TB565	TB565N	H5	3.374	.984	1.657	.367	.275	.440	3
1/2	- 20UNF	TB585	TB585N	H5	3.374	.984	1.657	.367	.275	.440	3
9/16	- 12UNC	TB605	TB605N	H5	3.594	.984	1.657	.429	.322	.500	3
9/16	- 18UNF	TB625	TB625N	H5	3.594	.984	1.657	.429	.322	.500	3
5/8	- 11UNC	TB645	TB645N	H5	3.811	1.083	1.811	.480	.360	.560	3
5/8	- 18UNF	TB665	TB665N	H5	3.811	1.083	1.811	.480	.360	.560	3
3/4	- 10UNC	TB705	TB705N	H5	4.252	1.201	2.000	.590	.442	.690	3
3/4	- 16UNF	TB725	TB725N	H5	4.252	1.201	2.000	.590	.442	.690	3
7/8	- 9UNC	TB746	TB746N	H6	4.689	1.339	2.220	.697	.523	.750	3
7/8	- 14UNF	TB766	TB766N	H6	4.689	1.339	2.220	.697	.523	.750	3
1"	- 8UNC	TB786	TB786N	H6	5.126	1.496	2.500	.800	.600	.810	3
1"	- 12UNF	TB806	TB806N	H6	5.126	1.496	2.500	.800	.600	.810	3

- Coating(TiCN, TiAlN or Hardslick) or Surface Treatment(Steam Oxide) is available on your request.
- Coating Codes for Combo Tap
 Bright Finish No. + N(TiN), F(TiAlN), H(Hardslick), S(Steam Oxide)

© : Excellent ○ : Good

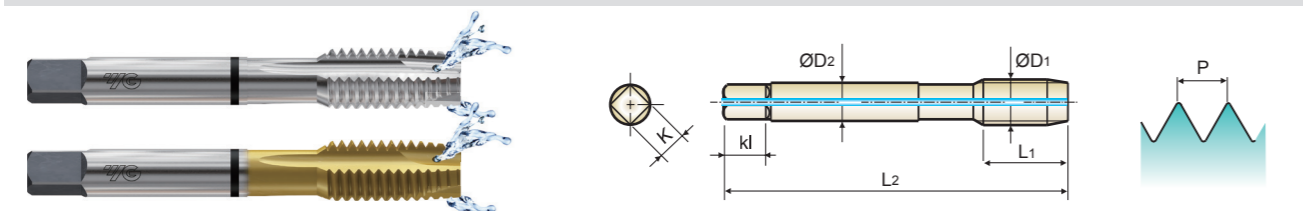
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRC	13	25	28	32	38	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										
	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						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	○	○	○	○	○	○	○	○			○	○	○	○	○	○	○	○	○	○	○



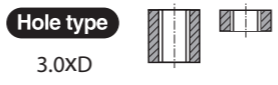
TH SERIES
TH-N SERIES

SPIRAL POINT for Multipurpose



with Internal Coolant

Material groups: **MU** HSS-E UNC UNF USCTI 302A 4P~5P Bright TiN



Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiN								
M6	x 1.0	TH315	TH315N	D5	2.500	.591	1.000	.255	.191	.310	3
M8	x 1.25	TH365	TH365N	D5	2.720	.669	1.126	.318	.238	.380	3
M10	x 1.5	TH426	TH426N	D6	2.937	.748	1.252	.381	.286	.440	3
M12	x 1.75	TH506	TH506N	D6	3.374	.984	1.657	.367	.275	.440	3
M14	x 2.0	TH547	TH547N	D7	3.594	.984	1.657	.429	.322	.500	3
M16	x 2.0	TH607	TH607N	D7	3.811	1.083	1.811	.480	.360	.560	3
M18	x 2.5	TH657	TH657N	D7	4.031	1.083	1.811	.542	.406	.630	3
M20	x 2.5	TH707	TH707N	D7	4.469	1.201	2.000	.652	.489	.690	3

- ▶ Coating(TiCN, TiAlN or Hardslick) or Surface Treatment(Steam Oxide) is available on your request.
- ▶ Coating Codes for Combo Tap
Bright Finish No. + C(TiCN), F(TiAlN), H(Hardslick), S(Steam Oxide)

◎ : Excellent ○ : Good

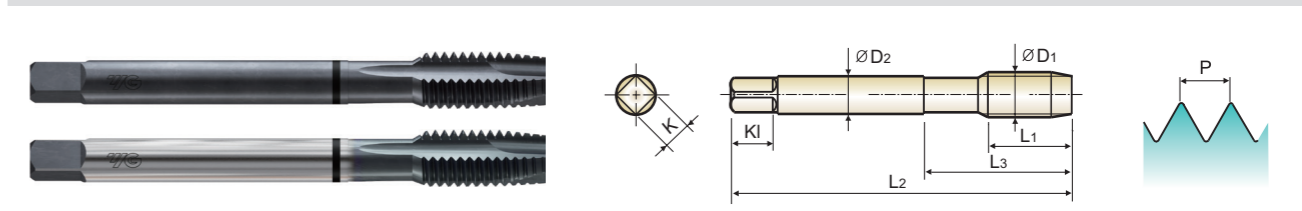
ISO	P										M			K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel			Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron		
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	38	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	◎	◎	◎	◎	◎	◎	◎	◎													



TC-S SERIES
TC-C SERIES

SPIRAL POINT for Multipurpose



DIN Length-ANSI Shank

Material groups: **MU** HSS-E UNC UNF 4P~5P Steam Oxide TiCN



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	TiCN								
#4	- 40UNC	TC162S	TC162C	H2	2.205	.335	.563	.141	.110	.190	2
#5	- 40UNC	TC202S	TC202C	H2	2.205	.374	.626	.141	.110	.190	3
#6	- 32UNC	TC243S	TC243C	H3	2.205	.413	.689	.141	.110	.190	3
#8	- 32UNC	TC283S	TC283C	H3	2.480	.453	.752	.168	.131	.250	3
#10	- 24UNC	TC323S	TC323C	H3	2.756	.531	.906	.194	.152	.250	3
#10	- 32UNF	TC343S	TC343C	H3	2.756	.531	.906	.194	.152	.250	3
#12	- 24UNC	TC363S	TC363C	H3	3.150	.571	.906	.220	.165	.280	3
#12	- 28UNF	TC383S	TC383C	H3	3.150	.571	.906	.220	.165	.280	3
1/4	- 20UNC	TC405S	TC405C	H5	3.150	.591	1.000	.255	.191	.310	3
1/4	- 28UNF	TC424S	TC424C	H4	3.150	.591	1.000	.255	.191	.310	3
5/16	- 18UNC	TC445S	TC445C	H5	3.543	.669	1.126	.318	.238	.380	3
5/16	- 24UNF	TC464S	TC464C	H4	3.543	.669	1.126	.318	.238	.380	3
3/8	- 16UNC	TC485S	TC485C	H5	3.937	.748	1.252	.381	.286	.440	3
3/8	- 24UNF	TC504S	TC504C	H4	3.937	.748	1.252	.381	.286	.440	3
7/16	- 14UNC	TC525S	TC525C	H5	3.937	.866	1.437	.323	.242	.410	3
7/16	- 20UNF	TC545S	TC545C	H5	3.937	.866	1.437	.323	.242	.410	3
1/2	- 13UNC	TC565S	TC565C	H5	4.331	.984	1.657	.367	.275	.440	3
1/2	- 20UNF	TC585S	TC585C	H5	3.937	.984	1.657	.367	.275	.440	3
9/16	- 12UNC	TC605S	TC605C	H5	4.331	.984	1.657	.429	.322	.500	3
9/16	- 18UNF	TC625S	TC625C	H5	3.937	.984	1.657	.429	.322	.500	3
5/8	- 11UNC	TC645S	TC645C	H5	4.331	1.083	1.811	.480	.360	.560	3
5/8	- 18UNF	TC665S	TC665C	H5	3.937	1.083	1.811	.480	.360	.560	3
3/4	- 10UNC	TC705S	TC705C	H5	4.921	1.201	2.000	.590	.442	.690	3
3/4	- 16UNF	TC725S	TC725C	H5	4.331	1.201	2.000	.590	.442	.690	3
7/8	- 9UNC	TC746S	TC746C	H6	5.512	1.339	2.224	.697	.523	.750	3
7/8	- 14UNF	TC766S	TC766C	H6	4.921	1.339	2.224	.697	.523	.750	3
1"	- 8UNC	TC786S	TC786C	H6	6.299	1.496	2.500	.800	.600	.810	3
1"	- 12UNF	TC806S	TC806C	H6	5.512	1.496	2.500	.800	.600	.810	3

- ▶ Steam Oxide is not recommended for Aluminum and Aluminum alloys.

◎ : Excellent ○ : Good

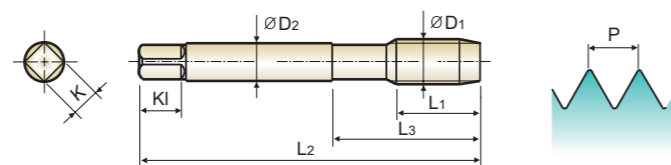
ISO	P										M			K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel			Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron		
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	38	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	◎	◎	◎	◎	◎	◎	◎	◎													



TK-S SERIES
TK-C SERIES

SPIRAL POINT for Multipurpose



DIN Length-ANSI Shank



Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	TiCN								
M3	x 0.5	TK203S	TK203C	D3	2.205	.374	.646	.141	.110	.190	3
M3.5	x 0.6	TK224S	TK224C	D4	2.205	.413	.709	.141	.110	.190	3
M4	x 0.7	TK244S	TK244C	D4	2.480	.453	.768	.168	.131	.250	3
M5	x 0.8	TK284S	TK284C	D4	2.756	.531	.933	.194	.152	.250	3
M6	x 1.0	TK315S	TK315C	D5	3.150	.591	1.000	.255	.191	.310	3
M7	x 1.0	T1345S	TK345C	D5	3.150	.669	1.126	.318	.238	.380	3
M8	x 1.00	T1375S	TK375C	D5	3.543	.669	1.126	.318	.238	.380	3
M8	x 1.25	TK365S	TK365C	D5	3.543	.669	1.126	.318	.238	.380	3
M10	x 1.5	TK426S	TK426C	D6	3.937	.748	1.252	.381	.286	.440	3
M10	x 1.25	TK435S	TK435C	D5	3.937	.748	1.252	.381	.286	.440	3
M12	x 1.75	TK506S	TK506C	D6	4.331	.984	1.657	.367	.275	.440	3
M12	x 1.50	T1516S	TK516C	D6	3.937	.984	1.657	.367	.275	.440	3
M12	x 1.25	TK525S	TK525C	D5	3.937	.984	1.657	.367	.275	.440	3
M14	x 2.0	TK547S	TK547C	D7	4.331	.984	1.657	.429	.322	.500	3
M14	x 1.5	TK556S	TK556C	D6	3.937	.984	1.657	.429	.322	.500	3
M16	x 2.0	TK607S	TK607C	D7	4.331	1.083	1.811	.480	.360	.560	3
M16	x 1.5	TK616S	TK616C	D6	3.937	1.083	1.811	.480	.360	.560	3
M18	x 2.5	TK657S	TK657C	D7	4.921	1.083	1.811	.542	.406	.630	3
M18	x 1.5	TK676S	TK676C	D6	4.331	1.083	1.811	.542	.406	.630	3
M20	x 1.5	TK676S	TK676C	D6	4.921	1.201	2.000	.652	.489	.690	3
M20	x 2.5	T1707S	TK707C	D7	5.512	1.201	2.224	.652	.489	.690	3

► Steam Oxide is not recommended for Aluminum and Aluminum alloys.

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
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					
	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		
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
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			◎			◎	◎	◎													



COMBO SPIRAL FLUTE TAP SETS

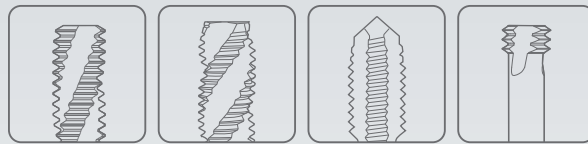


Series	Series	Standard	Surface Treatment	Size	Q'ty
T2836SET8	T2	UNC/F	Bright	1/4-20, 1/4-28, 5/16-18, 5-16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20	8 pcs
TG836SET8	T2-C	UNC/F	TiCN	1/4-20, 1/4-28, 5/16-18, 5-16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20	8 pcs
T2836SET8-1	T2	UNC/F	Bright	1/4-20, 1/4-28, 5/16-18, 5-16-24, 3/8-16, 3/8-24, 1/2-13, 1/2-20	8 pcs
TG836SET8-1	T2-C	UNC/F	TiCN	1/4-20, 1/4-28, 5/16-18, 5-16-24, 3/8-16, 3/8-24, 1/2-13, 1/2-20	8 pcs
T2805SET7	T5	M/MF	Bright	M3, M4, M5, M6, M8, M10, M12	7 pcs
TG805SET7	T5-C	M/MF	TiCN	M3, M4, M5, M6, M8, M10, M12	7 pcs

* Hardslick Coated Set available upon request



Global Cutting Tool Leader **YG-1**



THREADING



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YG TAP BLUE RING

- For Steels & Stainless Steels up to 35HRc

SELECTION GUIDE



HSS-PM YG TAP BLUE RING

- For Steels & Stainless Steels up to 35HRc



Please visit globalyg1.com/mat for material search

Table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and MODEL. It lists various materials like Non-alloy steel, Low alloy steel, Stainless steel, Grey cast iron, etc., and their corresponding tap models.

Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE. Values include Max. 2.5xD Blind Hole, HSS-PM, 2P-3P, Spiral Flute, R40.

Table with columns: SERIES, M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF. Values include BH (p.B119), BM (p.B119), BB (p.B116), BI (p.B116).

Table with columns: SURFACE TREATMENT / COATING. Values include Steam Oxide, HardSlick.

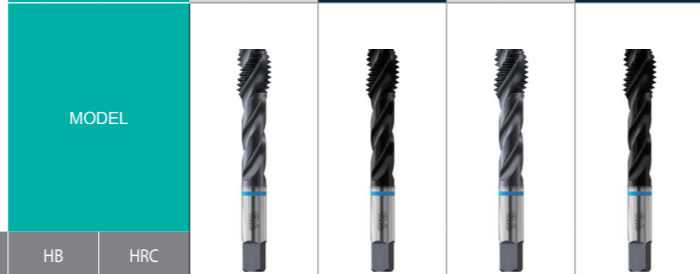


Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE. Values include Max. 2.5xD Blind Hole, HSS-PM, 2P-3P, 4P-5P, Spiral Flute, Spiral Point, R40.

Table with columns: SERIES, M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF. Values include BD (p.B122), BO (p.B122), N7 (p.B126), N8 (p.B126), N3 (p.B129), O3 (p.B129), BF (p.B120), BK (p.B120), M9 (p.B123), O1 (p.B123), N4 (p.B127), O5 (p.B127).

Table with columns: SURFACE TREATMENT / COATING. Values include Steam Oxide, HardSlick.

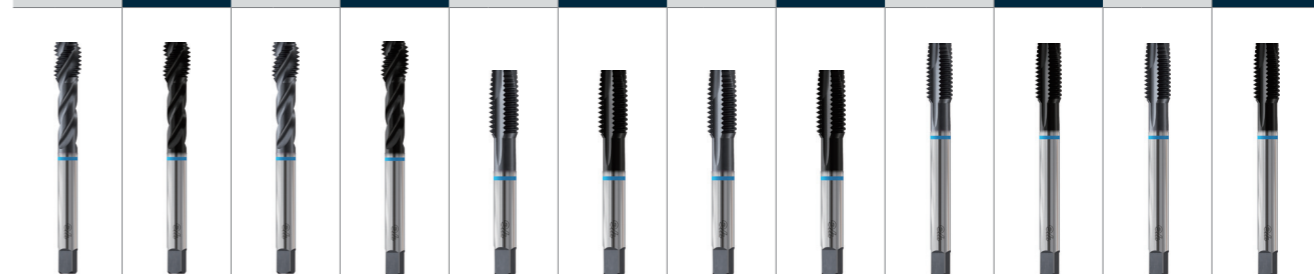
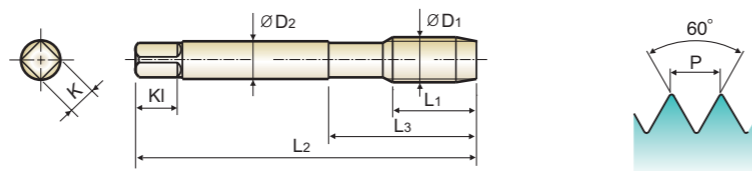


Table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and MODEL. It lists various materials like Non-alloy steel, Low alloy steel, Stainless steel, Grey cast iron, etc., and their corresponding tap models.

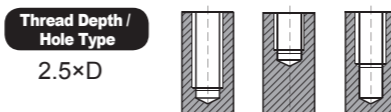


BB/BI SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE
for Steels & Stainless Steels



ANSI



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
#2	- 56UNC	BB082	BI082	H2	1.752	.157	.433	.141	.110	.190	2
#4	- 40UNC	BB162	BI162	H2	1.874	.236	.563	.141	.110	.190	2
#4	- 40UNC	BB163	BI163	H3	1.874	.236	.563	.141	.110	.190	2
#4	- 40UNC	BB164	BI164	H4	1.874	.236	.563	.141	.110	.190	2
#5	- 40UNC	BB202	BI202	H2	1.937	.236	.626	.141	.110	.190	3
#6	- 32UNC	BB242	BI242	H2	2.000	.276	.689	.141	.110	.190	3
#6	- 32UNC	BB243	BI243	H3	2.000	.276	.689	.141	.110	.190	3
#6	- 32UNC	BB244	BI244	H4	2.000	.276	.689	.141	.110	.190	3
#6	- 32UNC	BB245	BI245	H5	2.000	.276	.689	.141	.110	.190	3
#8	- 32UNC	BB282	BI282	H2	2.126	.276	.752	.168	.131	.250	3
#8	- 32UNC	BB283	BI283	H3	2.126	.276	.752	.168	.131	.250	3
#8	- 32UNC	BB284	BI284	H4	2.126	.276	.752	.168	.131	.250	3
#8	- 32UNC	BB285	BI285	H5	2.126	.276	.752	.168	.131	.250	3
#8	- 32UNC	BB286	BI286	H6	2.126	.276	.752	.168	.131	.250	3
#10	- 24UNC	BB323	BI323	H3	2.374	.354	.906	.194	.152	.250	3
#10	- 24UNC	BB325	BI325	H5	2.374	.354	.906	.194	.152	.250	3
#10	- 32UNF	BB342	BI342	H2	2.374	.276	.906	.194	.152	.250	3
#10	- 32UNF	BB343	BI343	H3	2.374	.276	.906	.194	.152	.250	3
#10	- 32UNF	BB344	BI344	H4	2.374	.276	.906	.194	.152	.250	3
#10	- 32UNF	BB345	BI345	H5	2.374	.276	.906	.194	.152	.250	3
#10	- 32UNF	BB346	BI346	H6	2.374	.276	.906	.194	.152	.250	3
1/4	- 20UNC	BB403	BI403	H3	2.500	.433	1.000	.255	.191	.310	3
1/4	- 20UNC	BB405	BI405	H5	2.500	.433	1.000	.255	.191	.310	3
1/4	- 28UNF	BB423	BI423	H3	2.500	.354	1.000	.255	.191	.310	3
1/4	- 28UNF	BB424	BI424	H4	2.500	.354	1.000	.255	.191	.310	3
1/4	- 28UNF	BB425	BI425	H5	2.500	.354	1.000	.255	.191	.310	3

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◎ : Excellent ○ : Good

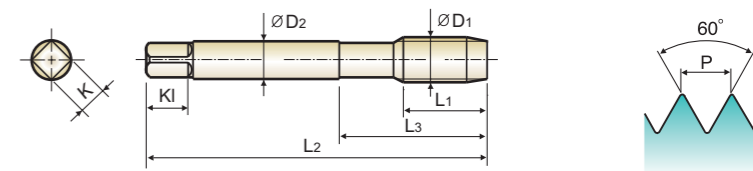
ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	38	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											
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

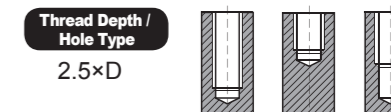


BB/BI SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE
for Steels & Stainless Steels



ANSI



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
1/4	- 28UNF	BB426	BI426	H6	2.500	.354	1.000	.255	.191	.310	3
5/16	- 18UNC	BB443	BI443	H3	2.720	.472	1.126	.318	.238	.380	3
5/16	- 18UNC	BB445	BI445	H5	2.720	.472	1.126	.318	.238	.380	3
5/16	- 24UNF	BB463	BI463	H3	2.720	.394	1.126	.318	.238	.380	3
5/16	- 24UNF	BB464	BI464	H4	2.720	.394	1.126	.318	.238	.380	3
5/16	- 24UNF	BB465	BI465	H5	2.720	.394	1.126	.318	.238	.380	3
5/16	- 24UNF	BB466	BI466	H6	2.720	.394	1.126	.318	.238	.380	3
3/8	- 16UNC	BB483	BI483	H3	2.937	.551	1.252	.381	.286	.440	3
3/8	- 16UNC	BB485	BI485	H5	2.937	.551	1.252	.381	.286	.440	3
3/8	- 24UNF	BB503	BI503	H3	2.937	.394	1.252	.381	.286	.440	3
3/8	- 24UNF	BB504	BI504	H4	2.937	.394	1.252	.381	.286	.440	3
3/8	- 24UNF	BB505	BI505	H5	2.937	.394	1.252	.381	.286	.440	3
3/8	- 24UNF	BB506	BI506	H6	2.937	.394	1.252	.381	.286	.440	3
7/16	- 14UNC	BB523	BI523	H3	3.157	.591	1.850	.323	.242	.410	3
7/16	- 14UNC	BB525	BI525	H5	3.157	.591	1.850	.323	.242	.410	3
7/16	- 20UNF	BB543	BI543	H3	3.157	.472	1.850	.323	.242	.410	3
7/16	- 20UNF	BB545	BI545	H5	3.157	.472	1.850	.323	.242	.410	3
1/2	- 13UNC	BB563	BI563	H3	3.374	.630	2.067	.367	.275	.440	3
1/2	- 13UNC	BB565	BI565	H5	3.374	.630	2.067	.367	.275	.440	3
1/2	- 20UNF	BB583	BI583	H3	3.374	.472	2.067	.367	.275	.440	3
1/2	- 20UNF	BB585	BI585	H5	3.374	.472	2.067	.367	.275	.440	3
9/16	- 12UNC	BB605	BI605	H5	3.594	.709	2.067	.429	.322	.500	3
9/16	- 18UNF	BB625	BI625	H5	3.594	.512	2.067	.429	.322	.500	3
5/8	- 11UNC	BB643	BI643	H3	3.811	.748	2.205	.480	.360	.560	4
5/8	- 11UNC	BB645	BI645	H5	3.811	.748	2.205	.480	.360	.560	4
5/8	- 18UNF	BB663	BI663	H3	3.811	.512	2.205	.480	.360	.560	4

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◎ : Excellent ○ : Good

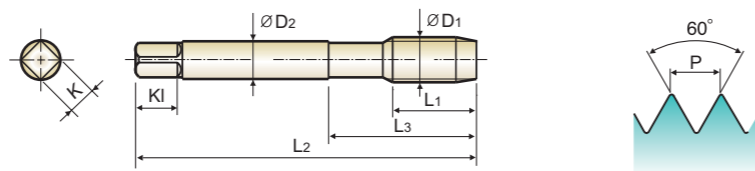
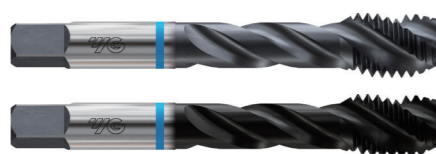
ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	38	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											
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

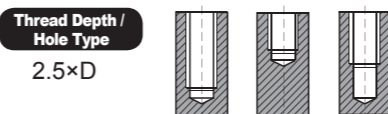


BB/BI SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE
for Steels & Stainless Steels



ANSI



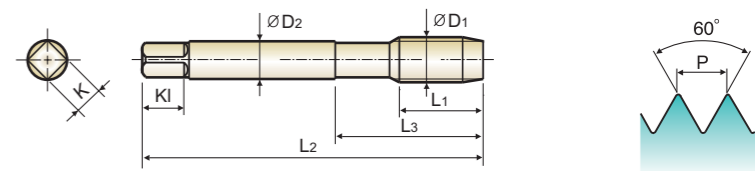
Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
5/8	- 18UNF	BB665	BI665	H5	3.811	.512	2.205	.480	.360	.560	4
3/4	- 10UNC	BB703	BI703	H3	4.252	.827	2.480	.590	.442	.690	4
3/4	- 10UNC	BB705	BI705	H5	4.252	.827	2.480	.590	.442	.690	4
3/4	- 16UNF	BB723	BI723	H3	4.252	.591	2.480	.590	.442	.690	4
3/4	- 16UNF	BB725	BI725	H5	4.252	.591	2.480	.590	.442	.690	4
7/8	- 9UNC	BB746	BI746	H6	4.689	.827	2.815	.697	.523	.750	4
7/8	- 14UNF	BB766	BI766	H6	4.689	.709	2.815	.697	.523	.750	4
1"	- 8UNC	BB786	BI786	H6	5.126	.984	3.091	.800	.600	.810	4
1"	- 12UNF	BB806	BI806	H6	5.126	.709	3.091	.800	.600	.810	4
1-1/8	- 8UN	BB836	BI836	H6	5.437	1.024	3.150	.896	.672	.880	4
1-1/4	- 8UN	BB876	BI876	H6	5.752	1.024	3.150	1.021	.766	1.000	4
1-3/8	- 8UN	BB916	BI916	H6	6.063	1.181	3.583	1.108	.831	1.060	4
1-1/2	- 8UN	BB956	BI956	H6	6.374	1.181	3.583	1.233	.925	1.130	4

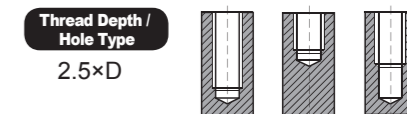


BH/BM SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE
for Steels & Stainless Steels



ANSI



Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
M3	x 0.5	BH203	BM203	D3	1.937	.197	.646	.141	.110	.190	3
M3.5	x 0.6	BH224	BM224	D4	2.000	.276	.709	.141	.110	.190	3
M4	x 0.7	BH244	BM244	D4	2.126	.276	.768	.168	.131	.250	3
M5	x 0.8	BH284	BM284	D4	2.374	.354	.933	.194	.152	.250	3
M6	x 1.0	BH315	BM315	D5	2.500	.433	1.000	.255	.191	.310	3
M7	x 1.0	BH345	BM345	D5	2.720	.433	1.126	.318	.238	.380	3
M8	x 1.25	BH365	BM365	D5	2.720	.472	1.126	.318	.238	.380	3
M8	x 1.0	BH375	BM375	D5	2.720	.433	1.126	.318	.238	.380	3
M10	x 1.5	BH426	BM426	D6	2.937	.512	1.252	.381	.286	.440	3
M10	x 1.25	BH435	BM435	D5	2.937	.472	1.252	.381	.286	.440	3
M12	x 1.75	BH506	BM506	D6	3.374	.591	2.067	.367	.275	.440	3
M12	x 1.25	BH525	BM525	D5	3.374	.551	2.067	.367	.275	.440	3
M14	x 2.0	BH547	BM547	D7	3.594	.709	2.067	.429	.322	.500	3
M14	x 1.5	BH556	BM556	D6	3.594	.551	2.067	.429	.322	.500	3
M16	x 2.0	BH607	BM607	D7	3.811	.709	2.205	.480	.360	.560	3
M16	x 1.5	BH616	BM616	D6	3.811	.551	2.205	.480	.360	.560	3
M18	x 2.5	BH657	BM657	D7	4.031	.787	2.205	.542	.406	.630	4
M18	x 1.5	BH676	BM676	D6	4.031	.551	2.205	.542	.406	.630	4

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	30	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										
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)	Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron								
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended	○	○				○	○														

◎ : Excellent ○ : Good

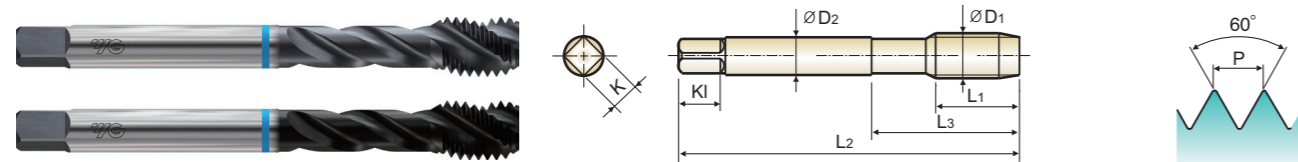
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	30	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										
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)	Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron								
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended	○	○				○	○														

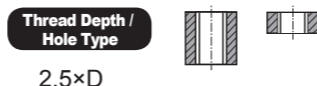


BF/BK SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE
for Steels & Stainless Steels



DIN Length-ANSI Shank



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
#2	- 56UNC	BF082	BK082	H2	1.752	.157	.433	.141	.110	.190	2
#4	- 40UNC	BF162	BK162	H2	2.205	.236	.563	.141	.110	.190	2
#5	- 40UNC	BF202	BK202	H2	2.205	.236	.626	.141	.110	.190	3
#6	- 32UNC	BF243	BK243	H3	2.205	.276	.689	.141	.110	.190	3
#8	- 32UNC	BF283	BK283	H3	2.480	.276	.752	.168	.131	.250	3
#10	- 24UNC	BF323	BK323	H3	2.756	.354	.906	.194	.152	.250	3
#10	- 32UNF	BF343	BK343	H3	2.756	.276	.906	.194	.152	.250	3
1/4	- 20UNC	BF403	BK403	H3	3.150	.433	1.000	.255	.191	.310	3
1/4	- 20UNC	BF405	BK405	H5	3.150	.433	1.000	.255	.191	.310	3
1/4	- 28UNF	BF423	BK423	H3	3.150	.354	1.000	.255	.191	.310	3
1/4	- 28UNF	BF424	BK424	H4	3.150	.354	1.000	.255	.191	.310	3
5/16	- 18UNC	BF445	BK445	H5	3.543	.472	1.126	.318	.238	.380	3
5/16	- 24UNF	BF464	BK464	H4	3.543	.472	1.126	.318	.238	.380	3
3/8	- 16UNC	BF485	BK485	H5	3.937	.551	1.252	.381	.286	.440	3
3/8	- 24UNF	BF504	BK504	H4	3.937	.394	1.252	.381	.286	.440	3
7/16	- 14UNC	BF525	BK525	H5	3.937	.591	1.850	.323	.242	.410	3
7/16	- 20UNF	BF545	BK545	H5	3.937	.472	1.850	.323	.242	.410	3
1/2	- 13UNC	BF565	BK565	H5	4.331	.630	2.067	.367	.275	.440	3
1/2	- 20UNF	BF585	BK585	H5	3.937	.472	2.067	.367	.275	.440	3
9/16	- 12UNC	BF605	BK605	H5	4.331	.709	2.067	.429	.322	.500	3
9/16	- 18UNF	BF625	BK625	H5	3.937	.512	2.067	.429	.322	.500	3
5/8	- 11UNC	BF645	BK645	H5	4.331	.748	2.205	.480	.360	.560	4
5/8	- 18UNF	BF665	BK665	H5	3.937	.512	2.205	.480	.360	.560	4
3/4	- 10UNC	BF705	BK705	H5	4.921	.827	2.480	.590	.442	.690	4
3/4	- 16UNF	BF725	BK725	H5	4.331	.591	2.480	.590	.442	.690	4
7/8	- 9UNC	BF746	BK746	H6	5.512	.827	2.815	.697	.523	.750	4

▶ NEXT PAGE

◎ : Excellent ○ : Good

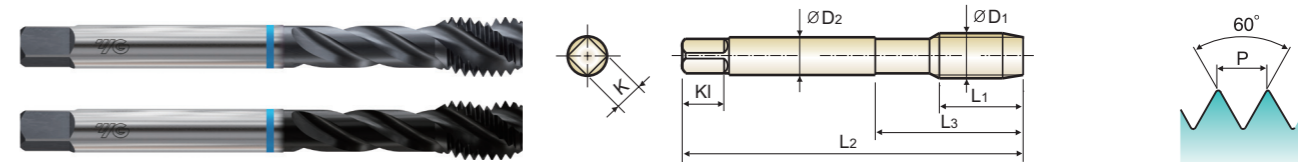
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc											15	30	25	38	34	36	37	55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○				○	○														

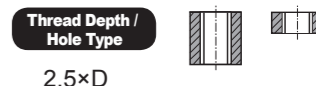


BF/BK SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE
for Steels & Stainless Steels



DIN Length-ANSI Shank



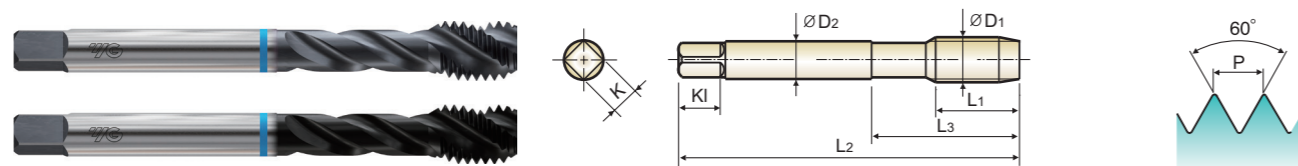
Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
7/8	- 14UNF	BF766	BK766	H6	4.921	.709	2.815	.697	.523	.750	4
1"	- 8UNC	BF786	BK786	H6	6.299	.984	3.091	.800	.600	.810	4
1"	- 12UNF	BF806	BK806	H6	5.512	.709	3.091	.800	.600	.810	4
1-1/8	- 8UN	BF836	BK836	H6	7.087	1.260	3.740	.896	.672	.880	4
1-1/4	- 8UN	BF876	BK876	H6	7.087	1.260	3.740	1.021	.766	1.000	4
1-3/8	- 8UN	BF916	BK916	H6	7.874	1.260	3.937	1.108	.831	1.060	4
1-1/2	8UN	BF956	BK956	H6	7.874	1.260	3.937	1.233	.925	1.130	4

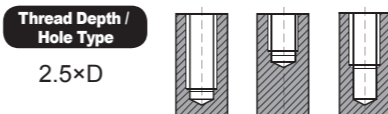
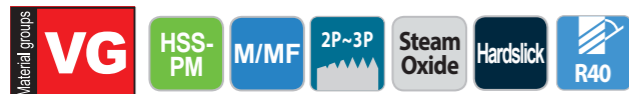


BD/BO SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE
for Steels & Stainless Steels



DIN Length-ANSI Shank



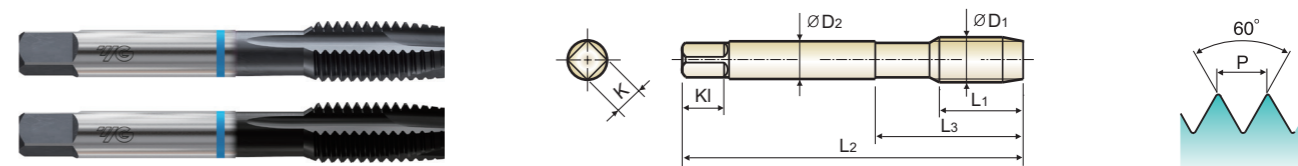
Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
M3	x 0.5	BD203	BO203	D3	2.205	.197	.646	.141	.110	.190	3
M3.5	x 0.6	BD224	BO224	D4	2.205	.276	.709	.141	.110	.190	3
M4	x 0.7	BD244	BO244	D4	2.480	.276	.768	.168	.131	.250	3
M5	x 0.8	BD284	BO284	D4	2.756	.354	.933	.194	.152	.250	3
M6	x 1.0	BD315	BO315	D5	3.150	.433	1.000	.255	.191	.310	3
M7	x 1.0	BD345	BO345	D5	3.150	.433	1.126	.318	.238	.380	3
M8	x 1.25	BD365	BO365	D5	3.543	.472	1.126	.318	.238	.380	3
M8	x 1.0	BD375	BO375	D5	3.543	.433	1.126	.318	.238	.380	3
M10	x 1.50	BD426	BO426	D6	3.937	.512	1.252	.381	.286	.440	3
M10	x 1.25	BD435	BO435	D5	3.937	.472	1.252	.381	.286	.440	3
M12	x 1.75	BD506	BO506	D6	4.331	.591	2.067	.367	.275	.440	3
M12	x 1.25	BD525	BO525	D5	3.937	.551	2.067	.367	.275	.440	3
M14	x 2.0	BD547	BO547	D7	4.331	.709	2.067	.429	.322	.500	3
M14	x 1.5	BD556	BO556	D6	3.937	.551	2.067	.429	.322	.500	3
M16	x 2.0	BD607	BO607	D7	4.331	.709	2.205	.480	.360	.560	3
M16	x 1.5	BD616	BO616	D6	3.937	.551	2.205	.480	.360	.560	3
M18	x 2.5	BD657	BO657	D7	4.921	.787	2.205	.542	.406	.630	4
M18	x 1.5	BD676	BO676	D6	4.331	.551	2.205	.542	.406	.630	4

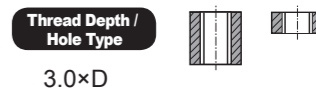


M9/O1 SERIES

SPIRAL POINT TAPS PLUG STYLE
for Steels & Stainless Steels



ANSI



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
#2	- 56UNC	M9082	O1082	H2	1.752	.256	.433	.141	.110	.190	2
#4	- 40UNC	M9162	O1162	H2	1.874	.335	.563	.141	.110	.190	2
#4	- 40UNC	M9163	O1163	H3	1.874	.335	.563	.141	.110	.190	2
#4	- 40UNC	M9164	O1164	H4	1.874	.335	.563	.141	.110	.190	2
#4	- 40UNC	M9165	O1165	H5	1.874	.335	.563	.141	.110	.190	2
#5	- 40UNC	M9202	O1202	H2	1.937	.374	.626	.141	.110	.190	3
#6	- 32UNC	M9242	O1242	H2	2.000	.413	.689	.141	.110	.190	3
#6	- 32UNC	M9243	O1243	H3	2.000	.413	.689	.141	.110	.190	3
#6	- 32UNC	M9244	O1244	H4	2.000	.413	.689	.141	.110	.190	3
#6	- 32UNC	M9245	O1245	H5	2.000	.413	.689	.141	.110	.190	3
#6	- 32UNC	M9246	O1246	H6	2.000	.413	.689	.141	.110	.190	3
#8	- 32UNC	M9282	O1282	H2	2.126	.453	.752	.168	.131	.250	3
#8	- 32UNC	M9283	O1283	H3	2.126	.453	.752	.168	.131	.250	3
#8	- 32UNC	M9284	O1284	H4	2.126	.453	.752	.168	.131	.250	3
#8	- 32UNC	M9285	O1285	H5	2.126	.453	.752	.168	.131	.250	3
#8	- 32UNC	M9286	O1286	H6	2.126	.453	.752	.168	.131	.250	3
#10	- 24UNC	M9323	O1323	H3	2.374	.531	.906	.194	.152	.250	3
#10	- 24UNC	M9325	O1325	H5	2.374	.531	.906	.194	.152	.250	3
#10	- 32UNF	M9342	O1342	H2	2.374	.531	.906	.194	.152	.250	3
#10	- 32UNF	M9343	O1343	H3	2.374	.531	.906	.194	.152	.250	3
#10	- 32UNF	M9344	O1344	H4	2.374	.531	.906	.194	.152	.250	3
#10	- 32UNF	M9345	O1345	H5	2.374	.531	.906	.194	.152	.250	3
#10	- 32UNF	M9346	O1346	H6	2.374	.531	.906	.194	.152	.250	3
1/4	- 20UNC	M9403	O1403	H3	2.500	.591	1.000	.255	.191	.310	3
1/4	- 20UNC	M9405	O1405	H5	2.500	.591	1.000	.255	.191	.310	3
1/4	- 28UNF	M9423	O1423	H3	2.500	.591	1.000	.255	.191	.310	3

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO	P										M				K				H																						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron				Nodular cast iron				Malleable cast iron														
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	13	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	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

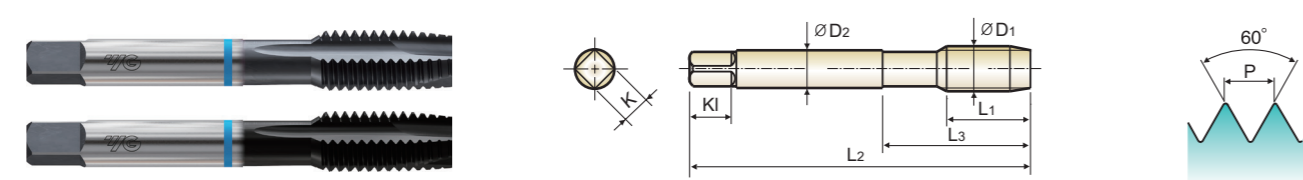
◎ : Excellent ○ : Good

ISO	P										M				K				H																						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron				Nodular cast iron				Malleable cast iron														
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	13	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	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	



N7/N8 SERIES

SPIRAL POINT TAPS PLUG STYLE for Steels & Stainless Steels



ANSI

Material groups: VG, HSS-PM, M/MF, USCTI 302A, 4P~5P, Steam Oxide, Hardslick

Thread Depth / Hole Type: 3.0×D

Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
M3	x 0.5	N7203	N8203	D3	1.937	.374	.646	.141	.110	.190	3
M3.5	x 0.6	N7224	N8224	D4	2.000	.413	.709	.141	.110	.190	3
M4	x 0.7	N7244	N8244	D4	2.126	.453	.768	.168	.131	.250	3
M5	x 0.8	N7284	N8284	D4	2.374	.531	.933	.194	.152	.250	3
M6	x 1.0	N7315	N8315	D5	2.500	.591	1.000	.255	.191	.310	3
M7	x 1.0	N7345	N8345	D5	2.720	.669	1.126	.318	.238	.380	3
M8	x 1.25	N7365	N8365	D5	2.720	.669	1.126	.318	.238	.380	3
M8	x 1.0	N7375	N8375	D5	2.720	.669	1.126	.318	.238	.380	3
M10	x 1.5	N7426	N8426	D6	2.937	.748	1.252	.381	.286	.440	3
M10	x 1.25	N7435	N8435	D5	2.937	.748	1.252	.381	.286	.440	3
M12	x 1.75	N7506	N8506	D6	3.374	.984	1.657	.367	.275	.440	3
M12	x 1.25	N7525	N8525	D5	3.374	.984	1.657	.367	.275	.440	3
M14	x 2.0	N7547	N8547	D7	3.594	.984	1.657	.429	.322	.500	3
M14	x 1.5	N7556	N8556	D6	3.594	.984	1.657	.429	.322	.500	3
M16	x 2.0	N7607	N8607	D7	3.811	1.083	1.811	.480	.360	.560	3
M16	x 1.5	N7616	N8616	D6	3.811	1.083	1.811	.480	.360	.560	3
M18	x 2.5	N7657	N8657	D7	4.031	1.083	1.811	.542	.406	.630	3
M18	x 1.5	N7676	N8676	D6	4.031	1.083	1.811	.542	.406	.630	3

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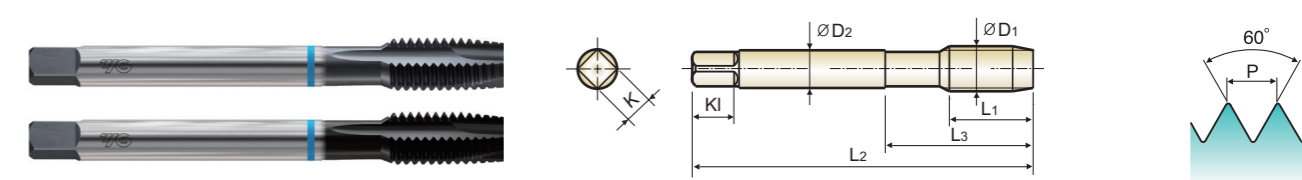
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended	○	○				○	○														



N4/O5 SERIES

SPIRAL POINT TAPS PLUG STYLE for Steels & Stainless Steels



DIN Length-ANSI Shank

Material groups: VG, HSS-PM, UNC UNF, 4P~5P, Steam Oxide, Hardslick

Thread Depth / Hole Type: 3.0×D

Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
#2	- 56UNC	N4082	O5082	H2	1.752	.256	.433	.141	.110	.190	2
#4	- 40UNC	N4162	O5162	H2	2.205	.335	.563	.141	.110	.190	2
#5	- 40UNC	N4202	O5202	H2	2.205	.374	.626	.141	.110	.190	3
#6	- 32UNC	N4243	O5243	H3	2.205	.413	.689	.141	.110	.190	3
#8	- 32UNC	N4283	O5283	H3	2.480	.453	.752	.168	.131	.250	3
#10	- 24UNC	N4323	O5323	H3	2.756	.531	.906	.194	.152	.250	3
#10	- 32UNF	N4343	O5343	H3	2.756	.531	.906	.194	.152	.250	3
1/4	- 20UNC	N4403	O5403	H3	3.150	.591	1.000	.255	.191	.310	3
1/4	- 20UNC	N4405	O5405	H5	3.150	.591	1.000	.255	.191	.310	3
1/4	- 28UNF	N4423	O5423	H3	3.150	.591	1.000	.255	.191	.310	3
5/16	- 18UNC	N4445	O5445	H5	3.543	.669	1.126	.318	.238	.380	3
5/16	- 24UNF	N4464	O5464	H4	3.543	.669	1.126	.318	.238	.380	3
3/8	- 16UNC	N4485	O5485	H5	3.937	.748	1.252	.381	.286	.440	3
3/8	- 24UNF	N4504	O5504	H4	3.937	.748	1.252	.381	.286	.440	3
7/16	- 14UNC	N4525	O5525	H5	3.937	.866	1.437	.323	.242	.410	3
7/16	- 20UNF	N4545	O5545	H5	3.937	.866	1.437	.323	.242	.410	3
1/2	- 13UNC	N4565	O5565	H5	4.331	.984	1.657	.367	.275	.440	3
1/2	- 20UNF	N4585	O5585	H5	3.937	.984	1.657	.367	.275	.440	3
9/16	- 12UNC	N4605	O5605	H5	4.331	.984	1.657	.429	.322	.500	3
9/16	- 18UNC	N4625	O5625	H5	3.937	.984	1.657	.429	.322	.500	3
5/8	- 11UNC	N4645	O5645	H5	4.331	1.083	1.811	.480	.360	.560	3
5/8	- 18UNF	N4665	O5665	H5	3.937	1.083	1.811	.480	.360	.560	3
3/4	- 10UNC	N4705	O5705	H5	4.921	1.201	2.000	.590	.442	.690	3
3/4	- 16UNF	N4725	O5725	H5	4.331	1.201	2.000	.590	.442	.690	3
7/8	- 9UNC	N4746	O5746	H6	5.512	1.339	2.224	.697	.523	.750	3
7/8	- 14UNF	N4766	O5766	H6	4.921	1.339	2.224	.697	.523	.750	3

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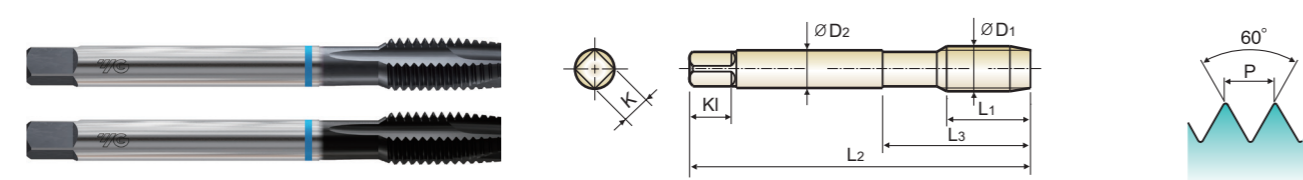
ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended	○	○				○	○														



N4/O5 SERIES

SPIRAL POINT TAPS PLUG STYLE for Steels & Stainless Steels



DIN Length-ANSI Shank



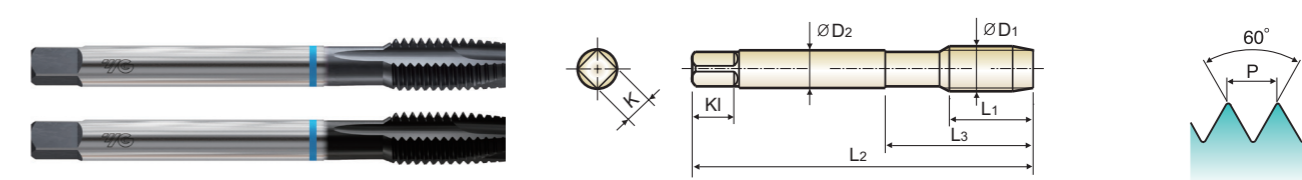
Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Steam Oxide	Hardslick								
1"	- 8UNC	N4786	O5786	H6	6.299	1.496	2.500	.800	.600	.810	3
1"	- 12UNC	N4806	O5806	H6	5.512	1.496	2.500	.800	.600	.810	3
1-1/8"	- 8UN	N4836	O5836	H6	7.087	1.575	2.638	.896	.672	.880	4
1-1/4"	- 8UN	N4876	O5876	H6	7.087	1.575	2.638	1.021	.766	1.000	4
1-3/8"	- 8UN	N4916	O5916	H6	7.874	1.654	2.953	1.108	.831	1.060	4
1-1/2"	- 8UN	N4956	O5956	H6	7.874	1.654	2.953	1.233	.925	1.130	4



N3/O3 SERIES

SPIRAL POINT TAPS PLUG STYLE for Steels & Stainless Steels



DIN Length-ANSI Shank



Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Steam Oxide	Hardslick								
M3	x 0.5	N3203	O3203	D3	2.205	.374	.646	.141	.110	.190	3
M3.5	x 0.6	N3224	O3224	D4	2.205	.413	.709	.141	.110	.190	3
M4	x 0.7	N3244	O3244	D4	2.480	.453	.768	.168	.131	.250	3
M5	x 0.8	N3284	O3284	D4	2.756	.531	.933	.194	.152	.250	3
M6	x 1.0	N3315	O3315	D5	3.150	.591	1.000	.255	.191	.310	3
M7	x 1.0	N3345	O3345	D5	3.150	.669	1.126	.318	.238	.380	3
M8	x 1.25	N3365	O3365	D5	3.543	.669	1.126	.318	.238	.380	3
M8	x 1.0	N3375	O3375	D5	3.543	.669	1.126	.318	.238	.380	3
M10	x 1.5	N3426	O3426	D6	3.937	.748	1.252	.381	.286	.440	3
M10	x 1.25	N3435	O3435	D5	3.937	.748	1.252	.381	.286	.440	3
M12	x 1.75	N3506	O3506	D6	4.331	.984	1.657	.367	.275	.440	3
M12	x 1.25	N3525	O3525	D5	3.937	.984	1.657	.367	.275	.440	3
M14	x 2.0	N3547	O3547	D7	4.331	.984	1.657	.429	.322	.500	3
M14	x 1.5	N3556	O3556	D6	3.937	.984	1.657	.429	.322	.500	3
M16	x 2.0	N3607	O3607	D7	4.331	1.083	1.811	.480	.360	.560	3
M16	x 1.5	N3616	O3616	D6	3.937	1.083	1.811	.480	.360	.560	3
M18	x 2.5	N3657	O3657	D7	4.921	1.083	1.811	.542	.406	.630	3
M18	x 1.5	N3676	O3676	D6	4.331	1.083	1.811	.542	.406	.630	3

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	38	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									
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron							
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
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	400Rm	1050Rm	550	630	400	550	
Recommended	○	○				○	○															

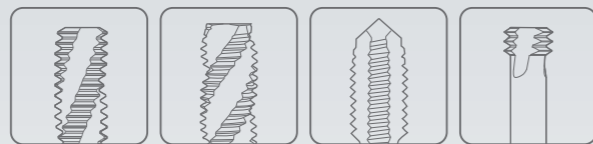
◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	38	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									
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron							
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
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	400Rm	1050Rm	550	630	400	550	
Recommended	○	○				○	○															



Global Cutting Tool Leader **YG-1**



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HSS-E

THREADING

YG TAP STEEL

- For carbon and alloy steel

SELECTION GUIDE



HSS-E YG TAP STEEL

- For carbon and alloy steel

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Table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and MODEL. Includes rows for P (Non-alloy steel, Low alloy steel, High alloyed steel), M (Stainless steel), K (Grey cast iron, Nodular cast iron, Malleable cast iron), N (Aluminum-wrought alloy, Aluminum-cast, alloyed, Copper and Copper Alloys, Non Metallic Materials), S (Heat Resistant Super Alloys, Titanium Alloys), and H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, and SURFACE TREATMENT / COATING. Includes icons for Max. 2.5xD Blind Hole and Max. 3.0xD Through Hole.

Table with columns: MODEL, Steam Oxide, HardSlick, Steam Oxide, HardSlick, Steam Oxide. Includes images of various tap models.

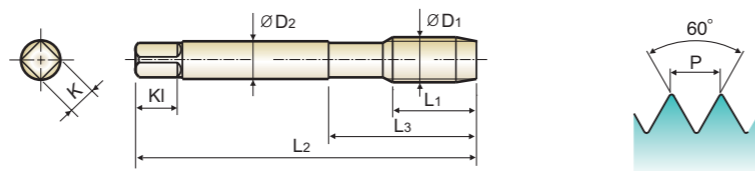
Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, and SURFACE TREATMENT / COATING. Includes icons for Max. 2.5xD Blind Hole and Max. 3.0xD Through Hole.

Table with columns: MODEL, Steam Oxide, HardSlick, Steam Oxide, HardSlick, Steam Oxide. Includes images of various tap models.

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Steels



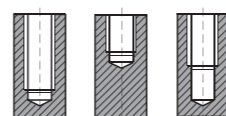
ANSI



A variety of H Limit



Thread Depth / Hole Type
2.5xD



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
#2	- 56UNC	D3082	E0082	H2	1.752	.157	.433	.141	.110	.190	2
#3	- 48UNC	D3122	E0122	H2	1.811	.197	.492	.141	.110	.190	2
#4	- 40UNC	D3162	E0162	H2	1.874	.236	.563	.141	.110	.190	2
#4	- 40UNC	D3163	E0163	H3	1.874	.236	.563	.141	.110	.190	2
#4	- 40UNC	D3164	E0164	H4	1.874	.236	.563	.141	.110	.190	2
#4	- 40UNC	D3165	E0165	H5	1.874	.236	.563	.141	.110	.190	2
#4	- 48UNF	D3182	E0182	H2	1.874	.236	.563	.141	.110	.190	2
#5	- 40UNC	D3202	E0202	H2	1.937	.236	.626	.141	.110	.190	3
#6	- 32UNC	D3242	E0242	H2	2.000	.276	.689	.141	.110	.190	3
#6	- 32UNC	D3243	E0243	H3	2.000	.276	.689	.141	.110	.190	3
#6	- 32UNC	D3245	E0245	H5	2.000	.276	.689	.141	.110	.190	3
#6	- 32UNC	D3247	E0247	H7	2.000	.276	.689	.141	.110	.190	3
#6	- 32UNC	D324A	E024A	H11	2.000	.276	.689	.141	.110	.190	3
#6	- 40UNF	D3262	E0262	H2	2.000	.276	.689	.141	.110	.190	3
#8	- 32UNC	D3282	E0282	H2	2.126	.276	.752	.168	.131	.250	3
#8	- 32UNC	D3283	E0283	H3	2.126	.276	.752	.168	.131	.250	3
#8	- 32UNC	D3285	E0285	H5	2.126	.276	.752	.168	.131	.250	3
#8	- 32UNC	D3287	E0287	H7	2.126	.276	.752	.168	.131	.250	3
#8	- 32UNC	D328A	E028A	H11	2.126	.276	.752	.168	.131	.250	3
#10	- 24UNC	D3323	E0323	H3	2.374	.354	.906	.194	.152	.250	3
#10	- 24UNC	D3325	E0325	H5	2.374	.354	.906	.194	.152	.250	3
#10	- 24UNC	D332A	E032A	H11	2.374	.354	.906	.194	.152	.250	3
#10	- 32UNF	D3342	E0342	H2	2.374	.276	.906	.194	.152	.250	3
#10	- 32UNF	D3343	E0343	H3	2.374	.276	.906	.194	.152	.250	3
#10	- 32UNF	D3345	E0345	H5	2.374	.276	.906	.194	.152	.250	3
#10	- 32UNF	D3347	E0347	H7	2.374	.276	.906	.194	.152	.250	3

► Bright Finish Available: D4 Series

► NEXT PAGE

◎ : Excellent ○ : Good

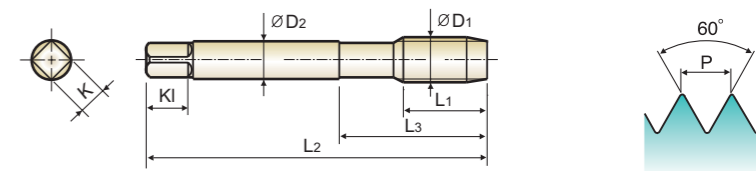
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	38	15	29	32	38	15	29	32	38	15	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended											○										

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Steels



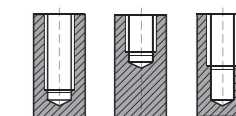
ANSI



A variety of H Limit



Thread Depth / Hole Type
2.5xD



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
#10	- 32UNF	D334A	E034A	H11	2.374	.276	.906	.194	.152	.250	3
#12	- 24UNC	D3363	E0363	H3	2.374	.354	.906	.220	.165	.280	3
#12	- 28UNF	D3383	E0383	H3	2.374	.276	.906	.220	.165	.280	3
1/4	- 20UNC	D3402	E0402	H2	2.500	.433	1.000	.255	.191	.310	3
1/4	- 20UNC	D3403	E0403	H3	2.500	.433	1.000	.255	.191	.310	3
1/4	- 20UNC	D3405	E0405	H5	2.500	.433	1.000	.255	.191	.310	3
1/4	- 20UNC	D3407	E0407	H7	2.500	.433	1.000	.255	.191	.310	3
1/4	- 20UNC	D340A	E040A	H11	2.500	.433	1.000	.255	.191	.310	3
1/4	- 28UNF	D3422	E0422	H2	2.500	.354	1.000	.255	.191	.310	3
1/4	- 28UNF	D3423	E0423	H3	2.500	.354	1.000	.255	.191	.310	3
1/4	- 28UNF	D3424	E0424	H4	2.500	.354	1.000	.255	.191	.310	3
1/4	- 28UNF	D3425	E0425	H5	2.500	.354	1.000	.255	.191	.310	3
1/4	- 28UNF	D3427	E0427	H7	2.500	.354	1.000	.255	.191	.310	3
1/4	- 28UNF	D342A	E042A	H11	2.500	.354	1.000	.255	.191	.310	3
5/16	- 18UNC	D3442	E0442	H2	2.720	.472	1.126	.318	.238	.380	3
5/16	- 18UNC	D3443	E0443	H3	2.720	.472	1.126	.318	.238	.380	3
5/16	- 18UNC	D3445	E0445	H5	2.720	.472	1.126	.318	.238	.380	3
5/16	- 18UNC	D3447	E0447	H7	2.720	.472	1.126	.318	.238	.380	3
5/16	- 18UNC	D344A	E044A	H11	2.720	.472	1.126	.318	.238	.380	3
5/16	- 24UNF	D3462	E0462	H2	2.720	.394	1.126	.318	.238	.380	3
5/16	- 24UNF	D3463	E0463	H3	2.720	.394	1.126	.318	.238	.380	3
5/16	- 24UNF	D3464	E0464	H4	2.720	.394	1.126	.318	.238	.380	3
5/16	- 24UNF	D3465	E0465	H5	2.720	.394	1.126	.318	.238	.380	3
5/16	- 24UNF	D3466	E0466	H6	2.720	.394	1.126	.318	.238	.380	3
5/16	- 24UNF	D3467	E0467	H7	2.720	.394	1.126	.318	.238	.380	3
5/16	- 24UNF	D346A	E046A	H11	2.720	.394	1.126	.318	.238	.380	3

► Bright Finish Available: D4 Series

► NEXT PAGE

◎ : Excellent ○ : Good

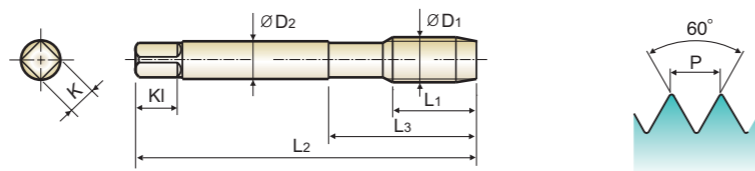
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	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	38	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended											○										

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Steels



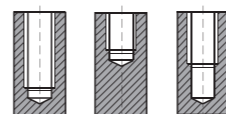
ANSI



A variety of H Limit



Thread Depth / Hole Type
2.5×D



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
3/8 - 16UNC		D3482	E0482	H2	2.937	.551	1.252	.381	.286	.440	3
3/8 - 16UNC		D3483	E0483	H3	2.937	.551	1.252	.381	.286	.440	3
3/8 - 16UNC		D3485	E0485	H5	2.937	.551	1.252	.381	.286	.440	3
3/8 - 16UNC		D3487	E0487	H7	2.937	.551	1.252	.381	.286	.440	3
3/8 - 16UNC		D348A	E048A	H11	2.937	.551	1.252	.381	.286	.440	3
3/8 - 24UNF		D3502	E0502	H2	2.937	.394	1.252	.381	.286	.440	3
3/8 - 24UNF		D3503	E0503	H3	2.937	.394	1.252	.381	.286	.440	3
3/8 - 24UNF		D3504	E0504	H4	2.937	.394	1.252	.381	.286	.440	3
3/8 - 24UNF		D3505	E0505	H5	2.937	.394	1.252	.381	.286	.440	3
3/8 - 24UNF		D3507	E0507	H7	2.937	.394	1.252	.381	.286	.440	3
3/8 - 24UNF		D350A	E050A	H11	2.937	.394	1.252	.381	.286	.440	3
7/16 - 14UNC		D3523	E0523	H3	3.157	.591	1.850	.323	.242	.410	3
7/16 - 14UNC		D3525	E0525	H5	3.157	.591	1.850	.323	.242	.410	3
7/16 - 14UNC		D3527	E0527	H7	3.157	.591	1.850	.323	.242	.410	3
7/16 - 14UNC		D352A	E052A	H11	3.157	.591	1.850	.323	.242	.410	3
7/16 - 20UNF		D3543	E0543	H3	3.157	.472	1.850	.323	.242	.410	3
7/16 - 20UNF		D3545	E0545	H5	3.157	.472	1.850	.323	.242	.410	3
7/16 - 20UNF		D3547	E0547	H7	3.157	.472	1.850	.323	.242	.410	3
7/16 - 20UNF		D354A	E054A	H11	3.157	.472	1.850	.323	.242	.410	3
1/2 - 13UNC		D3563	E0563	H3	3.374	.630	2.067	.367	.275	.440	3
1/2 - 13UNC		D3565	E0565	H5	3.374	.630	2.067	.367	.275	.440	3
1/2 - 13UNC		D3567	E0567	H7	3.374	.630	2.067	.367	.275	.440	3
1/2 - 13UNC		D356A	E056A	H11	3.374	.630	2.067	.367	.275	.440	3
1/2 - 20UNF		D3583	E0583	H3	3.374	.472	2.067	.367	.275	.440	3
1/2 - 20UNF		D3585	E0585	H5	3.374	.472	2.067	.367	.275	.440	3
1/2 - 20UNF		D3587	E0587	H7	3.374	.472	2.067	.367	.275	.440	3

► Bright Finish Available: D4 Series

► NEXT PAGE

◎ : Excellent ○ : Good

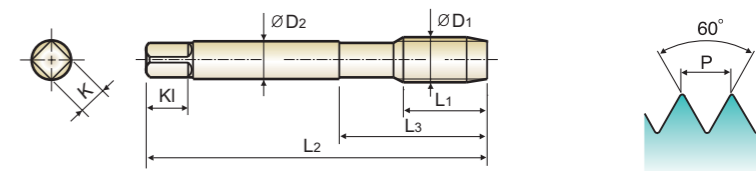
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	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										
	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	400Rm	1050Rm	550	630	400	550
Recommended																					

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Steels



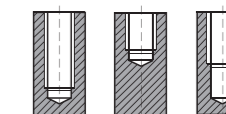
ANSI



A variety of H Limit



Thread Depth / Hole Type
2.5×D



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
1/2 - 20UNF		D358A	E058A	H11	3.374	.472	2.067	.367	.275	.440	3
9/16 - 12UNC		D3603	E0603	H3	3.594	.709	2.067	.429	.322	.500	3
9/16 - 18UNF		D3623	E0623	H3	3.594	.512	2.067	.429	.322	.500	3
5/8 - 11UNC		D3643	E0643	H3	3.811	.748	2.205	.480	.360	.560	4
5/8 - 11UNC		D3645	E0645	H5	3.811	.748	2.205	.480	.360	.560	4
5/8 - 18UNF		D3663	E0663	H3	3.811	.512	2.205	.480	.360	.560	4
3/4 - 10UNC		D3703	E0703	H3	4.252	.827	2.480	.590	.442	.690	4
3/4 - 10UNC		D3705	E0705	H5	4.252	.827	2.480	.590	.442	.690	4
3/4 - 16UNF		D3723	E0723	H3	4.252	.591	2.480	.590	.442	.690	4
3/4 - 16UNF		D3725	E0725	H5	4.252	.591	2.480	.590	.442	.690	4
7/8 - 9UNC		D3745	E0745	H5	4.689	.827	2.815	.697	.523	.750	4
7/8 - 14UNF		D3764	E0764	H4	4.689	.709	2.815	.697	.523	.750	4
1" - 8UNC		D3785	E0785	H5	5.126	.984	3.091	.800	.600	.810	4
1" - 12UNF		D3804	E0804	H4	5.126	.709	3.091	.800	.600	.810	4
1-1/8 - 7UNC		D3824	E0824	H4	5.437	1.024	3.150	.896	.672	.880	4
1-1/8 - 8UN		D3836	E0836	H6	5.437	1.024	3.150	.896	.672	.880	4
1-1/8 - 12UNF		D3845	E0845	H5	5.437	.787	3.150	.896	.672	.880	4
1-1/4 - 7UNC		D3866	E0866	H6	5.752	1.024	3.150	1.021	.766	1.000	4
1-1/4 - 8UN		D3876	E0876	H6	5.752	1.024	3.150	1.021	.766	1.000	4
1-1/4 - 12UNF		D3885	E0885	H5	5.752	.787	3.150	1.021	.766	1.000	4
1-3/8 - 6UNC		D3906	E0906	H6	6.063	1.181	3.583	1.108	.831	1.060	4
1-3/8 - 8UN		D3916	E0916	H6	6.063	1.181	3.583	1.108	.831	1.060	4
1-3/8 - 12UNF		D3925	E0925	H5	6.063	.866	3.583	1.108	.831	1.060	4
1-1/2 - 6UNC		D3946	E0946	H6	6.374	1.181	3.583	1.233	.925	1.130	4
1-1/2 - 8UN		D3956	E0956	H6	6.374	1.181	3.583	1.233	.925	1.130	4
1-1/2 - 12UNF		D3965	E0965	H5	6.374	.866	3.583	1.233	.925	1.130	4

► Bright Finish Available: D4 Series

◎ : Excellent ○ : Good

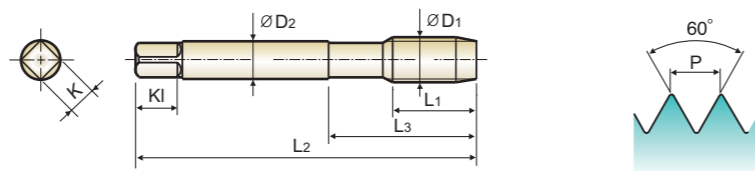
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	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										
	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	400Rm	1050Rm	550	630	400	550
Recommended																					

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Steels



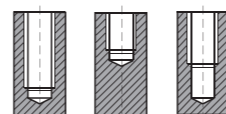
ANSI



A variety of D L limit



Thread Depth / Hole Type
2.5xD



Size	Pitch	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Steam Oxide	Hardslick								
M3	x 0.5	BU203	BV203	D3	1.937	.197	.646	.141	.110	.190	3
M3	x 0.5	BU20A	BV20A	D11	1.937	.197	.646	.141	.110	.190	3
M3.5	x 0.6	BU224	BV224	D4	2.000	.276	.709	.141	.110	.190	3
M3.5	x 0.6	BU22A	BV22A	D11	2.000	.276	.709	.141	.110	.190	3
M4	x 0.7	BU244	BV244	D4	2.126	.276	.768	.168	.131	.250	3
M4	x 0.7	BU24A	BV24A	D11	2.126	.276	.768	.168	.131	.250	3
M5	x 0.8	BU284	BV284	D4	2.374	.354	.933	.194	.152	.250	3
M5	x 0.8	BU28A	BV28A	D11	2.374	.354	.933	.194	.152	.250	3
M6	x 1.0	BU315	BV315	D5	2.500	.433	1.000	.255	.191	.310	3
M6	x 1.0	BU31A	BV31A	D11	2.500	.433	1.000	.255	.191	.310	3
M7	x 1.0	BU345	BV345	D5	2.720	.433	1.126	.318	.238	.380	3
M7	x 1.0	BU34A	BV34A	D11	2.720	.433	1.126	.318	.238	.380	3
M8	x 1.25	BU365	BV365	D5	2.720	.472	1.126	.318	.238	.380	3
M8	x 1.25	BU36A	BV36A	D11	2.720	.472	1.126	.318	.238	.380	3
M8	x 1.0	BU375	BV375	D5	2.720	.433	1.126	.318	.238	.380	3
M8	x 1.0	BU37A	BV37A	D11	2.720	.433	1.126	.318	.238	.380	3
M10	x 1.5	BU426	BV426	D6	2.937	.512	1.252	.381	.286	.440	3
M10	x 1.5	BU42A	BV42A	D11	2.937	.512	1.252	.381	.286	.440	3
M10	x 1.25	BU435	BV435	D5	2.937	.472	1.252	.381	.286	.440	3
M10	x 1.25	BU43A	BV43A	D11	2.937	.472	1.252	.381	.286	.440	3
M10	x 1.0	BU445	BV445	D5	2.937	.433	1.252	.381	.286	.440	3
M10	x 1.0	BU44A	BV44A	D11	2.937	.433	1.252	.381	.286	.440	3
M12	x 1.75	BU506	BV506	D6	3.374	.591	2.067	.367	.275	.440	3
M12	x 1.75	BU50A	BV50A	D11	3.374	.591	2.067	.367	.275	.440	3
M12	x 1.5	BU516	BV516	D6	3.374	.591	2.067	.367	.275	.440	3
M12	x 1.5	BU51A	BV51A	D11	3.374	.591	2.067	.367	.275	.440	3

▶ NEXT PAGE

◎ : Excellent ○ : Good

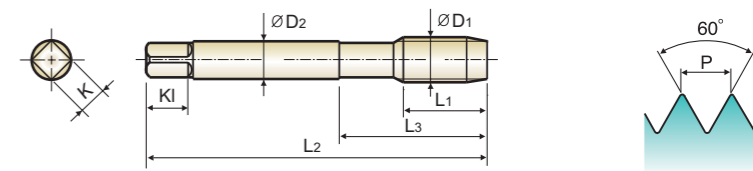
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended																					

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Steels



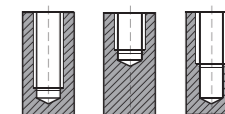
ANSI



A variety of D Limit



Thread Depth / Hole Type
2.5xD



Size	Pitch	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Steam Oxide	Hardslick								
M12	x 1.25	BU525	BV525	D5	3.374	.551	2.067	.367	.275	.440	3
M12	x 1.25	BU52A	BV52A	D11	3.374	.551	2.067	.367	.275	.440	3
M14	x 2.0	BU547	BV547	D7	3.594	.709	2.067	.429	.322	.500	3
M14	x 1.5	BU556	BV556	D6	3.594	.551	2.067	.429	.322	.500	3
M16	x 2.0	BU607	BV607	D7	3.811	.709	2.205	.480	.360	.560	3
M16	x 1.5	BU616	BV616	D6	3.811	.551	2.205	.480	.360	.560	3
M18	x 2.5	BU657	BV657	D7	4.031	.787	2.205	.542	.406	.630	4
M18	x 1.5	BU676	BV676	D6	4.031	.551	2.205	.542	.406	.630	4
M20	x 2.5	BU708	BV708	D8	4.469	.787	2.480	.652	.489	.690	4
M20	x 1.5	BU726	BV726	D6	4.469	.551	2.480	.652	.489	.690	4
M22	x 2.5	BU748	BV748	D8	4.689	.787	2.815	.697	.523	.750	4
M22	x 1.5	BU766	BV766	D6	4.689	.551	2.815	.697	.523	.750	4
M24	x 3.0	BU788	BV788	D8	4.906	.945	2.815	.760	.570	.750	4
M24	x 1.5	BU806	BV806	D6	4.906	.551	2.815	.760	.570	.750	4
M27	x 3.0	BU868	BV868	D8	5.126	.945	3.091	.896	.672	.880	4
M27	x 1.5	BU886	BV886	D6	5.126	.591	3.091	.896	.672	.880	4
M30	x 3.5	BU949	BV949	D9	5.437	1.102	3.150	1.021	.766	1.000	4
M30	x 1.5	BU976	BV976	D6	5.437	.591	3.150	1.021	.766	1.000	4

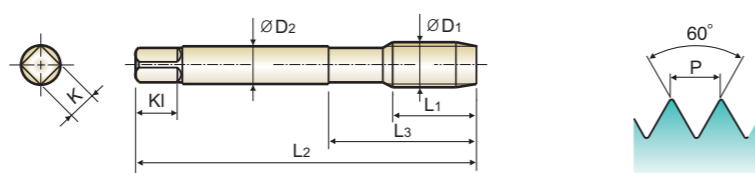
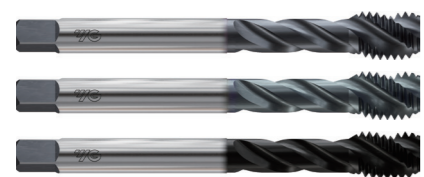
Unit : Inch

◎ : Excellent ○ : Good

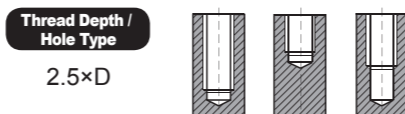
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended																					

