

YU24
AMERICA
2024



CUTTING TOOLS



THREADING

YG 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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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
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SELECTION GUIDE



THREADING TOOLS



THREAD MILL table with columns for TYPE, HOLE TYPE, THREAD FORM, TOOL MATERIAL, FLUTE TYPE, HELIX ANGLE, SERIES, and SURFACE TREATMENT / COATING.



◎ : Excellent
○ : Good

Main ISO table with columns: ISO, VDI 3323, Material Description, HB, HRC, and performance ratings for various materials and conditions.

THREAD MILL

THREAD MILL table with columns for Miniature, without Coolant Hole, with Coolant Hole, without Coolant Hole, with Coolant Hole, without Coolant Hole, with Coolant Hole.



Main ISO table for the second page with columns: ISO, VDI 3323, Material Description, HB, HRC, and performance ratings.

SELECTION GUIDE



THREADING TOOLS

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◎ : Excellent
○ : Good

ISO	VDI 3323	Material Description	HB	HRc	SYNCHRO TAP								
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	Low alloy steel	180	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		High alloyed steel, and tool steel	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		75		◎	148-197	◎	148-197	◎	148-197	◎	148-197	
	24	Aluminum-cast, alloyed	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	Copper and Copper Alloys (Bronze / Brass)	90										
	28		100		○	82-118	○	82-118	○	82-118	○	82-118	
	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									

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	



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		



○	79-148	○	79-148	◎	115-184	◎	115-184	1
○	79-148	○	79-148	◎	115-184	◎	115-184	2
○	79-148	○	79-148	◎	115-184	◎	115-184	3
○	66-128	○	66-128	◎	98-164	◎	98-164	4
○	66-128	○	66-128	◎	98-164	◎	98-164	5
○	66-128	○	66-128	◎	98-164	◎	98-164	6
○	66-128	○	66-128	◎	98-164	◎	98-164	7
								8
								9
								10
								11
				◎	49-108	◎	49-108	12
				◎	49-108	◎	49-108	13
				◎	49-75	◎	49-75	14
◎	98-148	◎	98-148					15
◎	98-148	◎	98-148					16
◎	82-148	◎	82-148					17
◎	82-148	◎	82-148					18
○	82-148	○	82-148					19
○	82-148	○	82-148					20
				◎	131-184	◎	131-184	21
				◎	131-184	◎	131-184	22
○	148-197	○	148-197	◎	184-230	◎	184-230	23
○	148-197	○	148-197	◎	184-230	◎	184-230	24
○	82-118	○	82-118	○	115-148	○	115-148	25
								26
								27
				◎	115-148	◎	115-148	28
								29
								30
								31
								32
								33
								34
								35
								36
								37
								38
								39
								40
								41

SELECTION GUIDE



THREADING TOOLS

HOLE TYPE		COMBO TAP					
FORM TYPE		Standard					
TOOL MATERIAL		HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
FLUTE TYPE		Spiral Flute					
SPIRAL FLUTE ANGLE		R40	R40	R40	R40	R40	R40
M	USCTI 302A						
M/MF	USCTI 302A				T5 (p.B90)	T5-S (p.B90)	T5-C (p.B90)
	DIN Length-ANSI Shank						
UNC	USCTI Long Shank						
UNC/UNF	USCTI 302						
	USCTI 302A	T2 (p.B86)	T2-S (p.B86)	T2-C (p.B86)			
	DIN Length-ANSI Shank						
SURFACE TREATMENT / COATING		Bright	Steam Oxide	TiCN	Bright	Steam Oxide	TiCN

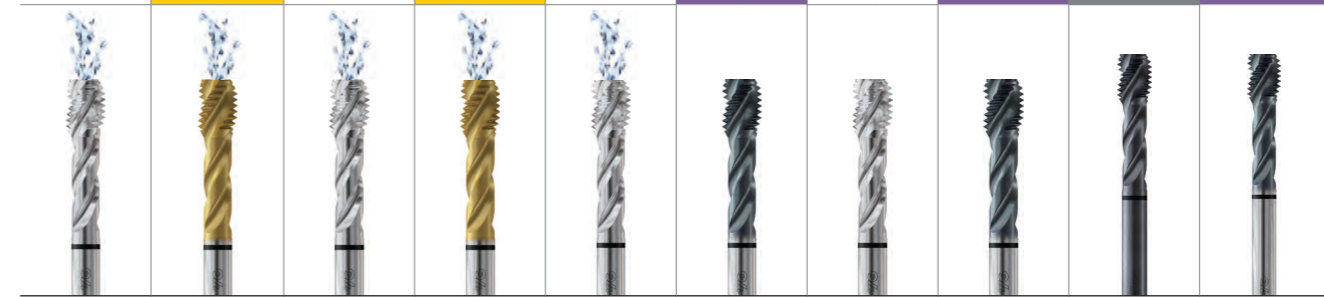
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◎ : Excellent
○ : Good

ISO	VDI 3323	Material Description	HB	HRc							
P	1	Non-alloy steel	125		○ 25-50	○ 25-50	○ 50-80	○ 25-50	○ 25-50	○ 50-80	
	2		190	13	◎ 25-50	◎ 25-50	◎ 50-80	◎ 25-50	◎ 25-50	◎ 50-80	
	3		250	25	◎ 25-50	◎ 25-50	◎ 50-80	◎ 25-50	◎ 25-50	◎ 50-80	
	4		270	28	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	
	5		300	32	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	
	6	Low alloy steel	180	10	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	
	7		275	29	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	
	8		300	32	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	
	9		350	38	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	
	10		High alloyed steel, and tool steel	200	15	○ 6-30	○ 6-30	○ 10-35	○ 6-30	○ 6-30	○ 10-35
	11			325	35						
M	12	Stainless steel	200	15	◎ 12-35	◎ 12-35	◎ 20-50	◎ 12-35	◎ 12-35	◎ 20-50	
	13		240	23	◎ 12-35	◎ 12-35	◎ 20-50	◎ 12-35	◎ 12-35	◎ 20-50	
	14		180	10	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	
K	15	Grey cast iron	180	10	◎ 35-50	◎ 35-50	◎ 50-65	◎ 35-50	◎ 35-50	◎ 50-65	
	16		260	26	◎ 35-50	◎ 35-50	◎ 50-65	◎ 35-50	◎ 35-50	◎ 50-65	
	17	Nodular cast iron	160	3	◎ 12-45	◎ 12-45	◎ 25-55	◎ 12-45	◎ 12-45	◎ 25-55	
	18		250	25	◎ 12-45	◎ 12-45	◎ 25-55	◎ 12-45	◎ 12-45	◎ 25-55	
	19	Malleable cast iron	130								
	20		230	21							
N	21	Aluminum-wrought alloy	60								
	22		100								
	23	Aluminum-cast, alloyed	75		◎ 40-65	◎ 40-65	◎ 45-90	◎ 40-65	◎ 40-65	◎ 45-90	
	24		90								
	25		130								
	26	Copper and Copper Alloys (Bronze / Brass)	110		◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	
	27		90		◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	
	28		100		◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	
	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	Hardened Cast Iron	400	42							
	41		550	55							

COMBO TAP

HOLE TYPE		COMBO TAP									
FORM TYPE		Standard									
TOOL MATERIAL		HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
FLUTE TYPE		Spiral Flute									
SPIRAL FLUTE ANGLE		R40	R40	R40	R40	R40	R40	R40	R40	R40	R40
M	USCTI 302A										
M/MF	USCTI 302A										
	DIN Length-ANSI Shank										
UNC	USCTI Long Shank										
UNC/UNF	USCTI 302										
	USCTI 302A	T6 (p.B92)	T6-N (p.B92)			T7 (p.B94)	T7-C (p.B94)				
	DIN Length-ANSI Shank										
SURFACE TREATMENT / COATING		Bright	TiN	Bright	TiN	Bright	TiCN	Bright	TiCN	Steam Oxide	TiCN



ISO	VDI 3323	Material Description	HB	HRc								
P	1	Non-alloy steel	125		○ 25-50	○ 50-80	○ 25-50	○ 25-50	○ 50-80	○ 25-50	○ 50-80	
	2		190	13	◎ 25-50	◎ 50-80	◎ 25-50	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	
	3		250	25	◎ 25-50	◎ 50-80	◎ 25-50	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	
	4		270	28	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	
	5		300	32	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	
	6	Low alloy steel	180	10	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	
	7		275	29	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	
	8		300	32	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	
	9		350	38	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	
	10		High alloyed steel, and tool steel	200	15	○ 6-30	○ 10-35	○ 6-30	○ 6-30	○ 10-35	○ 6-30	○ 10-35
	11			325	35							
M	12	Stainless steel	200	15	◎ 12-35	◎ 20-50	◎ 12-35	◎ 12-35	◎ 20-50	◎ 12-35	◎ 20-50	
	13		240	23	◎ 12-35	◎ 20-50	◎ 12-35	◎ 12-35	◎ 20-50	◎ 12-35	◎ 20-50	
	14		180	10	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	
K	15	Grey cast iron	180	10	◎ 35-50	◎ 50-65	◎ 35-50	◎ 35-50	◎ 50-65	◎ 35-50	◎ 50-65	
	16		260	26	◎ 35-50	◎ 50-65	◎ 35-50	◎ 35-50	◎ 50-65	◎ 35-50	◎ 50-65	
	17	Nodular cast iron	160	3	◎ 12-45	◎ 25-55	◎ 12-45	◎ 12-45	◎ 25-55	◎ 12-45	◎ 25-55	
	18		250	25	◎ 12-45	◎ 25-55	◎ 12-45	◎ 12-45	◎ 25-55	◎ 12-45	◎ 25-55	
	19	Malleable cast iron	130									
	20		230	21								
N	21	Aluminum-wrought alloy	60									
	22		100									
	23	Aluminum-cast, alloyed	75		◎ 40-65	◎ 45-90	◎ 40-65	◎ 40-65	◎ 45-90	◎ 40-65	◎ 45-90	
	24		90									
	25		130									
	26	Copper and Copper Alloys (Bronze / Brass)	110		◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	
	27		90		◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	
	28		100		◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	◎ 30-65	
	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	Hardened Cast Iron	400	42								
	41		550	55								

SELECTION GUIDE



THREADING TOOLS



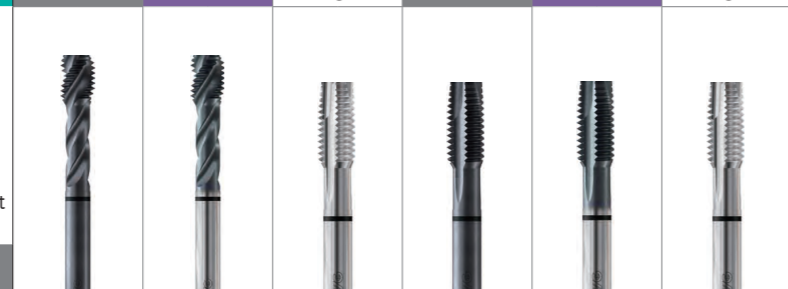
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◎ : Excellent
○ : Good

Table with columns: ISO, VDI 3323, Material Description, HB, HRc, and 10 columns of hole type compatibility (Max. 2.5xD Blind Hole, Max. 3.0xD Through Hole).

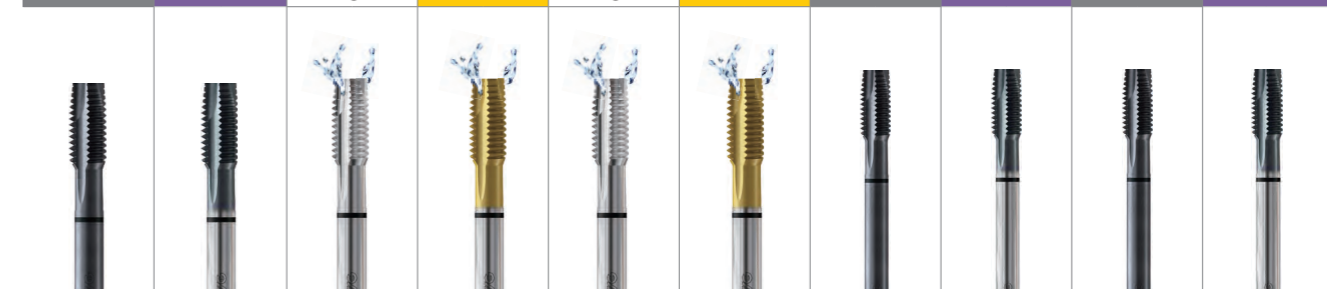
COMBO TAP

Table defining tap specifications: HOLE TYPE, FORM TYPE, TOOL MATERIAL, FLUTE TYPE, SPIRAL FLUTE ANGLE, M, M/MF, UNC, UNC/UNF, SURFACE TREATMENT / COATING.



COMBO TAP

Table defining tap specifications: HOLE TYPE, FORM TYPE, TOOL MATERIAL, FLUTE TYPE, SPIRAL FLUTE ANGLE, M, M/MF, UNC, UNC/UNF, SURFACE TREATMENT / COATING.



SELECTION GUIDE



THREADING TOOLS



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◎ : Excellent
○ : Good

YG TAP BLUE RING

HOLE TYPE	Max. 2.5xD Blind Hole						
	TOOL MATERIAL		HSS-PM		HSS-PM		
	FLUTE TYPE		Spiral Flute		Spiral Flute		
SPIRAL FLUTE ANGLE		R40		R40			
SERIES	M						
	M/MF			BH (p.B119)	BM (p.B119)		
	UNC						
	UNC/UNF	BB (p.B116)	BI (p.B116)			BF (p.B120) BK (p.B120)	
	UNC/UNF/UNS						
	UNC/UN8						
	NPT						
	NPTF						
SURFACE TREATMENT / COATING		Steam Oxide	HardSlick	Steam Oxide	HardSlick	Steam Oxide	HardSlick



ISO	VDI 3323	Material Description	HB	HRc	25-50	50-80	25-50	50-80	25-50	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						
			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	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 BLUE RING

Max. 2.5xD Blind Hole		Max. 3.0xD Through Hole							
TOOL MATERIAL		HSS-PM		HSS-PM		HSS-PM		HSS-PM	
FLUTE TYPE		Spiral Flute		Spiral Point		Spiral Point		Spiral Point	
SPIRAL FLUTE ANGLE		R40		-		-		-	
BD (p.B122)	BO (p.B122)			N7 (p.B126)	N8 (p.B126)			N3 (p.B129)	O3 (p.B129)
		M9 (p.B123)	O1 (p.B123)			N4 (p.B127)	O5 (p.B127)		
SURFACE TREATMENT / COATING		Steam Oxide	HardSlick	Steam Oxide	HardSlick	Steam Oxide	HardSlick	Steam Oxide	HardSlick



ISO	VDI 3323	Material Description	HB	HRc	25-50	50-80	25-50	50-80	25-50	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						
			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	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							

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THREADING TOOLS



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◎ : Excellent
○ : Good

Table with columns: ISO, VDI 3323, Material Description, HB, HRC, and 8 columns of material compatibility (P, M, K, N, S, H) with performance indicators (◎, ○).

YG TAP STEEL



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.



YG TAP STEEL



Table with columns: HOLE TYPE, TOOL MATERIAL, FLUTE TYPE, SPIRAL POINT, SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF), SURFACE TREATMENT / COATING.



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THREADING TOOLS

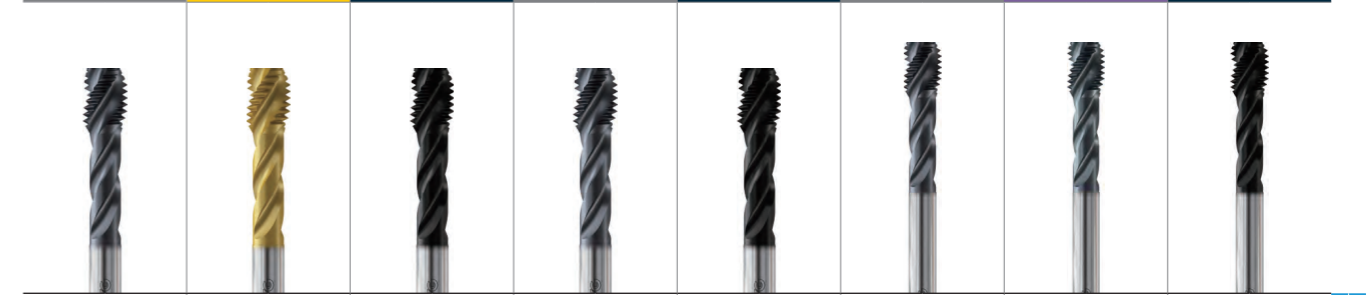


		YG TAP INOX				
HOLE TYPE		Max. 2.5xD Blind Hole				
TOOL MATERIAL		HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-E
FLUTE TYPE		Spiral Flute				
SPIRAL FLUTE ANGLE		R45	R45	R45	R45	R45
SERIES	M					
	M/MF					
	UNC					
	UNC/UNF	G7 (p.B154)	G8 (p.B154)	G9 (p.B154)	H0 (p.B154)	B1 (p.B155)
	UNC/UNF/UNS					
	UNC/UN8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

◎ : 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	Aluminum-cast, alloyed	75							
	24		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	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							
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		R45	R45	R45	R45	R45	R45	R45	R45
SERIES	M								
	M/MF								
	UNC								
	UNC/UNF	B0 (p.B155)	B2 (p.B155)	D2 (p.B155)					
	UNC/UNF/UNS								
	UNC/UN8								
	NPT								
	NPTF								
SURFACE TREATMENT / COATING		Steam Oxide	TIN	HardSlick	Steam Oxide	HardSlick	Steam Oxide	TiCN	HardSlick



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	Aluminum-cast, alloyed	75							
	24		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	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						

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THREADING TOOLS



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◎ : Excellent
○ : Good

Table with columns: ISO, VDI 3323, Material Description, HB, HRC, and 5 columns of hole type compatibility (Max. 3.0xD Through Hole). 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), and H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

YG TAP INOX

YG TAP INOX selection table for Max. 3.0xD Through Hole. Columns: HOLE TYPE, TOOL MATERIAL (HSS-PM), FLUTE TYPE (Spiral Point), SPIRAL FLUTE ANGLE, SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF), SURFACE TREATMENT / COATING (TiN, TiN, HardSlick, HardSlick, Steam Oxide).



YG TAP INOX

YG TAP INOX selection table for Max. 3.0xD Through Hole and Max. 2.5xD Blind Hole. Columns: HOLE TYPE, TOOL MATERIAL (HSS-PM, HSS-E), FLUTE TYPE (Spiral Point, Spiral Flute), SPIRAL FLUTE ANGLE, SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF), SURFACE TREATMENT / COATING (TiN, HardSlick, Steam Oxide, HardSlick, Steam Oxide, TiCN, HardSlick, TiN, HardSlick, HardSlick, Oil Field, Gold & Black).



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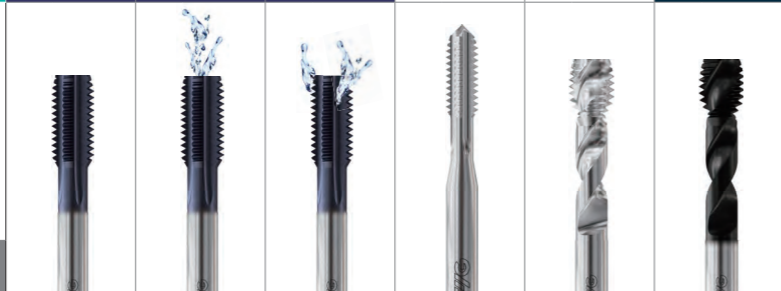


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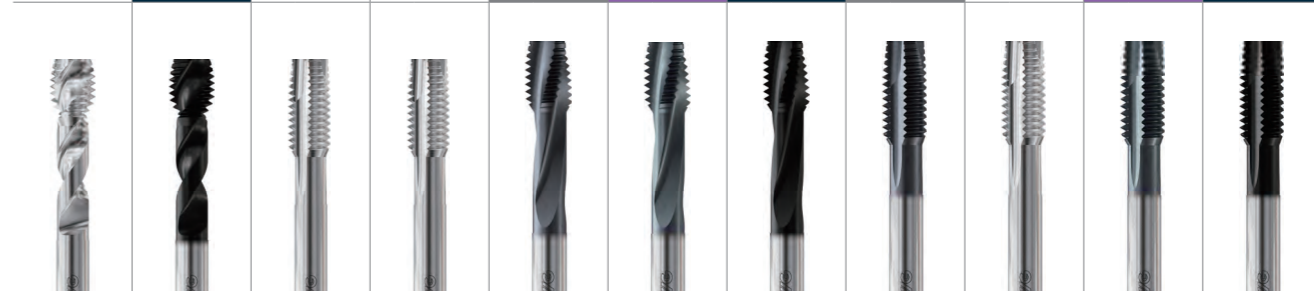
◎ : Excellent
○ : Good

ISO	VDI 3323	Material Description	HB	HRc	YG TAP CAST IRON				YG TAP ALU	
					Max. 3.0xD Through Hole	Max. 3.0xD Through Hole	Max. 3.0xD Through Hole	Carbide	Max. 2.5xD Blind Hole	Max. 2.5xD Blind Hole
P	1	Non-alloy steel	125							
	2		190							
	3		250							
	4		270							
	5	300								
	6	Low alloy steel	180							
	7		275							
	8		300							
	9		350							
	10		High alloyed steel, and tool steel	200						
	11	325	35							
M	12	Stainless steel	200							
	13		240							
K	14		180							
	15	Grey cast iron	180		◎ 50-65	◎ 50-65	◎ 50-65	◎ 35-50		
	16		260		◎ 50-65	◎ 50-65	◎ 50-65	◎ 35-50		
	17	Nodular cast iron	160		◎ 25-55	◎ 25-55	◎ 25-55	◎ 12-45		
	18		250		◎ 25-55	◎ 25-55	◎ 25-55	◎ 12-45		
	19	Malleable cast iron	130		○ 25-55	○ 25-55	○ 25-55	○ 12-45		
	20		230		○ 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	◎ 40-65	◎ 45-90
24			90		○ 45-90	○ 45-90	○ 45-90	○ 40-65	○ 40-65	○ 45-90
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							
	32		280							
	33		250							
	34		350							
	35	320								
	36	Titanium Alloys	400 Rm							
	37		1050 Rm							
H	38	Hardened steel	550							
	39		630							
	40	Chilled Cast Iron	400							
	41	Hardened Cast Iron	550							

HOLE TYPE	YG TAP CAST IRON				YG TAP ALU		
	Max. 3.0xD Through Hole	Max. 3.0xD Through Hole	Max. 3.0xD Through Hole	Carbide	Max. 2.5xD Blind 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							
NPS/NPSF							
SURFACE TREATMENT / COATING	TiAIN	TiAIN	TiAIN	Bright	Bright	HardSlick	



YG TAP ALU				YG TAP TI / NI							
Max. 2.5xD Blind Hole		Max. 3.0xD Through Hole		Max. 2.5xD Blind Hole		Max. 2.5xD Blind Hole		Max. 3.0xD Through 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	



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THREADING TOOLS



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⊙ : Excellent
○ : Good

YG TAP HARDENED STEEL

HOLE TYPE	Max. 2.5xD Blind Hole			Max. 3.0xD Through Hole			
	TOOL MATERIAL						
	FLUTE TYPE						
SERIES		Spiral Flute			Spiral Point		
SPIRAL FLUTE ANGLE		R15			R15		
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



ISO	VDI 3323	Material Description	HB	HRC	Max. 2.5xD Blind Hole			Max. 3.0xD Through Hole		
P	1	Non-alloy steel	125							
	2		190	13						
	3		250	25						
	4		270	28						
	5	300	32							
	6	180	10							
	7	275	29	○ 6-30	○ 10-35	○ 10-35	○ 6-30	○ 10-35	○ 10-35	
	8	300	32	⊙ 6-30	⊙ 10-35	⊙ 10-35	⊙ 6-30	⊙ 10-35	⊙ 10-35	
	9	350	38	⊙ 6-30	⊙ 10-35	⊙ 10-35	⊙ 6-30	⊙ 10-35	⊙ 10-35	
	10	High alloyed steel, and tool steel	200	15	⊙ 6-12	⊙ 6-12	⊙ 6-12	⊙ 6-12	⊙ 6-12	⊙ 6-12
	11	325	35	⊙ 6-12	⊙ 6-12	⊙ 6-12	⊙ 6-12	⊙ 6-12	⊙ 6-12	
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	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 HARDENED STEEL

Max. 3.0xD Through Hole						
Spiral Point						
HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM
-	-	-	-	-	-	-
				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



							1
							2
							3
							4
							5
							6
○ 6-30	○ 6-30	○ 10-35	○ 10-35	○ 6-30	○ 10-35	○ 10-35	7
○ 6-30	○ 6-30	○ 10-35	○ 10-35	○ 6-30	○ 10-35	○ 10-35	8
⊙ 6-30	⊙ 6-30	⊙ 10-35	⊙ 10-35	⊙ 6-30	⊙ 10-35	⊙ 10-35	9
⊙ 6-12	⊙ 6-12	⊙ 6-12	⊙ 6-12	⊙ 6-12	⊙ 6-12	⊙ 6-12	10
⊙ 6-12	⊙ 6-12	⊙ 6-12	⊙ 6-12	⊙ 6-12	⊙ 6-12	⊙ 6-12	11
							12
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							37
○ 3-15	○ 3-15	○ 3-15	○ 3-15	○ 3-15	○ 3-15	○ 3-15	38
○ 3-15	○ 3-15	○ 3-15	○ 3-15	○ 3-15	○ 3-15	○ 3-15	39
							40
							41

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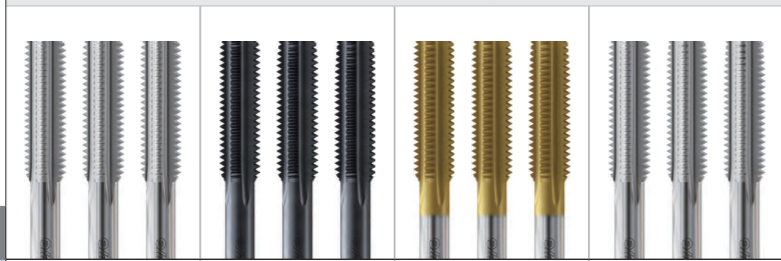
◎ : Excellent
○ : Good

Table with columns: ISO, VDI 3323, Material Description, HB, HRC, and performance indicators for various materials (P, M, K, N, S, H).

YG TAP GENERAL

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

HAND TAP



YG TAP GENERAL

Table with columns: HSS, HSS, HSS, HSS, HSS, HSS, HSS, HSS, HSS, HSS, HSS, HSS, HSS, HSS, HSS, HSS.

HAND TAP



Table with columns: Performance indicators for various materials (P, M, K, N, S, H).