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Steels



DIN Length-ANSI Shank



Unit : Inch

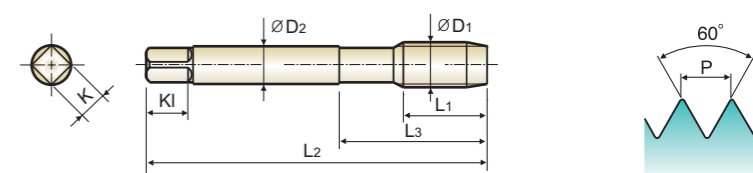
Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	TiCN	Hardslick								
M3	x 0.5	E2203	E4203	E5203	D3	2.205	.197	.646	.141	.110	.190	3
M3.5	x 0.6	E2224	E4224	E5224	D4	2.205	.276	.709	.141	.110	.190	3
M4	x 0.7	E2244	E4244	E5244	D4	2.480	.276	.768	.168	.131	.250	3
M5	x 0.8	E2284	E4284	E5284	D4	2.756	.354	.933	.194	.152	.250	3
M6	x 1.0	E2315	E4315	E5315	D5	3.150	.433	1.000	.255	.191	.310	3
M7	x 1.0	E2345	E4345	E5345	D5	3.150	.433	1.126	.318	.238	.380	3
M8	x 1.25	E2365	E4365	E5365	D5	3.543	.472	1.126	.318	.238	.380	3
M8	x 1.0	E2375	E4375	E5375	D5	3.543	.433	1.126	.318	.238	.380	3
M10	x 1.5	E2426	E4426	E5426	D6	3.937	.512	1.252	.381	.286	.440	3
M10	x 1.25	E2435	E4435	E5435	D5	3.937	.472	1.252	.381	.286	.440	3
M12	x 1.75	E2506	E4506	E5506	D6	4.331	.591	2.067	.367	.275	.440	3
M12	x 1.25	E2525	E4525	E5525	D5	3.937	.551	2.067	.367	.275	.440	3
M14	x 2.0	E2547	E4547	E5547	D7	4.331	.709	2.067	.429	.322	.500	3
M14	x 1.5	E2556	E4556	E5556	D6	3.937	.551	2.067	.429	.322	.500	3
M16	x 2.0	E2607	E4607	E5607	D7	4.331	.709	2.205	.480	.360	.560	3
M16	x 1.5	E2616	E4616	E5616	D6	3.937	.551	2.205	.480	.360	.560	3
M18	x 2.5	E2657	E4657	E5657	D7	4.921	.787	2.205	.542	.406	.630	4
M18	x 1.5	E2676	E4676	E5676	D6	4.331	.551	2.205	.542	.406	.630	4

◎ : Excellent ○ : Good

ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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	38	15	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										
	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						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended											◎										

SPIRAL POINT TAPS PLUG STYLE for Steels



ANSI

A variety of H Limit



Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Bright	Hardslick								
#2 - 56UNC	J3082	J4082	J8082	H2	1.752	.256	.433	.141	.110	.190	2	
#3 - 48UNC	J3122	J4122	J8122	H2	1.811	.295	.492	.141	.110	.190	2	
#4 - 40UNC	J3162	J4162	J8162	H2	1.874	.335	.563	.141	.110	.190	2	
#4 - 40UNC	J3163	J4163	J8163	H3	1.874	.335	.563	.141	.110	.190	2	
#4 - 40UNC	J3164	J4164	J8164	H4	1.874	.335	.563	.141	.110	.190	2	
#4 - 40UNC	J3165	J4165	J8165	H5	1.874	.335	.563	.141	.110	.190	2	
#4 - 48UNF	J3182	J4182	J8182	H2	1.874	.335	.563	.141	.110	.190	2	
#5 - 40UNC	J3202	J4202	J8202	H2	1.937	.374	.626	.141	.110	.190	3	
#6 - 32UNC	J3242	J4242	J8242	H2	2.000	.413	.689	.141	.110	.190	3	
#6 - 32UNC	J3243	J4243	J8243	H3	2.000	.413	.689	.141	.110	.190	3	
#6 - 32UNC	J3244	J4244	J8244	H4	2.000	.413	.689	.141	.110	.190	3	
#6 - 32UNC	J3245	J4245	J8245	H5	2.000	.413	.689	.141	.110	.190	3	
#6 - 32UNC	J3246	J4246	J8246	H6	2.000	.413	.689	.141	.110	.190	3	
#6 - 32UNC	J3247	J4247	J8247	H7	2.000	.413	.689	.141	.110	.190	3	
#6 - 32UNC	J324A	J424A	J824A	H11	2.000	.413	.689	.141	.110	.190	3	
#6 - 40UNF	J3262	J4262	J8262	H2	2.000	.413	.689	.141	.110	.190	3	
#8 - 32UNC	J3282	J4282	J8282	H2	2.126	.453	.752	.168	.131	.250	3	
#8 - 32UNC	J3283	J4283	J8283	H3	2.126	.453	.752	.168	.131	.250	3	
#8 - 32UNC	J3284	J4284	J8284	H4	2.126	.453	.752	.168	.131	.250	3	
#8 - 32UNC	J3285	J4285	J8285	H5	2.126	.453	.752	.168	.131	.250	3	
#8 - 32UNC	J3286	J4286	J8286	H6	2.126	.453	.752	.168	.131	.250	3	
#8 - 32UNC	J3287	J4287	J8287	H7	2.126	.453	.752	.168	.131	.250	3	
#8 - 32UNC	J328A	J428A	J828A	H11	2.126	.453	.752	.168	.131	.250	3	
#8 - 36UNC	J3302	J4302	J8302	H2	2.126	.453	.752	.168	.131	.250	3	
#10 - 24UNC	J3323	J4323	J8323	H3	2.374	.531	.906	.194	.152	.250	3	
#10 - 24UNC	J3325	J4325	J8325	H5	2.374	.531	.906	.194	.152	.250	3	

▶ NEXT PAGE

◎ : Excellent ○ : Good

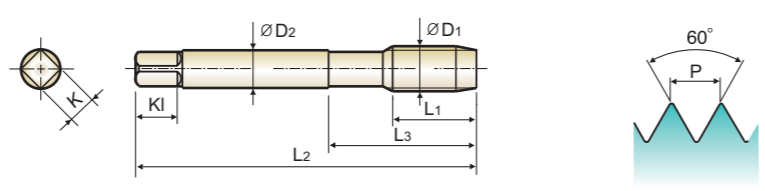
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	38	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										
	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						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended											◎										

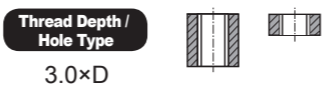


J3/J4/J8 SERIES

SPIRAL POINT TAPS PLUG STYLE for Steels



ANSI
A variety of H Limit



Material groups: VG, HSS-E, UNC UNF, USCTI 302A, 4P~5P, Bright, Steam Oxide, Hardslick

Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Steam Oxide	Bright	Hardslick								
#10 - 24UNC	J332A	J432A	J832A	H11	2.374	.531	.906	.194	.152	.250	3	
#10 - 32UNF	J3342	J4342	J8342	H2	2.374	.531	.906	.194	.152	.250	3	
#10 - 32UNF	J3343	J4343	J8343	H3	2.374	.531	.906	.194	.152	.250	3	
#10 - 32UNF	J3344	J4344	J8344	H4	2.374	.531	.906	.194	.152	.250	3	
#10 - 32UNF	J3345	J4345	J8345	H5	2.374	.531	.906	.194	.152	.250	3	
#10 - 32UNF	J3346	J4346	J8346	H6	2.374	.531	.906	.194	.152	.250	3	
#10 - 32UNF	J3347	J4347	J8347	H7	2.374	.531	.906	.194	.152	.250	3	
#10 - 32UNF	J334A	J434A	J834A	H11	2.374	.531	.906	.194	.152	.250	3	
#12 - 24UNC	J3363	J4363	J8363	H3	2.374	.571	.906	.220	.165	.280	3	
#12 - 28UNF	J3383	J4383	J8383	H3	2.374	.571	.906	.220	.165	.280	3	
1/4 - 20UNC	J3402	J4402	J8402	H2	2.500	.591	1.000	.255	.191	.310	3	
1/4 - 20UNC	J3403	J4403	J8403	H3	2.500	.591	1.000	.255	.191	.310	3	
1/4 - 20UNC	J3405	J4405	J8405	H5	2.500	.591	1.000	.255	.191	.310	3	
1/4 - 20UNC	J3407	J4407	J8407	H7	2.500	.591	1.000	.255	.191	.310	3	
1/4 - 20UNC	J340A	J440A	J840A	H11	2.500	.591	1.000	.255	.191	.310	3	
1/4 - 28UNF	J3422	J4422	J8422	H2	2.500	.591	1.000	.255	.191	.310	3	
1/4 - 28UNF	J3423	J4423	J8423	H3	2.500	.591	1.000	.255	.191	.310	3	
1/4 - 28UNF	J3424	J4424	J8424	H4	2.500	.591	1.000	.255	.191	.310	3	
1/4 - 28UNF	J3425	J4425	J8425	H5	2.500	.591	1.000	.255	.191	.310	3	
1/4 - 28UNF	J3426	J4426	J8426	H6	2.500	.591	1.000	.255	.191	.310	3	
1/4 - 28UNF	J3427	J4427	J8427	H7	2.500	.591	1.000	.255	.191	.310	3	
1/4 - 28UNF	J342A	J442A	J842A	H11	2.500	.591	1.000	.255	.191	.310	3	
5/16 - 18UNC	J3443	J4443	J8443	H3	2.720	.669	1.126	.318	.238	.380	3	
5/16 - 18UNC	J3445	J4445	J8445	H5	2.720	.669	1.126	.318	.238	.380	3	
5/16 - 18UNC	J3447	J4447	J8447	H7	2.720	.669	1.126	.318	.238	.380	3	
5/16 - 18UNC	J344A	J444A	J844A	H11	2.720	.669	1.126	.318	.238	.380	3	

▶ NEXT PAGE

◎ : Excellent ○ : Good

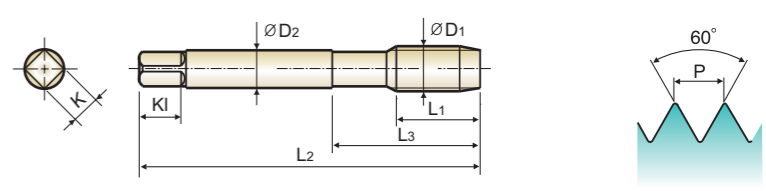
ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21	
HB	125	190	250	270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

ISO	N					S					H										
	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	400Rm	1050Rm	550	630	400	550
Recommended											○										

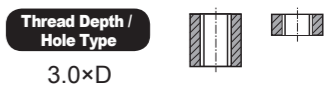


J3/J4/J8 SERIES

SPIRAL POINT TAPS PLUG STYLE for Steels



ANSI
A variety of H Limit



Material groups: VG, HSS-E, UNC UNF, USCTI 302A, 4P~5P, Bright, Steam Oxide, Hardslick

Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Steam Oxide	Bright	Hardslick								
5/16 - 24UNF	J3462	J4462	J8462	H2	2.720	.669	1.126	.318	.238	.380	3	
5/16 - 24UNF	J3463	J4463	J8463	H3	2.720	.669	1.126	.318	.238	.380	3	
5/16 - 24UNF	J3464	J4464	J8464	H4	2.720	.669	1.126	.318	.238	.380	3	
5/16 - 24UNF	J3465	J4465	J8465	H5	2.720	.669	1.126	.318	.238	.380	3	
5/16 - 24UNF	J3466	J4466	J8466	H6	2.720	.669	1.126	.318	.238	.380	3	
5/16 - 24UNF	J3467	J4467	J8467	H7	2.720	.669	1.126	.318	.238	.380	3	
5/16 - 24UNF	J346A	J446A	J846A	H11	2.720	.669	1.126	.318	.238	.380	3	
3/8 - 16UNC	J3483	J4483	J8483	H3	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 16UNC	J3485	J4485	J8485	H5	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 16UNC	J3487	J4487	J8487	H7	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 16UNC	J348A	J448A	J848A	H11	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 24UNF	J3502	J4502	J8502	H2	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 24UNF	J3503	J4503	J8503	H3	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 24UNF	J3504	J4504	J8504	H4	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 24UNF	J3505	J4505	J8505	H5	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 24UNF	J3506	J4506	J8506	H6	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 24UNF	J3507	J4507	J8507	H7	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 24UNF	J350A	J450A	J850A	H11	2.937	.748	1.252	.381	.286	.440	3	
7/16 - 14UNC	J3523	J4523	J8523	H3	3.157	.866	1.437	.323	.242	.410	3	
7/16 - 14UNC	J3525	J4525	J8525	H5	3.157	.866	1.437	.323	.242	.410	3	
7/16 - 14UNC	J3527	J4527	J8527	H7	3.157	.866	1.437	.323	.242	.410	3	
7/16 - 14UNC	J352A	J452A	J852A	H11	3.157	.866	1.437	.323	.242	.410	3	
7/16 - 20UNF	J3543	J4543	J8543	H3	3.157	.866	1.437	.323	.242	.410	3	
7/16 - 20UNF	J3545	J4545	J8545	H5	3.157	.866	1.437	.323	.242	.410	3	
7/16 - 20UNF	J3547	J4547	J8547	H7	3.157	.866	1.437	.323	.242	.410	3	
7/16 - 20UNF	J354A	J454A	J854A	H11	3.157	.866	1.437	.323	.242	.410	3	

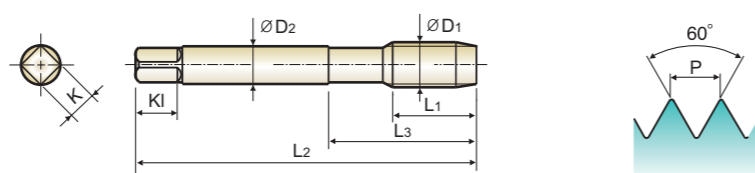
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◎ : Excellent ○ : Good

ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular 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	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	○	○	○	○	○	○	○	○	○	

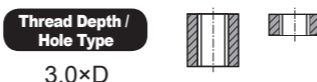
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	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	400Rm	1050Rm	550	630	400	550
Recommended											○										

SPIRAL POINT TAPS PLUG STYLE for Steels



ANSI

A variety of H Limit



Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Steam Oxide	Bright	Hardslick								
1/2 - 13UNC		J3563	J4563	J8563	H3	3.374	.984	1.657	.367	.275	.440	3
1/2 - 13UNC		J3565	J4565	J8565	H5	3.374	.984	1.657	.367	.275	.440	3
1/2 - 13UNC		J3567	J4567	J8567	H7	3.374	.984	1.657	.367	.275	.440	3
1/2 - 13UNC		J356A	J456A	J856A	H11	3.374	.984	1.657	.367	.275	.440	3
1/2 - 20UNF		J3582	J4582	J8582	H2	3.374	.984	1.657	.367	.275	.440	3
1/2 - 20UNF		J3583	J4583	J8583	H3	3.374	.984	1.657	.367	.275	.440	3
1/2 - 20UNF		J3585	J4585	J8585	H5	3.374	.984	1.657	.367	.275	.440	3
1/2 - 20UNF		J3587	J4587	J8587	H7	3.374	.984	1.657	.367	.275	.440	3
1/2 - 20UNF		J358A	J458A	J858A	H11	3.374	.984	1.657	.367	.275	.440	3
9/16 - 12UNC		J3605	J4605	J8605	H5	3.594	.984	1.657	.429	.322	.500	3
9/16 - 18UNF		J3625	J4625	J8625	H5	3.594	.984	1.657	.429	.322	.500	3
5/8 - 11UNC		J3643	J4643	J8643	H3	3.811	1.083	1.811	.480	.360	.560	3
5/8 - 11UNC		J3645	J4645	J8645	H5	3.811	1.083	1.811	.480	.360	.560	3
5/8 - 18UNF		J3663	J4663	J8663	H3	3.811	1.083	1.811	.480	.360	.560	3
5/8 - 18UNF		J3665	J4665	J8665	H5	3.811	1.083	1.811	.480	.360	.560	3
5/8 - 18UNF		J3667	J4667	J8667	H7	3.811	1.083	1.811	.480	.360	.560	3
3/4 - 10UNC		J3703	J4703	J8703	H3	4.252	1.201	2.000	.590	.442	.690	3
3/4 - 10UNC		J3705	J4705	J8705	H5	4.252	1.201	2.000	.590	.442	.690	3
3/4 - 16UNF		J3723	J4723	J8723	H3	4.252	1.201	2.000	.590	.442	.690	3
3/4 - 16UNF		J3725	J4725	J8725	H5	4.252	1.201	2.000	.590	.442	.690	3
7/8 - 9UNC		J3745	J4745	J8745	H5	4.689	1.339	2.220	.697	.523	.750	3
7/8 - 14UNF		J3764	J4764	J8764	H4	4.689	1.339	2.220	.697	.523	.750	3
1" - 8UNC		J3784	J4784	J8784	H4	5.126	1.496	2.500	.800	.600	.810	3
1" - 12UNF		J3804	J4804	J8804	H4	5.126	1.496	2.500	.800	.600	.810	3
1-1/8 - 7UNC		J3826	J4826	J8826	H6	5.437	1.535	2.563	.896	.672	.880	4
1-1/8 - 8UN		J3836	J4836	J8836	H6	5.437	1.535	2.563	.896	.672	.880	4

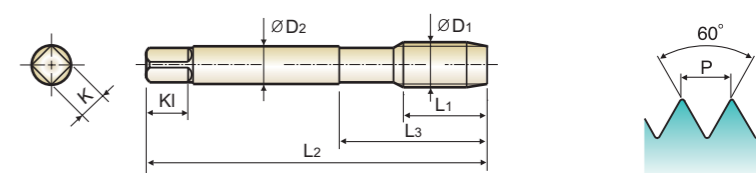
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◎ : Excellent ○ : Good

ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	○	○	○	○	○	○	○	○	○

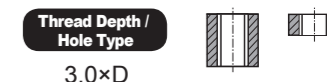
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
Material Description	21	22	23	24	25	26	27	28	29	30	31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

SPIRAL POINT TAPS PLUG STYLE for Steels



ANSI

A variety of H Limit



Unit : Inch

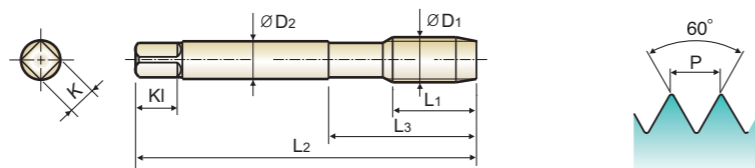
Size	TPI	EDP No.			Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Steam Oxide	Bright	Hardslick								
1-1/8 - 12UNF		J3845	J4845	J8845	H5	5.437	1.535	2.563	.896	.672	.880	4
1-1/4 - 7UNC		J3866	J4866	J8866	H6	5.752	1.535	2.563	1.021	.766	1.000	4
1-1/4 - 8UN		J3876	J4876	J8876	H6	5.752	1.535	2.563	1.021	.766	1.000	4
1-1/4 - 12UNF		J3885	J4885	J8885	H5	5.752	1.535	2.563	1.021	.766	1.000	4
1-3/8 - 6UNC		J3906	J4906	J8906	H6	6.063	1.791	3.000	1.108	.831	1.060	4
1-3/8 - 8UN		J3916	J4916	J8916	H6	6.063	1.791	3.000	1.108	.831	1.060	4
1-3/8 - 12UNF		J3925	J4925	J8925	H5	6.063	1.791	3.000	1.108	.831	1.060	4
1-1/2 - 6UNC		J3946	J4946	J8946	H6	6.374	1.791	3.000	1.233	.925	1.130	4
1-1/2 - 8UN		J3956	J4956	J8956	H6	6.374	1.791	3.000	1.233	.925	1.130	4
1-1/2 - 12UNF		J3965	J4965	J8965	H5	6.374	1.791	3.000	1.233	.925	1.130	4

◎ : Excellent ○ : Good

ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	○	○	○	○	○	○	○	○	○

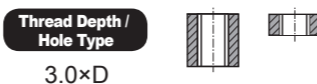
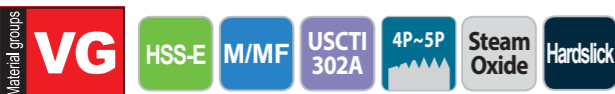
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
Material Description	21	22	23	24	25	26	27	28	29	30	31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

SPIRAL POINT TAPS PLUG STYLE for Steels



ANSI

A variety of D Limit



Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
M3	x 0.5	IB203	IC203	D3	1.937	.374	.646	.141	.110	.190	3
M3	x 0.5	IB20A	IC20A	D11	1.937	.374	.646	.141	.110	.190	3
M3.5	x 0.6	IB224	IC224	D4	2.000	.413	.709	.141	.110	.190	3
M3.5	x 0.6	IB22A	IC22A	D11	2.000	.413	.709	.141	.110	.190	3
M4	x 0.7	IB244	IC244	D4	2.126	.453	.768	.168	.131	.250	3
M4	x 0.7	IB24A	IC24A	D11	2.126	.453	.768	.168	.131	.250	3
M5	x 0.8	IB284	IC284	D4	2.374	.531	.933	.194	.152	.250	3
M5	x 0.8	IB28A	IC28A	D11	2.374	.531	.933	.194	.152	.250	3
M6	x 1.0	IB315	IC315	D5	2.500	.591	1.000	.255	.191	.310	3
M6	x 1.0	IB31A	IC31A	D11	2.500	.591	1.000	.255	.191	.310	3
M7	x 1.0	IB345	IC345	D5	2.720	.669	1.126	.318	.238	.380	3
M7	x 1.0	IB34A	IC34A	D11	2.720	.669	1.126	.318	.238	.380	3
M8	x 1.25	IB365	IC365	D5	2.720	.669	1.126	.318	.238	.380	3
M8	x 1.25	IB36A	IC36A	D11	2.720	.669	1.126	.318	.238	.380	3
M8	x 1.0	IB375	IC375	D5	2.720	.669	1.126	.318	.238	.380	3
M8	x 1.0	IB37A	IC37A	D11	2.720	.669	1.126	.318	.238	.380	3
M10	x 1.5	IB426	IC426	D6	2.937	.748	1.252	.381	.286	.440	3
M10	x 1.5	IB42A	IC42A	D11	2.937	.748	1.252	.381	.286	.440	3
M10	x 1.25	IB435	IC435	D5	2.937	.748	1.252	.381	.286	.440	3
M10	x 1.25	IB43A	IC43A	D11	2.937	.748	1.252	.381	.286	.440	3
M10	x 1.0	IB445	IC445	D5	2.937	.748	1.252	.381	.286	.440	3
M10	x 1.0	IB44A	IC44A	D11	2.937	.748	1.252	.381	.286	.440	3
M12	x 1.75	IB506	IC506	D6	3.374	.984	1.657	.367	.275	.440	3
M12	x 1.75	IB50A	IC50A	D11	3.374	.984	1.657	.367	.275	.440	3
M12	x 1.5	IB516	IC516	D6	3.374	.984	1.657	.367	.275	.440	3
M12	x 1.5	IB51A	IC51A	D11	3.374	.984	1.657	.367	.275	.440	3

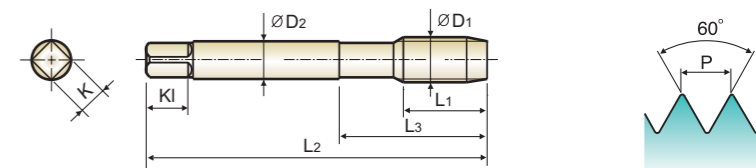
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◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended																					

SPIRAL POINT TAPS PLUG STYLE for Steels



ANSI

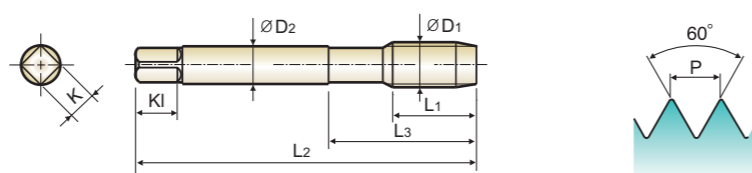
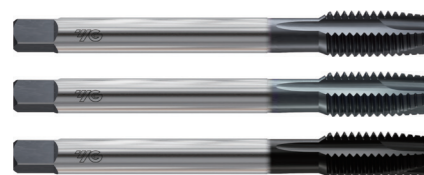
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Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
M12	x 1.25	IB525	IC525	D5	3.374	.984	1.657	.367	.275	.440	3
M12	x 1.25	IB52A	IC52A	D11	3.374	.984	1.657	.367	.275	.440	3
M14	x 2.0	IB547	IC547	D7	3.594	.984	1.657	.429	.322	.500	3
M14	x 1.5	IB556	IC556	D6	3.594	.984	1.657	.429	.322	.500	3
M16	x 2.0	IB607	IC607	D7	3.811	1.083	1.811	.480	.360	.560	3
M16	x 1.5	IB616	IC616	D6	3.811	1.083	1.811	.480	.360	.560	3
M18	x 2.5	IB657	IC657	D7	4.031	1.083	1.811	.542	.406	.630	3
M18	x 1.5	IB676	IC676	D6	4.031	1.083	1.811	.542	.406	.630	3
M20	x 2.5	IB708	IC708	D8	4.469	1.201	2.000	.652	.489	.690	3
M20	x 1.5	IB726	IC726	D6	4.469	1.201	2.000	.652	.489	.690	3
M22	x 2.5	IB748	IC748	D8	4.689	1.339	2.220	.697	.523	.750	3
M22	x 1.5	IB766	IC766	D6	4.689	1.339	2.220	.697	.523	.750	3
M24	x 3.0	IB788	IC788	D8	4.906	1.339	2.220	.760	.570	.750	4
M24	x 1.5	IB806	IC806	D6	4.906	1.339	2.220	.760	.570	.750	4
M27	x 3.0	IB868	IC868	D8	5.126	1.496	2.500	.896	.672	.880	4
M27	x 1.5	IB886	IC886	D6	5.126	1.496	2.500	.896	.672	.880	4
M30	x 3.5	IB949	IC949	D9	5.437	1.713	2.854	1.021	.766	1.000	4
M30	x 1.5	IB976	IC976	D6	5.437	1.713	2.854	1.021	.766	1.000	4

SPIRAL POINT TAPS PLUG STYLE for Steels



DIN Length-ANSI Shank



Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length Kl	No. of Flute
		Steam Oxide	TiCN	Hardslick								
M3	x 0.5	J9203	K7203	K2203	D3	2.205	.374	.646	.141	.110	.190	3
M3.5	x 0.6	J9224	K7224	K2224	D4	2.205	.413	.709	.141	.110	.190	3
M4	x 0.7	J9244	K7244	K2244	D4	2.480	.453	.768	.168	.131	.250	3
M5	x 0.8	J9284	K7284	K2284	D4	2.756	.531	.933	.194	.152	.250	3
M6	x 1.0	J9315	K7315	K2315	D5	3.150	.591	1.000	.255	.191	.310	3
M7	x 1.0	J9345	K7345	K2345	D5	3.150	.669	1.126	.318	.238	.380	3
M8	x 1.25	J9365	K7365	K2365	D5	3.543	.669	1.126	.318	.238	.380	3
M8	x 1.0	J9375	K7375	K2375	D5	3.543	.669	1.126	.318	.238	.380	3
M10	x 1.5	J9426	K7426	K2426	D6	3.937	.748	1.252	.381	.286	.440	3
M10	x 1.25	J9435	K7435	K2435	D5	3.937	.748	1.252	.381	.286	.440	3
M12	x 1.75	J9506	K7506	K2506	D6	4.331	.984	1.657	.429	.322	.500	3
M12	x 1.25	J9525	K7525	K2525	D5	3.937	.984	1.657	.367	.275	.440	3
M14	x 2.0	J9547	K7547	K2547	D7	4.331	.984	1.657	.429	.322	.500	3
M14	x 1.5	J9556	K7556	K2556	D6	3.937	.984	1.657	.429	.322	.500	3
M16	x 2.0	J9607	K7607	K2607	D7	4.331	1.083	1.811	.480	.360	.560	3
M16	x 1.5	J9616	K7616	K2616	D6	3.937	1.083	1.811	.480	.360	.560	3
M18	x 2.5	J9657	K7657	K2657	D7	4.921	1.083	1.811	.542	.406	.630	3
M18	x 1.5	J9676	K7676	K2676	D6	4.331	1.083	1.811	.542	.406	.630	3

HSS-PM & HSS-E

YG TAP INOX

- For Stainless Steels

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
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								
	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					
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended																					

SELECTION GUIDE



HSS-PM & HSS-E YG TAP INOX - For Stainless Steels

Please visit globalyg1.com/mat for material search

Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF), SURFACE TREATMENT / COATING, MODEL, ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and hole diameter ranges.

Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF), SURFACE TREATMENT / COATING, MODEL, ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and hole diameter ranges.

SELECTION GUIDE



HSS-PM & HSS-E YG TAP INOX - For Stainless Steels



Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF), SURFACE TREATMENT / COATING, MODEL, ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and material compatibility symbols.

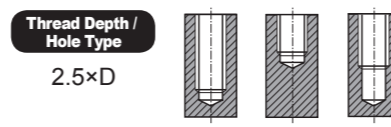
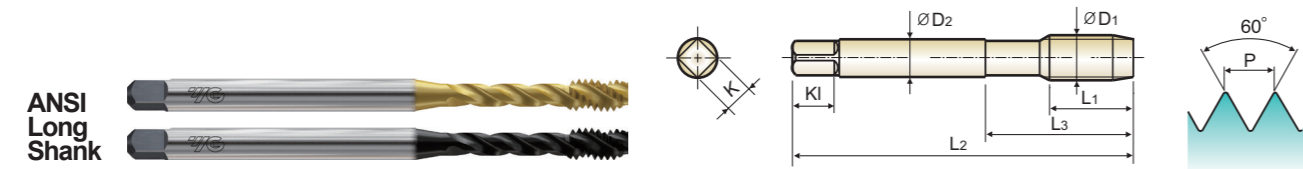
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G7 / G9 / G8 / H0 SERIES

EXTENDED LENGTH SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Stainless Steels

Extended length for greater reach



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		TiN 4" OAL	Hardslick 4" OAL								
#4 - 40UNC		G7162	G9162	H2	4.000	.236	.846	.141	.110	.190	3
#6 - 32UNC		G7243	G9243	H3	4.000	.276	1.024	.141	.110	.190	3
#8 - 32UNC		G7283	G9283	H3	4.000	.276	1.122	.168	.131	.250	3
#10 - 24UNC		G7323	G9323	H3	4.000	.354	1.319	.194	.152	.250	3
#10 - 32UNF		G7343	G9343	H3	4.000	.276	1.319	.194	.152	.250	3
1/4 - 20UNC		G7403	G9403	H3	4.000	.433	1.496	.255	.191	.310	3

Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		TiN 6" OAL	Hardslick 6" OAL								
#6 - 32UNC		G8243	H0243	H3	6.000	.276	1.024	.141	.110	.190	3
#8 - 32UNC		G8283	H0283	H3	6.000	.276	1.122	.168	.131	.250	3
#10 - 24UNC		G8323	H0323	H3	6.000	.354	1.319	.194	.152	.250	3
#10 - 32UNF		G8343	H0343	H3	6.000	.276	1.319	.194	.152	.250	3
1/4 - 20UNC		G8403	H0403	H3	6.000	.433	1.496	.255	.191	.310	3
1/4 - 28UNF		G8423	H0423	H3	6.000	.433	1.496	.255	.191	.310	3
5/16 - 18UNC		G8443	H0443	H3	6.000	.472	1.693	.318	.238	.380	3
5/16 - 24UNF		G8463	H0463	H3	6.000	.394	1.693	.318	.238	.380	3
3/8 - 16UNC		G8483	H0483	H3	6.000	.551	1.870	.381	.286	.440	3
3/8 - 24UNF		G8503	H0503	H3	6.000	.394	1.870	.381	.286	.440	3
7/16 - 14UNC		G8523	H0523	H3	6.000	.591	2.165	.323	.242	.410	3
7/16 - 20UNF		G8543	H0543	H3	6.000	.472	2.165	.323	.242	.410	3
1/2 - 13UNC		G8563	H0563	H3	6.000	.630	2.480	.367	.275	.440	3
1/2 - 20UNF		G8583	H0583	H3	6.000	.472	2.480	.367	.275	.440	3
5/8 - 11UNC		G8643	H0643	H3	6.000	.748	2.717	.480	.360	.560	4

◎ : Excellent ○ : Good

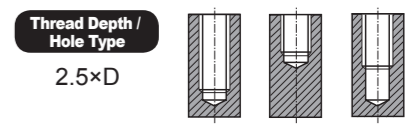
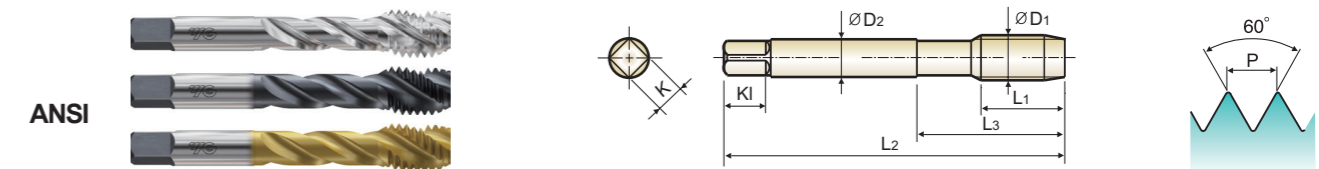
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○					○	○														



B1/B0/B2/D2 SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Stainless Steels



Unit : Inch

Size	TPI	EDP No.				Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Bright	Steam Oxide	TiN	Hardslick								
#2 - 56UNC		B1082	B0082	B2082	D2082	H2	1.752	.157	.433	.141	.110	.190	2
#3 - 48UNC		-	B0122	-	D2122	H2	1.811	.197	.492	.141	.110	.190	2
#4 - 40UNC		B1162	B0162	B2162	D2162	H2	1.874	.236	.563	.141	.110	.190	2
#4 - 40UNC		-	B0163	-	D2163	H3	1.874	.236	.563	.141	.110	.190	2
#4 - 40UNC		-	B0164	-	D2164	H4	1.874	.236	.563	.141	.110	.190	2
#4 - 40UNC		B1165	B0165	-	D2165	H5	1.874	.236	.563	.141	.110	.190	2
#4 - 40UNC		B1166	B0166	-	D2166	H6	1.874	.236	.563	.141	.110	.190	2
#4 - 48UNF		-	B0182	-	D2182	H2	1.874	.236	.563	.141	.110	.190	2
#5 - 40UNC		B1202	B0202	B2202	D2202	H2	1.937	.236	.626	.141	.110	.190	3
#6 - 32UNC		-	B0242	-	D2242	H2	2.000	.276	.689	.141	.110	.190	3
#6 - 32UNC		B1243	B0243	B2243	D2243	H3	2.000	.276	.689	.141	.110	.190	3
#6 - 32UNC		-	B0244	-	D2244	H4	2.000	.276	.689	.141	.110	.190	3
#6 - 32UNC		-	B0245	-	D2245	H5	2.000	.276	.689	.141	.110	.190	3
#6 - 32UNC		-	B0247	-	D2247	H7	2.000	.276	.689	.141	.110	.190	3
#6 - 40UNF		-	B0262	-	D2262	H2	2.000	.276	.689	.141	.110	.190	3
#6 - 40UNF		-	B0263	-	D2263	H3	2.000	.276	.689	.141	.110	.190	3
#8 - 32UNC		-	B0282	-	D2282	H2	2.126	.276	.752	.168	.131	.250	3
#8 - 32UNC		B1283	B0283	B2283	D2283	H3	2.126	.276	.752	.168	.131	.250	3
#8 - 32UNC		-	B0284	-	D2284	H4	2.126	.276	.752	.168	.131	.250	3
#8 - 32UNC		-	B0285	-	D2285	H5	2.126	.276	.752	.168	.131	.250	3
#8 - 32UNC		-	B0286	-	D2286	H6	2.126	.276	.752	.168	.131	.250	3
#8 - 32UNC		-	B0287	-	D2287	H7	2.126	.276	.752	.168	.131	.250	3
#8 - 32UNF		-	B0303	-	D2303	H3	2.126	.276	.752	.168	.131	.250	3
#10 - 24UNC		-	B0322	-	D2322	H2	2.374	.354	.906	.194	.152	.250	3
#10 - 24UNC		B1323	B0323	B2323	D2323	H3	2.374	.354	.906	.194	.152	.250	3
#10 - 24UNC		-	B0325	-	D2325	H5	2.374	.354	.906	.194	.152	.250	3

▶ NEXT PAGE

◎ : Excellent ○ : Good

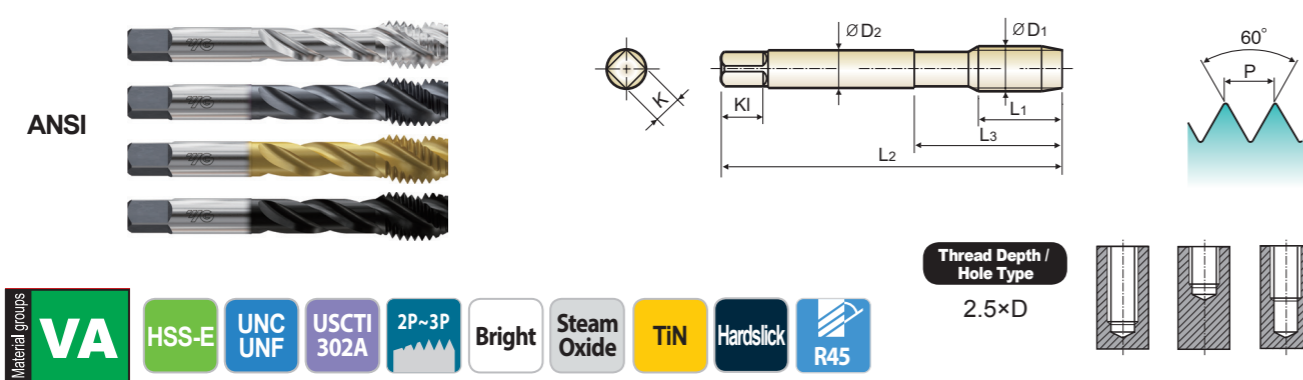
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○					○	○														



B1/B0/B2/D2 SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Stainless Steels



Unit : Inch

Size	TPI	EDP No.				Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Bright	Steam Oxide	TiN	Hardslick								
#10 - 24UNC	-	B0327	-	D2327	H7	2.374	.354	.906	.194	.152	.250	3	
#10 - 32UNF	-	B0342	-	D2342	H2	2.374	.276	.906	.194	.152	.250	3	
#10 - 32UNF	B1343	B0343	B2343	D2343	H3	2.374	.276	.906	.194	.152	.250	3	
#10 - 32UNF	-	B0344	-	D2344	H4	2.374	.276	.906	.194	.152	.250	3	
#10 - 32UNF	-	B0345	-	D2345	H5	2.374	.276	.906	.194	.152	.250	3	
#10 - 32UNF	-	B0346	-	D2346	H6	2.374	.276	.906	.194	.152	.250	3	
#10 - 32UNF	-	B0347	-	D2347	H7	2.374	.276	.906	.194	.152	.250	3	
#12 - 24UNC	-	B0363	-	D2363	H3	2.374	.354	.906	.220	.165	.280	3	
#12 - 28UNF	-	B0383	-	D2383	H3	2.374	.276	.906	.220	.165	.280	3	
1/4 - 20UNC	-	B0402	-	D2402	H2	2.500	.433	1.000	.255	.191	.310	3	
1/4 - 20UNC	B1403	B0403	B2403	D2403	H3	2.500	.433	1.000	.255	.191	.310	3	
1/4 - 20UNC	B1405	B0405	B2405	D2405	H5	2.500	.433	1.000	.255	.191	.310	3	
1/4 - 20UNC	-	B0407	-	D2407	H7	2.500	.433	1.000	.255	.191	.310	3	
1/4 - 28UNF	-	B0422	-	D2422	H2	2.500	.354	1.000	.255	.191	.310	3	
1/4 - 28UNF	B1423	B0423	B2423	D2423	H3	2.500	.354	1.000	.255	.191	.310	3	
1/4 - 28UNF	-	B0424	-	D2424	H4	2.500	.354	1.000	.255	.191	.310	3	
1/4 - 28UNF	-	B0425	-	D2425	H5	2.500	.354	1.000	.255	.191	.310	3	
1/4 - 28UNF	-	B0426	-	D2426	H6	2.500	.354	1.000	.255	.191	.310	3	
1/4 - 28UNF	-	B0427	-	D2427	H7	2.500	.354	1.000	.255	.191	.310	3	
5/16 - 18UNC	B1443	B0443	B2443	D2443	H3	2.720	.472	1.126	.318	.238	.380	3	
5/16 - 18UNC	B1445	B0445	B2445	D2445	H5	2.720	.472	1.126	.318	.238	.380	3	
5/16 - 18UNC	-	B0447	-	D2447	H7	2.720	.472	1.126	.318	.238	.380	3	
5/16 - 24UNF	B1463	B0463	B2463	D2463	H3	2.720	.394	1.126	.318	.238	.380	3	
5/16 - 24UNF	-	B0464	-	D2464	H4	2.720	.394	1.126	.318	.238	.380	3	
5/16 - 24UNF	-	B0465	-	D2465	H5	2.720	.394	1.126	.318	.238	.380	3	
5/16 - 24UNF	-	B0467	-	D2467	H7	2.720	.394	1.126	.318	.238	.380	3	

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◎ : Excellent ○ : Good

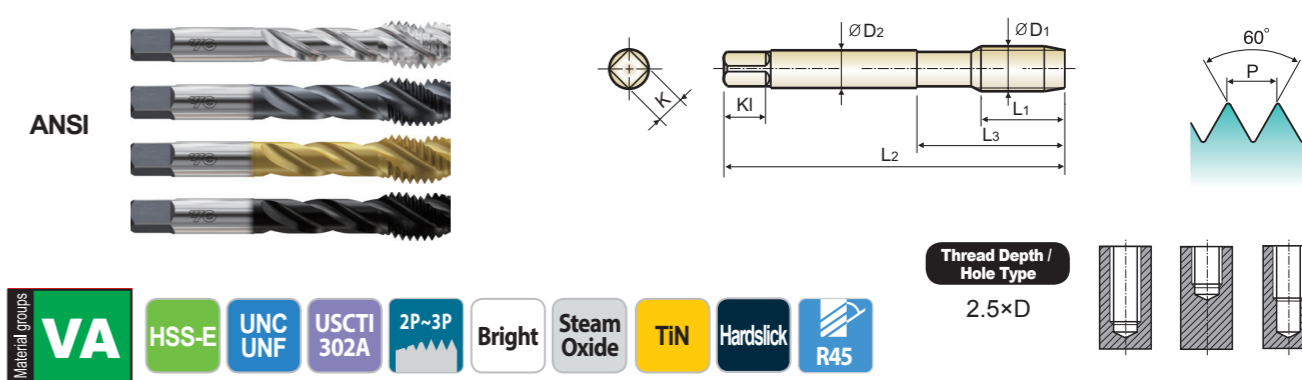
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○					○	○														



B1/B0/B2/D2 SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Stainless Steels



Unit : Inch

Size	TPI	EDP No.				Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Bright	Steam Oxide	TiN	Hardslick								
3/8 - 16UNC	B1483	B0483	B2483	D2483	H3	2.937	.551	1.252	.381	.286	.440	3	
3/8 - 16UNC	B1485	B0485	B2485	D2485	H5	2.937	.551	1.252	.381	.286	.440	3	
3/8 - 16UNC	-	B0487	-	D2487	H7	2.937	.551	1.252	.381	.286	.440	3	
3/8 - 24UNF	B1503	B0503	B2503	D2503	H3	2.937	.394	1.252	.381	.286	.440	3	
3/8 - 24UNF	-	B0504	-	D2504	H4	2.937	.394	1.252	.381	.286	.440	3	
3/8 - 24UNF	-	B0505	-	D2505	H5	2.937	.394	1.252	.381	.286	.440	3	
7/16 - 14UNC	B1523	B0523	B2523	D2523	H3	3.157	.591	1.850	.323	.242	.410	3	
7/16 - 14UNC	B1525	B0525	B2525	D2525	H5	3.157	.591	1.850	.323	.242	.410	3	
7/16 - 14UNC	-	B0527	-	D2527	H7	3.157	.591	1.850	.323	.242	.410	3	
7/16 - 20UNF	B1543	B0543	B2543	D2543	H3	3.157	.472	1.850	.323	.242	.410	3	
7/16 - 20UNF	B1545	B0545	B2545	D2545	H5	3.157	.472	1.850	.323	.242	.410	3	
7/16 - 20UNF	-	B0547	-	D2547	H7	3.157	.472	1.850	.323	.242	.410	3	
1/2 - 13UNC	B1563	B0563	B2563	D2563	H3	3.374	.630	2.067	.367	.275	.440	3	
1/2 - 13UNC	B1565	B0565	B2565	D2565	H5	3.374	.630	2.067	.367	.275	.440	3	
1/2 - 13UNC	-	B0567	-	D2567	H7	3.374	.630	2.067	.367	.275	.440	3	
1/2 - 20UNF	B1583	B0583	B2583	D2583	H3	3.374	.472	2.067	.367	.275	.440	3	
1/2 - 20UNF	-	B0585	-	D2585	H5	3.374	.472	2.067	.367	.275	.440	3	
1/2 - 20UNF	-	B0586	-	D2586	H6	3.374	.472	2.067	.367	.275	.440	3	
1/2 - 20UNF	-	B0587	-	D2587	H7	3.374	.472	2.067	.367	.275	.440	3	
9/16 - 12UNC	B1603	B0603	B2603	D2603	H3	3.594	.709	2.067	.429	.322	.500	3	
9/16 - 18UNF	B1623	B0623	B2623	D2623	H3	3.594	.512	2.067	.429	.322	.500	3	
5/8 - 11UNC	B1643	B0643	B2643	D2643	H3	3.811	.748	2.205	.480	.360	.560	4	
5/8 - 11UNC	B1645	B0645	B2645	D2645	H5	3.811	.748	2.205	.480	.360	.560	4	
5/8 - 18UNF	B1663	B0663	B2663	D2663	H3	3.811	.512	2.205	.480	.360	.560	4	
5/8 - 18UNF	B1665	B0665	B2665	D2665	H5	3.811	.512	2.205	.480	.360	.560	4	
3/4 - 10UNC	B1703	B0703	B2703	D2703	H3	4.252	.827	2.480	.590	.442	.690	4	

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◎ : Excellent ○ : Good

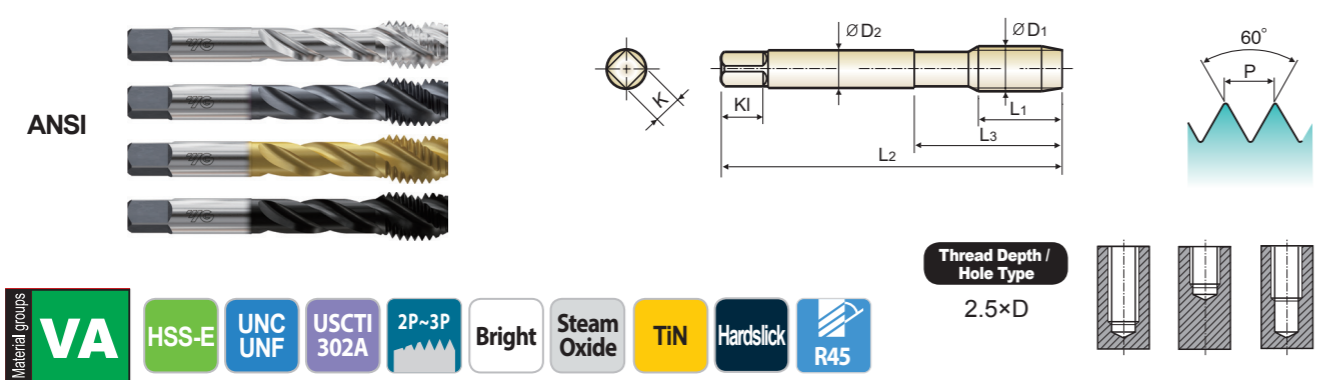
ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○					○	○														



B1/B0/B2/D2 SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Stainless Steels



Unit : Inch

Size	TPI	EDP No.				Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Bright	Steam Oxide	TiN	Hardslick								
3/4 - 10UNC	-	-	B0706	-	D2706	H6	4.252	.827	2.480	.590	.442	.690	4
3/4 - 16UNF	B1723	B0723	B2723	D2723	H3	4.252	.591	2.480	.590	.442	.690	4	
3/4 - 16UNF	B1725	B0725	B2725	D2725	H5	4.252	.591	2.480	.590	.442	.690	4	
7/8 - 9UNC	B1744	B0744	B2744	D2744	H4	4.689	.827	2.815	.697	.523	.750	4	
7/8 - 14UNF	B1764	B0764	B2764	D2764	H4	4.689	.709	2.815	.697	.523	.750	4	
1" - 8UNC	B1784	B0784	B2784	D2784	H4	5.126	.984	3.091	.800	.600	.810	4	
1" - 12UNF	B1804	B0804	B2804	D2804	H4	5.126	.709	3.091	.800	.600	.810	4	

◎ : Excellent ○ : Good

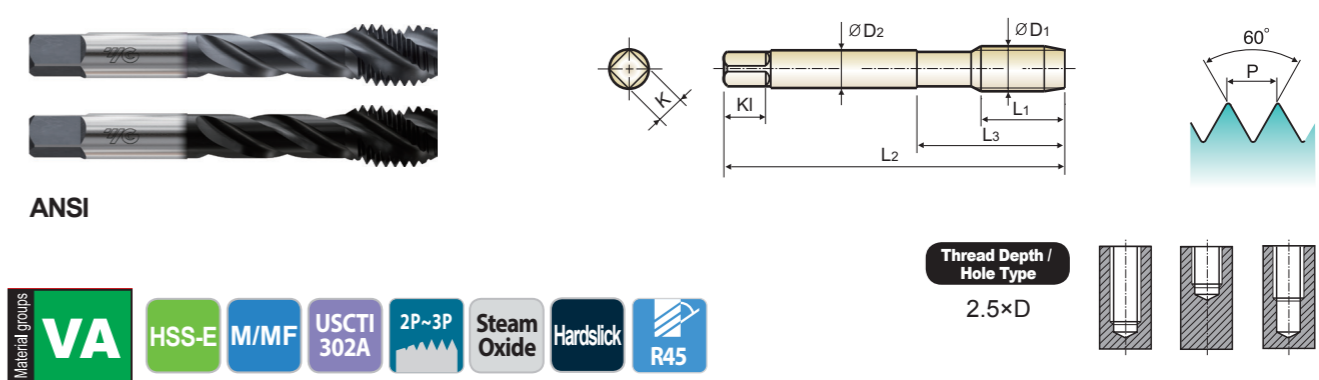
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	35	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										
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○					○	○														



BS/BT SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Stainless Steels



Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Steam Oxide	Hardslick								
M3	x 0.5	BS203	BT203	D3	1.937	.197	.646	.141	.110	.190	3
M3.5	x 0.6	BS224	BT224	D4	2.000	.276	.709	.141	.110	.190	3
M4	x 0.7	BS244	BT244	D4	2.126	.276	.768	.168	.131	.250	3
M5	x 0.8	BS284	BT284	D4	2.374	.354	.933	.194	.152	.250	3
M6	x 1.0	BS315	BT315	D5	2.500	.433	1.000	.255	.191	.310	3
M7	x 1.0	BS345	BT345	D5	2.720	.433	1.126	.318	.238	.380	3
M8	x 1.25	BS365	BT365	D5	2.720	.472	1.126	.318	.238	.380	3
M8	x 1.0	BS375	BT375	D5	2.720	.433	1.126	.318	.238	.380	3
M10	x 1.5	BS426	BT426	D6	2.937	.512	1.252	.381	.286	.440	3
M10	x 1.25	BS435	BT435	D5	2.937	.472	1.252	.381	.286	.440	3
M10	x 1.0	BS445	BT445	D5	2.937	.433	1.252	.381	.286	.440	3
M12	x 1.75	BS506	BT506	D6	3.374	.591	2.067	.367	.275	.440	3
M12	x 1.25	BS525	BT525	D5	3.374	.551	2.067	.367	.275	.440	3
M14	x 2.0	BS547	BT547	D7	3.594	.709	2.067	.429	.322	.500	3
M14	x 1.5	BS556	BT556	D6	3.594	.551	2.067	.429	.322	.500	3
M16	x 2.0	BS607	BT607	D7	3.811	.709	2.205	.480	.360	.560	3
M16	x 1.5	BS616	BT616	D6	3.811	.551	2.205	.480	.360	.560	3
M18	x 2.5	BS657	BT657	D7	4.031	.787	2.205	.542	.406	.630	4
M18	x 1.5	BS676	BT676	D6	4.031	.551	2.205	.542	.406	.630	4

◎ : Excellent ○ : Good

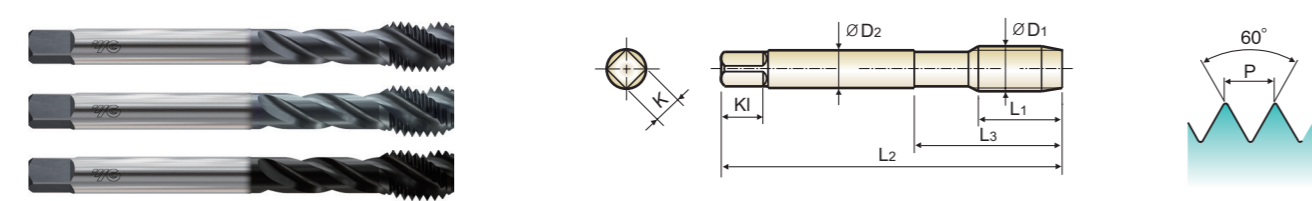
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	35	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										
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	55	60	42	55
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○					○	○														

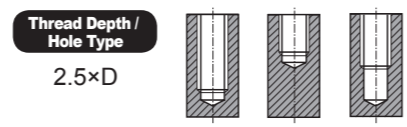


E6/E8/E9 SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Stainless Steels



DIN Length-ANSI Shank



Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	TiCN	Hardslick								
M3	x 0.5	E6203	E8203	E9203	D3	2.205	.197	.646	.141	.110	.190	3
M3.5	x 0.6	E6224	E8224	E9224	D4	2.205	.276	.709	.141	.110	.190	3
M4	x 0.7	E6244	E8244	E9244	D4	2.480	.276	.768	.168	.131	.250	3
M5	x 0.8	E6284	E8284	E9284	D4	2.756	.354	.933	.194	.152	.250	3
M6	x 1.0	E6315	E8315	E9315	D5	3.150	.433	1.000	.255	.191	.310	3
M7	x 1.0	E6345	E8345	E9345	D5	3.150	.433	1.126	.318	.238	.380	3
M8	x 1.25	E6365	E8365	E9365	D5	3.543	.472	1.126	.318	.238	.380	3
M8	x 1.0	E6375	E8375	E9375	D5	3.543	.433	1.126	.318	.238	.380	3
M10	x 1.5	E6426	E8426	E9426	D6	3.937	.512	1.252	.381	.286	.440	3
M10	x 1.25	E6435	E8435	E9435	D5	3.937	.472	1.252	.381	.286	.440	3
M12	x 1.75	E6506	E8506	E9506	D6	4.331	.591	2.067	.367	.275	.440	3
M12	x 1.25	E6525	E8525	E9525	D5	3.937	.551	2.067	.367	.275	.440	3
M14	x 2.0	E6547	E8547	E9547	D7	4.331	.709	2.067	.429	.322	.500	3
M14	x 1.5	E6556	E8556	E9556	D6	3.937	.551	2.067	.429	.322	.500	3
M16	x 2.0	E6607	E8607	E9607	D7	4.331	.709	2.205	.480	.360	.560	3
M16	x 1.5	E6616	E8616	E9616	D6	3.937	.551	2.205	.480	.360	.560	3
M18	x 2.5	E6657	E8657	E9657	D7	4.921	.787	2.205	.542	.406	.630	4
M18	x 1.5	E6676	E8676	E9676	D6	4.331	.551	2.205	.542	.406	.630	4

© : Excellent ○ : Good

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

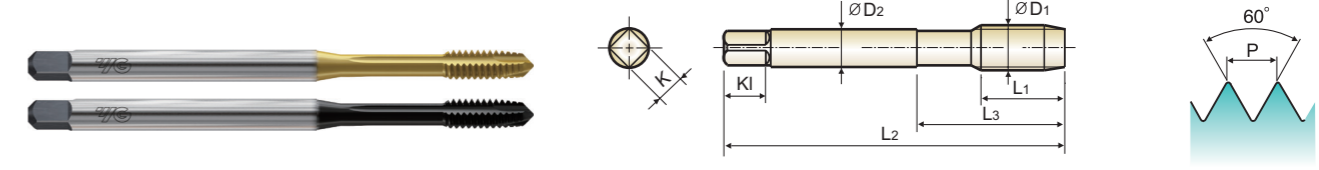
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
Material Description	21	22	23	24	25	26	27	28	29	30	31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



M0/M2 SERIES
M1/M3 SERIES

EXTENDED LENGTH SPIRAL POINT TAPS PLUG STYLE for Stainless Steels

Extended length for greater reach



ANSI Long Shank



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		TiN 4" OAL	Hardslick 4" OAL								
#4	- 40UNC	M0162	M2162	H2	4.000	.335	.846	.141	.110	.190	2
#6	- 32UNC	M0243	M2243	H3	4.000	.413	1.024	.141	.110	.190	2
#8	- 32UNC	M0283	M2283	H3	4.000	.453	1.122	.168	.131	.250	3
#10	- 24UNC	M0323	M2323	H3	4.000	.531	1.319	.194	.152	.250	3
#10	- 32UNF	M0343	M2343	H3	4.000	.531	1.319	.194	.152	.250	3
1/4	- 20UNC	M0403	M2403	H3	4.000	.591	1.496	.255	.191	.310	3

Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		TiN 6" OAL	Hardslick 6" OAL								
#6	- 32UNC	M1243	M3243	H3	6.000	.413	1.024	.141	.110	.190	2
#8	- 32UNC	M1283	M3283	H3	6.000	.453	1.122	.168	.131	.250	3
#10	- 24UNC	M1323	M3323	H3	6.000	.531	1.319	.194	.152	.250	3
#10	- 32UNF	M1343	M3343	H3	6.000	.531	1.319	.194	.152	.250	3
1/4	- 20UNC	M1403	M3403	H3	6.000	.591	1.496	.255	.191	.310	3
1/4	- 28UNF	M1423	M3423	H3	6.000	.591	1.496	.255	.191	.310	3
5/16	- 18UNC	M1443	M3443	H3	6.000	.669	1.693	.318	.238	.380	3
5/16	- 24UNF	M1463	M3463	H3	6.000	.669	1.693	.318	.238	.380	3
3/8	- 16UNC	M1483	M3483	H3	6.000	.748	1.870	.381	.286	.440	3
3/8	- 24UNF	M1503	M3503	H3	6.000	.748	1.870	.381	.286	.440	3
7/16	- 14UNC	M1523	M3523	H3	6.000	.866	2.165	.323	.242	.410	3
7/16	- 20UNF	M1543	M3543	H3	6.000	.866	2.165	.323	.242	.410	3
1/2	- 13UNC	M1563	M3563	H3	6.000	.984	2.480	.367	.275	.440	3
1/2	- 20UNF	M1583	M3583	H3	6.000	.984	2.480	.367	.275	.440	3
9/16	- 12UNC	M1603	M3603	H3	6.000	.984	2.480	.429	.322	.500	3
9/16	- 18UNF	M1623	M3623	H3	6.000	.984	2.480	.429	.322	.500	3
5/8	- 11UNC	M1643	M3643	H3	6.000	1.083	2.717	.480	.360	.560	3

© : Excellent ○ : Good

ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	35	10	29	32	38	15	35	15	23	10	10	26	3	25	21	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	15	30	25	38	34	15	30	25	38	34	55	60	42	55	55	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○					○	○														



10/12/J2 SERIES

SPIRAL POINT TAPS PLUG STYLE for Stainless Steels

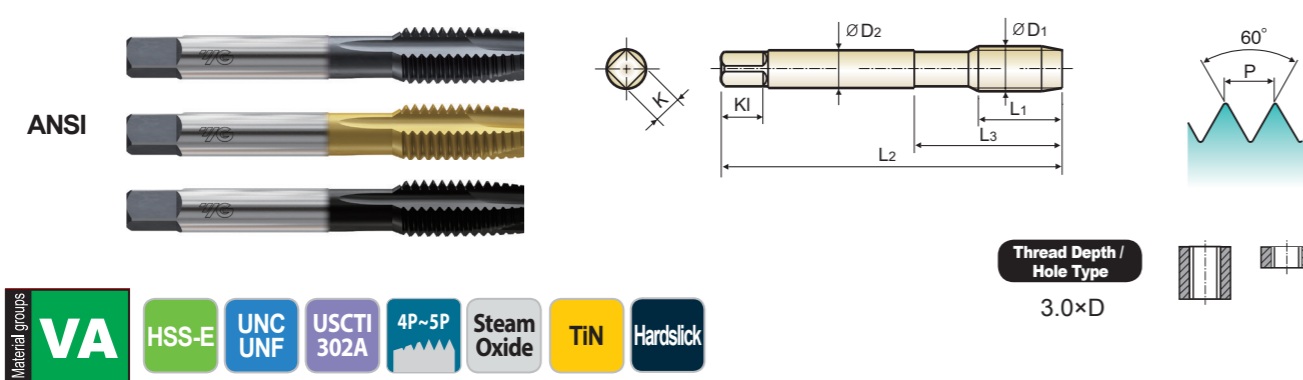


Table with 13 columns: Size, TPI, EDP No. (Steam Oxide, TiN, Hardslick), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute. Lists various tap specifications for sizes #2 to #10.

▶ NEXT PAGE

ISO material compatibility chart showing recommended tap materials for various ISO grades (VDI 3323, HRc, HB) across different material groups (P, M, K, N, S, H).



10/12/J2 SERIES

SPIRAL POINT TAPS PLUG STYLE for Stainless Steels

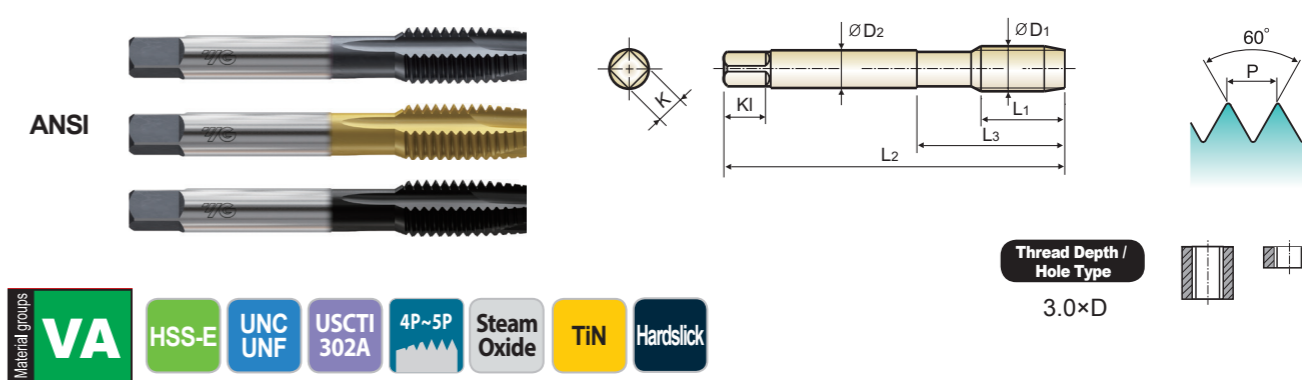
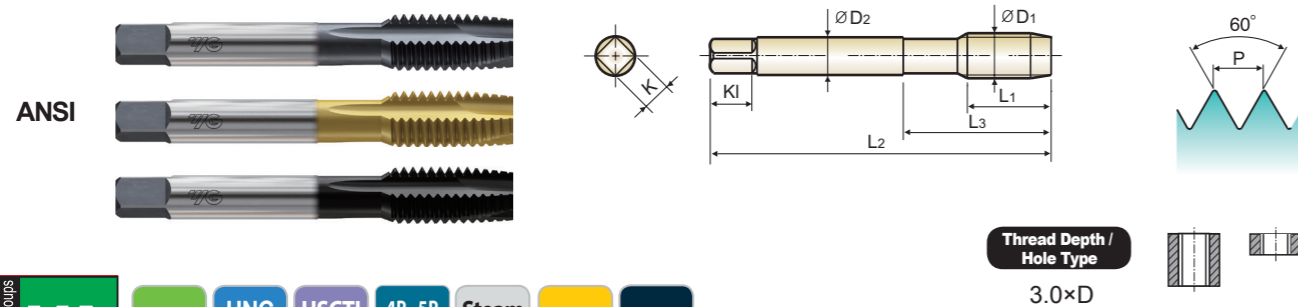


Table with 13 columns: Size, TPI, EDP No. (Steam Oxide, TiN, Hardslick), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute. Lists various tap specifications for sizes #10 to 5/16.

▶ NEXT PAGE

ISO material compatibility chart showing recommended tap materials for various ISO grades (VDI 3323, HRc, HB) across different material groups (P, M, K, N, S, H).

SPIRAL POINT TAPS PLUG STYLE for Stainless Steels



Material groups: **VA** HSS-E UNC UNF USCTI 302A 4P~5P Steam Oxide TiN Hardslick

Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	TiN	Hardslick								
5/16 - 24UNF	I0467	-	J2467	H7	2.720	0.669	1.126	0.3180	0.238	.380	3	
3/8 - 16UNC	I0483	I2483	J2483	H3	2.937	0.748	1.252	0.3810	0.286	.440	3	
3/8 - 16UNC	I0485	I2485	J2485	H5	2.937	0.748	1.252	0.3810	0.286	.440	3	
3/8 - 16UNC	I0487	-	J2487	H7	2.937	0.748	1.252	0.3810	0.286	.440	3	
3/8 - 24UNF	I0503	I2503	J2503	H3	2.937	0.748	1.252	0.3810	0.286	.440	3	
3/8 - 24UNF	I0504	-	J2504	H4	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 24UNF	I0505	-	J2505	H5	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 24UNF	I0507	-	J2507	H7	2.937	.748	1.252	.381	.286	.440	3	
7/16 - 14UNC	I0523	I2523	J2523	H3	3.157	.866	1.437	.323	.242	.410	3	
7/16 - 14UNC	I0525	I2525	J2525	H5	3.157	.866	1.437	.323	.242	.410	3	
7/16 - 20UNF	I0543	I2543	J2543	H3	3.157	.866	1.437	.323	.242	.410	3	
7/16 - 20UNF	I0545	I2545	J2545	H5	3.157	.866	1.437	.323	.242	.410	3	
1/2 - 13UNC	I0563	I2563	J2563	H3	3.374	.984	1.657	.367	.275	.440	3	
1/2 - 13UNC	I0565	I2565	J2565	H5	3.374	.984	1.657	.367	.275	.440	3	
1/2 - 13UNC	I0567	-	J2567	H7	3.374	.984	1.657	.367	.275	.440	3	
1/2 - 20UNF	I0583	I2583	J2583	H3	3.374	.984	1.657	.367	.275	.440	3	
1/2 - 20UNF	I0585	-	J2585	H5	3.374	.984	1.657	.367	.275	.440	3	
9/16 - 12UNC	I0603	I2603	J2603	H3	3.594	.984	1.657	.429	.322	.500	3	
9/16 - 18UNF	I0623	I2623	J2623	H3	3.594	.984	1.657	.429	.322	.500	3	
5/8 - 11UNC	I0643	I2643	J2643	H3	3.811	1.083	1.811	.480	.360	.560	3	
5/8 - 11UNC	I0645	I2645	J2645	H5	3.811	1.083	1.811	.480	.360	.560	3	
5/8 - 11UNC	I0647	-	J2647	H7	3.811	1.083	1.811	.480	.360	.560	3	
5/8 - 18UNF	I0663	-	J2663	H3	3.811	1.083	1.811	.480	.360	.560	3	
5/8 - 18UNF	I0665	I2665	J2665	H5	3.811	1.083	1.811	.480	.360	.560	3	
5/8 - 18UNF	I0667	-	J2667	H7	3.811	1.083	1.811	.480	.360	.560	3	
3/4 - 10UNC	I0703	I2703	J2703	H3	4.252	1.201	2.000	.590	.442	.690	3	

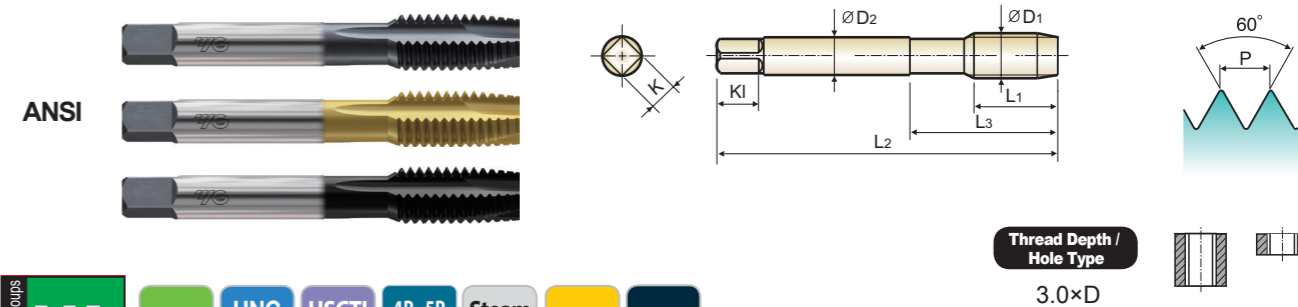
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◎ : Excellent ○ : Good

ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended	○					○	○														

SPIRAL POINT TAPS PLUG STYLE for Stainless Steels



Material groups: **VA** HSS-E UNC UNF USCTI 302A 4P~5P Steam Oxide TiN Hardslick

Unit : Inch

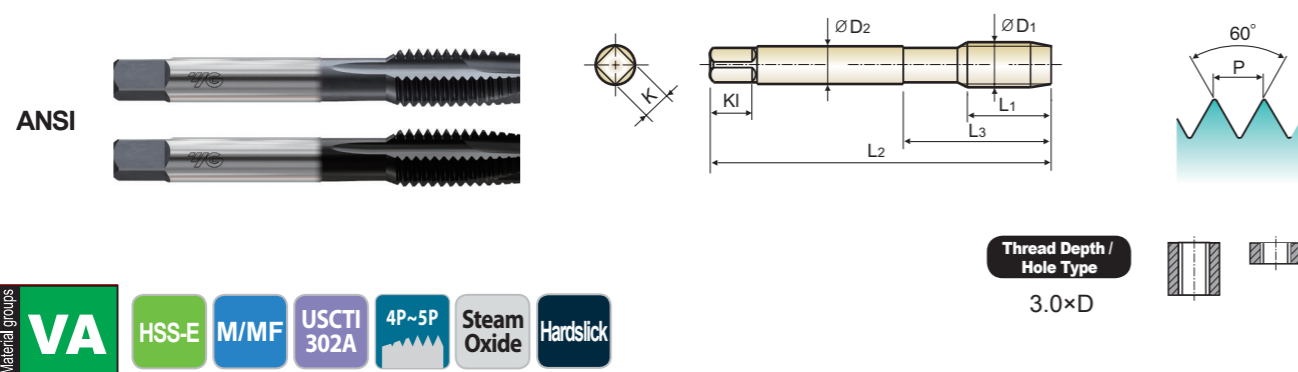
Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	TiN	Hardslick								
3/4 - 16UNF	I0725	I2725	J2725	H5	4.252	1.201	2.000	.590	.442	.690	3	
7/8 - 9UNC	I0744	I2744	J2744	H4	4.689	1.339	2.220	.697	.523	.750	3	
7/8 - 14UNF	I0766	I2766	J2766	H6	4.689	1.339	2.220	.697	.523	.750	3	
1" - 8UNC	I0784	I2784	J2784	H4	5.126	1.496	2.500	.800	.600	.810	3	
1" - 12UNF	I0806	I2806	J2806	H6	5.126	1.496	2.500	.800	.600	.810	3	

◎ : Excellent ○ : Good

ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended	○					○	○														

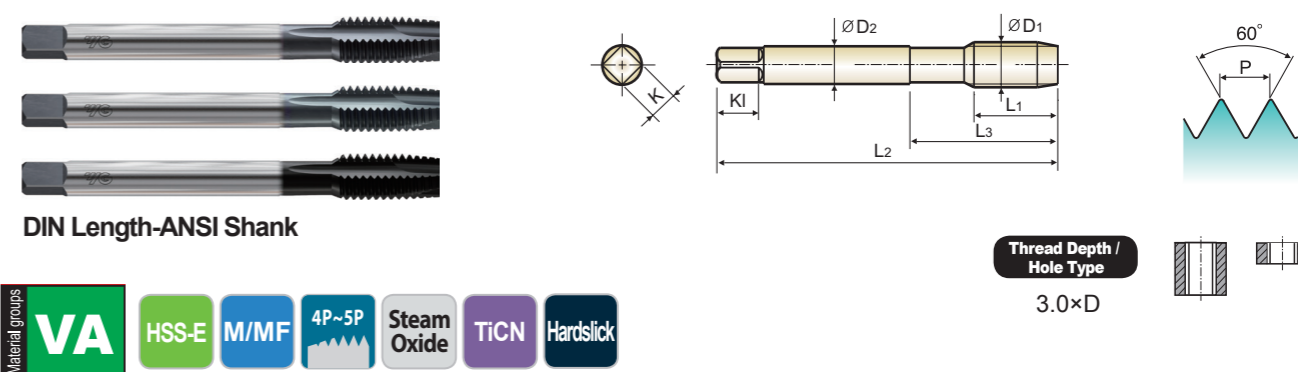
SPIRAL POINT TAPS PLUG STYLE for Stainless Steels



Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Steam Oxide	Hardslick								
M3	x 0.5	O9203	IA203	D3	1.937	.197	.646	.141	.110	.190	3
M3.5	x 0.6	O9224	IA224	D4	2.000	.276	.709	.141	.110	.190	3
M4	x 0.7	O9244	IA244	D4	2.126	.276	.768	.168	.131	.250	3
M5	x 0.8	O9284	IA284	D4	2.374	.354	.933	.194	.152	.250	3
M6	x 1.0	O9315	IA315	D5	2.500	.433	1.000	.255	.191	.310	3
M7	x 1.0	O9345	IA345	D5	2.720	.433	1.126	.318	.238	.380	3
M8	x 1.25	O9365	IA365	D5	2.720	.472	1.126	.318	.238	.380	3
M8	x 1.0	O9375	IA375	D5	2.720	.433	1.126	.318	.238	.380	3
M10	x 1.5	O9426	IA426	D6	2.937	.512	1.252	.381	.286	.440	3
M10	x 1.25	O9435	IA435	D5	2.937	.472	1.252	.381	.286	.440	3
M12	x 1.75	O9506	IA506	D5	2.937	.433	1.252	.381	.286	.440	3
M12	x 1.25	O9525	IA525	D6	3.374	.591	2.067	.367	.275	.440	3
M14	x 2.0	O9547	IA547	D5	3.374	.551	2.067	.367	.275	.440	3
M14	x 1.5	O9556	IA556	D7	3.594	.709	2.067	.429	.322	.500	3
M16	x 2.0	O9607	IA607	D6	3.594	.551	2.067	.429	.322	.500	3
M16	x 1.5	O9616	IA616	D7	3.811	.709	2.205	.480	.360	.560	3
M18	x 2.5	O9657	IA657	D6	3.811	.551	2.205	.480	.360	.560	3
M18	x 1.5	O9676	IA676	D6	4.031	.551	2.205	.542	.406	.630	4

SPIRAL POINT TAPS PLUG STYLE for Stainless Steels



Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Steam Oxide	TiCN	Hardslick								
M3	x 0.5	K3203	K5203	K6203	D3	2.205	.374	.646	.141	.110	.190	3
M3.5	x 0.6	K3224	K5224	K6224	D4	2.205	.413	.709	.141	.110	.190	3
M4	x 0.7	K3244	K5244	K6244	D4	2.480	.453	.768	.168	.131	.250	3
M5	x 0.8	K3284	K5284	K6284	D4	2.756	.531	.933	.194	.152	.250	3
M6	x 1.0	K3315	K5315	K6315	D5	3.150	.591	1.000	.255	.191	.310	3
M7	x 1.0	K3345	K5345	K6345	D5	3.150	.669	1.126	.318	.238	.380	3
M8	x 1.25	K3365	K5365	K6365	D5	3.543	.669	1.126	.318	.238	.380	3
M8	x 1.0	K3375	K5375	K6375	D5	3.543	.669	1.126	.318	.238	.380	3
M10	x 1.5	K3426	K5426	K6426	D6	3.937	.748	1.252	.381	.286	.440	3
M10	x 1.25	K3435	K5435	K6435	D5	3.937	.748	1.252	.381	.286	.440	3
M12	x 1.75	K3506	K5506	K6506	D6	4.331	.984	1.657	.367	.275	.440	3
M12	x 1.25	K3525	K5525	K6525	D5	3.937	.984	1.657	.367	.275	.440	3
M14	x 2.0	K3547	K5547	K6547	D7	4.331	.984	1.657	.429	.322	.500	3
M14	x 1.5	K3556	K5556	K6556	D6	3.937	.984	1.657	.429	.322	.500	3
M16	x 2.0	K3607	K5607	K6607	D7	4.331	1.083	1.811	.480	.360	.560	3
M16	x 1.5	K3616	K5616	K6616	D6	3.937	1.083	1.811	.480	.360	.560	3
M18	x 2.5	K3657	K5657	K6657	D7	4.921	1.083	1.811	.542	.406	.630	3
M18	x 1.5	K3676	K5676	K6676	D6	4.331	1.083	1.811	.542	.406	.630	3

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	30	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												
	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						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended	○					○	○														

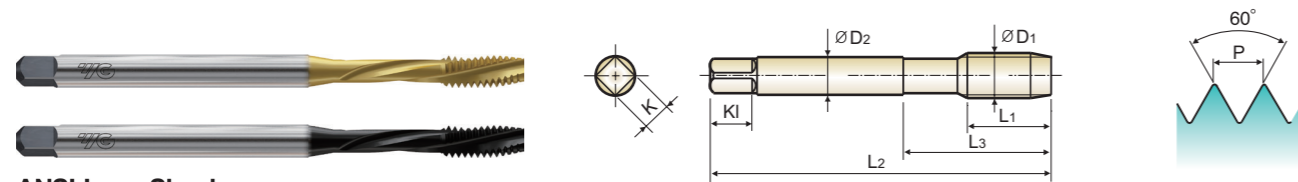
◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	30	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												
	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						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended	○					○	○														

EXTENDED LENGTH SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE
LEFT HAND SPIRAL FLUTE, RIGHT HAND CUT

Left hand spiral flute, right hand cut for efficient tapping of deep through holes



ANSI Long Shank

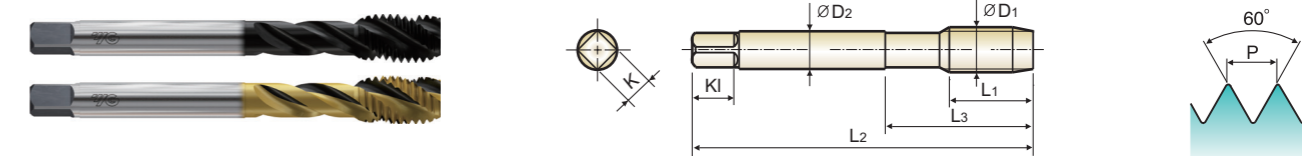


Thread Depth / Hole Type
3.0xD

Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		TiN	Hardslick								
1/4 - 20UNC		H2403	H4403	H3	6.000	.591	1.496	.255	.191	.310	2
1/4 - 28UNF		H2423	H4423	H3	6.000	.591	1.496	.255	.191	.310	3
5/16 - 18UNC		H2443	H4443	H3	6.000	.669	1.693	.318	.238	.380	3
3/8 - 16UNC		H2483	H4483	H3	6.000	.748	1.870	.381	.286	.440	3
7/16 - 14UNC		H2523	H4523	H3	6.000	.866	2.165	.323	.242	.410	3
1/2 - 13UNC		H2563	H4563	H3	6.000	.984	2.480	.367	.275	.440	3
5/8 - 11UNC		H2643	H4643	H3	6.000	1.083	2.717	.480	.360	.560	3

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE
for Stainless Steels



DIN Length-ANSI Shank



Thread Depth / Hole Type
2.5xD

Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Hardslick	Gold-Black								
1/2 - 13UNC		BG562H	BG562GB	2B	4.331	.787	2.067	.367	.275	.440	3
5/8 - 11UNC		BG642H	BG642GB	2B	4.331	.866	2.205	.480	.360	.560	3
3/4 - 10UNC		BG702H	BG702GB	2B	4.921	.984	2.480	.590	.442	.690	3
7/8 - 9UNC		BG742H	BG742GB	2B	5.512	1.063	2.815	.697	.523	.750	4
1" - 8UNC		BG782H	BG782GB	2B	6.299	1.181	3.091	.800	.600	.810	4
1-1/8 - 7UNC		BG822H	BG822GB	2B	7.087	1.378	3.543	.896	.672	.880	4
1-1/8 - 8UN		BG832H	BG832GB	2B	7.087	1.181	3.543	.896	.672	.880	4
1-1/4 - 7UNC		BG862H	BG862GB	2B	7.087	1.378	3.543	1.021	.766	1.000	4
1-1/4 - 8UN		BG872H	BG872GB	2B	7.087	1.181	3.543	1.021	.766	1.000	4
1-3/8 - 8UN		BG912H	BG912GB	2B	7.874	1.181	3.937	1.108	.831	1.060	5
1-1/2 - 8UN		BG952H	BG952GB	2B	7.874	1.181	3.937	1.233	.925	1.130	5
1-5/8 - 8UN		BGB22H	BGB22GB	2B	7.874	1.181	3.937	1.305	.979	1.130	5
1-3/4 - 8UN		BGC02H	BGC02GB	2B	7.874	1.181	3.937	1.430	1.072	1.250	6
1-7/8 - 8UN		BGC62H	BGC62GB	2B	8.858	1.299	4.331	1.519	1.139	1.250	6
2" - 8UN		BGD42H	BGD42GB	2B	8.858	1.299	4.331	1.644	1.233	1.380	6

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	35	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										
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)	Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron								
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○					○	○														

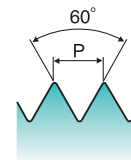
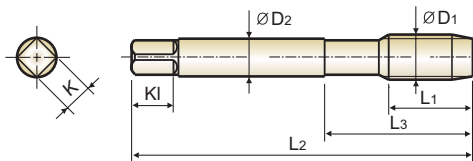
◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	35	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										
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)	Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron								
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34			55	60	42	55
HRc	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○					○	○														

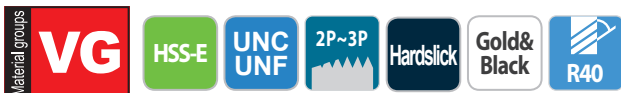


SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Stainless Steels

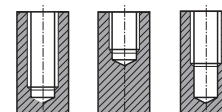


DIN Length-ANSI Shank

Oil Field



Thread Depth / Hole Type
2.5xD



Unit : Inch

Size	TPI	EDP No.	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
D1		Hardslick		L2	L1	L3	D2	K	KI	
1/2	- 20UNF	BG572H	2B	3.937	.512	2.067	.367	.275	.440	4
5/8	- 18UNF	BG652H	2B	3.937	.591	2.205	.480	.360	.560	4
3/4	- 16UNF	BG712H	2B	4.331	.669	2.480	.590	.442	.690	4
7/8	- 14UNF	BG752H	2B	4.921	.669	2.815	.697	.523	.750	4
1"	- 12UNF	BG792H	2B	5.512	.787	3.091	.800	.600	.810	4
1-1/8	- 12UNF	BG842H	2B	5.906	.787	3.150	.896	.672	.880	4
1-1/4	- 12UNF	BG882H	2B	5.906	.787	3.150	1.021	.766	1.000	5
1-3/8	- 6UNC	BG922H	2B	7.874	1.575	3.937	1.108	.831	1.060	5
1-3/8	- 12UNF	BG932H	2B	6.693	.787	3.543	1.108	.831	1.060	5
1-1/2	- 6UNC	BG962H	2B	7.874	1.575	3.937	1.233	.925	1.130	5
1-1/2	- 12UNF	BG972H	2B	6.693	.787	3.543	1.233	.925	1.130	5
1-3/4	- 5UNC	BGC03H	2B	8.661	1.969	4.331	1.430	1.072	1.250	6
2"	- 4_1/2UNC	BGD43H	2B	9.843	2.165	4.921	1.644	1.233	1.380	6
2-1/4	- 8UN	BGD44H	2B	9.843	1.299	4.331	1.894	1.420	1.440	6
2-1/4	- 4_1/2UNC	BGD45H	2B	11.024	2.165	5.118	1.894	1.420	1.440	6
2-1/2	- 8UN	BGD46H	2B	10.827	1.299	4.921	2.100	1.575	1.500	6
2-1/2	- 4UNC	BGD47H	2B	12.402	2.362	6.299	2.100	1.575	1.500	6

◎ : Excellent ○ : Good

ISO	P										M				K						
	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	260	160	250	130	230		
Recommended	○	○	◎	◎	◎	◎	◎	◎	○	○	◎	◎	◎								

ISO	N								S							H					
	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	400Rm	1050Rm	550	630	400	550
Recommended																					



Being the best through innovation

SOLID CARBIDE & HSS-PM

YG TAP CAST IRON

- For Cast Iron or Similar Work Materials

SELECTION GUIDE



HSS-PM
YG TAP
CAST IRON

- For Cast Iron or Similar Work Materials

HOLE TYPE	Max. 3.0xD Blind / Through Hole			
TOOL MATERIAL	HSS-PM		Carbide	
CHAMFER LEAD ACC. TO DIN2197	2P-3P		1.5P-2P	
FLUTE TYPE	Straight Flute			
SPIRAL FLUTE ANGLE				
SERIES	M			
	M/MF	TR (p.B174)	TR-A (p.B177) TR-R (p.B177)	
	UNC			
	UNC/UNF	TR (p.B173)	TR-A (p.B175) TR-R (p.B175)	TOC01 (p.B178)
	UNC/UNF/UNS			
	UNC/UN8			
	NPT			
	NPS/NPSF			
SURFACE TREATMENT / COATING	TiAIN	TiAIN	TiAIN Bright	
MODEL				

Please visit globalyg1.com/mat for material search

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRC				
P	1	Non-alloy steel	About 0.15% C Annealed	125					
	2		About 0.45% C Annealed	190	13				
	3		About 0.45% C Quenched & Tempered	250	25				
	4		About 0.75% C Annealed	270	28				
	5	About 0.75% C Quenched & Tempered	300	32					
	6	Low alloy steel	Annealed	180	10				
	7		Quenched & Tempered	275	29				
	8		Quenched & Tempered	300	32				
	9		Quenched & Tempered	350	38				
	10		High alloyed steel, and tool steel	Annealed	200	15			
	11	Quenched & Tempered	325	35					
M	12	Stainless steel	Ferritic / Martensitic Annealed	200	15				
	13		Martensitic Quenched & Tempered	240	23				
	14		Austenitic	180	10				
K	15	Grey cast iron	Pearlitic / ferritic	180	10	◎ 50-65	◎ 50-65	◎ 50-65	◎ 35-50
	16		Pearlitic (Martensitic)	260	26	◎ 50-65	◎ 50-65	◎ 50-65	◎ 35-50
	17	Nodular cast iron	Ferritic	160	3	◎ 25-55	◎ 25-55	◎ 25-55	◎ 12-45
	18		Pearlitic	250	25	◎ 25-55	◎ 25-55	◎ 25-55	◎ 12-45
	19	Malleable cast iron	Ferritic	130		○ 25-55	○ 25-55	○ 25-55	○ 12-45
	20		Pearlitic	230	21	○ 25-55	○ 25-55	○ 25-55	○ 12-45
N	21	Aluminum-wrought alloy	Not Curable	60					○ 50-65
	22		Curable Hardened	100					
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable	75		◎ 45-90	◎ 45-90	◎ 45-90	○ 40-65
	24		≤ 12% Si, Curable Hardened	90		○ 45-90	○ 45-90	○ 45-90	○ 40-65
	25		> 12% Si, Not Curable	130					
	26	Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%	110					
	27		CuZn, CuSnZn (Brass)	90					
	28		CuSn, lead-free copper and electrolytic copper	100					
	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		Annealed	250	25				
	34		Cured	350	38				
	35	Ni or Co Based 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				

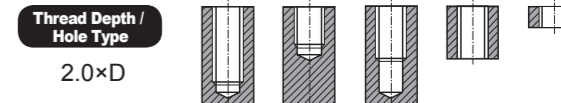
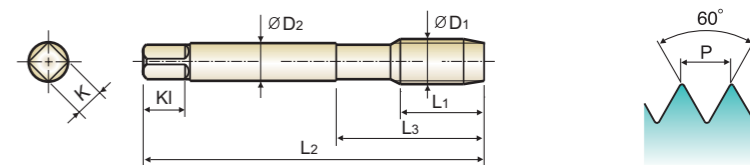


TR SERIES

STRAIGHT FLUTE TAP MODIFIED BOTTOMING STYLE for Cast Iron



ANSI



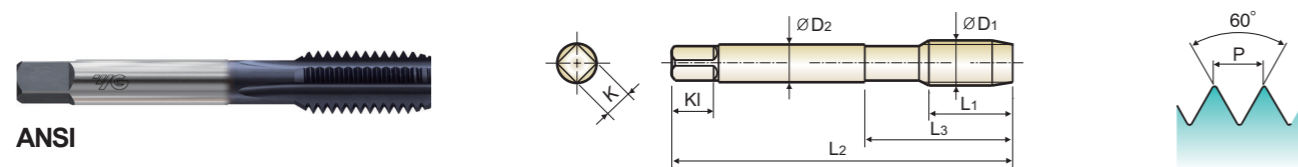
Unit : Inch

Size	TPI	EDP No.	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
D1		TiAIN		L2	L1	L3	D2	K	KI	
#10 - 24UNC		TR323	H3	2.374	.531	.906	.194	.152	.250	4
#10 - 24UNC		TR325	H5	2.374	.531	.906	.194	.152	.250	4
#10 - 32UNF		TR343	H3	2.374	.531	.906	.194	.152	.250	4
1/4 - 20UNC		TR403	H3	2.500	.591	1.000	.255	.191	.310	4
1/4 - 20UNC		TR405	H5	2.500	.591	1.000	.255	.191	.310	4
1/4 - 28UNF		TR423	H3	2.500	.591	1.000	.255	.191	.310	4
5/16 - 18UNC		TR443	H3	2.720	.669	1.126	.318	.238	.380	4
5/16 - 18UNC		TR445	H5	2.720	.669	1.126	.318	.238	.380	4
5/16 - 24UNF		TR463	H3	2.720	.669	1.126	.318	.238	.380	4
3/8 - 16UNC		TR483	H3	2.937	.748	1.252	.381	.286	.440	4
3/8 - 16UNC		TR485	H5	2.937	.748	1.252	.381	.286	.440	4
3/8 - 24UNF		TR503	H3	2.937	.748	1.252	.381	.286	.440	4
7/16 - 14UNC		TR523	H3	3.157	.866	1.437	.323	.242	.410	4
7/16 - 14UNC		TR525	H5	3.157	.866	1.437	.323	.242	.410	4
7/16 - 20UNF		TR543	H3	3.157	.866	1.437	.323	.242	.410	4
7/16 - 20UNF		TR545	H5	3.157	.866	1.437	.323	.242	.410	4
1/2 - 13UNC		TR563	H3	3.374	.984	1.657	.367	.275	.440	4
1/2 - 13UNC		TR565	H5	3.374	.984	1.657	.367	.275	.440	4
1/2 - 20UNF		TR583	H3	3.374	.984	1.657	.367	.275	.440	4
1/2 - 20UNF		TR585	H5	3.374	.984	1.657	.367	.275	.440	4
9/16 - 12UNC		TR603	H3	3.594	.984	1.657	.429	.322	.500	4
9/16 - 12UNC		TR605	H5	3.594	.984	1.657	.429	.322	.500	4
9/16 - 18UNF		TR623	H3	3.594	.984	1.657	.429	.322	.500	4
9/16 - 18UNF		TR625	H3	3.594	.984	1.657	.429	.322	.500	4
5/8 - 11UNC		TR643	H3	3.811	1.083	1.811	.480	.360	.560	4
5/8 - 11UNC		TR645	H5	3.811	1.083	1.811	.480	.360	.560	4
5/8 - 18UNF		TR663	H3	3.811	1.083	1.811	.480	.360	.560	4
5/8 - 18UNF		TR665	H5	3.811	1.083	1.811	.480	.360	.560	4
3/4 - 10UNC		TR703	H3	4.252	1.201	2.000	.590	.442	.690	4
3/4 - 10UNC		TR705	H5	4.252	1.201	2.000	.590	.442	.690	4
3/4 - 16UNF		TR723	H3	4.252	1.201	2.000	.590	.442	.690	4
3/4 - 16UNF		TR725	H5	4.252	1.201	2.000	.590	.442	.690	4

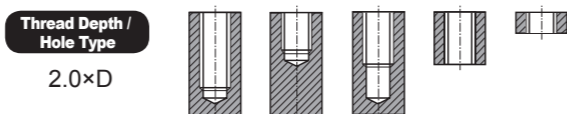
◎ : Excellent ○ : Good

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								
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	34	55	60	42	55					
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550				
Recommended			○	○																					

**STRAIGHT FLUTE TAP MODIFIED BOTTOMING STYLE
for Cast Iron**



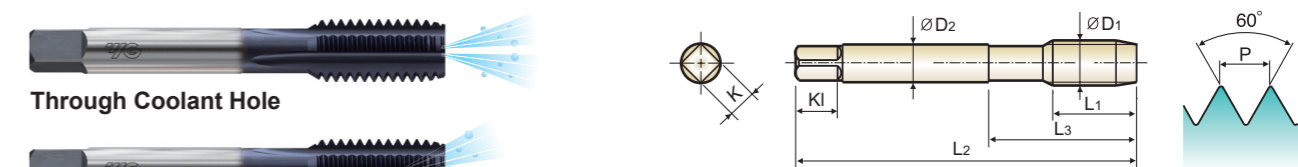
ANSI



Unit : Inch

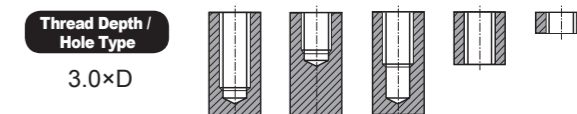
Size	Pitch	EDP No.	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
				L2	L1	L3	D2	K	Kl	
M5	x 0.8	TR284	D4	2.374	.531	.933	.194	.152	.250	4
M6	x 1.0	TR315	D5	2.500	.591	1.000	.255	.191	.310	4
M8	x 1.25	TR365	D5	2.720	.669	1.126	.318	.238	.380	4
M10	x 1.5	TR426	D6	2.937	.748	1.252	.381	.286	.440	4
M12	x 1.75	TR506	D6	3.374	.984	1.657	.367	.275	.440	4
M12	x 1.25	TR526	D6	3.374	.984	1.657	.367	.275	.440	4
M14	x 1.5	TR556	D6	3.594	.984	1.657	.429	.322	.500	4
M14	x 1.25	TR566	D6	3.594	.984	1.657	.429	.322	.500	4
M16	x 1.5	TR616	D6	3.811	1.083	1.811	.480	.360	.560	4
M18	x 1.5	TR676	D6	4.031	1.083	1.811	.542	.406	.630	4

**STRAIGHT FLUTE TAP MODIFIED BOTTOMING STYLE
for Cast Iron**



Through Coolant Hole

Radial Coolant Hole



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Through Coolant Hole	Radial Coolant Hole		L2	L1	L3	D2	K	Kl	
#10 - 24UNC		TR323A	TR323R	H3	2.374	.531	.906	.194	.152	.250	4
#10 - 24UNC		TR325A	TR325R	H5	2.374	.531	.906	.194	.152	.250	4
#10 - 32UNF		TR343A	TR343R	H3	2.374	.531	.906	.194	.152	.250	4
1/4 - 20UNC		TR403A	TR403R	H3	2.500	.591	1.000	.255	.191	.310	4
1/4 - 20UNC		TR405A	TR405R	H5	2.500	.591	1.000	.255	.191	.310	4
1/4 - 28UNF		TR423A	TR423R	H3	2.500	.591	1.000	.255	.191	.310	4
5/16 - 18UNC		TR443A	TR443R	H3	2.720	.669	1.126	.318	.238	.380	4
5/16 - 18UNC		TR445A	TR445R	H5	2.720	.669	1.126	.318	.238	.380	4
5/16 - 24UNF		TR463A	TR463R	H3	2.720	.669	1.126	.318	.238	.380	4
3/8 - 16UNC		TR483A	TR483R	H3	2.937	.748	1.252	.381	.286	.440	4
3/8 - 16UNC		TR485A	TR485R	H5	2.937	.748	1.252	.381	.286	.440	4
3/8 - 24UNF		TR503A	TR503R	H3	2.937	.748	1.252	.381	.286	.440	4
7/16 - 14UNC		TR523A	TR523R	H3	3.157	.866	1.437	.323	.242	.410	4
7/16 - 14UNC		TR525A	TR525R	H5	3.157	.866	1.437	.323	.242	.410	4
7/16 - 20UNF		TR543A	TR543R	H3	3.157	.866	1.437	.323	.242	.410	4
7/16 - 20UNF		TR545A	TR545R	H5	3.157	.866	1.437	.323	.242	.410	4
1/2 - 13UNC		TR563A	TR563R	H3	3.374	.984	1.657	.367	.275	.440	4
1/2 - 13UNC		TR565A	TR565R	H5	3.374	.984	1.657	.367	.275	.440	4
1/2 - 20UNF		TR583A	TR583R	H3	3.374	.984	1.657	.367	.275	.440	4
1/2 - 20UNF		TR585A	TR585R	H5	3.374	.984	1.657	.367	.275	.440	4
9/16 - 12UNC		TR603A	TR603R	H3	3.594	.984	1.657	.429	.322	.500	4
9/16 - 12UNC		TR605A	TR605R	H5	3.594	.984	1.657	.429	.322	.500	4
9/16 - 18UNF		TR623A	TR623R	H3	3.594	.984	1.657	.429	.322	.500	4
9/16 - 18UNF		TR625A	TR625R	H3	3.594	.984	1.657	.429	.322	.500	4
5/8 - 11UNC		TR643A	TR643R	H3	3.811	1.083	1.811	.480	.360	.560	4
5/8 - 11UNC		TR645A	TR645R	H5	3.811	1.083	1.811	.480	.360	.560	4

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	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															◎	◎	◎	◎	○	○

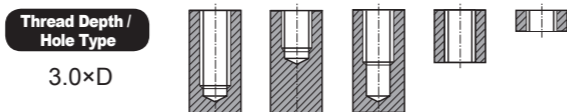
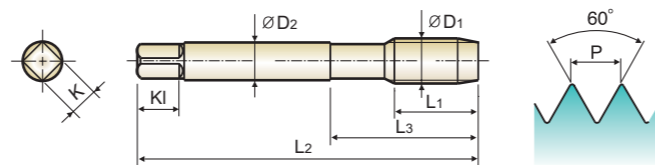
ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38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

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	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								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended			○	○																	

**STRAIGHT FLUTE TAP MODIFIED BOTTOMING STYLE
for Cast Iron**

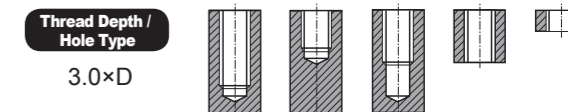
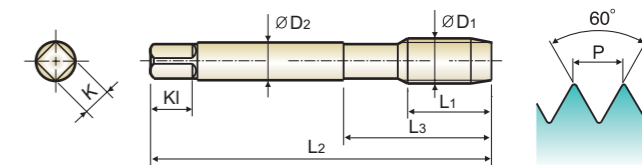


Material groups: **GG** HSS-PM UNC UNF USCTI 302A 2P~3P TiAlN

Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Through Coolant Hole	Radial Coolant Hole								
5/8 - 18UNF		TR663A	TR663R	H3	3.811	1.083	1.811	.480	.360	.560	4
5/8 - 18UNF		TR665A	TR665R	H5	3.811	1.083	1.811	.480	.360	.560	4
3/4 - 10UNC		TR703A	TR703R	H3	4.252	1.201	2.000	.590	.442	.690	4
3/4 - 10UNC		TR705A	TR705R	H5	4.252	1.201	2.000	.590	.442	.690	4
3/4 - 16UNF		TR723A	TR723R	H3	4.252	1.201	2.000	.590	.442	.690	4
3/4 - 16UNF		TR725A	TR725R	H5	4.252	1.201	2.000	.590	.442	.690	4

**STRAIGHT FLUTE TAP MODIFIED BOTTOMING STYLE
for Cast Iron**



Material groups: **GG** HSS-PM M/MF USCTI 302A 2P~3P TiAlN

Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Through Coolant Hole	Radial Coolant Hole								
M5 x 0.8		TR284A	TR284R	D4	2.374	.531	.933	.194	.152	.250	4
M6 x 1.0		TR315A	TR315R	D5	2.500	.591	1.000	.255	.191	.310	4
M8 x 1.25		TR365A	TR365R	D5	2.720	.669	1.126	.318	.238	.380	4
M10 x 1.5		TR426A	TR426R	D6	2.937	.748	1.252	.381	.286	.440	4
M12 x 1.75		TR506A	TR506R	D6	3.374	.984	1.657	.367	.275	.440	4
M12 x 1.25		TR526A	TR526R	D6	3.374	.984	1.657	.367	.275	.440	4
M14 x 1.5		TR556A	TR556R	D6	3.594	.984	1.657	.429	.322	.500	4
M14 x 1.25		TR566A	TR566R	D6	3.594	.984	1.657	.429	.322	.500	4
M16 x 1.5		TR616A	TR616R	D6	3.811	1.083	1.811	.480	.360	.560	4
M18 x 1.5		TR676A	TR676R	D6	4.031	1.083	1.811	.542	.406	.630	4

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	38	10	29	32	38	15	35	15	23	10	10	26	3	25	3	25	
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								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended			○	○																	

◎ : Excellent ○ : Good

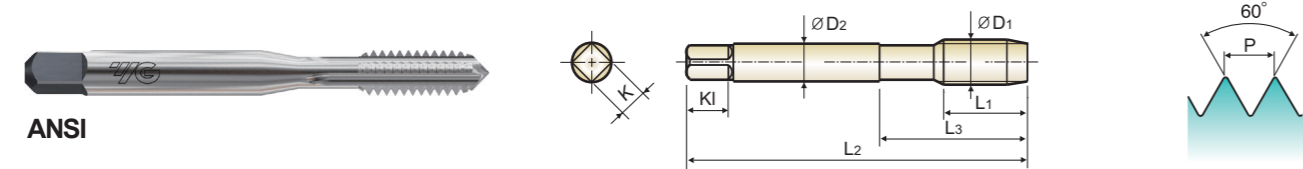
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	38	10	29	32	38	15	35	15	23	10	10	26	3	25	3	25	
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								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	55	60	42	55
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended			○	○																	

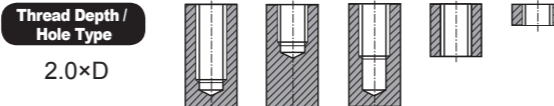


T0C01 SERIES

STRAIGHT FLUTE TAP BOTTOMING STYLE
for Aluminum Alloy & Cast Iron



Material groups: **GG** CARBIDE UNC UNF USCTI 302A 1.5P~2P Bright



Unit : Inch

Size	TPI	EDP No.	Class of Fit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
D1		Bright		L2	L1	L3	D2	K	K1	
#10	- 24UNC	T0C01322	2B	2.374	.531	.906	.194	.152	.250	4
#10	- 32UNF	T0C01342	2B	2.374	.531	.906	.194	.152	.250	4
#12	- 24UNC	T0C01362	2B	2.374	.571	.906	.220	.165	.280	4
1/4	- 20UNC	T0C01402	2B	2.500	.591	1.000	.255	.191	.310	4
1/4	- 28UNF	T0C01422	2B	2.500	.591	1.000	.255	.191	.310	4
5/16	- 18UNC	T0C01442	2B	2.720	.669	1.126	.318	.238	.380	4
5/16	- 24UNF	T0C01462	2B	2.720	.669	1.126	.318	.238	.380	4
3/8	- 16UNC	T0C01482	2B	2.937	.748	1.252	.381	.286	.440	4
3/8	- 24UNF	T0C01502	2B	2.937	.748	1.252	.381	.286	.440	4



Being the best through innovation

HSS-E

YG TAP ALU

- For long-chipping Aluminum Wrought Alloys

◎ : 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	400Rm	1050Rm	550	630	400	550
Recommended			○	○																	

SELECTION GUIDE



HSS-E
YG TAP
ALU

- For long-chipping Aluminum Wrought Alloys



Please visit globalyg1.com/mat for material search

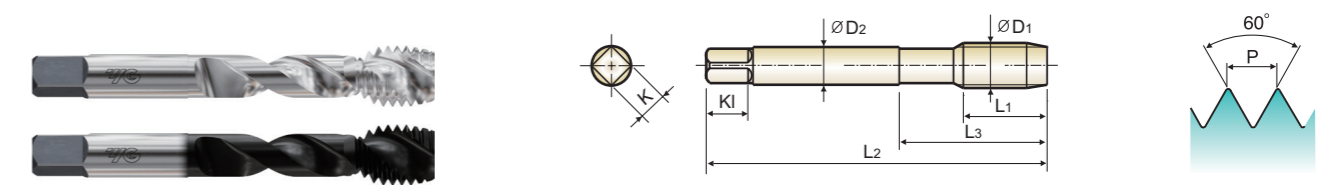
HOLE TYPE	Max. 2.5xD Blind Hole		Max. 3.0xD Through Hole		
TOOL MATERIAL	HSS-E				
CHAMFER LEAD ACC. TO DIN2197	2P-3P		4P-5P		
FLUTE TYPE	Spiral Flute		Spiral Point		
SPIRAL FLUTE ANGLE	R50				
SERIES	M				
	M/MF		BW (p.B182)	BX (p.B182)	T2K01 (p.B184)
	UNC				
	UNC/UNF	C0 (p.B181)	D8 (p.B181)		T2496 (p.B183)
	UNC/UNF/UNS				
	UNC/UN8				
	NPT				
NPTF					
NPS/NPSF					
SURFACE TREATMENT / COATING	Bright	HardSlick	Bright	HardSlick	Bright
MODEL					

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRC							
P	1	Non-alloy steel	About 0.15% C	Annealed	125							
	2		About 0.45% C	Annealed	190	13						
	3		About 0.45% C	Quenched & Tempered	250	25						
	4		About 0.75% C	Annealed	270	28						
	5		About 0.75% C	Quenched & Tempered	300	32						
	6	Low alloy steel		Annealed	180	10						
	7			Quenched & Tempered	275	29						
	8			Quenched & Tempered	300	32						
	9			Quenched & Tempered	350	38						
	10		High alloyed steel, and tool steel		Annealed	200	15					
	11				Quenched & Tempered	325	35					
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15						
	13		Martensitic	Quenched & Tempered	240	23						
	14		Austenitic		180	10						
K	15	Grey cast iron	Pearlitic / ferritic		180	10						
	16		Pearlitic (Martensitic)		260	26						
	17	Nodular cast iron	Ferritic		160	3						
	18		Pearlitic		250	25						
	19	Malleable cast iron	Ferritic		130							
	20		Pearlitic		230	21						
N	21	Aluminum-wrought alloy	Not Curable		60		◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65	
	22		Curable	Hardened	100		◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65	◎ 50-65	
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable		75		◎ 40-65	◎ 45-90	◎ 40-65	◎ 45-90	◎ 40-65	
	24		≤ 12% Si, Curable	Hardened	90		○ 40-65	○ 45-90	○ 40-65	○ 40-65	○ 40-65	
	25		> 12% Si, Not Curable		130		○ 40-65	○ 45-90	○ 40-65	○ 40-65	○ 40-65	
	26	Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%		110							
	27		CuZn, CuSnZn (Brass)		90				○ 30-65	○ 30-65		
	28		CuSn, lead-free copper and electrolytic copper		100				○ 30-65	○ 30-65		
	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		Annealed	250	25							
	34		Ni or Co Based	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						



C0 / D8 SERIES

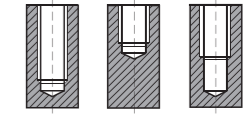
SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Aluminum Alloys or Die Cast Aluminum



ANSI



Thread Depth / Hole Type 2.5xD



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Bright	HardSlick								
#4 - 40UNC		C0162	D8162	H2	1.874	.236	.563	.141	.110	.190	2
#4 - 40UNC		C0163	D8163	H3	1.874	.236	.563	.141	.110	.190	2
#6 - 32UNC		C0242	D8242	H2	2.000	.276	.689	.141	.110	.190	2
#6 - 32UNC		C0243	D8243	H3	2.000	.276	.689	.141	.110	.190	2
#8 - 32UNC		C0282	D8282	H2	2.126	.276	.752	.168	.131	.250	2
#8 - 32UNC		C0283	D8283	H3	2.126	.276	.752	.168	.131	.250	2
#10 - 24UNC		C0323	D8323	H3	2.374	.354	.906	.194	.152	.250	2
#10 - 32UNF		C0342	D8342	H2	2.374	.276	.906	.194	.152	.250	2
#10 - 32UNF		C0343	D8343	H3	2.374	.276	.906	.194	.152	.250	2
#10 - 32UNF		C0345	D8345	H5	2.374	.276	.906	.194	.152	.250	2
1/4 - 20UNC		C0403	D8403	H3	2.500	.433	1.000	.255	.191	.310	2
1/4 - 20UNC		C0405	D8405	H5	2.500	.433	1.000	.255	.191	.310	2
1/4 - 28UNF		C0423	D8423	H3	2.500	.354	1.000	.255	.191	.310	2
5/16 - 18UNC		C0443	D8443	H3	2.720	.472	1.126	.318	.238	.380	2
5/16 - 18UNC		C0445	D8445	H5	2.720	.472	1.126	.318	.238	.380	2
5/16 - 24UNF		C0463	D8463	H3	2.720	.394	1.126	.318	.238	.380	2
5/16 - 24UNF		C0465	D8465	H5	2.720	.394	1.126	.318	.238	.380	2
3/8 - 16UNC		C0483	D8483	H3	2.937	.551	1.252	.381	.286	.440	2
3/8 - 16UNC		C0485	D8485	H5	2.937	.551	1.252	.381	.286	.440	2
3/8 - 24UNF		C0503	D8503	H3	2.937	.394	1.252	.381	.286	.440	2
3/8 - 24UNF		C0505	D8505	H5	2.937	.394	1.252	.381	.286	.440	2
1/2 - 13UNC		C0563	D8563	H3	3.374	.630	2.067	.367	.275	.440	2
1/2 - 13UNC		C0565	D8565	H5	3.374	.630	2.067	.367	.275	.440	2
1/2 - 20UNF		C0583	D8583	H3	3.374	.472	2.067	.367	.275	.440	2
5/8 - 11UNC		C0643	D8643	H3	3.811	.748	2.205	.480	.360	.560	3
5/8 - 18UNF		C0663	D8663	H3	3.811	.512	2.205	.480	.360	.560	3
3/4 - 10UNC		C0703	D8703	H3	4.252	.827	2.480	.590	.442	.690	3
3/4 - 16UNF		C0723	D8723	H3	4.252	.591	2.480	.590	.442	.690	3
7/8 - 9UNC		C0744	D8744	H4	4.689	.827	2.815	.697	.523	.750	3
7/8 - 14UNF		C0764	D8764	H4	4.689	.709	2.815	.697	.523	.750	3
1" - 8UNC		C0784	D8784	H4	5.126	.984	3.091	.800	.600	.810	3

◎ : Excellent ○ : Good

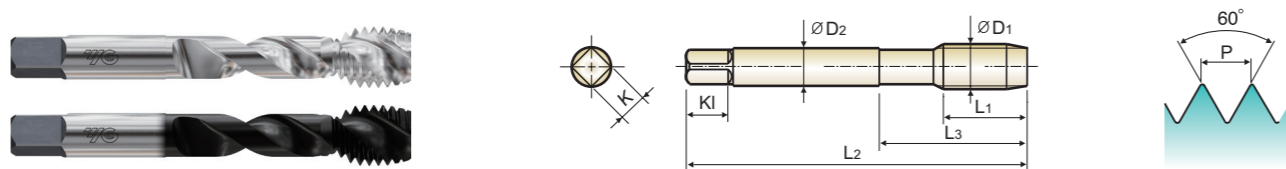
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	10	29	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											
	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								
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	○																	

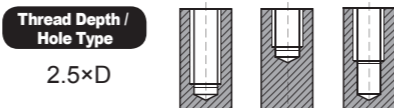


BW / BX SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE
for Aluminum Alloys or Die Cast Aluminum



ANSI



Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Hardslick								
M3	X 0.5	BW203	BX203	D3	1.937	.197	.646	.141	.110	.190	2
M4	X 0.7	BW244	BX244	D4	2.126	.276	.768	.168	.131	.250	2
M5	X 0.8	BW285	BX285	D5	2.374	.354	.933	.194	.152	.250	2
M6	X 1.0	BW315	BX315	D5	2.500	.433	1.000	.255	.191	.310	2
M8	X 1.25	BW365	BX365	D5	2.720	.472	1.126	.318	.238	.380	2
M10	X 1.5	BW426	BX426	D6	2.937	.512	1.252	.381	.286	.440	2
M10	X 1.25	BW435	BX435	D5	2.937	.472	1.252	.381	.286	.440	2
M12	X 1.75	BW506	BX506	D6	3.374	.591	2.067	.367	.275	.440	2
M12	X 1.5	BW515	BX515	D5	3.374	.591	2.067	.367	.275	.440	2
M12	X 1.25	BW525	BX525	D5	3.374	.551	2.067	.367	.275	.440	2

▶ DIN Length available: Bright Finish F1 Series & Hardslick coated F3 Series

◎ : Excellent ○ : Good

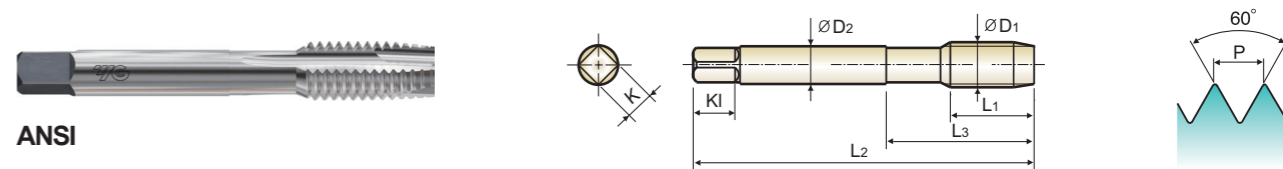
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	38	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	○																	



T2496 SERIES

SPIRAL POINT TAPS PLUG STYLE
for Aluminum Alloys or Die Cast Aluminum



ANSI



Unit : Inch

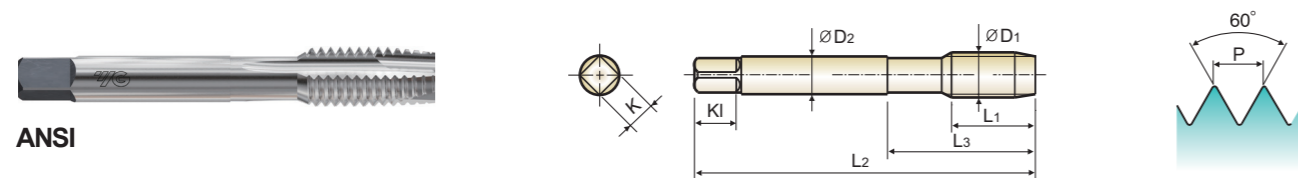
Size	TPI	EDP No.	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
#4	- 40UNC	T2496162	H2	1.874	.335	.563	.141	.110	.190	2
#4	- 40UNC	T2496163	H3	1.874	.335	.563	.141	.110	.190	2
#6	- 32UNC	T2496242	H2	2.000	.413	.689	.141	.110	.190	2
#6	- 32UNC	T2496243	H3	2.000	.413	.689	.141	.110	.190	2
#8	- 32UNC	T2496282	H2	2.126	.453	.752	.168	.131	.250	2
#8	- 32UNC	T2496283	H3	2.126	.453	.752	.168	.131	.250	2
#10	- 24UNC	T2496323	H3	2.374	.531	.906	.194	.152	.250	2
#10	- 32UNF	T2496342	H2	2.374	.531	.906	.194	.152	.250	2
#10	- 32UNF	T2496343	H3	2.374	.531	.906	.194	.152	.250	2
#10	- 32UNF	T2496345	H5	2.374	.531	.906	.194	.152	.250	2
1/4	- 20UNC	T2496403	H3	2.500	.591	1.000	.255	.191	.310	2
1/4	- 20UNC	T2496405	H5	2.500	.591	1.000	.255	.191	.310	2
1/4	- 28UNF	T2496423	H3	2.500	.591	1.000	.255	.191	.310	2
5/16	- 18UNC	T2496443	H3	2.720	.669	1.126	.318	.238	.380	2
5/16	- 18UNC	T2496445	H5	2.720	.669	1.126	.318	.238	.380	2
5/16	- 24UNF	T2496463	H3	2.720	.669	1.126	.318	.238	.380	2
5/16	- 24UNF	T2496465	H5	2.720	.669	1.126	.318	.238	.380	2
3/8	- 16UNC	T2496483	H3	2.937	.748	1.252	.381	.286	.440	3
3/8	- 16UNC	T2496485	H5	2.937	.748	1.252	.381	.286	.440	3
3/8	- 24UNF	T2496503	H3	2.937	.748	1.252	.381	.286	.440	3
3/8	- 24UNF	T2496505	H5	2.937	.748	1.252	.381	.286	.440	3
1/2	- 13UNC	T2496563	H3	3.374	.984	1.657	.367	.275	.440	3
1/2	- 13UNC	T2496565	H5	3.374	.984	1.657	.367	.275	.440	3
1/2	- 20UNF	T2496583	H3	3.374	.984	1.657	.367	.275	.440	3
5/8	- 11UNC	T2496643	H3	3.811	1.083	1.811	.480	.360	.560	3
5/8	- 18UNF	T2496663	H3	3.811	1.083	1.811	.480	.360	.560	3
3/4	- 10UNC	T2496703	H3	4.252	1.201	2.000	.590	.442	.690	3
3/4	- 16UNF	T2496723	H3	4.252	1.201	2.000	.590	.442	.690	3
7/8	- 9UNC	T2496744	H4	4.689	1.339	2.220	.697	.523	.750	3
7/8	- 14UNF	T2496764	H4	4.689	1.339	2.220	.697	.523	.750	3
1"	- 8UNC	T2496784	H4	5.126	1.496	2.500	.800	.600	.810	3

◎ : Excellent ○ : Good

ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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	38	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	○																	

SPIRAL POINT TAPS PLUG STYLE
for Aluminum Alloys or Die Cast Aluminum



Unit : Inch

Size	Pitch	EDP No.	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
D1		Bright		L2	L1	L3	D2	K	KI	
M3	X 0.5	T2K01203	D3	1.937	.374	.646	.141	.110	.190	2
M4	X 0.7	T2K01244	D4	2.126	.453	.768	.168	.131	.250	2
M5	X 0.8	T2K01284	D4	2.374	.531	.933	.194	.152	.250	2
M6	X 1.0	T2K01315	D5	2.500	.591	1.000	.255	.191	.310	2
M8	X 1.25	T2K01365	D5	2.720	.669	1.126	.318	.238	.380	2
M10	X 1.5	T2K01426	D6	2.937	.748	1.252	.381	.286	.440	3
M10	X 1.25	T2K01435	D5	2.937	.748	1.252	.381	.286	.440	3
M12	X 1.75	T2K01506	D6	3.374	.984	1.657	.367	.275	.440	3
M12	X 1.5	T2K01515	D5	3.374	.984	1.657	.367	.275	.440	3
M12	X 1.25	T2K01525	D5	3.374	.984	1.657	.367	.275	.440	3

HSS-PM

YG TAP Ti / Ni

- For Heat Resistant Super Alloys and Titanium Alloys

◎ : 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	400Rm	1050Rm	550	630	400	550					
Recommended	◎	◎	◎	○	○		○	○																		

SELECTION GUIDE



HSS-PM
YG TAP
Ti / Ni

- For Heat Resistant Super Alloys and Titanium Alloys

HOLE TYPE	Max. 2.5xD Blind Hole	Max. 3.0xD Through Hole						
TOOL MATERIAL	HSS-PM							
CHAMFER LEAD ACC. TO DIN2197	2P-3P	4P-5P						
FLUTE TYPE	Spiral Flute	Spiral Point						
SPIRAL FLUTE ANGLE	R15	-						
SERIES	M							
	M/MF							
	UNC							
	UNC/UNF	B3 (p.B187)	B5 (p.B187)	B6 (p.B187)	I3 (p.B189)	M8 (p.B189)	I5 (p.B189)	J6 (p.B189)
	UNC/UNF/UNS							
	UNC/UN8							
	NPT							
	NPTF							
NPS/NPSF								
SURFACE TREATMENT / COATING	Steam Oxide	TiCN	HardSlick	Steam Oxide	Bright	TiCN	HardSlick	
MODEL								

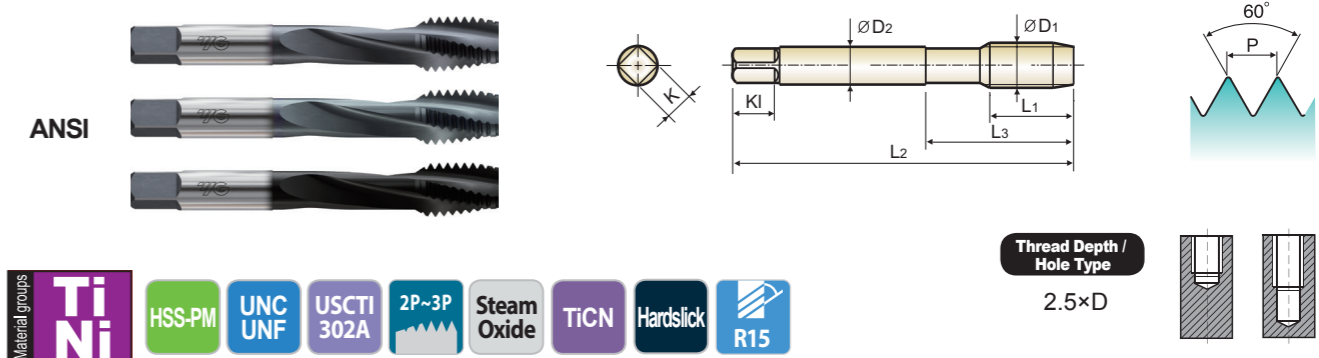
Please visit globalyg1.com/mat for material search

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



B3/B5/B6 SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Titanium Alloys & Nickel Base Alloys up to 38 ~ 45HRc



Material groups: Ti Ni, HSS-PM, UNC UNF, USCTI 302A, 2P~3P, Steam Oxide, TiCN, HardSlick, R15

Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KL	No. of Flute
		Steam Oxide	TiCN	HardSlick								
#2 - 56UNC		B3082	B5082	D6082	H2	1.752	.157	.433	.141	.110	.190	3
#4 - 40UNC		B3162	B5162	D6162	H2	1.874	.236	.563	.141	.110	.190	3
#5 - 40UNC		B3202	B5202	D6202	H2	1.937	.236	.626	.141	.110	.190	3
#6 - 32UNC		B3243	B5243	D6243	H3	2.000	.276	.689	.141	.110	.190	3
#8 - 32UNC		B3283	B5283	D6283	H3	2.126	.276	.752	.168	.131	.250	3
#10 - 24UNC		B3323	B5323	D6323	H3	2.374	.354	.906	.194	.152	.250	3
#10 - 32UNF		B3343	B5343	D6343	H3	2.374	.276	.906	.194	.152	.250	3
1/4 - 20UNC		B3403	B5403	D6403	H3	2.500	.433	1.000	.255	.191	.310	3
1/4 - 20UNC		B3405	B5405	D6405	H5	2.500	.433	1.000	.255	.191	.310	3
1/4 - 28UNF		B3423	B5423	D6423	H3	2.500	.354	1.000	.255	.191	.310	3
1/4 - 28UNF		B3424	B5424	D6424	H4	2.500	.354	1.000	.255	.191	.310	3
5/16 - 18UNC		B3443	B5443	D6443	H3	2.720	.472	1.126	.318	.238	.380	3
5/16 - 18UNC		B3445	B5445	D6445	H5	2.720	.472	1.126	.318	.238	.380	3
5/16 - 24UNF		B3463	B5463	D6463	H3	2.720	.394	1.126	.318	.238	.380	3
3/8 - 16UNC		B3483	B5483	D6483	H3	2.937	.551	1.252	.381	.286	.440	3
3/8 - 16UNC		B3485	B5485	D6485	H5	2.937	.551	1.252	.381	.286	.440	3
3/8 - 24UNF		B3503	B5503	D6503	H3	2.937	.394	1.252	.381	.286	.440	3
3/8 - 24UNF		B3504	B5504	D6504	H4	2.937	.394	1.252	.381	.286	.440	3
7/16 - 14UNC		B3523	B5523	D6523	H3	3.157	.591	1.850	.323	.242	.410	3
7/16 - 14UNC		B3525	B5525	D6525	H5	3.157	.591	1.850	.323	.242	.410	3
7/16 - 20UNF		B3543	B5543	D6543	H3	3.157	.472	1.850	.323	.242	.410	3
7/16 - 20UNF		B3545	B5545	D6545	H5	3.157	.472	1.850	.323	.242	.410	3
1/2 - 13UNC		B3563	B5563	D6563	H3	3.374	.630	2.067	.367	.275	.440	3
1/2 - 13UNC		B3565	B5565	D6565	H5	3.374	.630	2.067	.367	.275	.440	3
1/2 - 20UNF		B3583	B5583	D6583	H3	3.374	.472	2.067	.367	.275	.440	3
1/2 - 20UNF		B3585	B5585	D6585	H5	3.374	.472	2.067	.367	.275	.440	3

▶ TiN Coated Available: H9 Series

▶ NEXT PAGE

◎ : Excellent ○ : Good

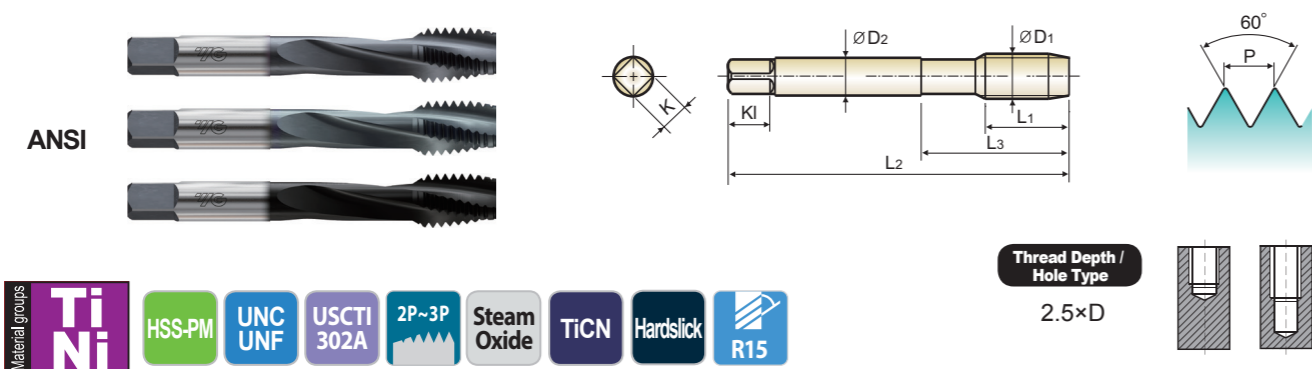
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron		
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	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	260	160	250	130	230	
Recommended								○	○											

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



B3/B5/D6 SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE
for Titanium Alloys & Nickel Base Alloys up to 38 ~ 45HRc



Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	TiCN	Hardslick								
9/16 - 12UNC	B3603	B5603	D6603	H3	3.594	.709	2.067	.429	.322	.500	3	
9/16 - 12UNC	B3605	B5605	D6605	H5	3.594	.709	2.067	.429	.322	.500	3	
9/16 - 18UNF	B3623	B5623	D6623	H3	3.594	.512	2.067	.429	.322	.500	3	
9/16 - 18UNF	B3625	B5625	D6625	H5	3.594	.512	2.067	.429	.322	.500	3	
5/8 - 11UNC	B3643	B5643	D6643	H3	3.811	.748	2.205	.480	.360	.560	4	
5/8 - 11UNC	B3645	B5645	D6645	H5	3.811	.748	2.205	.480	.360	.560	4	
5/8 - 18UNF	B3663	B5663	D6663	H3	3.811	.512	2.205	.480	.360	.560	4	
5/8 - 18UNF	B3665	B5665	D6665	H5	3.811	.512	2.205	.480	.360	.560	4	
3/4 - 10UNC	B3703	B5703	D6703	H3	4.252	.827	2.480	.590	.442	.690	4	
3/4 - 10UNC	B3705	B5705	D6705	H5	4.252	.827	2.480	.590	.442	.690	4	
3/4 - 16UNF	B3723	B5723	D6723	H3	4.252	.591	2.480	.590	.442	.690	4	
3/4 - 16UNF	B3725	B5725	D6725	H5	4.252	.591	2.480	.590	.442	.690	4	

▶ TiN Coated Available: H9 Series

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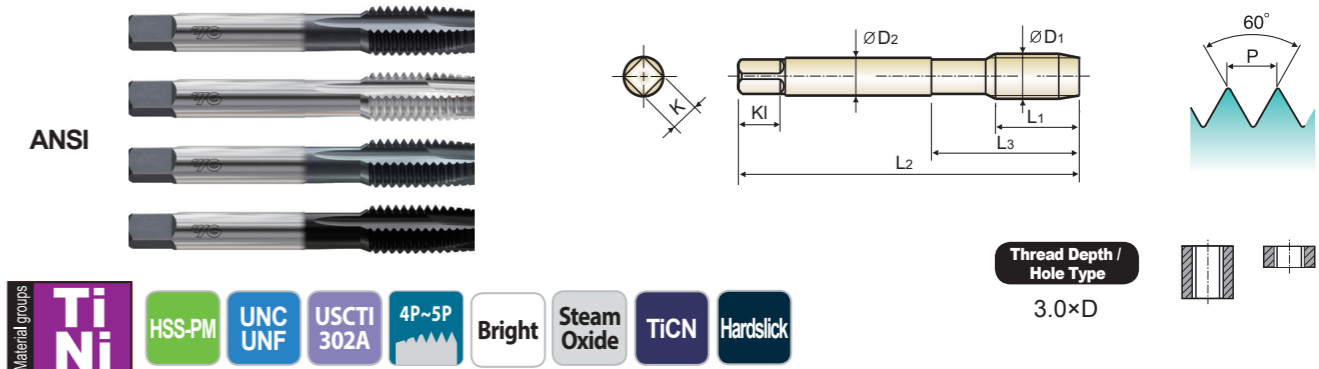
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125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

ISO	N					S					H										
	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	400Rm	1050Rm	550	630	400	550
Recommended											◎	◎	◎	○	○	◎	○				



I3/M8/I5/J6 SERIES

SPIRAL POINT TAPS PLUG STYLE
for Titanium Alloys & Nickel Base Alloys up to 38 ~ 45HRc



Unit : Inch

Size	TPI	EDP No.				Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Bright	TiCN	Hardslick								
#2 - 56UNC	I3082	M8082	I5082	J6082	H2	1.752	0.256	0.433	0.1410	0.110	.190	2	
#4 - 40UNC	I3162	M8162	I5162	J6162	H2	1.874	0.335	0.563	0.1410	0.110	.190	2	
#5 - 40UNC	I3202	M8202	I5202	J6202	H2	1.937	0.374	0.626	0.1410	0.110	.190	3	
#6 - 32UNC	I3243	M8243	I5243	J6243	H3	2.000	0.413	0.689	0.1410	0.110	.190	3	
#8 - 32UNC	I3283	M8283	I5283	J6283	H3	2.126	0.453	0.752	0.1680	0.131	.250	3	
#10 - 24UNC	I3323	M8323	I5323	J6323	H3	2.374	0.531	0.906	0.1940	0.152	.250	3	
#10 - 32UNF	I3343	M8343	I5343	J6343	H3	2.374	0.531	0.906	0.1940	0.152	.250	3	
1/4 - 20UNC	I3403	M8403	I5403	J6403	H3	2.500	0.591	1.000	0.2550	0.191	.310	3	
1/4 - 20UNC	I3405	M8405	I5405	J6405	H5	2.500	0.591	1.000	0.2550	0.191	.310	3	
1/4 - 28UNF	I3423	M8423	I5423	J6423	H3	2.500	0.591	1.000	0.2550	0.191	.310	3	
1/4 - 28UNF	I3424	M8424	I5424	J6424	H4	2.500	0.591	1.000	0.2550	0.191	.310	3	
5/16 - 18UNC	I3443	M8443	I5443	J6443	H3	2.720	0.669	1.126	0.3180	0.238	.380	3	
5/16 - 18UNC	I3445	M8445	I5445	J6445	H5	2.720	0.669	1.126	0.3180	0.238	.380	3	
5/16 - 24UNF	I3463	M8463	I5463	J6463	H3	2.720	0.669	1.126	0.3180	0.238	.380	3	
3/8 - 16UNC	I3483	M8483	I5483	J6483	H3	2.937	0.748	1.252	0.3810	0.286	.440	3	
3/8 - 16UNC	I3485	M8485	I5485	J6485	H5	2.937	0.748	1.252	0.3810	0.286	.440	3	
3/8 - 24UNF	I3503	M8503	I5503	J6503	H3	2.937	0.748	1.252	0.3810	0.286	.440	3	
3/8 - 24UNF	I3504	M8504	I5504	J6504	H4	2.937	0.748	1.252	0.3810	0.286	.440	3	
7/16 - 14UNC	I3523	M8523	I5523	J6523	H3	3.157	.866	1.437	.323	.242	.410	3	
7/16 - 14UNC	I3525	M8525	I5525	J6525	H5	3.157	.866	1.437	.323	.242	.410	3	
7/16 - 20UNF	I3543	M8543	I5543	J6543	H3	3.157	.866	1.437	.323	.242	.410	3	
7/16 - 20UNF	I3545	M8545	I5545	J6545	H5	3.157	.866	1.437	.323	.242	.410	3	
1/2 - 13UNC	I3563	M8563	I5563	J6563	H3	3.374	.984	1.657	.367	.275	.440	3	
1/2 - 13UNC	I3565	M8565	I5565	J6565	H5	3.374	.984	1.657	.367	.275	.440	3	
1/2 - 20UNF	I3583	M8583	I5583	J6583	H3	3.374	.984	1.657	.367	.275	.440	3	
1/2 - 20UNF	I3585	M8585	I5585	J6585	H5	3.374	.984	1.657	.367	.275	.440	3	

▶ NEXT PAGE

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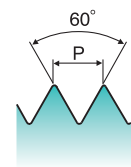
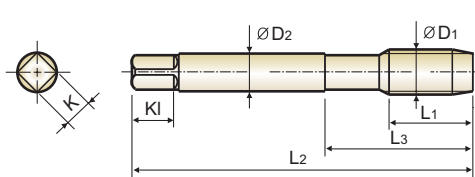
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125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

ISO	N					S					H										
	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	400Rm	1050Rm	550	630	400	550
Recommended											◎	◎	◎	○	○	◎	○				

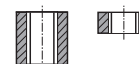


SPIRAL POINT TAPS PLUG STYLE
for Titanium Alloys & Nickel Base Alloys up to 38 ~ 45HRc

ANSI



Thread Depth / Hole Type
3.0xD



Material groups: **Ti Ni**, HSS-PM, UNC UNF, USCTI 302A, 4P~5P, Bright, Steam Oxide, TiCN, Hardslick

Unit : Inch

Size	TPI	EDP No.				Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Bright	TiCN	Hardslick		L2	L1	L3	D2	K	KL	
9/16 - 12UNC		I3603	M8603	I5603	J6603	H3	3.594	.984	1.657	.429	.322	.500	3
9/16 - 12UNC		I3605	M8605	I5605	J6605	H5	3.594	.984	1.657	.429	.322	.500	3
9/16 - 18UNF		I3623	M8623	I5623	J6623	H3	3.594	.984	1.657	.429	.322	.500	3
9/16 - 18UNF		I3625	M8625	I5625	J6625	H5	3.594	.984	1.657	.429	.322	.500	3
5/8 - 11UNC		I3643	M8643	I5643	J6643	H3	3.811	1.083	1.811	.480	.360	.560	3
5/8 - 11UNC		I3645	M8645	I5645	J6645	H5	3.811	1.083	1.811	.480	.360	.560	3
5/8 - 18UNF		I3663	M8663	I5663	J6663	H3	3.811	1.083	1.811	.480	.360	.560	3
5/8 - 18UNF		I3665	M8665	I5665	J6665	H5	3.811	1.083	1.811	.480	.360	.560	3
3/4 - 10UNC		I3703	M8703	I5703	J6703	H3	4.252	1.201	2.000	.590	.442	.690	3
3/4 - 10UNC		I3705	M8705	I5705	J6705	H5	4.252	1.201	2.000	.590	.442	.690	3
3/4 - 16UNF		I3723	M8723	I5723	J6723	H3	4.252	1.201	2.000	.590	.442	.690	3
3/4 - 16UNF		I3725	M8725	I5725	J6725	H5	4.252	1.201	2.000	.590	.442	.690	3

◎ : 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	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	400Rm	1050Rm	550	630	400	550
Recommended											◎	◎	◎	○	○	◎	○			○	



Being the best through innovation

HSS-PM

YG TAP HARDENED STEEL

- For Hardened Steels Applications

SELECTION GUIDE



HSS-PM

YG TAP

HARDENED STEEL

- For Hardened Steels Applications

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Table with columns: ISO VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and MODEL. It lists various material groups like Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron, Aluminum-wrought alloy, Aluminum-cast, alloyed, Copper and Copper Alloys, Non Metallic Materials, Heat Resistant Super Alloys, Titanium Alloys, Hardened steel, Chilled Cast Iron, and Hardened Cast Iron.

Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES, SURFACE TREATMENT / COATING, and MODEL. It specifies HSS-PM, 2P-3P spiral flute, R15 angle, and coatings like Bright, TiCN, and HardSlick.

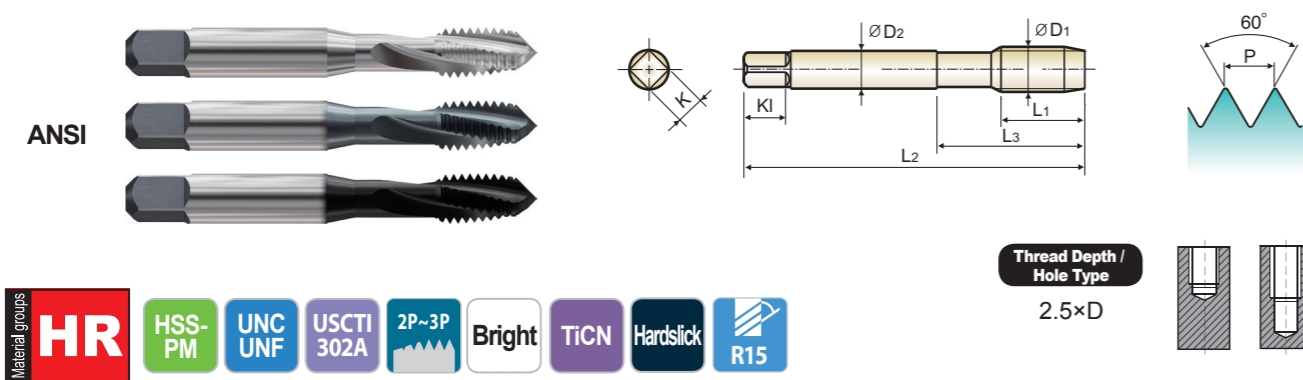
Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES, SURFACE TREATMENT / COATING, and MODEL. It specifies HSS-PM, 4P-5P spiral point, and coatings like Steam Oxide, TiCN, and HardSlick.

Large table with columns for material groups (P, M, K, N, S, H) and various material types, listing ISO VDI 3323 numbers, material descriptions, and HB/HRC values. It also includes a grid of symbols (circles with numbers) indicating suitability for different hole types.

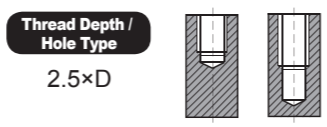
YG TAP HARDENED STEEL

H6 / H7 / H8 SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Steels up to 25 ~ 45HRc



Material groups: **HR**, HSS-PM, UNC UNF, USCTI 302A, 2P~3P, Bright, TiCN, Hardslick, R15



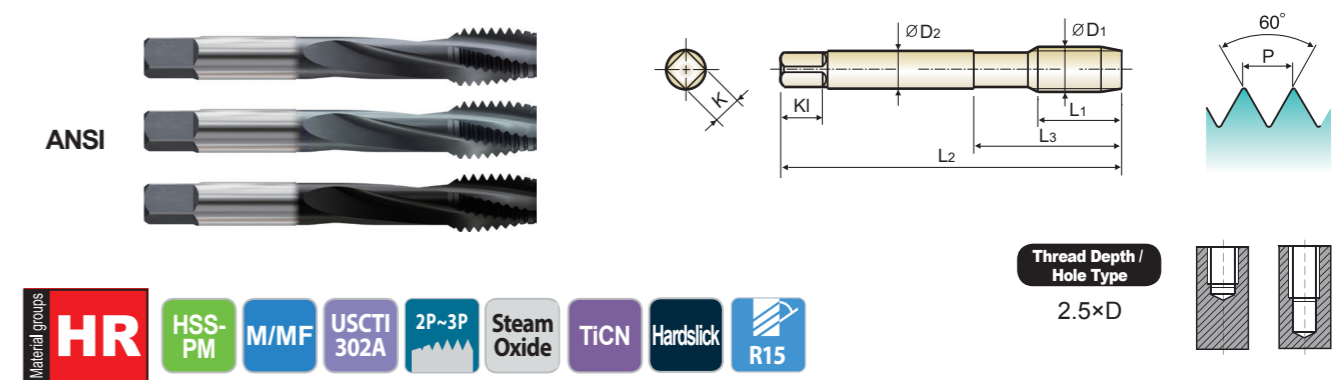
Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiCN	Hardslick								
#2 - 56UNC		H6082	H7082	H8082	H2	1.752	.157	.433	.141	.110	.190	3
#4 - 40UNC		H6162	H7162	H8162	H2	1.874	.236	.563	.141	.110	.190	3
#5 - 40UNC		H6202	H7202	H8202	H2	1.937	.236	.626	.141	.110	.190	3
#6 - 32UNC		H6243	H7243	H8243	H3	2.000	.276	.689	.141	.110	.190	3
#8 - 32UNC		H6283	H7283	H8283	H3	2.126	.276	.752	.168	.131	.250	3
#10 - 24UNC		H6323	H7323	H8323	H3	2.374	.354	.906	.194	.152	.250	3
#10 - 32UNF		H6343	H7343	H8343	H3	2.374	.276	.906	.194	.152	.250	3
1/4 - 20UNC		H6405	H7405	H8405	H5	2.500	.433	1.000	.255	.191	.310	3
1/4 - 28UNF		H6424	H7424	H8424	H4	2.500	.354	1.000	.255	.191	.310	3
5/16 - 18UNC		H6445	H7445	H8445	H5	2.720	.472	1.126	.318	.238	.380	3
5/16 - 24UNF		H6464	H7464	H8464	H4	2.720	.394	1.126	.318	.238	.380	3
3/8 - 16UNC		H6485	H7485	H8485	H5	2.937	.551	1.252	.381	.286	.440	3
3/8 - 24UNF		H6504	H7504	H8504	H4	2.937	.394	1.252	.381	.286	.440	3
7/16 - 14UNC		H6525	H7525	H8525	H5	3.157	.591	1.850	.323	.242	.410	3
7/16 - 20UNF		H6545	H7545	H8545	H5	3.157	.472	1.850	.323	.242	.410	3
1/2 - 13UNC		H6565	H7565	H8565	H5	3.374	.630	2.067	.367	.275	.440	3
1/2 - 20UNF		H6585	H7585	H8585	H5	3.374	.472	2.067	.367	.275	.440	3
5/8 - 11UNC		H6645	H7645	H8645	H5	3.811	.748	2.205	.480	.360	.560	4
5/8 - 18UNF		H6665	H7665	H8665	H5	3.811	.512	2.205	.480	.360	.560	4
3/4 - 10UNC		H6705	H7705	H8705	H5	4.252	.827	2.480	.590	.442	.690	4
3/4 - 16UNF		H6725	H7725	H8725	H5	4.252	.591	2.480	.590	.442	.690	4

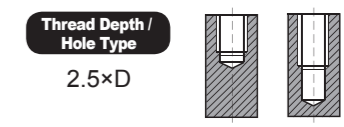
YG TAP HARDENED STEEL

TQ858 / TK858 SERIES TR858 SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Steels up to 25 ~ 45HRc



Material groups: **HR**, HSS-PM, M/MF, USCTI 302A, 2P~3P, Steam Oxide, TiCN, Hardslick, R15



Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	TiCN	Hardslick								
M3 x 0.5		TQ858203	TK858203	TR858203HAR	D3	1.937	.197	.646	.141	.110	.190	3
M4 x 0.7		TQ858244	TK858244	TR858244HAR	D4	2.126	.276	.768	.168	.131	.250	3
M4 x 0.5		TQ858253	TK858253	TR858253HAR	D3	2.126	.276	.768	.168	.131	.250	3
M5 x 0.8		TQ858284	TK858284	TR858284HAR	D4	2.374	.354	.933	.194	.152	.250	3
M5 x 0.5		TQ858293	TK858293	TR858293HAR	D3	2.374	.354	.933	.194	.152	.250	3
M6 x 1.0		TQ858315	TK858315	TR858315HAR	D5	2.500	.433	1.000	.255	.191	.310	3
M6 x 0.75		TQ858324	TK858324	TR858324HAR	D4	2.500	.433	1.000	.255	.191	.310	3
M6 x 0.5		TQ858333	TK858333	TR858333HAR	D3	2.500	.433	1.000	.255	.191	.310	3
M8 x 1.25		TQ858365	TK858365	TR858365HAR	D5	2.720	.472	1.126	.318	.238	.380	3
M8 x 1.0		TQ858375	TK858375	TR858375HAR	D5	2.720	.433	1.126	.318	.238	.380	3
M10 x 1.5		TQ858426	TK858426	TR858426HAR	D6	2.937	.512	1.252	.381	.286	.440	3
M10 x 1.25		TQ858435	TK858435	TR858435HAR	D5	2.937	.472	1.252	.381	.286	.440	3
M10 x 1.0		TQ858445	TK858445	TR858445HAR	D5	2.937	.433	1.252	.381	.286	.440	3
M12 x 1.75		TQ858506	TK858506	TR858506HAR	D6	3.374	.591	2.067	.367	.275	.440	3
M12 x 1.5		TQ858516	TK858516	TR858516HAR	D6	3.374	.591	2.067	.367	.275	.440	3
M12 x 1.25		TQ858526	TK858526	TR858526HAR	D6	3.374	.551	2.067	.367	.275	.440	3
M12 x 1.0		TQ858535	TK858535	TR858535HAR	D5	3.374	.551	2.067	.367	.275	.440	3
M14 x 2.0		TQ858547	TK858547	TR858547HAR	D7	3.594	.709	2.067	.429	.322	.500	3
M14 x 1.5		TQ858556	TK858556	TR858556HAR	D6	3.594	.551	2.067	.429	.322	.500	3
M16 x 2.0		TQ858607	TK858607	TR858607HAR	D7	3.811	.709	2.205	.480	.360	.560	4
M16 x 1.5		TQ858616	TK858616	TR858616HAR	D6	3.811	.551	2.205	.480	.360	.560	4
M18 x 2.5		TQ858657	TK858657	TR858657HAR	D7	4.031	.787	2.205	.542	.406	.630	4
M18 x 1.5		TQ858676	TK858676	TR858676HAR	D6	4.031	.551	2.205	.542	.406	.630	4
M20 x 2.5		TQ858707	TK858707	TR858707HAR	D7	4.469	.787	2.480	.652	.489	.690	4

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended																		○		○	

◎ : Excellent ○ : Good

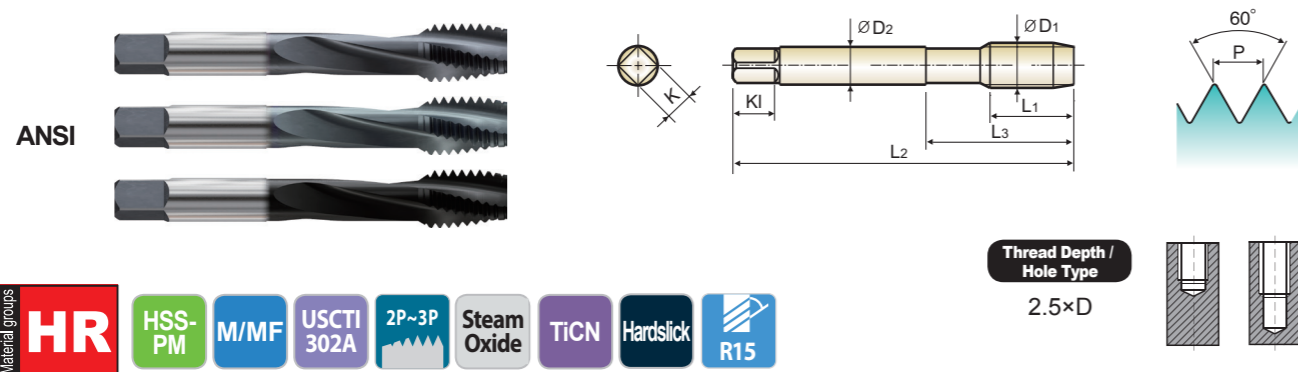
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended																		○		○	

YG TAP HARDENED STEEL

TQ858 / TK858 SERIES
TR858 SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE
for Steels up to 25 ~ 45HRc



Material groups: **HR**, HSS-PM, M/MF, USCTI 302A, 2P~3P, Steam Oxide, TiCN, Hardslick, R15

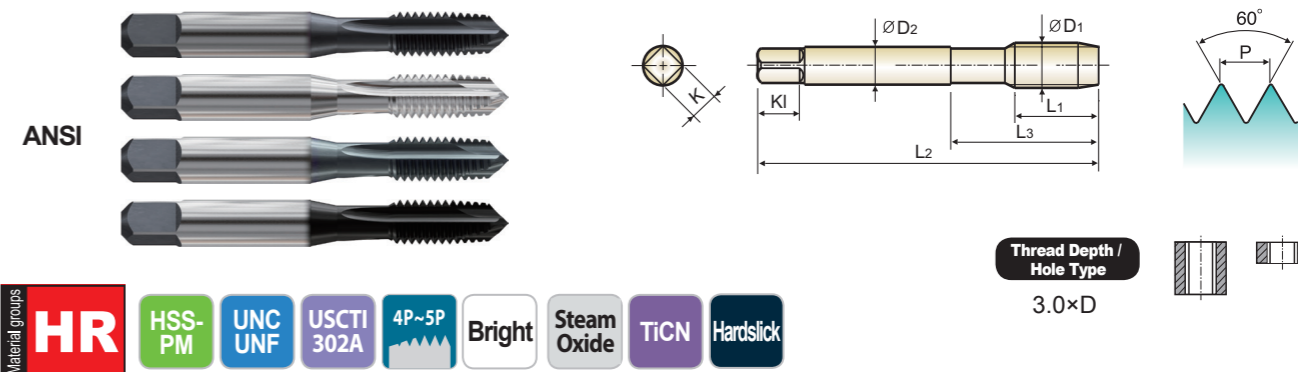
Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	TiCN	Hardslick								
M20 x 1.5		TQ858726	TK858726	TR858726HAR	D6	4.469	.551	2.480	.652	.489	.690	4
M22 x 2.5		TQ858747	TK858747	TR858747HAR	D7	4.689	.787	2.815	.697	.523	.750	4
M22 x 1.5		TQ858766	TK858766	TR858766HAR	D6	4.689	.551	2.815	.697	.523	.750	4
M24 x 3.0		TQ858788	TK858788	TR858788HAR	D8	4.906	.945	2.815	.760	.570	.750	4
M24 x 1.5		TQ858806	TK858806	TR858806HAR	D6	4.906	.551	2.815	.760	.570	.750	4

YG TAP HARDENED STEEL

M4/M5/M6/M7 SERIES

SPIRAL POINT TAPS PLUG STYLE
for Steels up to 25 ~ 45HRc



Material groups: **HR**, HSS-PM, UNC UNF, USCTI 302A, 4P~5P, Bright, Steam Oxide, TiCN, Hardslick

Unit : Inch

Size	TPI	EDP No.				Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Bright	TiCN	Hardslick								
#2 - 56UNC		M4082	M5082	M6082	M7082	H2	1.752	.256	.433	.141	.110	.190	2
#4 - 40UNC		M4162	M5162	M6162	M7162	H2	1.874	.335	.563	.141	.110	.190	2
#5 - 40UNC		M4202	M5202	M6202	M7202	H2	1.937	.374	.626	.141	.110	.190	3
#6 - 32UNC		M4243	M5243	M6243	M7243	H3	2.000	.413	.689	.141	.110	.190	3
#8 - 32UNC		M4283	M5283	M6283	M7283	H3	2.126	.453	.752	.168	.131	.250	3
#10 - 24UNC		M4323	M5323	M6323	M7323	H3	2.374	.531	.906	.194	.152	.250	3
#10 - 32UNF		M4343	M5343	M6343	M7343	H3	2.374	.531	.906	.194	.152	.250	3
1/4 - 20UNC		M4405	M5405	M6405	M7405	H5	2.500	.591	1.000	.255	.191	.310	3
1/4 - 28UNF		M4424	M5424	M6424	M7424	H4	2.500	.591	1.000	.255	.191	.310	3
5/16 - 18UNC		M4445	M5445	M6445	M7445	H5	2.720	.669	1.126	.318	.238	.380	3
5/16 - 24UNF		M4464	M5464	M6464	M7464	H4	2.720	.669	1.126	.318	.238	.380	3
3/8 - 16UNC		M4485	M5485	M6485	M7485	H5	2.937	.748	1.252	.381	.286	.440	3
3/8 - 24UNF		M4504	M5504	M6504	M7504	H4	2.937	.748	1.252	.381	.286	.440	3
7/16 - 14UNC		M4525	M5525	M6525	M7525	H5	3.157	.866	1.437	.323	.242	.410	3
7/16 - 20UNF		M4545	M5545	M6545	M7545	H5	3.157	.866	1.437	.323	.242	.410	3
1/2 - 13UNC		M4565	M5565	M6565	M7565	H5	3.374	.984	1.657	.367	.275	.440	3
1/2 - 20UNF		M4585	M5585	M6585	M7585	H5	3.374	.984	1.657	.367	.275	.440	3
9/16 - 12UNC		M4605	M5605	M6605	M7605	H5	3.594	.984	1.657	.429	.322	.500	3
9/16 - 18UNF		M4625	M5625	M6625	M7625	H5	3.594	.984	1.657	.429	.322	.500	3
5/8 - 11UNC		M4645	M5645	M6645	M7645	H5	3.811	1.083	1.811	.480	.360	.560	3
5/8 - 18UNF		M4665	M5665	M6665	M7665	H5	3.811	1.083	1.811	.480	.360	.560	3
3/4 10UNC		M4705	M5705	M6705	M7705	H5	4.252	1.201	2.000	.590	.442	.690	3
3/4 16UNF		M4725	M5725	M6725	M7725	H5	4.252	1.201	2.000	.590	.442	.690	3

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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	35	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										◎	◎	◎	◎	◎						



Being the best through innovation

HSS-E & HSS

YG TAP GENERAL

- For General Purpose Through and Blind Hole Applications

SELECTION GUIDE



HSS-E & HSS YG TAP GENERAL

- For General Purpose Through and Blind Hole Applications

Please visit globalyg1.com/mat for material search

Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES, SURFACE TREATMENT / COATING, MODEL, HB, HRC. Includes icons for Max. 2.0xD Blind /Through Hole.

Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES, SURFACE TREATMENT / COATING, MODEL, HB, HRC. Includes icons for Max. 2.0xD Blind /Through Hole.

SELECTION GUIDE



HSS-E & HSS YG TAP GENERAL

- For General Purpose Through and Blind Hole Applications

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Table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, Hole Type, Tool Material, Chamfer Lead, Flute Type, Spiral Flute Angle, Surface Treatment, and Model. Includes material groups P, M, K, N, S, H.

Table showing HSS-E tool specifications for 1.5P-2P and 2P-3P series. Columns include Hole Type, Tool Material, Chamfer Lead, Flute Type, Spiral Flute Angle, Surface Treatment, and Model. Includes material groups R45, R50, and R45.

SELECTION GUIDE



HSS-E & HSS YG TAP GENERAL

- For General Purpose Through and Blind Hole Applications



Table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and four columns for hole types (25-50, 25-50, 50-80, 25-50). Rows include P (Non-alloy steel, Low alloy steel, High alloyed steel), M (Stainless steel), K (Grey cast iron, Nodular cast iron, Malleable cast iron), N (Aluminum-wrought alloy, Aluminum-cast, alloyed), S (Heat Resistant Super Alloys, Titanium Alloys), and H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

Table with columns: HOLE TYPE (Max. 2.5xD Blind Hole), TOOL MATERIAL (HSS), CHAMFER LEAD ACC. TO DIN2197 (4P-5P, 1.5P-2P), FLUTE TYPE (Spiral Flute), SPIRAL FLUTE ANGLE (R50), SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF), SURFACE TREATMENT / COATING (Bright, Steam Oxide, TiN, Bright), MODEL (images of taps).

Table with columns: HOLE TYPE (Max. 2.5xD Blind Hole), TOOL MATERIAL (HSS), CHAMFER LEAD ACC. TO DIN2197 (1.5P-2P, 4P-5P, 1.5P-2P, 4P-5P, 1.5P-2P), FLUTE TYPE (Spiral Flute), SPIRAL FLUTE ANGLE (R50), SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF), SURFACE TREATMENT / COATING (Steam Oxide, TiN, Bright, Steam Oxide, TiN, Bright, Steam Oxide, TiN, Bright, TiN, Bright, TiN), MODEL (images of taps).

Table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and four columns for hole types (25-50, 50-80, 25-50, 25-50, 50-80, 25-50, 25-50, 50-80, 25-50, 50-80, 25-50, 50-80). Rows include P (Non-alloy steel, Low alloy steel, High alloyed steel), M (Stainless steel), K (Grey cast iron, Nodular cast iron, Malleable cast iron), N (Aluminum-wrought alloy, Aluminum-cast, alloyed), S (Heat Resistant Super Alloys, Titanium Alloys), and H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

SELECTION GUIDE



HSS-E & HSS YG TAP GENERAL

- For General Purpose Through and Blind Hole Applications

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Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF), SURFACE TREATMENT / COATING, MODEL, and material properties (ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC).

Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF), SURFACE TREATMENT / COATING, MODEL, and material properties (ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC).

SELECTION GUIDE



HSS-E & HSS YG TAP GENERAL

- For General Purpose Through and Blind Hole Applications

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Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF), SURFACE TREATMENT / COATING, MODEL, ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and hole size specifications.

Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF), SURFACE TREATMENT / COATING, MODEL, ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and hole size specifications.

SELECTION GUIDE



HSS-E & HSS YG TAP GENERAL

- For General Purpose Through and Blind Hole Applications

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Table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and three columns for hole types (Bright, Steam Oxide, TiN) showing drill diameters.

Table with columns: HSS, 4P-5P, 1.5P-2P, and three columns for hole types (Bright, Steam Oxide, TiN) showing drill diameters.



T7316 / T7A16 / T7B16 SERIES

HAND TAP TAPER, PLUG & BOTTOMING STYLE

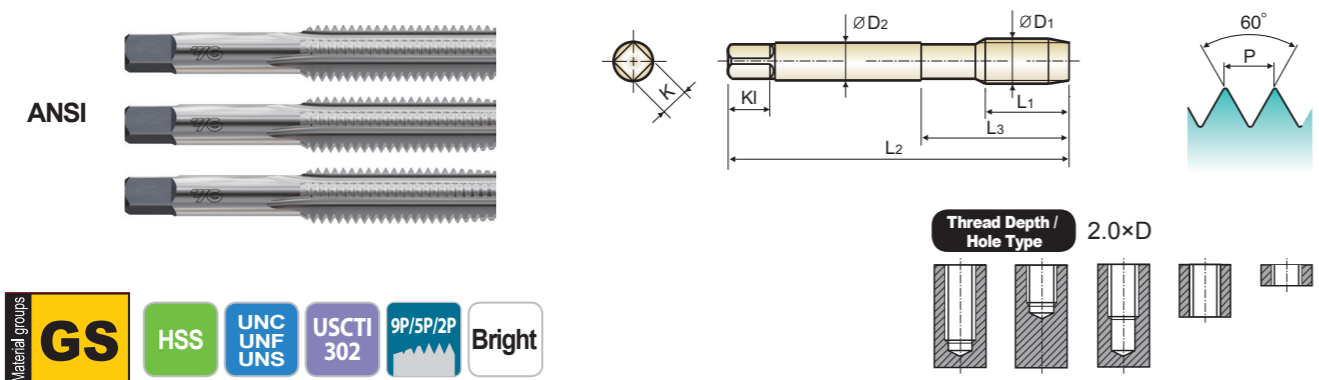


Table with columns: Size, TPI, EDP No. (Taper, Plug, Bottoming), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute. Lists various tap sizes from #0 to #5.

Unit : Inch

▶ NEXT PAGE

ISO material compatibility chart with columns for Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), M, K, S, H, and Recommended status.



T7316 / T7A16 / T7B16 SERIES

HAND TAP TAPER, PLUG & BOTTOMING STYLE

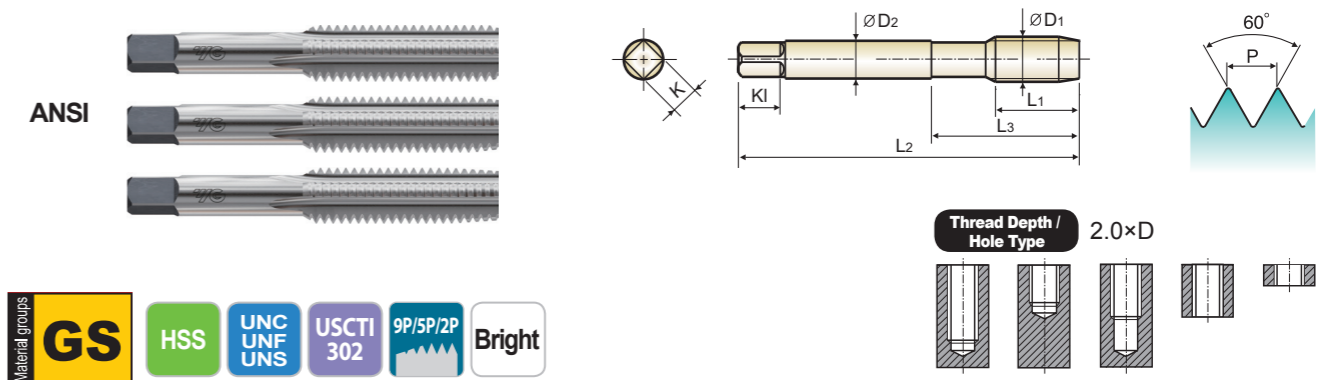


Table with columns: Size, TPI, EDP No. (Taper, Plug, Bottoming), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute. Lists various tap sizes from #5 to #10.

Unit : Inch

▶ NEXT PAGE

ISO material compatibility chart with columns for Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), M, K, S, H, and Recommended status.



T7316 / T7A16 / T7B16 SERIES

HAND TAP TAPER, PLUG & BOTTOMING STYLE

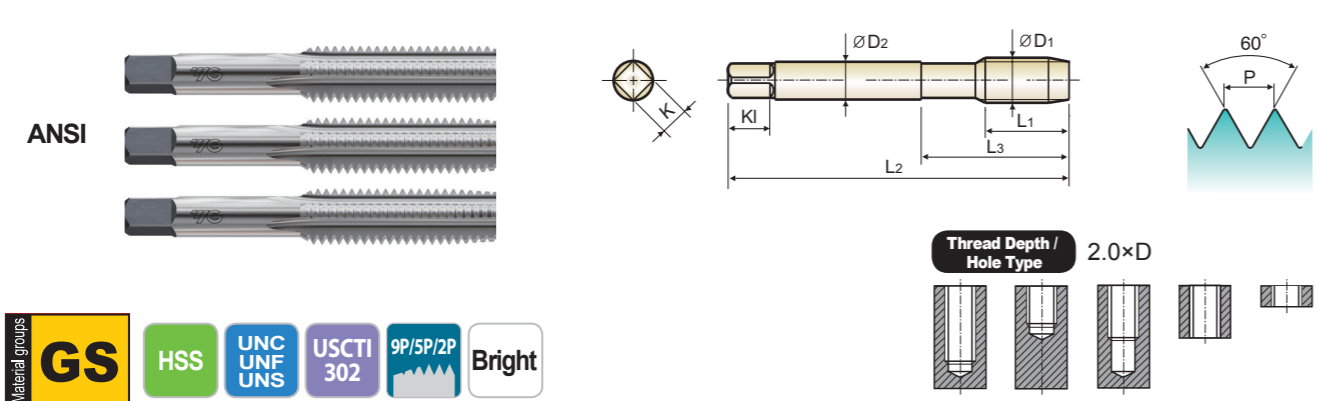


Table with columns: Size, TPI, EDP No. (Taper, Plug, Bottoming), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute. Lists various tap sizes from #10 to 1/4 inch.

▶ NEXT PAGE

Material compatibility chart with columns for ISO, Material Description, and material groups: P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), N (Aluminum, Copper, Non Metallic), S (Heat Resistant Super Alloys, Titanium Alloys), H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).



T7316 / T7A16 / T7B16 SERIES

HAND TAP TAPER, PLUG & BOTTOMING STYLE

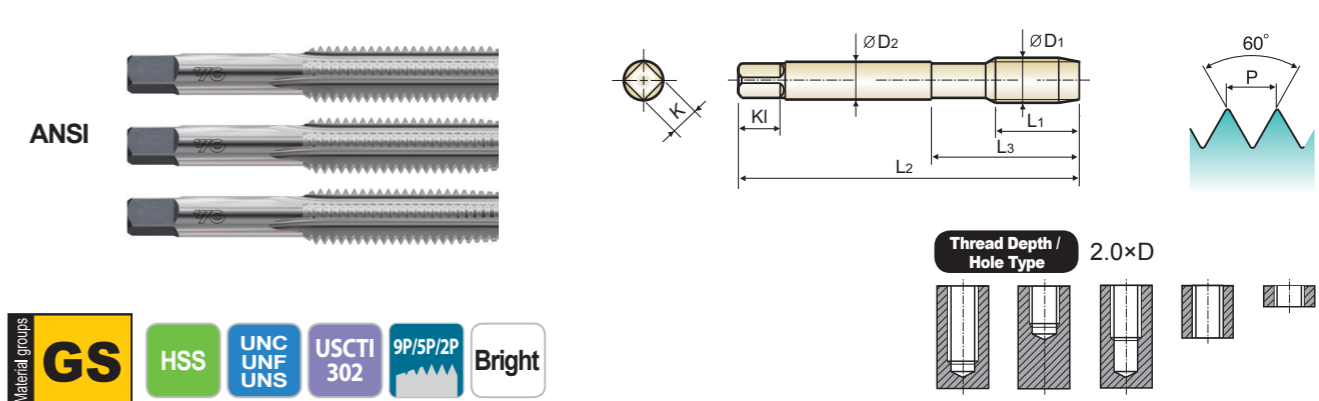


Table with columns: Size, TPI, EDP No. (Taper, Plug, Bottoming), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute. Lists various tap sizes from 1/4 inch to 3/8 inch.

▶ NEXT PAGE

Material compatibility chart with columns for ISO, Material Description, and material groups: P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), N (Aluminum, Copper, Non Metallic), S (Heat Resistant Super Alloys, Titanium Alloys), H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).



T7316/T7A16/T7B16 SERIES

HAND TAP TAPER, PLUG & BOTTOMING STYLE

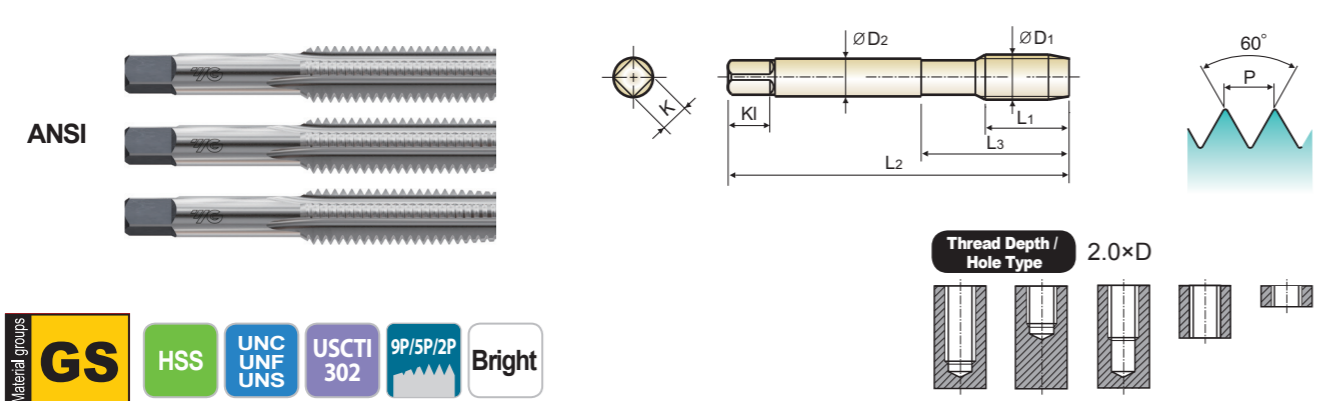


Table with columns: Size, TPI, EDP No. (Taper, Plug, Bottoming), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute. Lists various tap sizes and their specifications.

Unit : Inch

▶ NEXT PAGE

Material compatibility chart for HSS taps. Columns include ISO, Material Description, and material groups P, M, K, N, S, H. Rows list various materials like Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, etc.



T7316/T7A16/T7B16 SERIES

HAND TAP TAPER, PLUG & BOTTOMING STYLE

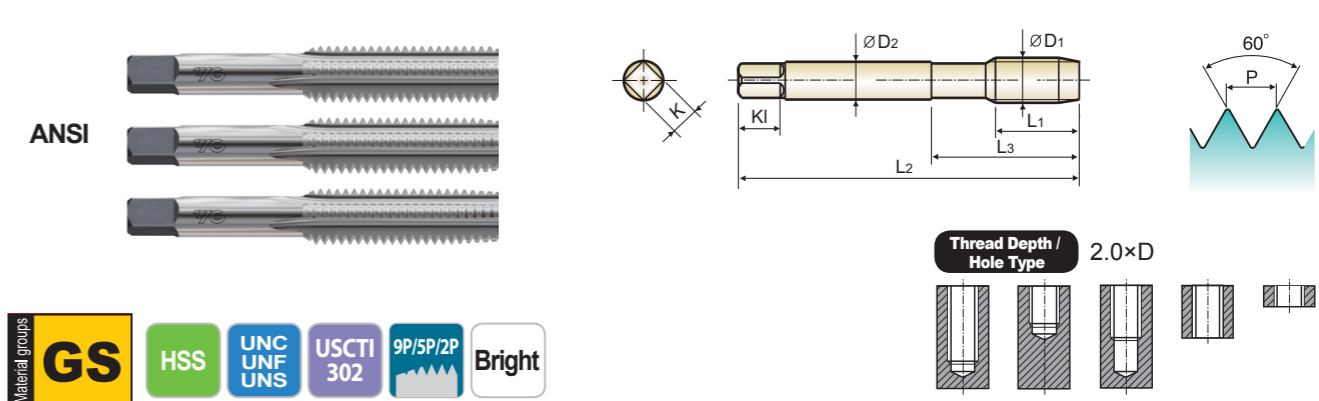


Table with columns: Size, TPI, EDP No. (Taper, Plug, Bottoming), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute. Lists various tap sizes and their specifications.

Unit : Inch

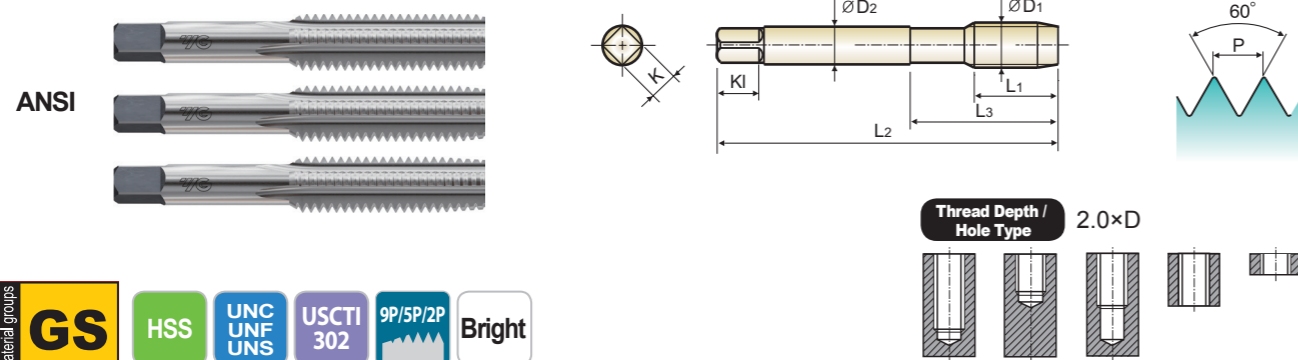
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Material compatibility chart for HSS taps. Columns include ISO, Material Description, and material groups P, M, K, N, S, H. Rows list various materials like Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, etc.



T7316 / T7A16 / T7B16 SERIES

HAND TAP
TAPER, PLUG & BOTTOMING STYLE



Unit : Inch

Size D1	TPI	EDP No.			Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Bright										
		Taper	Plug	Bottoming								
7/8	- 14UNF	-	T7316767H6	-	H6	4.689	2.220	-	.697	.523	.750	4
1"	- 8UNC	-	T7316787H1	T7316788H1	H1	5.126	2.500	-	.800	.600	.810	4
1"	- 8UNC	-	T7316787H2	-	H2	5.126	2.500	-	.800	.600	.810	4
1"	- 8UNC	T7316786	T7316787	T7316788	H4	5.126	2.500	-	.800	.600	.810	4
1"	- 8UNC	-	T7316787H6	-	H6	5.126	2.500	-	.800	.600	.810	4
1"	- 12UNF	T7316806	T7316807	T7316808	H4	5.126	2.500	-	.800	.600	.810	4
1"	- 14UNS	-	T7316817H2	-	H2	5.126	2.500	-	.800	.600	.810	4
1"	- 14UNS	T7316816	T7316817	T7316818	H4	5.126	2.500	-	.800	.600	.810	4
1*1/8	- 7UNC	T7316826	T7316827	T7316828	H4	5.437	2.563	-	.896	.672	.880	4
1*1/8	- 12UNF	T7316846	T7316847	T7316848	H4	5.437	2.563	-	.896	.672	.880	4
1*1/4	- 7UNC	T7316866	T7316867	T7316868	H4	5.752	2.563	-	1.021	.766	1.000	4
1*1/4	- 12UNF	T7316886	T7316887	T7316888	H4	5.752	2.563	-	1.021	.766	1.000	6
1*3/8	- 6UNC	T7316906	T7316907	T7316908	H4	6.063	3.000	-	1.108	.831	1.060	4
1*3/8	- 12UNF	T7316926	T7316927	T7316928	H4	6.063	3.000	-	1.108	.831	1.060	6
1*1/2	- 6UNC	T7316946	T7316947	T7316948	H4	6.374	3.000	-	1.233	.925	1.130	4
1*1/2	- 12UNF	T7316966	T7316967	T7316968	H4	6.374	3.000	-	1.233	.925	1.130	6

◎ : Excellent ○ : Good

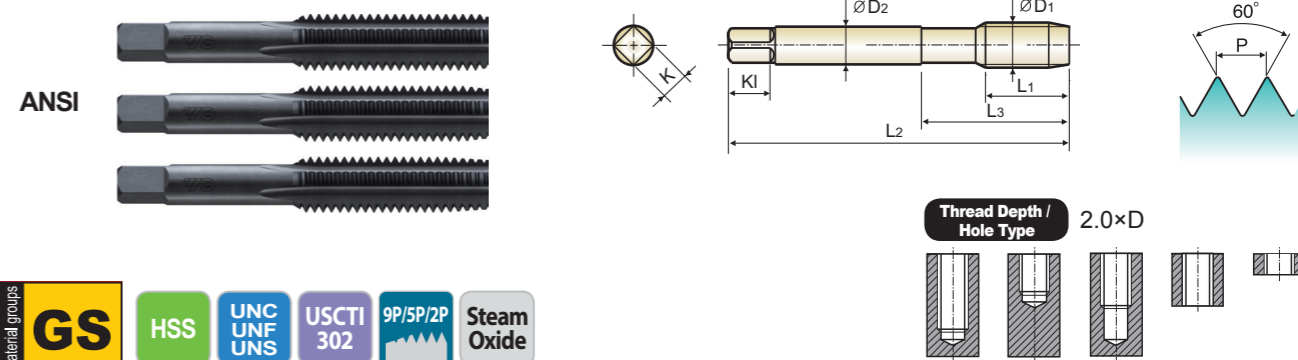
ISO Material Description	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	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 Material Description	N					S					H											
	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	400Rm	1050Rm	550	630	400	550	
Recommended	○	○	○			○	○															



T6316 SERIES

HAND TAP
TAPER, PLUG & BOTTOMING STYLE



Unit : Inch

Size D1	TPI	EDP No.			Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Steam Oxide										
		Taper	Plug	Bottoming								
#0	- 80UNF	T6316026	T6316027	T6316028	H1	1.634	0.315	0.512	0.1410	0.110	.190	2
#1	- 64UNC	T6316046	T6316047	T6316048	H1	1.693	0.374	0.571	0.1410	0.110	.190	2
#1	- 72UNF	T6316066	T6316067	T6316068	H1	1.693	0.374	0.571	0.1410	0.110	.190	2
#2	- 56UNC	T6316086	T6316087	T6316088	H2	1.752	0.433	0.650	0.1410	0.110	.190	3
#3	- 48UNC	T6316126	T6316127	T6316128	H2	1.811	0.492	0.728	0.1410	0.110	.190	3
#3	- 56UNF	T6316146	T6316147	T6316148	H2	1.811	0.492	0.728	0.1410	0.110	.190	3
#4	- 36UNS	T6316156	T6316157	T6316158	H2	1.874	0.563	0.799	0.1410	0.110	.190	3
#4	- 40UNC	T6316166H1	T6316167H1	T6316168H1	H1	1.874	0.563	0.799	0.1410	0.110	.190	3
#4	- 40UNC	T6316166	T6316167	T6316168	H2	1.874	0.563	0.799	0.1410	0.110	.190	3
#5	- 40UNC	T6316206	T6316207	T6316208	H2	1.937	0.626	0.882	0.1410	0.110	.190	3
#5	- 44UNF	T6316226	T6316227	T6316228	H2	1.937	0.626	0.882	0.1410	0.110	.190	3
#6	- 32UNC	T6316246H1	T6316247H1	T6316248H1	H1	2.000	0.689	0.965	0.1410	0.110	.190	3
#6	- 32UNC	T6316246H2	T6316247H2	T6316248H2	H2	2.000	0.689	0.965	0.1410	0.110	.190	3
#6	- 32UNC	T6316246	T6316247	T6316248	H3	2.000	0.689	0.965	0.1410	0.110	.190	3
#6	- 40UNF	T6316266	T6316267	T6316268	H2	2.000	0.689	0.965	0.1410	0.110	.190	3
#8	- 32UNC	T6316286H1	T6316287H1	T6316288H1	H1	2.126	0.752	1.047	0.1680	0.131	.250	4
#8	- 32UNC	T6316286H2	T6316287H2	T6316288H2	H2	2.126	0.752	1.047	0.1680	0.131	.250	4
#8	- 32UNC	T6316286	T6316287	T6316288	H3	2.126	0.752	1.047	0.1680	0.131	.250	4
#8	- 36UNF	T6316306	T6316307	T6316308	H2	2.126	0.752	1.047	0.1680	0.131	.250	4
#10	- 24UNC	T6316326H1	T6316327H1	T6316328H1	H1	2.374	0.906	1.220	0.1940	0.152	.250	4
#10	- 24UNC	T6316326H2	T6316327H2	T6316328H2	H2	2.374	0.906	1.220	0.1940	0.152	.250	4
#10	- 24UNC	T6316326	T6316327	T6316328	H3	2.374	0.906	1.220	0.1940	0.152	.250	4
#10	- 32UNF	T6316346H1	T6316347H1	T6316348H1	H1	2.374	0.906	1.220	0.1940	0.152	.250	4
#10	- 32UNF	T6316346H2	T6316347H2	T6316348H2	H2	2.374	0.906	1.220	0.1940	0.152	.250	4
#10	- 32UNF	T6316346	T6316347	T6316348	H3	2.374	0.906	1.220	0.1940	0.152	.250	4
#12	- 24UNC	T6316366	T6316367	T6316368	H3	2.374	0.906	1.220	0.2200	0.165	.280	4

▶ NEXT PAGE

◎ : Excellent ○ : Good

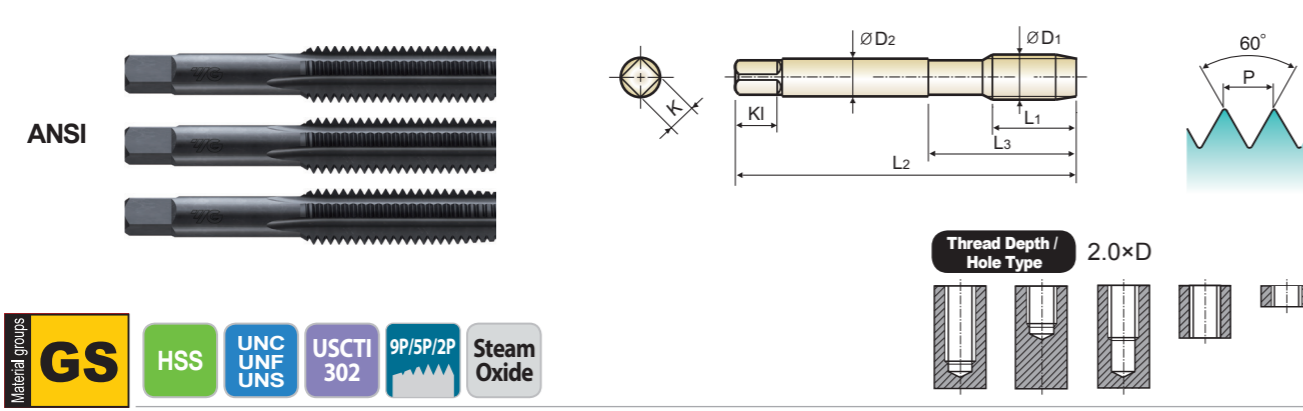
ISO Material Description	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	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 Material Description	N					S					H											
	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	400Rm	1050Rm	550	630	400	550	
Recommended	○	○	○			○	○															



T6316 SERIES

**HAND TAP
TAPER, PLUG & BOTTOMING STYLE**



Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide										
		Taper	Plug	Bottoming								
#12	- 28UNF	T6316386	T6316387	T6316388	H3	2.374	0.906	1.220	0.2200	0.165	.280	4
1/4	- 20UNC	T6316406	T6316407	T6316408	H3	2.500	1.000	1.354	0.2550	0.191	.310	4
1/4	- 28UNF	T6316426	T6316427	T6316428	H3	2.500	1.000	1.354	0.2550	0.191	.310	4
5/16	- 18UNC	T6316446H2	T6316447H2	T6316448H2	H2	2.720	1.126	1.500	0.3180	0.238	.380	4
5/16	- 18UNC	T6316446	T6316447	T6316448	H3	2.720	1.126	1.500	0.3180	0.238	.380	4
5/16	- 24UNF	T6316466	T6316467	T6316468	H3	2.720	1.126	1.500	0.3180	0.238	.380	4
3/8	- 16UNC	T6316486	T6316487	T6316488	H3	2.937	1.252	1.646	0.3810	0.286	.440	4
3/8	- 24UNF	T6316506	T6316507	T6316508	H3	2.937	1.252	1.646	0.3810	0.286	.440	4
7/16	- 14UNC	T6316526	T6316527	T6316528	H3	3.157	1.437	-	0.3230	0.242	.410	4
7/16	- 20UNF	T6316546	T6316547	T6316548	H3	3.157	1.437	-	0.3230	0.242	.410	4
1/2	- 13UNC	T6316566	T6316567	T6316568	H3	3.374	1.657	-	0.3670	0.275	.440	4
1/2	- 20UNF	T6316586	T6316587	T6316588	H3	3.374	1.657	-	0.3670	0.275	.440	4
9/16	- 12UNC	T6316606	T6316607	T6316608	H3	3.594	1.657	-	0.4290	0.322	.500	4
9/16	- 18UNF	T6316626	T6316627	T6316628	H3	3.594	1.657	-	0.4290	0.322	.500	4
5/8	- 11UNC	T6316646	T6316647	T6316648	H3	3.811	1.811	-	0.4800	0.360	.560	4
5/8	- 18UNF	T6316666	T6316667	T6316668	H3	3.811	1.811	-	0.4800	0.360	.560	4
11/16	- 11UNS	T6316A06	T6316A07	T6316A08	H3	4.031	1.811	-	0.5420	0.406	.630	4
11/16	- 16UNS	T6316A26	T6316A27	T6316A28	H3	4.031	1.811	-	0.5420	0.406	.630	4
3/4	- 10UNC	T6316706	T6316707	T6316708	H3	4.252	2.000	-	0.5900	0.442	.690	4
3/4	- 16UNF	T6316726	T6316727	T6316728	H3	4.252	2.000	-	0.5900	0.442	.690	4
7/8	- 9UNC	T6316746	T6316747	T6316748	H4	4.689	2.220	-	0.6970	0.523	.750	4
7/8	- 14UNF	T6316766	T6316767	T6316768	H4	4.689	2.220	-	0.6970	0.523	.750	4
1"	- 8UNC	T6316786	T6316787	T6316788	H4	5.126	2.500	-	0.8000	0.600	.810	4
1"	- 12UNF	T6316806	T6316807	T6316808	H4	5.126	2.500	-	0.8000	0.600	.810	4

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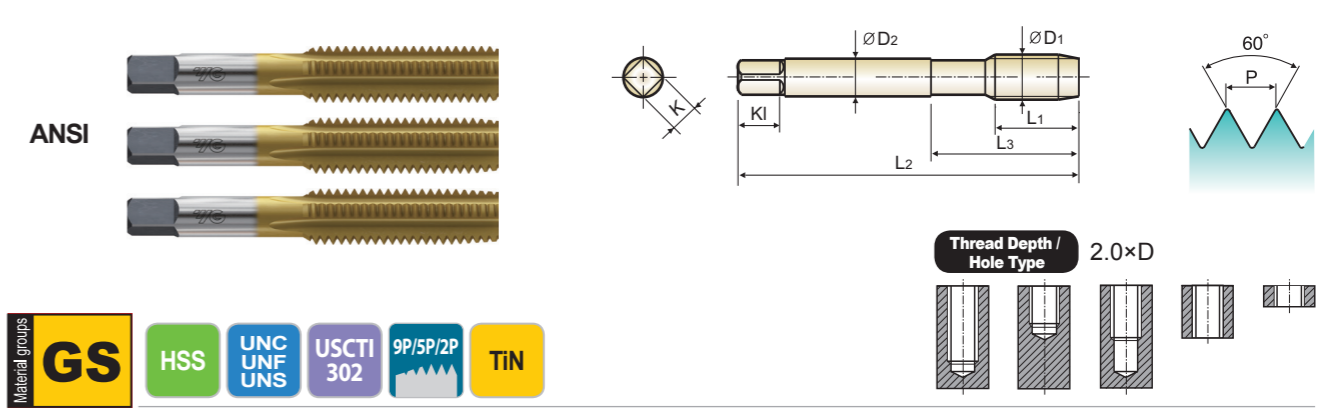
ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	30	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										
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34	55	60	42	55		
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



T8316 SERIES

**HAND TAP
TAPER, PLUG & BOTTOMING STYLE**



Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		TiN										
		Taper	Plug	Bottoming								
#0	- 80UNF	-	T8316027	T8316028	H1	1.634	0.315	0.512	0.1410	0.110	.190	2
#1	- 64UNC	-	T8316047	T8316048	H1	1.693	0.374	0.571	0.1410	0.110	.190	2
#1	- 72UNF	-	T8316067	T8316068	H1	1.693	0.374	0.571	0.1410	0.110	.190	2
#2	- 56UNC	-	T8316087	T8316088	H2	1.752	0.433	0.650	0.1410	0.110	.190	3
#4	- 40UNC	-	T8316167	T8316168	H2	1.874	0.563	0.799	0.1410	0.110	.190	3
#5	- 40UNC	-	T8316207	T8316208	H2	1.937	0.626	0.882	0.1410	0.110	.190	3
#6	- 32UNC	-	T8316247	T8316248	H3	2.000	0.689	0.965	0.1410	0.110	.190	3
#6	- 40UNF	-	T8316267	T8316268	H2	2.000	0.689	0.965	0.1410	0.110	.190	3
#8	- 32UNC	-	T8316287	T8316288	H3	2.126	0.752	1.047	0.1680	0.131	.250	4
#8	- 36UNF	-	T8316307	T8316308	H2	2.126	0.752	1.047	0.1680	0.131	.250	4
#10	- 24UNC	-	T8316327	T8316328	H3	2.374	0.906	1.220	0.1940	0.152	.250	4
#10	- 32UNF	-	T8316347	T8316348	H3	2.374	0.906	1.220	0.1940	0.152	.250	4
#12	- 24UNC	-	T8316367	T8316368	H3	2.374	0.906	1.220	0.2200	0.165	.280	4
#12	- 28UNF	-	T8316387	T8316388	H3	2.374	0.906	1.220	0.2200	0.165	.280	4
1/4	- 20UNC	-	T8316407	T8316408	H3	2.500	1.000	1.354	0.2550	0.191	.310	4
1/4	- 28UNF	-	T8316427	T8316428	H3	2.500	1.000	1.354	0.2550	0.191	.310	4
5/16	- 18UNC	-	T8316447	T8316448	H3	2.720	1.126	1.500	0.3180	0.238	.380	4
5/16	- 24UNF	-	T8316467	T8316468	H3	2.720	1.126	1.500	0.3180	0.238	.380	4
3/8	- 16UNC	-	T8316487	T8316488	H3	2.937	1.252	1.646	0.3810	0.286	.440	4
3/8	- 24UNF	-	T8316507	T8316508	H3	2.937	1.252	1.646	0.3810	0.286	.440	4
7/16	- 14UNC	-	T8316527	T8316528	H3	3.157	1.437	-	0.3230	0.242	.410	4
7/16	- 20UNF	-	T8316547	T8316548	H3	3.157	1.437	-	0.3230	0.242	.410	4
1/2	- 13UNC	-	T8316567	T8316568	H3	3.374	1.657	-	0.3670	0.275	.440	4
1/2	- 20UNF	-	T8316587	T8316588	H3	3.374	1.657	-	0.3670	0.275	.440	4
9/16	- 12UNC	-	T8316607	T8316608	H3	3.594	1.657	-	0.4290	0.322	.500	4
9/16	- 18UNF	-	T8316627	T8316628	H3	3.594	1.657	-	0.4290	0.322	.500	4

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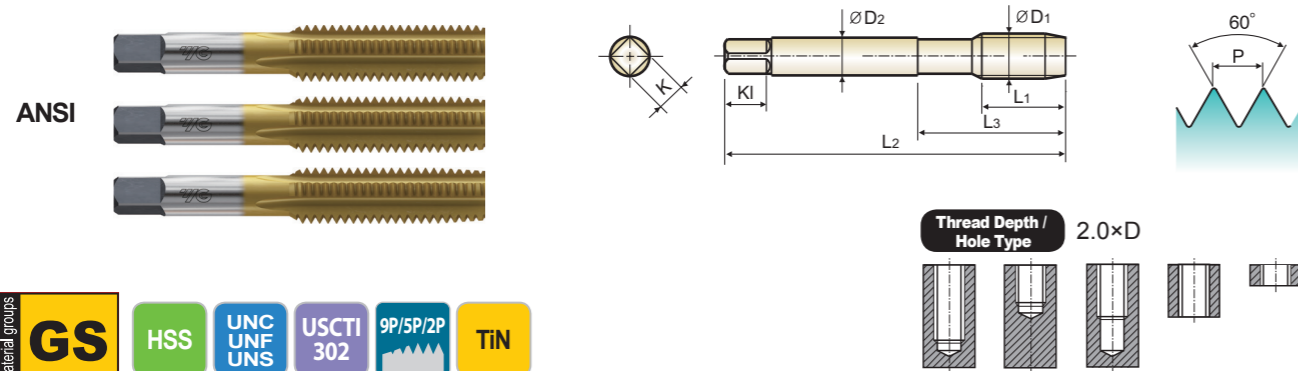
ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	30	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										
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34	55	60	42	55		
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



T8316 SERIES

HAND TAP
TAPER, PLUG & BOTTOMING STYLE



Unit : Inch

Size D1	TPI	EDP No.			Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		TIN										
		Taper	Plug	Bottoming								
5/8	- 11UNC	-	T8316647	T8316648	H3	3.811	1.811	-	0.4800	0.360	.560	4
5/8	- 18UNF	-	T8316667	T8316668	H3	3.811	1.811	-	0.4800	0.360	.560	4
3/4	- 10UNC	-	T8316707	T8316708	H3	4.252	2.000	-	0.5900	0.442	.690	4
3/4	- 16UNF	-	T8316727	T8316728	H3	4.252	2.000	-	0.5900	0.442	.690	4
7/8	- 9UNC	-	T8316747	T8316748	H4	4.689	2.220	-	0.6970	0.523	.750	4
7/8	- 14UNF	-	T8316767	T8316768	H4	4.689	2.220	-	0.6970	0.523	.750	4
1"	- 8UNC	-	T8316787	T8316788	H4	5.126	2.500	-	0.8000	0.600	.810	4
1"	- 12UNF	-	T8316807	T8316808	H4	5.126	2.500	-	0.8000	0.600	.810	4
1"	- 14UNS	-	T8316817	T8316818	H4	5.126	2.500	-	0.8000	0.600	.810	4
1-1/8	- 7UNC	-	T8316827	T8316828	H4	5.437	2.563	-	0.8960	0.672	.880	4
1-1/8	- 12UNF	-	T8316847	T8316848	H4	5.437	2.563	-	0.8960	0.672	.880	4
1-1/4	- 7UNC	-	T8316867	T8316868	H4	5.752	2.563	-	1.0210	0.766	1.000	4
1-1/4	- 12UNF	-	T8316887	T8316888	H4	5.752	2.563	-	1.0210	0.766	1.000	6
1-3/8	- 6UNC	-	T8316907	T8316908	H4	6.063	3.000	-	1.1080	0.831	1.060	4
1-3/8	- 12UNF	-	T8316927	T8316928	H4	6.063	3.000	-	1.1080	0.831	1.060	6
1-1/2	- 6UNC	-	T8316947	T8316948	H4	6.374	3.000	-	1.2330	0.925	1.130	4
1-1/2	- 12UNF	-	T8316967	T8316968	H4	6.374	3.000	-	1.2330	0.925	1.130	6

◎ : Excellent ○ : Good

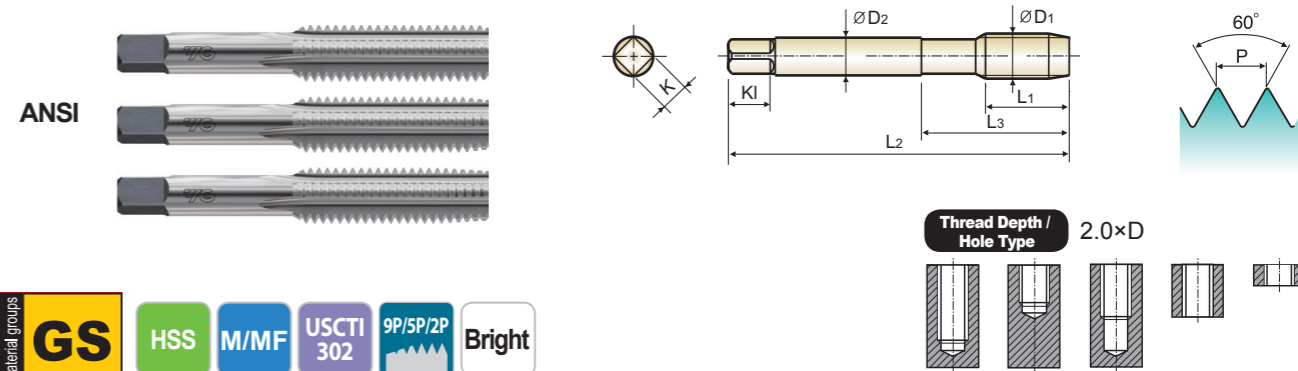
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	35	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



T7315 SERIES

HAND TAP
TAPER, PLUG & BOTTOMING STYLE



Unit : Inch

Size D1	Pitch	EDP No.			Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Bright										
		Taper	Plug	Bottoming								
M1.6 x 0.35	-	T7315097	-	D3	1.634	0.315	-	0.1410	0.110	.190	3	
M2 x 0.4	-	T7315137	T7315138	D3	1.752	0.394	-	0.1410	0.110	.190	3	
M2.5 x 0.45	-	T7315177	T7315178	D3	1.811	0.457	-	0.1410	0.110	.190	3	
M3 x 0.5	T7315206	T7315207	T7315208	D3	1.937	0.622	-	0.1410	0.110	.190	3	
M3.5 x 0.6	-	T7315227	T7315228	D4	2.000	0.705	-	0.1410	0.110	.190	3	
M4 x 0.7	T7315246	T7315247	T7315248	D4	2.126	0.756	-	0.1680	0.131	.250	4	
M4.5 x 0.75	-	T7315267	T7315268	D4	2.374	0.909	-	0.1940	0.152	.250	4	
M5 x 0.8	T7315286	T7315287	T7315288	D4	2.374	0.933	-	0.1940	0.152	.250	4	
M6 x 1.0	T7315316	T7315317	T7315318	D5	2.500	0.980	-	0.2550	0.191	.310	4	
M7 x 1.0	-	T7315347	T7315348	D5	2.500	1.091	-	.318	.238	.380	4	
M8 x 1.25	T7315366	T7315367	T7315368	D5	2.720	1.126	-	.318	.238	.380	4	
M8 x 1.0	-	T7315377	T7315378	D5	2.720	1.126	-	.318	.238	.380	4	
M10 x 1.5	T7315426	T7315427	T7315428	D6	2.937	1.240	-	.381	.286	.440	4	
M10 x 1.25	T7315436	T7315437	T7315438	D5	2.937	1.240	-	.381	.286	.440	4	
M10 x 1.0	-	T7315447	T7315448	D5	2.937	1.240	-	.381	.286	.440	4	
M12 x 1.75	T7315506	T7315507	T7315508	D6	3.374	1.657	-	.367	.275	.440	4	
M12 x 1.5	-	T7315517	T7315518	D6	3.374	1.657	-	.367	.275	.440	4	
M12 x 1.25	T7315526	T7315527	T7315528	D5	3.374	1.657	-	.367	.275	.440	4	
M14 x 2.0	T7315546	T7315547	T7315548	D7	3.594	1.657	-	.429	.322	.500	4	
M14 x 1.5	-	T7315557	T7315558	D6	3.594	1.657	-	.429	.322	.500	4	
M14 x 1.25	-	T7315567	T7315568	D5	3.594	1.657	-	.429	.322	.500	4	
M16 x 2.0	T7315606	T7315607	T7315608	D7	3.811	1.811	-	.480	.360	.560	4	
M16 x 1.5	T7315616	T7315617	T7315618	D6	3.811	1.811	-	.480	.360	.560	4	
M18 x 2.5	-	T7315657	T7315658	D7	4.031	1.811	-	.542	.406	.630	4	
M18 x 1.5	T7315676	T7315677	T7315678	D6	4.031	1.811	-	.542	.406	.630	4	
M20 x 2.5	T7315706	T7315707	T7315708	D7	4.469	2.000	-	.652	.489	.690	4	

◎ : Excellent ○ : Good

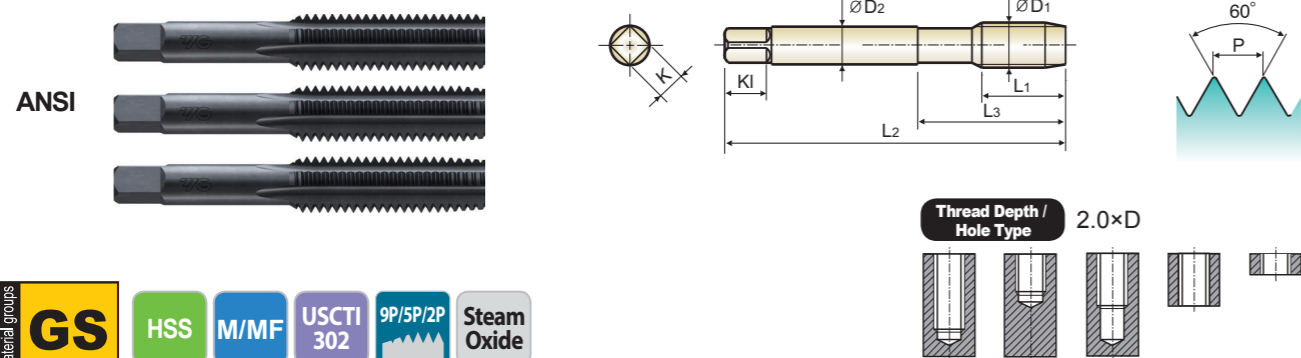
ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	35	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



T6315 SERIES

HAND TAP
TAPER, PLUG & BOTTOMING STYLE



Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide										
		Taper	Plug	Bottoming								
M2 x 0.4	-	T6315137	T6315138	D3	1.752	.394	-	.141	.110	.190	3	
M2.5 x 0.45	-	T6315177	T6315178	D3	1.811	.457	-	.141	.110	.190	3	
M3 x 0.5	T6315206	T6315207	T6315208	D3	1.937	.622	-	.141	.110	.190	3	
M4 x 0.7	T6315246	T6315247	T6315248	D4	2.126	.756	-	.168	.131	.250	4	
M4.5 x 0.75	-	T6315267	T6315268	D4	2.374	.909	-	.194	.152	.250	4	
M5 x 0.8	T6315286	T6315287	T6315288	D4	2.374	.933	-	.194	.152	.250	4	
M6 x 1.0	T6315316	T6315317	T6315318	D5	2.500	.980	-	.255	.191	.310	4	
M7 x 1.0	-	T6315347	T6315348	D5	2.500	1.091	-	.318	.238	.380	4	
M8 x 1.25	T6315366	T6315367	T6315368	D5	2.720	1.126	-	.318	.238	.380	4	
M8 x 1.0	-	T6315377	T6315378	D5	2.720	1.126	-	.318	.238	.380	4	
M10 x 1.5	T6315426	T6315427	T6315428	D6	2.937	1.240	-	.381	.286	.440	4	
M10 x 1.25	T6315436	T6315437	T6315438	D5	2.937	1.240	-	.381	.286	.440	4	
M12 x 1.75	T6315506	T6315507	T6315508	D6	3.374	1.657	-	.367	.275	.440	4	
M12 x 1.25	T6315526	T6315527	T6315528	D5	3.374	1.657	-	.367	.275	.440	4	
M14 x 2.0	T6315546	T6315547	T6315548	D7	3.594	1.657	-	.429	.322	.500	4	
M16 x 2.0	T6315606	T6315607	T6315608	D7	3.811	1.811	-	.480	.360	.560	4	
M16 x 1.5	T6315616	T6315617	T6315618	D6	3.811	1.811	-	.480	.360	.560	4	
M18 x 1.5	T6315676	T6315677	T6315678	D6	4.031	1.811	-	.542	.406	.630	4	
M20 x 2.5	T6315706	T6315707	T6315708	D7	4.469	2.000	-	.652	.489	.690	4	
M20 x 1.5	T6315726	T6315727	T6315728	D6	4.469	2.000	-	.652	.489	.690	4	
M24 x 3	T6315786	T6315787	T6315788	D8	4.906	2.220	-	.760	.570	.750	4	
M30 x 3.5	T6315946	T6315947	T6315948	D9	5.437	2.563	-	1.021	.766	1.000	4	

◎: Excellent ○: Good

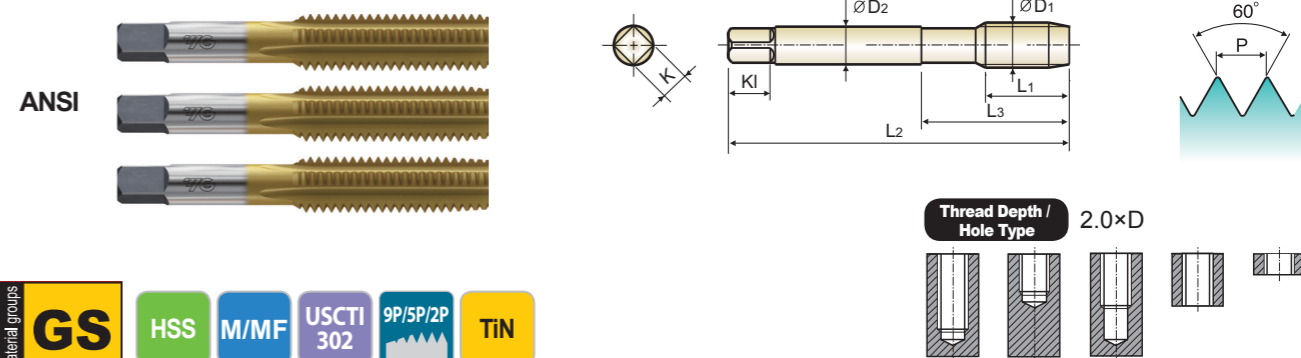
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○			○	○	○	○	○	○	○	○	○	○	○



T8315 SERIES

HAND TAP
TAPER, PLUG & BOTTOMING STYLE



Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		TiN										
		Taper	Plug	Bottoming								
M2 x 0.4	-	T8315137	T8315138	D3	1.752	0.394	-	0.1410	0.110	.190	3	
M2.5 x 0.45	-	T8315177	T8315178	D3	1.811	0.457	-	0.1410	0.110	.190	3	
M3 x 0.5	-	T8315207	T8315208	D3	1.937	0.622	-	0.1410	0.110	.190	3	
M4 x 0.7	-	T8315247	T8315248	D4	2.126	0.756	-	0.1680	0.131	.250	4	
M4.5 x 0.75	-	T8315267	T8315268	D4	2.374	0.909	-	0.1940	0.152	.250	4	
M5 x 0.8	-	T8315287	T8315288	D4	2.374	0.933	-	0.1940	0.152	.250	4	
M6 x 1.0	-	T8315317	T8315318	D5	2.500	0.980	-	0.2550	0.191	.310	4	
M7 x 1.0	-	T8315347	T8315348	D5	2.500	1.091	-	0.3180	0.238	.380	4	
M8 x 1.25	-	T8315367	T8315368	D5	2.720	1.126	-	0.3180	0.238	.380	4	
M8 x 1.0	-	T8315377	T8315378	D5	2.720	1.126	-	0.3180	0.238	.380	4	
M10 x 1.5	-	T8315427	T8315428	D6	2.937	1.240	-	0.3810	0.286	.440	4	
M10 x 1.25	-	T8315437	T8315438	D5	2.937	1.240	-	0.3810	0.286	.440	4	
M12 x 1.75	-	T8315507	T8315508	D6	3.374	1.657	-	0.3670	0.275	.440	4	
M12 x 1.25	-	T8315527	T8315528	D5	3.374	1.657	-	0.3670	0.275	.440	4	
M14 x 2.0	-	T8315547	T8315548	D7	3.594	1.657	-	0.4290	0.322	.500	4	
M16 x 2.0	-	T8315607	T8315608	D7	3.811	1.811	-	0.4800	0.360	.560	4	
M16 x 1.5	-	T8315617	T8315618	D6	3.811	1.811	-	0.4800	0.360	.560	4	
M18 x 1.5	-	T8315677	T8315678	D6	4.031	1.811	-	0.5420	0.406	.630	4	
M20 x 2.5	-	T8315707	T8315708	D7	4.469	2.000	-	0.6520	0.489	.690	4	
M20 x 1.5	-	T8315727	T8315728	D6	4.469	2.000	-	0.6520	0.489	.690	4	
M24 x 3	-	T8315787	T8315788	D8	4.906	2.220	-	0.7600	0.570	.750	4	

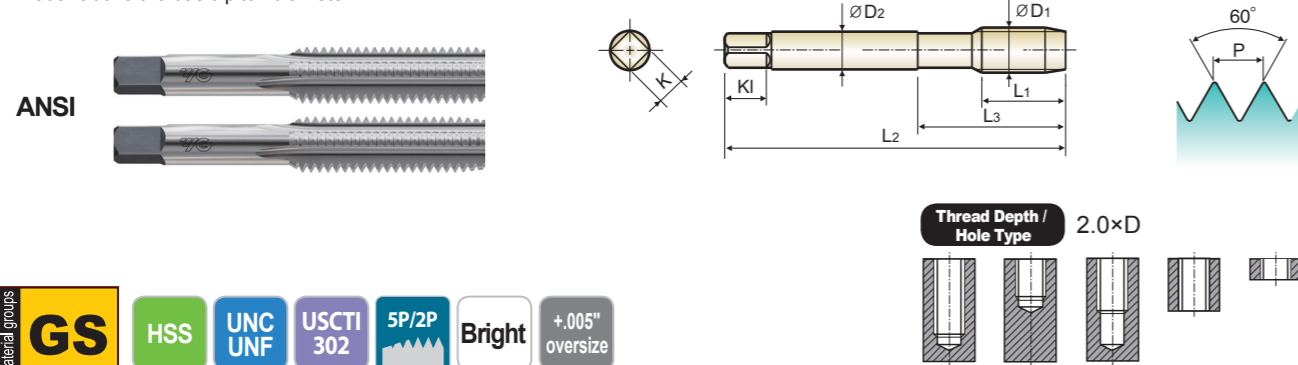
◎: Excellent ○: Good

ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○			○	○	○	○	○	○	○	○	○	○	○

**HAND TAP
Oversize Tap**

+ .005" above the basic pitch diameter



Material groups: **GS** HSS UNC UNF USCT1 302 5P/2P Bright +.005" oversize

Unit : Inch

Size D1	TPI	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Bright									
		Plug	Bottoming								
#6	- 32UNC	T7326247	-	+0.005"	2.000	.689	.965	.141	.110	.190	3
#8	- 32UNC	T7326287	-	+0.005"	2.126	.752	1.047	.168	.131	.250	4
#10	- 24UNC	T7326327	-	+0.005"	2.374	.906	1.220	.194	.152	.250	4
#10	- 32UNF	T7326347	-	+0.005"	2.374	.906	1.220	.194	.152	.250	4
1/4	- 20UNC	T7326407	T7326408	+0.005"	2.500	1.000	1.354	.255	.191	.310	4
1/4	- 28UNF	T7326427	-	+0.005"	2.500	1.000	1.354	.255	.191	.310	4
5/16	- 18UNC	T7326447	T7326448	+0.005"	2.720	1.126	1.500	.318	.238	.380	4
5/16	- 24UNF	T7326467	-	+0.005"	2.720	1.126	1.500	.318	.238	.380	4
3/8	- 16UNC	T7326487	T7326488	+0.005"	2.937	1.252	1.646	.381	.286	.440	4
3/8	- 24UNF	T7326507	-	+0.005"	2.937	1.252	1.646	.381	.286	.440	4
7/16	- 14UNC	T7326527	-	+0.005"	3.157	1.437	-	.323	.242	.410	4
1/2	- 13UNC	T7326567	-	+0.005"	3.374	1.657	-	.367	.275	.440	4
1/2	- 20UNF	T7326587	-	+0.005"	3.374	1.657	-	.367	.275	.440	4
5/8	- 11UNC	T7326647	-	+0.005"	3.811	1.811	-	.480	.360	.560	4
3/4	- 10UNC	T7326707	-	+0.005"	4.252	2.000	-	.590	.442	.690	4

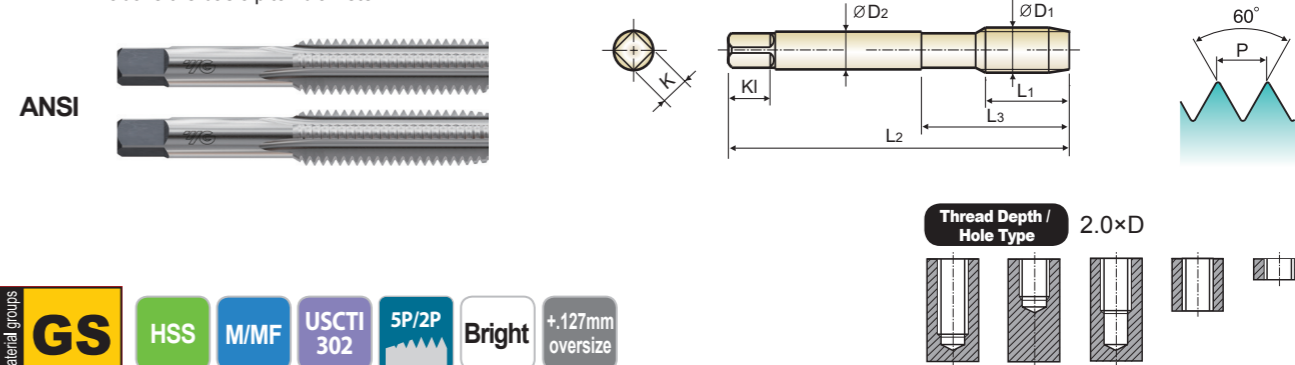
© : Excellent ○ : Good

ISO Material Description	P										M				K			H		
	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 Material Description	N						S						H								
	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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○			○	○														

**HAND TAP
Oversize Tap**

+ .127mm above the basic pitch diameter



Material groups: **GS** HSS M/MF USCT1 302 5P/2P Bright +.127mm oversize

Unit : Inch

Size D1	TPI	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Bright									
		Plug	Bottoming								
M4	x 0.7	T7B15247	T7B15248	+ .127MM	2.126	.756	-	.168	.131	.250	4
M4.5	x 0.75	T7B15267	T7B15268	+ .127MM	2.374	.909	-	.194	.152	.250	4
M5	x 0.8	T7B15287	T7B15288	+ .127MM	2.374	.933	-	.194	.152	.250	4
M6	x 1.0	T7B15317	T7B15318	+ .127MM	2.500	.980	-	.255	.191	.310	4
M7	x 1.0	T7B15347	T7B15348	+ .127MM	2.500	1.091	-	.318	.238	.380	4
M8	x 1.25	T7B15367	T7B15368	+ .127MM	2.720	1.126	-	.318	.238	.380	4
M8	x 1.0	T7B15377	T7B15378	+ .127MM	2.720	1.126	-	.318	.238	.380	4
M10	x 1.5	T7B15427	T7B15428	+ .127MM	2.937	1.240	-	.381	.286	.440	4
M10	x 1.25	T7B15437	T7B15438	+ .127MM	2.937	1.240	-	.381	.286	.440	4
M12	x 1.75	T7B15507	T7B15508	+ .127MM	3.374	1.657	-	.367	.275	.440	4
M12	x 1.25	T7B15527	T7B15528	+ .127MM	3.374	1.657	-	.367	.275	.440	4
M16	x 2.0	T7B15607	T7B15608	+ .127MM	3.811	1.811	-	.480	.360	.560	4
M20	x 2.5	T7B15707	T7B15708	+ .127MM	4.469	2.000	-	.652	.489	.690	4
M24	x 3	T7B15787	T7B15788	+ .127MM	4.906	2.220	-	.760	.570	.750	4

© : Excellent ○ : Good

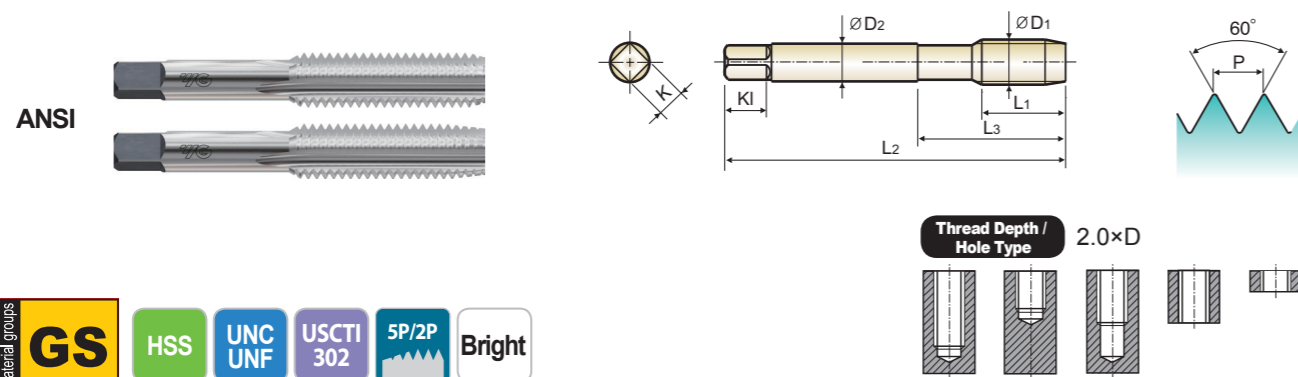
ISO Material Description	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	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 Material Description	N						S						H								
	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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○			○	○														



T7336 SERIES

LEFT HAND TAP



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Bright									
		Plug	Bottoming								
#6	- 32UNC	T7336247	T7336248	H3	2.000	.689	.965	.141	.110	.190	3
#6	- 40UNF	T7336267	T7336268	H2	2.000	.689	.965	.141	.110	.190	3
#8	- 32UNC	T7336287	T7336288	H3	2.126	.752	1.047	.168	.131	.250	4
#8	- 36UNF	T7336307	T7336308	H2	2.126	.752	1.047	.168	.131	.250	4
#10	- 24UNC	T7336327	T7336328	H3	2.374	.906	1.220	.194	.152	.250	4
#10	- 32UNF	T7336347	T7336348	H3	2.374	.906	1.220	.194	.152	.250	4
1/4	- 20UNC	T7336407	T7336408	H3	2.500	1.000	1.354	.255	.191	.310	4
1/4	- 28UNF	T7336427	T7336428	H3	2.500	1.000	1.354	.255	.191	.310	4
5/16	- 18UNC	T7336447	T7336448	H3	2.720	1.126	1.500	.318	.238	.380	4
5/16	- 24UNF	T7336467	T7336468	H3	2.720	1.126	1.500	.318	.238	.380	4
3/8	- 16UNC	T7336487	T7336488	H3	2.937	1.252	1.646	.381	.286	.440	4
3/8	- 24UNF	T7336507	T7336508	H3	2.937	1.252	1.646	.381	.286	.440	4
7/16	- 14UNC	T7336527	T7336528	H3	3.157	1.437	-	.323	.242	.410	4
7/16	- 20UNF	T7336547	T7336548	H3	3.157	1.437	-	.323	.242	.410	4
1/2	- 13UNC	T7336567	T7336568	H3	3.374	1.657	-	.367	.275	.440	4
1/2	- 20UNF	T7336587	T7336588	H3	3.374	1.657	-	.367	.275	.440	4
9/16	- 12UNC	T7336607	T7336608	H3	3.594	1.657	-	.429	.322	.500	4
9/16	- 18UNF	T7336627	T7336628	H3	3.594	1.657	-	.429	.322	.500	4
5/8	- 11UNC	T7336647	T7336648	H3	3.811	1.811	-	.480	.360	.560	4
5/8	- 18UNF	T7336667	T7336668	H3	3.811	1.811	-	.480	.360	.560	4
3/4	- 10UNC	T7336707	T7336708	H3	4.252	2.000	-	.590	.442	.690	4
3/4	- 16UNF	T7336727	T7336728	H3	4.252	2.000	-	.590	.442	.690	4
7/8	- 9UNC	T7336747	T7336748	H4	4.689	2.220	-	.697	.523	.750	4
7/8	- 14UNF	T7336767	T7336768	H4	4.689	2.220	-	.697	.523	.750	4
1"	- 8UNC	T7336787	T7336788	H4	5.126	2.500	-	.800	.600	.810	4
1"	- 12UNF	T7336807	T7336808	H4	5.126	2.500	-	.800	.600	.810	4

◎ : Excellent ○ : Good

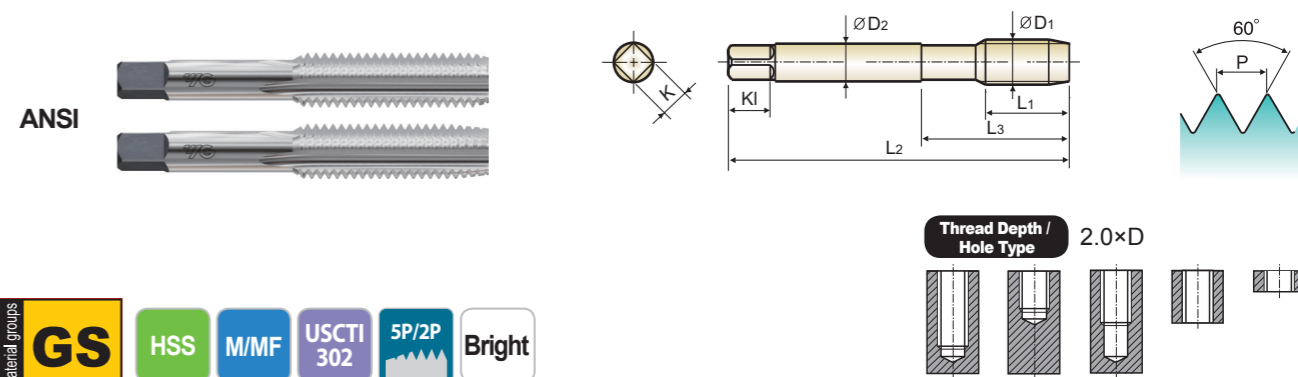
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34	55	60	42	55	55	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



T7A15 SERIES

LEFT HAND TAP



Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Bright									
		Plug	Bottoming								
M3.5	x 0.6	T7A15227	T7A15228	D4	2.000	.705	-	.141	.110	.190	3
M4	x 0.7	T7A15247	T7A15248	D4	2.126	.756	-	.168	.131	.250	4
M4.5	x 0.75	T7A15267	T7A15268	D4	2.126	.909	-	.168	.131	.250	4
M5	x 0.8	T7A15287	T7A15288	D4	2.374	.933	-	.194	.152	.250	4
M6	x 1.0	T7A15317	T7A15318	D5	2.500	.980	-	.255	.191	.310	4
M7	x 1.0	T7A15347	T7A15348	D5	2.720	1.091	-	.318	.238	.380	4
M8	x 1.25	T7A15367	T7A15368	D5	2.720	1.126	-	.318	.238	.380	4
M8	x 1.0	T7A15377	T7A15378	D5	2.720	1.126	-	.318	.238	.380	4
M10	x 1.5	T7A15427	T7A15428	D6	2.937	1.240	-	.381	.286	.440	4
M10	x 1.25	T7A15437	T7A15438	D5	2.937	1.240	-	.381	.286	.440	4
M12	x 1.75	T7A15507	T7A15508	D6	3.374	1.657	-	.367	.275	.440	4
M12	x 1.25	T7A15527	T7A15528	D5	3.374	1.657	-	.367	.275	.440	4
M14	x 2.0	T7A15547	T7A15548	D7	3.594	1.657	-	.429	.322	.500	4
M14	x 1.5	T7A15557	T7A15558	D6	3.594	1.657	-	.429	.322	.500	4
M16	x 2.0	T7A15607	T7A15608	D7	3.811	1.811	-	.480	.360	.560	4
M16	x 1.5	T7A15617	T7A15618	D6	3.811	1.811	-	.480	.360	.560	4
M18	x 2.5	T7A15657	T7A15658	D7	4.031	1.811	-	.542	.406	.630	4
M18	x 1.5	T7A15677	T7A15678	D6	4.031	1.811	-	.542	.406	.630	4
M20	x 2.5	T7A15707	T7A15708	D7	4.469	2.000	-	.652	.489	.690	4
M20	x 1.5	T7A15727	T7A15728	D6	4.469	2.000	-	.652	.489	.690	4
M22	x 2.5	T7A15747	T7A15748	D7	4.689	2.220	-	.697	.523	.750	4
M22	x 1.5	T7A15767	T7A15768	D6	4.689	2.220	-	.697	.523	.750	4
M24	x 3.0	T7A15787	T7A15788	D8	4.906	2.220	-	.760	.570	.750	4
M24	x 2.0	T7A15797	T7A15798	D7	4.906	2.220	-	.760	.570	.750	4

◎ : Excellent ○ : Good

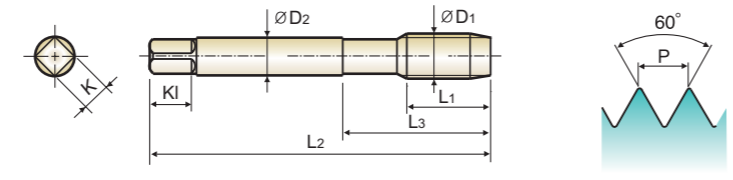
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30	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										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron					
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34	55	60	42	55	55	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



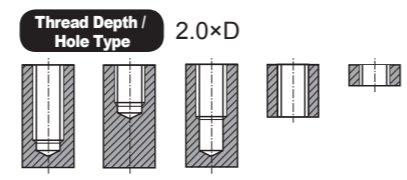
T7616/T6616/T8616 SERIES

STRAIGHT FLUTE PULLEY TAPS, 6" LONG LENGTH PLUG STYLE



ANSI Pulley Tap (ASME B94.9)

Material groups: **GS** HSS UNC USCTI 4P~5P Bright Steam Oxide TiN



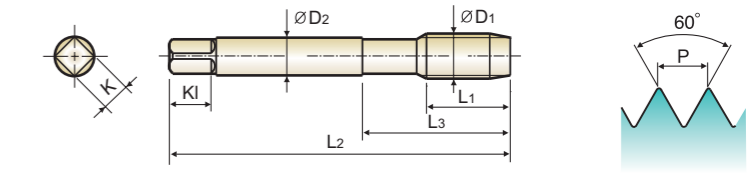
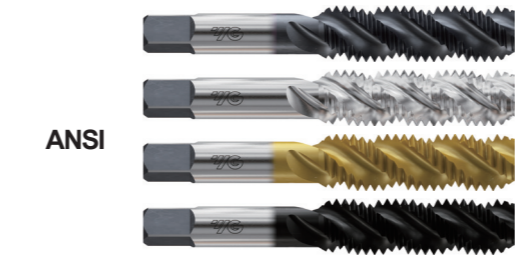
Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	TiN								
1/4 - 20UNC	T7616403	T6616403	T8616403	H3	6.000	1.000	1.575	.255	.191	.310	4	
5/16 - 18UNC	T7616443	T6616443	T8616443	H3	6.000	1.126	1.850	.318	.238	.380	4	
3/8 - 16UNC	T7616483	T6616483	T8616483	H3	6.000	1.252	2.028	.381	.286	.440	4	
7/16 - 14UNC	T7616523	T6616523	T8616523	H3	6.000	1.437	1.882	.440	.333	.500	4	
1/2 - 13UNC	T7616563	T6616563	T8616563	H3	6.000	1.657	2.520	.507	.380	.560	4	
5/8 - 11UNC	T7616643	T6616643	T8616643	H3	6.000	1.811	2.776	.633	.475	.690	4	