SELECTION GUIDE



THREADING TOOLS



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◎ : Excellent
○ : Good

		YG TAP GENERAL								
		Max. 2.5xD Blind Hole								
HOLE TYPE		HSS-E	HSS-E	HSS-E	HSS-E	HSS-E				
TOOL MATERIAL		Spiral Flute								
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									
SURFACE TREATMENT / COATING		Steam Oxide	Bright	TIN	HardSlick	Steam Oxide				
ISO	VDI 3323	Material Description	HB	HRc						
P	1	Non-alloy steel	125		◎ 25-50	◎ 25-50	◎ 50-80	◎ 50-80	◎ 25-50	
	2		190	13	◎ 25-50	◎ 25-50	◎ 50-80	◎ 50-80	◎ 25-50	
	3		250	25	◎ 25-50	◎ 25-50	◎ 50-80	◎ 50-80	◎ 25-50	
	4		270	28	◎ 6-30	○ 6-30	○ 10-35	○ 10-35	○ 6-30	
	5		300	32	○ 6-30	○ 6-30	○ 10-35	○ 10-35	○ 6-30	
	6	Low alloy steel	180	10	◎ 6-30	◎ 6-30	◎ 10-35	◎ 10-35	◎ 6-30	
	7		275	29	○ 6-30	○ 6-30	○ 10-35	○ 10-35	○ 6-30	
	8		300	32	○ 6-30	○ 6-30	○ 10-35	○ 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	○ 20-50	○ 12-35	
	13		240	23	○ 12-35	○ 12-35	○ 20-50	○ 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	○ 25-55	○ 12-45	
	18		250	25	○ 12-45	○ 12-45	○ 25-55	○ 25-55	○ 12-45	
	19		130							
20	Malleable cast iron	230	21							
N	21	Aluminum-wrought alloy	60							
	22		100							
	23		75		○ 40-65	○ 40-65	○ 45-90	○ 45-90	○ 40-65	
	24	Aluminum-cast, alloyed	90		○ 40-65	○ 40-65	○ 45-90	○ 45-90	○ 40-65	
	25		130							
	26		110		○ 50-60	○ 50-60	○ 65-100	○ 65-100	○ 50-60	
	27	Copper and Copper Alloys (Bronze / Brass)	90		○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	
	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

		YG TAP GENERAL					
		Max. 2.5xD Blind Hole					
HOLE TYPE		HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	
TOOL MATERIAL		Spiral Flute					
FLUTE TYPE		Spiral Flute					
SPIRAL FLUTE ANGLE		R50	R50	R50	R45	R45	
SERIES	M						
	M/MF						
	UNC						
	UNC/UNF	F8 (p.B234)	F6 (p.B234)	G4 (p.B236)	G5 (p.B236)	G6 (p.B236)	
	UNC/UNF/UNS						
	UNC/UN8						
	NPT						
	NPTF						
SURFACE TREATMENT / COATING		TIN	HardSlick	Bright	TiCN	HardSlick	
ISO	VDI 3323	Material Description	HB	HRc			
P	1	Non-alloy steel	125		◎ 25-50	◎ 25-50	
	2		190	13	◎ 25-50	◎ 25-50	
	3		250	25	◎ 25-50	◎ 25-50	
	4		270	28	◎ 6-30	○ 6-30	
	5		300	32	○ 6-30	○ 6-30	
	6	Low alloy steel	180	10	◎ 6-30	◎ 6-30	
	7		275	29	○ 6-30	○ 6-30	
	8		300	32	○ 6-30	○ 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	
	13		240	23	○ 12-35	○ 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	
	18		250	25	○ 12-45	○ 12-45	
	19		130				
20	Malleable cast iron	230	21				
N	21	Aluminum-wrought alloy	60				
	22		100				
	23		75		○ 40-65	○ 40-65	
	24	Aluminum-cast, alloyed	90		○ 40-65	○ 40-65	
	25		130				
	26		110		○ 50-60	○ 50-60	
	27	Copper and Copper Alloys (Bronze / Brass)	90		○ 30-65	○ 30-65	
	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			

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THREADING TOOLS



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ISO	VDI 3323	Material Description	HB	Hrc							
P	1	Non-alloy steel	125		◎ 25-50	◎ 25-50	◎ 50-80	◎ 25-50	◎ 25-50	◎ 50-80	
	2		190	13	◎ 25-50	◎ 25-50	◎ 50-80	◎ 25-50	◎ 25-50	◎ 50-80	
	3		250	25	◎ 25-50	◎ 25-50	◎ 50-80	◎ 25-50	◎ 25-50	◎ 50-80	
	4		270	28	○ 6-30	○ 6-30	○ 10-35	○ 6-30	○ 6-30	○ 10-35	
	5	300	32	○ 6-30	○ 6-30	○ 10-35	○ 6-30	○ 6-30	○ 10-35		
	6	Low alloy steel	180	10	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	
	7		275	29	○ 6-30	○ 6-30	○ 10-35	○ 6-30	○ 6-30	○ 10-35	
	8		300	32	○ 6-30	○ 6-30	○ 10-35	○ 6-30	○ 6-30	○ 10-35	
	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	○ 12-35	○ 20-50
	13	240		23	○ 12-35	○ 12-35	○ 20-50	○ 12-35	○ 12-35	○ 20-50	
	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	○ 12-45	○ 25-55	
	18		250	25	○ 12-45	○ 12-45	○ 25-55	○ 12-45	○ 12-45	○ 25-55	
	19	Malleable cast iron	130								
	20		230	21							
N	21	Aluminum-wrought alloy	60								
	22		100								
	23	Aluminum-cast, alloyed	75		○ 40-65	○ 40-65	○ 45-90	○ 40-65	○ 40-65	○ 45-90	
	24		90		○ 40-65	○ 40-65	○ 45-90	○ 40-65	○ 40-65	○ 45-90	
	25		130								
	26		110		○ 50-60	○ 65-100	○ 50-60	○ 50-60	○ 65-100	○ 50-60	
	27	Copper and Copper Alloys (Bronze / Brass)	90		○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	
	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 GENERAL



HOLE TYPE	Max. 2.5xD Blind Hole						
TOOL MATERIAL	HSS	HSS	HSS	HSS	HSS	HSS	
FLUTE TYPE	Spiral Flute						
SPIRAL FLUTE ANGLE	R50	R50	R50	R50	R50	R50	
SERIES	M						
	M/MF						
	UNC						
	UNC/UNF	T7A96 (p.B239)	T6A96 (p.B239)	T8A96 (p.B239)	T7295 (p.B240)	T6295 (p.B240)	T8295 (p.B240)
	UNC/UNF/UNS						
	UNC/UN8						
	NPT						
	NPTF						
NPS/NPSF							
SURFACE TREATMENT / COATING	Bright	Steam Oxide	TiN	Bright	Steam Oxide	TiN	



YG TAP GENERAL



HOLE TYPE	Max. 2.5xD Blind Hole										
TOOL MATERIAL	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	
FLUTE TYPE	Spiral Flute										
SPIRAL FLUTE ANGLE	R50	R50	R50	R50	R50	R50	R50	R50	R50	R50	
SERIES	M										
	M/MF										
	UNC										
	UNC/UNF	T7A86 (p.B241)	T6A86 (p.B241)	T8A86 (p.B241)	T7A85 (p.B241)	T6A85 (p.B241)	T8A85 (p.B241)				
	UNC/UNF/UNS							T7D01 (p.B242)	T8D01 (p.B242)	T7D02 (p.B242)	T8D02 (p.B242)
	UNC/UN8										
	NPT										
	NPTF										
NPS/NPSF											
SURFACE TREATMENT / COATING	Bright	Steam Oxide	TiN	Bright	Steam Oxide	TiN	Bright	TiN	Bright	TiN	



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THREADING TOOLS



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ISO	VDI 3323	Material Description	HB	HRc										
P	1	Non-alloy steel	125		◎	25-50	◎	25-50	◎	50-80	◎	50-80	◎	25-50
	2		190	13	◎	25-50	◎	25-50	◎	50-80	◎	50-80	◎	25-50
	3		250	25	◎	25-50	◎	25-50	◎	50-80	◎	50-80	◎	25-50
	4		270	28	○	6-30	○	6-30	○	10-35	○	10-35	○	6-30
	5		300	32	○	6-30	○	6-30	○	10-35	○	10-35	○	6-30
	6	180	10	◎	6-30	◎	6-30	◎	10-35	◎	10-35	◎	6-30	
	7	275	29	○	6-30	○	6-30	○	10-35	○	10-35	○	6-30	
	8	300	32	○	6-30	○	6-30	○	10-35	○	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	○	20-50	○	12-35
	13		240	23	○	12-35	○	12-35	○	20-50	○	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	○	25-55	○	12-45
	18		250	25	○	12-45	○	12-45	○	25-55	○	25-55	○	12-45
	19	Malleable cast iron	130											
	20		230	21										
N	21	Aluminum-wrought alloy	60											
	22		100											
	23	Aluminum-cast, alloyed	75		○	40-65	○	40-65	○	45-90	○	45-90	○	40-65
	24		90		○	40-65	○	40-65	○	45-90	○	45-90	○	40-65
	25		130											
	26		110		○	50-60	○	50-60	○	65-100	○	65-100	○	50-60
	27	Copper and Copper Alloys (Bronze / Brass)	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 GENERAL

Max. 3.0xD Through Hole										
HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E			
Spiral Point										
-										
		L7 (p.B247)	L8 (p.B247)	L9 (p.B247)						
L0 (p.B245)	L1 (p.B245)				L3 (p.B248)	L4 (p.B248)	L5 (p.B248)			
-										
TIN	HardSlick	Bright	TiCN	HardSlick	Bright	TIN	HardSlick			
◎	50-80	◎	50-80	◎	25-50	◎	50-80	◎	50-80	1
◎	50-80	◎	50-80	◎	25-50	◎	50-80	◎	50-80	2
◎	50-80	◎	50-80	◎	25-50	◎	50-80	◎	50-80	3
○	10-35	○	10-35	○	6-30	○	10-35	○	10-35	4
○	10-35	○	10-35	○	6-30	○	10-35	○	10-35	5
◎	10-35	◎	10-35	◎	6-30	◎	10-35	◎	10-35	6
◎	10-35	◎	10-35	◎	6-30	◎	10-35	◎	10-35	7
○	10-35	○	10-35	○	6-30	○	10-35	○	10-35	8
○	10-35	○	10-35	○	6-30	○	10-35	○	10-35	9
										10
										11
○	20-50	○	20-50	○	12-35	○	20-50	○	20-50	12
○	20-50	○	20-50	○	12-35	○	20-50	○	20-50	13
										14
										15
										16
○	25-55	○	25-55	○	12-45	○	25-55	○	25-55	17
○	25-55	○	25-55	○	12-45	○	25-55	○	25-55	18
										19
										20
										21
										22
○	45-90	○	45-90	○	40-65	○	45-90	○	45-90	23
○	45-90	○	45-90	○	40-65	○	45-90	○	45-90	24
										25
○	65-100	○	65-100	○	50-60	○	65-100	○	65-100	26
○	30-65	○	30-65	○	30-65	○	30-65	○	30-65	27
										28
										29
										30
										31
										32
										33
										34
										35
										36
										37
										38
										39
										40
										41

SELECTION GUIDE



THREADING TOOLS



YG TAP GENERAL												
Max. 3.0xD Through Hole												
HOLE TYPE												
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											
Surface Treatment / Coating	Bright	Steam Oxide	TIN	Bright								
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	110		○	50-60	○	50-60	○	65-100	○	50-60
	27		90		○	30-65	○	30-65	○	30-65	○	30-65
	28	(Bronze / Brass)	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								

◎ : Excellent ○ : Good

YG TAP GENERAL								
Max. 3.0xD Through Hole								
Spiral Point								
HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS
-	-	-	-	-	-	-	-	-
		T7217 (p.B255)	T6217 (p.B255)	T8217 (p.B255)				
T6C16 (p.B254)	T8C16 (p.B254)				T7226 (p.B256)	T6226 (p.B256)	T8226 (p.B256)	
Steam Oxide	TIN	Bright	Steam Oxide	TIN	Bright	Steam Oxide	TIN	
⊙ 25-50	⊙ 50-80	⊙ 25-50	⊙ 25-50	⊙ 50-80	⊙ 25-50	⊙ 25-50	⊙ 50-80	1
⊙ 25-50	⊙ 50-80	⊙ 25-50	⊙ 25-50	⊙ 50-80	⊙ 25-50	⊙ 25-50	⊙ 50-80	2
⊙ 25-50	⊙ 50-80	⊙ 25-50	⊙ 25-50	⊙ 50-80	⊙ 25-50	⊙ 25-50	⊙ 50-80	3
○ 6-30	○ 10-35	○ 6-30	○ 6-30	○ 10-35	○ 6-30	○ 6-30	○ 10-35	4
○ 6-30	○ 10-35	○ 6-30	○ 6-30	○ 10-35	○ 6-30	○ 6-30	○ 10-35	5
○ 6-30	○ 10-35	⊙ 6-30	⊙ 6-30	⊙ 10-35	⊙ 6-30	⊙ 6-30	⊙ 10-35	6
○ 6-30	○ 10-35	○ 6-30	○ 6-30	○ 10-35	○ 6-30	○ 6-30	○ 10-35	7
○ 6-30	○ 10-35	○ 6-30	○ 6-30	○ 10-35	○ 6-30	○ 6-30	○ 10-35	8
								9
								10
								11
○ 12-35	○ 20-50	○ 12-35	○ 12-35	○ 20-50	○ 12-35	○ 12-35	○ 20-50	12
○ 12-35	○ 20-50	○ 12-35	○ 12-35	○ 20-50	○ 12-35	○ 12-35	○ 20-50	13
								14
								15
								16
○ 12-45	○ 25-55	○ 12-45	○ 12-45	○ 25-55	○ 12-45	○ 12-45	○ 25-55	17
○ 12-45	○ 25-55	○ 12-45	○ 12-45	○ 25-55	○ 12-45	○ 12-45	○ 25-55	18
								19
								20
								21
								22
○ 40-65	○ 45-90	○ 40-65	○ 40-65	○ 45-90	○ 40-65	○ 40-65	○ 45-90	23
○ 40-65	○ 45-90	○ 40-65	○ 40-65	○ 45-90	○ 40-65	○ 40-65	○ 45-90	24
								25
○ 50-60	○ 65-100	○ 50-60	○ 50-60	○ 65-100	○ 50-60	○ 50-60	○ 65-100	26
○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	○ 30-65	27
								28
								29
								30
								31
								32
								33
								34
								35
								36
								37
								38
								39
								40
								41

SELECTION GUIDE



THREADING TOOLS



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○ : Good

YG TAP GENERAL

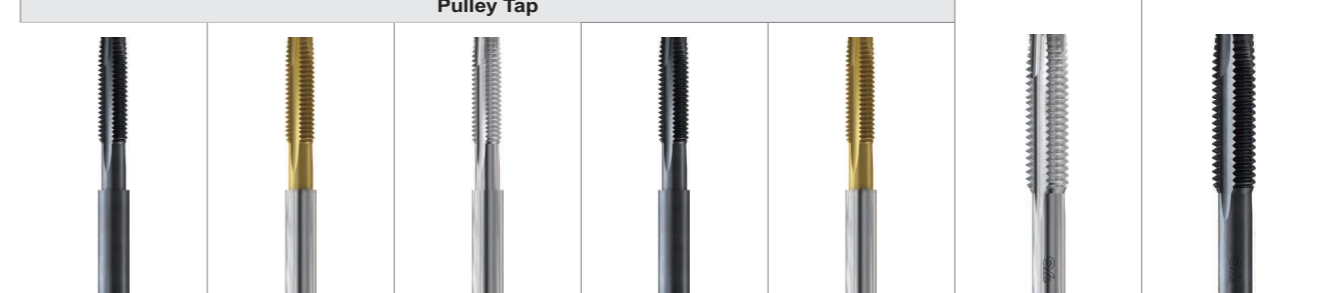
HOLE TYPE	Max. 3.0xD Through Hole			
TOOL MATERIAL	HSS	HSS	HSS	HSS
FLUTE TYPE	Spiral Point			
SPIRAL FLUTE ANGLE	-	-	-	-
SERIES	M	T7B17 (p.B257)	T6B17 (p.B257)	T8B17 (p.B257)
	M/MF			
	UNC			T7236 (p.B258)
	UNC/UNF			
	UNC/UNF/UNS			
	UNC/UN8			
	NPT			
	NPTF			
NPS/NPSF				
SURFACE TREATMENT / COATING	Bright	Steam Oxide	TiN	Bright Pulley Tap



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	Malleable cast iron	130									
	20		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		110		○	50-60	○	50-60	○	65-100	○	50-60
	27	Copper and Copper Alloys (Bronze / Brass)	90		○	30-65	○	30-65	○	30-65	○	30-65
	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 GENERAL

HOLE TYPE	Max. 3.0xD Through Hole							
TOOL MATERIAL	HSS	HSS	HSS	HSS	HSS	HSS	HSS	
FLUTE TYPE	Spiral Point							
SPIRAL FLUTE ANGLE	-	-	-	-	-	-	-	
SERIES	M	T6236 (p.B258)	T8236 (p.B258)	T7G36 (p.B258)	T6G36 (p.B258)	T8G36 (p.B258)	T7256 (p.B259)	T6256 (p.B259)
	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	



◎	25-50	◎	50-80	◎	25-50	◎	25-50	◎	25-50	◎	50-80	◎	25-50	◎	25-50	◎	25-50
◎	25-50	◎	50-80	◎	25-50	◎	25-50	◎	25-50	◎	50-80	◎	25-50	◎	25-50	◎	25-50
◎	25-50	◎	50-80	◎	25-50	◎	25-50	◎	25-50	◎	50-80	◎	25-50	◎	25-50	◎	25-50
○	6-30	○	10-35	○	6-30	○	6-30	○	6-30	○	10-35	○	6-30	○	6-30	○	6-30
○	6-30	○	10-35	○	6-30	○	6-30	○	6-30	○	10-35	○	6-30	○	6-30	○	6-30
◎	6-30	◎	10-35	◎	6-30	◎	6-30	◎	6-30	◎	10-35	◎	6-30	◎	6-30	◎	6-30
○	6-30	○	10-35	○	6-30	○	6-30	○	6-30	○	10-35	○	6-30	○	6-30	○	6-30
○	6-30	○	10-35	○	6-30	○	6-30	○	6-30	○	10-35	○	6-30	○	6-30	○	6-30
○	12-35	○	20-50	○	12-35	○	12-35	○	12-35	○	20-50	○	12-35	○	12-35	○	12-35
○	12-35	○	20-50	○	12-35	○	12-35	○	12-35	○	20-50	○	12-35	○	12-35	○	12-35
○	12-45	○	25-55	○	12-45	○	12-45	○	12-45	○	25-55	○	12-45	○	12-45	○	12-45
○	12-45	○	25-55	○	12-45	○	12-45	○	12-45	○	25-55	○	12-45	○	12-45	○	12-45
○	40-65	○	45-90	○	40-65	○	40-65	○	40-65	○	45-90	○	40-65	○	40-65	○	40-65
○	40-65	○	45-90	○	40-65	○	40-65	○	40-65	○	45-90	○	40-65	○	40-65	○	40-65
○	50-60	○	65-100	○	50-60	○	50-60	○	50-60	○	65-100	○	50-60	○	50-60	○	50-60
○	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, and four columns of material compatibility (50-80, 25-50, 25-50, 50-80) for various tool materials (P, M, K, N, S, H).

YG TAP FORMING

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 (TICN, Bright, Bright, TIN).



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

YG TAP FORMING

Table with columns: HSS-E, HSS-E, HSS-E, HSS-E, HSS-E, HSS-E, HSS-E, and a column for series (Z2, Z3, Z4, Z5, Z6, Z7, Z8).



Table with columns: HSS-E, HSS-E, HSS-E, HSS-E, HSS-E, HSS-E, HSS-E, and a column for material compatibility (25-50, 50-80, 25-50, 50-80, 25-50, 50-80, 25-50).

CARBIDE

CARBIDE

SELECTION GUIDE

YG TAP FORMING

YG TAP FORMING

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 TiNi

YG TAP TiNi

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



THREADING TOOLS

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				
NPS/NPSF					
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	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				

SELECTION GUIDE



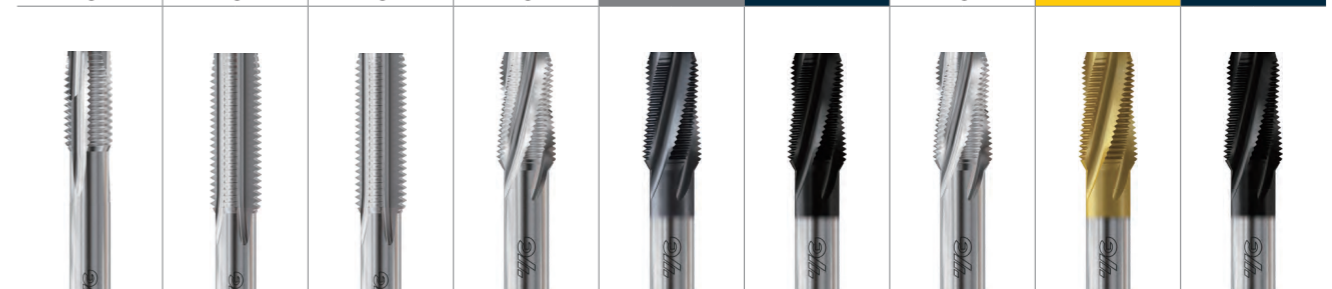
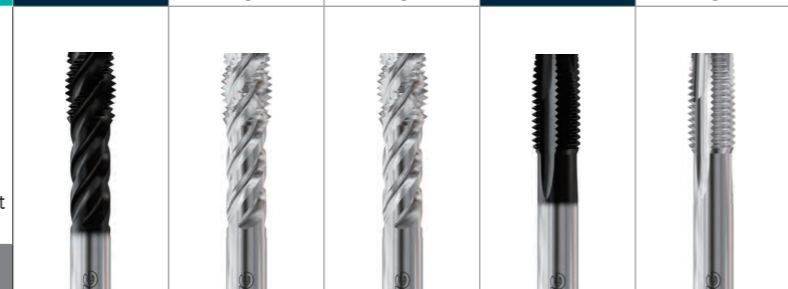
THREADING TOOLS

SCREW THREAD INSERT TAP

SCREW THREAD INSERT TAP PIPE TAP

HOLE TYPE	Max. 2.5xD Blind Hole			Max. 3.0xD Through Hole		
	HSS-E	HSS	HSS	HSS-E	HSS	
TOOL MATERIAL	Spiral Flute			Spiral Point		
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)	T7436 (p.B285)
	UNC/UNF/UNS					
	UNC/UN8					
	NPT					
	NPTF					
NP5/NPSF						
SURFACE TREATMENT / COATING	HardSlick	Bright	Bright	HardSlick	Bright	

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	HSS-E
Spiral Point	Straight Flute		Spiral Flute						
-	-	-	R15	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	



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ISO	VDI 3323	Material Description	HB	HRc						
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						
	14		180	10						
K	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	○ 50-65	
	23	Aluminum-cast, alloyed	75		○ 45-90	○ 40-65	○ 40-65	○ 45-90	○ 40-65	
	24		90		○ 45-90	○ 40-65	○ 40-65	○ 45-90	○ 40-65	
	25		130							
	26		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						

SELECTION GUIDE



THREADING TOOLS



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Table with columns: ISO, VDI 3323, Material Description, HB, HRC, and four columns of performance data (HSS-E, TiN, HardSlick, Nitrided Steam Oxide).

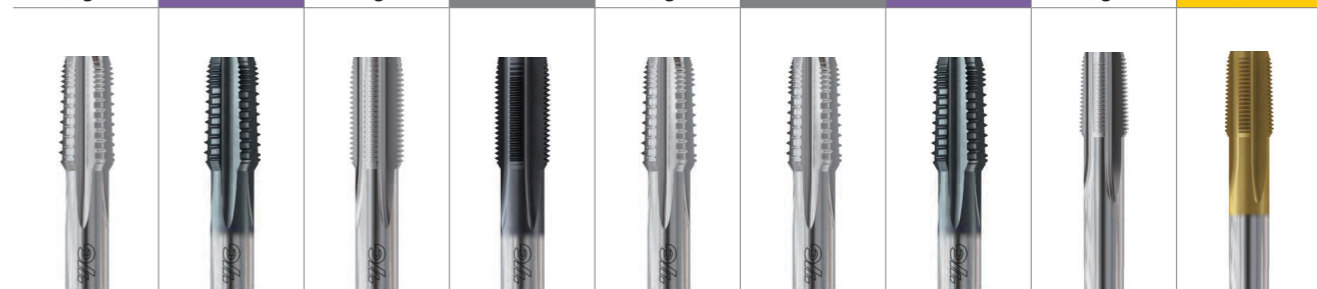
PIPETAP

Summary table for Pipe Tap selection including Hole Type, Tool Material, Flute Type, Spiral Flute Angle, Series, and Surface Treatment/Coating.



PIPE TAP

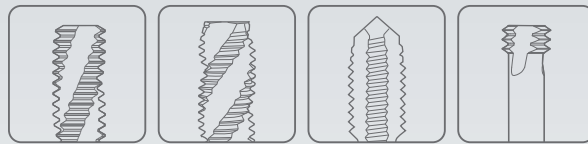
Summary table for Pipe Tap selection including Hole Type, Tool Material, Flute Type, Spiral Flute Angle, Series, and Surface Treatment/Coating.



Main performance table for Pipe Tap, including columns for ISO, VDI 3323, Material Description, HB, HRC, and performance data for various tool materials and coatings.



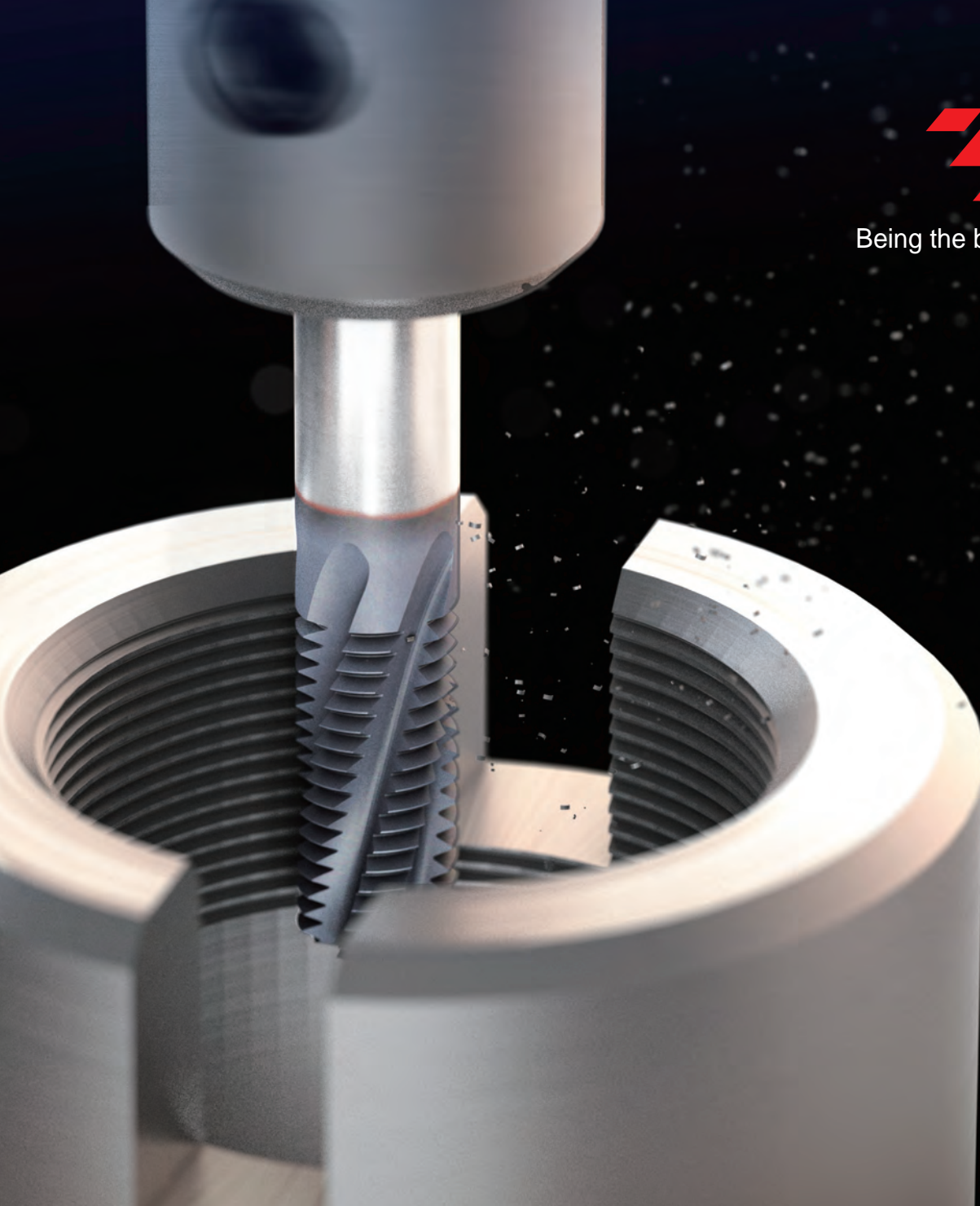
Global Cutting Tool Leader **YG-1**



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



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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ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRC	Examples
P	1	Non-alloy steel	About 0.15% C Annealed	125		S15C, C15, 1015
	2		About 0.45% C Annealed	190 13	S45C, C45, 1045	
	3		About 0.45% C Quenched & Tempered	250 25		
	4	Low alloy steel	About 0.75% C Annealed	270 28	SK5, Ck75, 1080	
	5		About 0.75% C Quenched & Tempered	300 32		
	6		Annealed	180 10		
	7		Quenched & Tempered	275 29	SCM440, 42CrMo4, 410	
	8	Quenched & Tempered	300 32			
	9	High alloyed steel, and tool steel	Quenched & Tempered	350 38		
	10		Annealed	200 15	SKD, D2	
	11		Quenched & Tempered	325 35	SKH, SUH, M42	
M	12	Stainless steel	Ferritic / Martensitic Annealed	200 15	SUS 420, X40Cr13, 420	
	13		Martensitic Quenched & Tempered	240 23		
	14	Austenitic	180 10	SUS 316, 316, X5CrNiMo 17 12 2		
K	15	Grey cast iron	Pearlitic / ferritic	180 10	FC, GG, EN-GJL-250	
	16		Pearlitic (Martensitic)	260 26		
	17	Nodular cast iron	Ferritic	160 3	FCD, GGG, EN-GJS-500-7	
	18		Pearlitic	250 25		
	19	Malleable cast iron	Ferritic	130	FCMW, FCMP, GTS, GJMB350-10	
20	Pearlitic	230 21				
N	21	Aluminum-wrought alloy	Not Curable	60	SAE 1000, AIMg 1, 3.3315	
	22		Curable Hardened	100	SAE 7050, AlCuMg 1, 3.1325	
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable	75	ADC12, G-AISI12, 3.2581	
	24		≤ 12% Si, Curable Hardened	90		
	25		> 12% Si, Not Curable	130	C4BS, G-AISI10Mg, 3.2381	
	26	Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%	110	CuZn36Pb 3, 2.0375	
	27		CuZn, CuSnZn (Brass)	90	CuZn 15, 2.0240	
	28		CuSn, lead-free copper and electrolytic copper	100	G-CuZn40Fe, 2.0590	
	29	Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic		CFRP	
	30		Rubber, Wood, etc.			
S	31	Heat Resistant Super Alloys	Fe Based Annealed	200 15	X12 NiCrSi 36-16, 1.4864	
	32		Cured	280 30		
	33		Annealed	250 25	Inconel 718, NiCr20TiAl, 2.4631	
	34		Ni or Co Based Cured	350 38	NiCu30Al, 2.4375	
	35		Cast	320 34	G-X120Mn12, 1.3401	
	36	Titanium Alloys	Pure Titanium	400 Rm		
	37		Alpha + Beta Alloys Hardened	1050 Rm	TiAl6V4, 3.7165	
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	TiAlN	TiAlN	TiAlN
MODEL			

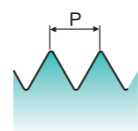
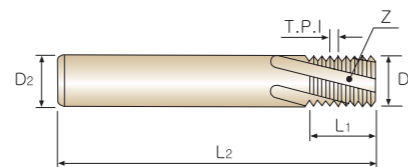
with Coolant Hole	with Coolant Hole & Chamfer		Miniature		without Coolant Hole	with Coolant Hole	without Coolant Hole	with Coolant Hole	without Coolant Hole	with Coolant Hole
M	UN	M	UN	M	NPT	NPT	NPTF	NPTF	NPS	NPS
CARBIDE	CARBIDE		CARBIDE		CARBIDE					
Helix	Helix		Helix		Helix					
R15	R15		R15		R15					
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)
TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN
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
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	200-300	200-300	230-320	230-320	230-320	230-320	230-320	230-320
200-300	200-300	200-300	200-300	200-300	200-300	200-300	200-300	200-300	200-300	200-300
230-320	230-320	230-320	220-350	220-350	230-320	230-320	230-320	230-320	230-320	230-320
200-300	200-300	200-300	220-350	220-350	200-300	200-300	200-300	200-300	200-300	200-300
200-250	200-250	200-250	200-250	200-250	200-250	200-250	200-250	200-250	200-250	200-250
150-250	150-250	150-250	180-220	180-220	150-250	150-250	150-250	150-250	150-250	150-250
250-400	250-400	250-400	300-500	300-500	250-400	250-400	250-400	250-400	250-400	250-400
250-360	250-360	250-360	300-500	300-500	250-360	250-360	250-360	250-360	250-360	250-360
250-400	250-400	250-400	280-450	280-450	250-400	250-400	250-400	250-400	250-400	250-400
230-320	230-320	230-320	250-400	250-400	230-320	230-320	230-320	230-320	230-320	230-320
230-320	230-320	230-320	250-400	250-400	230-320	230-320	230-320	230-320	230-320	230-320
230-350	230-350	230-350	280-450	280-450	230-350	230-350	230-350	230-350	230-350	230-350
500-1000	500-1000	500-1000	400-1000	400-1000	500-1000	500-1000	500-1000	500-1000	500-1000	500-1000
400-800	400-800	400-800	400-900	400-900	400-800	400-800	400-800	400-800	400-800	400-800
350-900	350-900	350-900	300-900	300-900	350-900	350-900	350-900	350-900	350-900	350-900
350-900	350-900	350-900	300-900	300-900	350-900	350-900	350-900	350-900	350-900	350-900
350-800	350-800	350-800	350-800	350-800	350-800	350-800	350-800	350-800	350-800	350-800
500-800	500-800	500-800	400-700	400-700	500-800	500-800	500-800	500-800	500-800	500-800
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300-600	300-600	300-600	300-600	300-600	300-600	300-600	300-600	300-600	300-600	300-600
350-900	350-900	350-900	350-700	350-700	350-900	350-900	350-900	350-900	350-900	350-900
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100-200	100-200	100-200	150-250	150-250	100-200	100-200	100-200	100-200	100-200	100-200
70-180	70-180	70-180	130-200	130-200	70-180	70-180	70-180	70-180	70-180	70-180
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100-250	100-250	100-250	80-200	80-200	100-250	100-250	100-250	100-250	100-250	100-250
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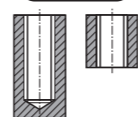
TE SERIES

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

UN



Hole type



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	

▶ NEXT PAGE

◎ : Excellent ○ : Good

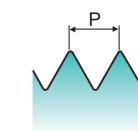
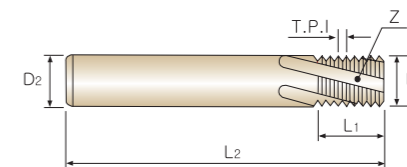
ISO	P										M				K				H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
HRc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



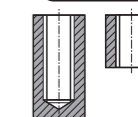
TE SERIES

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

UN



Hole type



Unit : Inch

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	

◎ : Excellent ○ : Good

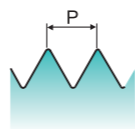
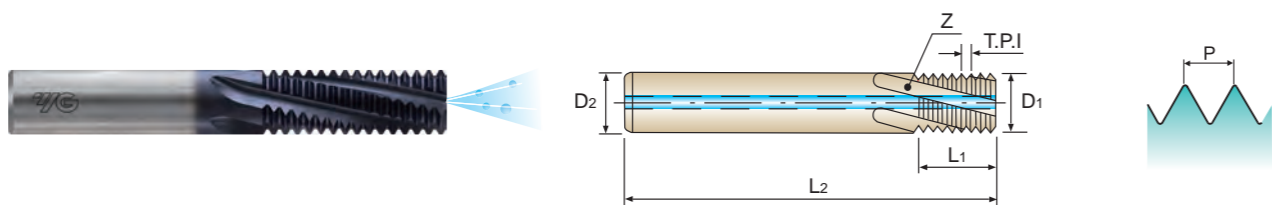
ISO	P										M				K				H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
HRc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



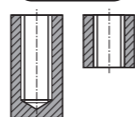
L421E SERIES

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

UN



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						
1/2	32	L421EF90	.370	.375	1.000	3.500	4
1/4	28	L421F420	.180	.187	.500	2.500	3
1/2	28	L421F590	.370	.375	1.000	3.500	4
5/16	24	L421F460	.235	.250	.625	2.500	3
3/8	24	L421F500	.285	.312	.750	3.000	4
1/2	24	L421F570	.370	.375	1.000	3.500	4
1/4	20	L421F400	.180	.187	.500	2.500	3
7/16	20	L421F540	.335	.375	.875	3.500	4
1/2	20	L421F580	.370	.375	1.000	3.500	4
5/16	18	L421F440	.235	.250	.625	2.500	3
9/16	18	L421F620	.370	.375	.875	3.500	4
3/8	16	L421F480	.285	.312	.750	3.000	4
3/4	16	L421F720	.490	.500	1.250	3.500	4
7/16	14	L421F520	.305	.312	.750	3.000	4
7/8	14	L421F760	.490	.500	1.250	3.500	4
1/2	13	L421F560	.350	.375	.875	3.500	4
9/16	12	L421F600	.370	.375	.875	3.500	4
3/4	12	L421F710	.495	.500	1.250	3.500	4
1	12	L421F800	.745	.750	1.500	4.000	5
5/8	11	L421F640	.470	.500	1.250	3.500	4
3/4	10	L421F700	.495	.500	1.250	3.500	4
7/8	9	L421F740	.620	.625	1.375	4.000	4
1	8	L421F780	.620	.625	1.375	4.000	4
1-1/8" & 1-1/4"	7	L421F820	.745	.750	1.572	4.500	5
1-3/8"	6	L421F900	.745	.750	1.500	4.500	5

◎ : 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	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

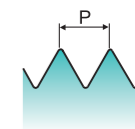
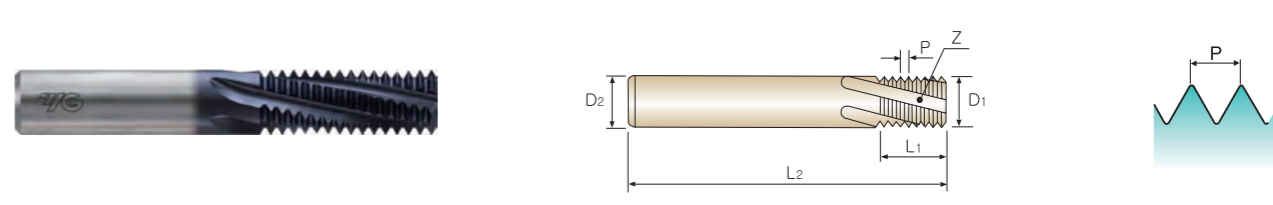
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
Material Description	21	22	23	24	25	26	27	28	29	30	31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



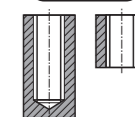
TD SERIES

Solid Carbide 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						
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			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	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

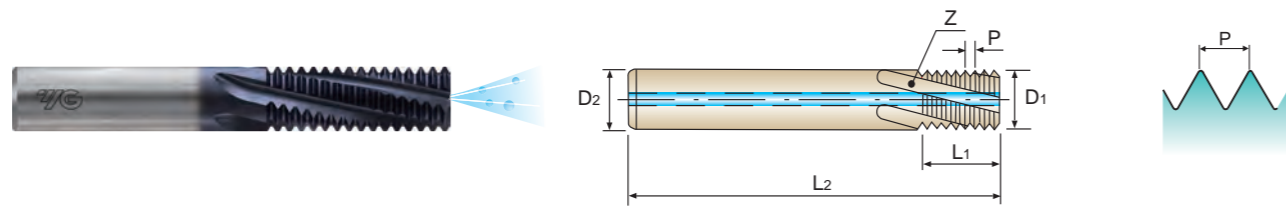
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
Material Description	21	22	23	24	25	26	27	28	29	30	31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



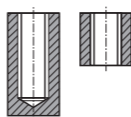
L421D SERIES

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

M



Hole type



Unit : Inch

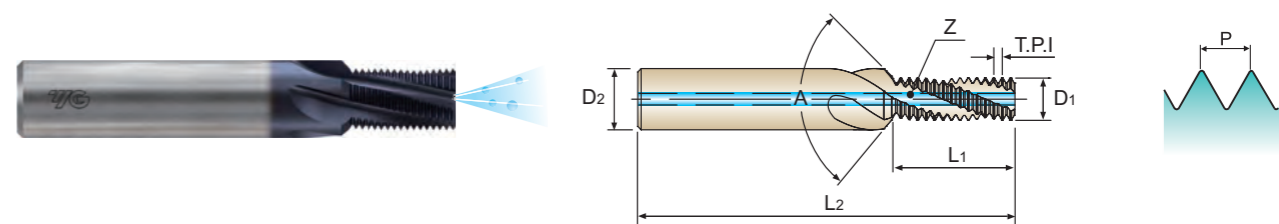
SIZE	Pitch (mm)	EDP No.	Cutter Diameter	Shank Diameter	Thread Length		Overall Length	No. of Flute
	P				TiAlN	D1		
M8	0.75	L421D380	.235	.250	.625	2.500	3	
M6	1.00	L421D310	.170	.187	.500	2.500	3	
M10	1.00	L421D440	.300	.312	.750	3.000	4	
M12	1.00	L421D530	.360	.375	.875	3.500	4	
M8	1.25	L421D360	.235	.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	



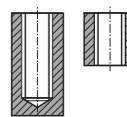
L427E SERIES

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	38	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	32	33	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	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

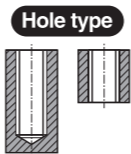
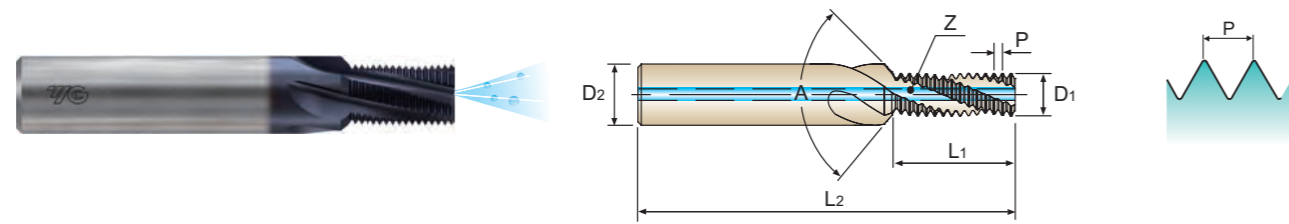
ISO	N						S						H									
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron					
Material Description	21	22	23	24	25	26	27	28	29	30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



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	TiAlN	D1	D2	L1	L2	A	Z
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							
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	35	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

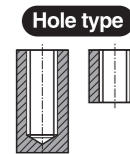
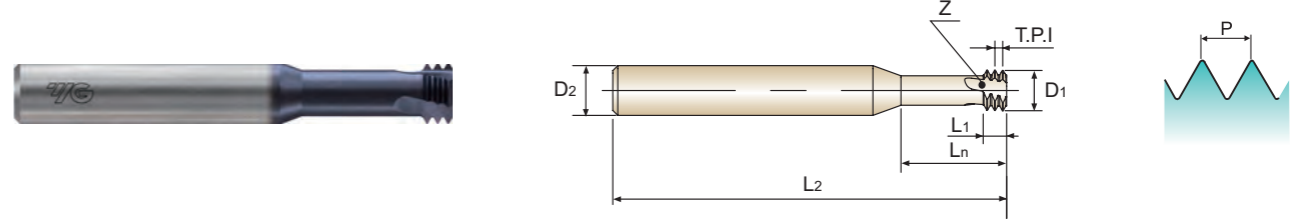
ISO	N						S						H								
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎



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	TiAlN	D1	D2	L1	Ln	L2	Z
#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							
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	35	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

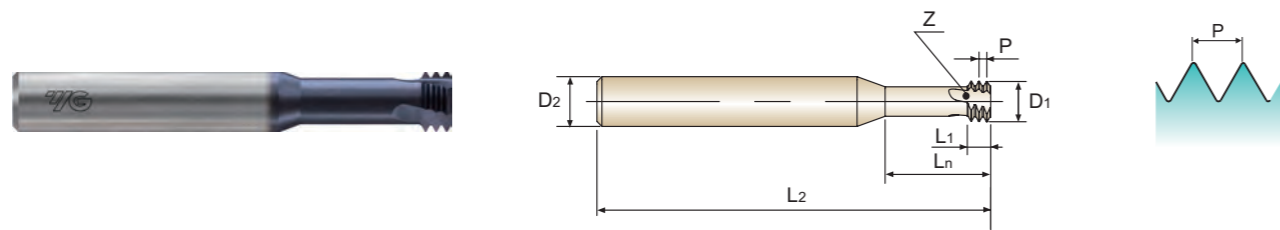
ISO	N						S						H								
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎



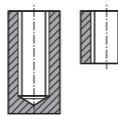
L12DD SERIES

Solid Carbide Miniature Thread Mill 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		
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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

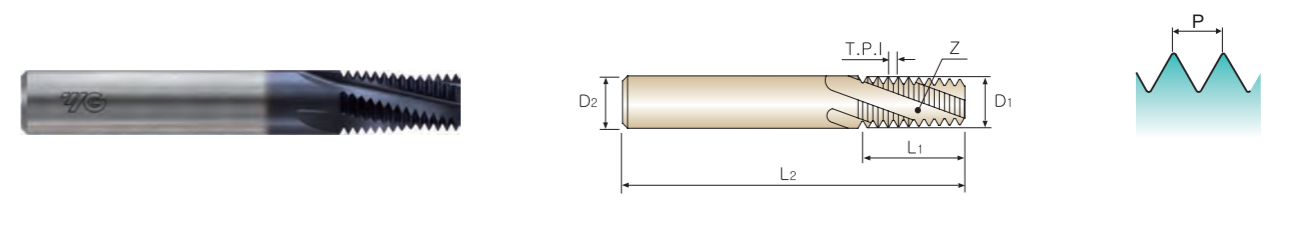
ISO	N										S				H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials		Heat Resistant Super Alloys				Titanium Alloys		Hardened steel		Chilled Cast Iron		Hardened Cast Iron
Material Description	21	22	23	24	25	26	27	28	29	30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



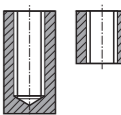
TF SERIES

Solid Carbide Thread Mill for NPT Thread - ANSI B 1.20.1

NPT



Hole type



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	TFE40	.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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

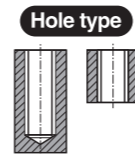
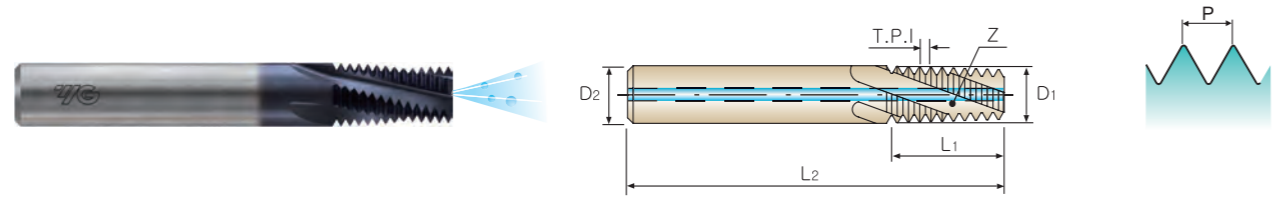
ISO	N										S				H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials		Heat Resistant Super Alloys				Titanium Alloys		Hardened steel		Chilled Cast Iron		Hardened Cast Iron
Material Description	21	22	23	24	25	26	27	28	29	30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



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	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	○	◎	◎	◎	◎	◎	◎				

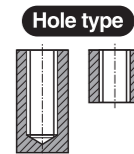
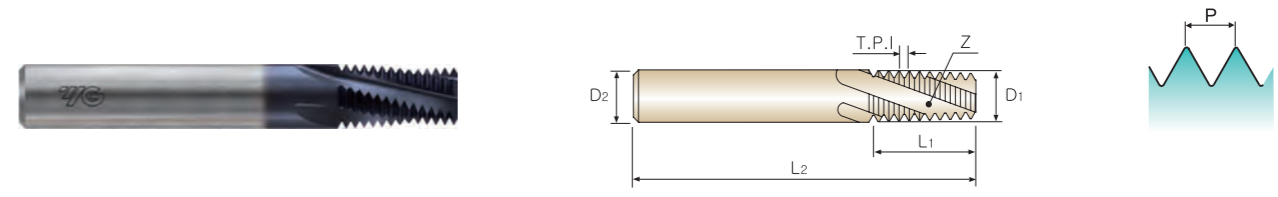
ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials		Heat Resistant Super Alloys				Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30	31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



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	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	○	◎	◎	◎	◎	◎	◎				

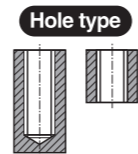
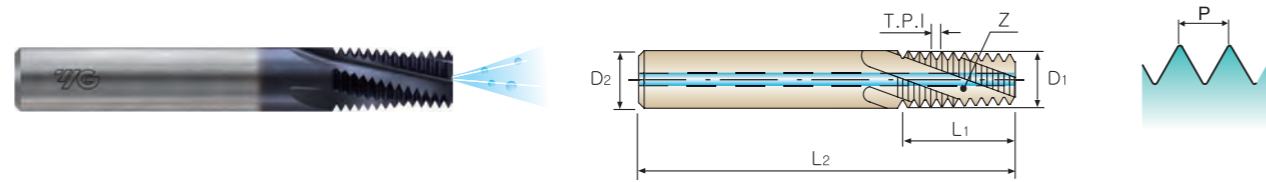
ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials		Heat Resistant Super Alloys				Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30	31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



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	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

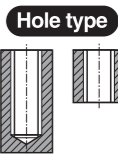
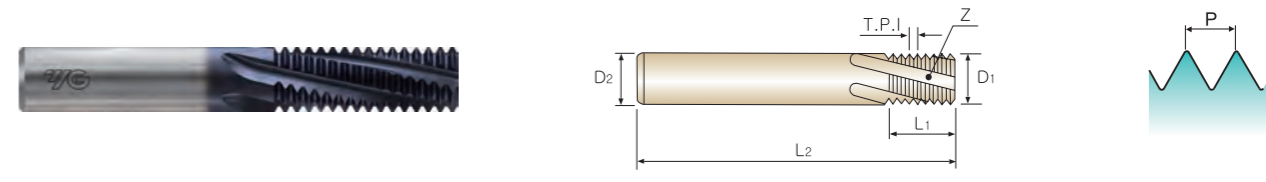
ISO	N						S						H							
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32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

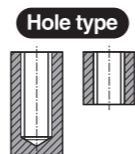
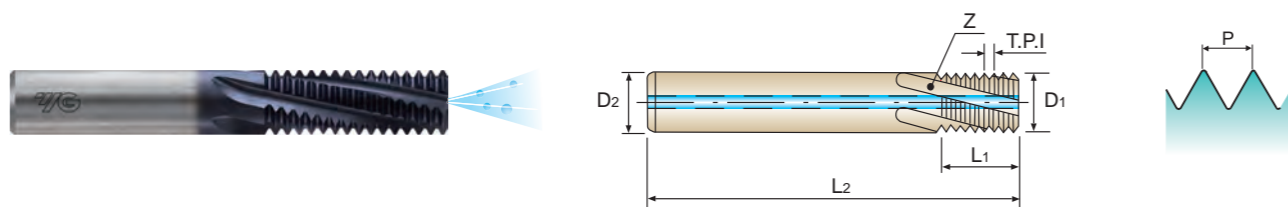
ISO	N						S						H							
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32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



RECOMMENDED CUTTING CONDITIONS

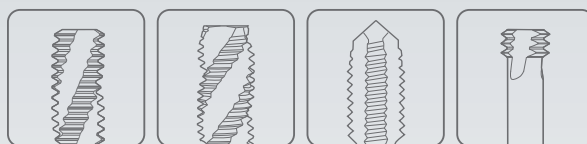
RECOMMENDED CUTTING SPEED AND FEED

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	1-11	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
			300	32	230-320	220-300	.0006-.0014	.0014-.0030	.0006-.0016	.0016-.0036
		Low alloy steel	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	12-14	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	15-20	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
		Malleable cast iron	130		230-320	250-400	.0008-.0016	.0016-.0034	.0008-.0020	.0020-.0042
230	21	230-350	280-450	.0012-.0020	.0020-.0041	.0012-.0024	.0024-.0046			
N	21-30	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	31-37	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
			320	34	50-140	120-180	.0002-.0006	.0006-.0009	.0002-.0006	.0006-.0016
		Titanium Alloys	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

SELECTION GUIDE



HSS-PM SYNCHRO TAP

- High Speed Tapping with Rigid CNC Machines



Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

HOLE TYPE		Max. 2.5xD Blind Hole	
TOOL MATERIAL		HSS-PM	
CHAMFER LEAD ACC. TO DIN2197		2p-3p	
FLUTE TYPE		Spiral Flute	Spiral Flute
SPIRAL FLUTE ANGLE		R45	R45
SERIES	M		
	M/MF		TTS61 (p.B70)
	UNC		
	UNC/UNF	TTS65 (p.B68)	
	UNC/UNF/UNS		
	UNC/UN8		
	NPT		
	NPTF		
SURFACE TREATMENT / COATING		TiN	TiN



MODEL

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB			
P	1	Non-alloy steel	About 0.15% C Annealed	125	◎	79-148	
	2		About 0.45% C Annealed	190	◎	79-148	
	3		About 0.45% C Quenched & Tempered	250	◎	79-148	
	4		About 0.75% C Annealed	270	◎	66-128	
	5		About 0.75% C Quenched & Tempered	300			
	6	Low alloy steel	Annealed	180	◎	66-128	
	7		Quenched & Tempered	275	◎	66-128	
	8		Quenched & Tempered	300			
	9		Quenched & Tempered	350			
	10		High alloyed steel, and tool steel	Annealed	200		
	11		Quenched & Tempered	325			
M	12	Stainless steel	Ferritic / Martensitic Annealed	200	◎	39-98	
	13		Martensitic Quenched & Tempered	240	◎	39-98	
	14	Austenitic	180	○	39-60		
K	15	Grey cast iron	Pearlitic / ferritic	180	○	98-148	
	16		Pearlitic (Martensitic)	260			
	17	Nodular cast iron	Ferritic	160	◎	82-148	
	18		Pearlitic	250			
	19	Malleable cast iron	Ferritic	130			
	20		Pearlitic	230			
N	21	Aluminum-wrought alloy	Not Curable	60			
	22		Curable Hardened	100			
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable	75	◎	148-197	
	24		≤ 12% Si, Curable Hardened	90	◎	148-197	
	25		> 12% Si, Not Curable	130	◎	82-118	
	26		Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%	110	◎	98-148
	27			CuZn, CuSnZn (Brass)	90		
	28	CuSn, lead-free copper and electrolytic copper	100	○	82-118		
	29	Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic				
	30		Rubber, Wood, etc.				
S	31	Heat Resistant Super Alloys	Fe Based Annealed	200			
	32		Cured	280			
	33		Annealed	250			
	34		Ni or Co Based Cured	350			
	35		Cast	320			
	36	Titanium Alloys	Pure Titanium	400 Rm			
	37		Alpha + Beta Alloys Hardened	1050 Rm			
H	38	Hardened steel	Hardened	550			
	39		Hardened	630			
	40	Chilled Cast Iron	Cast	400			
	41	Hardened Cast Iron	Hardened	550			

Max. 3.0xD Through Hole		Max. 2.0xD Blind / Through Hole		Max. 3.0xD Blind / Through Hole		SYNCHRO TAPPING CHUCK (ERTYPE)
HSS-PM						
4p-5p		2p-3p		2p-3p		
Spiral Point	Spiral Point	Straight Flute	Straight Flute	Forming	Forming	
-	-	-	-	-	-	
	TTS62 (p.B73)		TKS63 (p.B76)		TTS64 (p.B79)	CAT (p.B80)
TTS66 (p.B71)		TKS67 (p.B74)		TTS68 (p.B77)		
TiN	TiN	TiCN	TiCN	TiN	TiN	
◎ 79-148	◎ 79-148	○ 79-148	○ 79-148	◎ 115-184	◎ 115-184	
◎ 79-148	◎ 79-148	○ 79-148	○ 79-148	◎ 115-184	◎ 115-184	
◎ 79-148	◎ 79-148	○ 79-148	○ 79-148	◎ 115-184	◎ 115-184	
◎ 66-128	◎ 66-128	○ 66-128	○ 66-128	◎ 98-164	◎ 98-164	
◎ 66-128	◎ 66-128	○ 66-128	○ 66-128	◎ 98-164	◎ 98-164	
◎ 66-128	◎ 66-128	○ 66-128	○ 66-128	◎ 98-164	◎ 98-164	
◎ 39-98	◎ 39-98			◎ 49-108	◎ 49-108	
◎ 39-98	◎ 39-98			◎ 49-108	◎ 49-108	
○ 39-60	○ 39-60			◎ 49-75	◎ 49-75	
○ 98-148	○ 98-148	◎ 98-148	◎ 98-148			
◎ 82-148	◎ 82-148	◎ 82-148	◎ 82-148			
		◎ 82-148	◎ 82-148			
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		○ 82-148	○ 82-148			
				◎ 131-184	◎ 131-184	
				◎ 131-184	◎ 131-184	
◎ 148-197	◎ 148-197	○ 148-197	○ 148-197	◎ 184-230	◎ 184-230	
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◎ 82-118	◎ 82-118	○ 82-118	○ 82-118	○ 115-148	○ 115-148	
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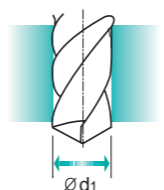
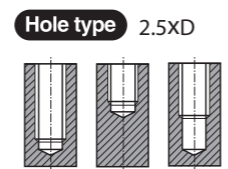
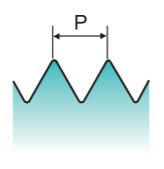
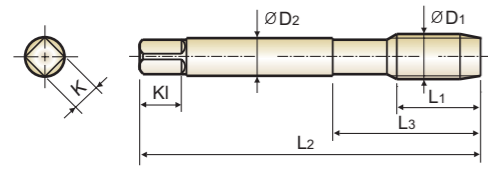


TTS65 SERIES

SPIRAL FLUTE for High Speed Tapping



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



Material groups: **GS** (Yellow), **HSS PM** (Green), **UNC UNF** (Blue), **H** (Red), **60°** (Grey), **R45°** (Blue), **2P~3P** (Grey), **TiN** (Yellow), **P.B66** (Green).