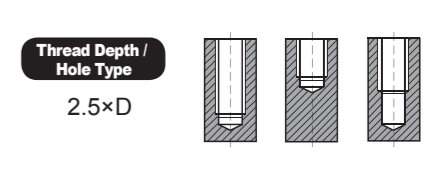
C2/C3/C4/D9 SERIES

SPIRAL FLUTE TAPS BOTTOMING STYLE for General Purpose



ANSI

Material groups: **GS** HSS-E UNC UNF USCTI 302 1.5P~2P Bright Steam Oxide TiN Hardslick R45



Unit : Inch

Size	TPI	EDP No.				Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Bright	TiN	Hardslick								
#4 - 40UNC	C2162	C3162	C4162	D9162	H2	1.874	.563	.799	.141	.110	.190	2	
#5 - 40UNC	C2202	C3202	C4202	D9202	H2	1.937	.626	.882	.141	.110	.190	3	
#6 - 32UNC	C2243	C3243	C4243	D9243	H3	2.000	.689	.965	.141	.110	.190	3	
#8 - 32UNC	C2283	C3283	C4283	D9283	H3	2.126	.752	1.047	.168	.131	.250	3	
#10 - 24UNC	C2323	C3323	C4323	D9323	H3	2.374	.906	1.220	.194	.152	.250	3	
#10 - 32UNF	C2343	C3343	C4343	D9343	H3	2.374	.906	1.220	.194	.152	.250	3	
1/4 - 20UNC	C2403	C3403	C4403	D9403	H3	2.500	1.000	1.354	.255	.191	.310	3	
1/4 - 20UNC	C2405	C3405	C4405	D9405	H5	2.500	1.000	1.354	.255	.191	.310	3	
1/4 - 28UNF	C2423	C3423	C4423	D9423	H3	2.500	1.000	1.354	.255	.191	.310	3	
5/16 - 18UNC	C2443	C3443	C4443	D9443	H3	2.720	1.126	1.500	.318	.238	.380	3	
5/16 - 18UNC	C2445	C3445	C4445	D9445	H5	2.720	1.126	1.500	.318	.238	.380	3	
5/16 - 24UNF	C2463	C3463	C4463	D9463	H3	2.720	1.126	1.500	.318	.238	.380	3	
3/8 - 16UNC	C2483	C3483	C4483	D9483	H3	2.937	1.252	1.646	.381	.286	.440	3	
3/8 - 16UNC	C2485	C3485	C4485	D9485	H5	2.937	1.252	1.646	.381	.286	.440	3	
3/8 - 24UNF	C2503	C3503	C4503	D9503	H3	2.937	1.252	1.646	.381	.286	.440	3	
7/16 - 14UNC	C2523	C3523	C4523	D9523	H3	3.157	1.437	-	.323	.242	.410	3	
7/16 - 14UNC	C2525	C3525	C4525	D9525	H5	3.157	1.437	-	.323	.242	.410	3	
7/16 - 20UNF	C2543	C3543	C4543	D9543	H3	3.157	1.437	-	.323	.242	.410	3	
7/16 - 20UNF	C2545	C3545	C4545	D9545	H5	3.157	1.437	-	.323	.242	.410	3	
1/2 - 13UNC	C2563	C3563	C4563	D9563	H3	3.374	1.657	-	.367	.275	.440	3	
1/2 - 13UNC	C2565	C3565	C4565	D9565	H5	3.374	1.657	-	.367	.275	.440	3	
1/2 - 20UNF	C2583	C3583	C4583	D9583	H3	3.374	1.657	-	.367	.275	.440	3	
1/2 - 20UNF	C2585	C3585	C4585	D9585	H5	3.374	1.657	-	.367	.275	.440	3	
9/16 - 12UNC	C2605	C3605	C4605	D9605	H5	3.594	1.657	-	.429	.322	.500	3	
9/16 - 18UNF	C2625	C3625	C4625	D9625	H5	3.594	1.657	-	.429	.322	.500	3	
5/8 - 11UNC	C2643	C3643	C4643	D9643	H3	3.811	1.811	-	.480	.360	.560	4	

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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	35	38	42	45	48	52	55	58	60	62	63	65	67	70	72	74
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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

◎ : Excellent ○ : Good

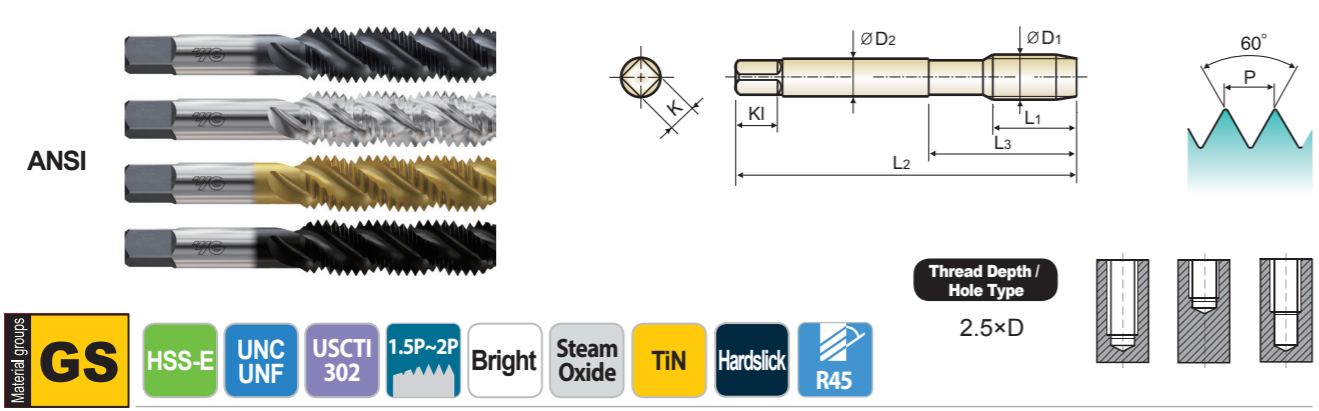
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	35	38	42	45	48	52	55	58	60	62	63	65	67	70	72	74
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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



C2/C3/C4/D9 SERIES

SPIRAL FLUTE TAPS BOTTOMING STYLE for General Purpose



Material groups: **GS** HSS-E UNC UNF USCTI 302 1.5P~2P Bright Steam Oxide TIN Hardslick R45

Thread Depth / Hole Type: 2.5xD

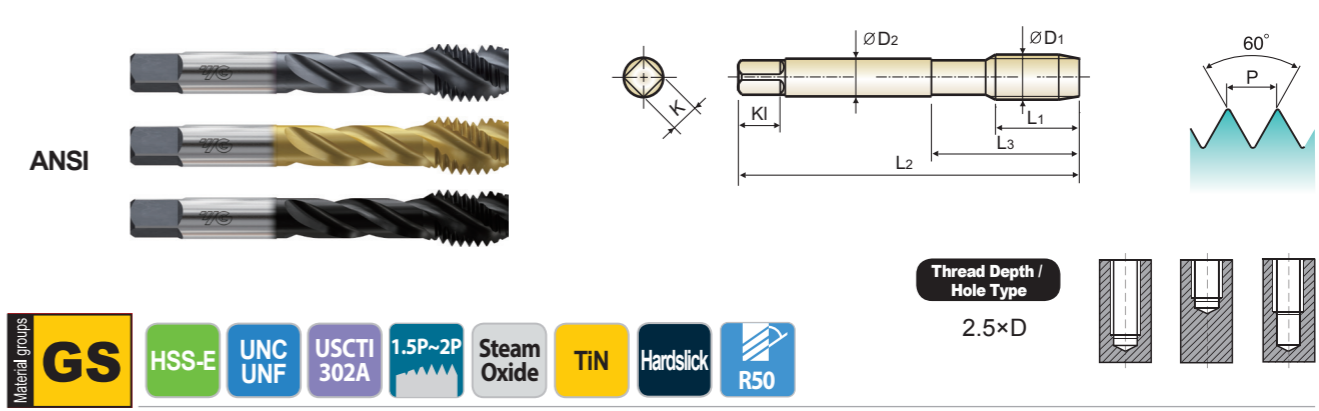
Unit : Inch

Size	TPI	EDP No.				Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Bright	TiN	Hardslick								
5/8 - 11UNC		C2645	C3645	C4645	D9645	H5	3.811	1.811	-	.480	.360	.560	4
5/8 - 18UNF		C2663	C3663	C4663	D9663	H3	3.811	1.811	-	.480	.360	.560	4
3/4 - 10UNC		C2703	C3703	C4703	D9703	H3	4.252	2.000	-	.590	.442	.690	4
3/4 - 10UNC		C2705	C3705	C4705	D9705	H5	4.252	2.000	-	.590	.442	.690	4
3/4 - 16UNF		C2723	C3723	C4723	D9723	H3	4.252	2.000	-	.590	.442	.690	4
7/8 - 9UNC		C2744	C3744	C4744	D9744	H4	4.689	2.220	-	.697	.523	.750	4
7/8 - 14UNF		C2766	C3766	C4766	D9766	H6	4.689	2.220	-	.697	.523	.750	4
1" - 8UNC		C2784	C3784	C4784	D9784	H4	5.126	2.500	-	.800	.600	.810	4



F4/F8/F6 SERIES

SPIRAL FLUTE TAPS BOTTOMING STYLE for General Purpose



Material groups: **GS** HSS-E UNC UNF USCTI 302A 1.5P~2P Steam Oxide TIN Hardslick R50

Thread Depth / Hole Type: 2.5xD

Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	TiN	Hardslick								
#2 - 56UNC		F4082	F8082	F6082	H2	1.752	.437	.650	.141	.110	.190	2
#4 - 40UNC		F4162	F8162	F6162	H2	1.874	.311	.563	.141	.110	.190	2
#5 - 40UNC		F4202	F8202	F6202	H2	1.937	.311	.626	.141	.110	.190	2
#6 - 32UNC		F4243	F8243	F6243	H3	2.000	.374	.689	.141	.110	.190	2
#8 - 32UNC		F4283	F8283	F6283	H3	2.126	.374	.752	.168	.131	.250	3
#10 - 24UNC		F4323	F8323	F6323	H3	2.374	.500	.906	.194	.152	.250	3
#10 - 32UNF		F4343	F8343	F6343	H3	2.374	.500	.906	.194	.152	.250	3
1/4 - 20UNC		F4403	F8403	F6403	H3	2.500	.626	1.000	.255	.191	.310	3
1/4 - 20UNC		F4405	F8405	F6405	H5	2.500	.626	1.000	.255	.191	.310	3
1/4 - 28UNF		F4423	F8423	F6423	H3	2.500	.626	1.000	.255	.191	.310	3
5/16 - 18UNC		F4443	F8443	F6443	H3	2.720	.689	1.126	.318	.238	.380	3
5/16 - 24UNF		F4463	F8463	F6463	H3	2.720	.689	1.126	.318	.238	.380	3
3/8 - 16UNC		F4483	F8483	F6483	H3	2.937	.748	1.252	.381	.286	.440	3
3/8 - 16UNC		F4485	F8485	F6485	H5	2.937	.748	1.252	.381	.286	.440	3
3/8 - 24UNF		F4503	F8503	F6503	H3	2.937	.748	1.252	.381	.286	.440	3
7/16 - 14UNC		F4523	F8523	F6523	H3	3.157	.874	1.437	.323	.242	.410	3
7/16 - 14UNC		F4525	F8525	F6525	H5	3.157	.874	1.437	.323	.242	.410	3
7/16 - 20UNF		F4543	F8543	F6543	H3	3.157	.874	1.437	.323	.242	.410	3
7/16 - 20UNF		F4545	F8545	F6545	H5	3.157	.874	1.437	.323	.242	.410	3
1/2 - 13UNC		F4563	F8563	F6563	H3	3.374	.937	1.594	.367	.275	.440	3
1/2 - 13UNC		F4565	F8565	F6565	H5	3.374	.937	1.594	.367	.275	.440	3
1/2 - 20UNF		F4583	F8583	F6583	H3	3.374	.937	1.594	.367	.275	.440	3
1/2 - 20UNF		F4585	F8585	F6585	H5	3.374	.937	1.594	.367	.275	.440	3
9/16 - 12UNC		F4603	F8603	F6603	H3	3.594	1.000	1.657	.429	.322	.500	3
9/16 - 12UNC		F4605	F8605	F6605	H5	3.594	1.000	1.657	.429	.322	.500	3

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ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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	35	38	42	45	48	52	55	58	62	65	68	72	75	78	82	85
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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

◎ : Excellent ○ : Good

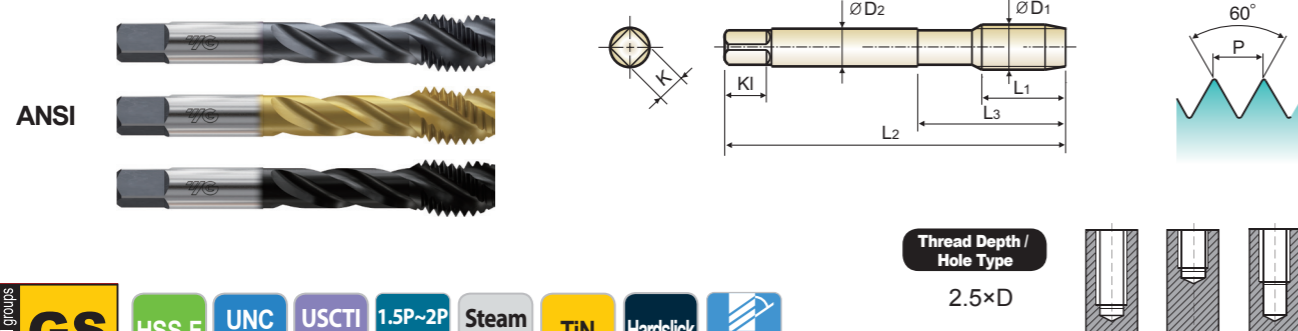
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	35	38	42	45	48	52	55	58	62	65	68	72	75	78	82	85
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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



F4/F8/F6 SERIES

SPIRAL FLUTE TAPS BOTTOMING STYLE for General Purpose



Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	TiN	Hardslick								
9/16 - 18UNF	F4623	F8623	F6623	H3	3.594	1.000	1.657	.429	.322	.500	3	
9/16 - 18UNF	F4625	F8625	F6625	H5	3.594	1.000	1.657	.429	.322	.500	3	
5/8 - 11UNC	F4643	F8643	F6643	H3	3.811	1.094	1.811	.480	.360	.560	4	
5/8 - 11UNC	F4645	F8645	F6645	H5	3.811	1.094	1.811	.480	.360	.560	4	
5/8 - 18UNF	F4663	F8663	F6663	H3	3.811	1.094	1.811	.480	.360	.560	4	
5/8 - 18UNF	F4665	F8665	F6665	H5	3.811	1.094	1.811	.480	.360	.560	4	
3/4 - 10UNC	F4703	F8703	F6703	H3	4.252	1.220	2.000	.590	.442	.690	4	
3/4 - 10UNC	F4705	F8705	F6705	H5	4.252	1.220	2.000	.590	.442	.690	4	
3/4 - 16UNF	F4723	F8723	F6723	H3	4.252	1.220	2.000	.590	.442	.690	4	
3/4 - 16UNF	F4725	F8725	F6725	H5	4.252	1.220	2.000	.590	.442	.690	4	
7/8 - 9UNC	F4744	F8744	F6744	H4	4.689	1.343	2.220	.697	.523	.750	4	
7/8 - 9UNC	F4746	F8746	F6746	H6	4.689	1.343	2.220	.697	.523	.750	4	
7/8 - 14UNF	F4764	F8764	F6764	H4	4.689	1.343	2.220	.697	.523	.750	4	
7/8 - 14UNF	F4766	F8766	F6766	H6	4.689	1.343	2.220	.697	.523	.750	4	
1" - 8UNC	F4784	F8784	F6784	H4	5.126	1.500	2.500	.800	.600	.810	4	
1" - 8UNC	F4786	F8786	F6786	H6	5.126	1.500	2.500	.800	.600	.810	4	
1" - 12UNF	F4806	F8806	F6806	H6	5.126	1.500	2.500	.800	.600	.810	4	

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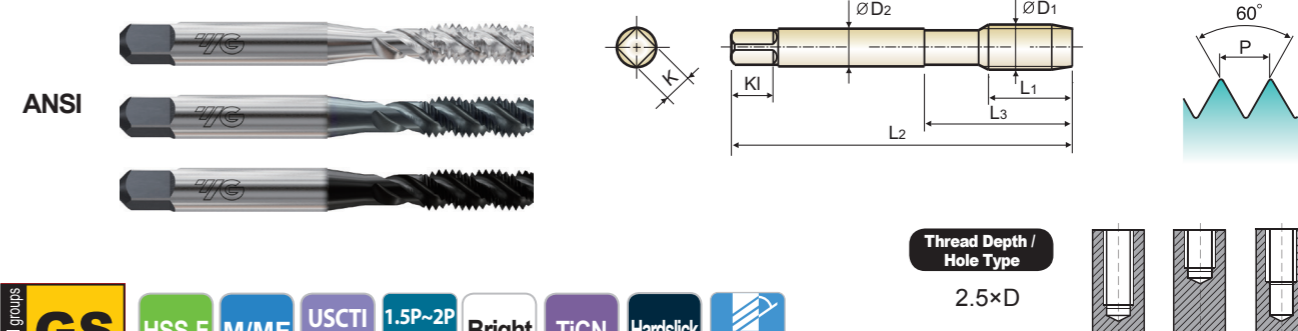
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21	
HB	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										
	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	400Rm	1050Rm	550	630	400	550
Recommended			○	○		○	○														



G4/G5/G6 SERIES

SPIRAL FLUTE TAPS BOTTOMING STYLE for General Purpose



Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiCN	Hardslick								
M3 x 0.5	G4203	G5203	G6203	D3	1.937	.311	.646	.141	.110	.190	2	
M3.5 x 0.6	G4224	G5224	G6224	D4	2.000	.374	.709	.141	.110	.190	2	
M4 x 0.7	G4244	G5244	G6244	D4	2.126	.374	.768	.168	.131	.250	3	
M5 x 0.8	G4284	G5284	G6284	D4	2.374	.500	.933	.194	.152	.250	3	
M6 x 1.0	G4315	G5315	G6315	D5	2.500	.626	1.000	.255	.191	.310	3	
M7 x 1.0	G4345	G5345	G6345	D5	2.720	.689	1.126	.318	.238	.380	3	
M8 x 1.25	G4365	G5365	G6365	D5	2.720	.689	1.126	.318	.238	.380	3	
M8 x 1.0	G4375	G5375	G6375	D5	2.720	.689	1.126	.318	.238	.380	3	
M10 x 1.5	G4426	G5426	G6426	D6	2.937	.748	1.252	.381	.286	.440	3	
M10 x 1.25	G4435	G5435	G6435	D5	2.937	.748	1.252	.381	.286	.440	3	
M12 x 1.75	G4506	G5506	G6506	D6	3.374	.937	1.594	.367	.275	.440	3	
M12 x 1.25	G4525	G5525	G6525	D5	3.374	.937	1.594	.367	.275	.440	3	

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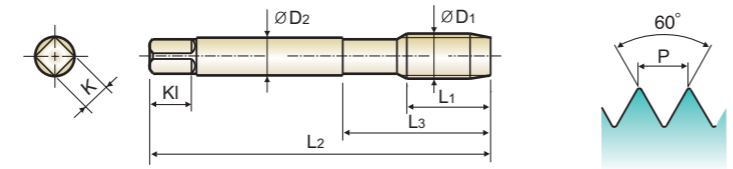
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21	
HB	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										
	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	400Rm	1050Rm	550	630	400	550
Recommended			○	○		○	○														



G0/G1/G2 SERIES

SPIRAL FLUTE TAPS BOTTOMING STYLE for General Purpose



DIN Length-ANSI Shank

Material groups: **GS** HSS-E UNC UNF 2P~3P Bright TiN Hardslick R45

Thread Depth / Hole Type: 2.5xD

Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiN	Hardslick								
#2 - 56UNC		G0082	G1082	G2082	H2	1.752	0.437	0.650	0.1410	0.110	.190	2
#4 - 40UNC		G0162	G1162	G2162	H2	2.205	0.311	0.563	0.1410	0.110	.190	2
#5 - 40UNC		G0202	G1202	G2202	H2	2.205	0.311	0.626	0.1410	0.110	.190	3
#6 - 32UNC		G0243	G1243	G2243	H3	2.205	0.374	0.689	0.1410	0.110	.190	3
#8 - 32UNC		G0283	G1283	G2283	H3	2.480	0.374	0.752	0.1680	0.131	.250	3
#10 - 24UNC		G0323	G1323	G2323	H3	2.756	0.500	0.906	0.1940	0.152	.250	3
#10 - 32UNF		G0343	G1343	G2343	H3	2.756	0.500	0.906	0.1940	0.152	.250	3
1/4 - 20UNC		G0403	G1403	G2403	H3	3.150	0.626	1.000	0.2550	0.191	.310	3
1/4 - 20UNC		G0405	G1405	G2405	H5	3.150	0.626	1.000	0.2550	0.191	.310	3
1/4 - 28UNC		G0423	G1423	G2423	H3	3.150	0.626	1.000	0.2550	0.191	.310	3
1/4 - 28UNF		G0443	G1443	G2443	H4	3.150	0.626	1.000	0.2550	0.191	.310	3
5/16 - 18UNC		G0445	G1445	G2445	H5	3.543	0.689	1.126	0.3180	0.238	.380	3
5/16 - 24UNF		G0463	G1463	G2463	H4	3.543	.689	1.126	.318	.238	.380	3
3/8 - 16UNC		G0483	G1483	G2483	H3	3.937	.748	1.252	.381	.286	.440	3
3/8 - 16UNC		G0485	G1485	G2485	H5	3.937	.748	1.252	.381	.286	.440	3
3/8 - 24UNF		G0503	G1503	G2503	H4	3.937	.748	1.252	.381	.286	.440	3
7/16 - 14UNC		G0523	G1523	G2523	H3	3.937	.874	1.437	.323	.242	.410	3
7/16 - 14UNC		G0525	G1525	G2525	H5	3.937	.874	1.437	.323	.242	.410	3
7/16 - 20UNF		G0543	G1543	G2543	H3	3.937	.874	1.437	.323	.242	.410	3
7/16 - 20UNF		G0545	G1545	G2545	H5	3.937	.874	1.437	.323	.242	.410	3
1/2 - 13UNC		G0563	G1563	G2563	H3	4.331	.937	1.594	.367	.275	.440	3
1/2 - 13UNC		G0565	G1565	G2565	H5	4.331	.937	1.594	.367	.275	.440	3
1/2 - 20UNF		G0583	G1583	G2583	H3	3.937	.937	1.594	.367	.275	.440	3
1/2 - 20UNF		G0585	G1585	G2585	H5	3.937	.937	1.594	.367	.275	.440	3
9/16 - 12UNC		G0603	G1603	G2603	H3	4.331	1.000	1.657	.429	.322	.500	3
9/16 - 12UNC		G0605	G1605	G2605	H5	4.331	1.000	1.657	.429	.322	.500	3

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◎ : Excellent ○ : Good

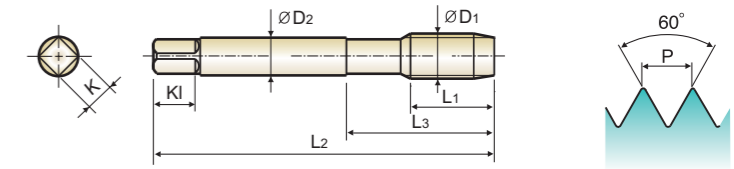
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	10	29	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended			○	○		○	○														



G0/G1/G2 SERIES

SPIRAL FLUTE TAPS BOTTOMING STYLE for General Purpose



DIN Length-ANSI Shank

Material groups: **GS** HSS-E UNC UNF 2P~3P Bright TiN Hardslick R45

Thread Depth / Hole Type: 2.5xD

Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiN	Hardslick								
9/16 - 18UNF		G0623	G1623	G2623	H3	3.937	1.000	1.657	.429	.322	.500	3
9/16 - 18UNF		G0625	G1625	G2625	H5	3.937	1.000	1.657	.429	.322	.500	3
5/8 - 11UNC		G0643	G1643	G2643	H3	4.331	1.094	1.811	.480	.360	.560	4
5/8 - 11UNC		G0645	G1645	G2645	H5	4.331	1.094	1.811	.480	.360	.560	4
5/8 - 18UNF		G0663	G1663	G2663	H3	3.937	1.094	1.811	.480	.360	.560	4
5/8 - 18UNF		G0665	G1665	G2665	H5	3.937	1.094	1.811	.480	.360	.560	4
3/4 - 10UNC		G0703	G1703	G2703	H3	4.921	1.220	2.000	.590	.442	.690	4
3/4 - 10UNC		G0705	G1705	G2705	H5	4.921	1.220	2.000	.590	.442	.690	4
3/4 - 16UNF		G0723	G1723	G2723	H3	4.331	1.220	2.000	.590	.442	.690	4
3/4 - 16UNF		G0725	G1725	G2725	H5	4.331	1.220	2.000	.590	.442	.690	4
7/8 - 9UNC		G0746	G1746	G2746	H6	5.512	1.343	2.220	.697	.523	.750	4
7/8 - 14UNF		G0764	G1764	G2764	H4	4.921	1.343	2.220	.697	.523	.750	4
7/8 - 14UNF		G0766	G1766	G2766	H6	4.921	1.343	2.220	.697	.523	.750	4
1" - 8UNC		G0786	G1786	G2786	H6	6.299	1.500	2.500	.800	.600	.810	4
1" - 12UNF		G0804	G1804	G2804	H4	5.512	1.500	2.500	.800	.600	.810	4
1" 12UNF		G0806	G1806	G2806	H6	5.512	1.500	2.500	.800	.600	.810	4



T7A96 / T6A96 / T8A96 SERIES

SPIRAL FLUTE TAPS for General Purpose

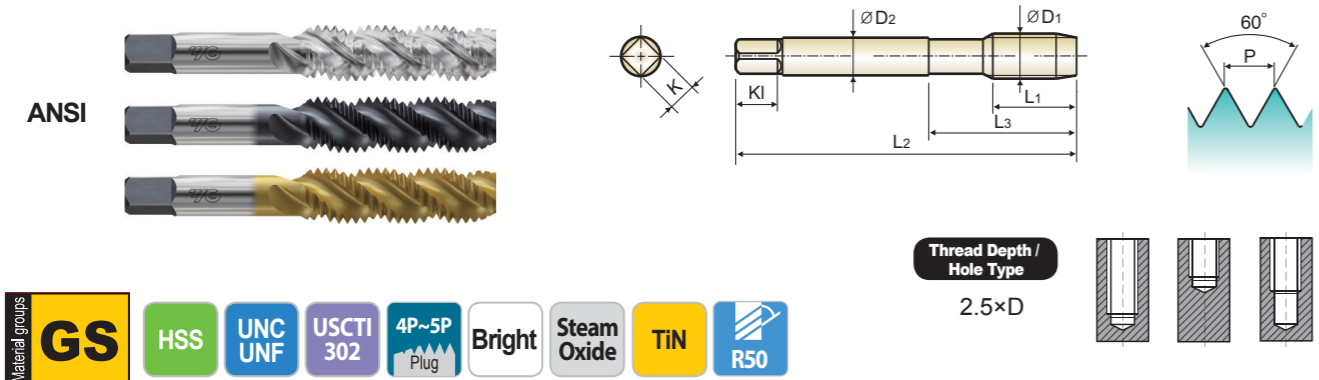


Table with 13 columns: Size (D1, TPI), EDP No. (Bright, Steam Oxide, TiN), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KL), No. of Flute. Lists various sizes from #3 to 3/4 inch.

ISO material compatibility chart for T7A96/T6A96/T8A96 series. Columns include Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), M, K, S, H, and Recommended status.



T7295 / T6295 / T8295 SERIES

SPIRAL FLUTE TAPS for General Purpose

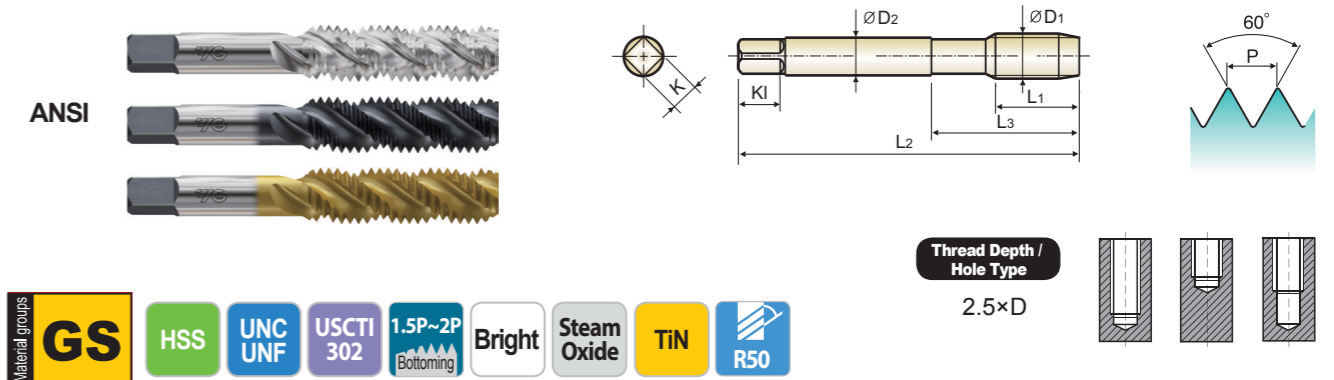


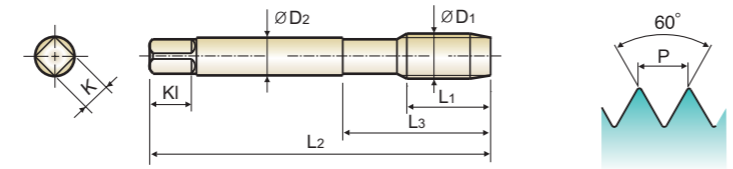
Table with 13 columns: Size (D1, TPI), EDP No. (Bright, Steam Oxide, TiN), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KL), No. of Flute. Lists various sizes from #3 to 3/4 inch.

ISO material compatibility chart for T7295/T6295/T8295 series. Columns include Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), M, K, S, H, and Recommended status.



T7A86/T6A86/T8A86 SERIES
T7A85/T6A85/T8A85 SERIES

SPIRAL FLUTE TAPS for General Purpose



Material groups: GS, HSS, M/MF, USCTI 302, 4P~5P Plug, 1.5P~2P Bottoming, Bright, Steam Oxide, TiN, R50

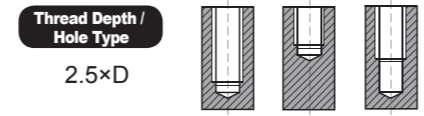


Table with 13 columns: Size, Pitch, EDP No. (Bright, TiCN, Hardslick), Limit, Overall Length, Thread Length, Neck Length, Shank Diameter, Square Size, Square Length, No. of Flute

Table with 13 columns: Size, Pitch, EDP No. (Bottom, Bright, TiCN, Hardslick), Limit, Overall Length, Thread Length, Neck Length, Shank Diameter, Square Size, Square Length, No. of Flute

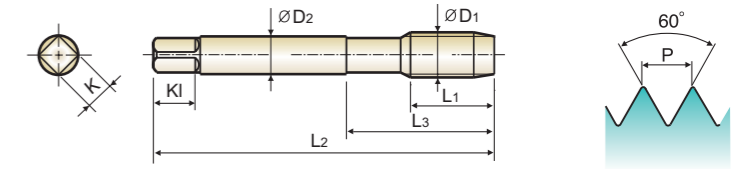
ISO material compatibility chart with columns for P, M, K, S, H and rows for Material Description, VDI 3323, HRc, HB, Recommended



T7D01/T8D01 SERIES
T7D02/T8D02 SERIES

SPIRAL FLUTE TAP, 6" EXTENSION

EXTENDED LENGTH FOR GREATER REACH



ANSI Long Shank

Material groups: GS, HSS, UNC UNF, USCTI Long Shank, 4P~5P Plug, 1.5P~2P Bottoming, Bright, TiN, R50

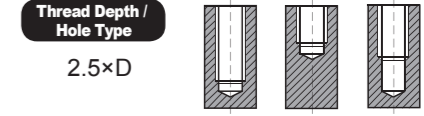


Table with 13 columns: Size, TPI, EDP No. (Bright, TiN), Limit, Overall Length, Thread Length, Neck Length, Shank Diameter, Square Size, Square Length, No. of Flute

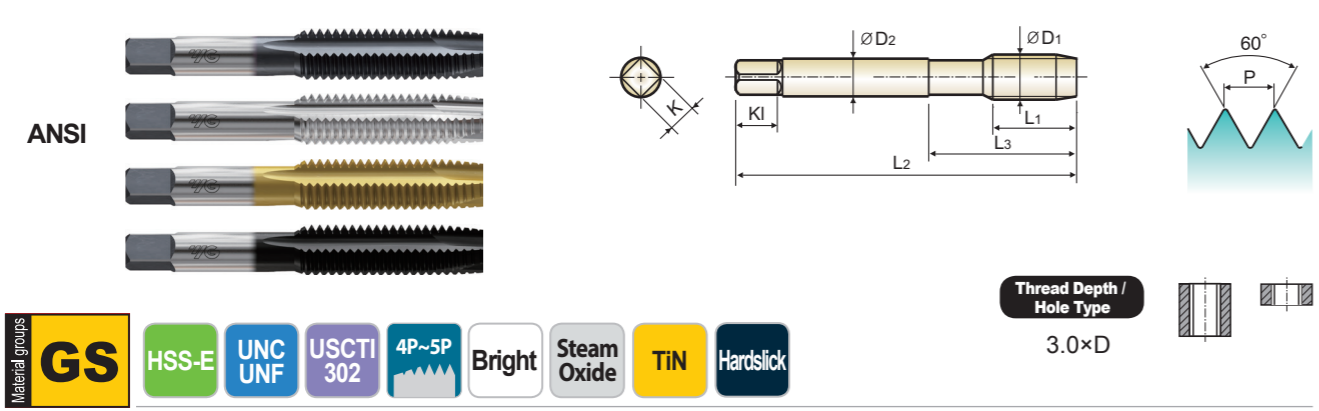
Table with 13 columns: Size, TPI, EDP No. (Bottom, Bright, TiN), Limit, Overall Length, Thread Length, Neck Length, Shank Diameter, Square Size, Square Length, No. of Flute

ISO material compatibility chart with columns for P, M, K, S, H and rows for Material Description, VDI 3323, HRc, HB, Recommended



I9/J0/J1/J7 SERIES

SPIRAL POINT PLUG STYLE for General Purpose



Unit : Inch

Size	TPI	EDP No.				Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Bright	TiN	Hardslick								
#2 - 56UNC		I9082	J0082	J1082	J7082	H2	1.752	.433	.650	.141	.110	.190	2
#4 - 40UNC		I9162	J0162	J1162	J7162	H2	1.874	.563	.799	.141	.110	.190	2
#5 - 40UNC		I9202	J0202	J1202	J7202	H2	1.937	.626	.882	.141	.110	.190	2
#6 - 32UNC		I9243	J0243	J1243	J7243	H3	2.000	.689	.965	.141	.110	.190	2
#8 - 32UNC		I9283	J0283	J1283	J7283	H3	2.126	.752	1.047	.168	.131	.250	2
#10 - 24UNC		I9323	J0323	J1323	J7323	H3	2.374	.906	1.220	.194	.152	.250	2
#10 - 32UNF		I9343	J0343	J1343	J7343	H3	2.374	.906	1.220	.194	.152	.250	2
1/4 - 20UNC		I9403	J0403	J1403	J7403	H3	2.500	1.000	1.354	.255	.191	.310	2
1/4 - 20UNC		I9405	J0405	J1405	J7405	H5	2.500	1.000	1.354	.255	.191	.310	2
1/4 - 28UNF		I9423	J0423	J1423	J7423	H3	2.500	1.000	1.354	.255	.191	.310	2
5/16 - 18UNC		I9443	J0443	J1443	J7443	H3	2.720	1.126	1.500	.318	.238	.380	2
5/16 - 18UNC		I9445	J0445	J1445	J7445	H5	2.720	1.126	1.500	.318	.238	.380	2
5/16 - 24UNF		I9463	J0463	J1463	J7463	H3	2.720	1.126	1.500	.318	.238	.380	2
3/8 - 16UNC		I9483	J0483	J1483	J7483	H3	2.937	1.252	1.646	.381	.286	.440	3
3/8 - 16UNC		I9485	J0485	J1485	J7485	H5	2.937	1.252	1.646	.381	.286	.440	3
3/8 - 24UNF		I9503	J0503	J1503	J7503	H3	2.937	1.252	1.646	.381	.286	.440	3
7/16 - 14UNC		I9523	J0523	J1523	J7523	H3	3.157	1.437	-	.323	.242	.410	3
7/16 - 14UNC		I9525	J0525	J1525	J7525	H5	3.157	1.437	-	.323	.242	.410	3
7/16 - 20UNF		I9543	J0543	J1543	J7543	H3	3.157	1.437	-	.323	.242	.410	3
7/16 - 20UNF		I9545	J0545	J1545	J7545	H5	3.157	1.437	-	.323	.242	.410	3
1/2 - 13UNC		I9563	J0563	J1563	J7563	H3	3.374	1.657	-	.367	.275	.440	3
1/2 - 13UNC		I9565	J0565	J1565	J7565	H5	3.374	1.657	-	.367	.275	.440	3
1/2 - 20UNF		I9583	J0583	J1583	J7583	H3	3.374	1.657	-	.367	.275	.440	3
1/2 - 20UNF		I9585	J0585	J1585	J7585	H5	3.374	1.657	-	.367	.275	.440	3
9/16 - 12UNC		I9603	J0603	J1603	J7603	H3	3.594	1.657	-	.429	.322	.500	3
9/16 - 18UNF		I9625	J0625	J1625	J7625	H5	3.594	1.657	-	.429	.322	.500	3

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◎ : Excellent ○ : Good

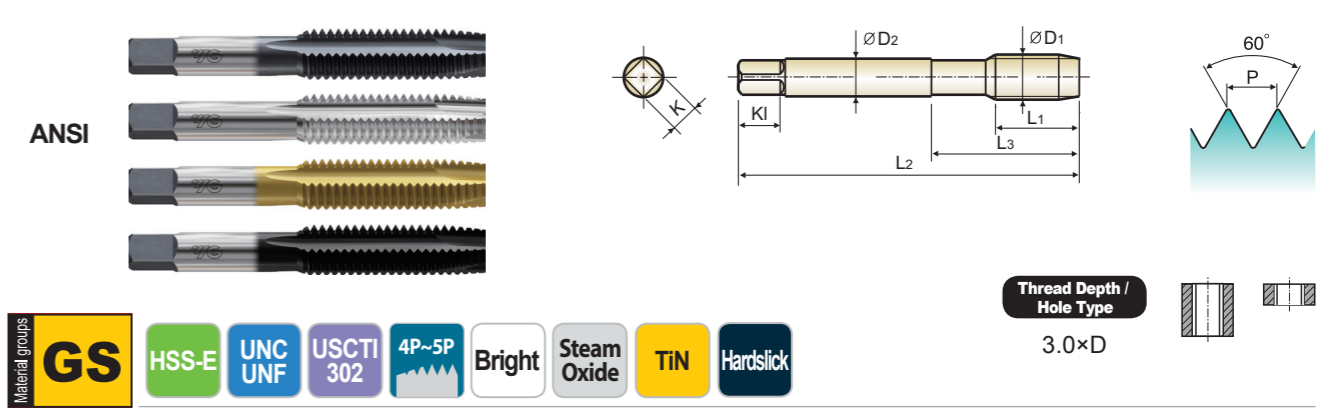
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	10	29	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○			○	○	○	○	○	○	○	○	○	○	○



I9/J0/J1/J7 SERIES

SPIRAL POINT PLUG STYLE for General Purpose



Unit : Inch

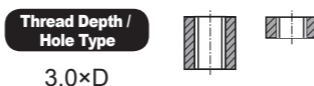
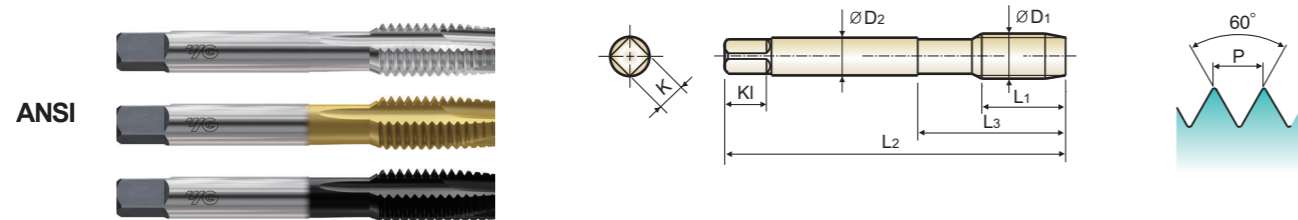
Size	TPI	EDP No.				Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Bright	TiN	Hardslick								
5/8 - 11UNC		I9643	J0643	J1643	J7643	H3	3.811	1.811	-	.480	.360	.560	3
5/8 - 11UNC		I9645	J0645	J1645	J7645	H5	3.811	1.811	-	.480	.360	.560	3
5/8 - 18UNF		I9665	J0665	J1665	J7665	H5	3.811	1.811	-	.480	.360	.560	3
3/4 - 10UNC		I9703	J0703	J1703	J7703	H3	4.252	2.000	-	.590	.442	.690	3
3/4 - 10UNC		I9705	J0705	J1705	J7705	H5	4.252	2.000	-	.590	.442	.690	3
3/4 - 16UNF		I9725	J0725	J1725	J7725	H5	4.252	2.000	-	.590	.442	.690	3
7/8 - 9UNC		I9744	J0744	J1744	J7744	H4	4.689	2.220	-	.697	.523	.750	3
7/8 - 14UNF		I9766	J0766	J1766	J7766	H6	4.689	2.220	-	.697	.523	.750	3
1" - 8UNC		I9784	J0784	J1784	J7784	H4	5.126	2.500	-	.800	.600	.810	3

Unit : Inch

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron		
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○			○	○	○	○	○	○	○	○	○	○	○

SPIRAL POINT TAPS PLUG STYLE for General Purpose



Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiN	Hardslick								
#2 - 56UNC		K9082	L0082	L1082	H2	1.752	.437	.650	.141	.110	.190	2
#4 - 40UNC		K9162	L0162	L1162	H2	1.874	.311	.563	.141	.110	.190	2
#5 - 40UNC		K9202	L0202	L1202	H2	1.937	.311	.626	.141	.110	.190	2
#6 - 32UNC		K9243	L0243	L1243	H3	2.000	.374	.689	.141	.110	.190	2
#8 - 32UNC		K9283	L0283	L1283	H3	2.126	.374	.752	.168	.131	.250	2
#10 - 24UNC		K9323	L0323	L1323	H3	2.374	.500	.906	.194	.152	.250	2
#10 - 32UNC		K9343	L0343	L1343	H3	2.374	.500	.906	.194	.152	.250	2
1/4 - 20UNC		K9403	L0403	L1403	H3	2.500	.626	1.000	.255	.191	.310	2
1/4 - 20UNC		K9405	L0405	L1405	H5	2.500	.626	1.000	.255	.191	.310	2
1/4 - 28UNF		K9423	L0423	L1423	H3	2.500	.626	1.000	.255	.191	.310	3
5/16 - 18UNC		K9443	L0443	L1443	H3	2.720	.689	1.126	.318	.238	.380	2
5/16 - 18UNC		K9445	L0445	L1445	H5	2.720	.689	1.126	.318	.238	.380	2
5/16 - 24UNF		K9463	L0463	L1463	H3	2.720	.689	1.126	.318	.238	.380	3
3/8 - 16UNC		K9483	L0483	L1483	H3	2.937	.748	1.252	.381	.286	.440	3
3/8 - 16UNC		K9485	L0485	L1485	H5	2.937	.748	1.252	.381	.286	.440	3
3/8 - 24UNF		K9503	L0503	L1503	H3	2.937	.748	1.252	.381	.286	.440	3
7/16 - 14UNC		K9523	L0523	L1523	H3	3.157	.874	1.437	.323	.242	.410	3
7/16 - 14UNC		K9525	L0525	L1525	H5	3.157	.874	1.437	.323	.242	.410	3
7/16 - 20UNF		K9543	L0543	L1543	H3	3.157	.874	1.437	.323	.242	.410	3
7/16 - 20UNF		K9545	L0545	L1545	H5	3.157	.874	1.437	.323	.242	.410	3
1/2 - 13UNC		K9563	L0563	L1563	H3	3.374	.937	1.594	.367	.275	.440	3
1/2 - 13UNC		K9565	L0565	L1565	H5	3.374	.937	1.594	.367	.275	.440	3
1/2 - 20UNF		K9583	L0583	L1583	H3	3.374	.937	1.594	.367	.275	.440	3
1/2 - 20UNF		K9585	L0585	L1585	H5	3.374	.937	1.594	.367	.275	.440	3
9/16 - 12UNC		K9603	L0603	L1603	H3	3.594	1.000	1.657	.429	.322	.500	3
9/16 - 18UNF		K9623	L0623	L1623	H3	3.594	1.000	1.657	.429	.322	.500	3

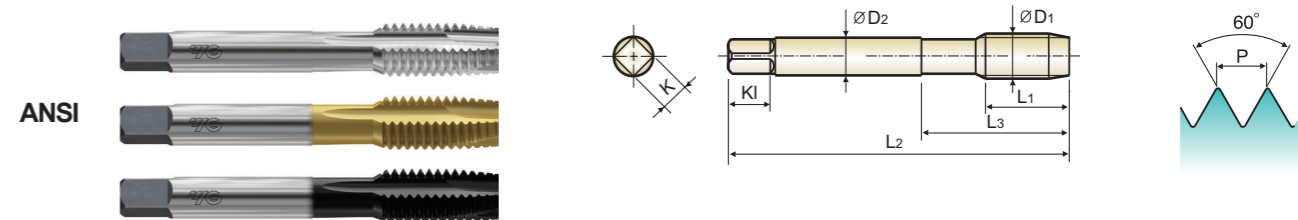
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◎ : Excellent ○ : Good

ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended			○	○		○	○														

SPIRAL POINT TAPS PLUG STYLE for General Purpose



Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiN	Hardslick								
9/16 - 18UNF		K9625	L0625	L1625	H5	3.594	1.000	1.657	.429	.322	.500	3
5/8 - 11UNC		K9643	L0643	L1643	H3	3.811	1.094	1.811	.480	.360	.560	3
5/8 - 11UNC		K9645	L0645	L1645	H5	3.811	1.094	1.811	.480	.360	.560	3
5/8 - 18UNF		K9663	L0663	L1663	H3	3.811	1.094	1.811	.480	.360	.560	3
5/8 - 18UNF		K9665	L0665	L1665	H5	3.811	1.094	1.811	.480	.360	.560	3
3/4 - 10UNC		K9703	L0703	L1703	H3	4.252	1.220	2.000	.590	.442	.690	3
3/4 - 10UNC		K9705	L0705	L1705	H5	4.252	1.220	2.000	.590	.442	.690	3
3/4 - 16UNF		K9723	L0723	L1723	H3	4.252	1.220	2.000	.590	.442	.690	3
3/4 - 16UNF		K9725	L0725	L1725	H5	4.252	1.220	2.000	.590	.442	.690	3
7/8 - 9UNC		K9746	L0746	L1746	H6	4.689	1.343	2.220	.697	.523	.750	3
7/8 - 14UNF		K9764	L0764	L1764	H4	4.689	1.343	2.220	.697	.523	.750	3
7/8 - 14UNF		K9766	L0766	L1766	H6	4.689	1.343	2.220	.697	.523	.750	3
1" - 8UNC		K9786	L0786	L1786	H6	5.126	1.500	2.500	.800	.600	.810	3
1" - 12UNF		K9806	L0806	L1806	H6	5.126	1.500	2.500	.800	.600	.810	3

◎ : Excellent ○ : Good

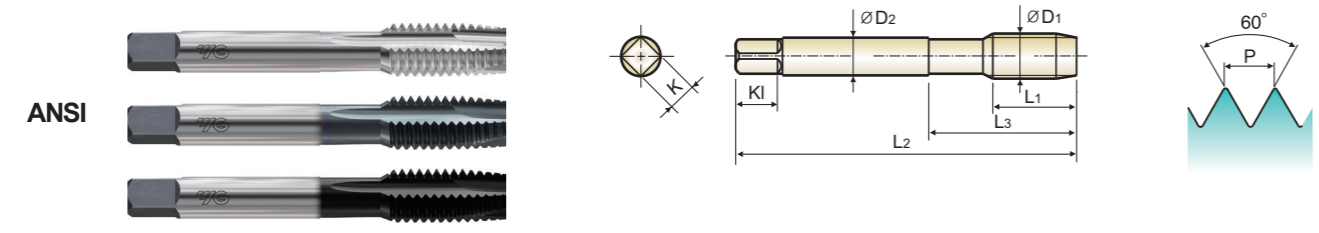
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended			○	○		○	○														

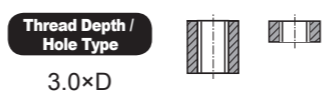


L7/L8/L9 SERIES

SPIRAL POINT TAPS PLUG STYLE for General Purpose



Material groups: **GS** HSS-E M/MF USCTI 302A 4P~5P Bright Steam Oxide TiCN Hardslick



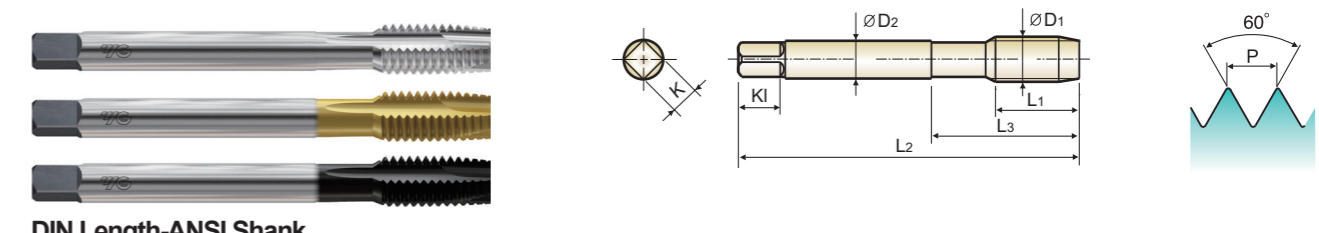
Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiCN	Hardslick								
M3 x 0.5		L7203	L8203	L9203	D3	1.937	.311	.646	.141	.110	.190	2
M3.5 x 0.6		L7224	L8224	L9224	D4	2.000	.374	.709	.141	.110	.190	2
M4 x 0.7		L7244	L8244	L9244	D4	2.126	.374	.768	.168	.131	.250	2
M5 x 0.8		L7284	L8284	L9284	D4	2.374	.500	.933	.194	.152	.250	2
M6 x 1.0		L7315	L8315	L9315	D5	2.500	.626	1.000	.255	.191	.310	3
M7 x 1.0		L7345	L8345	L9345	D5	2.720	.689	1.126	.318	.238	.380	3
M8 x 1.25		L7365	L8365	L9365	D5	2.720	.689	1.126	.318	.238	.380	3
M8 x 1.0		L7375	L8375	L9375	D5	2.720	.689	1.126	.318	.238	.380	3
M10 x 1.5		L7426	L8426	L9426	D6	2.937	.748	1.252	.381	.286	.440	3
M10 x 1.25		L7435	L8435	L9435	D5	2.937	.748	1.252	.381	.286	.440	3
M12 x 1.75		L7506	L8506	L9506	D6	3.374	.937	1.594	.367	.275	.440	3
M12 x 1.25		L7525	L8525	L9525	D5	3.374	.937	1.594	.367	.275	.440	3

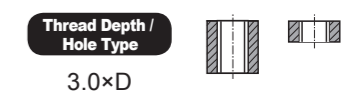


L3/L4/L5 SERIES

SPIRAL POINT TAPS PLUG STYLE for General Purpose



Material groups: **GS** HSS-E UNC UNF 4P~5P Bright TiN Hardslick



Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiN	Hardslick								
#2 - 56UNC		L3082	L4082	L5082	H2	1.752	.437	.650	.141	.110	.190	2
#4 - 40UNC		L3162	L4162	L5162	H2	1.874	.311	.563	.141	.110	.190	2
#5 - 40UNC		L3202	L4202	L5202	H2	1.937	.311	.626	.141	.110	.190	3
#6 - 32UNC		L3243	L4243	L5243	H3	2.000	.374	.689	.141	.110	.190	3
#8 - 32UNC		L3283	L4283	L5283	H3	2.126	.374	.752	.168	.131	.250	3
#10 - 24UNC		L3323	L4323	L5323	H3	2.374	.500	.906	.194	.152	.250	3
#10 - 32UNC		L3343	L4343	L5343	H3	2.374	.500	.906	.194	.152	.250	3
1/4 - 20UNC		L3403	L4403	L5403	H3	2.500	.626	1.000	.255	.191	.310	3
1/4 - 20UNC		L3405	L4405	L5405	H5	2.500	.626	1.000	.255	.191	.310	3
1/4 - 28UNF		L3423	L4423	L5423	H3	2.500	.626	1.000	.255	.191	.310	3
5/16 - 18UNC		L3443	L4443	L5443	H3	2.720	.689	1.126	.318	.238	.380	3
5/16 - 18UNC		L3445	L4445	L5445	H5	2.720	.689	1.126	.318	.238	.380	3
5/16 - 24UNF		L3463	L4463	L5463	H3	2.720	.689	1.126	.318	.238	.380	3
3/8 - 16UNC		L3483	L4483	L5483	H3	2.937	.748	1.252	.381	.286	.440	3
3/8 - 16UNC		L3485	L4485	L5485	H5	2.937	.748	1.252	.381	.286	.440	3
3/8 - 24UNF		L3503	L4503	L5503	H3	2.937	.748	1.252	.381	.286	.440	3
7/16 - 14UNC		L3523	L4523	L5523	H3	3.157	.874	1.437	.323	.242	.410	3
7/16 - 14UNC		L3525	L4525	L5525	H5	3.157	.874	1.437	.323	.242	.410	3
7/16 - 20UNF		L3543	L4543	L5543	H3	3.157	.874	1.437	.323	.242	.410	3
7/16 - 20UNF		L3545	L4545	L5545	H5	3.157	.874	1.437	.323	.242	.410	3
1/2 - 13UNC		L3563	L4563	L5563	H3	3.374	.937	1.594	.367	.275	.440	3
1/2 - 13UNC		L3565	L4565	L5565	H5	3.374	.937	1.594	.367	.275	.440	3
1/2 - 20UNF		L3583	L4583	L5583	H3	3.374	.937	1.594	.367	.275	.440	3
1/2 - 20UNF		L3585	L4585	L5585	H5	3.374	.937	1.594	.367	.275	.440	3
9/16 - 12UNC		L3605	L4605	L5605	H5	3.594	1.000	1.657	.429	.322	.500	3
9/16 - 18UNF		L3625	L4625	L5625	H5	3.594	1.000	1.657	.429	.322	.500	3

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	13	25	28	32	10	10	29	32	38	15	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									
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended			○	○		○	○														

◎ : Excellent ○ : Good

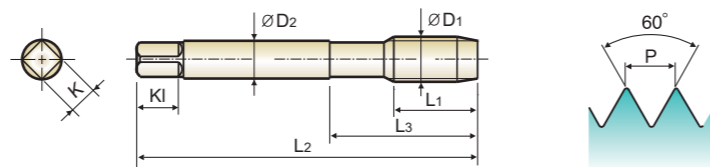
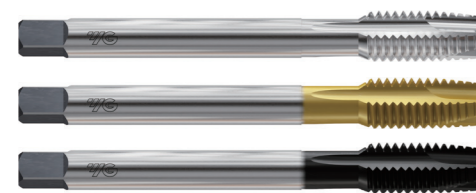
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	13	25	28	32	10	10	29	32	38	15	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									
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended			○	○		○	○														



L3/L4/L5 SERIES

SPIRAL POINT TAPS PLUG STYLE for General Purpose



DIN Length-ANSI Shank

Material groups: **GS** (HSS-E), **UNC UNF**, **4P~5P**, **Bright**, **TiN**, **Hardslick**



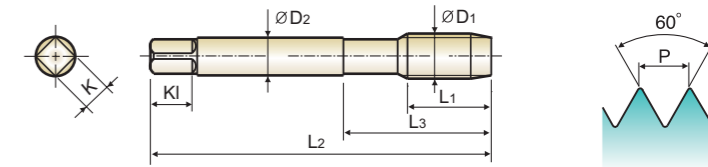
Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiN	Hardslick								
5/8 - 11UNC	L3643	L4643	L5643	H3	3.811	1.094	1.811	.480	.360	.560	3	
5/8 - 11UNC	L3645	L4645	L5645	H5	3.811	1.094	1.811	.480	.360	.560	3	
3/4 - 10UNC	L3703	L4703	L5703	H3	4.252	1.220	2.000	.590	.442	.690	3	
3/4 - 10UNC	L3705	L4705	L5705	H5	4.252	1.220	2.000	.590	.442	.690	3	
3/4 - 16UNF	L3725	L4725	L5725	H5	4.252	1.220	2.000	.590	.442	.690	3	
7/8 - 9UNC	L3746	L4746	L5746	H6	4.689	1.343	2.220	.697	.523	.750	3	
7/8 - 14UNF	L3766	L4766	L5766	H6	4.689	1.343	2.220	.697	.523	.750	3	
1" - 8UNC	L3786	L4786	L5786	H6	5.126	1.500	2.500	.800	.600	.810	3	
1" - 12UNF	L3806	L4806	L5806	H6	5.126	1.500	2.500	.800	.600	.810	3	



T7216/T6216/T8216 SERIES

SPIRAL POINT PLUG STYLE for General Purpose



ANSI

Material groups: **GS** (HSS), **UNC UNF**, **USCTI 302**, **4P~5P**, **Bright**, **Steam Oxide**, **TiN**



Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	TiN								
#0 - 80UNF	T7216021	T6216021	T8216021	H1	1.634	.315	.512	.141	.110	.190	2	
#0 - 80UNF	T7216022	T6216022	T8216022	H2	1.634	.315	.512	.141	.110	.190	2	
#0 - 80UNF	T7216023	T6216023	T8216023	H3	1.634	.315	.512	.141	.110	.190	2	
#1 - 64UNC	T7216041	T6216041	T8216041	H1	1.693	.374	.571	.141	.110	.190	2	
#1 - 64UNC	T7216042	T6216042	T8216042	H2	1.693	.374	.571	.141	.110	.190	2	
#1 - 72UNF	T7216061	T6216061	T8216061	H1	1.693	.374	.571	.141	.110	.190	2	
#1 - 72UNF	T7216062	T6216062	T8216062	H2	1.693	.374	.571	.141	.110	.190	2	
#2 - 56UNC	T7216081	T6216081	T8216081	H1	1.752	.433	.650	.141	.110	.190	2	
#2 - 56UNC	T7216082	T6216082	T8216082	H2	1.752	.433	.650	.141	.110	.190	2	
#2 - 56UNC	T7216083	T6216083	T8216083	H3	1.752	.433	.650	.141	.110	.190	2	
#2 - 56UNC	T7216085	T6216085	T8216085	H5	1.752	.433	.650	.141	.110	.190	2	
#2 - 64UNF	T7216101	T6216101	T8216101	H1	1.752	.433	.650	.141	.110	.190	2	
#2 - 64UNF	T7216102	T6216102	T8216102	H2	1.752	.433	.650	.141	.110	.190	2	
#3 - 48UNC	T7216121	T6216121	T8216121	H1	1.811	.492	.728	.141	.110	.190	2	
#3 - 48UNC	T7216122	T6216122	T8216122	H2	1.811	.492	.728	.141	.110	.190	2	
#3 - 48UNC	T7216123	T6216123	T8216123	H3	1.811	.492	.728	.141	.110	.190	2	
#3 - 48UNC	T7216125	T6216125	T8216125	H5	1.811	.492	.728	.141	.110	.190	2	
#3 - 56UNF	T7216141	T6216141	T8216141	H1	1.811	.492	.728	.141	.110	.190	2	
#3 - 56UNF	T7216142	T6216142	T8216142	H2	1.811	.492	.728	.141	.110	.190	2	
#4 - 40UNC	T7216161	T6216161	T8216161	H1	1.874	.563	.799	.141	.110	.190	2	
#4 - 40UNC	T7216162	T6216162	T8216162	H2	1.874	.563	.799	.141	.110	.190	2	
#4 - 40UNC	T7216163	T6216163	T8216163	H3	1.874	.563	.799	.141	.110	.190	2	
#4 - 40UNC	T7216165	T6216165	T8216165	H5	1.874	.563	.799	.141	.110	.190	2	
#4 - 40UNC	T7216167	T6216167	T8216167	H7	1.874	.563	.799	.141	.110	.190	2	
#4 - 48UNF	T7216181	T6216181	T8216181	H1	1.874	.563	.799	.141	.110	.190	2	
#4 - 48UNF	T7216182	T6216182	T8216182	H2	1.874	.563	.799	.141	.110	.190	2	

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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	35	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								
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended			○	○		○	○														

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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	35	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								
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended			○	○		○	○														



T7216/T6216/T8216 SERIES
T7C16/T6C16/T8C16 SERIES

SPIRAL POINT PLUG STYLE for General Purpose

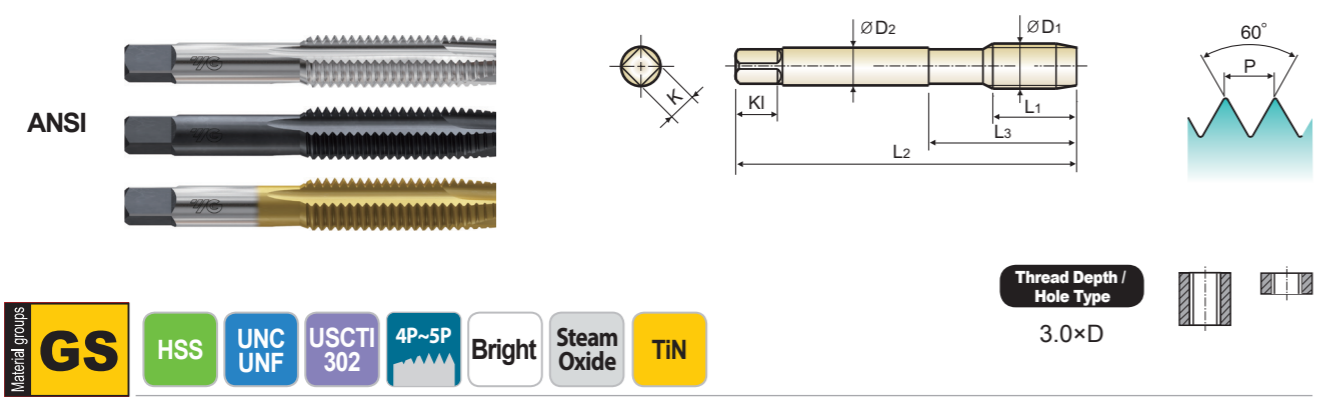


Table with 13 columns: Size, TPI, EDP No. (Bright, Steam Oxide, TiN), Limit, Overall Length, Thread Length, Neck Length, Shank Diameter, Square Size, Square Length, No. of Flute. Lists various tap sizes and specifications.

Unit : Inch

▶ NEXT PAGE

ISO material compatibility chart with columns for P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), M, K, S, H, and H.



T7216/T6216/T8216 SERIES
T7C16/T6C16/T8C16 SERIES

SPIRAL POINT PLUG STYLE for General Purpose

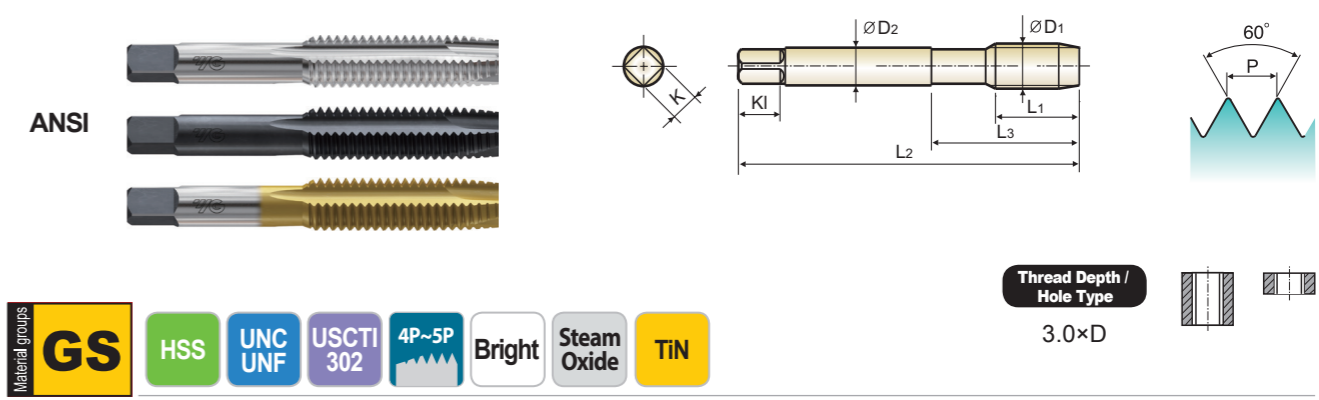


Table with 13 columns: Size, TPI, EDP No. (Bright, Steam Oxide, TiN), Limit, Overall Length, Thread Length, Neck Length, Shank Diameter, Square Size, Square Length, No. of Flute. Lists various tap sizes and specifications.

Unit : Inch

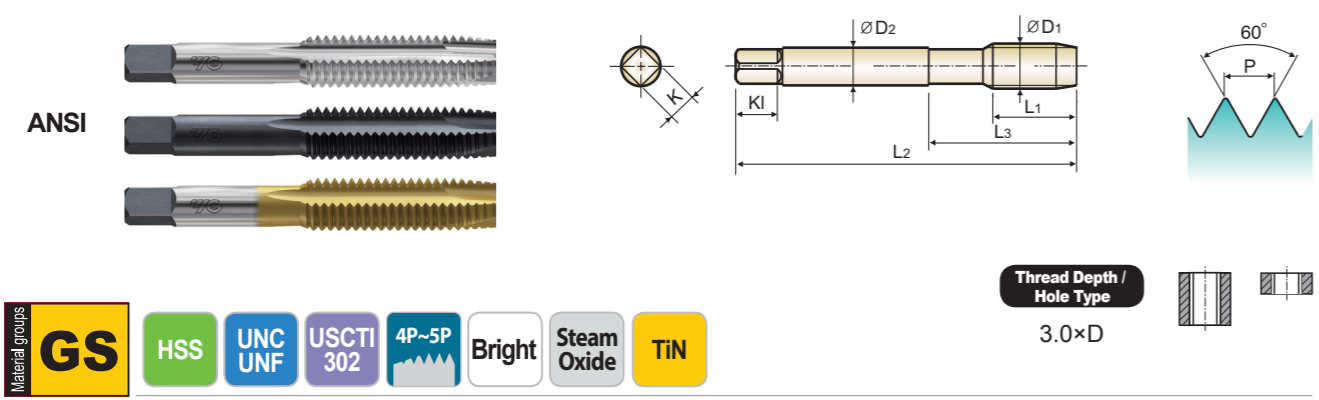
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ISO material compatibility chart with columns for P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), M, K, S, H, and H.



T7216/T6216/T8216 SERIES
T7C16/T6C16/T8C16 SERIES

SPIRAL POINT PLUG STYLE for General Purpose



Material groups: GS, HSS, UNC UNF, USCTI 302, 4P~5P, Bright, Steam Oxide, TiN. Thread Depth / Hole Type: 3.0xD.

Unit : Inch

Table with 13 columns: Size (D1, TPI), EDP No. (Bright, Steam Oxide, TiN), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KL), No. of Flute. Lists various tap specifications.

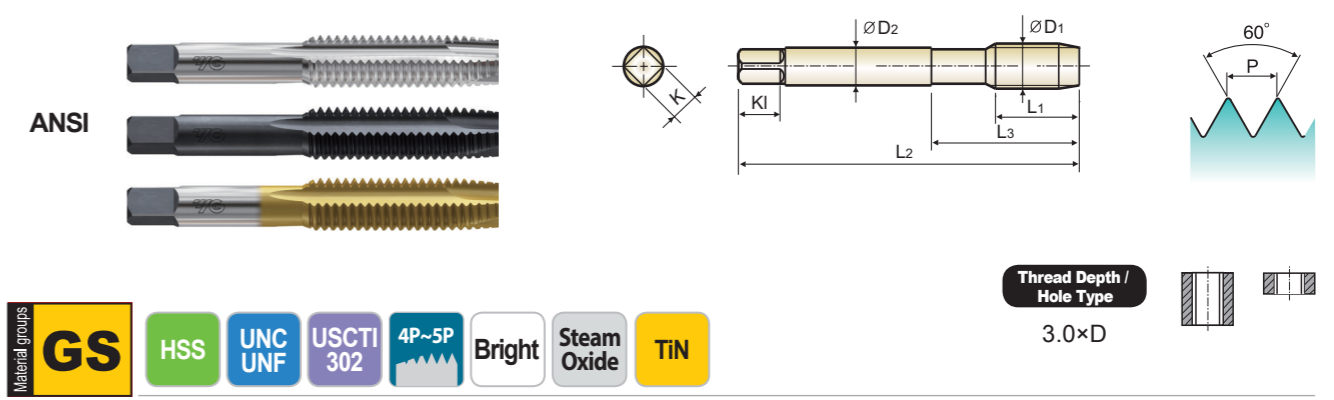
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ISO material compatibility chart. Columns: P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), M, K, S (Aluminum, Copper, Titanium, Heat Resistant Super Alloys), H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).



T7216/T6216/T8216 SERIES
T7C16/T6C16/T8C16 SERIES

SPIRAL POINT PLUG STYLE for General Purpose



Material groups: GS, HSS, UNC UNF, USCTI 302, 4P~5P, Bright, Steam Oxide, TiN. Thread Depth / Hole Type: 3.0xD.

Unit : Inch

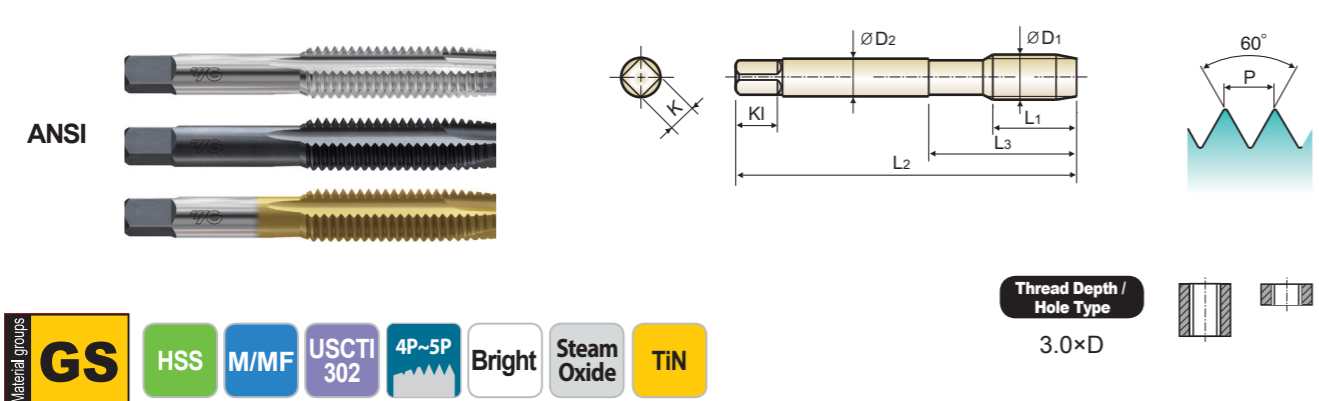
Table with 13 columns: Size (D1, TPI), EDP No. (Bright, Steam Oxide, TiN), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KL), No. of Flute. Lists various tap specifications.

ISO material compatibility chart. Columns: P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), M, K, S (Aluminum, Copper, Titanium, Heat Resistant Super Alloys), H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).