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	D2	K	KI	
#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	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

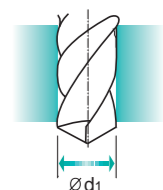
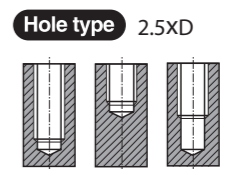
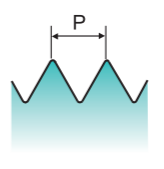
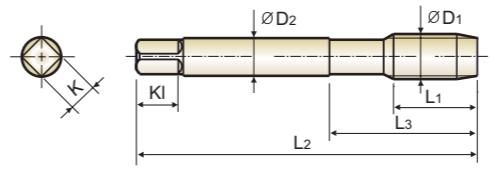


TTS65 SERIES

SPIRAL FLUTE for High Speed Tapping



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



Material groups: **GS** (Yellow), **HSS PM** (Green), **UNC UNF** (Blue), **H** (Red), **60°** (Grey), **R45°** (Blue), **2P~3P** (Grey), **TiN** (Yellow), **P.B66** (Green).

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	D2	K	KI	
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	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

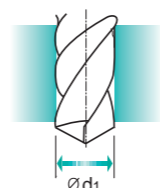
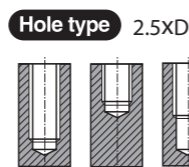
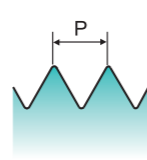
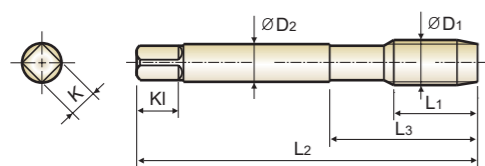


TTS61 SERIES

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

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

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

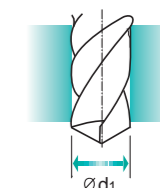
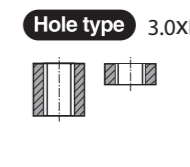
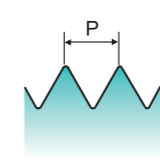
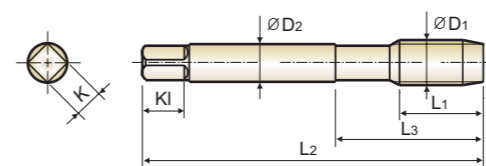


TTS66 SERIES

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

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																																				
	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	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

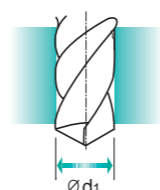
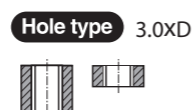
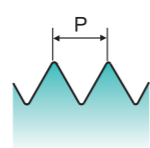
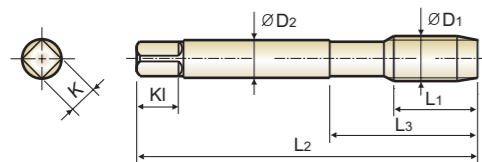


TTS66 SERIES

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
				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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

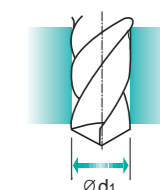
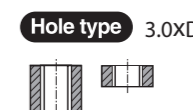
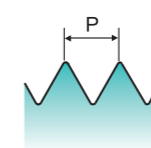
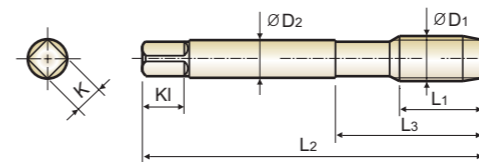


TTS62 SERIES

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), **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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	



TKS67 SERIES



TKS67 SERIES

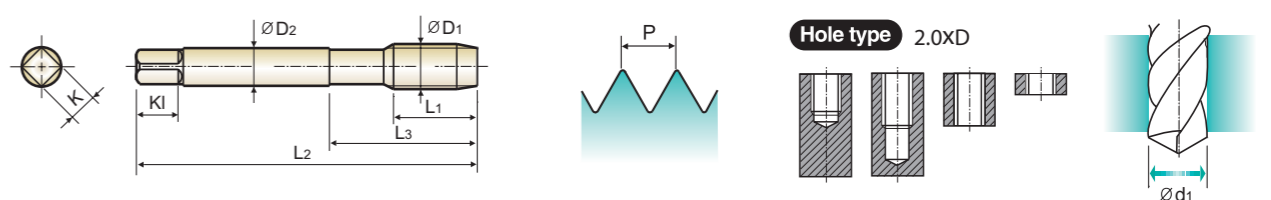
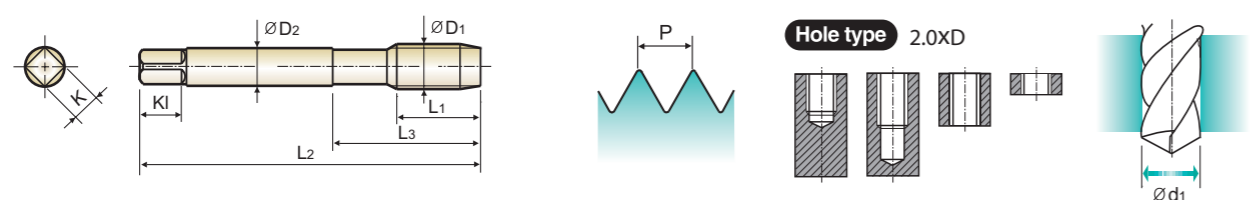
STRAIGHT FLUTE for High Speed Tapping

STRAIGHT FLUTE for High Speed Tapping



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

- ▶ 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

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

Refer to B323~B336 for tap drill sizes

Refer to B323~B336 for tap drill sizes

Unit : Inch

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				
D1	P	TiN		L1	L2	L3	D2	K	Kl	Z
#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

Size	TPI	EDP No.	Limit	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
				L1	L2	L3				
D1	P	TiN		L1	L2	L3	D2	K	Kl	Z
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

▶ NEXT PAGE

◎ : Excellent ○ : Good

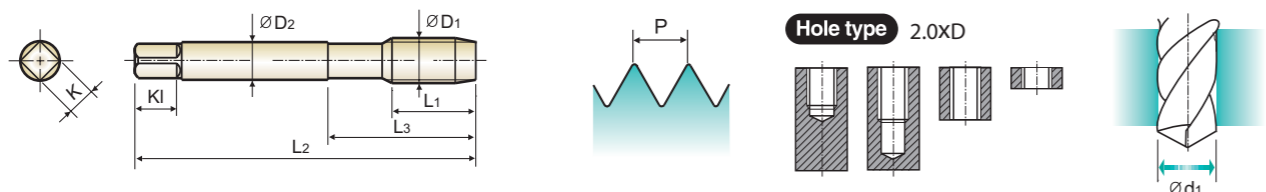
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRC		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21	
HB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

ISO	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	○	○	○	○	○	○	○	○	○	○	○	○	○	○	◎	◎	◎	◎	○	○	

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

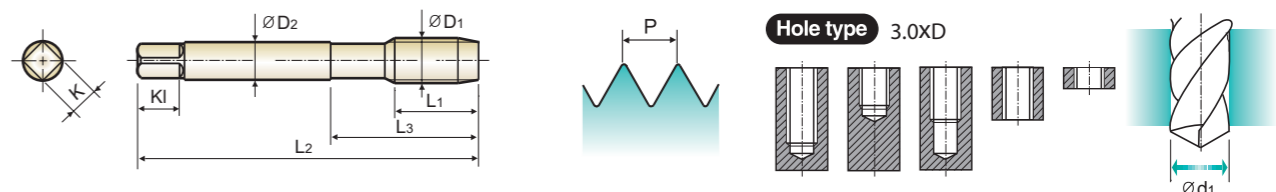
ISO	P										M				K							
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
HRc	13	25	28	32	30	10	29	32	38	15	35	15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

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	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

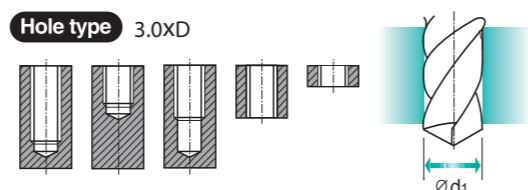
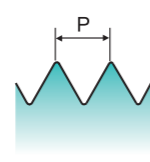
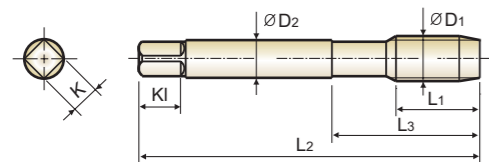
ISO	N										S					H									
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron		Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	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	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** HSS PM UNC UNF H 60° 2P~3P TiN P.B66

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		TTS6844Z	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

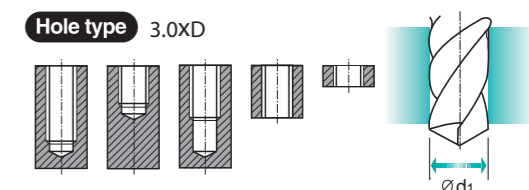
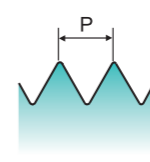
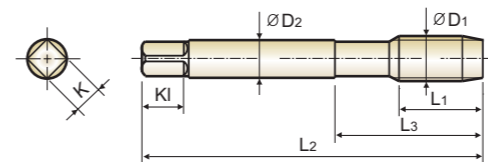
ISO	N					S										H						
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials			Heat Resistant Super Alloys							Titanium Alloys		Hardened steel	Chilled Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	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** HSS PM M/MF D M 6H MF 60° 2P~3P TiN P.B66

Unit : Metric

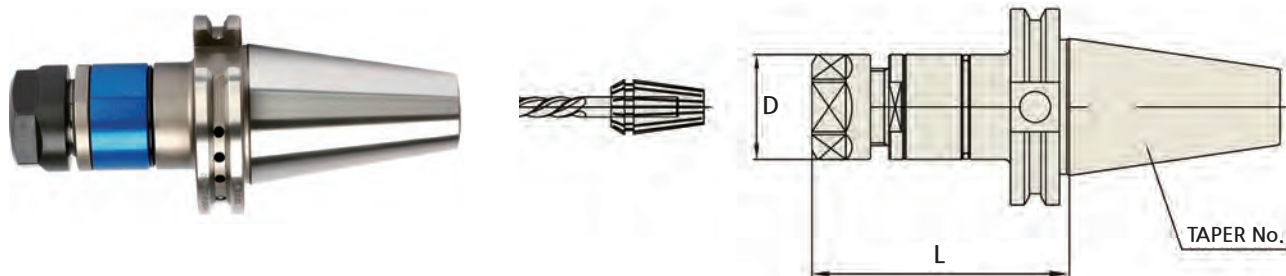
Size	Pitch	EDP No.	Limit	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe
				L1	L2	L3				
M3 x 0.5		TTS64205	D5	.197	1.94	0.646	.141	.110	.190	5
M4 x 0.7		TTS64246	D6	.276	2.13	0.768	.168	.131	.250	5
M5 x 0.8		TTS64287	D7	.315	2.38	0.933	.194	.152	.250	5
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
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, HSS-E, 2p-3p, 1p-2p, 2p-3p, 1p-2p, 2p-3p, R40, T5 (p.B90), T5-S (p.B90), T5-C (p.B90), T8 (p.B93), T8-N (p.B93), T9 (p.B96), T9-C (p.B96), T6 (p.B92), T6-N(p.B92), T7 (p.B94), T7-C (p.B94), T1-S (p.B97), T1-C (p.B97), Surface Treatment / Coating, Model.

SELECTION GUIDE



HSS-E COMBO TAP

- HSS-E Taps for Multipurpose



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◎ : Excellent ○ : Good

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRC	Examples	HOLE TYPE			
							DIN Length-ANSI Shank			
							HSS-E			
							2p-3p			
							Spiral Flute			
							R40			
M		USCTI 302A								
M/MF		USCTI 302A								
		DIN Length-ANSI Shank				TA-S (p.B99)	TA-C (p.B99)			
UNC		USCTI Long Shank								
UNC/UNF		USCTI 302								
		DIN Length-ANSI Shank								
SURFACE TREATMENT / COATING							Steam Oxide	TiCN		
MODEL										
ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRC	Examples	○	◎		
P	1	Non-alloy steel	About 0.15% C	Annealed	125		S15C, C15, 1015	○ 25-50	○ 50-80	
	2		About 0.45% C	Annealed	190	13	S45C, C45, 1045	◎ 25-50	◎ 50-80	
	3		About 0.45% C	Quenched & Tempered	250	25	SK5, Ck75, 1080	◎ 25-50	◎ 50-80	
	4		About 0.75% C	Annealed	270	28		◎ 6-30	◎ 10-35	
	5		About 0.75% C	Quenched & Tempered	300	32		◎ 6-30	◎ 10-35	
	6	Low alloy steel		Annealed	180	10	SCM440, 42CrMo4, 410	◎ 6-30	◎ 10-35	
	7			Quenched & Tempered	275	29		◎ 6-30	◎ 10-35	
	8			Quenched & Tempered	300	32		◎ 6-30	◎ 10-35	
	9			Quenched & Tempered	350	38		◎ 6-30	◎ 10-35	
	10	High alloyed steel, and tool steel		Annealed	200	15	SKD, D2	○ 6-30	○ 10-35	
	11			Quenched & Tempered	325	35	SKH, SUH, M42			
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15	SUS 420, X40Cr13, 420	◎ 12-35	◎ 20-50	
	13		Martensitic	Quenched & Tempered	240	23		◎ 12-35	◎ 20-50	
	14		Austenitic		180	10		SUS 316, 316, X5CrNiMo 17 12 2	◎ 12-15	◎ 12-15
K	15	Grey cast iron	Pearlitic / ferritic		180	10	FC, GG, EN-GJL-250	◎ 35-50	◎ 50-65	
	16		Pearlitic (Martensitic)		260	26		◎ 35-50	◎ 50-65	
	17	Nodular cast iron	Ferritic		160	3	FCD, GGG, EN-GJS-500-7	◎ 12-45	◎ 25-55	
	18		Pearlitic		250	25		◎ 12-45	◎ 25-55	
	19		Ferritic		130			FCMW, FCMF, GTS, GJMB350-10		
20	Malleable cast iron	Pearlitic		230	21					
N	21	Aluminum-wrought alloy	Not Curable		60		SAE 1000, AIMg 1, 3.3315			
	22		Curable	Hardened	100			SAE 7050, AlCuMg 1, 3.1325		
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable		75		ADC12, G-AISI12, 3.2581	◎ 40-65	◎ 45-90	
	24		≤ 12% Si, Curable	Hardened	90					
	25		> 12% Si, Not Curable		130			C4BS, G-AISI10Mg, 3.2381		
	26		Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%		110			CuZn36Pb 3, 2.0375	◎ 30-65
	27		CuZn, CuSnZn (Brass)		90		CuZn 15, 2.0240	◎ 30-65	◎ 30-65	
	28		CuSn, lead-free copper and electrolytic copper		100		G-CuZn40Fe, 2.0590	◎ 30-65	◎ 30-65	
	29	Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic				CFRP			
	30		Rubber, Wood, etc.							
S	31	Heat Resistant Super Alloys	Fe Based	Annealed	200	15	X12 NiCrSi 36-16, 1.4864			
	32			Cured	280	30				
	33		Ni or Co Based	Annealed	250	25		Inconel 718, NiCr20TiAl, 2.4631		
	34			Cured	350	38			NiCu30Al, 2.4375	
	35	Titanium Alloys	Pure Titanium	Cast	320	34	G-X120Mn12, 1.3401			
	36			400 Rm						
	37			Alpha + Beta Alloys	Hardened	1050 Rm			TiAl6V4, 3.7165	
H	38	Hardened steel		Hardened	550	55	SK3			
	39			Hardened	630	60				
	40	Hardened Cast Iron		Cast	400	42				
	41			Hardened	550	55				



Standard						with Internal Coolant				DIN Length-ANSI Shank			
HSS-E													
4p-5p			4p-5p			4p-5p		4p-5p		4p-5p		4p-5p	
Spiral Point			Spiral Point			Spiral Point		Spiral Point		Spiral Point		Spiral Point	
								TH (p.B108)		TH-N (p.B108)			
			T3 (p.B105)			T3-S (p.B105)		T3-C (p.B105)					
												TK-S (p.B110) TK-C (p.B110)	
T4 (p.B100)			T4-S (p.B100)			T4-C (p.B100)				TB (p.B107)		TB-N (p.B107)	
												TC-S (p.B109) TC-C (p.B109)	
Bright	Steam Oxide	TiCN	Bright	Steam Oxide	TiCN	Bright	TiN	Bright	TiN	Steam Oxide	TiCN	Steam Oxide	TiCN
○ 25-50	◎ 25-50	◎ 50-80	◎ 25-50	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80
◎ 25-50	◎ 25-50	◎ 50-80	◎ 25-50	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80
◎ 25-50	◎ 25-50	◎ 50-80	◎ 25-50	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80	◎ 25-50	◎ 50-80
◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35
◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35
◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35
◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35
◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35
◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35
◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35
◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35	◎ 6-30	◎ 10-35
◎ 12-35	◎ 12-35	◎ 20-50	◎ 12-35	◎ 12-35	◎ 20-50	◎ 12-35	◎ 20-50	◎ 12-35	◎ 20-50	◎ 12-35	◎ 20-50	◎ 12-35	◎ 20-50
◎ 12-35	◎ 12-35	◎ 20-50	◎ 12-35	◎ 12-35	◎ 20-50	◎ 12-35	◎ 20-50	◎ 12-35	◎ 20-50	◎ 12-35	◎ 20-50	◎ 12-35	◎ 20-50
◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15	◎ 12-15
◎ 35-50	◎ 35-50	◎ 50-65	◎ 35-50	◎ 35-50	◎ 50-65	◎ 35-50	◎ 50-65	◎ 35-50	◎ 50-65	◎ 35-50	◎ 50-65	◎ 35-50	◎ 50-65
◎ 35-50	◎ 35-50	◎ 50-65	◎ 35-50	◎ 35-50	◎ 50-65	◎ 35-50	◎ 50-65	◎ 35-50	◎ 50-65	◎ 35-50	◎ 50-65	◎ 35-50	◎ 50-65
◎ 12-45	◎ 12-45	◎ 25-55	◎ 12-45	◎ 12-45	◎ 25-55	◎ 12-45	◎ 25-55	◎ 12-45	◎ 25-55	◎ 12-45	◎ 25-55	◎ 12-45	◎ 25-55
◎ 12-45	◎ 12-45	◎ 25-55	◎ 12-45	◎ 12-45	◎ 25-55	◎ 12-45	◎ 25-55	◎ 12-45	◎ 25-55	◎ 12-45	◎ 25-55	◎ 12-45	◎ 25-55
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◎ 40-65	◎ 40-65	◎ 45-90	◎ 40-65	◎ 40-65	◎ 45-90	◎ 40-65	◎ 45-90	◎ 40-65	◎ 45-90	◎ 40-65	◎ 45-90	◎ 40-65	◎ 45-90
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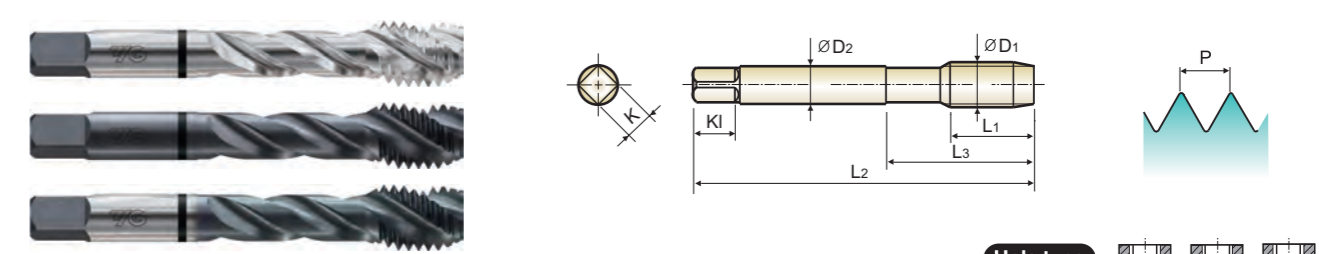
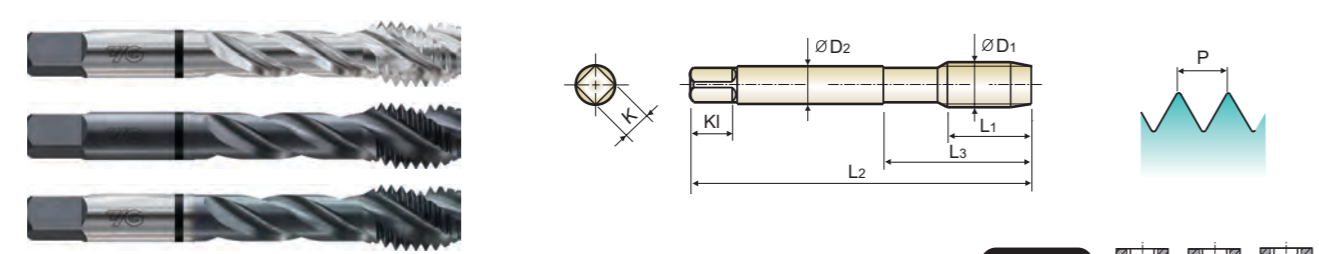
T2 SERIES
T2-S SERIES
T2-C SERIES



T2 SERIES
T2-S SERIES
T2-C SERIES

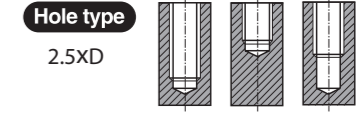
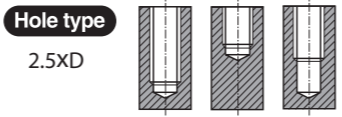
SPIRAL FLUTE for Multipurpose

SPIRAL FLUTE for Multipurpose



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

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



Unit : Inch

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

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

◎ : Excellent ○ : Good

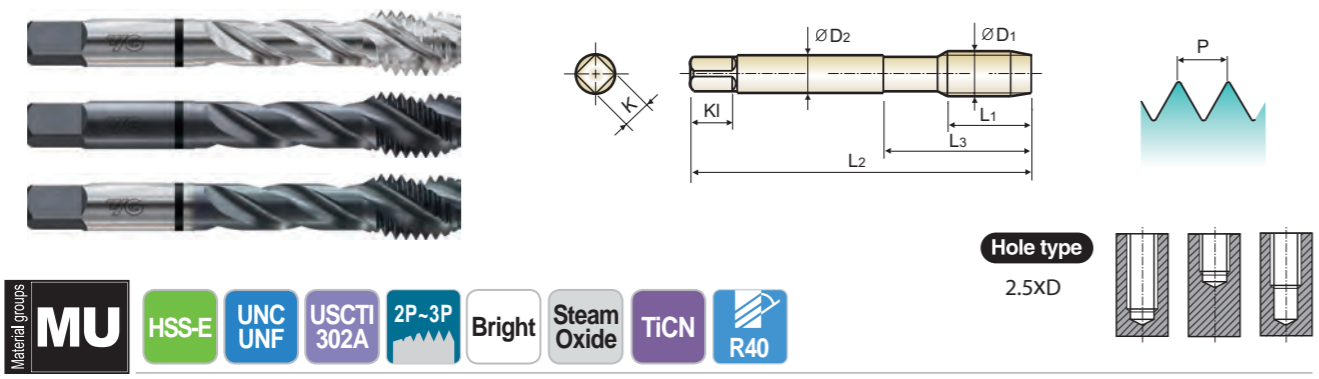
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17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

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	○	◎	◎	◎	◎	◎	◎	◎	◎	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	

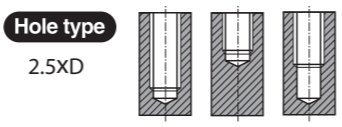


T2 SERIES
T2-S SERIES
T2-C SERIES

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

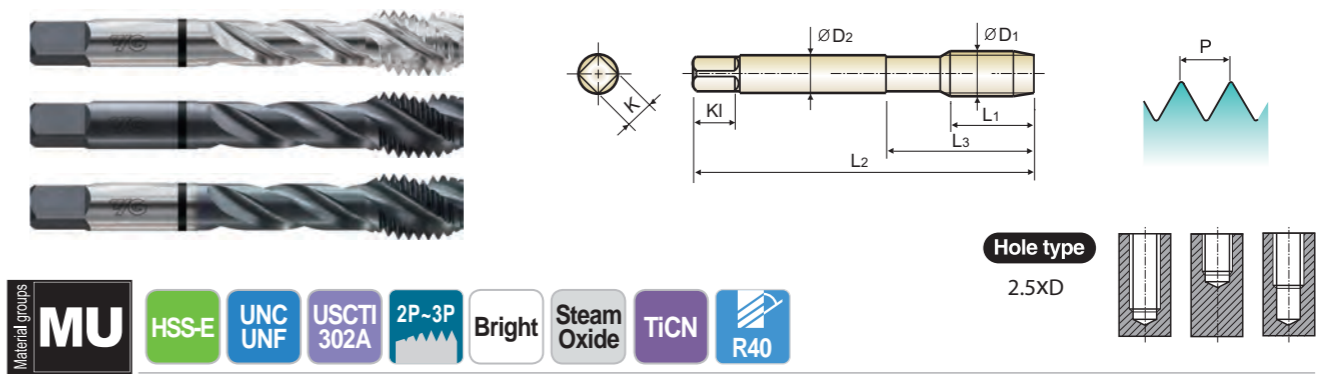
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◎ : Excellent ○ : Good

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	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	○	◎	◎	◎	◎	◎	◎	◎	◎	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎				

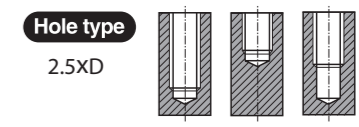
T2 SERIES
T2-S SERIES
T2-C SERIES



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								
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

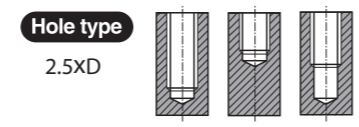
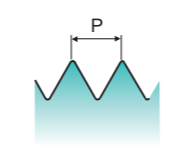
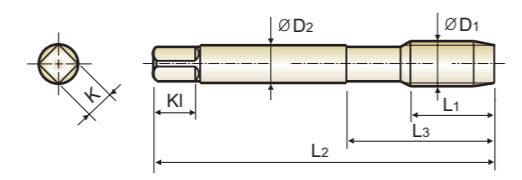
◎ : Excellent ○ : Good

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	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	○	◎	◎	◎	◎	◎	◎	◎	◎	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎				



T5 SERIES
T5-S SERIES
T5-C SERIES

SPIRAL FLUTE for Multipurpose



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

Unit : Inch

Table with 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. Rows include sizes M3 to M12.

- 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.

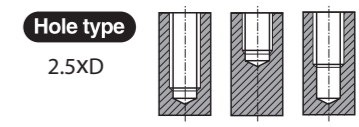
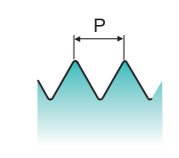
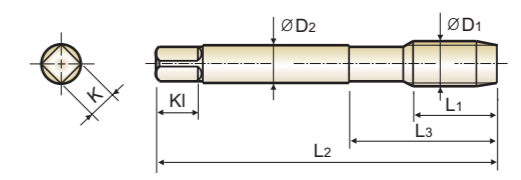
NEXT PAGE

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

T5 SERIES
T5-S SERIES
T5-C SERIES



SPIRAL FLUTE for Multipurpose



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

Unit : Inch

Table with 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. Rows include sizes M12 to M27.

- 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.

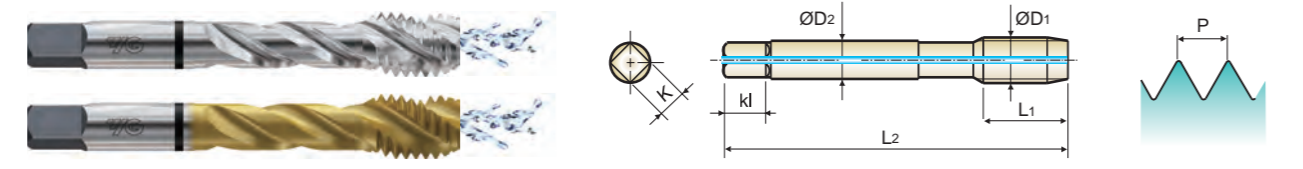
© : Excellent ○ : Good

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



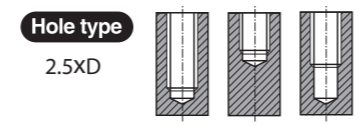
T6 SERIES
T6-N SERIES

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

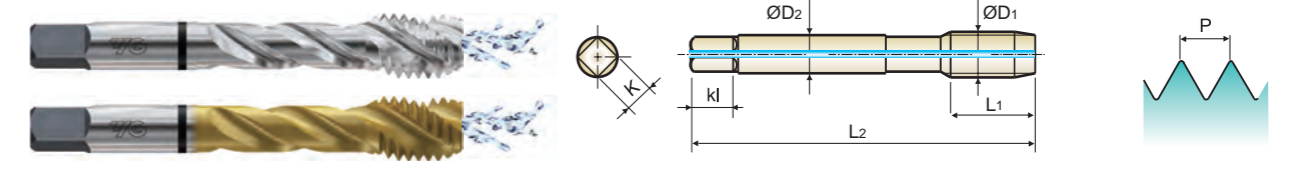
ISO	P										M			K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel			Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron		
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRC	13	25	28	32	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	240	180	260	160	250	130	230			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	◎	◎	◎	◎	◎	◎	◎	◎													



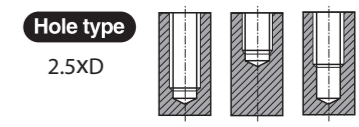
T8 SERIES
T8-N SERIES

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

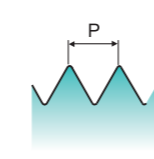
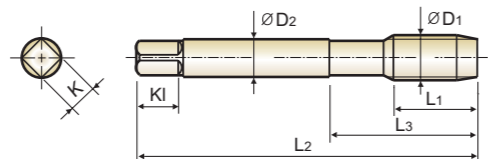
- ▶ Coating(TiCN, TiAlN or Hardslick) or Surface Treatment(Steam Oxide) is available on your request.
- ▶ Coating Codes for Combo Tap
Bright Finish No. + C(TiCN), F(TiAlN), H(Hardslick), S(Steam Oxide)

◎ : 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	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	240	180	260	160	250	130	230			230
Recommended	○	◎	◎	◎	◎	◎	◎	◎	◎	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

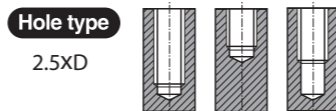
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
Material Description	21	22	23	24	25	26	27	28	29	30	31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

Material groups: **MU** HSS-E UNC UNF USCTI 302A 1P~2P Bright 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	TiCN								
#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

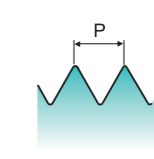
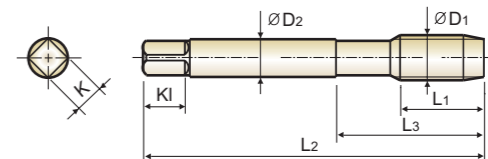
▶ NEXT PAGE

◎ : 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	
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

Material groups: **MU** HSS-E UNC UNF USCTI 302A 1P~2P Bright 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	TiCN								
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

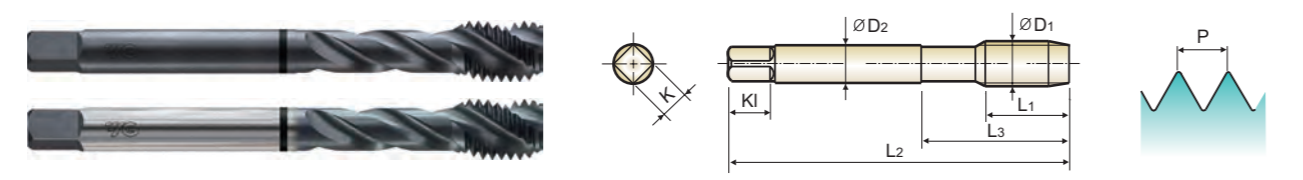
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17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

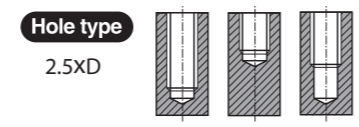


T1-S SERIES
T1-C SERIES

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

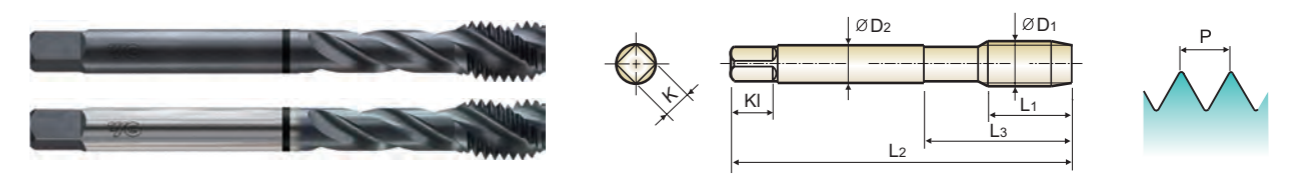
ISO	P										M			K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRC	13	25	28	32	38	10	29	32	38	15	35	15	23	10	10	26	3	25	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			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended	◎	◎	◎	◎	◎	◎	◎	◎			◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

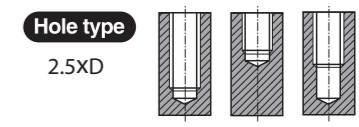
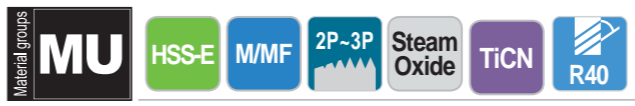


TA-S SERIES
TA-C SERIES

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

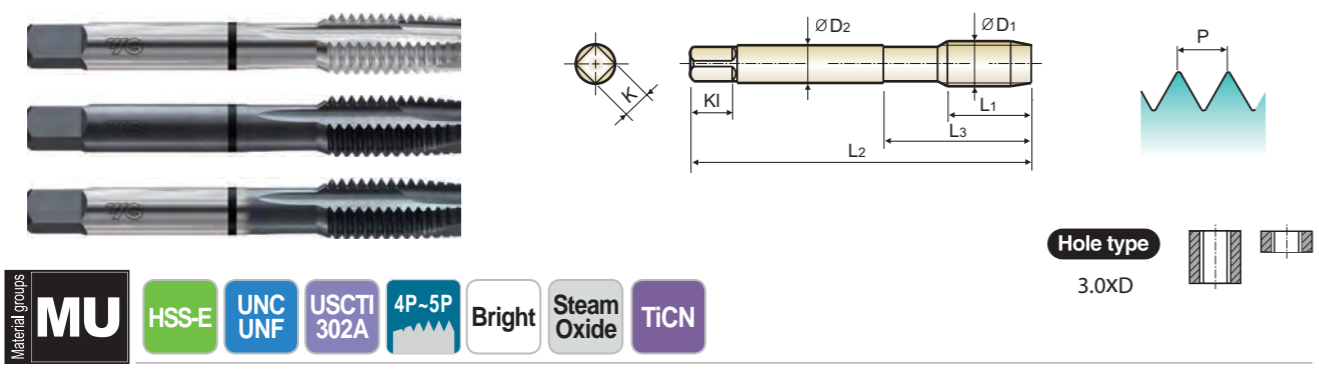
ISO	P										M			K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRC	13	25	28	32	38	10	29	32	38	15	35	15	23	10	10	26	3	25	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			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

Hole type 3.0XD

Unit : Inch

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

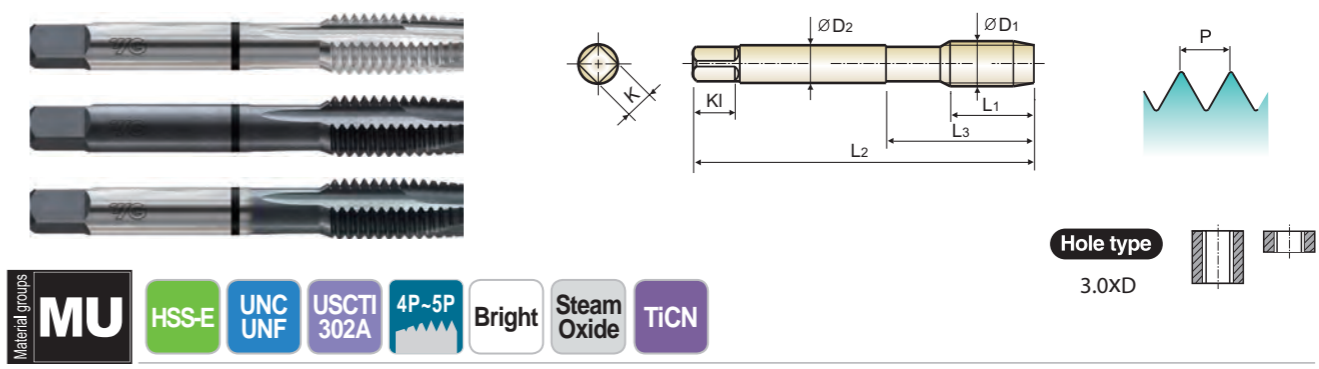
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ISO material compatibility chart for T4 series taps, showing suitability for various materials like Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, etc.

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

Hole type 3.0XD

Unit : Inch

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

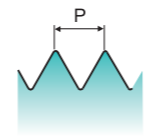
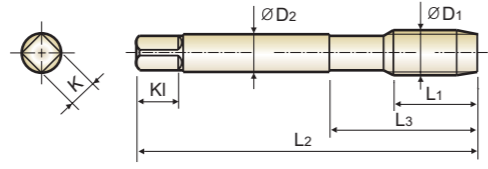
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ISO material compatibility chart for T4 series taps, showing suitability for various materials like Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, etc.



T4 SERIES
T4-S SERIES
T4-C SERIES

SPIRAL POINT for Multipurpose



Hole type 3.0XD

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, L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute

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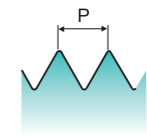
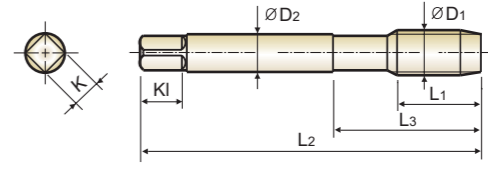
◎: Excellent ○: Good

Material compatibility table with columns for ISO, Material Description, and various material groups (P, M, K, N, S, H).

T4 SERIES
T4-S SERIES
T4-C SERIES



SPIRAL POINT for Multipurpose



Hole type 3.0XD

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, L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute

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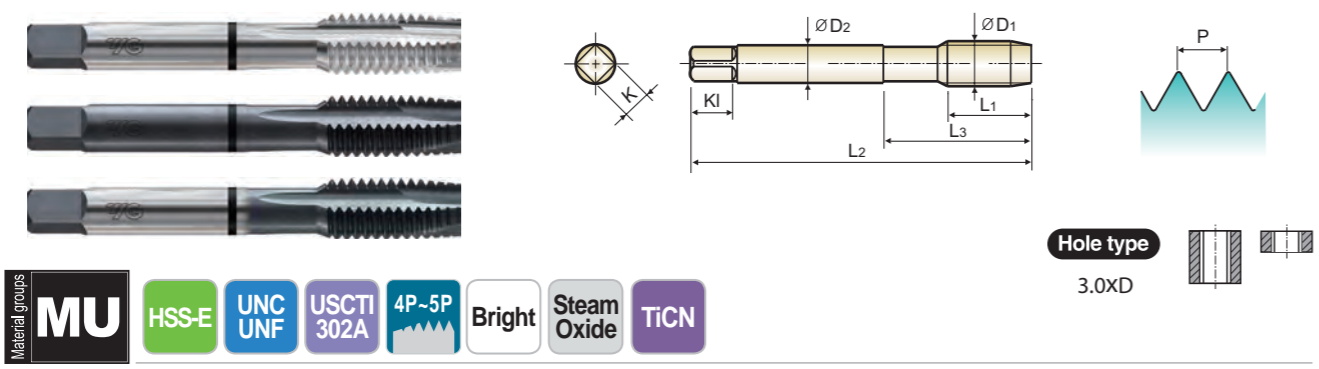
◎: Excellent ○: Good

Material compatibility table with columns for ISO, Material Description, and various material groups (P, M, K, N, S, H).



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								
7/8	- 14UNF	T4764	T4764S	T4764C	H4	4.689	1.339	2.220	.697	.523	.750	3
1"	- 8UNC	T4786	T4786S	T4786C	H6	5.126	1.496	2.500	.800	.600	.810	3
1"	- 8UNC	T4784	T4784S	T4784C	H4	5.126	1.496	2.500	.800	.600	.810	3
1"	- 12UNF	T4806	T4806S	T4806C	H6	5.126	1.496	2.500	.800	.600	.810	3
1"	- 12UNF	T4804	T4804S	T4804C	H4	5.126	1.496	2.500	.800	.600	.810	3
1-1/8	- 7UNC	T4826	T4826S	T4826C	H6	5.437	1.535	2.563	.896	.672	.880	4
1-1/8	- 8UN	T4836	T4836S	T4836C	H6	5.437	1.535	2.563	.896	.672	.880	4
1-1/8	- 12UNF	T4845	T4845S	T4845C	H5	5.437	1.535	2.563	.896	.672	.880	4
1-1/4	- 7UNC	T4866	T4866S	T4866C	H6	5.752	1.535	2.563	1.021	.766	1.000	4
1-1/4	- 8UN	T4876	T4876S	T4876C	H6	5.752	1.535	2.563	1.021	.766	1.000	4
1-1/4	- 12UNF	T4885	T4885S	T4885C	H5	5.752	1.535	2.563	1.021	.766	1.000	4
1-3/8	- 6UNC	T4906	T4906S	T4906C	H6	6.063	1.791	3.000	1.108	.831	1.060	4
1-3/8	- 8UN	T4916	T4916S	T4916C	H6	6.063	1.791	3.000	1.108	.831	1.060	4
1-3/8	- 12UNF	T4925	T4925S	T4925C	H5	6.063	1.791	3.000	1.108	.831	1.060	4
1-1/2	- 6UNC	T4946	T4946S	T4946C	H6	6.374	1.791	3.000	1.233	.925	1.130	4
1-1/2	- 8UN	T4956	T4956S	T4956C	H6	6.374	1.791	3.000	1.233	.925	1.130	4
1-1/2	- 12UNF	T4965	T4965S	T4965C	H5	6.374	1.791	3.000	1.233	.925	1.130	4

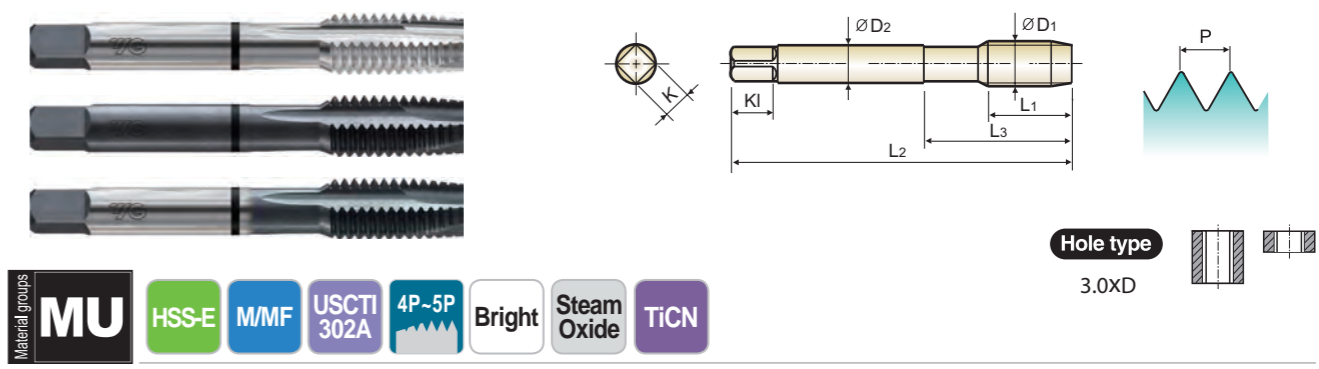
◎ : Excellent ○ : Good

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	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	

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								
M3	x 0.5	T3203	T3203S	T3203C	D3	1.937	.374	.646	.141	.110	.190	3
M3	x 0.5	T320A	T320AS	T320AC	D11	1.937	.374	.646	.141	.110	.190	3
M3.5	x 0.6	T3224	T3224S	T3224C	D4	2.000	.413	.709	.141	.110	.190	3
M3.5	x 0.6	T322A	T322AS	T322AC	D11	2.000	.413	.709	.141	.110	.190	3
M4	x 0.7	T3244	T3244S	T3244C	D4	2.126	.453	.768	.168	.131	.250	3
M4	x 0.7	T324A	T324AS	T324AC	D11	2.126	.453	.768	.168	.131	.250	3
M5	x 0.8	T3284	T3284S	T3284C	D4	2.374	.531	.933	.194	.152	.250	3
M5	x 0.8	T328A	T328AS	T328AC	D11	2.374	.531	.933	.194	.152	.250	3
M6	x 1.0	T3315	T3315S	T3315C	D5	2.500	.591	1.000	.255	.191	.310	3
M6	x 1.0	T331A	T331AS	T331AC	D11	2.500	.591	1.000	.255	.191	.310	3
M7	x 1.0	T3345	T3345S	T3345C	D5	2.720	.669	1.126	.318	.238	.380	3
M7	x 1.0	T334A	T334AS	T334AC	D11	2.720	.669	1.126	.318	.238	.380	3
M8	x 1.25	T3365	T3365S	T3365C	D5	2.720	.669	1.126	.318	.238	.380	3
M8	x 1.25	T336A	T336AS	T336AC	D11	2.720	.669	1.126	.318	.238	.380	3
M8	x 1.0	T3375	T3375S	T3375C	D5	2.720	.669	1.126	.318	.238	.380	3
M8	x 1.0	T337A	T337AS	T337AC	D11	2.720	.669	1.126	.318	.238	.380	3
M10	x 1.0	T3445	T3445S	T3445C	D5	2.937	.748	1.252	.381	.286	.440	3
M10	x 1.0	T344A	T344AS	T344AC	D11	2.937	.748	1.252	.381	.286	.440	3
M10	x 1.5	T3426	T3426S	T3426C	D6	2.937	.748	1.252	.381	.286	.440	3
M10	x 1.5	T342A	T342AS	T342AC	D11	2.937	.748	1.252	.381	.286	.440	3
M10	x 1.25	T3435	T3435S	T3435C	D5	2.937	.748	1.252	.381	.286	.440	3
M10	x 1.25	T343A	T343AS	T343AC	D11	2.937	.748	1.252	.381	.286	.440	3
M12	x 1.5	T3516	T3516S	T3516C	D6	3.374	.984	1.657	.367	.275	.440	3
M12	x 1.5	T351A	T351AS	T351AC	D11	3.374	.984	1.657	.367	.275	.440	3
M12	x 1.75	T3506	T3506S	T3506C	D6	3.374	.984	1.657	.367	.275	.440	3
M12	x 1.75	T350A	T350AS	T350AC	D11	3.374	.984	1.657	.367	.275	.440	3

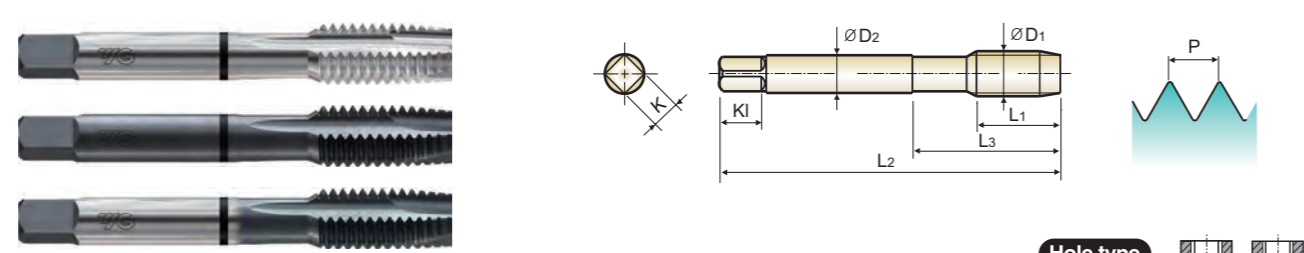
◎ : Excellent ○ : Good

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	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	



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

Hole type: 3.0XD

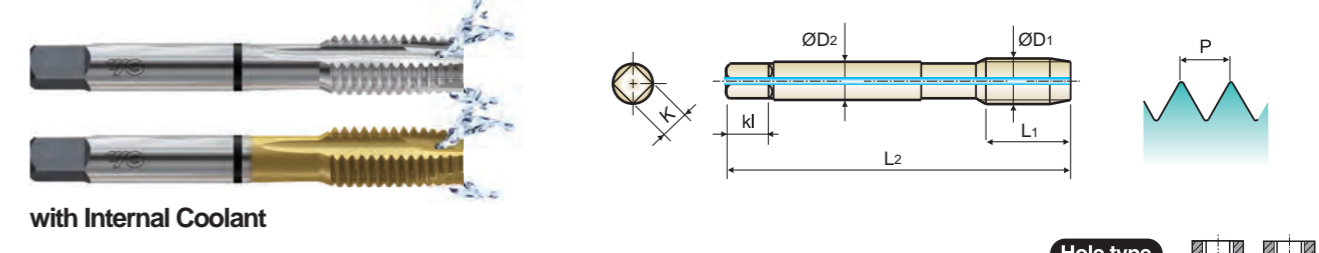
Unit: Inch

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	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



TB SERIES
TB-N SERIES

SPIRAL POINT for Multipurpose



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

Hole type: 3.0XD

Unit: Inch

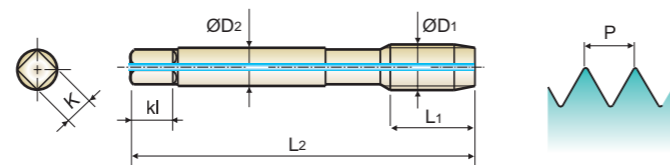
Size	TPI	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Bright	TiN								
1/4 - 20UNC		TB405	TB405N	H5	2.500	.591	1.000	.255	.191	.310	3
1/4 - 28UNF		TB424	TB424N	H4	2.500	.591	1.000	.255	.191	.310	3
5/16 - 18UNF		TB445	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)



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

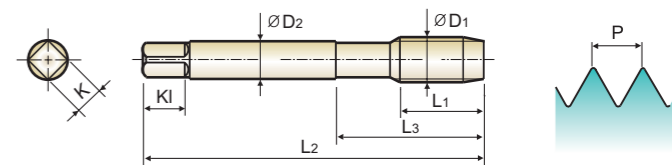
ISO	P										M			K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel			Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron		
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18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

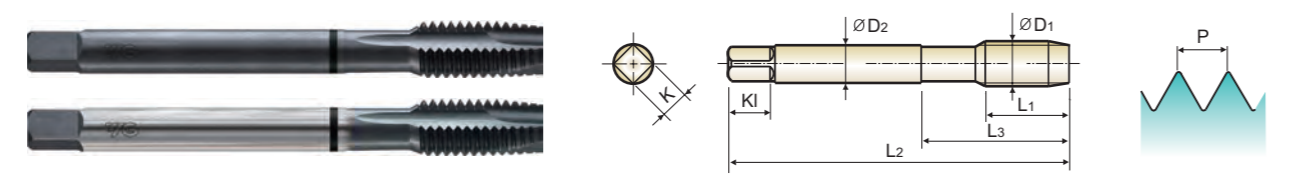
ISO	P										M			K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel			Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron		
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18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

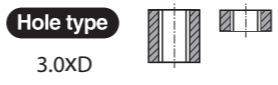


TK-S SERIES
TK-C SERIES

SPIRAL POINT for Multipurpose



DIN Length-ANSI Shank



Unit : Inch

Size	Pitch	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	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

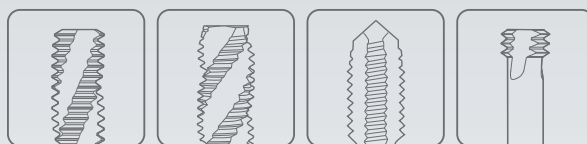


Series	Series	Standard	Surface Treatment	Size	Q'ty
T2836SET8	T2	UNC/F	Bright	1/4-20, 1/4-28, 5/16-18, 5-16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20	8 pcs
T836SET8	T2-C	UNC/F	TiCN	1/4-20, 1/4-28, 5/16-18, 5-16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20	8 pcs
T2836SET8-1	T2	UNC/F	Bright	1/4-20, 1/4-28, 5/16-18, 5-16-24, 3/8-16, 3/8-24, 1/2-13, 1/2-20	8 pcs
T836SET8-1	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
T805SET7	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**



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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 globallyg1.com/mat for material search

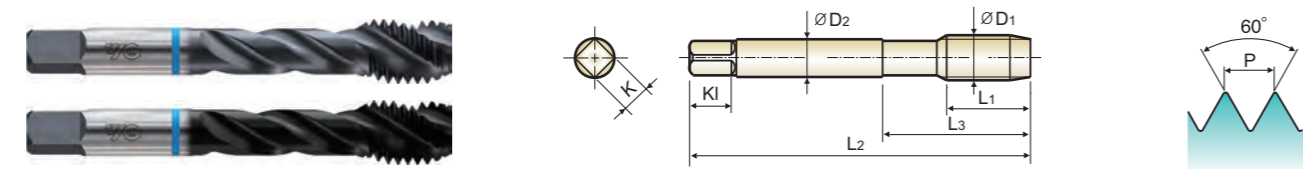
Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF), SURFACE TREATMENT / COATING, MODEL, ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB,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

Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, HSS-PM (2P-3P, 4P-5P), SURFACE TREATMENT / COATING, MODEL, ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and hole size options.



BB/BI SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Steels & Stainless Steels



ANSI

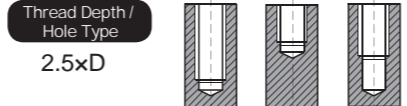


Table with columns: Size, TPI, EDP No., Limit, Overall Length, Thread Length, Neck Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes #2 through 1/4 inch.

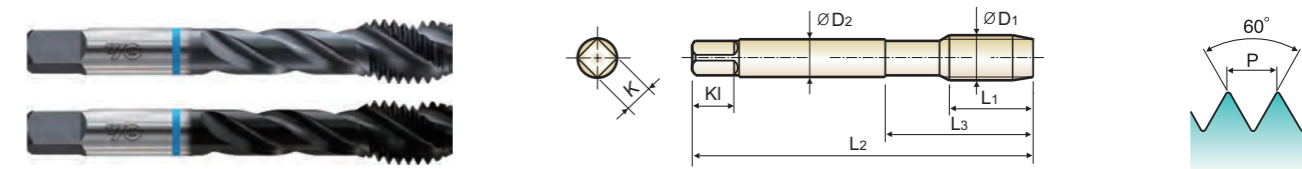
▶ NEXT PAGE

Material compatibility chart with columns for ISO, Material Description, P, M, K, H and rows for various materials like VDI 3323, HRc, HB.



BB/BI SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Steels & Stainless Steels



ANSI

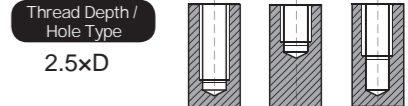


Table with columns: Size, TPI, EDP No., Limit, Overall Length, Thread Length, Neck Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes 1/4 inch through 5/8 inch.

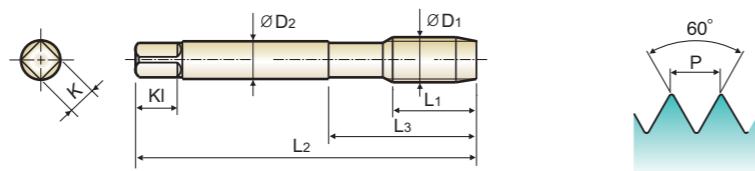
▶ NEXT PAGE

Material compatibility chart with columns for ISO, Material Description, P, M, K, H and rows for various materials like VDI 3323, HRc, HB.