T7217/T6217/T8217 SERIES

SPIRAL POINT PLUG STYLE for General Purpose



Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KL	No. of Flute
		Bright	TiCN	Hardslck								
M1.6 x 0.35		T7217093	T6217093	T8217093	D3	1.634	.315	-	.141	.110	.190	2
M2 x 0.4		T7217133	T6217133	T8217133	D3	1.752	.394	-	.141	.110	.190	2
M2.5 x 0.45		T7217173	T6217173	T8217173	D3	1.811	.457	-	.141	.110	.190	2
M3 x 0.5		T7217203	T6217203	T8217203	D3	1.937	.622	-	.141	.110	.190	2
M3.5 x 0.6		T7217224	T6217224	T8217224	D4	2.000	.689	-	.141	.110	.190	2
M4 x 0.7		T7217244	T6217244	T8217244	D4	2.126	.756	-	.168	.131	.250	2
M4.5 x 0.75		T7217264	T6217264	T8217264	D4	2.374	.909	-	.194	.152	.250	2
M5 x 0.8		T7217284	T6217284	T8217284	D4	2.374	.933	-	.194	.152	.250	2
M6 x 1.0		T7217315	T6217315	T8217315	D5	2.500	.980	-	.255	.191	.310	2
M7 x 1.0		T7217345	T6217345	T8217345	D5	2.720	1.091	-	.318	.238	.380	2
M8 x 1.25		T7217365	T6217365	T8217365	D5	2.720	1.126	-	.318	.238	.380	2
M8 x 1.0		T7217375	T6217375	T8217375	D5	2.720	1.126	-	.318	.238	.380	2
M10 x 1.5		T7217426	T6217426	T8217426	D6	2.937	1.240	-	.381	.286	.440	3
M10 x 1.25		T7217435	T6217435	T8217435	D5	2.937	1.240	-	.381	.286	.440	3
M12 x 1.75		T7217506	T6217506	T8217506	D6	3.374	1.657	-	.367	.275	.440	3
M12 x 1.25		T7217525	T6217525	T8217525	D5	3.374	1.657	-	.367	.275	.440	3
M14 x 2.0		T7217547	T6217547	T8217547	D7	3.594	1.657	-	.429	.322	.500	3
M14 x 1.5		T7217556	T6217556	T8217556	D6	3.594	1.657	-	.429	.322	.500	3
M16 x 2.0		T7217607	T6217607	T8217607	D7	3.811	1.811	-	.480	.360	.560	3
M16 x 1.5		T7217616	T6217616	T8217616	D6	3.811	1.811	-	.480	.360	.560	3
M18 x 2.5		T7217657	T6217657	T8217657	D7	4.031	1.811	-	.542	.406	.630	3
M20 x 2.5		T7217707	T6217707	T8217707	D7	4.469	2.000	-	.652	.489	.690	3

◎ : Excellent ○ : Good

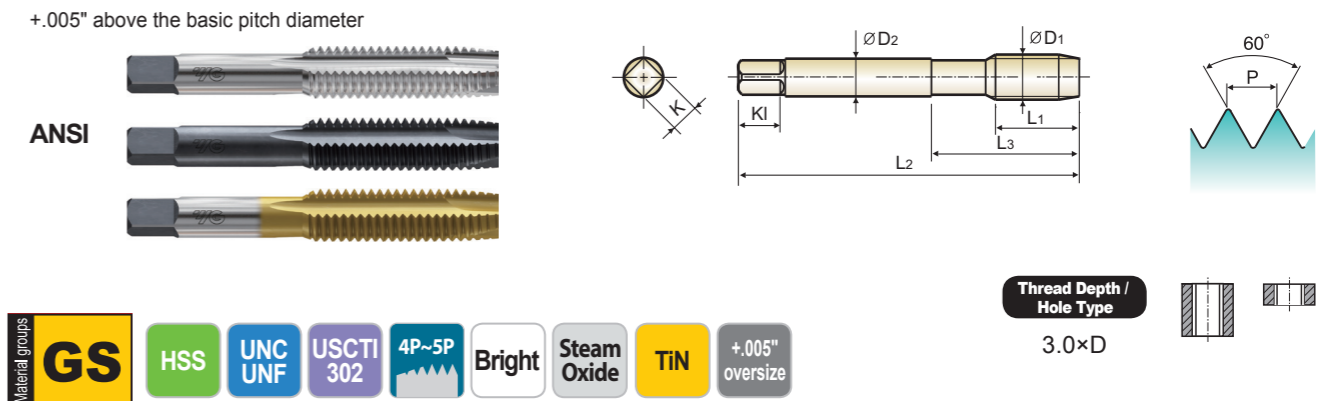
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	10	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended			○	○		○	○														



T7226/T6226/T8226 SERIES

SPIRAL POINT PLUG STYLE Oversize Tap



Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KL	No. of Flute
		Bright	Steam Oxide	TiN								
#6 - 32UNC		T7226240	T6226240	T8226240	+0.005"	2.000	.689	.965	.141	.110	.190	2
#8 - 32UNC		T7226280	T6226280	T8226280	+0.005"	2.126	.752	1.047	.168	.131	.250	2
#10 - 24UNC		T7226320	T6226320	T8226320	+0.005"	2.374	.906	1.220	.194	.152	.250	2
#10 - 32UNF		T7226340	T6226340	T8226340	+0.005"	2.374	.906	1.220	.194	.152	.250	2
1/4 - 20UNC		T7226400	T6226400	T8226400	+0.005"	2.500	1.000	1.354	.255	.191	.310	2
1/4 - 28UNF		T7226420	T6226420	T8226420	+0.005"	2.500	1.000	1.354	.255	.191	.310	2
5/16 - 18UNC		T7226440	T6226440	T8226440	+0.005"	2.720	1.126	1.500	.318	.238	.380	2
5/16 - 24UNF		T7226460	T6226460	T8226460	+0.005"	2.720	1.126	1.500	.318	.238	.380	2
3/8 - 16UNC		T7226480	T6226480	T8226480	+0.005"	2.937	1.252	1.646	.381	.286	.440	3
3/8 - 24UNF		T7226500	T6226500	T8226500	+0.005"	2.937	1.252	1.646	.381	.286	.440	3
7/16 - 14UNC		T7226520	T6226520	T8226520	+0.005"	3.157	1.437	-	.323	.242	.410	3
7/16 - 20UNF		T7226540	T6226540	T8226540	+0.005"	3.157	1.437	-	.323	.242	.410	3
1/2 - 13UNC		T7226560	T6226560	T8226560	+0.005"	3.374	1.657	-	.367	.275	.440	3
1/2 - 20UNF		T7226580	T6226580	T8226580	+0.005"	3.374	1.657	-	.367	.275	.440	3
5/8 - 11UNC		T7226640	T6226640	T8226640	+0.005"	3.811	1.811	-	.480	.360	.560	3
3/4 - 10UNC		T7226700	T6226700	T8226700	+0.005"	4.252	2.000	-	.590	.442	.690	3

◎ : Excellent ○ : Good

ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	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	◎	◎	◎	○	○	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○

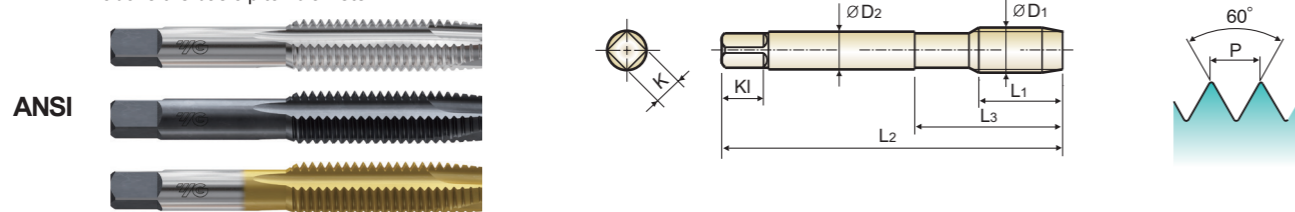
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
Material Description	21	22	23	24	25	26	27	28	29	30	31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



T7B17/T6B17/T8B17 SERIES

SPIRAL POINT PLUG STYLE Oversize Tap

+.127mm above the basic pitch diameter



Material groups: **GS** HSS M/MF USCTI 302 4P~5P Bright Steam Oxide TiN +.127mm oversize

Thread Depth / Hole Type: 3.0xD

Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	TiN								
M4 x 0.7		T7B17240	T6B17240	T8B17240	+.127MM	2.126	.756	-	.168	.131	.250	2
M4.5 x 0.75		T7B17260	T6B17260	T8B17260	+.127MM	2.374	.909	-	.194	.152	.250	2
M5 x 0.8		T7B17280	T6B17280	T8B17280	+.127MM	2.374	.933	-	.194	.152	.250	2
M6 x 1.0		T7B17310	T6B17310	T8B17310	+.127MM	2.500	.980	-	.255	.191	.310	2
M7 x 1.0		T7B17340	T6B17340	T8B17340	+.127MM	2.720	1.091	-	.318	.238	.380	2
M8 x 1.25		T7B17360	T6B17360	T8B17360	+.127MM	2.720	1.126	-	.318	.238	.380	2
M8 x 1.0		T7B17370	T6B17370	T8B17370	+.127MM	2.720	1.126	-	.318	.238	.380	2
M10 x 1.5		T7B17420	T6B17420	T8B17420	+.127MM	2.937	1.240	-	.381	.286	.440	3
M10 x 1.25		T7B17430	T6B17430	T8B17430	+.127MM	2.937	1.240	-	.381	.286	.440	3
M12 x 1.75		T7B17500	T6B17500	T8B17500	+.127MM	3.374	1.657	-	.367	.275	.440	3
M16 x 2.0		T7B17600	T6B17600	T8B17600	+.127MM	3.811	1.811	-	.480	.360	.560	3

© : Excellent ○ : Good

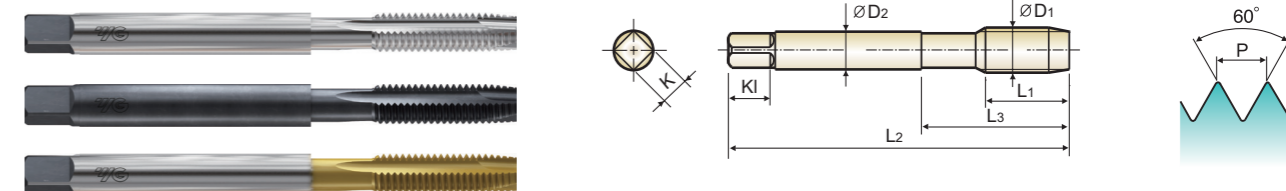
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	35	38	42	45	48	52	55	58	62	65	68	72	75	78	82	85
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								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



T7236/T6236/T8236 SERIES
T7G36/T6G36/T8G36 SERIES

SPIRAL POINT TAP, PULLEY TAPS & 6" EXTENSION



Material groups: **GS** HSS UNC UNF USCTI 4P~5P Bright Steam Oxide TiN

Thread Depth / Hole Type: 3.0xD

Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	TiN								
#6 - 32UNC		T7236243	T6236243	T8236243	H3	6.000	.689	.965	.141	.110	.190	2
#8 - 32UNC		T7236283	T6236283	T8236283	H3	6.000	.752	1.047	.168	.131	.250	2
#10 - 24UNC		T7236323	T6236323	T8236323	H3	6.000	.906	1.260	.194	.152	.250	2
#10 - 32UNF		T7236343	T6236343	T8236343	H3	6.000	.906	1.260	.194	.152	.250	2
1/4 - 20UNC		T7236403	T6236403	T8236403	H3	6.000	1.000	1.575	.255	.191	.310	2
1/4 - 28UNF		T7236423	T6236423	T8236423	H3	6.000	1.000	1.575	.255	.191	.310	2
5/16 - 18UNC		T7236443	T6236443	T8236443	H3	6.000	1.126	1.850	.318	.238	.380	2
5/16 - 24UNF		T7236463	T6236463	T8236463	H3	6.000	1.126	1.850	.318	.238	.380	2
3/8 - 16UNC		T7236483	T6236483	T8236483	H3	6.000	1.252	2.028	.381	.286	.440	3
3/8 - 24UNF		T7236503	T6236503	T8236503	H3	6.000	1.252	2.028	.381	.286	.440	3
7/16 - 14UNC		T7236523	T6236523	T8236523	H3	6.000	1.437	2.244	.444	.333	.410	3
7/16 - 20UNF		T7236543	T6236543	T8236543	H3	6.000	1.437	2.244	.444	.333	.410	3
1/2 - 13UNC		T7236563	T6236563	T8236563	H3	6.000	1.657	2.520	.507	.380	.440	3
1/2 - 20UNF		T7236583	T6236583	T8236583	H3	6.000	1.657	2.520	.507	.380	.440	3
5/8 - 11UNC		T7236643	T6236643	T8236643	H3	6.000	1.811	2.776	.633	.475	.560	3
5/16 - 18UNC		T7G36443	T6G36443	T8G36443	H3	6.000	1.126	1.850	.318	.238	.380	3
5/16 - 24UNF		T7G36463	T6G36463	T8G36463	H3	6.000	1.126	1.850	.318	.238	.380	3

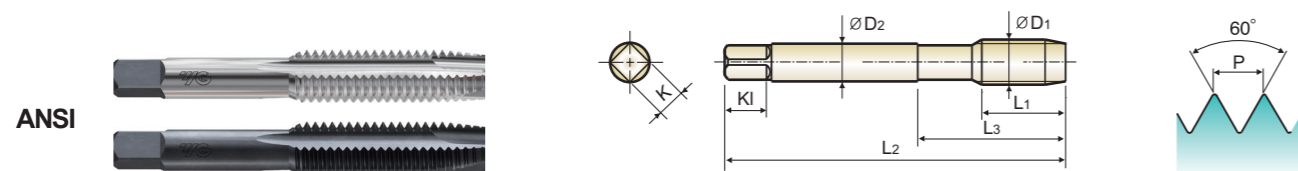
- ▶ 6" EXTENSION (#6~#10)
- ▶ Pulley Tap (1/4~3/4)

© : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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	35	38	42	45	48	52	55	58	62	65	68	72	75	78	82	85
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								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

SPIRAL POINT BOTTOMING STYLE for General Purpose



ANSI

Material groups: **GS** HSS UNC UNF USCTI 302 1.5P~2P Bright Steam Oxide

Thread Depth / Hole Type: 3.0xD

Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KL	No. of Flute
		Bright	TiN								
#0 - 80UNF		T7256021	T6256021	H1	1.634	.315	.512	.141	.110	.190	2
#0 - 80UNF		T7256022	T6256022	H2	1.634	.315	.512	.141	.110	.190	2
#1 - 64UNC		T7256042	T6256042	H2	1.693	.374	.571	.141	.110	.190	2
#1 - 72UNF		T7256061	T6256061	H1	1.693	.374	.571	.141	.110	.190	2
#1 - 72UNF		T7256062	T6256062	H2	1.693	.374	.571	.141	.110	.190	2
#2 - 56UNC		T7256081	T6256081	H1	1.752	.433	.650	.141	.110	.190	2
#2 - 56UNC		T7256082	T6256082	H2	1.752	.433	.650	.141	.110	.190	2
#3 - 48UNC		T7256122	T6256122	H2	1.811	.492	.728	.141	.110	.190	2
#3 - 56UNF		T7256142	T6256142	H2	1.811	.492	.728	.141	.110	.190	2
#4 - 40UNC		T7256162	T6256162	H2	1.874	.563	.799	.141	.110	.190	2
#4 - 48UNF		T7256182	T6256182	H2	1.874	.563	.799	.141	.110	.190	2
#5 - 40UNC		T7256202	T6256202	H2	1.937	.626	.882	.141	.110	.190	2
#5 - 44UNF		T7256222	T6256222	H2	1.937	.626	.882	.141	.110	.190	2
#6 - 32UNC		T7256242	T6256242	H2	2.000	.689	.965	.141	.110	.190	2
#6 - 32UNC		T7256243	T6256243	H3	2.000	.689	.965	.141	.110	.190	2
#6 - 32UNC		T7256247	T6256247	H7	2.000	.689	.965	.141	.110	.190	2
#6 - 40UNF		T7256262	T6256262	H2	2.000	.689	.965	.141	.110	.190	2
#8 - 32UNC		T7256282	T6256282	H2	2.126	.752	1.047	.168	.131	.250	2
#8 - 32UNC		T7256283	T6256283	H3	2.126	.752	1.047	.168	.131	.250	2
#8 - 32UNC		T7256287	T6256287	H7	2.126	.752	1.047	.168	.131	.250	2
#8 - 36UNF		T7256302	T6256302	H2	2.126	.752	1.047	.168	.131	.250	2
#10 - 24UNC		T7256322	T6256322	H2	2.374	.906	1.220	.194	.152	.250	2
#10 - 24UNC		T7256323	T6256323	H3	2.374	.906	1.220	.194	.152	.250	2
#10 - 32UNF		T7256341	T6256341	H1	2.374	.906	1.220	.194	.152	.250	2
#10 - 32UNF		T7256342	T6256342	H2	2.374	.906	1.220	.194	.152	.250	2
#10 - 32UNF		T7256343	T6256343	H3	2.374	.906	1.220	.194	.152	.250	2

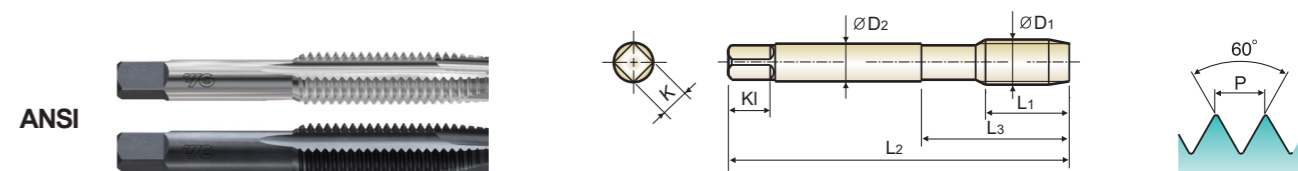
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◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended			○	○		○	○														

SPIRAL POINT BOTTOMING STYLE for General Purpose



ANSI

Material groups: **GS** HSS UNC UNF USCTI 302 1.5P~2P Bright Steam Oxide

Thread Depth / Hole Type: 3.0xD

Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KL	No. of Flute
		Bright	TiN								
#12 - 24UNC		T7256363	T6256363	H3	2.374	.906	1.220	.220	.165	.280	2
#12 - 28UNF		T7256383	T6256383	H3	2.374	.906	1.220	.220	.165	.280	2
1/4 - 20UNC		T7256403	T6256403	H3	2.500	1.000	1.354	.255	.191	.310	2
1/4 - 28UNF		T7256422	T6256422	H2	2.500	1.000	1.354	.255	.191	.310	2
1/4 - 28UNF		T7256423	T6256423	H3	2.500	1.000	1.354	.255	.191	.310	2
5/16 - 18UNC		T7256443	T6256443	H3	2.720	1.126	1.500	.318	.238	.380	2
5/16 - 24UNF		T7256463	T6256463	H3	2.720	1.126	1.500	.318	.238	.380	2
3/8 - 16UNC		T7256483	T6256483	H3	2.937	1.252	1.646	.381	.286	.440	3
3/8 - 24UNF		T7256503	T6256503	H3	2.937	1.252	1.646	.381	.286	.440	3
7/16 - 14UNC		T7256523	T6256523	H3	3.157	1.437	-	.323	.242	.410	3
7/16 - 20UNF		T7256543	T6256543	H3	3.157	1.437	-	.323	.242	.410	3
1/2 - 13UNC		T7256563	T6256563	H3	3.374	1.657	-	.367	.275	.440	3
1/2 - 20UNF		T7256583	T6256583	H3	3.374	1.657	-	.367	.275	.440	3
5/8 - 11UNC		T7256643	T6256643	H3	3.811	1.811	-	.480	.360	.560	3
5/8 - 18UNF		T7256663	T6256663	H3	3.811	1.811	-	.480	.360	.560	3
3/4 - 10UNC		T7256703	T6256703	H3	4.252	2.000	-	.590	.442	.690	3
3/4 - 16UNF		T7256723	T6256723	H3	4.252	2.000	-	.590	.442	.690	3

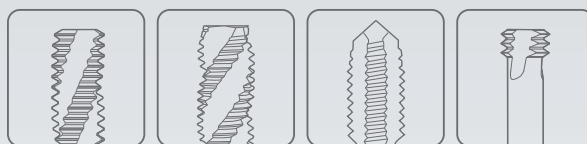
◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30	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										
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended			○	○		○	○														



Global Cutting Tool Leader **YG-1**



THREADING



Being the best through innovation

HSS-PM, HSS-E & HSS

YG TAP FORMING

- For Forming Ductile Materials

SELECTION GUIDE



HSS-PM, HSS-E & HSS YG TAP FORMING

- For Forming Ductile Materials

Please visit globalyg1.com/mat for material search

Table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES, SURFACE TREATMENT / COATING, MODEL.

Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES, SURFACE TREATMENT / COATING, MODEL, and various tap models (Z1-Z7, Z8) with their respective material compatibility and surface treatments.

SELECTION GUIDE



HSS-PM, HSS-E & HSS YG TAP FORMING

- For Forming Ductile Materials



Please visit globalyg1.com/mat for material search

Table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and HOLE TYPE. It lists various materials like Non-alloy steel, Low alloy steel, Stainless steel, Grey cast iron, Aluminum-wrought alloy, Copper and Copper Alloys, Titanium Alloys, and Hardened steel.

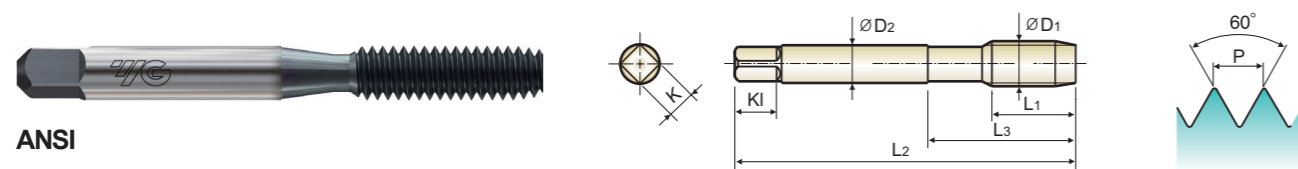
Table with columns: HOLE TYPE, TOOL MATERIAL (HSS-E), CHAMFER LEAD ACC. TO DIN2197 (4P-5P, 1.5P-2P), FLUTE TYPE, SPIRAL FLUTE ANGLE, and SURFACE TREATMENT / COATING (TIN, TiCN, Bright).

Table with columns: MODEL, and a grid of suitability indicators (circles with checkmarks or empty) for different materials and hole types.

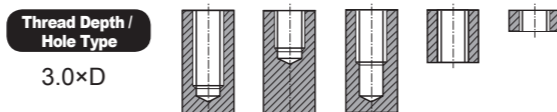
Table with columns: HOLE TYPE, TOOL MATERIAL (HSS-E, HSS), CHAMFER LEAD ACC. TO DIN2197 (4P-5P, 1.5P-2P), FLUTE TYPE, SPIRAL FLUTE ANGLE, and SURFACE TREATMENT / COATING (TIN, TiCN, Bright).

Table with columns: MODEL, and a grid of suitability indicators (circles with checkmarks or empty) for different materials and hole types.

FORMING TAPS MODIFIED BOTTOMING STYLE



ANSI



Unit : Inch

Size	TPI	EDP No.	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobes
D1		Class of fit 2B (TiCN)		L2	L1	L3	D2	K	KI	
#4 - 40UNC		TKR03163	H3	1.874	.563	.799	.141	.110	.190	4
#4 - 40UNC		TKR03165	H5	1.937	.626	.882	.141	.110	.190	4
#5 - 40UNC		TKR03203	H3	2.000	.480	.689	.168	.110	.190	4
#5 - 40UNC		TKR03205	H5	2.126	.500	.752	.168	.131	.250	4
#6 - 32UNC		TKR03243	H3	2.374	.630	.906	.194	.152	.250	4
#6 - 32UNC		TKR03245	H5	2.374	.630	.906	.194	.152	.250	4
#8 - 32UNC		TKR03283	H3	2.500	.858	1.000	.255	.191	.310	4
#8 - 32UNC		TKR03285	H5	2.500	.858	1.000	.255	.191	.310	4
#10 - 24UNC		TKR03324	H4	2.720	.929	1.126	.318	.238	.380	4
#10 - 24UNC		TKR03326	H6	2.720	.929	1.126	.318	.238	.380	4
#10 - 32UNF		TKR03344	H4	2.937	.980	1.252	.381	.286	.440	4
#10 - 32UNF		TKR03346	H6	2.937	.980	1.252	.381	.286	.440	4
1/4 - 20UNC		TKR03404	H4	1.874	.563	.799	.141	.110	.190	4
1/4 - 20UNC		TKR03406	H6	1.937	.626	.882	.141	.110	.190	4
1/4 - 28UNF		TKR03424	H4	2.000	.480	.689	.168	.110	.190	4
1/4 - 28UNF		TKR03426	H6	2.126	.500	.752	.168	.131	.250	4
5/16 - 18UNC		TKR03445	H5	2.374	.630	.906	.194	.152	.250	4
5/16 - 18UNC		TKR03447	H7	2.374	.630	.906	.194	.152	.250	4
5/16 - 24UNF		TKR03465	H5	2.500	.858	1.000	.255	.191	.310	4
5/16 - 24UNF		TKR03467	H7	2.500	.858	1.000	.255	.191	.310	4
3/8 - 16UNC		TKR03485	H5	2.720	.929	1.126	.318	.238	.380	4
3/8 - 16UNC		TKR03487	H7	2.720	.929	1.126	.318	.238	.380	4
3/8 - 24UNF		TKR03505	H5	2.937	.980	1.252	.381	.286	.440	4
3/8 - 24UNF		TKR03507	H7	2.937	.980	1.252	.381	.286	.440	4

◎: Excellent ○: Good

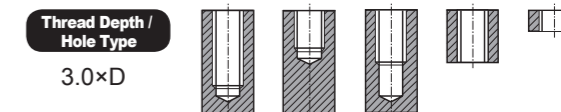
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30	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											
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
VDI 3323																						
HRc											15	30	25	38	34			55	60	42	55	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	
Recommended	◎	◎	◎	◎	◎	◎	◎	◎														

MINIATURE FORMING TAPS MODIFIED BOTTOMING STYLE



ANSI



Unit : Inch

Size	TPI	EDP No.	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobes
D1		Bright		L2	L1	L3	D2	K	KI	
#00 - 90UNC		ZFM52	H2	1.634	.250	-	.141	.110	.190	4
#00 - 90UNC		ZFM53	H3	1.634	.250	-	.141	.110	.190	4
#00 - 96UNF		ZFM82	H2	1.634	.250	-	.141	.110	.190	4
#00 - 96UNF		ZFM83	H3	1.634	.250	-	.141	.110	.190	4
#0 - 80UNF		ZF022	H2	1.634	.315	-	.141	.110	.190	4
#0 - 80UNF		ZF023	H3	1.634	.315	-	.141	.110	.190	4
#0 - 80UNF		ZF024	H4	1.634	.315	-	.141	.110	.190	4
#1 - 64UNC		ZF042	H2	1.693	.374	-	.141	.110	.190	4
#1 - 64UNC		ZF043	H3	1.693	.374	-	.141	.110	.190	4
#1 - 64UNC		ZF044	H4	1.693	.374	-	.141	.110	.190	4
#1 - 72UNF		ZF062	H2	1.693	.374	-	.141	.110	.190	4
#1 - 72UNF		ZF063	H3	1.693	.374	-	.141	.110	.190	4
#1 - 72UNF		ZF064	H4	1.693	.374	-	.141	.110	.190	4
#2 - 56UNC		ZF082	H2	1.752	.433	-	.141	.110	.190	4
#2 - 56UNC		ZF083	H3	1.752	.433	-	.141	.110	.190	4
#2 - 56UNC		ZF084	H4	1.752	.433	-	.141	.110	.190	4
#2 - 64UNF		ZF102	H2	1.752	.433	-	.141	.110	.190	4
#2 - 64UNF		ZF103	H3	1.752	.433	-	.141	.110	.190	4
#2 - 64UNF		ZF104	H4	1.752	.433	-	.141	.110	.190	4
#3 - 48UNC		ZF122	H2	1.811	.492	-	.141	.110	.190	4
#3 - 48UNC		ZF123	H3	1.811	.492	-	.141	.110	.190	4
#3 - 48UNC		ZF124	H4	1.811	.492	-	.141	.110	.190	4
#3 - 48UNC		ZF125	H5	1.811	.492	-	.141	.110	.190	4
#3 - 56UNF		ZF142	H2	1.811	.492	-	.141	.110	.190	4
#3 - 56UNF		ZF143	H3	1.811	.492	-	.141	.110	.190	4
#3 - 56UNF		ZF144	H4	1.811	.492	-	.141	.110	.190	4
#3 - 56UNF		ZF145	H5	1.811	.492	-	.141	.110	.190	4

◎: Excellent ○: Good

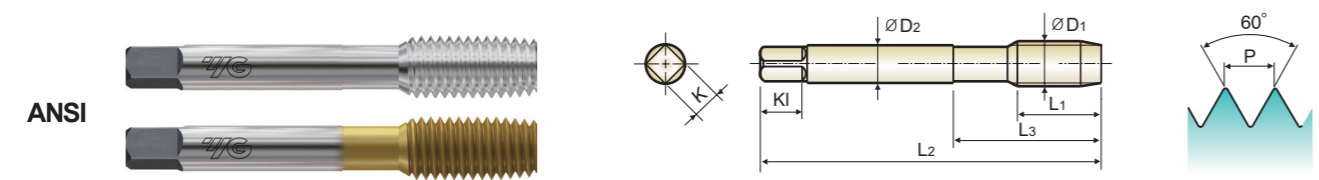
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30	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											
	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					
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
VDI 3323																						
HRc											15	30	25	38	34			55	60	42	55	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	
Recommended	◎	◎	◎	◎	◎	◎	◎	◎														



Z0/Z1/Z2/Z3 SERIES

FORMING TAPS PLUG & BOTTOMING STYLE



A variety of H Limit. Material groups: GV, HSS-E, UNC UNF, USCTI 302A, 4P~5P Plug, 1.5P~2P Bottoming, Bright, TiN. Thread Depth / Hole Type: 3.0xD.

Table with 14 columns: Size (D1, TPI), EDP No. (Plug/Bottom), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Lobes.

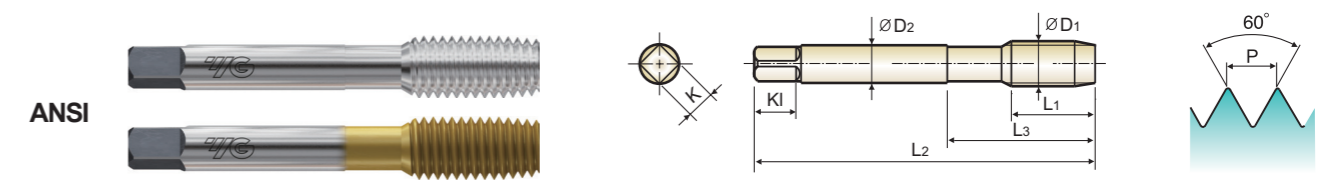
▶ Hardslck coating is available on your request (Bright Finish EDP No + H) ▶ NEXT PAGE

Material compatibility chart with columns for ISO, Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), N (Aluminum-wrought alloy, Aluminum-cast, alloyed, Copper and Copper Alloys, Non Metallic Materials), S (Heat Resistant Super Alloys, Titanium Alloys), H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).



Z0/Z1/Z2/Z3 SERIES

FORMING TAPS PLUG & BOTTOMING STYLE



A variety of H Limit. Material groups: GV, HSS-E, UNC UNF, USCTI 302A, 4P~5P Plug, 1.5P~2P Bottoming, Bright, TiN. Thread Depth / Hole Type: 3.0xD.

Table with 14 columns: Size (D1, TPI), EDP No. (Plug/Bottom), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Lobes.

▶ Hardslck coating is available on your request (Bright Finish EDP No + H) ▶ NEXT PAGE

Material compatibility chart with columns for ISO, Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), N (Aluminum-wrought alloy, Aluminum-cast, alloyed, Copper and Copper Alloys, Non Metallic Materials), S (Heat Resistant Super Alloys, Titanium Alloys), H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

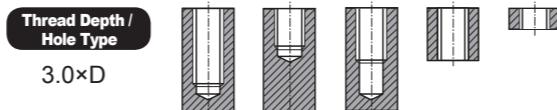


Z0/Z1/Z2/Z3 SERIES

FORMING TAPS PLUG & BOTTOMING STYLE



A variety of H Limit



Unit : Inch

Size	TPI	EDP No.				Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobes
		Plug		Bottom									
		Bright	TiN	Bright	TiN								
1/2 - 20UNF		Z0585	Z1585	Z2585	Z3585	H5	3.374	1.000	1.594	.367	.275	.440	4
1/2 - 20UNC		Z0588	Z1588	Z2588	Z3588	H8	3.374	1.000	1.594	.367	.275	.440	4
9/16 - 12UNC		Z0607	Z1607	Z2607	Z3607	H7	3.594	1.000	1.657	.429	.322	.500	4
9/16 - 12UNF		Z0600	Z1600	Z2600	Z3600	H10	3.594	1.000	1.657	.429	.322	.500	4
9/16 - 18UNF		Z0628	Z1628	Z2628	Z3628	H8	3.594	1.000	1.657	.429	.322	.500	4
9/16 - 18UNC		Z0620	Z1620	Z2620	Z3620	H10	3.594	1.000	1.657	.429	.322	.500	4
5/8 - 11UNC		Z0648	Z1648	Z2648	Z3648	H8	3.811	1.000	1.811	.480	.360	.560	4
5/8 - 11UNF		Z0640	Z1640	Z2640	Z3640	H10	3.811	1.000	1.811	.480	.360	.560	4
5/8 - 18UNF		Z0660	Z1660	Z2660	Z3660	H10	3.811	1.000	1.811	.480	.360	.560	4
3/4 - 10UNC		Z0700	Z1700	Z2700	Z3700	H10	4.252	1.000	2.000	.590	.442	.690	4
3/4 - 10UNF		Z070B	Z170B	Z270B	Z370B	H12	4.252	1.000	2.000	.590	.442	.690	4
3/4 - 16UNF		Z0728	Z1728	Z2728	Z3728	H8	4.252	1.000	2.000	.590	.442	.690	4
3/4 - 16UNF		Z0720	Z1720	Z2720	Z3720	H10	4.252	1.000	2.000	.590	.442	.690	4

▶ Hardslck coating is available on your request (Bright Finish EDP No + H)

◎ : Excellent ○ : Good

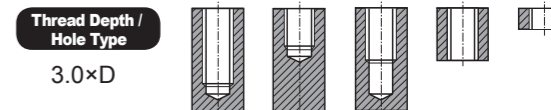
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	35	10	29	32	38	15	35	15	23	10	10	26	3	25	3	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			15	30	25	38	34	400Rm	1050Rm	55	60	42	55
Recommended	◎	◎	◎	◎	◎	◎	◎														



Z4/Z5/Z6/Z7 SERIES

FORMING TAPS WITH OIL GROOVE PLUG & BOTTOMING STYLE



Unit : Inch

Size	TPI	EDP No.				Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobes
		Plug		Bottom									
		Bright	TiN	Bright	TiN								
#4 - 40UNC		Z4163	Z5163	Z6163	Z7163	H3	1.874	.563	.799	.141	.110	.190	4
#4 - 40UNC		Z4165	Z5165	Z6165	Z7165	H5	1.874	.563	.799	.141	.110	.190	4
#4 - 48UNF		Z4183	Z5183	Z6183	Z7183	H3	1.874	.563	.799	.141	.110	.190	4
#4 - 48UNF		Z4185	Z5185	Z6185	Z7185	H5	1.874	.563	.799	.141	.110	.190	4
#5 - 40UNC		Z4203	Z5203	Z6203	Z7203	H3	1.937	.626	.882	.141	.110	.190	4
#5 - 40UNC		Z4205	Z5205	Z6205	Z7205	H5	1.937	.626	.882	.141	.110	.190	4
#5 - 44UNF		Z4225	Z5225	Z6225	Z7225	H5	1.937	.626	.882	.141	.110	.190	4
#6 - 32UNC		Z4243	Z5243	Z6243	Z7243	H3	2.000	.480	.689	.141	.110	.190	4
#6 - 32UNC		Z4245	Z5245	Z6245	Z7245	H5	2.000	.480	.689	.141	.110	.190	4
#6 - 40UNF		Z4263	Z5263	Z6263	Z7263	H3	2.000	.480	.689	.141	.110	.190	4
#6 - 40UNF		Z4265	Z5265	Z6265	Z7265	H5	2.000	.480	.689	.141	.110	.190	4
#8 - 32UNC		Z4283	Z5283	Z6283	Z7283	H3	2.126	.500	.752	.168	.131	.250	4
#8 - 32UNC		Z4285	Z5285	Z6285	Z7285	H5	2.126	.500	.752	.168	.131	.250	4
#8 - 36UNF		Z4303	Z5303	Z6303	Z7303	H3	2.126	.500	.752	.168	.131	.250	4
#8 - 36UNF		Z4305	Z5305	Z6305	Z7305	H5	2.126	.500	.752	.168	.131	.250	4
#10 - 24UNC		Z4324	Z5324	Z6324	Z7324	H4	2.374	.630	.906	.194	.152	.250	4
#10 - 24UNC		Z4326	Z5326	Z6326	Z7326	H6	2.374	.630	.906	.194	.152	.250	4
#10 - 32UNF		Z4344	Z5344	Z6344	Z7344	H4	2.374	.630	.906	.194	.152	.250	4
#10 - 32UNF		Z4346	Z5346	Z6346	Z7346	H6	2.374	.630	.906	.194	.152	.250	4
#12 - 24UNC		Z4364	Z5364	Z6364	Z7364	H4	2.374	.630	.906	.220	.165	.280	4
#12 - 24UNC		Z4366	Z5366	Z6366	Z7366	H6	2.374	.630	.906	.220	.165	.280	4
1/4 - 20UNC		Z4404	Z5404	Z6404	Z7404	H4	2.500	.858	1.000	.255	.191	.310	4
1/4 - 20UNC		Z4406	Z5406	Z6406	Z7406	H6	2.500	.858	1.000	.255	.191	.310	4
1/4 - 28UNF		Z4424	Z5424	Z6424	Z7424	H4	2.500	.858	1.000	.255	.191	.310	4
1/4 - 28UNF		Z4426	Z5426	Z6426	Z7426	H6	2.720	.858	1.000	.255	.191	.310	4
5/16 - 18UNC		Z4445	Z5445	Z6445	Z7445	H5	2.720	.929	1.126	.318	.238	.380	4

▶ Hardslck coating is available on your request (Bright Finish EDP No + H)

▶ NEXT PAGE

◎ : Excellent ○ : Good

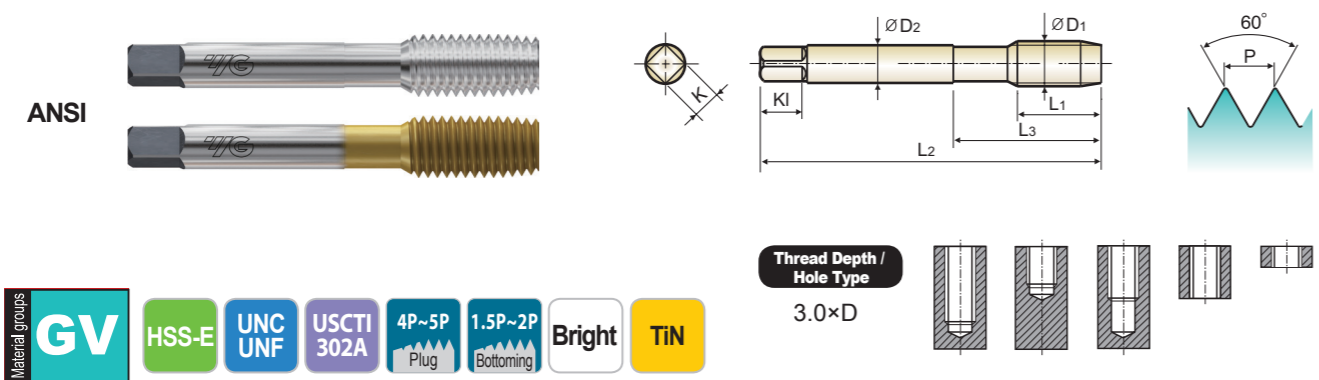
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	35	10	29	32	38	15	35	15	23	10	10	26	3	25	3	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			15	30	25	38	34	400Rm	1050Rm	55	60	42	55
Recommended	◎	◎	◎	◎	◎	◎	◎														



Z4/Z5/Z6/Z7 SERIES

FORMING TAPS WITH OIL GROOVE PLUG & BOTTOMING STYLE



Size	TPI	EDP No.				Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobes
		Plug		Bottom									
D1		Bright	TiN	Bright	TiN	L2	L1	L3	D2	K	KI		
5/16 - 18UNC	Z4447	Z5447	Z6447	Z7447	H7	2.720	.929	1.126	.318	.238	.380	4	
5/16 - 24UNF	Z4465	Z5465	Z6465	Z7465	H5	2.720	.929	1.126	.318	.238	.380	4	
5/16 - 24UNF	Z4467	Z5467	Z6467	Z7467	H7	2.937	.929	1.126	.318	.238	.380	4	
3/8 - 16UNC	Z4485	Z5485	Z6485	Z7485	H5	2.937	.980	1.252	.3810	.286	.440	4	
3/8 - 16UNC	Z4487	Z5487	Z6487	Z7487	H7	2.937	.980	1.252	.3810	.286	.440	4	
3/8 - 24UNF	Z4505	Z5505	Z6505	Z7505	H5	2.937	.980	1.252	.3810	.286	.440	4	
3/8 - 24UNF	Z4507	Z5507	Z6507	Z7507	H7	2.937	.980	1.252	.3810	.286	.440	4	
7/16 - 14UNC	Z4528	Z5528	Z6528	Z7528	H8	3.157	.949	1.437	.323	.242	.410	4	
7/16 - 20UNF	Z4548	Z5548	Z6548	Z7548	H8	3.157	.949	1.437	.323	.242	.410	4	
1/2 - 13UNC	Z4565	Z5565	Z6565	Z7565	H5	3.374	1.000	1.594	.367	.275	.440	4	
1/2 - 13UNC	Z4568	Z5568	Z6568	Z7568	H8	3.374	1.000	1.594	.367	.275	.440	4	
1/2 - 20UNF	Z4585	Z5585	Z6585	Z7585	H5	3.374	1.000	1.594	.367	.275	.440	4	
1/2 - 20UNC	Z4588	Z5588	Z6588	Z7588	H8	3.374	1.000	1.594	.367	.275	.440	4	
9/16 - 12UNC	Z4607	Z5607	Z6607	Z7607	H7	3.594	1.000	1.657	.429	.322	.500	4	
9/16 - 12UNC	Z4600	Z5600	Z6600	Z7600	H10	3.594	1.000	1.657	.429	.322	.500	4	
9/16 - 18UNF	Z4628	Z5628	Z6628	Z7628	H8	3.594	1.000	1.657	.429	.322	.500	4	
9/16 - 18UNF	Z4620	Z5620	Z6620	Z7620	H10	3.594	1.000	1.657	.429	.322	.500	4	
5/8 - 11UNC	Z4648	Z5648	Z6648	Z7648	H8	3.811	1.000	1.811	.480	.360	.560	4	
5/8 - 11UNC	Z4640	Z5640	Z6640	Z7640	H10	3.811	1.000	1.811	.480	.360	.560	4	
5/8 - 18UNF	Z4660	Z5660	Z6660	Z7660	H10	3.811	1.000	1.811	.480	.360	.560	4	
3/4 - 10UNC	Z4700	Z5700	Z6700	Z7700	H10	4.252	1.000	2.000	.590	.442	.690	4	
3/4 - 10UNC	Z470B	Z570B	Z670B	Z770B	H12	4.252	1.000	2.000	.590	.442	.690	4	
3/4 - 16UNF	Z4728	Z5728	Z6728	Z7728	H8	4.252	1.000	2.000	.590	.442	.690	4	
3/4 - 16UNF	Z4720	Z5720	Z6720	Z7720	H10	4.252	1.000	2.000	.590	.442	.690	4	

▶ Hardslck coating is available on your request (Bright Finish EDP No + H)

◎ : Excellent ○ : Good

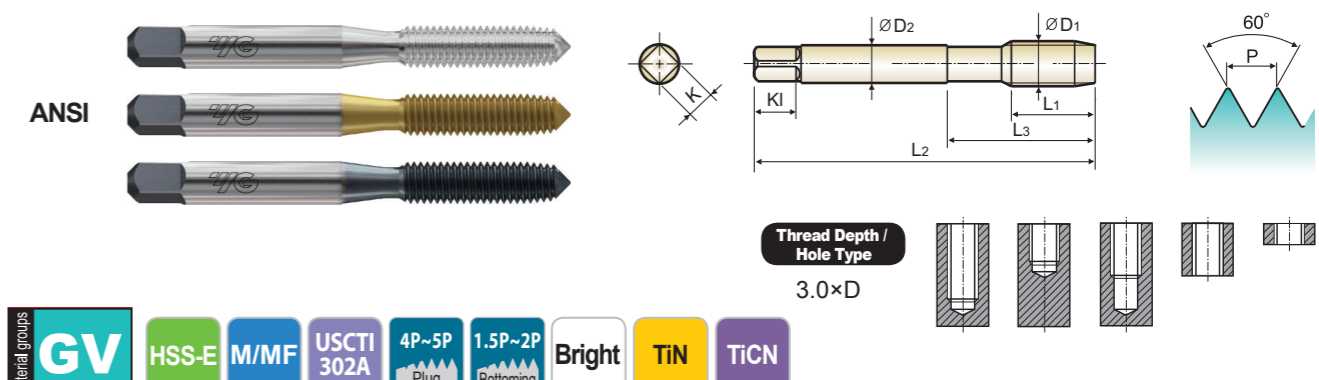
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	○	○		◎	◎														



Z8/ZA/ZC SERIES
Z9/ZB/ZD SERIES

FORMING TAPS WITH OIL GROOVE PLUG & BOTTOMING STYLE



Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobes
		Plug		Bottom								
D1		Bright	TiN	TiCN	L2	L1	L3	D2	K	KI		
M3 x 0.5	Z8205	ZA205	ZC205	D5	1.937	.618	.882	.141	.110	.190	4	
M4 x 0.7	Z8246	ZA246	ZC246	D6	2.126	.500	.752	.168	.131	.250	4	
M5 x 0.8	Z8287	ZA287	ZC287	D7	2.374	.630	.906	.194	.152	.250	4	
M6 x 1.0	Z8318	ZA318	ZC318	D8	2.500	.858	1.000	.255	.191	.310	4	
M8 x 1.25	Z8369	ZA369	ZC369	D9	2.720	.929	1.126	.318	.238	.380	4	
M10 x 1.5	Z8420	ZA420	ZC420	D10	2.937	.980	1.252	.381	.286	.440	4	
M12 x 1.75	Z850A	ZA50A	ZC50A	D11	3.374	1.000	1.594	.367	.275	.440	4	

Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobes
		Bottom										
D1		Bright	TiN	TiCN	L2	L1	L3	D2	K	KI		
M2 x 0.4	Z9133	ZB133	ZD133	D3	1.752	.394	-	.141	.110	.190	4	
M3 x 0.5	Z9205	ZB205	ZD205	D5	1.937	.618	.882	.141	.110	.190	4	
M4 x 0.7	Z9246	ZB246	ZD246	D6	2.126	.500	.752	.168	.131	.250	4	
M5 x 0.8	Z9287	ZB287	ZD287	D7	2.374	.630	.906	.194	.152	.250	4	
M6 x 1.0	Z9318	ZB318	ZD318	D8	2.500	.858	1.000	.255	.191	.310	4	
M8 x 1.25	Z9369	ZB369	ZD369	D9	2.720	.929	1.126	.318	.238	.380	4	
M10 x 1.5	Z9420	ZB420	ZD420	D10	2.937	.980	1.252	.381	.286	.440	4	
M12 x 1.75	Z950A	ZB50A	ZD50A	D11	3.374	1.000	1.594	.367	.275	.440	4	

▶ Hardslck coating is available on your request (Bright Finish EDP No + H)

◎ : Excellent ○ : Good

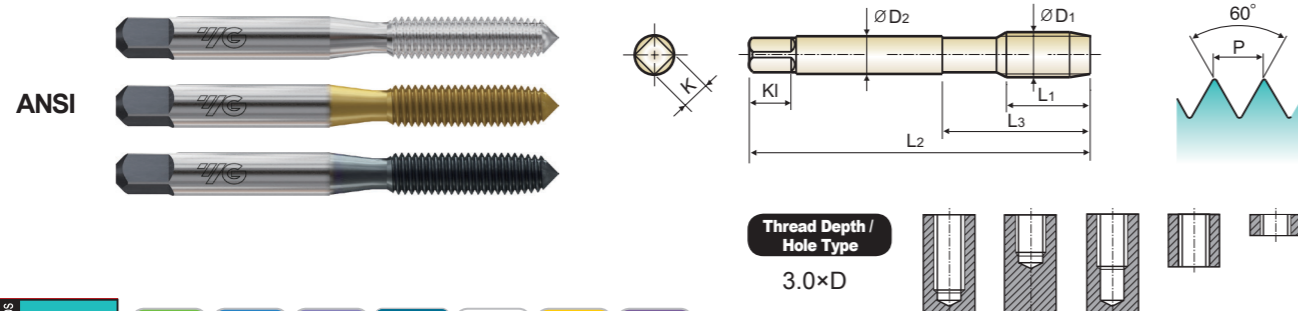
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	○	○		◎	◎														



T7R01/T8R01/THR01 SERIES

FORMING TAPS PLUG STYLE
for General Purpose



Material groups: **GV** HSS UNC UNF USCTI 302A 4P~5P Plug Bright TiN TiCN

Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobes
		Bright	TiN	TiCN								
#4	- 40UNC	T7R01163	T8R01163	THR01163	H3	1.874	.563	.799	.141	.110	.190	4
#5	- 40UNC	T7R01203	T8R01203	THR01203	H3	1.937	.626	.882	.141	.110	.190	4
#6	- 32UNC	T7R01243	T8R01243	THR01243	H3	2.000	.480	.689	.141	.110	.190	4
#8	- 32UNC	T7R01283	T8R01283	THR01283	H3	2.126	.500	.752	.168	.131	.250	4
#10	- 24UNC	T7R01324	T8R01324	THR01324	H4	2.374	.630	.906	.194	.152	.250	4
#10	- 32UNF	T7R01344	T8R01344	THR01344	H4	2.374	.630	.906	.194	.152	.250	4
1/4	- 20UNC	T7R01404	T8R01404	THR01404	H4	2.500	.858	1.000	.255	.191	.310	4
1/4	- 28UNF	T7R01424	T8R01424	THR01424	H4	2.500	.858	1.000	.255	.191	.310	4
5/16	- 18UNC	T7R01445	T8R01445	THR01445	H5	2.720	.929	1.126	.318	.238	.380	4
3/8	- 16UNC	T7R01485	T8R01485	THR01485	H5	2.937	.980	1.252	.381	.286	.440	4

© : Excellent ○ : Good

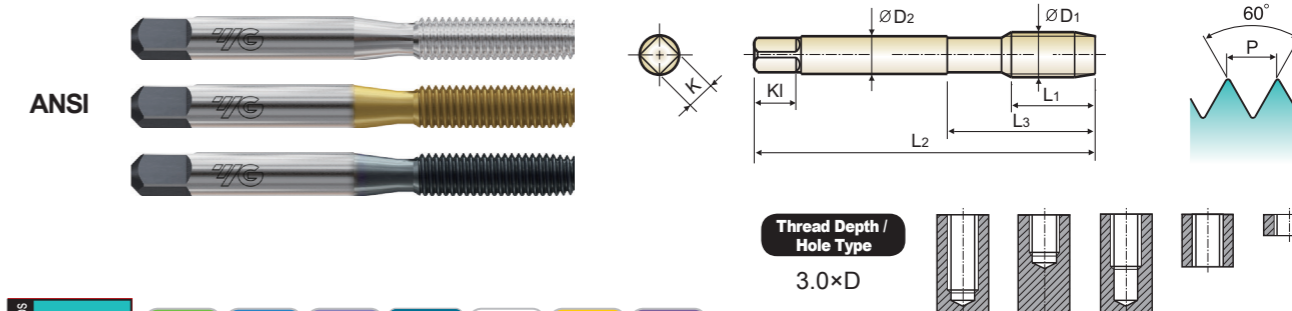
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	38	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	◎	◎	◎	◎														



T7R02/T8R02/THR02 SERIES

FORMING TAPS BOTTOMING STYLE
for General Purpose



Material groups: **GV** HSS UNC UNF USCTI 302A 1.5P~2P Bottoming Bright TiN TiCN

Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobes
		Bright	TiN	TiCN								
#0	- 80UNF	T7R02022	T8R02022	THR02022	H2	1.634	.315	.512	.141	.110	.190	4
#2	- 56UNC	T7R02082	T8R02082	THR02082	H2	1.752	.433	.650	.141	.110	.190	4
#3	- 48UNC	T7R02123	T8R02123	THR02123	H3	1.811	.492	.728	.141	.110	.190	4
#4	- 40UNC	T7R02163	T8R02163	THR02163	H3	1.874	.563	.799	.141	.110	.190	4
#5	- 40UNC	T7R02203	T8R02203	THR02203	H3	1.937	.626	.882	.141	.110	.190	4
#6	- 32UNC	T7R02243	T8R02243	THR02243	H3	2.000	.480	.689	.141	.110	.190	4
#8	- 32UNC	T7R02283	T8R02283	THR02283	H3	2.126	.500	.752	.168	.131	.250	4
#10	- 24UNC	T7R02324	T8R02324	THR02324	H4	2.374	.630	.906	.194	.152	.250	4
#10	- 32UNF	T7R02344	T8R02344	THR02344	H4	2.374	.630	.906	.194	.152	.250	4
1/4	- 20UNC	T7R02404	T8R02404	THR02404	H4	2.500	.858	1.000	.255	.191	.310	4
1/4	- 28UNF	T7R02424	T8R02424	THR02424	H4	2.500	.858	1.000	.255	.191	.310	4
5/16	- 18UNC	T7R02445	T8R02445	THR02445	H5	2.720	.929	1.126	.318	.238	.380	4
3/8	- 16UNC	T7R02485	T8R02485	THR02485	H5	2.937	.980	1.252	.381	.286	.440	4

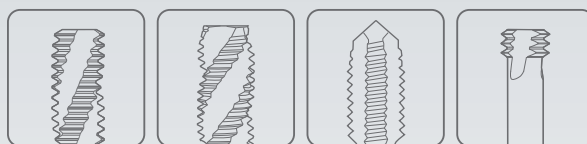
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ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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	38	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	◎	◎	◎	◎														



Global Cutting Tool Leader **YG-1**



THREADING



Being the best through innovation

HSS-E & HSS

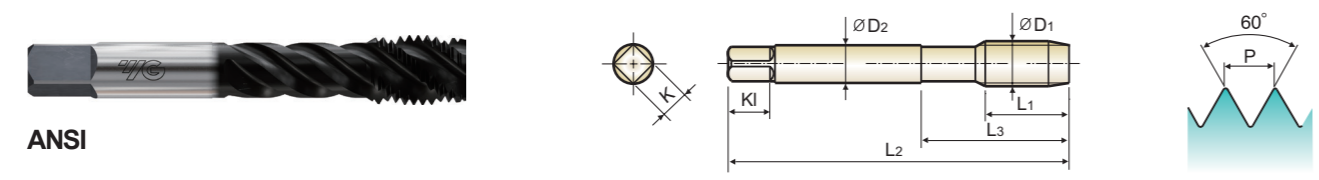
SCREW THREAD INSERT TAP

- For Tapping STI Threads

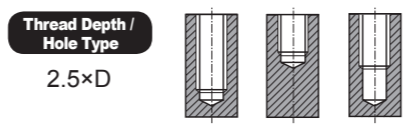
YG SCREW THREAD INSERT TAP

ST/SI SERIES

SPIRAL FLUTE STI TAP BOTTOMING STYLE



Material groups: **GS** HSS-E UNC UNF USCTI 322 1.5P~2P Hardslick R40



Unit : Inch

Size	TPI	EDP No.	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
D1		Hardslick		L2	L1	L3	D2	K	Kl	
#4 - 40UNC		ST162	2B	2.000	.276	.689	.141	.110	.190	3
#4 - 48UNF		SI182	2B	2.000	.276	.689	.141	.110	.190	3
#5 - 40UNC		ST202	2B	2.126	.276	.752	.168	.131	.250	3
#5 - 44UNF		SI222	2B	2.126	.276	.752	.168	.131	.250	3
#6 - 32UNC		ST242	2B	2.374	.354	.906	.194	.152	.250	3
#6 - 40UNF		SI262	2B	2.126	.276	.752	.168	.131	.250	3
#8 - 32UNC		ST282	2B	2.374	.354	.906	.220	.165	.280	3
#8 - 36UNF		SI302	2B	2.374	.354	.906	.220	.165	.280	3
#10 - 24UNC		ST322	2B	2.500	.433	1.000	.255	.191	.310	3
#10 - 32UNF		SI342	2B	2.500	.433	1.000	.255	.191	.310	3
#12 - 24UNC		ST362	2B	2.720	.472	1.126	.318	.238	.380	3
#12 - 28UNF		SI382	2B	2.720	.472	1.126	.318	.238	.380	3
1/4 - 20UNC		ST402	2B	2.720	.472	1.126	.318	.238	.380	3
1/4 - 28UNF		SI422	2B	2.720	.472	1.126	.318	.238	.380	3
5/16 - 18UNC		ST442	2B	2.937	.551	1.252	.381	.286	.440	3
5/16 - 24UNF		SI462	2B	2.937	.551	1.252	.381	.286	.440	3
3/8 - 16UNC		ST482	2B	3.374	.630	2.067	.367	.275	.440	3
3/8 - 24UNF		SI502	2B	3.157	.591	1.850	.323	.242	.410	3
7/16 - 14UNC		ST522	2B	3.594	.709	2.067	.429	.322	.500	3
7/16 - 20UNF		SI542	2B	3.374	.630	2.067	.367	.275	.440	3
1/2 - 13UNC		ST562	2B	3.811	.748	2.205	.480	.360	.560	3
1/2 - 20UNF		SI582	2B	3.594	.709	2.067	.429	.322	.500	3
9/16 - 12UNC		ST602	2B	4.031	.748	2.205	.542	.406	.630	4
9/16 - 18UNF		SI622	2B	3.811	.748	2.205	.480	.360	.560	4
5/8 - 11UNC		ST642	2B	4.252	.827	2.480	.590	.442	.690	4
5/8 - 18UNF		SI662	2B	4.031	.748	2.205	.542	.406	.630	4
3/4 - 10UNC		ST702	2B	4.689	.827	2.815	.697	.523	.750	4
3/4 - 16UNF		SI722	2B	4.469	.827	2.480	.652	.489	.690	4

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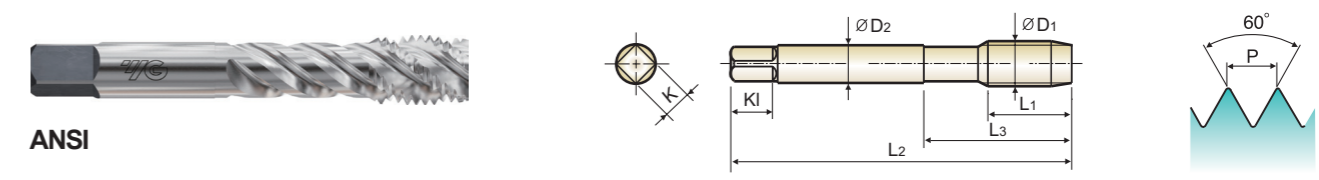
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○																	

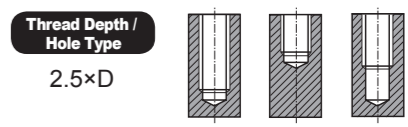
YG SCREW THREAD INSERT TAP

T7406 SERIES

SPIRAL FLUTE STI TAP BOTTOMING STYLE HIGH HELIX for General Purpose



Material groups: **GS** HSS UNC UNF USCTI 322 1.5P~2P Bright R50



Unit : Inch

Size	TPI	EDP No.	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
D1		Bright		L2	L1	L3	D2	K	Kl	
#2 - 56UNC		T7406082	H2	1.874	.236	.563	.141	.110	.190	2
#3 - 48UNC		T7406122	H2	1.937	.236	.626	.141	.110	.190	2
#4 - 40UNC		T7406162	H2	2.000	.276	.689	.141	.110	.190	2
#4 - 48UNF		T7406182	H2	2.000	.276	.689	.141	.110	.190	3
#6 - 32UNC		T7406242	H2	2.374	.354	.906	.194	.152	.250	3
#6 - 32UNF		T7406243	H3	2.374	.354	.906	.194	.152	.250	3
#6 - 40UNF		T7406262	H2	2.126	.276	.752	.168	.131	.250	3
#8 - 32UNC		T7406282	H2	2.374	.354	.906	.220	.165	.280	3
#8 - 32UNF		T7406283	H3	2.374	.354	.906	.220	.165	.280	3
#8 - 36UNF		T7406302	H2	2.374	.354	.906	.220	.165	.280	3
#10 - 24UNC		T7406322	H2	2.500	.433	1.000	.255	.191	.310	3
#10 - 24UNF		T7406323	H3	2.500	.433	1.000	.255	.191	.310	3
#10 - 32UNF		T7406342	H2	2.500	.433	1.000	.255	.191	.310	3
#10 - 32UNF		T7406343	H3	2.500	.433	1.000	.255	.191	.310	3
1/4 - 20UNC		T7406402	H2	2.720	.472	1.126	.318	.238	.380	3
1/4 - 20UNC		T7406403	H3	2.720	.472	1.126	.318	.238	.380	3
1/4 - 28UNF		T7406422	H2	2.720	.472	1.126	.318	.238	.380	3
1/4 - 28UNF		T7406423	H3	2.720	.472	1.126	.318	.238	.380	3
5/16 - 18UNC		T7406443	H3	2.937	.551	1.252	.381	.286	.440	3
5/16 - 18UNC		T7406444	H4	2.937	.551	1.252	.381	.286	.440	3
5/16 - 24UNF		T7406462	H2	2.937	.551	1.252	.381	.286	.440	3
5/16 - 24UNF		T7406463	H3	2.937	.551	1.252	.381	.286	.440	3
3/8 - 16UNC		T7406483	H3	3.374	.630	2.067	.367	.275	.440	3
3/8 - 16UNC		T7406484	H4	3.374	.630	2.067	.367	.275	.440	3
3/8 - 24UNF		T7406502	H2	3.157	.591	1.850	.323	.242	.410	3
3/8 - 24UNF		T7406503	H3	3.157	.591	1.850	.323	.242	.410	3

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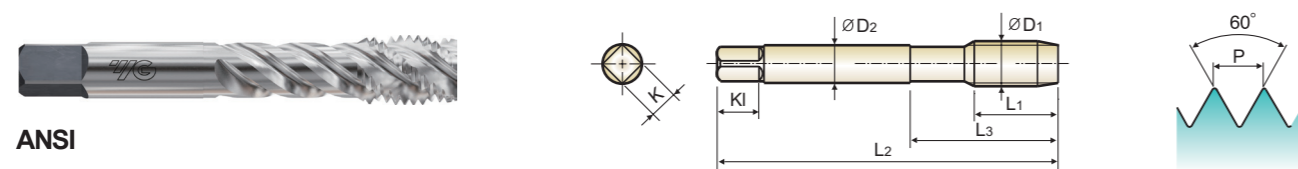
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	30	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										
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○																	

YG SCREW THREAD INSERT TAP

T7406 SERIES

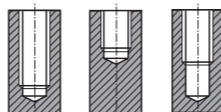
SPIRAL FLUTE STI TAP BOTTOMING STYLE HIGH HELIX for General Purpose



ANSI



Thread Depth / Hole Type
2.5×D



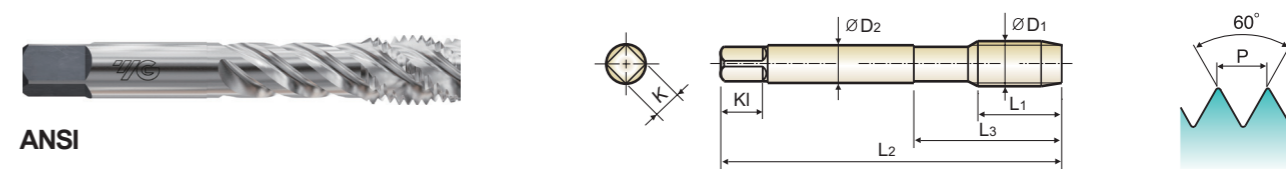
Unit : Inch

Size	TPI	EDP No.	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
				L2	L1	L3	D2	K	Kl	
7/16	- 14UNC	T7406523	H3	3.594	.709	2.067	.429	.322	.500	4
7/16	- 14UNC	T7406524	H4	3.594	.709	2.067	.429	.322	.500	4
7/16	- 20UNF	T7406543	H3	3.374	.630	2.067	.367	.275	.440	3
7/16	- 20UNF	T7406544	H4	3.374	.630	2.067	.367	.275	.440	3
1/2	- 13UNC	T7406563	H3	3.811	.748	2.205	.480	.360	.560	4
1/2	- 13UNC	T7406564	H4	3.811	.748	2.205	.480	.360	.560	4
1/2	- 20UNF	T7406583	H3	3.594	.709	2.067	.429	.322	.500	4
1/2	- 20UNF	T7406584	H4	3.594	.709	2.067	.429	.322	.500	4

YG SCREW THREAD INSERT TAP

T7425 SERIES

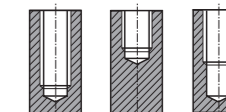
SPIRAL FLUTE STI TAP BOTTOMING STYLE HIGH HELIX for General Purpose



ANSI



Thread Depth / Hole Type
2.5×D



Unit : Inch

Size	Pitch	EDP No.	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
				L2	L1	L3	D2	K	Kl	
M2	x 0.4	T7425132	D2	1.811	.236	.563	.141	.110	.190	2
M2.5	x 0.45	T7425172	D2	2.083	.197	.646	.141	.110	.190	2
M3	x 0.5	T7425202	D2	2.000	.276	.709	.141	.110	.190	3
M4	x 0.7	T7425243	D3	2.374	.354	.933	.194	.152	.250	3
M5	x 0.8	T7425283	D3	2.500	.433	1.000	.255	.191	.310	3
M6	x 1.0	T7425313	D3	2.720	.433	1.126	.318	.238	.380	3
M8	x 1.25	T7425363	D3	2.937	.512	1.252	.381	.286	.440	3
M10	x 1.5	T7425424	D4	3.374	.591	2.067	.367	.275	.440	3
M12	x 1.75	T7425504	D4	3.594	.709	2.067	.429	.322	.500	3

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	13	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc											15	30	25	38	34	55	60	42	55		
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○																

◎ : Excellent ○ : Good

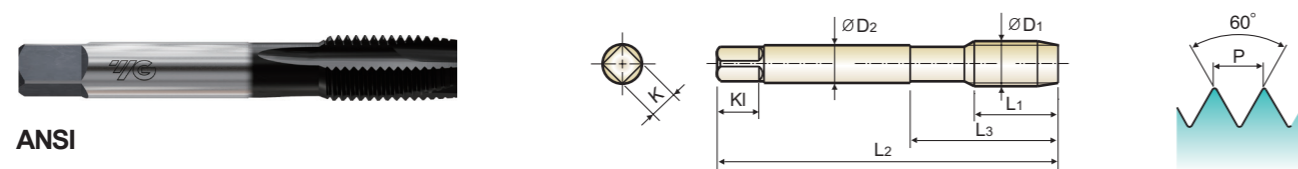
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	13	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc											15	30	25	38	34	55	60	42	55		
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○																

Y/G SCREW THREAD INSERT TAP

ST/SI SERIES

SPIRAL POINT STI TAP PLUG STYLE



ANSI



Thread Depth / Hole Type 3.0xD

Unit : Inch

Size	TPI	EDP No.	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
D1		Hardslick		L2	L1	L3	D2	K	Kl	
#4 - 40UNC		SI162	2B	2.000	.413	.689	.141	.110	.190	3
#4 - 48UNF		ST182	2B	2.000	.413	.689	.141	.110	.190	3
#6 - 32UNC		SI242	2B	2.374	.531	.906	.194	.152	.250	3
#6 - 40UNF		ST262	2B	2.126	.453	.752	.168	.131	.250	3
#8 - 32UNC		SI282	2B	2.374	.571	.906	.220	.165	.280	3
#8 - 36UNF		ST302	2B	2.374	.571	.906	.220	.165	.280	3
#10 - 24UNC		SI322	2B	2.500	.591	1.000	.255	.191	.310	3
#10 - 32UNF		ST342	2B	2.500	.591	1.000	.255	.191	.310	3
1/4 - 20UNC		SI402	2B	2.720	.669	1.126	.318	.238	.380	3
1/4 - 28UNF		ST422	2B	2.720	.669	1.126	.318	.238	.380	3
5/16 - 18UNC		SI442	2B	2.937	.748	1.252	.381	.286	.440	3
5/16 - 24UNF		ST462	2B	2.937	.748	1.252	.381	.286	.440	3
3/8 - 16UNC		SI482	2B	3.374	.984	1.657	.367	.275	.440	3
3/8 - 24UNF		ST502	2B	3.157	.866	1.437	.323	.242	.410	3
7/16 - 14UNC		SI522	2B	3.594	.984	1.657	.429	.322	.500	3
7/16 - 20UNF		ST542	2B	3.374	.984	1.657	.367	.275	.440	3
1/2 - 13UNC		SI562	2B	3.811	1.083	1.811	.480	.360	.560	3
1/2 - 20UNF		ST582	2B	3.594	.984	1.657	.429	.322	.500	3
9/16 - 12UNC		SI602	2B	4.031	1.083	1.811	.542	.406	.630	3
9/16 - 18UNF		ST622	2B	3.811	1.083	1.811	.480	.360	.560	3
5/8 - 11UNC		SI642	2B	4.252	1.201	2.000	.590	.442	.690	3
5/8 - 18UNF		ST662	2B	4.031	1.083	1.811	.542	.406	.630	3
3/4 - 10UNC		SI702	2B	4.689	1.339	2.220	.697	.523	.750	3
3/4 - 16UNF		ST722	2B	4.469	1.201	2.000	.652	.489	.690	3

◎ : Excellent ○ : Good

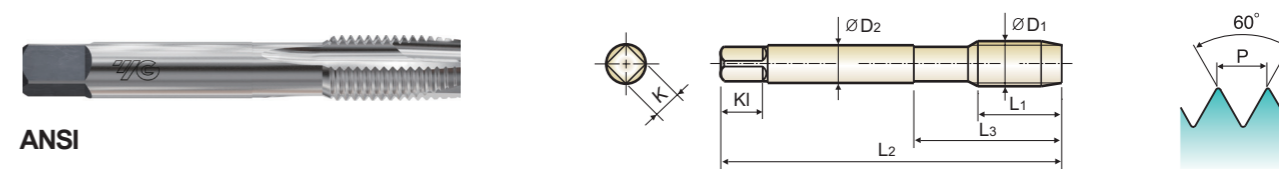
ISO	P										M				K					
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○																	

Y/G SCREW THREAD INSERT TAP

T7436 SERIES

SPIRAL POINT STI TAP PLUG STYLE for General Purpose



ANSI



Thread Depth / Hole Type 3.0xD

Unit : Inch

Size	TPI	EDP No.	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
D1		Bright		L2	L1	L3	D2	K	Kl	
#2 - 56UNC		T7436082	H2	1.874	.335	.563	.141	.110	.190	2
#3 - 48UNC		T7436122	H2	1.937	.374	.626	.141	.110	.190	2
#4 - 40UNC		T7436161	H1	2.000	.413	.689	.141	.110	.190	2
#4 - 40UNC		T7436162	H2	2.000	.413	.689	.141	.110	.190	2
#4 - 48UNF		T7436182	H2	2.000	.413	.689	.141	.110	.190	2
#5 - 40UNC		T7436202	H2	2.126	.453	.752	.168	.131	.250	2
#6 - 32UNC		T7436242	H2	2.374	.531	.906	.194	.152	.250	2
#6 - 32UNC		T7436243	H3	2.374	.531	.906	.194	.152	.250	2
#6 - 40UNF		T7436262	H2	2.126	.453	.752	.168	.131	.250	2
#8 - 32UNC		T7436282	H2	2.374	.571	.906	.220	.165	.280	2
#8 - 32UNC		T7436283	H3	2.374	.571	.906	.220	.165	.280	2
#8 - 36UNF		T7436302	H2	2.374	.571	.906	.220	.165	.280	2
#10 - 24UNC		T7436322	H2	2.500	.591	1.000	.255	.191	.310	2
#10 - 24UNC		T7436323	H3	2.500	.591	1.000	.255	.191	.310	2
#10 - 32UNF		T7436342	H2	2.500	.591	1.000	.255	.191	.310	2
#10 - 32UNF		T7436343	H3	2.500	.591	1.000	.255	.191	.310	2
1/4 - 20UNC		T7436402	H2	2.720	.669	1.126	.318	.238	.380	3
1/4 - 20UNC		T7436403	H3	2.720	.669	1.126	.318	.238	.380	3
1/4 - 28UNF		T7436422	H2	2.720	.669	1.126	.318	.238	.380	3
1/4 - 28UNF		T7436423	H3	2.720	.669	1.126	.318	.238	.380	3
5/16 - 18UNC		T7436443	H3	2.937	.748	1.252	.381	.286	.440	3
5/16 - 18UNC		T7436444	H4	2.937	.748	1.252	.381	.286	.440	3
5/16 - 24UNF		T7436462	H2	2.937	.748	1.252	.381	.286	.440	3
5/16 - 24UNF		T7436463	H3	2.937	.748	1.252	.381	.286	.440	3
3/8 - 16UNC		T7436483	H3	3.374	.984	1.657	.367	.275	.440	3
3/8 - 16UNC		T7436484	H4	3.374	.984	1.657	.367	.275	.440	3

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◎ : Excellent ○ : Good

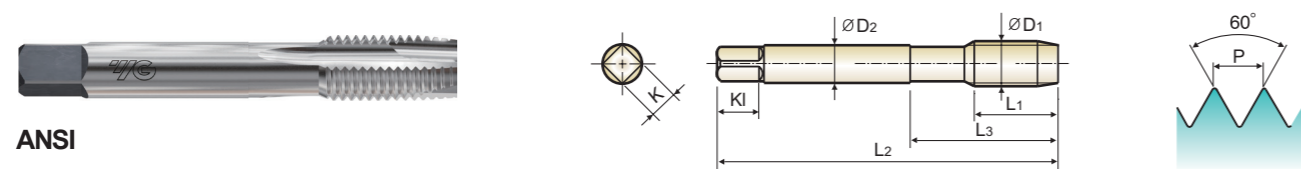
ISO	P										M				K					
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○																	

Y/G SCREW THREAD INSERT TAP

T7436 SERIES

SPIRAL POINT STI TAP PLUG STYLE for General Purpose



ANSI

Material groups: **GS** HSS UNC UNF USCTI 322 4P~5P Bright

Thread Depth / Hole Type 3.0×D

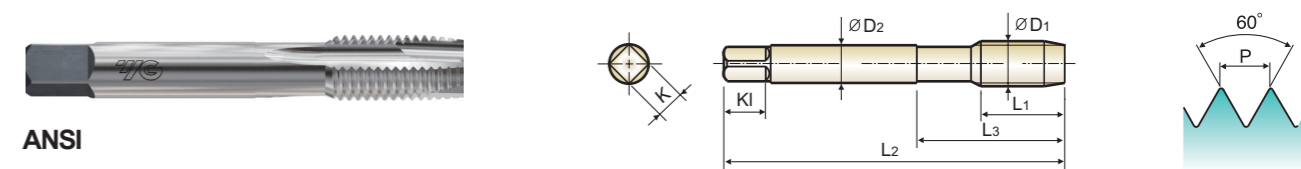
Unit : Inch

Size	TPI	EDP No.	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
D1		Bright		L2	L1	L3	D2	K	Kl	
3/8	- 24UNF	T7436502	H2	3.157	.866	1.437	.323	.242	.410	3
3/8	- 24UNF	T7436503	H3	3.157	.866	1.437	.323	.242	.410	3
7/16	- 14UNC	T7436523	H3	3.594	.984	1.657	.429	.322	.500	3
7/16	- 14UNC	T7436524	H4	3.594	.984	1.657	.429	.322	.500	3
7/16	- 20UNF	T7436543	H3	3.374	.984	1.657	.367	.275	.440	3
7/16	- 20UNF	T7436544	H4	3.374	.984	1.657	.367	.275	.440	3
1/2	- 13UNC	T7436563	H3	3.811	1.083	1.811	.480	.360	.560	4
1/2	- 13UNC	T7436564	H4	3.811	1.083	1.811	.480	.360	.560	4
1/2	- 20UNF	T7436583	H3	3.594	.984	1.657	.429	.322	.500	4
1/2	- 20UNF	T7436584	H4	3.594	.984	1.657	.429	.322	.500	4

Y/G SCREW THREAD INSERT TAP

T7415 SERIES

SPIRAL POINT STI TAP PLUG STYLE for General Purpose



ANSI

Material groups: **GS** HSS M USCTI 322A 4P~5P Bright

Thread Depth / Hole Type 3.0×D

Unit : Inch

Size	Pitch	EDP No.	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
D1		Bright		L2	L1	L3	D2	K	Kl	
M2	x 0.4	T7415132	D2	1.811	.295	.563	.141	.110	.190	2
M2.5	x 0.45	T7415172	D2	1.937	.374	.646	.141	.110	.190	2
M3	x 0.5	T7415202	D2	2.000	.413	.709	.141	.110	.190	3
M4	x 0.7	T7415243	D3	2.374	.531	.933	.194	.152	.250	3
M5	x 0.8	T7415283	D3	2.500	.591	1.000	.255	.191	.310	3
M6	x 1.0	T7415313	D3	2.720	.669	1.126	.318	.238	.380	3
M8	x 1.25	T7415363	D3	2.937	.748	1.252	.381	.286	.440	3
M10	x 1.5	T7415424	D4	3.374	.984	2.067	.367	.275	.440	3
M12	x 1.75	T7415504	D4	3.594	.984	2.067	.429	.322	.500	3

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○																	

◎ : Excellent ○ : Good

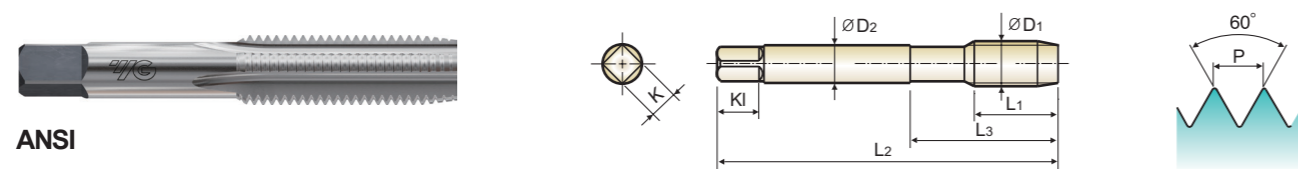
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30	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										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○																	

YG SCREW THREAD INSERT TAP

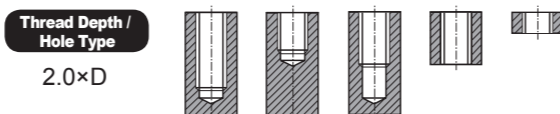
T7426 SERIES

STRAIGHT FLUTE STI TAP PLUG AND BOTTOMING STYLE for General Purpose



ANSI

Material groups: **GS** HSS UNC UNF USCTI 322 4P~5P Plug 1.5P~2P Bottoming Bright



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Plug	Bottoming								
#2 - 56UNC		T7426087	T7426088	H2	1.874	.563	.799	.141	.110	.190	3
#3 - 48UNC		T7426127	T7426128	H2	1.937	.626	.882	.141	.110	.190	3
#4 - 40UNC		T7426167H1	T7426168H1	H1	2.000	.689	.965	.141	.110	.190	3
#4 - 40UNC		T7426167	T7426168	H2	2.000	.689	.965	.141	.110	.190	3
#4 - 48UNF		T7426187	T7426188	H2	2.000	.689	.965	.141	.110	.190	3
#5 - 40UNC		T7426207	T7426208	H2	2.126	.752	-	.168	.131	.250	3
#6 - 32UNC		T7426247H2	T7426248H2	H2	2.374	.906	-	.194	.152	.250	3
#6 - 32UNC		T7426247	T7426248	H3	2.374	.906	-	.194	.152	.250	3
#6 - 40UNF		T7426267	T7426268	H2	2.126	.752	1.047	.168	.131	.250	3
#8 - 32UNC		T7426287H2	T7426288H2	H2	2.374	.906	-	.220	.165	.280	3
#8 - 32UNC		T7426287	T7426288	H3	2.374	.906	-	.220	.165	.280	3
#8 - 36UNF		T7426307	T7426308	H2	2.374	.906	-	.220	.165	.280	3
#10 - 24UNC		T7426327H2	T7426328H2	H2	2.500	1.000	-	.255	.191	.310	3
#10 - 24UNC		T7426327	T7426328	H3	2.500	1.000	-	.255	.191	.310	3
#10 - 32UNF		T7426347H2	T7426348H2	H2	2.500	1.000	-	.255	.191	.310	3
#10 - 32UNF		T7426347	T7426348	H3	2.500	1.000	-	.255	.191	.310	3
1/4 - 20UNC		T7426407H2	T7426408H2	H2	2.720	1.126	1.500	.318	.238	.380	3
1/4 - 20UNC		T7426407	T7426408	H3	2.720	1.126	1.500	.318	.238	.380	3
1/4 - 28UNF		T7426427H2	T7426428H2	H2	2.720	1.126	-	.318	.238	.380	3
1/4 - 28UNF		T7426427	T7426428	H3	2.720	1.126	-	.318	.238	.380	3
5/16 - 18UNC		T7426447	T7426448	H3	2.937	1.252	1.646	.381	.286	.440	4
5/16 18UNC		T7426447H4	T7426448H4	H4	2.937	1.252	1.646	.381	.286	.440	4
5/16 24UNF		T7426467H2	T7426468H2	H2	2.937	1.252	-	.381	.286	.440	4
5/16 24UNF		T7426467	T7426468	H3	2.937	1.252	-	.381	.286	.440	4
3/8 16UNC		T7426487	T7426488	H3	3.374	1.657	-	.367	.275	.440	4

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◎ : Excellent ○ : Good

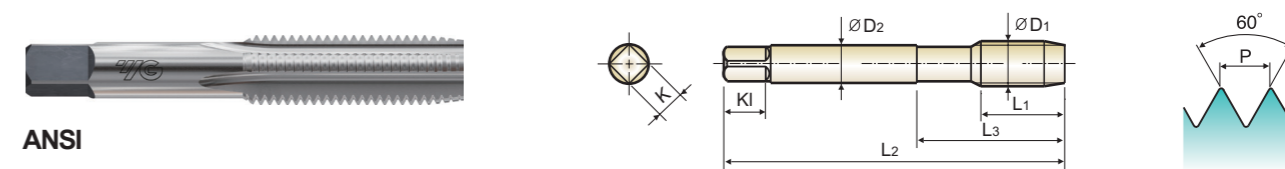
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	125	190	250	270	300	180	275	350	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	○	○	○	○	○	○									○	○				

ISO	N					S					H										
	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			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○																	

YG SCREW THREAD INSERT TAP

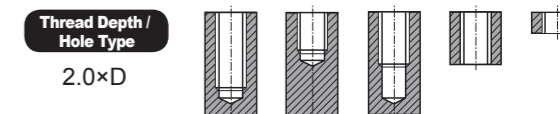
T7426 SERIES

STRAIGHT FLUTE STI TAP PLUG AND BOTTOMING STYLE for General Purpose



ANSI

Material groups: **GS** HSS UNC UNF USCTI 322 4P~5P Plug 1.5P~2P Bottoming Bright



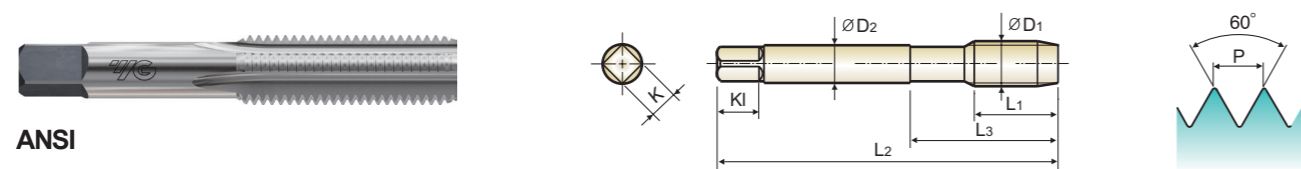
Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Plug	Bottoming								
3/8 - 16UNC		T7426487H4	T7426488H4	H4	3.374	1.657	-	.367	.275	.440	4
3/8 - 24UNF		T7426507H2	T7426508H2	H2	3.157	1.437	-	.323	.242	.410	4
3/8 - 24UNF		T7426507	T7426508	H3	3.157	1.437	-	.323	.242	.410	4
7/16 - 14UNC		T7426527	T7426528	H3	3.594	1.657	-	.429	.322	.500	4
7/16 - 14UNC		T7426527H4	T7426528H4	H4	3.594	1.657	-	.429	.322	.500	4
7/16 - 20UNF		T7426547	T7426548	H3	3.374	1.657	-	.367	.275	.440	4
7/16 - 20UNF		T7426547H4	T7426548H4	H4	3.374	1.657	-	.367	.275	.440	4
1/2 - 13UNC		T7426567	T7426568	H3	3.811	1.811	-	.480	.360	.560	4
1/2 - 13UNC		T7426567H4	T7426568H4	H4	3.811	1.811	-	.480	.360	.560	4
1/2 - 20UNF		T7426587	T7426588	H3	3.594	1.657	-	.429	.322	.500	4
1/2 - 20UNF		T7426587H4	T7426588H4	H4	3.594	1.657	-	.429	.322	.500	4

YG SCREW THREAD INSERT TAP

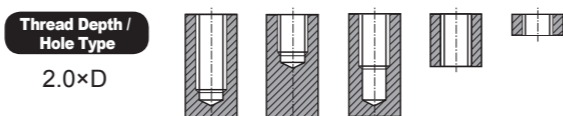
T7405 SERIES

STRAIGHT FLUTE STI TAP PLUG AND BOTTOMING STYLE for General Purpose



ANSI

Material groups: **GS** HSS M USCTI 322A 4P~5P Plug 1.5P~2P Bottoming Bright



Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KL	No. of Flute
		Plug	Bottoming								
M2	x 0.4	T7405137	T7405138	D2	1.811	.492	.728	.141	.110	.190	2
M2.5	x 0.45	T7405177	T7405178	D2	1.937	.626	.882	.141	.110	.190	2
M3	x 0.5	T7405207	T7405208	D2	2.000	.689	.965	.141	.110	.190	3
M4	x 0.7	T7405247	T7405248	D3	2.374	.906	1.220	.194	.152	.250	3
M5	x 0.8	T7405287	T7405288	D3	2.500	1.000	-	.255	.191	.310	3
M6	x 1.0	T7405317	T7405318	D3	2.720	1.126	-	.318	.238	.380	3
M8	x 1.25	T7405367	T7405368	D3	2.937	1.252	1.646	.381	.286	.440	3
M10	x 1.5	T7405427	T7405428	D4	3.374	1.657	-	.367	.275	.440	3
M12	x 1.75	T7405507	T7405508	D4	3.594	1.657	-	.429	.322	.500	3

HSS-E & HSS

PIPE TAP

- For Tapping National Pipe Threads



Being the best through innovation

◎ : Excellent ○ : Good

ISO	P										M					K																									
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel					Grey cast iron					Nodular cast iron					Malleable cast iron										
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																																									
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25																							
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																							
	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																	
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55						
VDI 3323																																									
HRc																																									
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550																				
Recommended	○	○	○	○	○																																				

SELECTION GUIDE



HSS-E & HSS PIPE TAP

- For Tapping National Pipe Threads



Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, Hole Type, Tool Material, Chamfer Lead, Flute Type, Spiral Flute Angle, Surface Treatment, and Model. It lists various materials like Non-alloy steel, Low alloy steel, Stainless steel, Cast Iron, Aluminum, and Titanium Alloys.