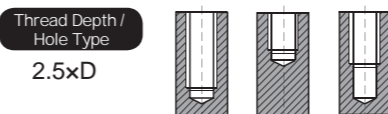


BB/BI SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE
for Steels & Stainless Steels



ANSI



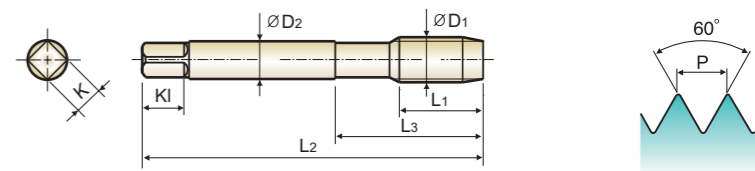
Unit : Inch

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

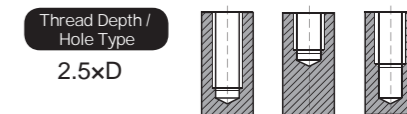


BH/BM SERIES

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

◎ : Excellent ○ : Good

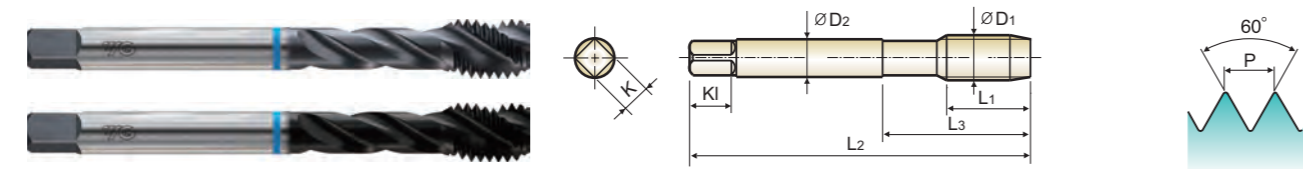
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30	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	42	55	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

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◎ : Excellent ○ : Good

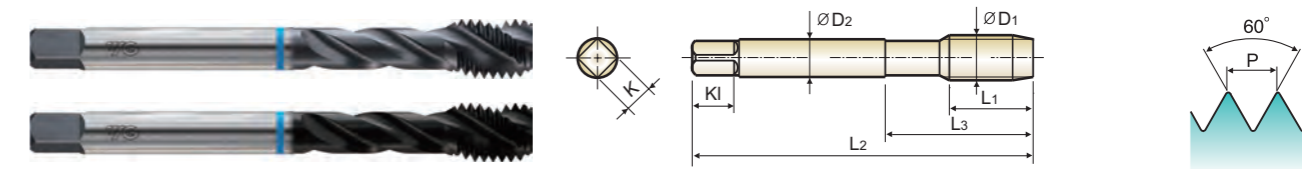
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30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

◎ : Excellent ○ : Good

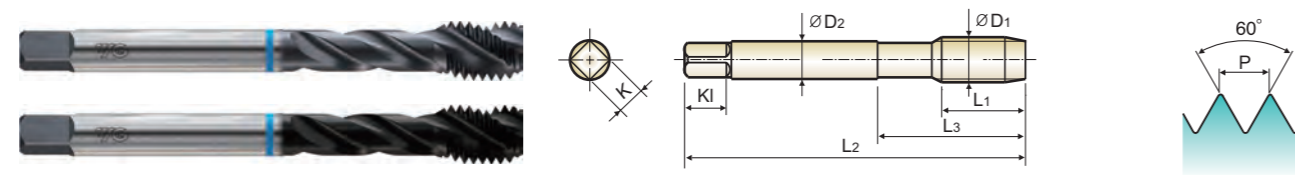
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30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

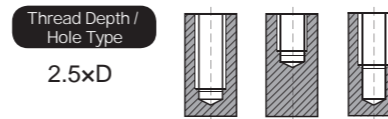


BD/BO SERIES

**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

◎ : Excellent ○ : Good

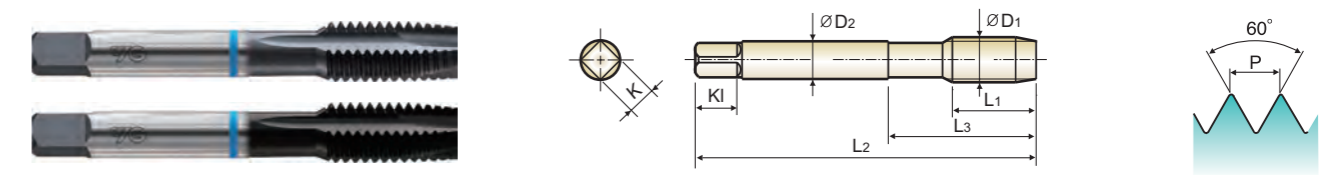
ISO	P										M				K				Malleable cast iron			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron			
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21		
HB	125	190	250	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	○	○				○	○														

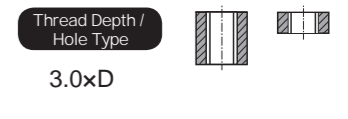


M9/O1 SERIES

**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

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◎ : Excellent ○ : Good

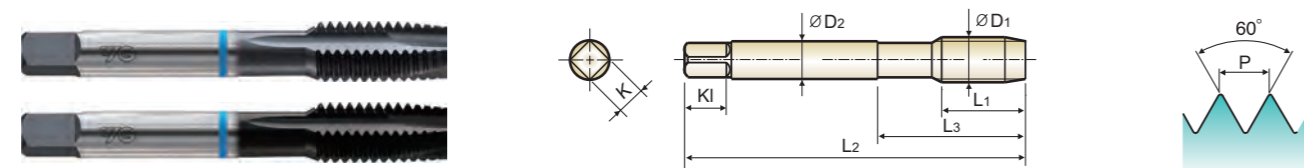
ISO	P										M				K				Malleable cast iron			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron			
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21		
HB	125	190	250	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	○	○				○	○														



M9/O1 SERIES

SPIRAL POINT TAPS PLUG STYLE for Steels & Stainless Steels



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
		Steam Oxide	Hardslick								
1/4 - 28UNF	M9424	Q1424	H4	2.500	.591	1.000	.255	.191	.310	3	
1/4 - 28UNF	M9425	Q1425	H5	2.500	.591	1.000	.255	.191	.310	3	
1/4 - 28UNF	M9426	Q1426	H6	2.500	.591	1.000	.255	.191	.310	3	
5/16 - 18UNC	M9443	Q1443	H3	2.720	.669	1.126	.318	.238	.380	3	
5/16 - 18UNC	M9445	Q1445	H5	2.720	.669	1.126	.318	.238	.380	3	
5/16 - 24UNF	M9463	Q1463	H3	2.720	.669	1.126	.318	.238	.380	3	
5/16 - 24UNF	M9464	Q1464	H4	2.720	.669	1.126	.318	.238	.380	3	
5/16 - 24UNF	M9465	Q1465	H5	2.720	.669	1.126	.318	.238	.380	3	
5/16 - 24UNF	M9466	Q1466	H6	2.720	.669	1.126	.318	.238	.380	3	
3/8 - 16UNC	M9483	Q1483	H3	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 16UNC	M9485	Q1485	H5	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 24UNF	M9503	Q1503	H3	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 24UNF	M9504	Q1504	H4	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 24UNF	M9505	Q1505	H5	2.937	.748	1.252	.381	.286	.440	3	
3/8 - 24UNF	M9506	Q1506	H6	2.937	.748	1.252	.381	.286	.440	3	
7/16 - 14UNC	M9523	Q1523	H3	3.157	.866	1.437	.323	.242	.410	3	
7/16 - 14UNC	M9525	Q1525	H5	3.157	.866	1.437	.323	.242	.410	3	
7/16 - 20UNF	M9543	Q1543	H3	3.157	.866	1.437	.323	.242	.410	3	
7/16 - 20UNF	M9545	Q1545	H5	3.157	.866	1.437	.323	.242	.410	3	
1/2 - 13UNC	M9563	Q1563	H3	3.374	.984	1.657	.367	.275	.440	3	
1/2 - 13UNC	M9565	Q1565	H5	3.374	.984	1.657	.367	.275	.440	3	
1/2 - 20UNF	M9583	Q1583	H3	3.374	.984	1.657	.367	.275	.440	3	
1/2 - 20UNF	M9585	Q1585	H5	3.374	.984	1.657	.367	.275	.440	3	
9/16 - 12UNC	M9605	Q1605	H5	3.594	.984	1.657	.429	.322	.500	3	
9/16 - 18UNF	M9625	Q1625	H5	3.594	.984	1.657	.429	.322	.500	3	
5/8 - 11UNC	M9643	Q1643	H3	3.811	1.083	1.811	.480	.360	.560	3	

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◎ : Excellent ○ : Good

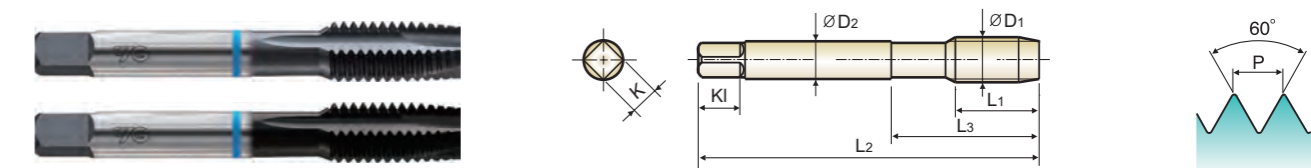
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17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



M9/O1 SERIES

SPIRAL POINT TAPS PLUG STYLE for Steels & Stainless Steels



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
		Steam Oxide	Hardslick								
5/8 - 11UNC	M9645	Q1645	H5	3.811	1.083	1.811	.480	.360	.560	3	
5/8 - 18UNF	M9663	Q1663	H3	3.811	1.083	1.811	.480	.360	.560	3	
5/8 - 18UNF	M9665	Q1665	H5	3.811	1.083	1.811	.480	.360	.560	3	
3/4 - 10UNC	M9703	Q1703	H3	4.252	1.201	2.000	.590	.442	.690	3	
3/4 - 10UNC	M9705	Q1705	H5	4.252	1.201	2.000	.590	.442	.690	3	
3/4 - 16UNF	M9723	Q1723	H3	4.252	1.201	2.000	.590	.442	.690	3	
3/4 - 16UNF	M9725	Q1725	H5	4.252	1.201	2.000	.590	.442	.690	3	
7/8 - 9UNC	M9746	Q1746	H6	4.689	1.339	2.220	.697	.523	.750	3	
7/8 - 14UNF	M9766	Q1766	H6	4.689	1.339	2.220	.697	.523	.750	3	
1" - 8UNC	M9786	Q1786	H6	5.126	1.496	2.500	.800	.600	.810	3	
1" - 12UNF	M9806	Q1806	H6	5.126	1.496	2.500	.800	.600	.810	3	
1-1/8 - 8UN	M9836	Q1836	H6	5.437	1.535	2.563	.896	.672	.880	4	
1-1/4 - 8UN	M9876	Q1876	H6	5.752	1.535	2.563	1.021	.766	1.000	4	
1-3/8 - 8UN	M9916	Q1916	H6	6.063	1.791	3.000	1.108	.831	1.060	4	
1-1/2 - 8UN	M9956	Q1956	H6	6.374	1.791	3.000	1.233	.925	1.130	4	

◎ : Excellent ○ : Good

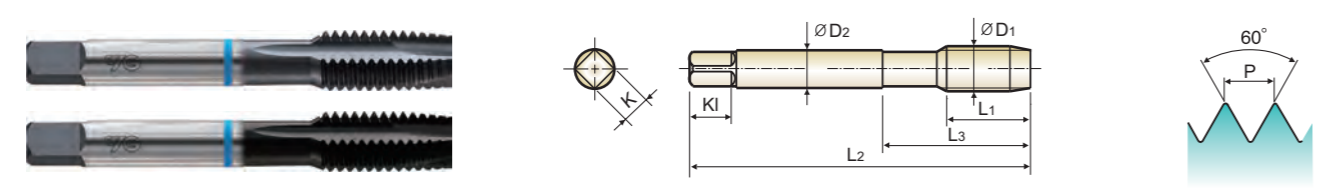
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17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



N7/N8 SERIES

SPIRAL POINT TAPS PLUG STYLE for Steels & Stainless Steels



ANSI VG HSS-PM M/MF USCTI 302A 4P~5P Steam Oxide Hardslick 3.0xD Thread Depth / Hole Type

Table with columns: Size (D1, Pitch), EDP No. (Steam Oxide, 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 sizes from M3 to M18.

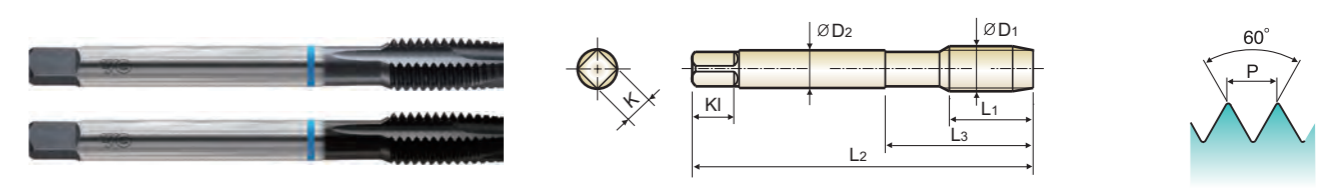
Unit : Inch

Material compatibility chart for N7/N8 series taps. Columns include ISO, Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), M, S, H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).



N4/O5 SERIES

SPIRAL POINT TAPS PLUG STYLE for Steels & Stainless Steels



DIN Length-ANSI Shank VG HSS-PM UNC UNF 4P~5P Steam Oxide Hardslick 3.0xD Thread Depth / Hole Type

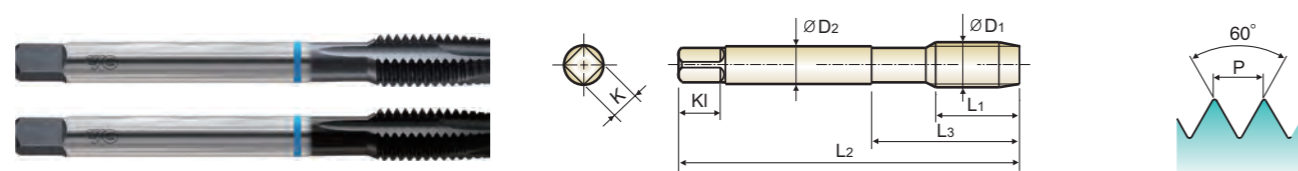
Table with columns: Size (D1, TPI), EDP No. (Steam Oxide, Hardslick), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute. Lists various sizes from #2 to 7/8.

Unit : Inch

Material compatibility chart for N4/O5 series taps. Columns include ISO, Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), M, S, H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

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SPIRAL POINT TAPS PLUG STYLE for Steels & Stainless Steels



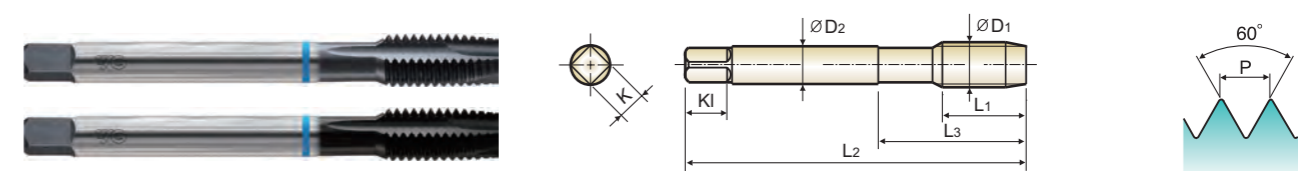
DIN Length-ANSI Shank



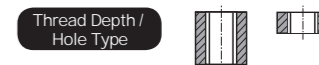
Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
1"	- 8UNC	N4786	Q5786	H6	6.299	1.496	2.500	.800	.600	.810	3
1"	- 12UNC	N4806	Q5806	H6	5.512	1.496	2.500	.800	.600	.810	3
1-1/8"	- 8UN	N4836	Q5836	H6	7.087	1.575	2.638	.896	.672	.880	4
1-1/4"	- 8UN	N4876	Q5876	H6	7.087	1.575	2.638	1.021	.766	1.000	4
1-3/8"	- 8UN	N4916	Q5916	H6	7.874	1.654	2.953	1.108	.831	1.060	4
1-1/2"	- 8UN	N4956	Q5956	H6	7.874	1.654	2.953	1.233	.925	1.130	4

SPIRAL POINT TAPS PLUG 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	N3203	Q3203	D3	2.205	.374	.646	.141	.110	.190	3
M3.5	x 0.6	N3224	Q3224	D4	2.205	.413	.709	.141	.110	.190	3
M4	x 0.7	N3244	Q3244	D4	2.480	.453	.768	.168	.131	.250	3
M5	x 0.8	N3284	Q3284	D4	2.756	.531	.933	.194	.152	.250	3
M6	x 1.0	N3315	Q3315	D5	3.150	.591	1.000	.255	.191	.310	3
M7	x 1.0	N3345	Q3345	D5	3.150	.669	1.126	.318	.238	.380	3
M8	x 1.25	N3365	Q3365	D5	3.543	.669	1.126	.318	.238	.380	3
M8	x 1.0	N3375	Q3375	D5	3.543	.669	1.126	.318	.238	.380	3
M10	x 1.5	N3426	Q3426	D6	3.937	.748	1.252	.381	.286	.440	3
M10	x 1.25	N3435	Q3435	D5	3.937	.748	1.252	.381	.286	.440	3
M12	x 1.75	N3506	Q3506	D6	4.331	.984	1.657	.367	.275	.440	3
M12	x 1.25	N3525	Q3525	D5	3.937	.984	1.657	.367	.275	.440	3
M14	x 2.0	N3547	Q3547	D7	4.331	.984	1.657	.429	.322	.500	3
M14	x 1.5	N3556	Q3556	D6	3.937	.984	1.657	.429	.322	.500	3
M16	x 2.0	N3607	Q3607	D7	4.331	1.083	1.811	.480	.360	.560	3
M16	x 1.5	N3616	Q3616	D6	3.937	1.083	1.811	.480	.360	.560	3
M18	x 2.5	N3657	Q3657	D7	4.921	1.083	1.811	.542	.406	.630	3
M18	x 1.5	N3676	Q3676	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	○	○				○	○														

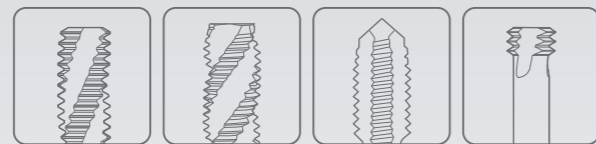
◎ : Excellent ○ : Good

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	○	○				○	○														



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THREADING

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- For carbon and alloy steel

SELECTION GUIDE



HSS-E YG TAP STEEL

- For carbon and alloy steel

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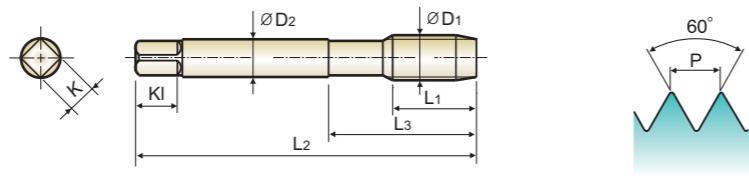
Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF), SURFACE TREATMENT / COATING, MODEL, and material properties (ISO, VDI 3323, Material Description, Composition / Structure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

Table with columns: HOLE TYPE (Max. 2.5xD Blind Hole, Max. 3.0xD Through Hole), TOOL MATERIAL (HSS-E), CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE (2P-3P Spiral Flute, 4P-5P Spiral Point), SPIRAL FLUTE ANGLE (R45, -), and material properties (ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC).



D3/E0 SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Steels



ANSI

A variety of H Limit

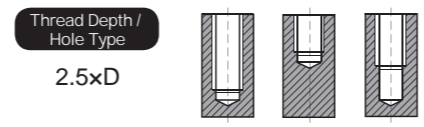


Table with 12 columns: Size, TPI, EDP No., Limit, Overall Length, Thread Length, Neck Length, Shank Diameter, Square Size, Square Length, No. of Flute. Lists various tap specifications.

Bright Finish Available: D4 Series

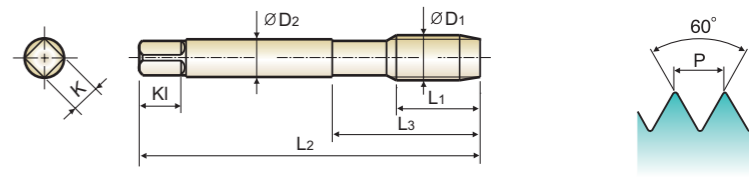
NEXT PAGE

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



D3/E0 SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Steels



ANSI

A variety of H Limit

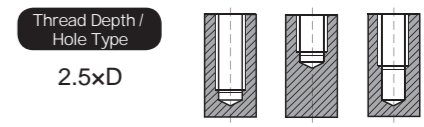


Table with 12 columns: Size, TPI, EDP No., Limit, Overall Length, Thread Length, Neck Length, Shank Diameter, Square Size, Square Length, No. of Flute. Lists various tap specifications.

Bright Finish Available: D4 Series

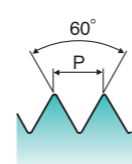
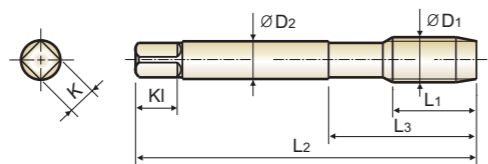
NEXT PAGE

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

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Steels



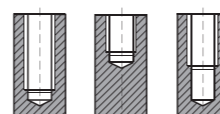
ANSI



A variety of H Limit



Thread Depth / Hole Type 2.5xD



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	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

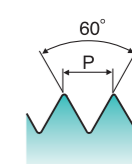
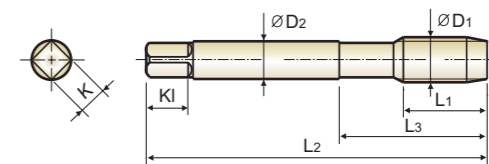
ISO Material Description	P										M				K				H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25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

ISO Material Description	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						
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



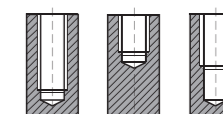
ANSI



A variety of H Limit



Thread Depth / Hole Type 2.5xD



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
		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

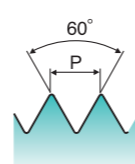
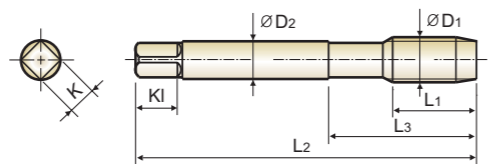
Bright Finish Available: D4 Series

◎ : Excellent ○ : Good

ISO 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	
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 Material Description	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						
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

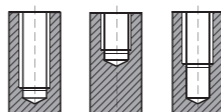


ANSI

A variety of D L limit



Thread Depth / Hole Type 2.5xD



Size	Pitch	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	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

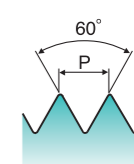
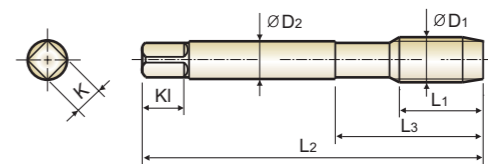
▶ NEXT PAGE

◎: Excellent ○: Good

ISO	P										M				K						
	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											◎										

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Steels

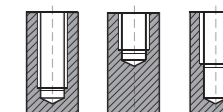


ANSI

A variety of D Limit



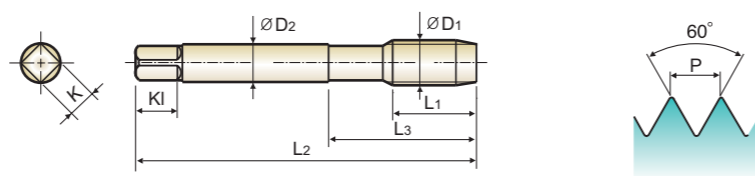
Thread Depth / Hole Type 2.5xD



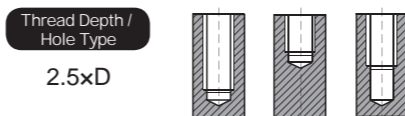
Unit : Inch

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	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

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Steels



DIN Length-ANSI Shank



Unit : Inch

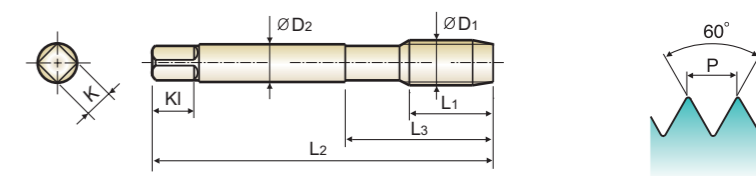
Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	TiCN	Hardslick								
M3	x 0.5	E2203	E4203	E5203	D3	2.205	.197	.646	.141	.110	.190	3
M3.5	x 0.6	E2224	E4224	E5224	D4	2.205	.276	.709	.141	.110	.190	3
M4	x 0.7	E2244	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	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	○	○	○	○	○	○	○	○	○

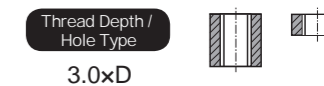
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)	Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
Material Description	21	22	23	24	25	26	27	28	29	30	31	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	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 - 40UNC		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

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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	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	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																					



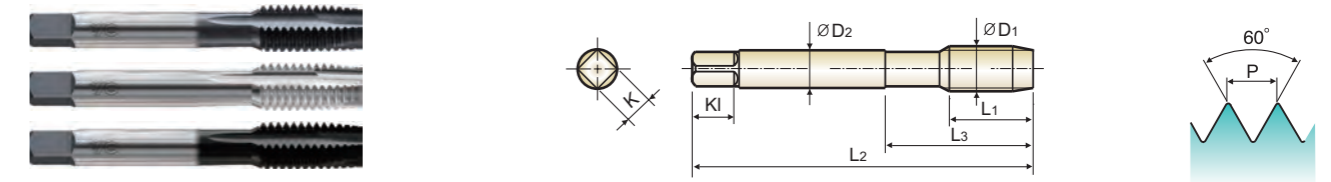
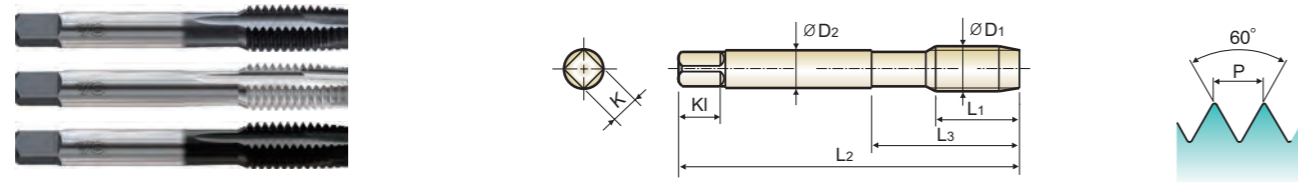
J3/J4/J8 SERIES



J3/J4/J8 SERIES

SPIRAL POINT TAPS PLUG STYLE for Steels

SPIRAL POINT TAPS PLUG STYLE for Steels



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ANSI

A variety of H Limit

A variety of H Limit



Thread Depth / Hole Type 3.0xD

Thread Depth / Hole Type 3.0xD

Unit : Inch

Unit : Inch

Table with 13 columns: Size (D1, TPI), EDP No. (Steam Oxide, Bright, Hardslick), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (K1), No. of Flute. Lists various tap sizes from #10 to 5/16.

Table with 13 columns: Size (D1, TPI), EDP No. (Steam Oxide, Bright, Hardslick), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (K1), No. of Flute. Lists various tap sizes from 5/16 to 7/16.

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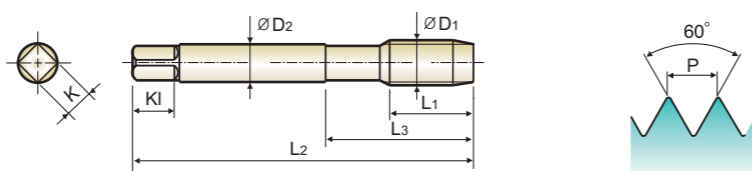
◎ : Excellent ○ : Good

◎ : Excellent ○ : Good

ISO material compatibility chart showing hardness (HRC, HB) and recommended use for various materials like Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron, Aluminum, Copper, Titanium, etc.

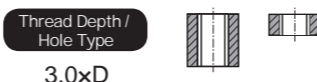
ISO material compatibility chart showing hardness (HRC, HB) and recommended use for various materials like Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron, Aluminum, Copper, Titanium, etc.

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

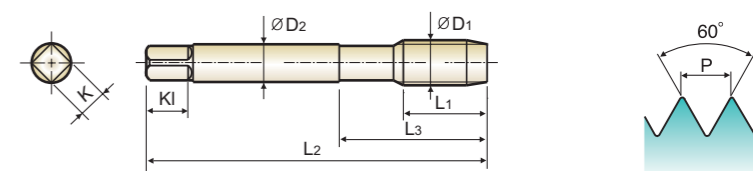
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◎ : Excellent ○ : Good

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
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		◎	◎	◎	◎	◎	◎	◎	○	○	○	○	○	○						

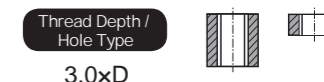
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35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

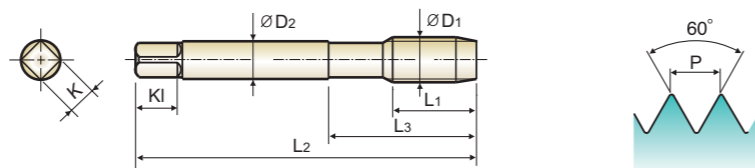
Size	TPI	EDP No.			Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Steam Oxide	Bright	Hardslick								
1-1/8 - 12UNF		J3845	J4845	J8845	H5	5.437	1.535	2.563	.896	.672	.880	4
1-1/4 - 7UNC		J3866	J4866	J8866	H6	5.752	1.535	2.563	1.021	.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
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		◎	◎	◎	◎	◎	◎	◎	○	○	○	○	○	○						

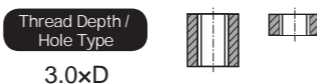
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35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

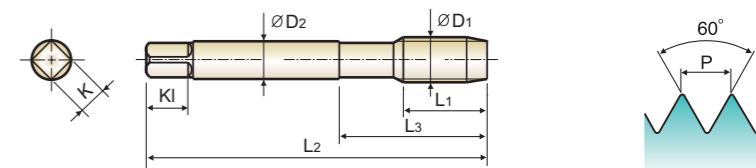
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◎ : Excellent ○ : Good

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

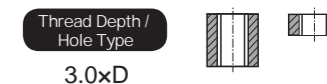
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
Material Description	21	22	23	24	25	26	27	28	29	30	31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



ANSI

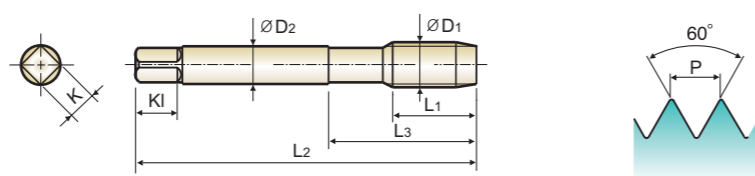
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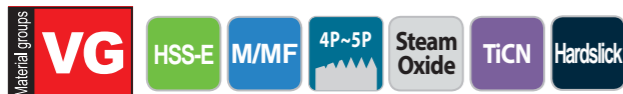
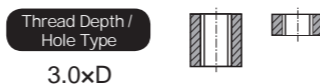
Unit : Inch

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 KI	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									
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	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			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



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 options.

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 options.

SELECTION GUIDE



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



Table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and four columns of hole type compatibility (Max. 3.0xD Through Hole).

Table with columns: HOLE TYPE (Max. 3.0xD Through Hole, Max. 2.5xD Blind Hole), TOOL MATERIAL (HSS-E, HSS-PM, HSS-E), CHAMFER LEAD ACC. TO DIN2197 (4P-5P, 2P-3P), FLUTE TYPE (Spiral Flute, Spiral Flute), SPIRAL FLUTE ANGLE (-, -), and various hole type compatibility (Max. 3.0xD Through Hole, Max. 2.5xD Blind Hole).

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 TiNi, YG TAP HARDENED STEEL, YG TAP GENERAL, YG TAP FORMING, STI TAP, PIPE TAP, TECHNICAL DATA

YG TAP INOX

YG TAP CAST IRON

YG TAP ALU

YG TAP TiNi

YG TAP HARDENED STEEL

YG TAP GENERAL

YG TAP FORMING

STI TAP

PIPE TAP

TECHNICAL DATA

HSS

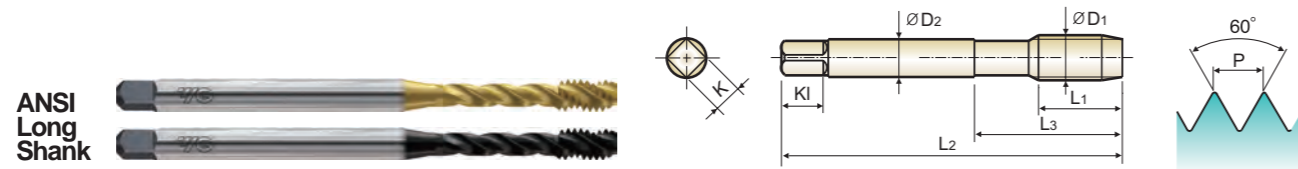
HSS



G7/G9/G8/H0 SERIES

EXTENDED LENGTH SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Stainless Steels

Extended length for greater reach



Material groups: VA, HSS-PM, UNC UNF, USCTI Long Shank, 2P~3P, TiN, Hardslick, R45. Thread Depth / Hole Type: 2.5xD. Includes three diagrams showing different thread depths.

Unit : Inch

Table with columns: Size, TPI, EDP No., Limit, Overall Length, Thread Length, Neck Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes #4 to 1/4 in.

Unit : Inch

Table with columns: Size, TPI, EDP No., Limit, Overall Length, Thread Length, Neck Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes #6 to 5/8 in.

ISO material compatibility chart with columns for ISO, Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel), M (Stainless steel), K (Grey cast iron, Nodular cast iron), H (Malleable cast iron). Includes rows for VDI 3323, HRc, HB, and Recommended.

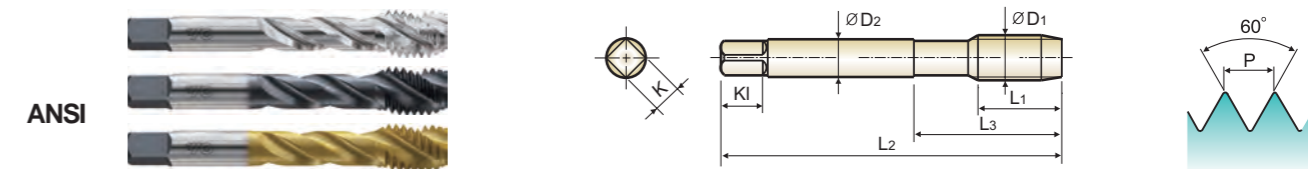
B154 phone:+1-800-765-8665 | Technical Support : 888-868-5988, www.yg1usa.com

YG-1 CO., LTD.



B1/B0/B2/D2 SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Stainless Steels



Material groups: VA, HSS-E, UNC UNF, USCTI 302A, 2P~3P, Bright, Steam Oxide, TiN, Hardslick, R45. Thread Depth / Hole Type: 2.5xD. Includes three diagrams showing different thread depths.

Unit : Inch

Table with columns: Size, TPI, EDP No., Limit, Overall Length, Thread Length, Neck Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes #2 to #10 in.

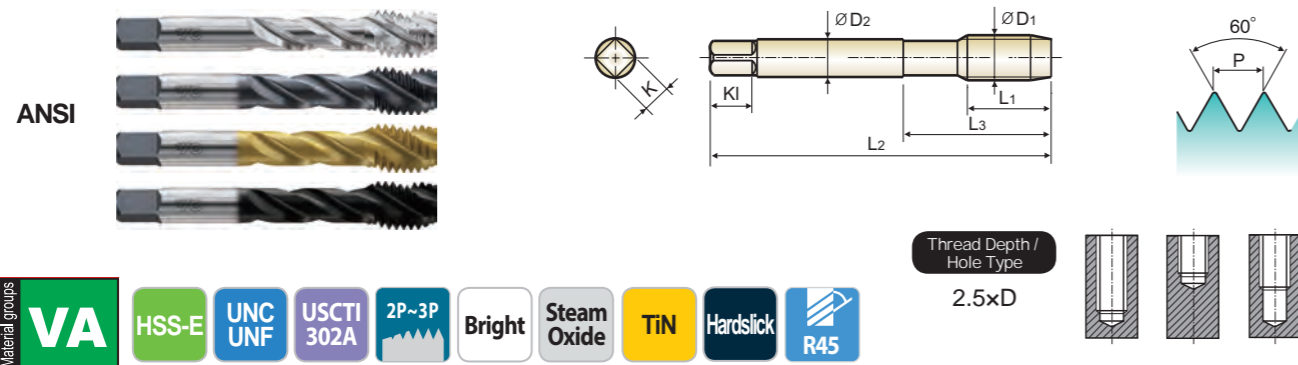
NEXT PAGE

ISO material compatibility chart with columns for ISO, Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel), M (Stainless steel), K (Grey cast iron, Nodular cast iron), H (Malleable cast iron). Includes rows for VDI 3323, HRc, HB, and Recommended.

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SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Stainless Steels



Material groups VA HSS-E UNC UNF USCTI 302A 2P~3P Bright Steam Oxide TiN Hardslick R45 Thread Depth / Hole Type 2.5xD

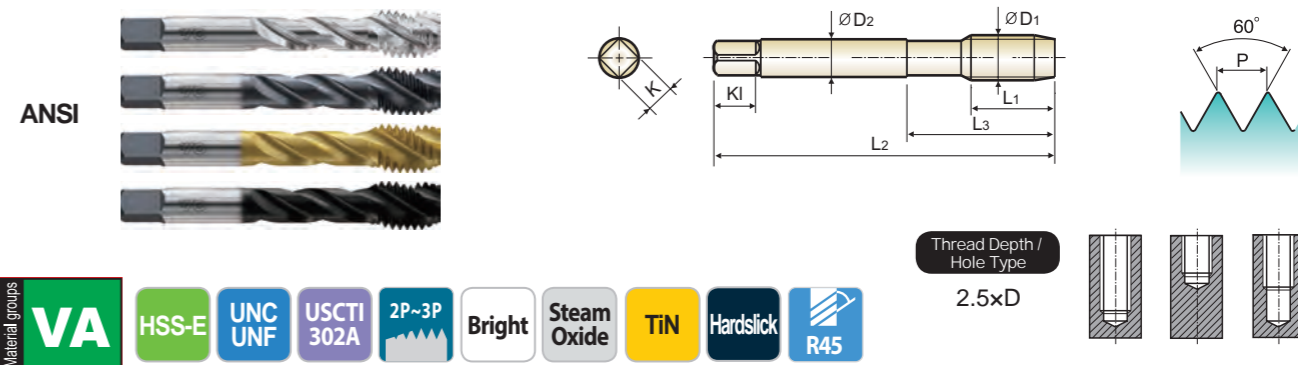
Table with 13 columns: Size (D1, TPI), EDP No. (Bright, Steam Oxide, TiN, Hardslick), Limit, Overall Length (L2), Thread Length (L1, L3), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute.

Unit : Inch

▶ NEXT PAGE

ISO material compatibility chart showing suitability (circles) for various materials 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.

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Stainless Steels



Material groups VA HSS-E UNC UNF USCTI 302A 2P~3P Bright Steam Oxide TiN Hardslick R45 Thread Depth / Hole Type 2.5xD

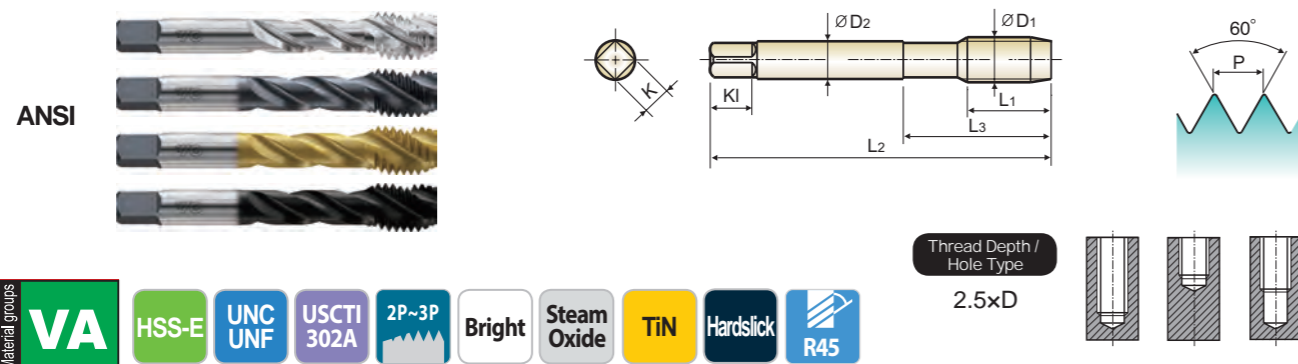
Table with 13 columns: Size (D1, TPI), EDP No. (Bright, Steam Oxide, TiN, Hardslick), Limit, Overall Length (L2), Thread Length (L1, L3), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute.

Unit : Inch

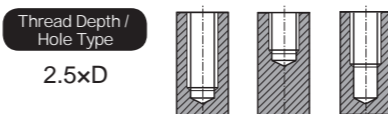
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ISO material compatibility chart showing suitability (circles) for various materials like Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron, Aluminum-wrought alloy, Aluminum-cast, alloyed, Copper and Copper Alloys, Non Metallic Materials, Heat Resistant Super Alloys, Titanium Alloys, Hardened steel, Chilled Cast Iron, and Hardened Cast Iron.

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Stainless Steels



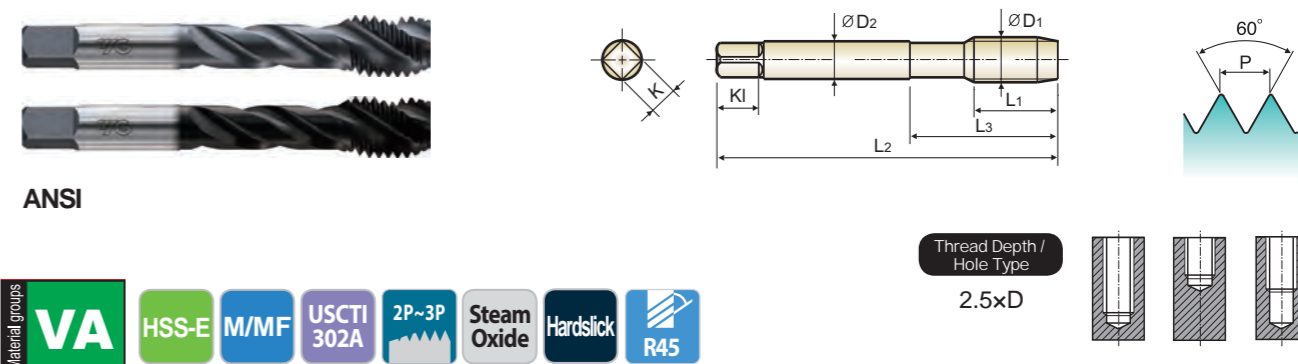
Material groups: **VA** HSS-E UNC UNF USCT1 302A 2P~3P Bright Steam Oxide TiN Hardslick R45



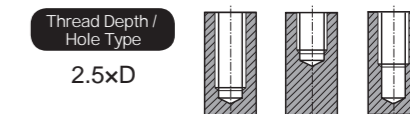
Unit : Inch

Size	TPI	EDP No.				Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		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	

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Stainless Steels



Material groups: **VA** HSS-E M/MF USCT1 302A 2P~3P Steam Oxide Hardslick R45



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		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	38	39	40	41
HRc	60	100	75	90	130	110	90	100			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	○					○	○														

◎ : Excellent ○ : Good

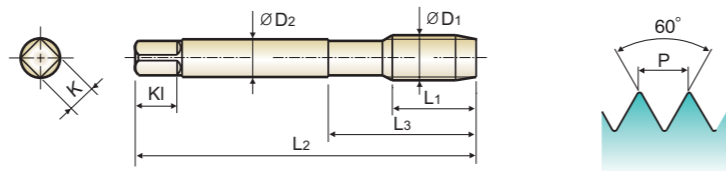
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	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	60	100	75	90	130	110	90	100			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	○					○	○														

YG TAP INOX

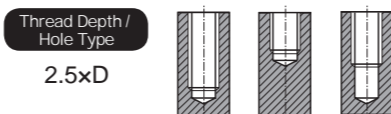
E6/E8/E9 SERIES

SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Stainless Steels



DIN Length-ANSI Shank

Material groups: **VA** HSS-E M/MF 2P~3P Steam Oxide TiCN Hardslick R45



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	F6203	E8203	F9203	D3	2.205	.197	.646	.141	.110	.190	3
M3.5	x 0.6	F6224	E8224	F9224	D4	2.205	.276	.709	.141	.110	.190	3
M4	x 0.7	F6244	E8244	F9244	D4	2.480	.276	.768	.168	.131	.250	3
M5	x 0.8	F6284	E8284	F9284	D4	2.756	.354	.933	.194	.152	.250	3
M6	x 1.0	F6315	E8315	F9315	D5	3.150	.433	1.000	.255	.191	.310	3
M7	x 1.0	F6345	E8345	F9345	D5	3.150	.433	1.126	.318	.238	.380	3
M8	x 1.25	F6365	E8365	F9365	D5	3.543	.472	1.126	.318	.238	.380	3
M8	x 1.0	F6375	E8375	F9375	D5	3.543	.433	1.126	.318	.238	.380	3
M10	x 1.5	F6426	E8426	F9426	D6	3.937	.512	1.252	.381	.286	.440	3
M10	x 1.25	F6435	E8435	F9435	D5	3.937	.472	1.252	.381	.286	.440	3
M12	x 1.75	F6506	E8506	F9506	D6	4.331	.591	2.067	.367	.275	.440	3
M12	x 1.25	F6525	E8525	F9525	D5	3.937	.551	2.067	.367	.275	.440	3
M14	x 2.0	F6547	E8547	F9547	D7	4.331	.709	2.067	.429	.322	.500	3
M14	x 1.5	F6556	E8556	F9556	D6	3.937	.551	2.067	.429	.322	.500	3
M16	x 2.0	F6607	E8607	F9607	D7	4.331	.709	2.205	.480	.360	.560	3
M16	x 1.5	F6616	E8616	F9616	D6	3.937	.551	2.205	.480	.360	.560	3
M18	x 2.5	F6657	E8657	F9657	D7	4.921	.787	2.205	.542	.406	.630	4
M18	x 1.5	F6676	E8676	F9676	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																							
HRc	13	25	28	32	30	18	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	○	◎	◎	◎	◎	◎					◎	◎	◎										

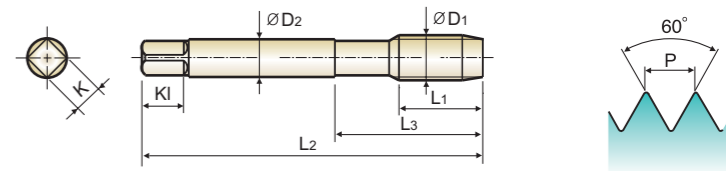
ISO	N					S					H													
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
Material Description	21	22	23	24	25	26	27	28	29	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 TAP INOX

M0/M2 SERIES
M1/M3 SERIES

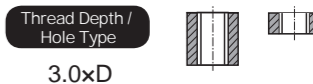
EXTENDED LENGTH SPIRAL POINT TAPS PLUG STYLE for Stainless Steels

Extended length for greater reach



ANSI Long Shank

Material groups: **VA** HSS-PM UNC UNF USCTI Long Shank 4P~5P TiN Hardslick



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

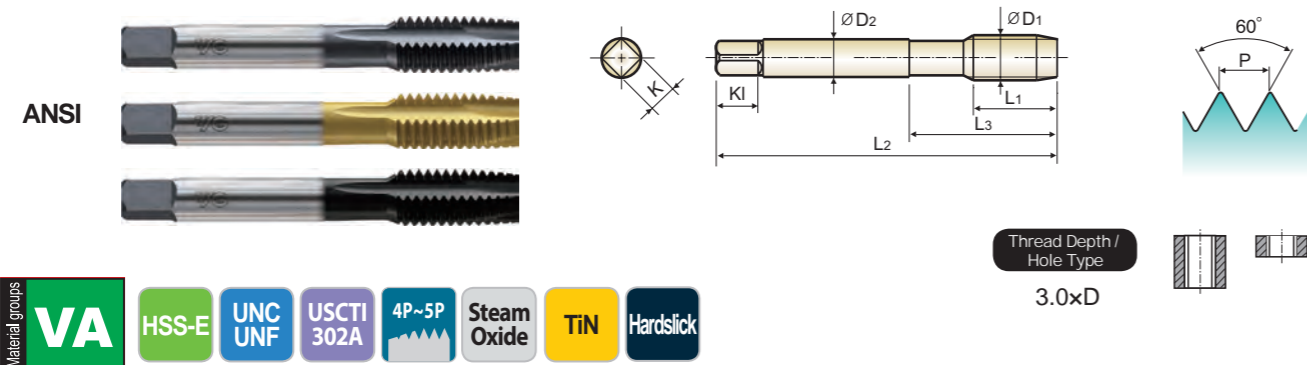
ISO	P										M				K			H					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
VDI 3323																							
HRc	13	25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



10/12/J2 SERIES

SPIRAL POINT TAPS PLUG STYLE for Stainless Steels



Material groups: VA, HSS-E, UNC UNF, USCTI 302A, 4P~5P, Steam Oxide, TiN, Hardslick. Thread Depth / Hole Type: 3.0xD. Unit: Inch

Table with 13 columns: Size (D1), 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.

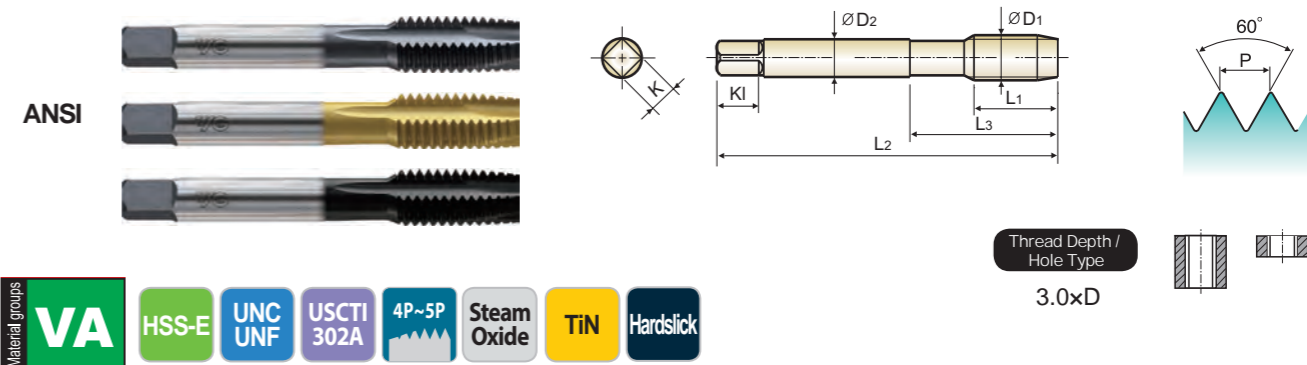
▶ NEXT PAGE

ISO compatibility chart showing material groups (P, M, K, H) and their suitability for different tap materials (Aluminum, Copper, Titanium, etc.).



10/12/J2 SERIES

SPIRAL POINT TAPS PLUG STYLE for Stainless Steels



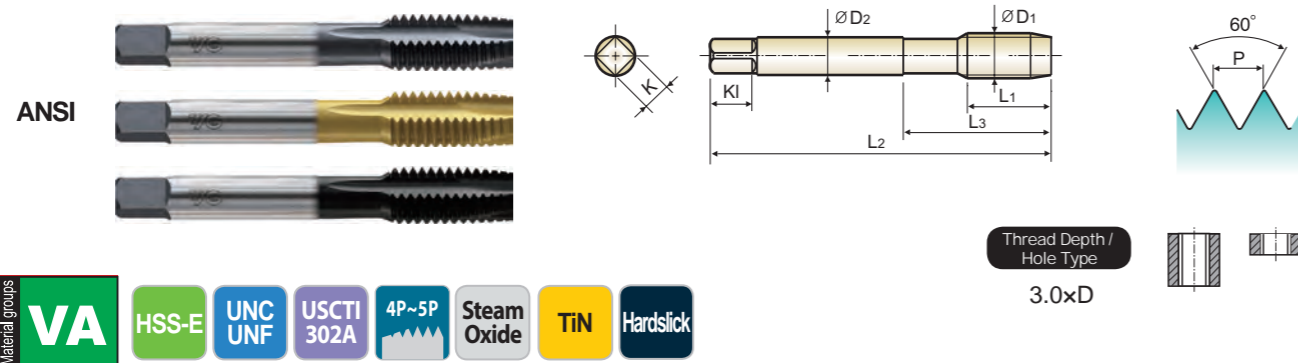
Material groups: VA, HSS-E, UNC UNF, USCTI 302A, 4P~5P, Steam Oxide, TiN, Hardslick. Thread Depth / Hole Type: 3.0xD. Unit: Inch

Table with 13 columns: Size (D1), 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 compatibility chart showing material groups (P, M, K, H) and their suitability for different tap materials (Aluminum, Copper, Titanium, etc.).