Table showing HSS-E and HSS-E tool specifications for Max. 2.5xD Blind/Through Hole. It includes columns for Hole Type, Tool Material, Chamfer Lead, Flute Type, Spiral Flute Angle, Surface Treatment, and Model. It lists various materials like Non-alloy steel, Low alloy steel, Stainless steel, Cast Iron, Aluminum, and Titanium Alloys.

SELECTION GUIDE



HSS-E & HSS PIPE TAP

- For Tapping National Pipe Threads



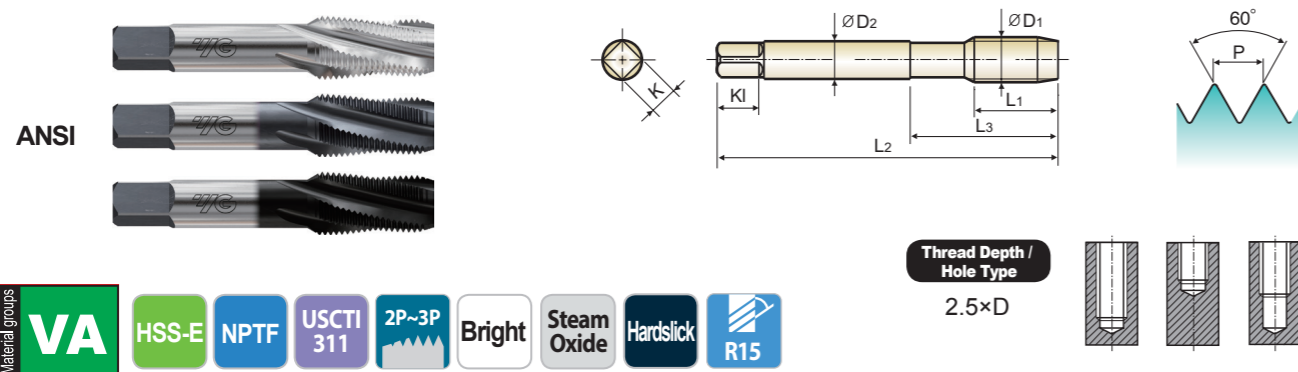
Please visit globalyg1.com/mat for material search

Table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and performance indicators for various materials like Non-alloy steel, Low alloy steel, Stainless steel, etc.

Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES, SURFACE TREATMENT / COATING, and MODEL.

Table with columns: HSS, 4P~5P, 2P~3P, 4P~5P, 2P~3P, and performance indicators for various materials like Non-alloy steel, Low alloy steel, Stainless steel, etc.

TAPER PIPE TAP : SPIRAL FLUTE STANDARD PROJECTION
for Steels & Stainless Steels

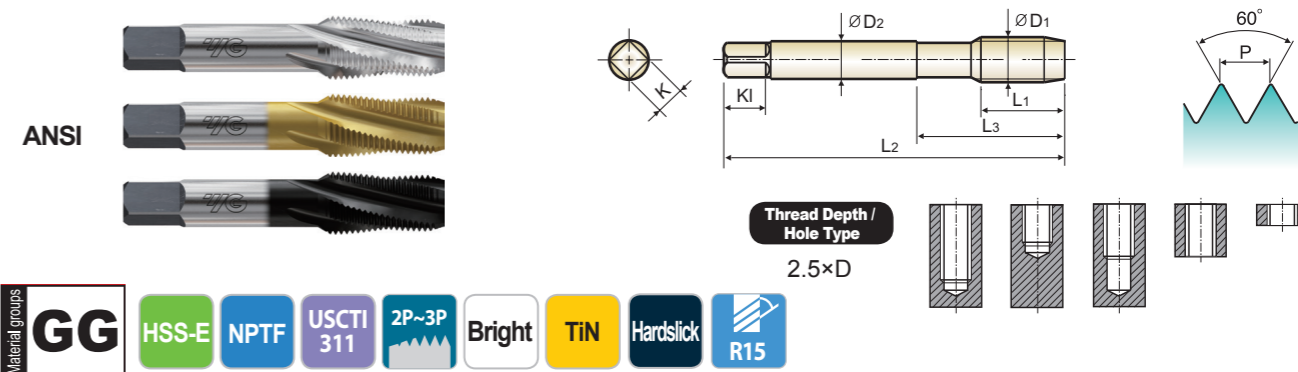


Unit : Inch

Size	TPI	EDP No.			Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	Hardslick							
NPTF1/16 - 27		Q1020	Q0020	Q6020	2.130	.689	-	.312	.234	.380	4
NPTF1/8 - 27		Q1200	Q0200	Q6200	2.130	.736	.906	.437	.328	.380	4
NPTF1/8 - 27		Q1210	Q0210	Q6210	2.130	.748	-	.312	.234	.380	4
NPTF1/4 - 18		Q1400	Q0400	Q6400	2.440	1.063	1.220	.562	.421	.440	4
NPTF3/8 - 18		Q1480	Q0480	Q6480	2.560	1.063	1.220	.700	.531	.500	4
NPTF1/2 - 14		Q1560	Q0560	Q6560	3.130	1.378	-	.687	.515	.630	4
NPTF3/4 - 14		Q1700	Q0700	Q6700	3.250	1.378	-	.906	.679	.690	4
NPTF1" - 11-1/2		Q1780	Q0780	Q6780	3.750	1.752	-	1.125	.843	.810	4
NPTF1-1/4 - 11-1/2		Q1860	Q0860	Q6860	4.000	1.752	-	1.312	.984	.940	5
NPTF1-1/2 - 11-1/2		Q1960	Q0960	Q6960	4.250	1.752	-	1.500	1.125	1.00	7
NPTF2" - 11-1/2		Q1D20	Q0D20	Q6D20	4.508	1.752	-	1.875	1.406	1.13	7

▶ These Taps meet both NPT and NPTF Standards.

TAPER PIPE TAP : SPIRAL FLUTE STANDARD PROJECTION
for Cast Iron & Steels



Unit : Inch

Size	TPI	EDP No.			Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiN	Hardslick							
NPTF1/16 - 27		Q9020	R0020	R1020	2.130	.689	-	.312	.234	.380	4
NPTF1/8 - 27		Q9200	R0200	R1200	2.130	.736	.906	.437	.328	.380	4
NPTF1/8 - 27		Q9210	R0210	R1210	2.130	.748	-	.312	.234	.380	4
NPTF1/4 - 18		Q9400	R0400	R1400	2.440	1.063	1.220	.562	.421	.440	4
NPTF3/8 - 18		Q9480	R0480	R1480	2.560	1.063	1.220	.700	.531	.500	4
NPTF1/2 - 14		Q9560	R0560	R1560	3.130	1.378	-	.687	.515	.630	4
NPTF3/4 - 14		Q9700	R0700	R1700	3.250	1.378	-	.906	.679	.690	4
NPTF1" - 11-1/2		Q9780	R0780	R1780	3.750	1.752	-	1.125	.843	.810	4
NPTF1-1/4 - 11-1/2		Q9860	R0860	R1860	4.000	1.752	-	1.312	.984	.940	5
NPTF1-1/2 - 11-1/2		Q9960	R0960	R1960	4.250	1.752	-	1.500	1.125	1.00	7
NPTF2" - 11-1/2		Q9D20	R0D20	R1D20	4.508	1.752	-	1.875	1.406	1.13	7

▶ These Taps meet both NPT and NPTF Standards.

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	35	10	29	32	38	15	35	15	23	10	10	26	3	25	3	25	
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								
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended			○																		

◎ : Excellent ○ : Good

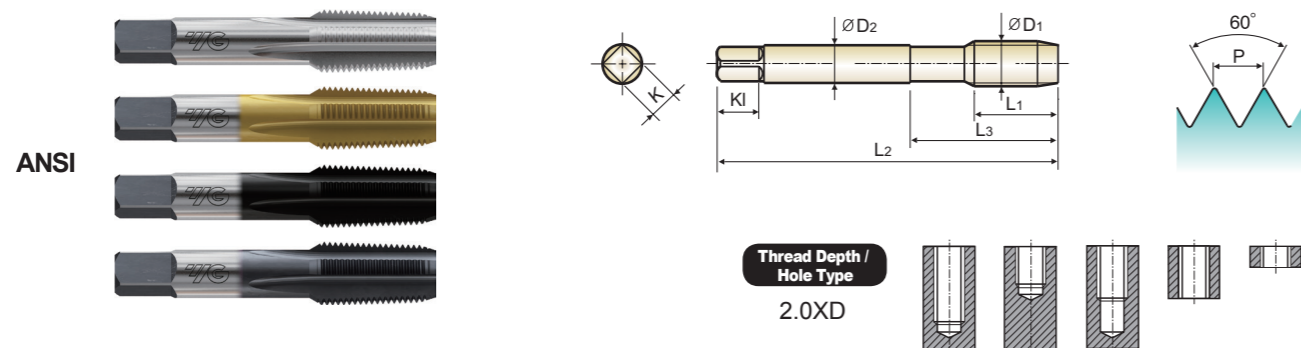
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	35	10	29	32	38	15	35	15	23	10	10	26	3	25	3	25	
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								
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended			○																		

YG PIPE TAP

R7/R8/R9/S0 SERIES

TAPER PIPE TAP : STRAIGHT FLUTE STANDARD PROJECTION for Cast Iron & Steels



Material groups: **GG** HSS-E NPTF USCTI 311 2P~3P Bright **TIN** Hardslick Nitrided Steam Oxide

Unit : Inch

Size	TPI	EDP No.				Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	Hardslick	Nitrided Steam Oxide							
NPTF1/16 - 27	R7020	R8020	R9020	S0020	2.130	.689	-	.312	.234	.380	4	
NPTF1/8 - 27	R7200	R8200	R9200	S0200	2.130	.736	.906	.437	.328	.380	4	
NPTF1/8 - 27	R7210	R8210	R9210	S0210	2.130	.748	-	.312	.234	.380	4	
NPTF1/4 - 18	R7400	R8400	R9400	S0400	2.440	1.063	1.220	.562	.421	.440	4	
NPTF3/8 - 18	R7480	R8480	R9480	S0480	2.560	1.063	1.220	.700	.531	.500	4	
NPTF1/2 - 14	R7560	R8560	R9560	S0560	3.130	1.378	-	.687	.515	.630	4	
NPTF3/4 - 14	R7700	R8700	R9700	S0700	3.250	1.378	-	.906	.679	.690	5	
NPTF1" - 11-1/2	R7780	R8780	R9780	S0780	3.750	1.752	-	1.125	.843	.810	5	
NPTF1-1/4 - 11-1/2	R7860	R8860	R9860	S0860	4.000	1.752	-	1.312	.984	.940	5	
NPTF1-1/2 - 11-1/2	R7960	R8960	R9960	S0960	4.250	1.752	-	1.500	1.125	1.00	7	
NPTF2" - 11-1/2	R7D20	R8D20	R9D20	S0D20	4.508	1.752	-	1.875	1.406	1.13	7	

▶ These Taps meet both NPT and NPTF Standards.

◎ : Excellent ○ : Good

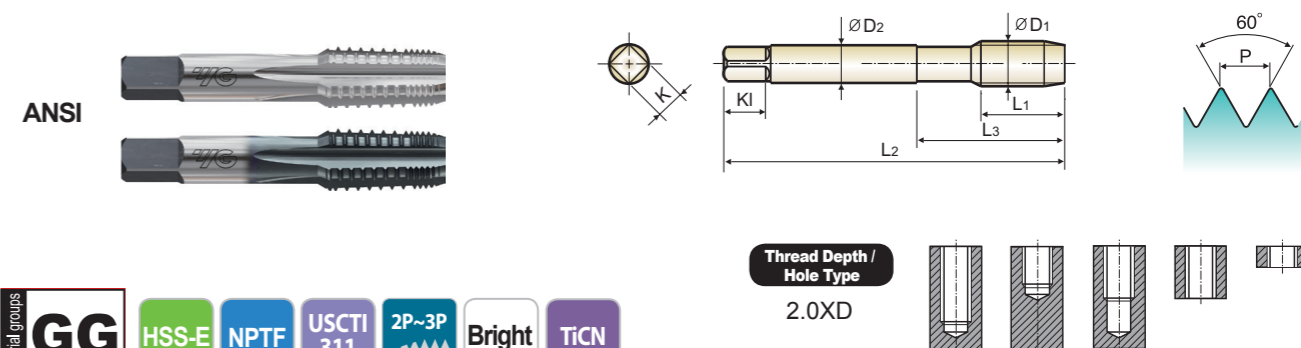
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	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										
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended																					

YG PIPE TAP

S1/S2 SERIES

TAPER PIPE TAP : STRAIGHT FLUTE INTERRUPTED THREAD STANDARD PROJECTION for Cast Iron & Steels



Material groups: **GG** HSS-E NPTF USCTI 311 2P~3P Bright TiCN

Unit : Inch

Size	TPI	EDP No.		Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiCN							
NPTF1/16 - 27		S1020	S2020	2.130	.689	-	.312	.234	.380	5
NPTF1/8 - 27		S1200	S2200	2.130	.736	.906	.437	.328	.380	5
NPTF1/8 - 27		S1210	S2210	2.130	.748	-	.312	.234	.380	5
NPTF1/4 - 18		S1400	S2400	2.440	1.063	1.220	.562	.421	.440	5
NPTF3/8 - 18		S1480	S2480	2.560	1.063	1.220	.700	.531	.500	5
NPTF1/2 - 14		S1560	S2560	3.130	1.378	-	.687	.515	.630	5
NPTF3/4 - 14		S1700	S2700	3.250	1.378	-	.906	.679	.690	5
NPTF1" - 11-1/2		S1780	S2780	3.750	1.752	-	1.125	.843	.810	5

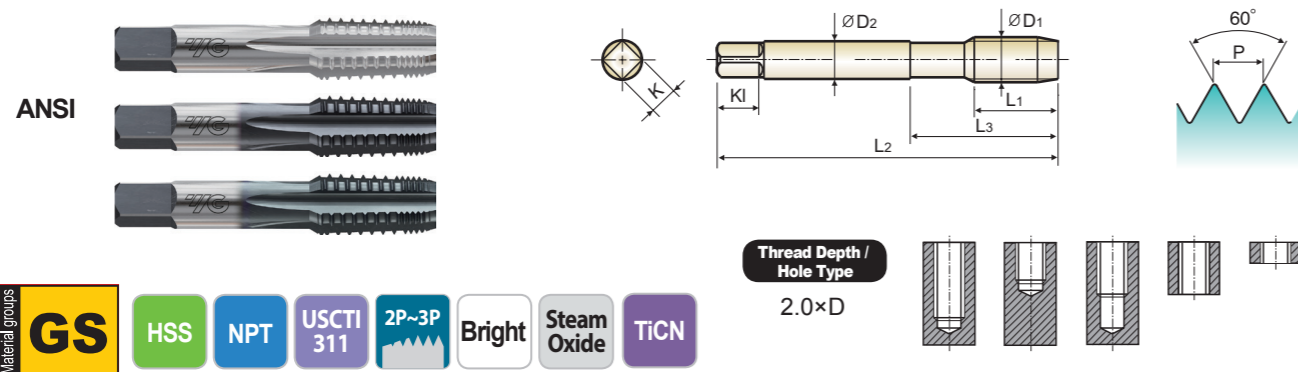
▶ These Taps meet both NPT and NPTF Standards.

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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	30	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										
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34			55	60	42	55
HRc	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended																					

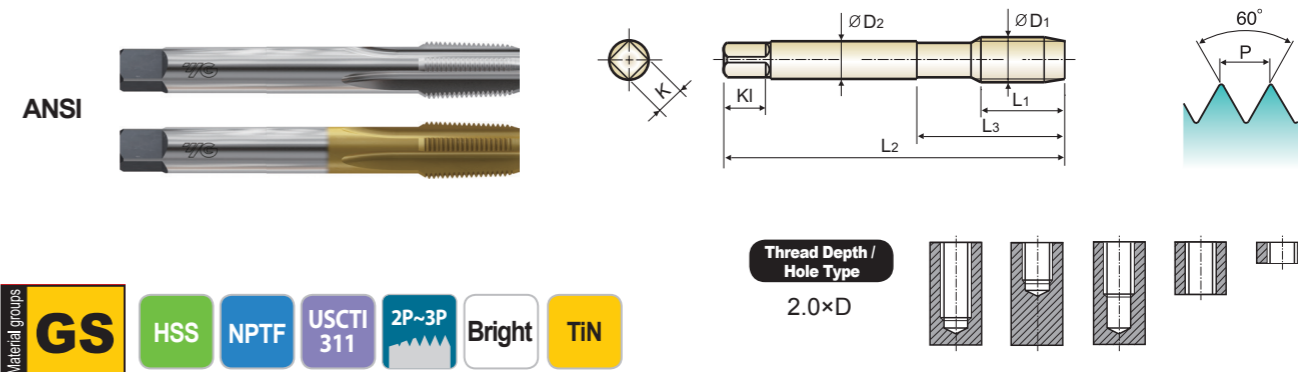
TAPER PIPE TAP: STRAIGHT FLUTE INTERRUPTED STANDARD PROJECTION for General Purpose



Unit : Inch

Size	TPI	EDP No.			Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	TiCN							
NPT1/8 - 27		T7505200	T6505200	TH505200	2.130	.736	.906	.437	.328	.380	5
NPT1/8 - 27		T7505210	T6505210	TH505210	2.130	.748	-	.312	.234	.380	5
NPT1/4 - 18		T7505400	T6505400	TH505400	2.440	1.063	1.220	.562	.421	.440	5
NPT3/8 - 18		T7505480	T6505480	TH505480	2.560	1.063	1.220	.700	.531	.500	5
NPT1/2 - 14		T7505560	T6505560	TH505560	3.130	1.378	-	.687	.515	.630	5
NPT3/4 - 14		T7505700	T6505700	TH505700	3.250	1.378	-	.906	.679	.690	5
NPT1" - 11-1/2		T7505780	T6505780	TH505780	3.750	1.752	-	1.125	.843	.810	5

TAPER PIPE TAP: STRAIGHT FLUTE STANDARD PROJECTION 6" EXTENSION for General Purpose



Unit : Inch

Size	TPI	EDP No.		Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	TiN							
NPTF1/8 - 27		T7546200	T8546200	6.000	.736	1.339	.437	.328	.380	4
NPTF1/4 - 18		T7546400	T8546400	6.000	1.063	1.732	.562	.421	.440	4
NPTF3/8 - 18		T7546480	T8546480	6.000	1.063	1.732	.700	.531	.500	4
NPTF1/2 - 14		T7546560	T8546560	6.000	1.378	-	.687	.515	.630	4
NPTF3/4 - 14		T7546700	T8546700	6.000	1.378	-	.906	.679	.690	5
NPTF1" - 11-1/2		T7546780	T8546780	6.000	1.752	-	1.125	.843	.810	5

► These Taps meet both NPT and NPTF Standards.

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	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	○	○	○			○									○	○				

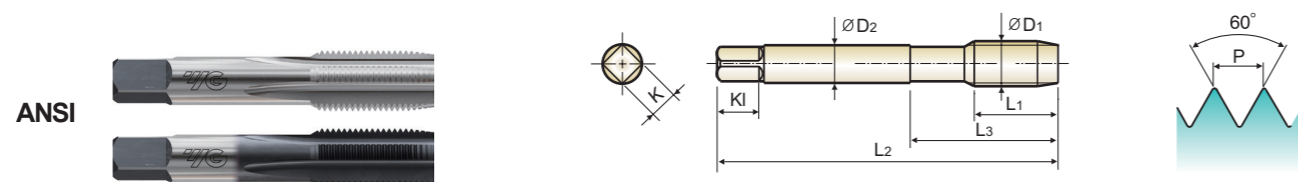
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30	31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

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	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										
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○																		

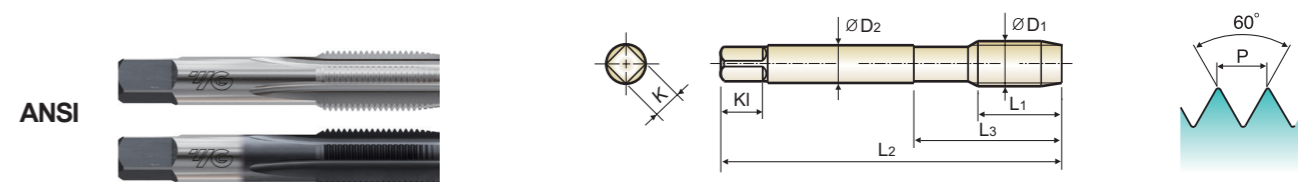
STRAIGHT PIPE TAP for General Purpose



Unit : Inch

Size	TPI	EDP No.		Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide							
NPS1/8 - 27		T7L36200	T6L36200	2.130	.736	.906	.437	.328	.380	4
NPS1/8 - 27		T7L36210	T6L36210	2.130	.748	-	.312	.234	.380	4
NPS1/4 - 18		T7L36400	T6L36400	2.440	1.063	1.220	.562	.421	.440	4
NPS3/8 - 18		T7L36480	T6L36480	2.560	1.063	1.220	.700	.531	.500	4
NPS1/2 - 14		T7L36560	T6L36560	3.130	1.378	-	.687	.515	.630	4
NPS3/4 - 14		T7L36700	T6L36700	3.250	1.378	-	.906	.679	.690	5
NPS1" - 11-1/2		T7L36780	T6L36780	3.750	1.752	-	1.125	.843	.810	5

STRAIGHT PIPE TAP for General Purpose



Unit : Inch

Size	TPI	EDP No.		Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide							
NPSF1/8 - 27		T7536200	T6536200	2.130	.736	.906	.437	.328	.380	4
NPSF1/8 - 27		T7536210	T6536210	2.130	.748	-	.312	.234	.380	4
NPSF1/4 - 18		T7536400	T6536400	2.440	1.063	1.220	.562	.421	.440	4
NPSF3/8 - 18		T7536480	T6536480	2.560	1.063	1.220	.700	.531	.500	4
NPSF1/2 - 14		T7536560	T6536560	3.130	1.378	-	.687	.515	.630	4
NPSF3/4 - 14		T7536700	T6536700	3.250	1.378	-	.906	.679	.690	5
NPSF1" - 11-1/2		T7536780	T6536780	3.750	1.752	-	1.125	.843	.810	5

◎: Excellent ○: Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	38	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								
	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				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc											15	30	25	38	34	55	60	42	55		
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○																		

◎: Excellent ○: Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	38	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	○	○	○			○									○	○					

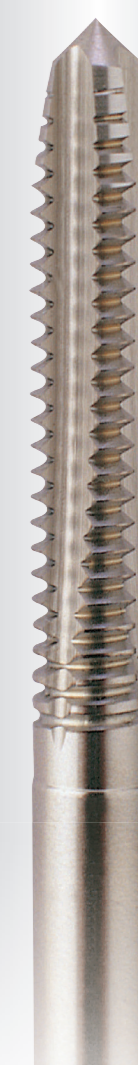
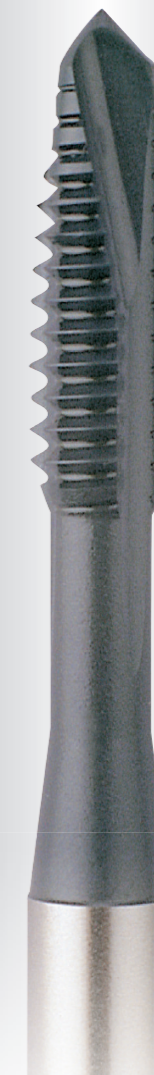
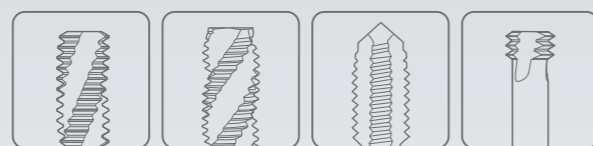
ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30	31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



Being the best through innovation



Global Cutting Tool Leader **YG-1**

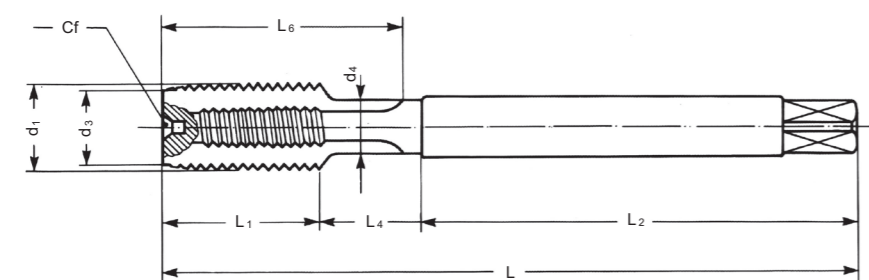
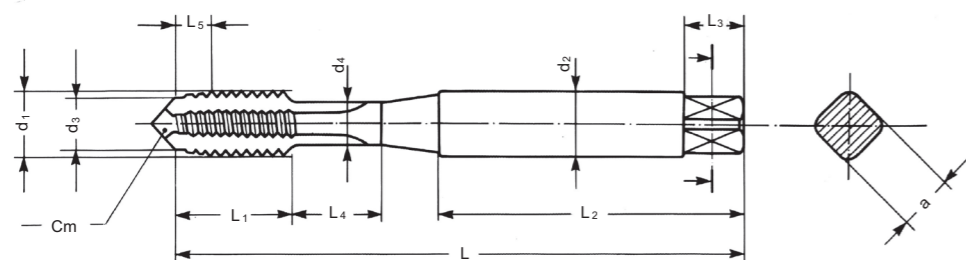


TAPS

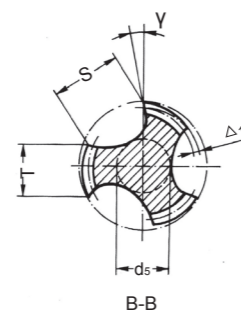
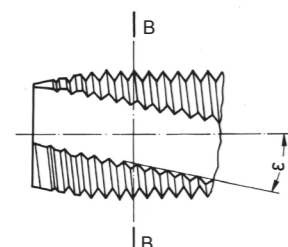
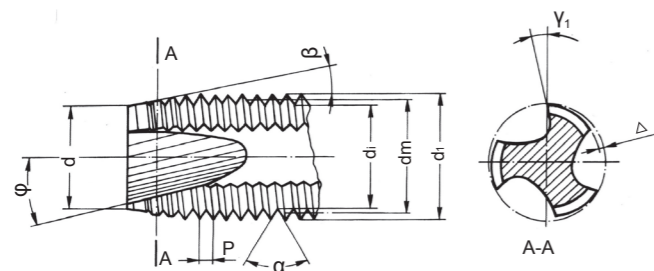
THREADING

**TECHNICAL
DATA**

TAPS TERMINOLOGY

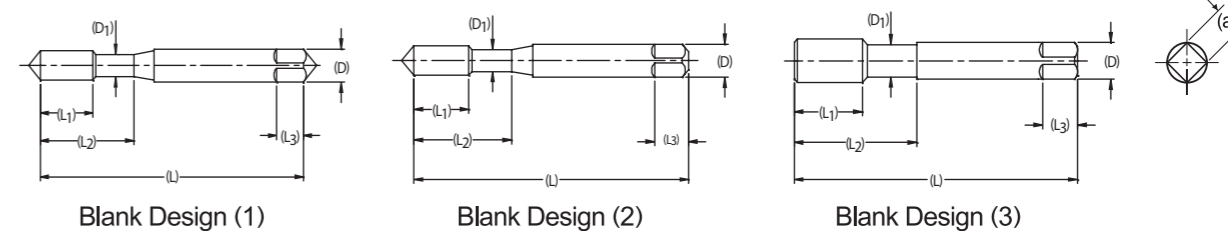


- d₁ Major diameter
- d₂ Shank diameter
- d₃ Chamfer diameter
- d₄ Neck diameter
- L Total length
- L₁ Thread length
- L₂ Shank length
- L₃ Square length
- L₄ Neck length
- L₅ Chamfer length
- L₆ Flutes length
- a Square size
- Cm Center male
- Cf Center female



- d₁ Major diameter
- d_m Flank diameter
- d₁ Minor diameter
- d_s Chamfer diameter
- P Pitch
- alpha Flank angle
- beta Chamfer angle
- phi Gun nose angle
- Y Gun nose rake angle in front
- Delta Chamfer relief
- Delta₁ Pitch diameter relief on the land
- Y Rake angle
- T Width of land
- S Flute width
- d_s Web thickness
- epsilon Angle of spiral flute

MODI TAP BLANK DIMENSION



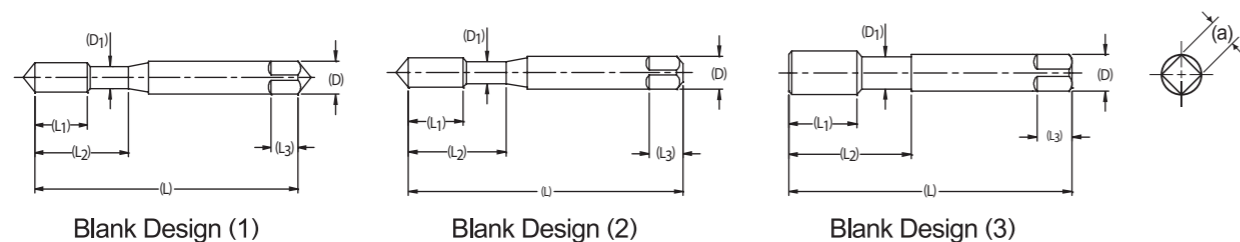
Unified Tap Blank

Nominal Size	Overall Length (L)	Thread Length (L ₁)		Length to neck (L ₂)		Shank Diameter (D)	Neck Diameter (D ₁)	Square Length (L ₃)	Square Size (A)	Blank Design No.
		SF	SP	SF	SP					
#2	1.75	.157	.256	.433		.141	.061	.19	.110	1
#3	1.81	.197	.295	.492		.141	.069	.19	.110	1
#4	1.88	.236	.335	.563		.141	.077	.19	.110	1
#5	1.94	.236	.374	.626		.141	.090	.19	.110	1
#6	2.00	.276	.413	.689		.141	.094	.19	.110	1
#8	2.13	.276	.453	.752		.168	.120	.25	.131	1
#10-24	2.38	.354	.531	.906		.194	.131	.25	.152	1
#10-32		.276					.146			1
#12-24	2.38	.354	.571	.906		.220	.157	.28	.165	1
#12-28		.276					.166			1
1/4-20	2.50	.433	.591	1.000		.255	.180	.31	.191	2
1/4-28		.354					.200			2
5/16-18	2.72	.472	.669	1.126		.318	.234	.38	.238	2
5/16-24		.394					.254			2
3/8-16	2.94	.551	.748	1.252		.381	.287	.44	.286	2
3/8-24		.394					.316			2
7/16-14	3.16	.591	.866	1.850	1.437	.323	.311	.41	.242	3
7/16-20		.472								3
1/2-13	3.38	.630	.984	2.067	1.657	.367	.354	.44	.275	3
1/2-20		.472								3
9/16-12	3.59	.709	.984	2.067	1.657	.429	.417	.50	.322	3
9/16-18		.512								3
5/8-11	3.81	.748	1.083	2.205	1.811	.480	.469	.56	.360	3
5/8-18		.512								3
3/4-10	4.25	.827	1.201	2.480	2.000	.590	.577	.69	.442	3
3/4-10		.591								3
7/8-9	4.69	.827	1.339	2.815	2.220	.697	.685	.75	.523	3
7/8-14		.709								3
1-8	5.13	.984	1.496	3.091	2.500	.800	.787	.81	.600	3
1-12		.709								3
1-1/8-7	5.44	1.024	1.535	3.15	2.563	.896	.878	.88	.672	3
1-1/8-12		.787								3
1-1/4-7	5.75	1.024	1.535	3.15	2.563	1.021	1.002	1.00	.766	3
1-1/4-12		.787								3
1-3/8-6	6.06	1.181	1.791	3.583	3.000	1.108	1.089	1.06	.831	3
1-3/8-12		.866								3
1-1/2-6	6.38	1.181	1.791	3.583	3.000	1.233	1.213	1.13	.925	3
1-1/2-12		.866								3

*SF : Spiral Fluted Taps
*SP : Spiral Pointed Taps



3 MODI TAP BLANK DIMENSION - METRIC



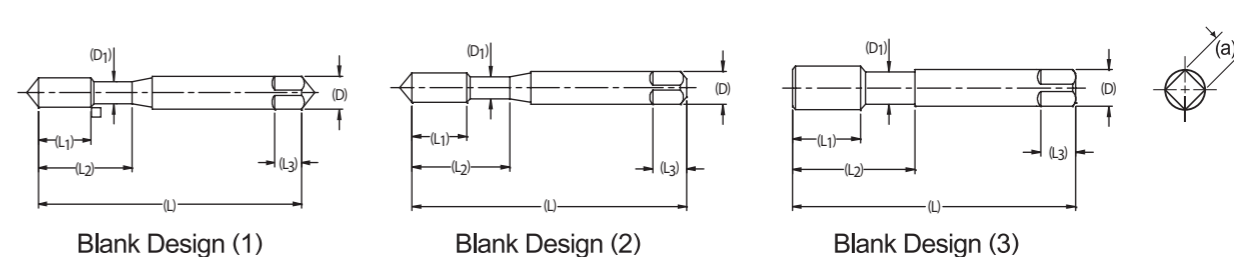
Metric Tap Blank

Nominal Size	Overall Length (L)	Thread Length (L ₁)		Length to neck (L ₂)		Shank Diameter (D)	Neck Diameter (D ₁)	Square Length (L ₃)	Square Size (A)	Blank Design No.
		SF	SP	SF	SP					
M3	1.94	.197	.374	.646		.141	.090	.19	.110	1
M3.5	2.00	.276	.413	.646		.141	.104	.19	.110	1
M4	2.13	.276	.453	.768		.168	.119	.25	.131	1
M4.5	2.38	.354	.531	.933		.194	.135	.25	.152	1
M5	2.38	.354	.531	.933		.194	.152	.25	.152	1
M5.5	2.38	.354	.571	1.000		.220	.189	.28	.165	2
M6	2.50	.433	.591	1.000		.255	.181	.31	.191	2
M7	2.72	.433	.669	1.126		.318	.220	.38	.238	2
M8X 1.25	2.72	.472	.669	1.126		.318	.246	.38	.238	2
M8X 1.0		.433								2
M10X 1.5	2.94	.512	.748	1.252		.381	.310	.44	.286	2
M10X 1.25		.472								2
M12X 1.75	3.38	.591	.984	2.067	1.657	.367	.354	.44	.275	3
M12X 1.25		.551								3
M14X 2.0	3.59	.709	.984	2.067	1.657	.429	.417	.50	.322	3
M14X 1.5		.551								3
M16X 2.0	3.81	.709	1.083	2.205	1.811	.480	.469	.56	.360	3
M16X 1.5		.551								3
M18X 2.5	4.03	.787	1.083	2.205	1.811	.542	.530	.63	.406	3
M18X 1.5		.551								3
M20X 1.5	4.47	.551	1.201	2.48	2.000	.652	.64	.69	.489	3
M20X 2.5		.787								3
M22X 1.5	4.69	.551	1.339	2.815	2.220	.697	.685	.75	.523	3
M22X 2.5		.787								3
M24X 1.5	4.91	.551	1.339	2.815	2.220	.760	.748	.75	.57	3
M24X 3		.945								3
M27X 1.5	5.13	.591	1.496	3.091	2.500	.896	.878	.88	.672	3
M27X 3		.945								3
M30X 1.5	5.44	.591	1.713	3.15	2.854	1.021	1.002	1.00	.766	3
M30X 3.5		1.102								3

*SF : Spiral Fluted Taps
*SP : Spiral Pointed Taps



4 HIGH PERFORMANCE TAPS DIN LENGTH / ANSI SHANK - INCH

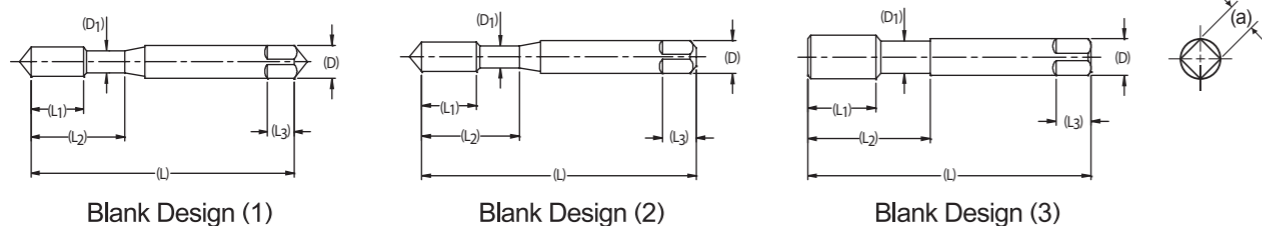


Nominal Size	Overall Length (L)	Thread Length (L ₁)		Length to neck (L ₂)		Shank Diameter (D)	Neck Diameter (D ₁)	Square Length (L ₃)	Square Size (A)	Blank Design No.
		SF	SP	SF	SP					
#2	1.772	.157	.256	.433		.141	.061	.19	.110	1
#3	1.969	.197	.295	.492		.141	.069	.19	.110	1
#4	2.205	.236	.335	.563		.141	.077	.19	.110	1
#5	2.205	.236	.374	.626		.141	.090	.19	.110	1
#6	2.205	.276	.413	.689		.141	.094	.19	.110	1
#8	2.480	.276	.453	.752		.168	.120	.25	.131	1
#10-24	2.756	.354	.531	.906		.194	.131	.25	.152	1
#10-32		.276					.146			1
#12-24	3.150	.354	.571	.906		.220	.157	.28	.165	1
#12-28		.276					.166			1
1/4-20	3.150	.433	.591	1.000		.255	.180	.31	.191	2
1/4-28		.354					.200			2
5/16-18	3.543	.472	.669	1.126		.318	.234	.38	.238	2
5/16-24		.394					.254			2
3/8-16	3.937	.551	.748	1.252		.381	.287	.44	.286	2
3/8-24		.394					.316			2
7/16-14	3.937	.591	.866	1.850	1.437	.323	.311	.41	.242	3
7/16-20		.472					.311			3
1/2-13	4.331	.630	.984	2.067	1.657	.367	.354	.44	.275	3
1/2-20	3.937	.472	.984	2.067	1.657	.367	.354	.44	.275	3
9/16-12	4.331	.709	.984	2.067	1.657	.429	.417	.50	.322	3
9/16-18	3.937	.512	.984	2.067	1.657	.429	.417	.50	.322	3
5/8-11	4.331	.748	1.083	2.205	1.811	.480	.469	.56	.360	3
5/8-18	3.937	.512	1.083	2.205	1.811	.480	.469	.56	.360	3
3/4-10	4.921	.827	1.201	2.480	2.000	.590	.577	.69	.442	3
3/4-10	4.331	.591	1.201	2.480	2.000	.590	.577	.69	.442	3
7/8-9	5.512	.827	1.339	2.815	2.220	.697	.685	.75	.523	3
7/8-14	4.921	.709	1.339	2.815	2.220	.697	.685	.75	.523	3
1-8	6.299	.984	1.496	3.091	2.500	.800	.787	.81	.600	3
1-12	5.512	.709	1.496	3.091	2.500	.800	.787	.81	.600	3

*SF : Spiral Fluted Taps
*SP : Spiral Pointed Taps



5 HIGH PERFORMANCE TAPS DIN LENGTH / ANSI SHANK - METRIC

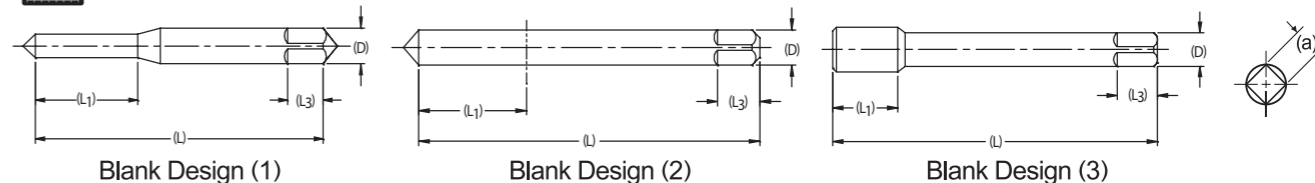


Nominal Size	Overall Length (L)	Thread Length (L ₁)		Length to neck (L ₂)		Shank Diameter (D)	Neck Diameter (D ₁)	Square Length (L ₃)	Square Size (A)	Blank Design No.
		SF	SP	SF	SP					
M3	2.205	.197	.374	.646		.141	.090	.19	.110	1
M3.5	2.205	.276	.413	.646		.141	.104	.19	.110	1
M4	2.480	.276	.453	.768		.168	.119	.25	.131	1
M5	2.756	.354	.531	.933		.194	.152	.25	.152	1
M6	3.150	.433	.591	1.000		.255	.181	.28	.191	2
M8X 1.25	3.543	.472	.669	1.126		.318	.246	.38	.238	2
M8X 1.0		.433								2
M10X 1.5	3.937	.512	.748	1.252		.381	.310	.44	.286	2
M10X 1.25		.472								2
M12X 1.75	4.331	.591	.984	2.067	1.657	.367	.354	.44	.275	3
M12X 1.25	3.937	.551								3
M14X 2.0	4.331	.709	.984	2.067	1.657	.429	.417	.50	.322	3
M14X 1.5	3.937	.551								3
M16X 2.0	4.331	.709	1.083	2.205	1.811	.480	.469	.56	.360	3
M16X 1.5	3.937	.551								3
M18X 2.5	4.921	.787	1.083	2.205	1.811	.542	.530	.63	.406	3
M18X 1.5	4.331	.551								3

*SF : Spiral Fluted Taps
*SP : Spiral Pointed Taps



6 YG-1 USCTI 302 TAP BLANK DIMENSION



Unified Tap Blank

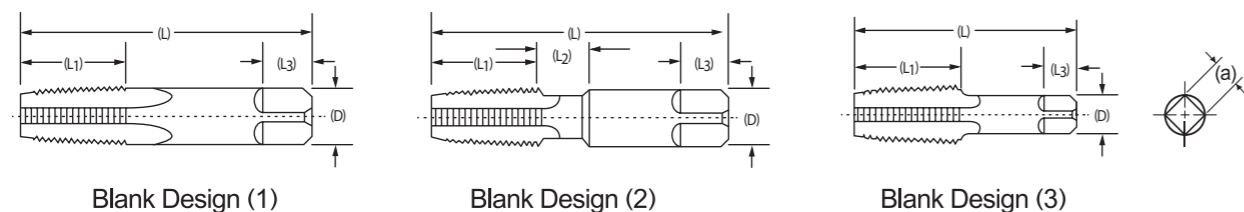
Nominal Size	Overall Length (L)	Thread Length (L ₁)	Shank Diameter (D)	Square Length (L ₃)	Square Size (A)	Blank Design No.
#0	1.63	.31	.141	.19	.110	1
#1	1.69	.38	.141	.19	.110	1
#2	1.75	.44	.141	.19	.110	1
#3	1.81	.50	.141	.19	.110	1
#4	1.88	.56	.141	.19	.110	1
#5	1.94	.63	.141	.19	.110	1
#6	2.00	.69	.141	.19	.110	1
#8	2.13	.75	.168	.25	.131	1
#10	2.38	.88	.194	.25	.152	1
#12	2.38	.94	.220	.28	.165	1
1/4	2.50	1.00	.255	.31	.191	2
5/16	2.72	1.13	.318	.38	.238	2
3/8	2.94	1.25	.381	.44	.286	2
7/16	3.16	1.44	.323	.41	.242	3
1/2	3.38	1.66	.367	.44	.275	3
9/16	3.59	1.66	.429	.50	.322	3
5/8	3.81	1.81	.480	.56	.360	3
11/16	4.03	1.81	.542	.63	.406	3
3/4	4.25	2.00	.590	.69	.442	3
13/16	4.47	2.00	.652	.69	.489	3
7/8	4.69	2.22	.697	.75	.523	3
15/16	4.91	2.22	.760	.75	.570	3
1	5.13	2.50	.800	.81	.600	3
1-1/8	5.44	2.56	.896	.88	.672	3
1-1/4	5.75	2.56	1.021	1.00	.766	3
1-3/8	6.06	3.00	1.108	1.06	.831	3
1-1/2	6.38	3.00	1.233	1.13	.925	3

Metric Tap Blank

Nominal Size	Overall Length (L)	Thread Length (L ₁)	Shank Diameter (D)	Square Length (L ₃)	Square Size (A)	Blank Design No.
M1.6	1.63	.310	.141	.19	.110	1
M1.8	1.69	.380	.141	.19	.110	1
M2	1.75	.440	.141	.19	.110	1
M2.5	1.81	.500	.141	.19	.110	1
M3	1.94	.630	.141	.19	.110	1
M3.5	2.00	.690	.141	.19	.110	1
M4	2.13	.750	.168	.25	.131	1
M4.5	2.38	.880	.194	.25	.152	1
M5	2.38	.880	.194	.25	.152	1
M6	2.50	1.00	.255	.31	.191	2
M7	2.72	1.13	.318	.38	.238	2
M8	2.72	1.13	.318	.38	.238	2
M10	2.94	1.25	.381	.44	.286	2
M12	3.38	1.66	.367	.44	.275	3
M14	3.59	1.66	.429	.50	.322	3
M16	3.81	1.81	.480	.56	.360	3
M18	4.03	1.81	.542	.63	.406	3
M20	4.47	2.00	.652	.69	.489	3
M22	4.69	2.22	.697	.75	.523	3
M24	4.91	2.22	.760	.75	.570	3
M30	5.44	2.56	1.021	1.00	.766	3
M33	5.75	2.56	1.108	1.06	.831	3
M36	6.06	3.00	1.233	1.13	.925	3



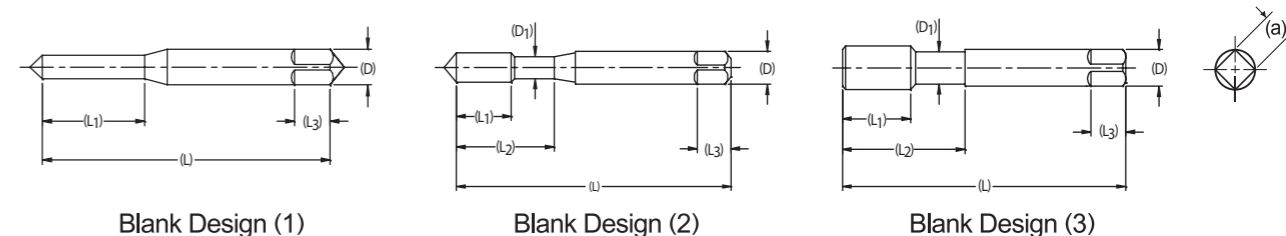
STANDARD PIPE TAP DIMENSION (STRAIGHT AND TAPER, GROUND THREAD)



Nominal Size	Overall Length	Thread Length	Shank Diameter	Square Length	Square Size	Optional Neck Length
	(L)	(L ₁)	(D)	(L ₃)	(A)	(L ₂)
1/16	2.13	.69	.3125	.38	.234	.375
1/8	2.13	.75	.3125	.38	.234	...
1/8	2.13	.75	.4375	.38	.328	.375
1/4	2.44	1.06	.5625	.44	.421	.375
3/8	2.56	1.06	.7000	.50	.531	.375
1/2	3.13	1.38	.6875	.63	.515	...
3/4	3.25	1.38	.9063	.69	.679	...
1	3.75	1.75	1.1250	.81	.843	...
1-1/4	4.00	1.75	1.3125	.94	.984	...
1-1/2	4.25	1.75	1.5000	1.00	1.125	...
2	4.25	1.75	1.8750	1.13	1.406	...
2-1/2	5.50	2.56	2.2500	1.25	1.687	...
3	6.00	2.63	2.6250	1.38	1.968	...
3-1/2	6.50	2.69	2.8125	1.50	2.108	...
4	6.75	2.75	3.0000	1.56	2.250	...



STANDARD FORMING TAP DIMENSION



Forming Tap Blank (Inch)

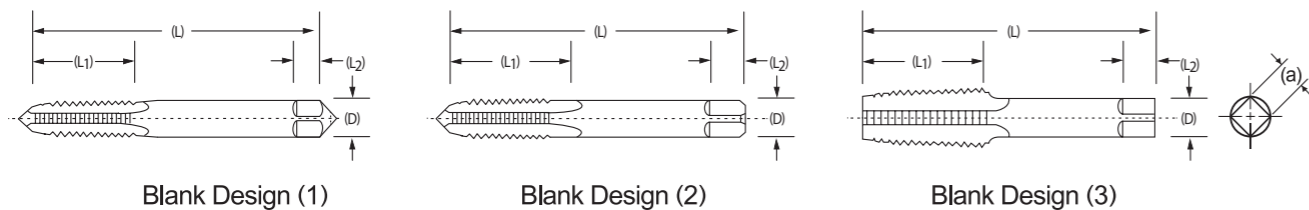
Nominal Size	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Length	Square Size	Blank Design No.
	(L)	(L ₁)	(L ₂)	(D)	(L ₃)	(A)	
#0	1.63	.31	—	.141	.19	.110	1
#1	1.69	.38	—	.141	.19	.110	1
#2	1.75	.44	—	.141	.19	.110	1
#3	1.81	.50	—	.141	.19	.110	1
#4	1.88	.56	—	.141	.19	.110	1
#5	1.94	.63	—	.141	.19	.110	1
#6	2.00	.48	.69	.141	.19	.110	1
#8	2.13	.50	.75	.168	.25	.131	1
#10	2.38	.63	.88	.194	.25	.152	1
#12	2.38	.63	.94	.220	.28	.165	1
1/4	2.50	.86	1.00	.255	.31	.191	2
5/16	2.72	.93	1.13	.318	.38	.238	2
3/8	2.94	.98	1.25	.381	.44	.286	2
7/16	3.16	.95	1.44	.323	.41	.242	3
1/2	3.38	1.00	1.60	.367	.44	.275	3
9/16	3.59	1.00	1.66	.429	.50	.322	3
5/8	3.81	1.00	1.81	.480	.56	.360	3
3/4	4.25	1.00	2.0	.590	.69	.442	3

Forming Tap Blank (Metric)

Nominal Size	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Length	Square Size	Blank Design No.
	(L)	(L ₁)	(L ₂)	(D)	(L ₃)	(A)	
M2	1.75	.40	—	.141	.19	.110	1
M3	1.94	.63	—	.141	.19	.110	1
M4	2.13	.50	.75	.168	.25	.131	1
M5	2.38	.63	.88	.194	.25	.152	1
M6	2.50	.86	1.0	.255	.31	.191	2
M8	2.72	.93	1.13	.318	.38	.238	2
M10	2.94	.98	1.25	.381	.44	.286	2
M12	3.38	1.00	1.60	.367	.44	.275	3



9 STI STRAIGHT TAP DIMENSION



STI Tap blank (Inch)

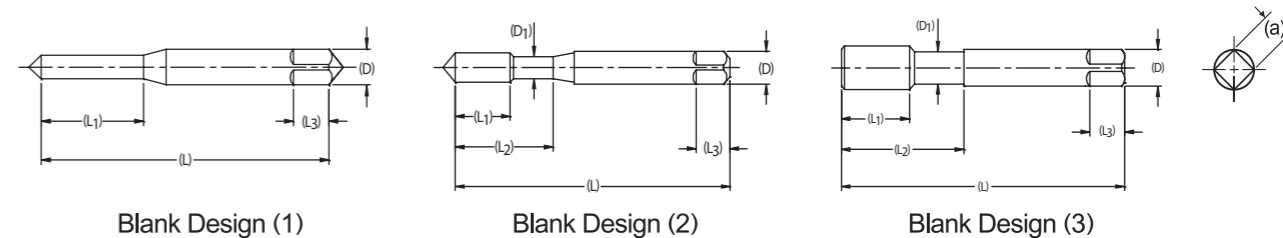
Nominal Size (STI)	Threads per Inch		Overall Length (L)	Thread Length (L ₂)	Shank Diameter (D)	Square Length (L ₃)	Square Size (A)	Blank Design No.	Table 302 Blank Equivalent
	UNC	UNF							
#2	56	-	1.88	.560	.141	.190	.110	1	NO.4
#2		64	1.88	.560	.141	.190	.110	1	NO.4
#3	48	-	1.94	.630	.141	.190	.110	1	NO.5
#3		56	1.94	.630	.141	.190	.110	1	NO.5
#4	40	-	2.00	.690	.141	.190	.110	1	NO.6
#4		48	2.00	.690	.141	.190	.110	1	NO.6
#5	40	-	2.13	.750	.168	.250	.131	1	NO.8
#6	32	-	2.38	.880	.194	.250	.152	1	NO.10
#6		40	2.13	.750	.168	.250	.131	1	NO.8
#8	32	-	2.38	.940	.220	.280	.165	1	NO.12
#8		36	2.38	.940	.220	.280	.165	1	NO.12
#10	24	-	2.50	1.000	.255	.310	.191	2	1/4
#10		32	2.50	1.000	.255	.310	.191	2	1/4
#12	24	-	2.72	1.130	.318	.380	.238	2	5/16
1/4	20	-	2.72	1.130	.318	.380	.238	2	5/16
1/4		28	2.72	1.130	.318	.380	.238	2	5/16
5/16	18	-	2.94	1.250	.381	.440	.286	2	3/8
5/16		24	2.94	1.250	.381	.440	.286	2	3/8
3/8	16	-	3.38	1.660	.367	.440	.275	3	1/2
3/8		24	3.16	1.440	.323	.410	.242	3	7/16
7/16	14	-	3.59	1.660	.429	.500	.322	3	9/16
7/16		20	3.38	1.660	.367	.440	.275	3	1/2
1/2	13	-	3.81	1.810	.480	.560	.360	3	5/8
1/2		20	3.59	1.660	.429	.500	.322	3	9/16

STI Tap blank (Metric)

Nominal Size (STI)	Thread Pitch (mm)	Overall Length (L)	Thread Length (L ₂)	Shank Diameter (D)	Square Length (L ₃)	Square Size (A)	Blank Design No.	Table 302 Blank Equivalent
M2.5	0.45	1.94	.630	.141	.190	.110	1	NO.5
M3	0.5	2.00	.690	.141	.190	.110	1	NO.6
M4	0.7	2.38	.880	.194	.250	.152	1	NO.10
M5	0.8	2.50	1.000	.255	.310	.191	2	1/4
M6	1	2.72	1.130	.318	.380	.238	2	5/16
M8	1.25	2.94	1.250	.381	.440	.286	2	3/8
M10	1.5	3.38	1.660	.367	.440	.275	3	1/2
M12	1.75	3.59	1.660	.429	.500	.322	3	9/16



10 STI SPIRAL FLUTE & SPIRAL POINT TAP DIMENSION



STI Tap blank (Inch)

Nominal Size (STI)	Threads per Inch		Overall Length (L)	Thread Length		Neck Length (L ₂)	Shank Diameter (D)	Square Length (L ₃)	Square Size (A)	Blank Design No.	Table 302 Blank Equivalent
	UNC	UNF		SP	SF						
#2	56	-	1.88	.335	.236	.56	.141	.190	.110	1	NO.4
#2		64	1.88	.335	.236	.56	.141	.190	.110	1	NO.4
#3	48	-	1.94	.374	.236	.63	.141	.190	.110	1	NO.5
#3		56	1.94	.374	.236	.63	.141	.190	.110	1	NO.5
#4	40	-	2.00	.413	.276	.68	.141	.190	.110	1	NO.6
#4		48	2.00	.413	.276	.68	.141	.190	.110	1	NO.6
#5	40	-	2.13	.453	.276	.75	.168	.250	.131	1	NO.8
#6	32	-	2.38	.531	.354	.88	.194	.250	.152	1	NO.10
#6		40	2.13	.453	.276	.75	.168	.250	.131	1	NO.8
#8	32	-	2.38	.571	.354	.94	.220	.280	.165	1	NO.12
#8		36	2.38	.571	.354	.94	.220	.280	.165	1	NO.12
#10	24	-	2.50	.591	.433	1.0	.255	.310	.191	2	1/4
#10		32	2.50	.591	.433	1.0	.255	.310	.191	2	1/4
#12	24	-	2.72	.669	.472	1.13	.318	.380	.238	2	5/16
1/4	20	-	2.72	.669	.472	1.13	.318	.380	.238	2	5/16
1/4		28	2.72	.669	.472	1.13	.318	.380	.238	2	5/16
5/16	18	-	2.94	.748	.551	1.25	.381	.440	.286	2	3/8
5/16		24	2.94	.748	.551	1.25	.381	.440	.286	2	3/8
3/8	16	-	3.38	.984	.630	1.66	.367	.440	.275	3	1/2
3/8		24	3.16	.866	.591	1.44	.323	.410	.242	3	7/16
7/16	14	-	3.59	.984	.709	1.66	.429	.500	.322	3	9/16
7/16		20	3.38	.984	.630	1.66	.367	.440	.275	3	1/2
1/2	13	-	3.81	1.083	.748	1.81	.480	.560	.360	3	5/8
1/2		20	3.59	.984	.709	1.66	.429	.500	.322	3	9/16

STI Tap blank (Metric)

Nominal Size (STI)	Thread Pitch (mm)	Overall Length (L)	Thread Length		Neck Length (L ₂)	Shank Diameter (D)	Square Length (L ₃)	Square Size (A)	Blank Design No.	Table 302 Blank Equivalent
			SP	SF						
M2	0.4	1.81	.295	.236	.56	.141	.190	.110	1	NO.3
M2.5	0.45	1.94	.374	.197	.63	.141	.190	.110	1	NO.5
M3	0.5	2.00	.413	.276	.69	.141	.190	.110	1	NO.6
M4	0.7	2.38	.531	.354	.93	.194	.250	.152	1	NO.10
M5	0.8	2.50	.591	.433	1.0	.255	.310	.191	2	1/4
M6	1	2.72	.669	.433	1.13	.318	.380	.238	2	5/16
M8	1.25	2.94	.748	.512	1.25	.381	.440	.286	2	3/8
M10	1.5	3.38	.984	.591	2.07	.367	.440	.275	3	1/2
M12	1.75	3.59	.984	.709	2.07	.429	.500	.322	3	9/16



TAP RECOMMENDATIONS FOR CLASSES OF THREAD - INCH

Internal Screw Thread Classes and Tap Recommendations

Size	Threads per Inch		Recommended Tap for Class of Thread				Pitch Diameter Limits for Class of Thread				
	UNC	UNF	UNIFIED Class of Thread		American National Class of Thread		MIN. ALL CLASS (BASIC)	UNIFIED Class of Thread		American National Class of Thread	
			CLASS 2	CLASS 3	CLASS 2B	CLASS 3B		MAX. CLASS 2	MAX. CLASS 3	MAX. CLASS 2B	MAX. CLASS 3B
#0	-	80	GH1	GH1	GH2	GH1	.0519	.0536	.0532	.0542	.0536
#1	64	-	GH1	GH1	GH2	GH1	.0629	.0648	.0643	.0655	.0648
#1	-	72	GH1	GH1	GH2	GH1	.0640	.0658	.0653	.0665	.0659
#2	56	-	GH1	GH1	GH2	GH1	.0744	.0764	.0759	.0772	.0765
#2	-	64	GH1	GH1	GH2	GH1	.0759	.0778	.0773	.0786	.0779
#3	48	-	GH1	GH1	GH2	GH1	.0855	.0877	.0871	.0885	.0877
#3	-	56	GH1	GH1	GH2	GH1	.0874	.0894	.8890	.0902	.0895
#4	40	-	GH2	GH1	GH2	GH2	.0958	.0982	.0975	.0991	.0982
#4	-	48	GH1	GH1	GH2	GH1	.0985	.1007	.1001	.1016	.1008
#5	40	-	GH2	GH1	GH2	GH2	.1088	.1112	.1105	.1121	.1113
#5	-	44	GH1	GH1	GH2	GH1	.1102	.1125	.1118	.1134	.1126
#6	32	-	GH2	GH1	GH3	GH2	.1177	.1204	.1196	.1214	.1204
#6	-	40	GH2	GH1	GH2	GH2	.1218	.1242	.1235	.1252	.1243
#8	32	-	GH2	GH1	GH3	GH2	.1437	.1464	.1456	.1475	.1465
#8	-	36	GH2	GH1	GH2	GH2	.1460	.1485	.1478	.1496	.1487
#10	24	-	GH3	GH1	GH3	GH3	.1629	.1662	.1653	.1672	.1661
#10	-	32	GH2	GH1	GH3	GH2	.1697	.1724	.1716	.1736	.1726
#12	24	-	GH3	GH1	GH3	GH3	.1889	.1922	.1913	.1933	.1922
#12	-	28	GH3	GH1	GH3	GH3	.1928	.1959	.1950	.1970	.1959
1/4	20	-	GH3	GH2	GH5	GH3	.2175	.2211	.2201	.2223	.2211
1/4	-	28	GH3	GH1	GH4	GH3	.2268	.2299	.2290	.2311	.2300
5/16	18	-	GH3	GH2	GH5	GH3	.2764	.2805	.2794	.2817	.2803
5/16	-	24	GH3	GH1	GH4	GH3	.2854	.2887	.2878	.2902	.2890
3/8	16	-	GH3	GH2	GH5	GH3	.3344	.3389	.3376	.3401	.3387
3/8	-	24	GH3	GH1	GH4	GH3	.3479	.3512	.3503	.3528	.3516
7/16	14	-	GH5	GH3	GH5	GH3	.3911	.3960	.3947	.3972	.3957
7/16	-	20	GH3	GH1	GH5	GH3	.4050	.4086	.4076	.4104	.4091
1/2	13	-	GH5	GH3	GH5	GH3	.4500	.4552	.4537	.4565	.4548
1/2	-	20	GH3	GH1	GH5	GH3	.4675	.4711	.4701	.4731	.4717
9/16	12	-	GH5	GH3	GH5	GH3	.5084	.5140	.5124	.5152	.5135
9/16	-	18	GH3	GH2	GH5	GH3	.5264	.5305	.5294	.5323	.5308
5/8	11	-	GH5	GH3	GH5	GH3	.5660	.5719	.5702	.5732	.5714
5/8	-	18	GH3	GH2	GH5	GH3	.5889	.5930	.5919	.5949	.5934
3/4	10	-	GH5	GH3	GH5	GH3	.6850	.6914	.6895	.6927	.6907
3/4	-	16	GH3	GH2	GH5	GH3	.7094	.7139	.7126	.7159	.7143
7/8	9	-	GH6	GH4	GH6	GH4	.8028	.8098	.8077	.8110	.8089
7/8	-	14	GH4	GH2	GH6	GH4	.8286	.8335	.8322	.8356	.8339
1	8	-	GH6	GH4	GH6	GH4	.9188	.9264	.9242	.9276	.9254
1	-	12	GH4	GH2	GH6	GH4	.9459	.9515	.9499	.9535	.9516

The above recommended taps normally produce the Class of Thread indicated in average materials when used with reasonable care. However, if the tap specified does not give a satisfactory gage fit in the work, a choice of some other limit tap will be necessary.



TAP RECOMMENDATIONS FOR CLASSES OF THREAD - METRIC

Size	Pitch	Recommended Tap for Class of Thread		Pitch Diameter Limits for Class of Thread (mm)			Pitch Diameter Limits for Class of Thread (inch)		
		4H	6H	Min. (Basic)	Max. 4H	Max. 6H	Min. (Basic)	Max. 4H	Max. 6H
M1.6	0.35	D1	D3	1.373	1.426	1.458	.05406	.05614	.05740
M2	0.40	D1	D3	1.740	1.796	1.830	.06850	.07071	.07205
M2.5	0.45	D1	D3	2.208	2.268	2.303	.08693	.08929	.09067
M3	0.50	D1	D3	2.675	2.738	2.775	.10531	.10780	.10925
M3.5	0.60	D1	D4	3.110	3.181	3.222	.12244	.12524	.12685
M4	0.70	D2	D4	3.545	3.620	3.663	.13957	.14252	.14421
M4.5	0.75	D2	D4	4.013	4.088	4.131	.15789	.16094	.16264
M5	0.80	D2	D4	4.480	4.560	4.605	.17638	.17953	.18130
M6	1.00	D3	D5	5.350	5.445	5.500	.21063	.21437	.21654
M7	1.00	D3	D5	6.350	6.445	6.500	.25000	.25374	.25591
M8	1.25	D3	D5	7.188	7.288	7.348	.28299	.28693	.28929
M10	1.50	D3	D6	9.026	9.138	9.206	.35535	.35976	.36244
M12	1.75	D3	D6	10.863	10.988	11.063	.42768	.43260	.43555
M14	2.00	D3	D7	12.701	12.833	12.913	.50004	.50524	.50839
M16	2.00	D4	D7	14.701	14.833	14.913	.57878	.58398	.58713
M20	2.50	D4	D7	18.376	18.516	18.600	.72346	.72898	.73228
M24	3.00	D4	D8	22.051	22.221	22.316	.86815	.87484	.87858
M30	3.50	D5	D9	27.727	27.907	28.007	1.09161	1.0987	1.10264
M36	4.00	D5	D9	33.402	33.592	33.702	1.31504	1.32252	1.32685



TOLERANCE CHART - USCTI

Element	Nominal Diameter Range in Inches		Direction	Tolerance (Inches)
	Over	To (Inc.)		
Overall Length - L	.0520	1.0100	PLUS OR MINUS	.031
	1.0100	4.0100	PLUS OR MINUS	.063
Thread Length - L1	.0520	.2230	PLUS OR MINUS	.047
	.2230	.5100	PLUS OR MINUS	.063
	.5100	1.5100	PLUS OR MINUS	.094
Square Length - L3	1.5100	4.0100	PLUS OR MINUS	.125
	.0520	1.0100	PLUS OR MINUS	.031
Shank Diameter - D	1.0100	4.0100	PLUS OR MINUS	.063
	.0520	.2230	MINUS	.0015
	.2230	.6350	MINUS	.0015
	.6350	1.0100	MINUS	.0020
	1.0100	1.5100	MINUS	.0020
Square Size - a	1.5100	2.0100	MINUS	.0030
	2.0100	4.0100	MINUS	.0030
	.0520	.5100	MINUS	.004
	.5100	1.0100	MINUS	.006
Square Size - a	1.0100	2.0100	MINUS	.008
	2.0100	4.0100	MINUS	.010



14 THREAD LIMITS

Unified Thread, Machine Screw Size - Ground Thread

Size	Thread per Inch			Major Diameter (Inches)			Pitch Diameter Limits (Inches)									
	UNC	UNF	UNS	Basic	Min.	Max.	Basic Pitch Dia.	H1 Limit		H2 Limit		H3 Limit		H7 Limit		
								Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
#0	-	80	-	.0600	.0605	.0615	.0519	.0519	.0524	.0524	.0529	-	-	-	-	
#1	64	-	-	.0730	.0735	.0745	.0629	.0629	.0634	.0634	.0639	-	-	-	-	
	-	72	-	.0730	.0735	.0745	.0640	.0640	.0645	.0645	.0650	-	-	-	-	
#2	56	-	-	.0860	.0865	.0875	.0744	.0744	.0749	.0749	.0754	-	-	-	-	
	-	64	-	.0860	.0865	.0875	.0759	-	-	.0764	.0769	-	-	-	-	
#3	48	-	-	.0990	.0100	.1010	.0855	.0855	.0860	.0860	.0865	-	-	-	-	
	-	56	-	.0990	.0995	.1005	.0874	.0874	.0879	.0879	.0884	-	-	-	-	
#4	-	-	36	.1120	.1135	.1145	.0940	-	-	.0945	.0950	-	-	-	-	
	40	-	-	.1120	.1135	.1145	.0958	.0958	.0963	.0963	.0968	-	-	-	-	
#5	-	48	-	.1120	.1130	.1140	.0985	.0985	.0990	.0990	.0995	-	-	-	-	
	40	-	-	.1250	.1265	.1275	.1088	.1088	.1093	.1093	.1098	-	-	-	-	
#6	-	44	-	.1250	.1260	.1270	.1102	-	-	.1107	.1112	-	-	-	-	
	32	-	-	.1380	.1400	.1410	.1177	.1177	.1182	.1182	.1187	.1187	.1192	.1207	.1212	
#8	-	40	-	.1380	.1395	.1405	.1218	.1218	.1223	.1223	.1228	-	-	-	-	
	32	-	-	.1640	.1660	.1670	.1437	.1437	.1442	.1442	.1447	.1447	.1452	.1467	.1472	
#10	-	36	-	.1640	.1655	.1665	.1460	-	-	.1465	.1470	-	-	-	-	
	24	-	-	.1900	.1930	.1940	.1629	.1629	.1634	.1634	.1639	.1639	.1644	.1659	.1664	
#12	-	32	-	.1900	.1920	.1930	.1697	.1697	.1702	.1702	.1707	.1707	.1712	.1727	.1732	
	24	-	-	.2160	.2190	.2200	.1889	-	-	-	-	.1899	.1904	-	-	
-	-	28	-	.2160	.2185	.2195	.1928	-	-	-	-	.1938	.1943	-	-	

Lead Tolerance

A maximum lead deviation of plus or minus .0005" within any two threads not farther apart than 1" is permitted

Pitch Diameter Limits

- H1 = Basic to basic plus .0005"
- H2 = Basic plus .0005" to basic plus .001"
- H3 = Basic plus .001" to basic plus .0015"
- H7 = Basic plus .003" to basic plus .0035"

Angle Tolerance

24 to 80 threads per inch incl. = 30 plus or minus in 1/2 angle.



Unified Thread, Machine Screw Size - Ground Thread

Size	Thread per Inch			Major Diameter (Inches)			Pitch Diameter Limits (Inches)												
	UNC	UNF	UNS	Basic	Min.	Max.	Basic Pitch Dia.	H1 Limit		H2 Limit		H3 Limit		H4 Limit		H5 Limit		H6 Limit	
								Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.		
1/4	20	-	-	.2500	.2540	.2550	.2175	.2175	.2180	.2180	.2185	.2185	.2190	-	-	.2195	.2200	-	-
	-	28	-	.2500	.2525	.2535	.2268	.2268	.2273	.2273	.2278	.2278	.2283	.2283	.2288	-	-	-	-
5/16	18	-	-	.3125	.3170	.3180	.2764	.2764	.2769	.2769	.2774	.2774	.2779	-	-	.2784	.2789	-	-
	-	24	-	.3125	.3155	.3165	.2854	.2854	.2859	.2859	.2864	.2864	.2869	.2869	.2874	-	-	-	-
3/8	16	-	-	.3750	.3800	.3810	.3344	.3344	.3349	.3349	.3354	.3354	.3359	-	-	.3364	.3369	-	-
	-	24	-	.3750	.3780	.3790	.3479	.3479	.3484	.3484	.3489	.3489	.3494	.3494	.3499	-	-	-	-
7/16	14	-	-	.4375	.4435	.4445	.3911	-	-	.3916	.3921	.3921	.3926	-	-	.3931	.3936	-	-
	-	20	-	.4375	.4415	.4425	.4050	-	-	-	-	.4060	.4065	-	-	.4070	.4075	-	-
1/2	13	-	-	.5000	.5065	.5075	.4500	.4500	.4505	.4505	.4510	.4510	.4515	-	-	.4520	.4525	-	-
	-	20	-	.5000	.5040	.5050	.4675	.4675	.4680	.4680	.4685	.4685	.4690	-	-	.4695	.4700	-	-
9/16	12	-	-	.5625	.5690	.5700	.5084	-	-	.5089	.5094	.5094	.5099	-	-	.5104	.5109	-	-
	-	18	-	.5625	.5670	.5680	.5264	-	-	.5269	.5274	.5274	.5279	-	-	.5284	.5289	-	-
5/8	11	-	-	.6250	.6320	.6330	.5660	-	-	.5665	.5670	.5670	.5675	-	-	.5680	.5685	-	-
	-	18	-	.6250	.6295	.6305	.5889	-	-	.5894	.5899	.5899	.5904	-	-	.5909	.5914	-	-
11/16	-	-	11	.6875	.6945	.6955	.6285	-	-	-	-	.6295	.6300	-	-	-	-	-	-
	-	-	16	.6875	.6925	.6935	.6469	-	-	.6855	.6860	.6860	.6865	-	-	.6870	.6875	-	-
3/4	10	-	-	.7500	.7525	.7590	.6850	.6850	.6855	.7099	.7104	.6860	.6865	-	-	.6870	.6875	-	-
	-	16	-	.7500	.7550	.7560	.7094	.7094	.7099	-	-	.7104	.7109	-	-	.7114	.7119	.8053	-
7/8	9	-	-	.8750	.8835	.8850	.8028	-	-	.8291	.8296	-	-	.8043	.8048	-	-	.8311	.8058
	-	14	-	.8750	.8810	.8820	.8286	-	-	.9193	.9198	-	-	.8301	.8306	-	-	.9213	.8318
1	8	-	-	1.0000	1.0095	1.0110	.9188	-	-	-	-	-	-	.9203	.9208	-	-	-	.9218
	-	12	-	1.0000	1.0065	1.0075	.9459	-	-	-	-	-	-	.9474	.9479	-	-	-	-
-	-	14	1.0000	1.0060	1.0070	.9536	-	-	-	-	-	-	.9551	.9556	-	-	-	-	

Lead Tolerance

A maximum lead deviation of plus or minus .0005" within any two threads not farther apart than 1" is permitted

Pitch Diameter Limits

- H1 = Basic to basic plus .0005"
- H2 = Basic plus .0005" to basic plus .001"
- H3 = Basic plus .001" to basic plus .0015"
- H4 = Basic plus .0015" to basic plus .0020"
- H5 = Basic plus .0020" to basic plus .0025"
- H6 = Basic plus .0025" to basic plus .0030"

Angle Tolerance

THREADS PER INCH	DEVIATION IN HALF ANGLE
6 TO 9 INCL. 10 TO 28 INCL.	25' PLUS OR MINUS 30' PLUS OR MINUS



Metric Thread - Ground Thread

Size	Pitch		Major Diameter (Inches)			Pitch Diameter Limits (Inches)										
	Coarse	Fine	Basic	Min.	Max.	Basic Pitch Dia.	D2 Limit		D3 Limit		D4 Limit		D5 Limit		D6 Limit	
							Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
M2	0.4	-	.0787	.0801	.0811	.0685	.0690	.0696	.0695	.0701	.0700	.0706	-	-	-	-
M2.2	0.45	-	.0866	.0881	.0891	.0751	.0756	.0762	.0761	.0767	.0766	.0772	-	-	-	-
M2.3	0.4	-	.0906	.0919	.0929	.0803	.0808	.0814	.0813	.0819	.0818	.0824	-	-	-	-
M2.6	0.45	-	.1024	.1038	.1048	.0909	.0913	.0919	.0918	.0924	.0923	.0929	-	-	-	-
M3	0.5	-	.1181	.1198	.1208	.1053	.1058	.1064	.1063	.1069	.1068	.1074	.1073	.1079	-	-
	-	0.35	.1181	.1193	.1203	.1092	.1096	.1102	.1101	.1107	.1106	.1112	.1111	.1117	-	-
M3.5	0.6	-	.1378	.1397	.1407	.1225	.1227	.1235	.1232	.1240	.1237	.1245	.1242	.1250	-	-
	-	0.35	.1378	.1389	.1399	.1289	.1293	.1299	.1298	.1304	.1303	.1309	.1308	.1314	-	-
M4	0.7	-	.1575	.1597	.1613	.1396	.1398	.1406	.1403	.1411	.1408	.1416	.1413	.1421	-	-
	-	0.5	.1575	.1591	.1601	.1447	.1451	.1457	.1456	.1462	.1461	.1467	.1466	.1472	-	-
M5	0.8	-	.1969	.1994	.2010	.1764	.1766	.1774	.1771	.1779	.1776	.1784	.1781	.1789	-	-
	-	0.5	.1969	.1985	.1995	.1841	.1845	.1851	.1850	.1856	.1855	.1861	.1861	.1866	-	-
M6	1	-	.2362	.2395	.2411	.2106	.2107	.2117	.2112	.2122	.2117	.2127	.2122	.2132	.2127	.2137
	-	0.75	.2362	.2387	.2403	.2170	.2173	.2181	.2178	.2186	.2183	.2191	.2188	.2196	.2193	.2201
M7	1	-	.2756	.2788	.2804	.2500	.2501	.2511	.2506	.2516	.2511	.2521	.2516	.2526	.2521	.2531
	-	0.75	.2756	.2780	.2796	.2564	.2565	.2575	.2570	.2580	.2575	.2585	.2580	.2590	.2585	.2595
M8	1.25	-	.3150	.3189	.3214	.2830	.2828	.2840	.2833	.2845	.2838	.2850	.2843	.2855	.2848	.2860
	-	1	.3150	.3182	.3198	.2894	.2894	.2904	.2899	.2909	.2904	.2914	.2909	.2919	.2914	.2924
M10	1.5	-	.3937	.3984	.4009	.3553	.3552	.3564	.3557	.3569	.3562	.3574	.3567	.3579	.3572	.3584
	-	1.25	.3937	.3976	.4001	.3617	.3616	.3628	.3621	.3633	.3626	.3638	.3631	.3643	.3636	.3648
	1	-	.3937	.3969	.3985	.3681	.3682	.3692	.3687	.3697	.3692	.3702	.3697	.3707	.3702	.3712
M12	1.75	-	.4724	.4780	.4805	.4277	.4275	.4287	.4280	.4292	.4285	.4297	.4290	.4302	.4295	.4307
	-	1.5	.4724	.4772	.4797	.4341	.4339	.4351	.4344	.4356	.4349	.4361	.4354	.4366	.4359	.4371
-	1.25	.4724	.4764	.4789	.4405	.4403	.4415	.4408	.4420	.4413	.4425	.4418	.4430	.4423	.4435	

Lead Tolerance

The tap major and pitch diameter conversions have been rounded upward.
 A maximum lead deviation of +/- .0005" within any two threads not further apart than 1" is permitted

Angle Tolerance

PITCH(MM)	DEVIATION IN HALF ANGLE
OVER 0.25 TO 2.5 INCL.	30' PLUS OR MINUS
OVER 2.5 TO 4.0 INCL.	25' PLUS OR MINUS



Metric Thread - Ground Thread

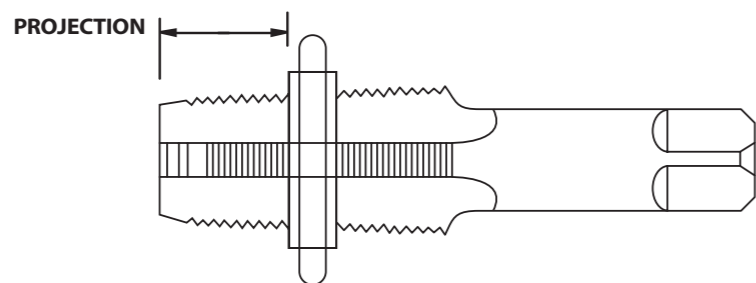
Size	Pitch		Major Diameter (Inches)			Pitch Diameter Limits (Inches)										
	Coarse	Fine	Basic	Min.	Max.	Basic Pitch Dia.	D2 Limit		D3 Limit		D4 Limit		D5 Limit			
							Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.		
M14	2	-	.5512	.5575	.5600	.5000	.5015	.5031	.5020	.5036	.5025	.5041	-	-		
	-	1.5	.5512	.5559	.5584	.5128	.5147	.5159	.5152	.5164	.5157	.5169	-	-		
M16	2	-	.6299	.6363	.6388	.5788	.5802	.5818	.5807	.5823	.5812	.5828	-	-		
	-	1.5	.6299	.6347	.6372	.5916	.5934	.5946	.5939	.5951	.5944	.5956	-	-		
M18	2.5	-	.7087	.7166	.7191	.6448	.6462	.6478	.6467	.6483	.6472	.6488	-	-		
	-	1.5	.7087	.7134	.7159	.6703	.6722	.6734	.6727	.6739	.6732	.6744	-	-		
M20	2.5	-	.7874	.7953	.7976	.7235	.7249	.7265	.7254	.7270	.7259	.7275	-	-		
	-	1.5	.7874	.7921	.7946	.7490	.7509	.7521	.7514	.7526	.7519	.7531	-	-		
M22	2.5	-	.8661	.8741	.8766	.8022	.8037	.8053	.8042	.8058	.8047	.8063	-	-		
	-	1.5	.8661	.8709	.8734	.8278	.8296	.8308	.8301	.8313	.8306	.8318	-	-		
M24	3	-	.9449	.9544	.9583	.8682	.8696	.8712	.8701	.8717	.8706	.8722	.8711	.8727		
	-	1.5	.9449	.9496	.9521	.9065	.9084	.9096	.9089	.9101	.9094	.9106	-	-		
M27	3	-	1.0630	1.0725	1.0764	.9863	.9873	.9893	.9878	.9898	.9883	.9903	.9888	.9908		
	-	1.5	1.0630	1.0677	1.0702	1.0246	1.0265	1.0277	1.0270	1.0282	1.0275	1.0287	-	-		
M28	3.5	-	1.1811	1.1921	1.1961	1.0916	1.0926	1.0946	1.0931	1.0951	1.0936	1.0956	1.0941	1.0961		
	-	1.5	1.1811	1.1874	1.1899	1.1300	1.1314	1.1330	1.1319	1.1335	1.1324	1.1340	-	-		
M30	3.5	-	1.2992	1.3103	1.3142	1.2097	1.2108	1.2128	1.2113	1.2133	1.2118	1.2138	1.2123	1.2143		
	-	1.5	1.2992	1.3056	1.3081	1.2481	1.2495	1.2511	1.2500	1.2516	1.2505	1.2521	-	-		
M33	3.5	-	1.2992	1.3088	1.3127	1.2225	1.2235	1.2255	1.2240	1.2260	1.2245	1.2265	1.2250	1.2270		
	-	1.5	1.2992	1.3040	1.3065	1.2609	1.2627	1.2639	1.2632	1.2644	1.2637	1.2649	-	-		

Pipe Tap (Limit)

Nominal Size Inches	Threads per Inch	Tap Thread Limits		Taper per Foot Limits		Reference Dimensions	
		Projection* Inches	Projection Tolerance + or -	MIN.	MAX.	Length (L ₁)	Tap Drill Size** NPT, ANPT, NPTF
1/16	27	.312	.063	.719	.781	.160	C
1/8	27	.312	.063	.719	.781	.1615	Q
1/8	18	.459	.063	.719	.781	.2278	7/16
3/8	18	.454	.063	.719	.781	.240	9/16
1/2	14	.579	.063	.719	.781	.320	45/64
3/4	14	.565	.063	.719	.781	.339	29/32
1	11-1/2	.678	.094	.719	.781	.400	1-9/64
1-1/4	11-1/2	.686	.094	.719	.781	.420	1-31/64
1-1/2	11-1/2	.699	.094	.719	.781	.420	1-23/32
2	11-1/2	.667	.094	.719	.781	.436	2-3/16
2-1/2	8	.925	.094	.734	.781	.682	2-39/64
3	8	.925	.094	.734	.781	.766	3-15/64
3-1/2	8	.938	.125	.734	.781	.821	...
4	8	.950	.125	.734	.781	.844	...

* Distance small end of tap projects through L1 Taper Thread Ring Gage.

** Recommended size given permit direct tapping without reaming the hole, but only give a full thread for approx. the L1 length.



15 TAP DRILL SIZES - UNIFIED THREAD

Size	Threads Per Inch				Minor Diameter			Tap Drill Diameter (Cutting Tap)				
	UNC	UNF	UNEF	UN	Min. 2B&3B	Max. 2B	Max. 3B	80% Thread	75% Thread	70% Thread	65% Thread	60% Thread
#0	-	80	-	-	.0465	.0514	.0514	.0470	.0478	.0486	.0494	.0503
#1	64	-	-	-	.0561	.0623	.0623	.0568	.0578	.0588	.0598	.0608
	-	72	-	-	.0580	.0635	.0635	.0586	.0595	.0604	.0613	.0622
#2	56	-	-	-	.0667	.0737	.0737	.0674	.0686	.0698	.0709	.0721
	-	64	-	-	.0691	.0753	.0753	.0698	.0708	.0718	.0728	.0738
#3	48	-	-	-	.0764	.0845	.0845	.0774	.0787	.0801	.0814	.0828
	-	56	-	-	.0797	.0865	.0865	.0804	.0816	.0828	.0839	.0851
#4	40	-	-	-	.0849	.0939	.0939	.0860	.0876	.0893	.0909	.0925
	-	48	-	-	.0894	.0968	.0968	.0904	.0917	.0931	.0944	.0958
#5	40	-	-	-	.0979	.1062	.1062	.0990	.1006	.1023	.1039	.1055
	-	44	-	-	.1004	.1079	.1079	.1014	.1029	.1043	.1058	.1073
#6	32	-	-	-	.1040	.1140	.1140	.1055	.1076	.1096	.1116	.1136
	-	40	-	-	.1110	.1190	.1186	.1120	.1136	.1153	.1169	.1185
#8	32	-	-	-	.1300	.1390	.1389	.1315	.1336	.1356	.1376	.1396
	-	36	-	-	.1340	.1420	.1416	.1351	.1369	.1387	.1405	.1424
#10	24	-	-	-	.1450	.1560	.1555	.1467	.1494	.1521	.1548	.1575
	-	32	-	-	.1560	.1640	.1641	.1575	.1596	.1616	.1636	.1656
#12	24	-	-	-	.1710	.1810	.1807	.1727	.1754	.1781	.1808	.1835
	-	28	-	-	.1770	.1860	.1857	.1789	.1812	.1835	.1858	.1882
1/4	-	-	32	-	.1820	.1900	.1895	.1835	.1856	.1876	.1896	.1916
	20	-	-	-	.1960	.2070	.2067	.1980	.2013	.2045	.2078	.2110
5/16	-	28	-	-	.2110	.2200	.2190	.2129	.2152	.2175	.2198	.2222
	-	-	32	-	.2160	.2240	.2229	.2175	.2196	.2216	.2236	.2256
3/8	18	-	-	-	.2520	.2650	.2630	.2548	.2584	.2620	.2656	.2692
	-	-	-	20	.2580	.2700	.2680	.2605	.2638	.2670	.2703	.2735
7/16	-	24	-	-	.2670	.2770	.2754	.2692	.2719	.2746	.2773	.2800
	-	-	-	28	.2740	.2820	.2807	.2754	.2777	.2800	.2823	.2847
1/2	-	-	32	-	.2790	.2860	.2847	.2800	.2821	.2841	.2861	.2881
	16	-	-	-	.3070	.3210	.3182	.3101	.3141	.3182	.3222	.3263
9/16	-	-	-	20	.3210	.3320	.3297	.3230	.3263	.3295	.3328	.3360
	-	24	-	-	.3300	.3400	.3372	.3317	.3344	.3371	.3398	.3425
5/8	-	-	-	28	.3360	.3450	.3426	.3379	.3402	.3425	.3448	.3472
	-	-	32	-	.3410	.3490	.3469	.3425	.3446	.3466	.3486	.3506
1 1/8	14	-	-	-	.3600	.3760	.3717	.3633	.3679	.3726	.3772	.3818
	-	-	-	16	.3700	.3840	.3800	.3726	.3766	.3807	.3847	.3888
1 1/4	-	20	-	-	.3830	.3950	.3916	.3855	.3888	.3920	.3953	.3985
	-	-	28	-	.3990	.4070	.4051	.4004	.4027	.4050	.4073	.4097
1 1/2	-	-	-	32	.4040	.4110	.4094	.4050	.4071	.4091	.4111	.4131
	13	-	-	-	.4170	.4340	.4284	.4201	.4251	.4301	.4351	.4400
1 3/4	-	-	-	16	.4320	.4460	.4419	.4351	.4391	.4432	.4472	.4513
	-	20	-	-	.4460	.4570	.4537	.4480	.4513	.4545	.4578	.4610
2	-	-	28	-	.4610	.4700	.4676	.4629	.4652	.4675	.4698	.4722
	-	-	-	32	.4660	.4740	.4719	.4675	.4696	.4716	.4736	.4756
2 1/4	12	-	-	-	.4720	.4900	.4843	.4759	.4813	.4867	.4921	.4976
	-	-	-	16	.4950	.5090	.5040	.4976	.5016	.5057	.5097	.5138
2 1/2	-	18	-	-	.5020	.5150	.5106	.5048	.5084	.5120	.5156	.5192
	-	-	-	20	.5080	.5200	.5162	.5105	.5138	.5170	.5203	.5235
2 3/4	-	-	24	-	.5170	.5270	.5244	.5192	.5219	.5246	.5273	.5300
	-	-	-	28	.5240	.5320	.5301	.5254	.5277	.5300	.5323	.5347
3	-	-	-	32	.5290	.5360	.5344	.5300	.5321	.5341	.5361	.5381
	11	-	-	-	.5270	.5460	.5391	.5305	.5364	.5423	.5482	.5541



Table with columns: Size, Threads Per Inch (UNC, UNF, UNEF, UN), Minor Diameter (Min. 2B&3B, Max. 2B, Max. 3B), Tap Drill Diameter (Cutting Tap) (80% Thread, 75% Thread, 70% Thread, 65% Thread, 60% Thread). Rows include sizes from 5/8 to 1-1/8.



Table with columns: Size, Threads Per Inch (UNC, UNF, UNEF, UN), Minor Diameter (Min. 2B&3B, Max. 2B, Max. 3B), Tap Drill Diameter (Cutting Tap) (80% Thread, 75% Thread, 70% Thread, 65% Thread, 60% Thread). Rows include sizes from 1-1/8 to 1-11/16.



Size	Threads Per Inch				Minor Diameter			Tap Drill Diameter (Cutting Tap)				
	UNC	UNF	UNEF	UN	Min. 2B&3B	Max. 2B	Max. 3B	80% Thread	75% Thread	70% Thread	65% Thread	60% Thread
1-11/16	-	-	-	8	1.5520	1.5770	1.5672	1.5576	1.5657	1.5738	1.5820	1.5901
	-	-	-	12	1.5970	1.6150	1.6073	1.6009	1.6063	1.6117	1.6171	1.6226
	-	-	-	16	1.6200	1.6340	1.6283	1.6226	1.6266	1.6307	1.6347	1.6388
	-	-	18	-	1.6270	1.6400	1.6355	1.6298	1.6334	1.6370	1.6406	1.6442
	-	-	-	20	1.6330	1.6450	1.6412	1.6355	1.6388	1.6420	1.6453	1.6485
1-3/4	5	-	-	-	1.5340	1.5680	1.5575	1.5422	1.5552	1.5681	1.5811	1.5941
	-	-	-	6	1.5700	1.6000	1.5896	1.5768	1.5876	1.5985	1.6093	1.6201
	-	-	-	8	1.6150	1.6400	1.6297	1.6201	1.6282	1.6363	1.6445	1.6526
	-	-	-	12	1.6600	1.6780	1.6698	1.6634	1.6688	1.6742	1.6796	1.6851
	-	-	-	16	1.6820	1.6960	1.6908	1.6851	1.6891	1.6932	1.6972	1.7013
1-13/16	-	-	-	6	1.6320	1.6630	1.6521	1.6393	1.6501	1.6610	1.6718	1.6826
	-	-	-	8	1.6770	1.7020	1.6922	1.6826	1.6907	1.6988	1.7070	1.7151
	-	-	-	12	1.7220	1.7400	1.7323	1.7259	1.7313	1.7367	1.7421	1.7476
	-	-	-	16	1.7450	1.7590	1.7533	1.7476	1.7516	1.7557	1.7597	1.7638
	-	-	-	20	1.7580	1.7700	1.7662	1.7605	1.7638	1.7670	1.7703	1.7735
1-7/8	-	-	-	6	1.6950	1.7250	1.7146	1.7018	1.7126	1.7235	1.7343	1.7451
	-	-	-	8	1.7400	1.7650	1.7547	1.7451	1.7532	1.7613	1.7695	1.7776
	-	-	-	12	1.7850	1.8030	1.7948	1.7884	1.7938	1.7992	1.8046	1.8101
	-	-	-	16	1.8070	1.8210	1.8158	1.8101	1.8141	1.8182	1.8222	1.8263
	-	-	-	20	1.8210	1.8320	1.8287	1.8230	1.8263	1.8295	1.8328	1.8360
1-15/16	-	-	-	6	1.7570	1.7880	1.7771	1.7643	1.7751	1.7860	1.7968	1.8076
	-	-	-	8	1.8020	1.8270	1.8172	1.8076	1.8157	1.8238	1.8320	1.8401
	-	-	-	12	1.8470	1.8650	1.8573	1.8509	1.8563	1.8617	1.8671	1.8726
	-	-	-	16	1.8700	1.8840	1.8783	1.8726	1.8766	1.8807	1.8847	1.8888
	-	-	-	20	1.8830	1.8950	1.8912	1.8855	1.8888	1.8920	1.8953	1.8985
2	4 1/2	-	-	-	1.7590	1.7950	1.7861	1.7691	1.7835	1.7979	1.8124	1.8268
	-	-	-	6	1.8200	1.8500	1.8396	1.8268	1.8376	1.8485	1.8593	1.8701
	-	-	-	8	1.8650	1.8900	1.8797	1.8701	1.8782	1.8863	1.8945	1.9026
	-	-	-	12	1.9100	1.9280	1.9198	1.9134	1.9188	1.9242	1.9296	1.9351
	-	-	-	16	1.9320	1.9460	1.9408	1.9351	1.9391	1.9432	1.9472	1.9513
2-1/8	-	-	-	6	1.9450	1.9750	1.9646	1.9518	1.9626	1.9735	1.9843	1.9951
	-	-	-	8	1.9900	2.0150	2.0047	1.9951	2.0032	2.0113	2.0195	2.0276
	-	-	-	12	2.0350	2.0530	2.0448	2.0384	2.0438	2.0492	2.0546	2.0601
	-	-	-	16	2.0570	2.0710	2.0658	2.0601	2.0641	2.0682	2.0722	2.0763
	-	-	-	20	2.0710	2.0820	2.0787	2.0730	2.0763	2.0795	2.0828	2.0860
2-1/4	4 1/2	-	-	-	2.0090	2.0450	2.0361	2.0191	2.0335	2.0479	2.0624	2.0768
	-	-	-	6	2.0700	2.1000	2.0896	2.0768	2.0876	2.0985	2.1093	2.1201
	-	-	-	8	2.1150	2.1400	2.1297	2.1201	2.1282	2.1363	2.1445	2.1526
	-	-	-	12	2.1600	2.1780	2.1698	2.1634	2.1688	2.1742	2.1796	2.1851
	-	-	-	16	2.1820	2.1960	2.1908	2.1851	2.1891	2.1932	2.1972	2.2013
2-3/8	-	-	-	20	2.1960	2.2070	2.2037	2.1980	2.2013	2.2045	2.2078	2.2110
	-	-	-	6	2.1950	2.2260	2.2146	2.2018	2.2126	2.2235	2.2343	2.2451
	-	-	-	8	2.2400	2.2650	2.2547	2.2451	2.2532	2.2613	2.2695	2.2776
	-	-	-	12	2.2850	2.3030	2.2948	2.2884	2.2938	2.2992	2.3046	2.3101
	-	-	-	16	2.3070	2.3210	2.3158	2.3101	2.3141	2.3182	2.3222	2.3263
2-1/2	-	-	-	20	2.3210	2.3320	2.3287	2.3230	2.3263	2.3295	2.3328	2.3360
	4	-	-	-	2.2290	2.2670	2.2594	2.2402	2.2564	2.2727	2.2889	2.3052
	-	-	-	6	2.3200	2.3500	2.3396	2.3268	2.3376	2.3485	2.3593	2.3701
	-	-	-	8	2.3650	2.3900	2.3797	2.3701	2.3782	2.3863	2.3945	2.4026
	-	-	-	12	2.4100	2.4280	2.4198	2.4134	2.4188	2.4242	2.4296	2.4351
2-1/2	-	-	-	16	2.4320	2.4460	2.4408	2.4351	2.4391	2.4432	2.4472	2.4513
	-	-	-	20	2.4460	2.4570	2.4537	2.4480	2.4513	2.4545	2.4578	2.4610



16 TAP DRILL SIZES - METRIC THREAD

Size	Pitch		Minor dia.		Tap Drill Diameter									
	M	MF	Min. 6H	Max. 6H	80% Thread		75% Thread		70% Thread		65% Thread		60% Thread	
					MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH
M1	0.25	-	.729	.798	0.74	.0291	0.76	.0298	0.77	.0304	0.79	.0311	0.81	.0317
	-	0.2	.783	.841	0.79	.0312	0.81	.0317	0.82	.0322	0.83	.0327	0.84	.0332
M1.1	0.25	-	.829	.898	0.84	.0331	0.86	.0337	0.87	.0344	0.89	.0350	0.91	.0356
	-	0.2	.883	.941	0.89	.0351	0.91	.0356	0.92	.0361	0.93	.0367	0.94	.0372
M1.2	0.25	-	.929	.998	0.94	.0370	0.96	.0377	0.97	.0383	0.99	.0389	1.01	.0396
	-	0.2	.983	1.041	0.99	.0391	1.01	.0396	1.02	.0401	1.03	.0406	1.04	.0411
M1.4	0.3	-	1.075	1.159	1.09	.0428	1.11	.0436	1.13	.0444	1.15	.0451	1.17	.0459
	-	0.2	1.183	1.241	1.19	.0469	1.21	.0474	1.22	.0480	1.23	.0485	1.24	.0490
M1.6	0.35	-	1.221	1.321	1.24	.0487	1.26	.0496	1.28	.0505	1.30	.0514	1.33	.0523
	-	0.2	1.383	1.441	1.39	.0548	1.41	.0553	1.42	.0558	1.43	.0563	1.44	.0569
M1.7	0.35	-	1.321	1.421	1.34	.0526	1.36	.0535	1.38	.0544	1.40	.0553	1.43	.0562
	-	0.3	1.375	1.459	1.39	.0547	1.41	.0554	1.43	.0562	1.45	.0570	1.47	.0577
	-	0.25	1.429	1.498	1.44	.0567	1.46	.0573	1.47	.0580	1.49	.0586	1.51	.0593
M1.8	-	0.2	1.483	1.541	1.49	.0587	1.51	.0593	1.52	.0598	1.53	.0603	1.54	.0608
	0.35	-	1.421	1.521	1.44	.0565	1.46	.0574	1.48	.0583	1.50	.0592	1.53	.0601
M2	-	0.2	1.583	1.641	1.59	.0627	1.61	.0632	1.62	.0637	1.63	.0642	1.64	.0647
	0.4	-	1.567	1.679	1.58	.0624	1.61	.0634	1.64	.0644	1.66	.0654	1.69	.0665
M2.2	-	0.25	1.729	1.798	1.74	.0685	1.76	.0692	1.77	.0698	1.79	.0704	1.81	.0711
	0.45	-	1.713	1.838	1.73	.0682	1.76	.0694	1.79	.0705	1.82	.0717	1.85	.0728
M2.3	-	0.25	1.929	1.998	1.94	.0764	1.96	.0770	1.97	.0777	1.99	.0783	2.01	.0789
	0.4	-	1.867	1.979	1.88	.0742	1.91	.0752	1.94	.0762	1.96	.0773	1.99	.0783
M2.5	-	0.35	1.921	2.021	1.94	.0762	1.96	.0771	1.98	.0780	2.00	.0789	2.03	.0798
	0.45	-	2.029	2.098	2.04	.0803	2.06	.0810	2.07	.0816	2.09	.0822	2.11	.0829
M2.6	-	0.25	2.013	2.138	2.03	.0800	2.06	.0812	2.09	.0823	2.12	.0835	2.15	.0846
	0.45	-	2.121	2.221	2.14	.0841	2.16	.0850	2.18	.0859	2.20	.0868	2.23	.0877
M3	-	0.35	2.113	2.238	2.13	.0840	2.16	.0851	2.19	.0863	2.22	.0874	2.25	.0886
	0.5	-	2.221	2.321	2.24	.0880	2.26	.0889	2.28	.0898	2.30	.0907	2.33	.0916
M3.5	-	0.35	2.459	2.599	2.48	.0977	2.51	.0989	2.55	.1002	2.58	.1015	2.61	.1028
	0.6	-	2.621	2.721	2.64	.1038	2.66	.1047	2.68	.1056	2.70	.1065	2.73	.1074
M4	-	0.35	2.850	3.010	2.88	.1132	2.92	.1148	2.95	.1163	2.99	.1178	3.03	.1194
	0.7	-	3.121	3.221	3.14	.1235	3.16	.1244	3.18	.1253	3.20	.1262	3.23	.1271
M4.5	-	0.5	3.242	3.422	3.27	.1288	3.32	.1306	3.36	.1324	3.41	.1342	3.45	.1360
	0.75	-	3.459	3.599	3.48	.1370	3.51	.1383	3.55	.1396	3.58	.1409	3.61	.1421
M5	-	0.5	3.688	3.878	3.72	.1465	3.77	.1484	3.82	.1503	3.87	.1522	3.92	.1542
	0.9	-	3.959	4.099	3.98	.1567	4.01	.1580	4.05	.1593	4.08	.1605	4.11	.1618
M5.5	-	0.5	4.026	4.226	4.06	.1600	4.12	.1623	4.18	.1646	4.24	.1669	4.30	.1692
	0.8	-	4.134	4.334	4.17	.1641	4.22	.1662	4.27	.1682	4.32	.1703	4.38	.1723
M6	-	0.5	4.459	4.599	4.48	.1764	4.51	.1777	4.55	.1790	4.58	.1802	4.61	.1815
	1	-	4.526	4.726	4.56	.1797	4.62	.1820	4.68	.1843	4.74	.1866	4.80	.1889
M7	-	0.75	4.688	4.878	4.72	.1858	4.77	.1878	4.82	.1897	4.87	.1916	4.92	.19



Size	Pitch		Minor dia.		Tap Drill Diameter									
	M	MF	Min. 6H	Max. 6H	80% Thread		75% Thread		70% Thread		65% Thread		60% Thread	
					MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH
M9	1.25	-	7.647	7.912	7.70	.3032	7.78	.3064	7.86	.3096	7.94	.3128	8.03	.3160
	-	1	7.917	8.153	7.96	.3134	8.03	.3160	8.09	.3185	8.16	.3211	8.22	.3236
	-	0.75	8.188	8.378	8.22	.3236	8.27	.3256	8.32	.3275	8.37	.3294	8.42	.3313
M10	-	0.5	8.459	8.599	8.48	.3339	8.51	.3352	8.55	.3364	8.58	.3377	8.61	.3390
	1.5	-	8.376	8.676	8.44	.3323	8.54	.3362	8.64	.3400	8.73	.3438	8.83	.3477
	-	1.25	8.647	8.912	8.70	.3426	8.78	.3458	8.86	.3490	8.94	.3521	9.03	.3553
M11	-	1	8.917	9.153	8.96	.3528	9.03	.3553	9.09	.3579	9.16	.3605	9.22	.3630
	-	0.75	9.188	9.378	9.22	.3630	9.27	.3649	9.32	.3669	9.37	.3688	9.42	.3707
	-	0.5	9.459	9.599	9.48	.3732	9.51	.3745	9.55	.3758	9.58	.3771	9.61	.3784
M12	1.5	-	9.376	9.676	9.44	.3717	9.54	.3755	9.64	.3794	9.73	.3832	9.83	.3870
	-	1	9.917	10.153	9.96	.3922	10.03	.3947	10.09	.3973	10.16	.3998	10.22	.4024
	-	0.75	10.188	10.378	10.22	.4024	10.27	.4043	10.32	.4062	10.37	.4081	10.42	.4101
M13	-	0.5	10.459	10.599	10.48	.4126	10.51	.4139	10.55	.4152	10.58	.4164	10.61	.4177
	1.75	-	10.106	10.441	10.18	.4008	10.30	.4053	10.41	.4098	10.52	.4143	10.64	.4187
	-	1.5	10.376	10.676	10.44	.4111	10.54	.4149	10.64	.4187	10.73	.4226	10.83	.4264
M14	-	1.25	10.647	10.912	10.70	.4213	10.78	.4245	10.86	.4277	10.94	.4309	11.03	.4341
	-	1	10.917	11.153	10.96	.4315	11.03	.4341	11.09	.4366	11.16	.4392	11.22	.4418
	-	0.75	11.188	11.378	11.22	.4418	11.27	.4437	11.32	.4456	11.37	.4475	11.42	.4494
M15	-	0.5	11.459	11.599	11.48	.4520	11.51	.4533	11.55	.4545	11.58	.4558	11.61	.4571
	-	1.75	11.106	11.441	11.18	.4402	11.30	.4447	11.41	.4492	11.52	.4536	11.64	.4581
	-	1.5	11.376	11.676	11.44	.4504	11.54	.4543	11.64	.4581	11.73	.4619	11.83	.4658
M16	-	1.25	11.647	11.912	11.70	.4607	11.78	.4639	11.86	.4671	11.94	.4703	12.03	.4735
	-	1	11.917	12.153	11.96	.4709	12.03	.4735	12.09	.4760	12.16	.4786	12.22	.4811
	-	0.75	12.188	12.378	12.22	.4811	12.27	.4830	12.32	.4850	12.37	.4869	12.42	.4888
M17	-	0.5	12.459	12.599	12.48	.4914	12.51	.4926	12.55	.4939	12.58	.4952	12.61	.4965
	2	-	11.835	12.210	11.92	.4694	12.05	.4745	12.18	.4796	12.31	.4847	12.44	.4898
	-	1.5	12.376	12.676	12.44	.4898	12.54	.4936	12.64	.4975	12.73	.5013	12.83	.5052
M18	-	1.25	12.647	12.912	12.70	.5000	12.78	.5032	12.86	.5064	12.94	.5096	13.03	.5128
	-	1	12.917	13.153	12.96	.5103	13.03	.5128	13.09	.5154	13.16	.5179	13.22	.5205
	-	0.75	13.188	13.378	13.22	.5205	13.27	.5224	13.32	.5243	13.37	.5262	13.42	.5282
M19	-	0.5	13.459	13.599	13.48	.5307	13.51	.5320	13.55	.5333	13.58	.5346	13.61	.5358
	-	2	12.835	13.210	12.92	.5087	13.05	.5138	13.18	.5190	13.31	.5241	13.44	.5292
	-	1.5	13.376	13.676	13.44	.5292	13.54	.5330	13.64	.5369	13.73	.5407	13.83	.5445
M20	-	1.25	13.647	13.912	13.70	.5394	13.78	.5426	13.86	.5458	13.94	.5490	14.03	.5522
	-	1	13.917	14.153	13.96	.5496	14.03	.5522	14.09	.5548	14.16	.5573	14.22	.5599
	-	0.75	14.188	14.378	14.22	.5599	14.27	.5618	14.32	.5637	14.37	.5656	14.42	.5675
M21	-	0.5	14.459	14.599	14.48	.5701	14.51	.5714	14.55	.5727	14.58	.5739	14.61	.5752
	2	-	13.835	14.210	13.92	.5481	14.05	.5532	14.18	.5583	14.31	.5634	14.44	.5685
	-	1.5	14.376	14.676	14.44	.5685	14.54	.5724	14.64	.5762	14.73	.5801	14.83	.5839
M22	-	1	14.917	15.153	14.96	.5890	15.03	.5916	15.09	.5941	15.16	.5967	15.22	.5992
	-	2	14.835	15.210	14.92	.5875	15.05	.5926	15.18	.5977	15.31	.6028	15.44	.6079
	-	1.5	15.376	15.676	15.44	.6079	15.54	.6118	15.64	.6156	15.73	.6194	15.83	.6233
M23	-	1.25	15.647	15.912	15.70	.6181	15.78	.6213	15.86	.6245	15.94	.6277	16.03	.6309
	-	1	15.917	16.153	15.96	.6284	16.03	.6309	16.09	.6335	16.16	.6360	16.22	.6386
	-	0.75	16.188	16.378	16.22	.6386	16.27	.6405	16.32	.6424	16.37	.6444	16.42	.6463
M24	-	0.5	16.459	16.599	16.48	.6488	16.51	.6501	16.55	.6514	16.58	.6527	16.61	.6539
	2.5	-	15.294	15.744	15.40	.6064	15.56	.6128	15.73	.6192	15.89	.6256	16.05	.6319
	-	2	15.835	16.210	15.92	.6268	16.05	.6319	16.18	.6371	16.31	.6422	16.44	.6473
M25	-	1.5	16.376	16.676	16.44	.6473	16.54	.6511	16.64	.6550	16.73	.6588	16.83	.6626
	-	1	16.917	17.153	16.96	.6677	17.03	.6703	17.09	.6729	17.16	.6754	17.22	.6780
	-	2.5	16.294	16.744	16.40	.6457	16.56	.6521	16.73	.6585	16.89	.6649	17.05	.6713
M26	-	2	16.835	17.210	16.92	.6662	17.05	.6713	17.18	.6764	17.31	.6815	17.44	.6867

Size	Pitch		Minor dia.		Tap Drill Diameter									
	M	MF	Min. 6H	Max. 6H	80% Thread		75% Thread		70% Thread		65% Thread		60% Thread	
					MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH
M19	-	1.5	17.376	17.676	17.44	.6867	17.54	.6905	17.64	.6943	17.73	.6982	17.83	.7020
	-	1.25	17.647	17.912	17.70	.6969	17.78	.7001	17.86	.7033	17.94	.7065	18.03	.7097
	-	1	17.917	18.153	17.96	.7071	18.03	.7097	18.09	.7122	18.16	.7148	18.22	.7173
M20	-	0.75	18.188	18.378	18.22	.7173	18.27	.7193	18.32	.7212	18.37	.7231	18.42	.7250
	-	0.5	18.459	18.599	18.48	.7276	18.51	.7289	18.55	.7301	18.58	.7314	18.61	.7327
	2.5	-	17.294	17.744	17.40	.6851	17.56	.6915	17.73	.6979	17.89	.7043	18.05	.7107
M21	-	2	17.835	18.210	17.92	.7056	18.05	.7107	18.18	.7158	18.31	.7209	18.44	.7260
	-	1.5	18.376	18.676	18.44	.7260	18.54	.7299	18.64	.7337	18.73	.7375	18.83	.7414
	-	1	18.917	19.153	18.96	.7465	19.03	.7490	19.09	.7516	19.16	.7542	19.22	.7567
M22	-	2.5	18.294	18.744	18.40	.7245	18.56	.7309	18.73	.7373	18.89	.7437	19.05	.7501
	-	1.5	19.376	19.676	19.44	.7654	19.54	.7692	19.64	.7731	19.73	.7769	19.83	.7807
	-	1	19.917	20.153	19.96	.7859	20.03	.7884	20.09	.7910	20.16	.7935	20.22	.7961
M23	2.5	-	19.294	19.744	19.40	.7639	19.56	.7702	19.73	.7766	19.89	.7830	20.05	.7894
	-	2	19.835	20.210	19.92	.7843	20.05	.7894	20.18	.7945	20.31	.7997	20.44	.8048
	-	1.5	20.376	20.676	20.44	.8048	20.54	.8086	20.64	.8124	20.73	.8163	20.83	.8201
M24	-	1	20.917	21.153	20.96	.8252	21.03	.8278	21.09	.8303	21.16	.8329	21.22	.8355
	-	2.5	20.294	20.744	20.40	.8032	20.56	.8096	20.73	.8160	20.89	.8224	21.05	.8288
	-	2	20.835	21.210	20.92	.8237	21.05	.8288	21.18	.8339	21.31	.8390	21.44	.8441
M25	-	1.5	21.376	21.676	21.44	.8441	21.54	.8480	21.64	.8518	21.73	.8556	21.83	.8595
	-	1	21.917	22.153	21.96	.8646	22.03	.8672	22.09	.8697	22.16	.8723	22.22	.8748
	3	-	20.752	21.252	20.88	.8221	21.08	.8298	21.27	.8375	21.47	.8452	21.66	.8528
M26	-	2	21.835	22.210	21.92	.8631	22.05	.8682	22.18	.8733	22.31	.8784	22.44	.8835
	-	1.5	22.376	22.676	22.44	.8835	22.54	.8873	22.64	.8912	22.73	.8950	22.83	.8989
	-	1	22.917	23.153	22.96	.9040	23.03	.90						



Size	Pitch		Minor dia.		Tap Drill Diameter									
	M	MF	Min. 6H	Max. 6H	80% Thread		75% Thread		70% Thread		65% Thread		60% Thread	
					MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH
M34	-	3	30.752	31.252	30.88	1.2158	31.08	1.2235	31.27	1.2312	31.47	1.2389	31.66	1.2465
	-	2	31.835	32.210	31.92	1.2568	32.05	1.2619	32.18	1.2670	32.31	1.2721	32.44	1.2772
	-	1.5	32.376	32.676	32.44	1.2772	32.54	1.2810	32.64	1.2849	32.73	1.2887	32.83	1.2926
M35	-	1	32.917	33.153	32.96	1.2977	33.03	1.3002	33.09	1.3028	33.16	1.3053	33.22	1.3079
	-	3	31.752	32.252	31.88	1.2552	32.08	1.2629	32.27	1.2706	32.47	1.2782	32.66	1.2859
	-	1.5	33.376	33.676	33.44	1.3166	33.54	1.3204	33.64	1.3243	33.73	1.3281	33.83	1.3319
M36	-	1	33.917	34.153	33.96	1.3370	34.03	1.3396	34.09	1.3422	34.16	1.3447	34.22	1.3473
	4	-	31.670	32.270	31.84	1.2537	32.10	1.2639	32.36	1.2741	32.62	1.2844	32.88	1.2946
	-	3	32.752	33.252	32.88	1.2946	33.08	1.3023	33.27	1.3099	33.47	1.3176	33.66	1.3253
M37	-	2	33.835	34.210	33.92	1.3355	34.05	1.3406	34.18	1.3457	34.31	1.3508	34.44	1.3560
	-	1.5	34.376	34.676	34.44	1.3560	34.54	1.3598	34.64	1.3636	34.73	1.3675	34.83	1.3713
	-	1	34.917	35.153	34.96	1.3764	35.03	1.3790	35.09	1.3815	35.16	1.3841	35.22	1.3866
M38	-	1.5	35.376	35.676	35.44	1.3953	35.54	1.3992	35.64	1.4030	35.73	1.4068	35.83	1.4107
	-	1	35.917	36.153	35.96	1.4158	36.03	1.4183	36.09	1.4209	36.16	1.4234	36.22	1.4260
	-	4	33.670	34.270	33.84	1.3324	34.10	1.3426	34.36	1.3529	34.62	1.3631	34.88	1.3733
M39	-	3	34.752	35.252	34.88	1.3733	35.08	1.3810	35.27	1.3887	35.47	1.3963	35.66	1.4040
	-	2	35.835	36.210	35.92	1.4142	36.05	1.4193	36.18	1.4245	36.31	1.4296	36.44	1.4347
	-	1.5	36.376	36.676	36.44	1.4347	36.54	1.4385	36.64	1.4424	36.73	1.4462	36.83	1.4500
M40	4	-	34.670	35.270	34.84	1.3718	35.10	1.3820	35.36	1.3922	35.62	1.4025	35.88	1.4127
	-	3	35.752	36.252	35.88	1.4127	36.08	1.4204	36.27	1.4280	36.47	1.4357	36.66	1.4434
	-	2	36.835	37.210	36.92	1.4536	37.05	1.4587	37.18	1.4638	37.31	1.4689	37.44	1.4741
M41	-	1.5	37.376	37.676	37.44	1.4741	37.54	1.4779	37.64	1.4817	37.73	1.4856	37.83	1.4894
	-	1	37.917	38.153	37.96	1.4945	38.03	1.4971	38.09	1.4996	38.16	1.5022	38.22	1.5047
	-	4	35.670	36.270	35.84	1.4111	36.10	1.4214	36.36	1.4316	36.62	1.4418	36.88	1.4521
M42	-	3	36.752	37.252	36.88	1.4521	37.08	1.4597	37.27	1.4674	37.47	1.4751	37.66	1.4827
	-	2	37.835	38.210	37.92	1.4930	38.05	1.4981	38.18	1.5032	38.31	1.5083	38.44	1.5134
	-	1.5	38.376	38.676	38.44	1.5134	38.54	1.5173	38.64	1.5211	38.73	1.5249	38.83	1.5288
M43	-	1	38.917	39.153	38.96	1.5339	39.03	1.5364	39.09	1.5390	39.16	1.5416	39.22	1.5441
	4.5	-	37.129	37.799	37.32	1.4694	37.62	1.4809	37.91	1.4924	38.20	1.5039	38.49	1.5155
	-	4	37.670	38.270	37.84	1.4899	38.10	1.5001	38.36	1.5103	38.62	1.5206	38.88	1.5308
M44	-	3	38.752	39.252	38.88	1.5308	39.08	1.5385	39.27	1.5461	39.47	1.5538	39.66	1.5615
	-	2	39.835	40.210	39.92	1.5717	40.05	1.5768	40.18	1.5819	40.31	1.5871	40.44	1.5922
	-	1.5	40.376	40.676	40.44	1.5922	40.54	1.5960	40.64	1.5998	40.73	1.6037	40.83	1.6075
M45	4.5	-	40.129	40.799	40.32	1.5875	40.62	1.5990	40.91	1.6106	41.20	1.6221	41.49	1.6336
	-	4	40.670	41.270	40.84	1.6080	41.10	1.6182	41.36	1.6285	41.62	1.6387	41.88	1.6489
	-	3	41.752	42.252	41.88	1.6489	42.08	1.6566	42.27	1.6643	42.47	1.6719	42.66	1.6796
M46	-	2	42.835	43.210	42.92	1.6898	43.05	1.6949	43.18	1.7001	43.31	1.7052	43.44	1.7103
	-	1.5	43.376	43.676	43.44	1.7103	43.54	1.7141	43.64	1.7180	43.73	1.7218	43.83	1.7256
	-	1	43.917	44.153	43.96	1.7307	44.03	1.7333	44.09	1.7359	44.16	1.7384	44.22	1.7410
M47	-	1.5	44.376	44.676	44.44	1.7497	44.54	1.7535	44.64	1.7573	44.73	1.7612	44.83	1.7650
	5	-	42.587	43.297	42.80	1.6852	43.13	1.6980	43.45	1.7108	43.78	1.7235	44.10	1.7363
	-	4	43.670	44.270	43.84	1.7261	44.10	1.7363	44.36	1.7466	44.62	1.7568	44.88	1.7670
M48	-	3	44.752	45.252	44.88	1.7670	45.08	1.7747	45.27	1.7824	45.47	1.7900	45.66	1.7977
	-	2	45.835	46.210	45.92	1.8079	46.05	1.8130	46.18	1.8182	46.31	1.8233	46.44	1.8284
	-	1.5	46.376	46.676	46.44	1.8284	46.54	1.8322	46.64	1.8361	46.73	1.8399	46.83	1.8437
M49	-	1	46.917	47.153	46.96	1.8488	47.03	1.8514	47.09	1.8540	47.16	1.8565	47.22	1.8591
	-	5	44.587	45.297	44.80	1.7639	45.13	1.7767	45.45	1.7895	45.78	1.8023	46.10	1.8151
	-	3	46.752	47.252	46.88	1.8458	47.08	1.8534	47.27	1.8611	47.47	1.8688	47.66	1.8764
M50	-	2	47.835	48.210	47.92	1.8867	48.05	1.8918	48.18	1.8969	48.31	1.9020	48.44	1.9071
	-	1.5	48.376	48.676	48.44	1.9071	48.54	1.9110	48.64	1.9148	48.73	1.9186	48.83	1.9225
	-	1	48.917	49.153	48.96	1.9276	49.03	1.9301	49.09	1.9327	49.16	1.9353	49.22	1.9378



Size	Pitch		Minor dia.		Tap Drill Diameter									
	M	MF	Min. 6H	Max. 6H	80% Thread		75% Thread		70% Thread		65% Thread		60% Thread	
					MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH
M52	5	-	46.587	47.297	46.80	1.8427	47.13	1.8555	47.45	1.8682	47.78	1.8810	48.10	1.8938
	-	4	47.670	48.270	47.84	1.8836	48.10	1.8938	48.36	1.9040	48.62	1.9143	48.88	1.9245
	-	3	48.752	49.252	48.88	1.9245	49.08	1.9322	49.27	1.9398	49.47	1.9475	49.66	1.9552
M53	-	2	49.835	50.210	49.92	1.9654	50.05	1.9705	50.18	1.9756	50.31	1.9808	50.44	1.9859
	-	1.5	50.376	50.676	50.44	1.9859	50.54	1.9897	50.64	1.9935	50.73	1.9974	50.83	2.0012
	-	4	50.670	51.270	50.84	2.0017	51.10	2.0119	51.36	2.0222	51.62	2.0324	51.88	2.0426
M54	-	3	51.752	52.252	51.88	2.0426	52.08	2.0503	52.27	2.0580	52.47	2.0656	52.66	2.0733
	-	2	52.835	53.210	52.92	2.0835	53.05	2.0886	53.18	2.0938	53.31	2.0989	53.44	2.1040
	-	1.5	53.376	53.676	53.44	2.1040	53.54	2.1078	53.64	2.1117	53.73	2.1155	53.83	2.1193
M55	5.5	-	50.046	50.796	50.28	1.9797	50.64	1.9938	51.00	2.0078	51.36	2.0219	51.71	2.0360
	-	4	51.670	52.270	51.84	2.0411	52.10	2.0513	52.36	2.0615	52.62	2.0718	52.88	2.0820
	-	3	52.752	53.252	52.88	2.0820	53.08	2.0897	53.27	2.0973	53.47	2.1050	53.66	2.1127
M56	-	2	53.835	54.210	53.92	2.1229	54.05	2.1280	54.18	2.1331	54.31	2.1382	54.44	2.1434
	-	1.5	54.376	54.676	54.44	2.1434	54.54	2.1472	54.64	2.1510	54.73	2.1549	54.83	2.1587
	-	4	53.670	54.270	53.84	2.1198	54.10	2.1300	54.36	2.1403	54.62	2.1505	54.88	2.1607
M57	-	3	54.752	55.252	54.88	2.1607	55.08	2.1684	55.27	2.1761	55.47	2.1837	55.66	2.1914
	-	2	55.835	56.210	55.92	2.2016	56.05	2.2067	56.18	2.2119	56.31	2.2170	56.44	2.2221
	-	1.5	56.376	56.676	56.44	2.2221	56.54	2.2259	56.64	2.2298	56.73	2.2336	56.83	2.2374
M58	5.5	-	54.046	54.796	54.28	2.1372	54.64	2.1512	55.00	2.1653	55.36	2.1794	55.71	2.1934
	-	4	55.670	56.270	55.84	2.1985	56.10	2.2088	56.36	2.2190	56.62	2.2292	56.88	2.2395
	-	3	56.752	57.252	56.88	2.2395	57.08	2.2471	57.27	2.2548	57.47	2.2625	57.66	2.2701
M59	-	2	57.835	58.210	57.92	2.2804	58.05	2.2855	58.18	2.2906	58.31	2.2957	58.44	2.3008
	-	1.5	58.376	58.676	58.44	2.3008	58.54	2.3047	58.64	2.3085	58.73	2.3123	58.83	2.3162
	-	4	57.670	58.270	57.84	2.2773	58.10	2.2875	58.36	2.2977	58.62	2.3080	58.88	2.3182
M60	-	3	58.752	59.252	58.88	2.3182	59.08	2.3259	59.27	2.3335	59.47	2.3412	59.66	2.3489
	-	1	60.917	61.153	60.96	2.4000	61.03	2.4026	61.09	2.4051	61.16	2.4077	61.22	2.4103
	-	1.5	60.376	60.676	60.44	2.3796	60.54	2.3834	60.64	2.3872	60.73	2.3911	60.83	2.3949
M61	6													



17 TAP DRILL SIZES - UNIFIED THREAD / FORMING TAPS

Size	Threads Per Inch			Minor Diameter			Tap Drill Diameter (Cutting Tap)				
	UNC	UNF	UNEF	Min. 2B&3B	Max. 2B	Max. 3B	75% Thread	70% Thread	65% Thread	60% Thread	55% Thread
#0	-	80	-	.0465	.0514	.0514	.0536	.0541	.0545	.0549	.0553
#1	64	-	-	.0561	.0623	.0623	.0650	.0656	.0661	.0666	.0672
	-	72	-	.0580	.0635	.0635	.0659	.0664	.0669	.0673	.0678
#2	56	-	-	.0667	.0737	.0737	.0769	.0775	.0781	.0787	.0793
	-	64	-	.0691	.0753	.0753	.0780	.0786	.0791	.0796	.0802
#3	48	-	-	.0764	.0845	.0845	.0884	.0891	.0898	.0905	.0912
	-	56	-	.0797	.0865	.0865	.0899	.0905	.0911	.0917	.0923
#4	40	-	-	.0849	.0939	.0939	.0993	.1001	.1010	.1018	.1027
	-	48	-	.0894	.0968	.0968	.1014	.1021	.1028	.1035	.1042
#5	40	-	-	.0979	.1062	.1062	.1123	.1131	.1140	.1148	.1157
	-	44	-	.1004	.1079	.1079	.1134	.1142	.1150	.1157	.1165
#6	32	-	-	.1040	.1140	.1140	.1221	.1231	.1242	.1253	.1263
	-	40	-	.1110	.1190	.1186	.1253	.1261	.1270	.1278	.1287
#8	32	-	-	.1300	.1390	.1389	.1481	.1491	.1502	.1513	.1523
	-	36	-	.1340	.1420	.1416	.1498	.1508	.1517	.1527	.1536
#10	24	-	-	.1450	.1560	.1555	.1688	.1702	.1716	.1730	.1744
	-	32	-	.1560	.1640	.1641	.1741	.1751	.1762	.1773	.1783
#12	24	-	-	.1710	.1810	.1807	.1948	.1962	.1976	.1990	.2004
	-	28	-	.1770	.1860	.1857	.1978	.1990	.2002	.2014	.2026
1/4	-	-	32	.1820	.1900	.1895	.2001	.2011	.2022	.2033	.2043
	20	-	-	.1960	.2070	.2067	.2245	.2262	.2279	.2296	.2313
1/4	-	28	-	.2110	.2200	.2190	.2318	.2330	.2342	.2354	.2366
	-	-	32	.2160	.2240	.2229	.2341	.2351	.2362	.2373	.2383
5/16	18	-	-	.2520	.2650	.2630	.2842	.2861	.2879	.2898	.2917
	-	24	-	.2670	.2770	.2754	.2913	.2927	.2941	.2955	.2969
5/16	-	-	-	.2740	.2820	.2807	.2943	.2955	.2967	.2979	.2991
	-	-	32	.2790	.2860	.2847	.2966	.2976	.2987	.2998	.3008
3/8	16	-	-	.3070	.3210	.3182	.3431	.3453	.3474	.3495	.3516
	-	24	-	.3300	.3400	.3372	.3538	.3552	.3566	.3580	.3594
3/8	-	-	-	.3360	.3450	.3426	.3568	.3580	.3592	.3604	.3616
	-	-	32	.3410	.3490	.3469	.3591	.3601	.3612	.3623	.3633
7/16	14	-	-	.3600	.3760	.3717	.4011	.4035	.4059	.4084	.4108
	-	20	-	.3830	.3950	.3916	.4120	.4137	.4154	.4171	.4188
7/16	-	-	28	.3990	.4070	.4051	.4193	.4205	.4217	.4229	.4241
	13	-	-	.4170	.4340	.4284	.4608	.4634	.4660	.4686	.4712
1/2	-	20	-	.4460	.4570	.4537	.4745	.4762	.4779	.4796	.4813
	-	-	28	.4610	.4700	.4676	.4818	.4830	.4842	.4854	.4866
9/16	12	-	-	.4720	.4900	.4843	.5200	.5228	.5257	.5285	.5313
	-	18	-	.5020	.5150	.5106	.5342	.5361	.5379	.5398	.5417
9/16	-	-	24	.5170	.5270	.5244	.5413	.5427	.5441	.5455	.5469
	11	-	-	.5270	.5460	.5391	.5786	.5817	.5848	.5879	.5910
5/8	-	-	-	.5570	.5710	.5662	.5931	.5953	.5974	.5995	.6016
	-	18	-	.5650	.5780	.5730	.5967	.5986	.6004	.6023	.6042
5/8	-	-	24	.5800	.5900	.5869	.6038	.6052	.6066	.6080	.6094
	10	-	-	.6420	.6630	.6545	.6990	.7024	.7058	.7092	.7126
3/4	-	16	-	.6820	.6960	.6908	.7181	.7203	.7224	.7245	.7266
	-	-	20	.6960	.7070	.7037	.7245	.7262	.7279	.7296	.7313



Size	Threads Per Inch			Minor Diameter			Tap Drill Diameter (Cutting Tap)				
	UNC	UNF	UNEF	Min. 2B&3B	Max. 2B	Max. 3B	75% Thread	70% Thread	65% Thread	60% Thread	55% Thread
7/8	9	-	-	.7550	.7780	.7681	.8183	.8221	.8259	.8297	.8334
	-	14	-	.7980	.8140	.8068	.8386	.8410	.8434	.8459	.8483
	-	-	20	.8210	.8320	.8287	.8495	.8512	.8529	.8546	.8563
1	8	-	-	.8650	.8900	.8797	.9363	.9405	.9448	.9490	.9533
	-	12	-	.9100	.9280	.9198	.9575	.9603	.9632	.9660	.9688
	-	-	20	.9460	.9570	.9537	.9745	.9762	.9779	.9796	.9813
1-1/8	7	-	-	.9700	.9980	.9875	1.0521	1.0570	1.0619	1.0667	1.0716
	-	12	-	1.0350	1.0530	1.0448	1.0825	1.0853	1.0882	1.0910	1.0938
	-	-	18	1.0650	1.0780	1.0730	1.0967	1.0986	1.1004	1.1023	1.1042
1-1/4	7	-	-	1.0950	1.1230	1.1125	1.1771	1.1820	1.1869	1.1917	1.1966
	-	12	-	1.1600	1.1780	1.1698	1.2075	1.2103	1.2132	1.2160	1.2188
	-	-	18	1.1900	1.2030	1.1980	1.2217	1.2236	1.2254	1.2273	1.2292



TAP DRILL SIZES - METRIC THREAD / FORMING TAPS

Table with columns: Size, Pitch (M, MF), Minor dia. (Min. 6H, Max. 6H), Tap Drill Diameter (75% Thread, 70% Thread, 65% Thread, 60% Thread, 55% Thread) in MM and INCH. Rows include sizes M1 through M9.



Table with columns: Size, Pitch (M, MF), Minor dia. (Min. 6H, Max. 6H), Tap Drill Diameter (75% Thread, 70% Thread, 65% Thread, 60% Thread, 55% Thread) in MM and INCH. Rows include sizes M10 through M30.



19 TAP DRILL SIZES – METRIC, UNIFIED THREAD / STI

Metric	Size	RECOMMENDATION		Unified	Size	RECOMMENDATION	
		Drill Size				Drill Size	
		Inch	metric (mm)			Inch	metric (mm)
M2 × 0.4	.0827	2.10	#2 - 56 UNC	.0906	2.30		
M2.2 × 0.45	.0906	2.30	#3 - 48 UNC	.1063	2.70		
M2.5 × 0.45	.1024	2.60	#3 - 56 UNF	.1043	2.65		
M3 × 0.5	.1240	3.15	#4 - 40 UNC	.1181	3.00		
M3.5 × 0.6	.1457	3.70	#4 - 48 UNF	.1181	3.00		
M4 × 0.7	.1654	4.20	#5 - 40 UNC	.1339	3.40		
M5 × 0.8	.2047	5.20	#5 - 44 UNF	.1299	3.30		
M6 × 1.0	.2480	6.30	#6 - 32 UNC	.1457	3.70		
M7 × 1.0	.2874	7.30	#6 - 40 UNF	.1457	3.70		
M8 × 1.0	.3268	8.30	#8 - 32 UNC	.1732	4.40		
M8 × 1.25	.3307	8.40	#8 - 36 UNF	.1732	4.40		
M9 × 1.25	.3701	9.40	#10 - 24 UNC	.2008	5.10		
M10 × 1.25	.4094	10.40	#10 - 32 UNF	.2008	5.10		
M10 × 1.5	.4134	10.50	#12 - 24 UNC	.2283	5.80		
M11 × 1.5	.4528	11.50	1/4 - 20 UNC	.2638	6.70		
M12 × 1.25	.4882	12.40	1/4 - 28 UNF	.2598	6.60		
M12 × 1.5	.4921	12.50	5/16 - 18 UNC	.3307	8.40		
M12 × 1.75	.4921	12.50	5/16 - 24 UNF	.3228	8.20		
M14 × 1.5	.5709	14.50	3/8 - 16 UNC	.3937	10.00		
M14 × 2.0	.5709	14.50	3/8 - 24 UNF	.3858	9.80		
M16 × 1.5	.6496	16.50	7/16 - 14 UNC	.4528	11.50		
M16 × 2.0	.6496	16.50	7/16 - 20 UNF	.4528	11.50		
M18 × .5	.7283	18.50	1/2 - 13 UNC	.5236	13.30		
M18 × 2.0	.7283	18.50	1/2 - 20 UNF	.5157	13.10		
M18 × 2.5	.7382	18.75	9/16 - 12 UNC	.5866	14.90		
M20 × 1.5	.8071	20.50	9/16 - 18 UNF	.5787	14.70		
M20 × 2.0	.8071	20.50	5/8 - 11 UNC	.6496	16.50		
M20 × 2.5	.8169	20.75	5/8 - 18 UNF	.6417	16.30		
M22 × 1.5	.8858	22.50	3/4 - 10 UNC	.7795	19.80		
M22 × 2.0	.8858	22.50	3/4 - 16 UNF	.7677	19.50		
M22 × 2.5	.8957	22.75	7/8 - 9 UNC	.9055	23.00		
M24 × 2.0	.9646	24.50	7/8 - 14 UNF	.8858	22.50		
M24 × 3.0	.9843	25.00	1 - 8 UNC	1.0433	26.50		
M27 × 3.0	1.1024	28.00	1 - 12 UNF	1.0236	26.00		
M30 × 3.5	1.2205	31.00	1-1/8 - 7 UNC	1.1713	29.75		
			1-1/8 - 8 UN	1.1417	29.00		
			1-1/8 - 12 UNF	1.1516	29.25		
			1-1/4 - 7 UNC	1.2992	33.00		
			1-1/4 - 8 UN	1.2795	32.50		
			1-1/4 - 12 UNF	1.2795	32.50		
			1-3/8 - 6 UNC	1.4173	36.00		
			1-3/8 - 8 UN	1.3976	35.50		
			1-3/8 - 12 UNF	1.4173	36.00		
			1-1/2 - 6 UNC	1.5354	39.00		
			1-1/2 - 8 UN	1.5354	39.00		
			1-1/2 - 12 UNF	1.5354	39.00		



20 CONVERSION TABLE

SURFACE FEET PER MINUTE TO REVOLUTIONS PER MINUTE

Surface Feet Per Minute	20	25	30	40	50	60	70	80	90	100	110	120	130	140	150
TAP SIZE	Revolutions Per Minute														
#0	1273	1592	1910	2546	3183	3820	4456	5093	5730	6366	7003	7639	8276	8913	9549
#1	1047	1308	1570	2093	2617	3140	3663	4186	4710	5233	5756	6279	6808	7326	7849
#2	888	1110	1333	1777	2221	2665	3109	3554	3999	4422	4886	5330	5774	6218	6662
#3	772	964	1157	1543	1929	2315	2701	3086	3472	3858	4244	4629	5015	5401	5787
#4	682	853	1023	1364	1705	2046	2387	2728	3069	3411	3751	4092	4434	4775	5116
#5	611	764	917	1222	1528	1833	2139	2445	2750	3056	3361	3667	3973	4278	4584
#6	553	691	829	1106	1382	1658	1934	2211	2487	2764	3040	3316	3592	3869	4145
#8	466	583	699	932	1165	1398	1631	1864	2097	2330	2563	2796	3029	3262	3495
#10	402	502	603	804	1005	1205	1406	1607	1808	2009	2210	2411	2612	2813	3014
#12	354	442	531	707	884	1061	1238	1415	1592	1769	1945	2122	2300	2476	2653
1/4	306	382	458	611	764	917	1070	1222	1375	1528	1681	1833	1986	2139	2292
5/16	245	306	367	486	611	733	856	978	1100	1222	1345	1467	1589	1711	1833
3/8	204	255	306	407	509	611	713	815	917	1019	1120	1222	1324	1426	1528
7/16	175	219	262	349	437	524	611	698	786	873	960	1048	1135	1222	1310
1/2	153	191	229	306	382	458	535	611	688	764	840	917	993	1070	1146
9/16	137	172	206	275	344	412	481	550	619	687	756	825	893	963	1031
5/8	122	153	183	244	306	367	428	489	550	611	672	733	794	856	917
3/4	102	128	153	203	255	306	357	407	458	509	560	611	662	713	764
7/8	87	109	131	175	218	252	306	350	392	437	480	524	568	611	655
1	76	96	115	153	191	230	268	306	344	382	420	458	497	535	573



Specific Problem	Cause	Solution
Dimensional Accuracy		
Oversize Pitch Diameter	Tap	<ol style="list-style-type: none"> 1. Use Proper Limits Of Taps 2. Use Longer Chamfered Taps
	Chip Packing	<ol style="list-style-type: none"> 1. Use Spiral Point Or Spiral Fluted Taps 2. Reduce Number Of Flutes To Provided Extra Chip Room 3. Use Larger Hole Size 4. If Tapping A Hole, Allow Deeper Hole Where Applicable Or Shorten The Thread Length Of The Parts 5. Use Proper Lubricant
	Galling	<ol style="list-style-type: none"> 1. Apply Proper Surface Treatment Such As Hardslick Or Chrome 2. Use Proper Cutting Lubricant 3. Reduce Tapping Speed 4. Use Proper Cutting Angle In Accordance With Material Being Tapped 5. Use Large Hole Size
	Operating Conditions	<ol style="list-style-type: none"> 1. Apply Proper Tapping Speed 2. Correct Alignment Of Tap And Drill Hole 3. Free Cutting Either Tap Or Workpiece 4. Use Proper Tapping Speed To Avoid Torn Or Rough Threads 5. Use Lead Screw Tapper 6. Use Proper Tapping Machine With Suitable Power 7. Avoid Misalignment Of The Tap And Drill Hole From Loose Spindle Or Worn Holder
	Tool Condition	<ol style="list-style-type: none"> 1. Obtain Proper Indexing Angle For The Flutes At The Cutting Edge 2. Grind Proper Cutting Angle And Chamfer Angle 3. Avoid Too Narrow A Land Width 4. Remove Burrs From Regrinding
	Hole Size	<ol style="list-style-type: none"> 1. Use Minimum Hole Size 2. Avoid Tapered Hole 3. Use Proper Chamfered Taps
Oversize Internal Diameter	Galling	1. Galling Solutions 1 Through 4 Above Can Be Applied To This Specific Problem
	Incorrect Tap	<ol style="list-style-type: none"> 1. Use Oversize Taps 2. Apply Proper Chamfer Angle 3. Increase Cutting Angle
Undersize Pitch Diameter	Damaged Thread	1. Use Proper Reversing Speed To Avoid Damaging Tapped Thread On The Way Out Of The Hole
	Left-over Chips	<ol style="list-style-type: none"> 1. Increase Cutting Performance To Avoid Any Left Over Chips In The Hole 2. Remove Left Over Chips From The Hole For Gage Checking
	Hole Size	1. USE MAXIMUM DRILL SIZE
Undersize Internal Diameter	Hole Size	1. USE MAXIMUM DRILL SIZE

Specific Problem	Cause	Solution
Tool Life		
Breakage	Incorrect Tap Selection	<ol style="list-style-type: none"> 1. Avoid chip packing in the flutes or the bottom of the hole. Use spiral pointed or spiral fluted taps or fluteless taps. 2. Apply correct surface treatment such as Hardslick or bright
	Excessive Tapping Torque	<ol style="list-style-type: none"> 1. Use larger drill size 2. Try to shorten thread length 3. Increase cutting angle 4. Apply a tap with more thread relief and reduced land width 5. Apply correct surface treatment such as Hardslick
	Operating Conditions	<ol style="list-style-type: none"> 1. Reduce tapping speed 2. Avoid misalignment between tap and the hole and tapered hole 3. Use floating type of tapping holder 4. Use tapping holder with torque adjustment 5. Avoid hitting bottom of the hole with tap
	Tool Condition	<ol style="list-style-type: none"> 1. Do not grind the bottom of the flute 2. Avoid too narrow a land width 3. Remove all worn sections when regrinding the flutes 4. Regrind tool more frequently
Chipping	Incorrect Tap Selection	<ol style="list-style-type: none"> 1. Reduce cutting angle 2. Use a different kind of high-speed steel tap 3. Reduce hardness of the tap 4. Increase chamfer length 5. Avoid chip packing in the flutes or in the bottom of the hole by using spiral fluted or spiral pointed taps
	Wear	<ol style="list-style-type: none"> 1. Reduce tapping speed 2. Avoid misalignment between tap and hole 3. Avoid sudden return of reverse in blind hole tapping 4. Avoid galling 5. Use larger hole size
Wearx	Incorrect Tap Selection	<ol style="list-style-type: none"> 1. Apply specially designed tap for tapping heat treated material 2. Change to a type of high-speed steel tap that contains vanadium 3. Apply special surface treatment such as TiCN or Hardslick 4. Increase chamfer length
	Operating Conditions	<ol style="list-style-type: none"> 1. Reduce tapping speed 2. Apply proper cutting lubricants 3. Avoid work hardened hole 4. Use larger hole size
	Tool Condition	<ol style="list-style-type: none"> 1. Grind proper cutting angle 2. Avoid hardness reduction from grinding process
Torn or Rough Thread	Chamfer Too Short	1. Increase chamfer length
	Wrong Cutting Angle	1. Apply proper cutting angle



Specific Problem	Cause	Solution
Surface Finish		
Torn or Rough Thread	Galling	<ol style="list-style-type: none"> 1. Use thread relieved taps 2. Reduce land width 3. Apply surface treatment such as Hardslick or chrome 4. Use proper cutting lubricant 5. Reduce tapping speed 6. Use larger hole size 7. Obtain proper alignment between tap and work
	Chip Packing	<ol style="list-style-type: none"> 1. Use spiral pointed or spiral fluted taps 2. Use larger drill size
Chattering on Tapped Thread	Tool Free Cutting	<ol style="list-style-type: none"> 1. Reduce cutting angle 2. Reduce amount of thread relief
	Tool Condition	<ol style="list-style-type: none"> 1. Do not grind the bottom of the flute 2. Avoid too narrow a land width