SPIRAL POINT TAPS PLUG STYLE for Stainless Steels



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	J2483	J2483	H3	2.937	0.748	1.252	0.3810	0.286	.440	3
3/8 - 16UNC		I0485	J2485	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	J2503	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	J2523	J2523	H3	3.157	.866	1.437	.323	.242	.410	3
7/16 - 14UNC		I0525	J2525	J2525	H5	3.157	.866	1.437	.323	.242	.410	3
7/16 - 20UNF		I0543	J2543	J2543	H3	3.157	.866	1.437	.323	.242	.410	3
7/16 - 20UNF		I0545	J2545	J2545	H5	3.157	.866	1.437	.323	.242	.410	3
1/2 - 13UNC		I0563	J2563	J2563	H3	3.374	.984	1.657	.367	.275	.440	3
1/2 - 13UNC		I0565	J2565	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	J2583	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	J2603	J2603	H3	3.594	.984	1.657	.429	.322	.500	3
9/16 - 18UNF		I0623	J2623	J2623	H3	3.594	.984	1.657	.429	.322	.500	3
5/8 - 11UNC		I0643	J2643	J2643	H3	3.811	1.083	1.811	.480	.360	.560	3
5/8 - 11UNC		I0645	J2645	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	J2665	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	J2703	J2703	H3	4.252	1.201	2.000	.590	.442	.690	3

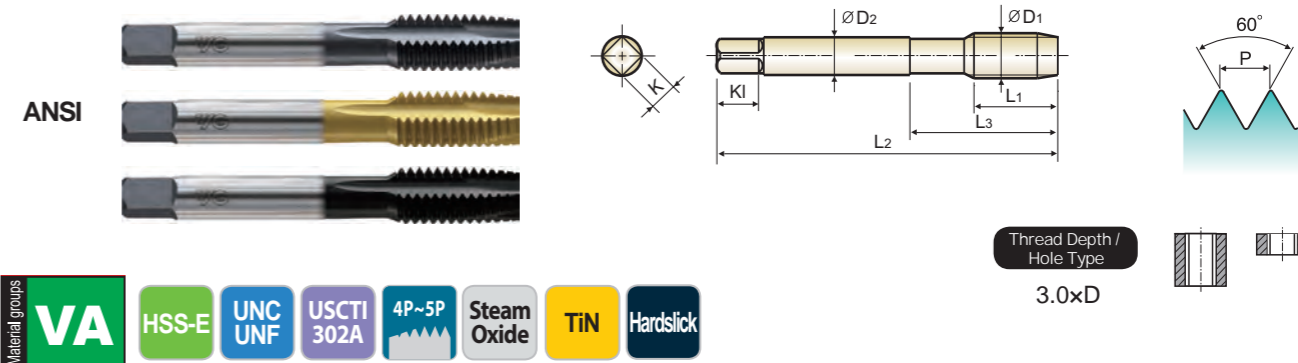
▶ NEXT PAGE

◎ : 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																				
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	○					○	○														

SPIRAL POINT TAPS PLUG STYLE for Stainless Steels



Unit : Inch

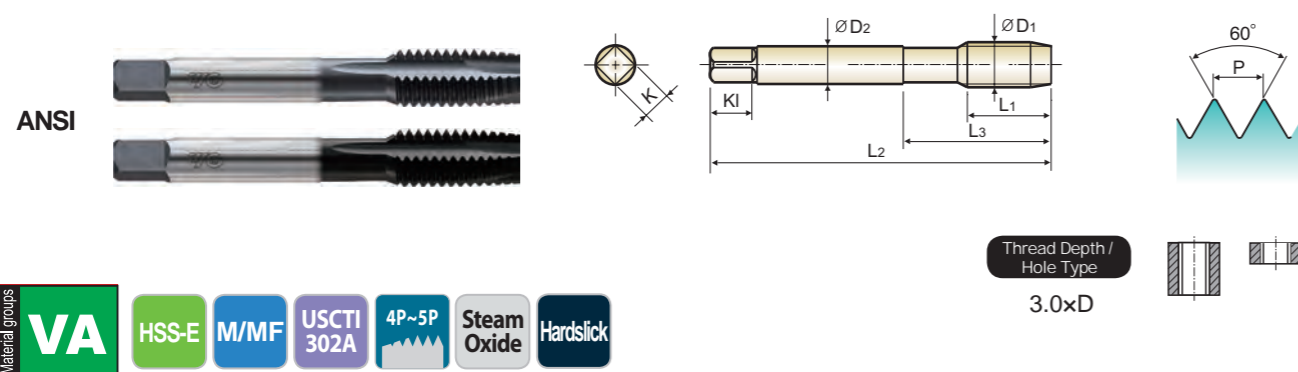
Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	TiN	Hardslick								
3/4 - 16UNF		I0725	J2725	J2725	H5	4.252	1.201	2.000	.590	.442	.690	3
7/8 - 9UNC		I0744	J2744	J2744	H4	4.689	1.339	2.220	.697	.523	.750	3
7/8 - 14UNF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

SPIRAL POINT TAPS PLUG STYLE for Stainless Steels



Unit : Inch

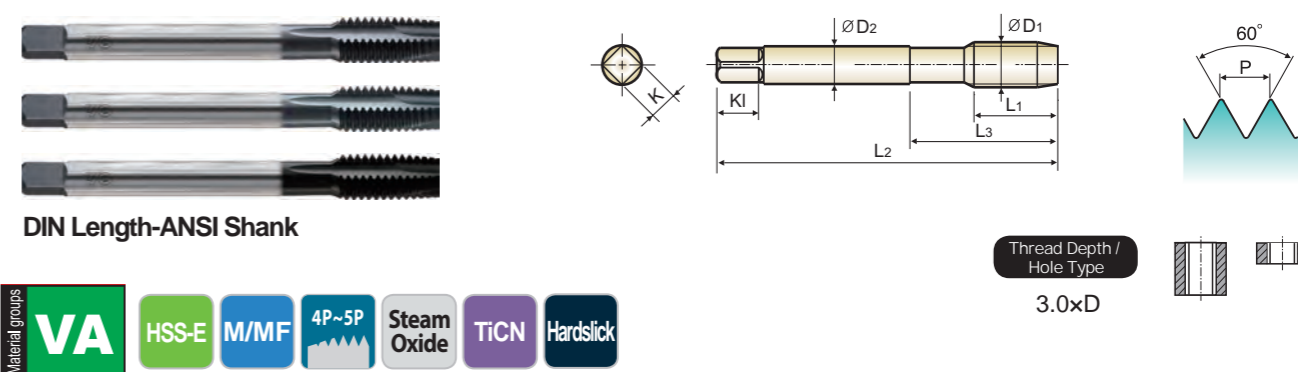
Size	Pitch	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide	Hardslick								
M3	x 0.5	O9203	IA203	D3	1.937	.197	.646	.141	.110	.190	3
M3.5	x 0.6	O9224	IA224	D4	2.000	.276	.709	.141	.110	.190	3
M4	x 0.7	O9244	IA244	D4	2.126	.276	.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

◎ : 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	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	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	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

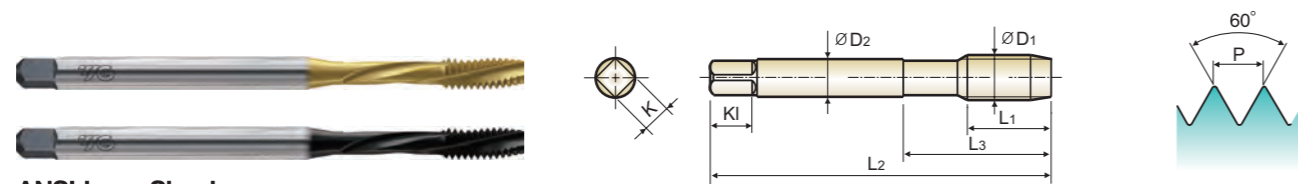
◎ : Excellent ○ : Good

ISO	P										M				K				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											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

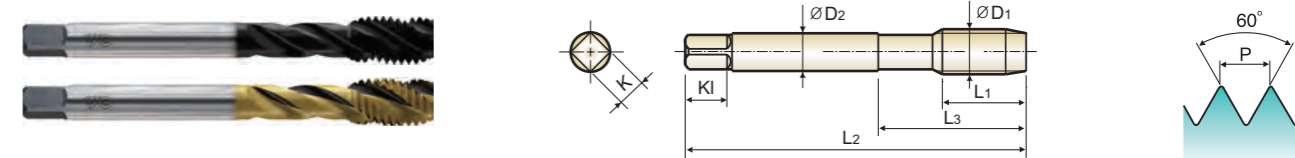


Thread Depth / Hole Type
3.0xD

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																					
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	○					○	○														

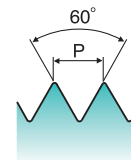
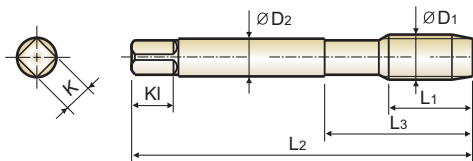
◎ : Excellent ○ : Good

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	○					○	○														

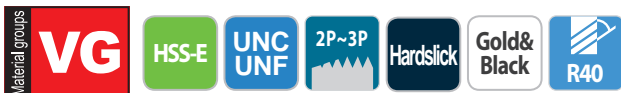


SPIRAL FLUTE TAPS MODIFIED BOTTOMING STYLE for Stainless Steels

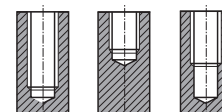


DIN Length-ANSI Shank

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									
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	3	25					
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					
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

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



ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRC	Max. 3.0xD Blind / Through Hole			
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				

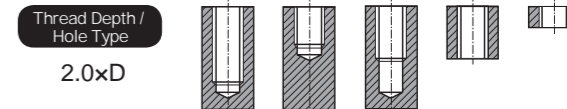
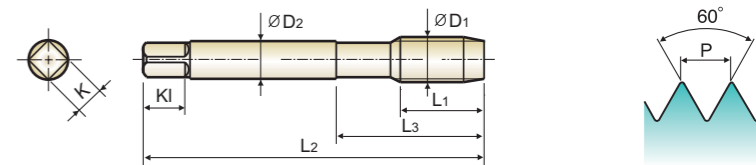


TR SERIES

STRAIGHT FLUTE TAP MODIFIED BOTTOMING STYLE for Cast Iron



ANSI



Unit : Inch

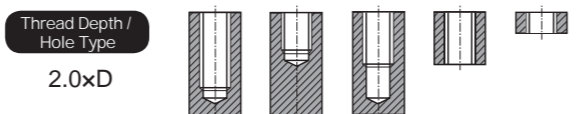
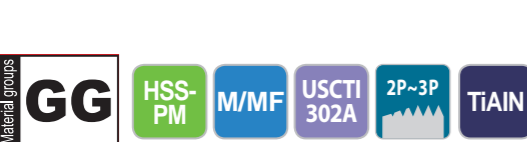
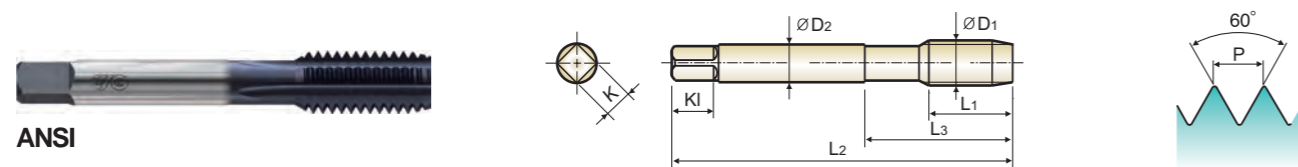
Size	TPI	EDP No.	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
D1		TiAIN		L2	L1	L3	D2	K	KI	
#10 - 24UNC		TR323	H3	2.374	.531	.906	.194	.152	.250	4
#10 - 24UNC		TR325	H5	2.374	.531	.906	.194	.152	.250	4
#10 - 32UNF		TR343	H3	2.374	.531	.906	.194	.152	.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	200	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										
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			○	○																	

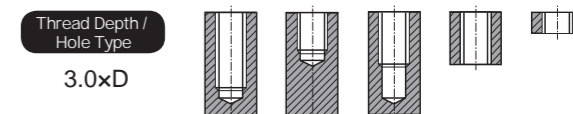
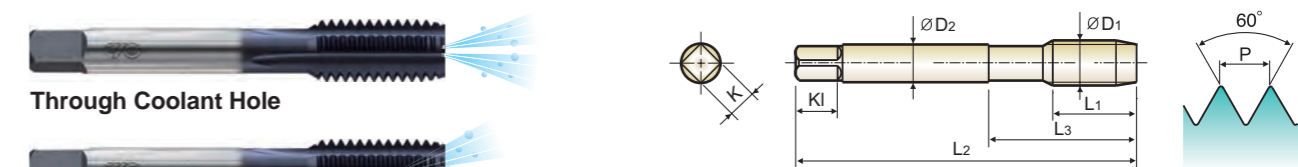
**STRAIGHT FLUTE TAP MODIFIED BOTTOMING STYLE
for Cast Iron**



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**



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				Malleable cast iron						
	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	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															◎	◎	◎	◎	○	○					

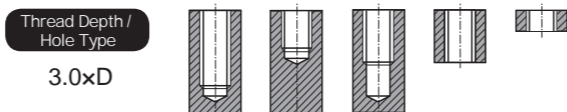
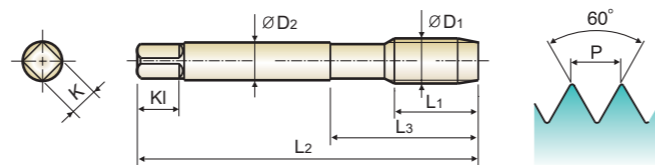
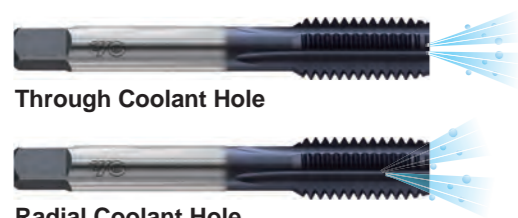
ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	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	60	100	75	90	130	110	90	100			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			○	○																	

◎ : Excellent ○ : Good

ISO	P										M				K				Malleable cast iron						
	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	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	60	100	75	90	130	110	90	100			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			○	○																	

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

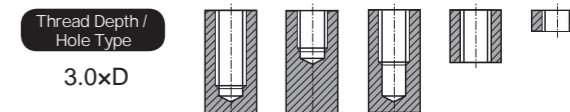
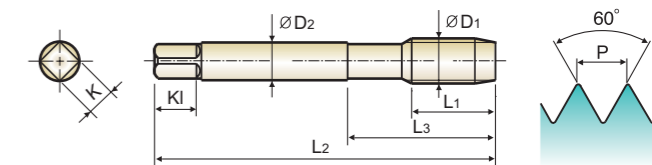
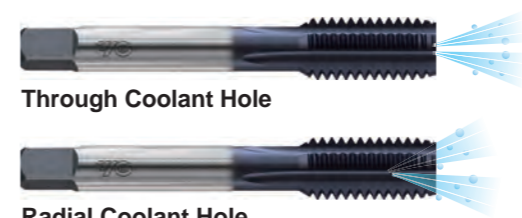


Material groups: **GG** HSS-PM UNC UNF USCTI 302A 2P~3P TiAlN

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															◎	◎	◎	◎	○	○	

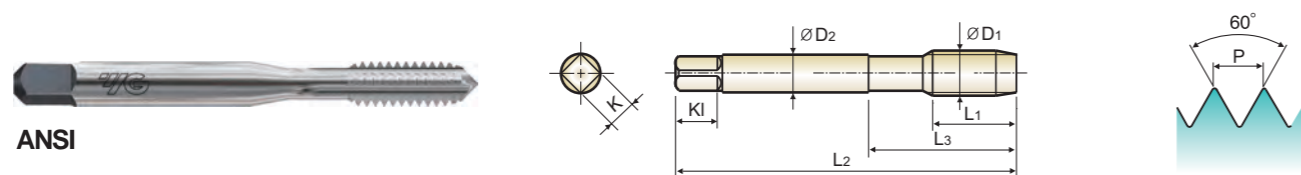
ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30	31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

◎ : 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															◎	◎	◎	◎	○	○	

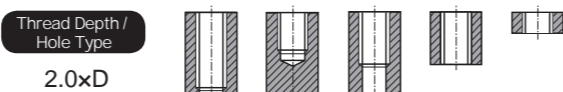
ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30	31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

**STRAIGHT FLUTE TAP BOTTOMING STYLE
for Aluminum Alloy & Cast Iron**



ANSI

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	TOC01322	2B	2.374	.531	.906	.194	.152	.250	4
#10	- 32UNF	TOC01342	2B	2.374	.531	.906	.194	.152	.250	4
#12	- 24UNC	TOC01362	2B	2.374	.571	.906	.220	.165	.280	4
1/4	- 20UNC	TOC01402	2B	2.500	.591	1.000	.255	.191	.310	4
1/4	- 28UNF	TOC01422	2B	2.500	.591	1.000	.255	.191	.310	4
5/16	- 18UNC	TOC01442	2B	2.720	.669	1.126	.318	.238	.380	4
5/16	- 24UNF	TOC01462	2B	2.720	.669	1.126	.318	.238	.380	4
3/8	- 16UNC	TOC01482	2B	2.937	.748	1.252	.381	.286	.440	4
3/8	- 24UNF	TOC01502	2B	2.937	.748	1.252	.381	.286	.440	4

HSS-E

YG TAP ALU

- For long-chipping Aluminum Wrought Alloys



Being the best through innovation

◎ : 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	40	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

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.

Please visit globallyg1.com/mat for material search

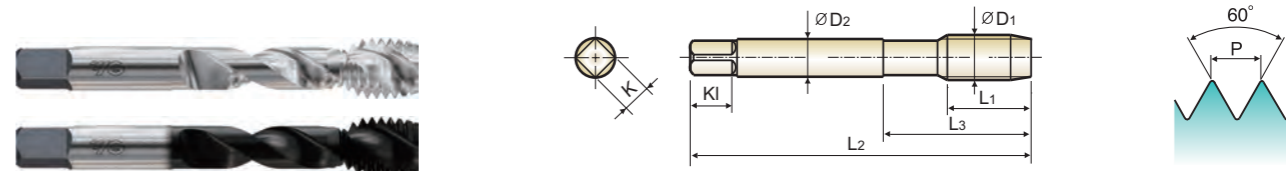
Material selection table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and various material groups (P, M, K, N, S, H).

HSS

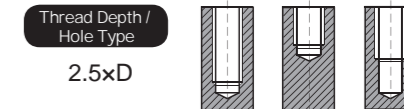


C0/D8 SERIES

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



ANSI



Unit : Inch

Table with columns: Size (D1, TPI), EDP No. (Bright, Hardslick), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (K1), No. of Flute.

© : Excellent ○ : Good

Material selection table with columns: ISO, Material Description, and various material groups (P, M, K, N, S, H).

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

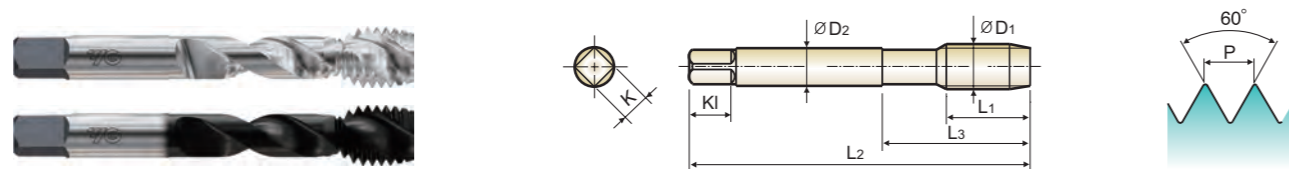
YG TAP FORMING

STI TAP

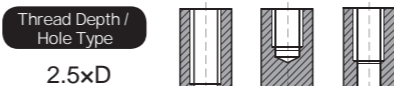
PIPE TAP

TECHNICAL DATA

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

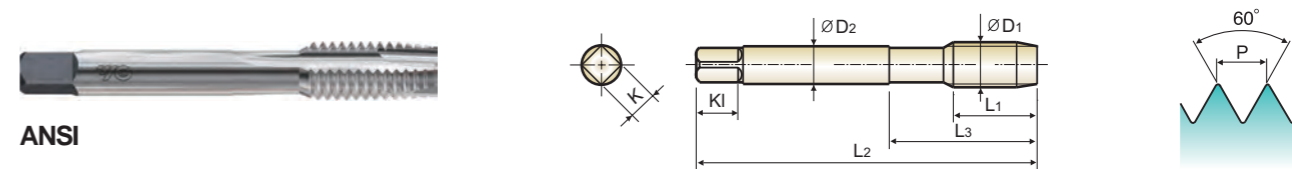
▶ DIN Length available: Bright Finish F1 Series & Hardslick coated F3 Series

◎ : 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	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		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 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

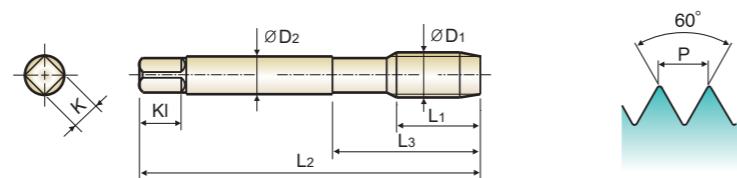
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17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



ANSI



Material groups: **AI** HSS-E M/MF USCTI 302A 4P~5P Bright

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

Please visit globalyg1.com/mat for material search

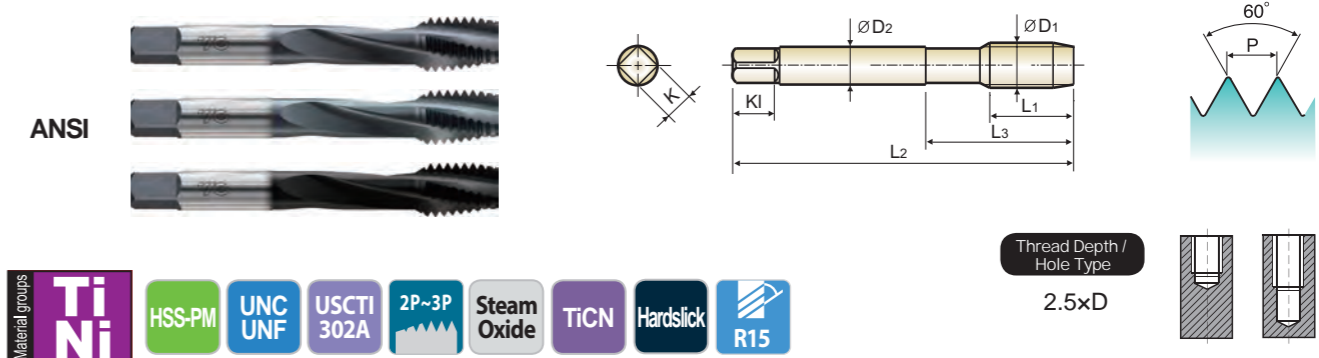
HOLE TYPE		Max. 2.5xD Blind Hole		Max. 3.0xD Through Hole				
TOOL MATERIAL		HSS-PM						
CHAMFER LEAD ACC. TO DIN2197		2P-3P			4P-5P			
FLUTE TYPE		Spiral Flute			Spiral Point			
SPIRAL FLUTE ANGLE		R15						
SERIES	M							
	M/MF							
	UNC							
	UNC/UNF	B3 (p.B187)	B5 (p.B187)	B6 (p.B187)	I3 (p.B189)	M8 (p.B189)	I5 (p.B189)	J6 (p.B189)
	UNC/UNF/UNS							
	UNC/UN8							
	NPT							
	NPTF							
SURFACE TREATMENT / COATING		Steam Oxide	TiCN	HardSlick	Steam Oxide	Bright	TiCN	HardSlick
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	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	○ 6-30	○ 10-35	○ 10-35	○ 6-30	○ 6-30	○ 10-35	○ 10-35	
	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	◎ 10-15
	32		Cured	280	30	◎ 10-15	◎ 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	◎ 10-15
	34		Ni or Co Based Cured	350	38	◎ 10-15	◎ 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	◎ 10-15	
	36	Titanium Alloys	Pure Titanium	400 Rm		◎ 3-15	◎ 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	◎ 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	◎ 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



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

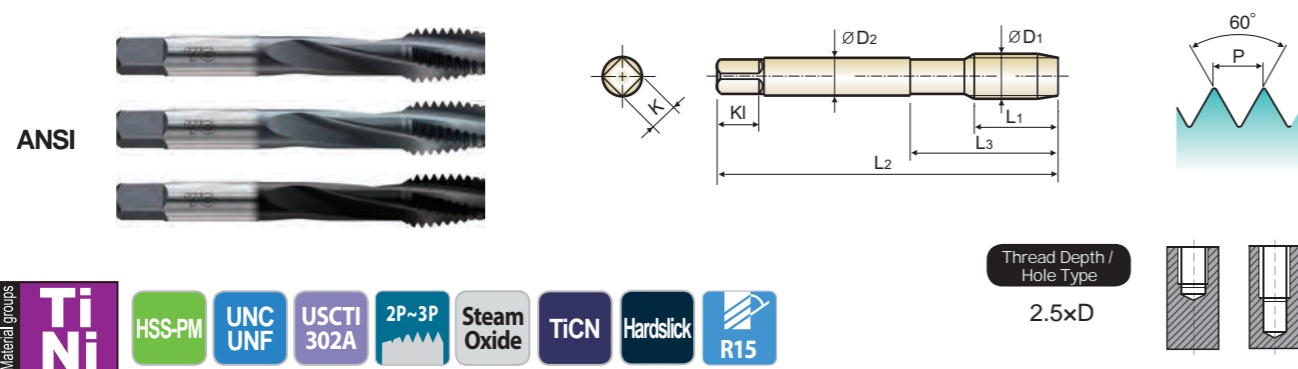
▶ TiN Coated Available: H9 Series

▶ NEXT PAGE

Material Description	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								○	○											

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											◎	◎	◎	○	○	◎	○				

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 L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KL	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

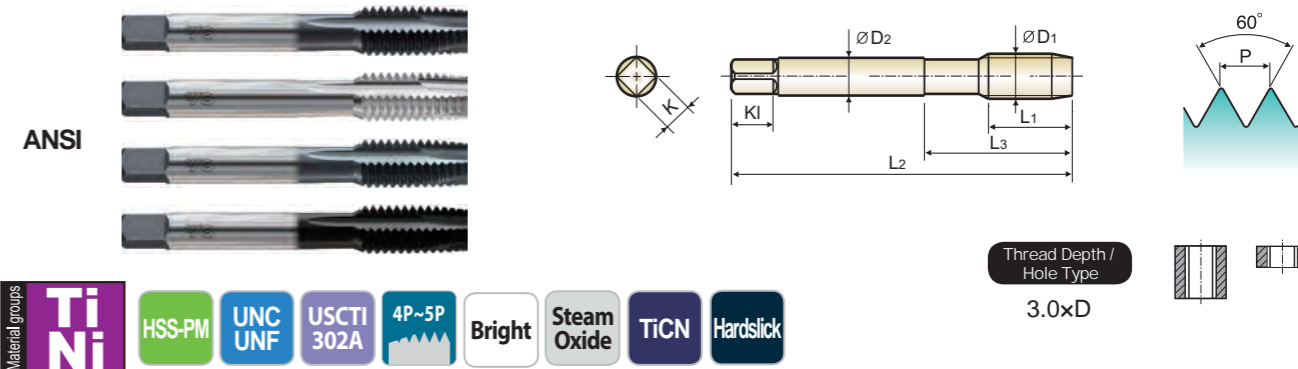
▶ TiN Coated Available: H9 Series

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ISO	P										M				K						
	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 POINT TAPS PLUG STYLE
for Titanium Alloys & Nickel Base Alloys up to 38 ~ 45HRc



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	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

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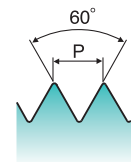
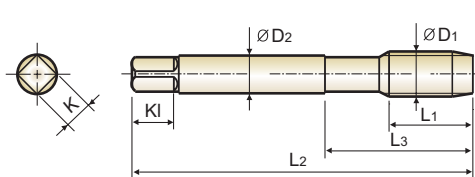
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17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



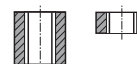
SPIRAL POINT TAPS PLUG STYLE
for Titanium Alloys & Nickel Base Alloys up to 38 ~ 45HRc

ANSI



Thread Depth / Hole Type

3.0xD



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	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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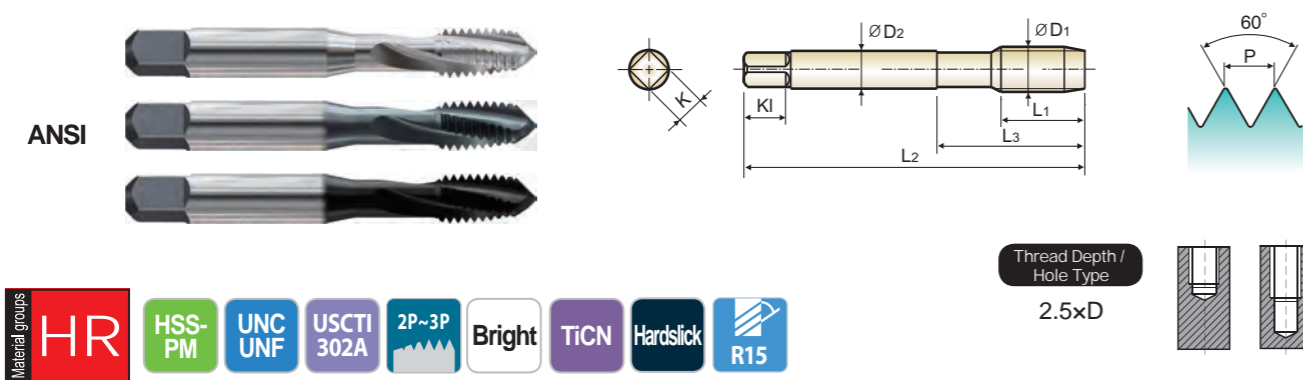
ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRC	SURFACE TREATMENT / COATING		
			HB	HRC			Bright	TiCN	HardSlick
P	1	Non-alloy steel	About 0.15% C	Annealed	125				
	2		About 0.45% C	Annealed	190				
	3		About 0.45% C	Quenched & Tempered	250				
	4		About 0.75% C	Annealed	270				
	5		About 0.75% C	Quenched & Tempered	300				
	6	Low alloy steel		Annealed	180				
	7			Quenched & Tempered	275	○ 6-30	○ 10-35	○ 10-35	
	8			Quenched & Tempered	300	○ 6-30	○ 10-35	○ 10-35	
	9			Quenched & Tempered	350	◎ 6-30	◎ 10-35	◎ 10-35	
	10		High alloyed steel, and tool steel	Annealed	200	◎ 6-12	◎ 6-12	◎ 6-12	
	11		Quenched & Tempered	325	◎ 6-12	◎ 6-12	◎ 6-12		
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200				
	13		Martensitic	Quenched & Tempered	240				
	14		Austenitic		180				
K	15	Grey cast iron	Pearlitic / ferritic		180				
	16		Pearlitic (Martensitic)		260				
	17	Nodular cast iron	Ferritic		160				
	18		Pearlitic		250				
	19		Ferritic		130				
20	Malleable cast iron	Pearlitic		230					
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				
	32			Cured	280				
	33			Annealed	250				
	34			Ni or Co Based	Cured	350			
	35				Cast	320			
	36	Titanium Alloys	Pure Titanium		400 Rm				
37	Alpha + Beta Alloys		Hardened	1050 Rm					
H	38	Hardened steel		Hardened	550	○ 3-15	○ 3-15	○ 3-15	
	39			Hardened	630				
	40	Chilled Cast Iron	Cast	400	○ 3-15	○ 3-15	○ 3-15		
	41	Hardened Cast Iron	Hardened	550					

2P-3P Spiral Flute R15			HSS-PM				4P-5P Spiral Point -					
TOOL MATERIAL	CHAMFER LEAD ACC. TO DIN2197	FLUTE TYPE	HSS-PM				HSS-PM					
SPIRAL FLUTE ANGLE		R15	Spiral Flute				Spiral Point					
SERIES	M	M/MF	UNC	UNC/UNF	UNC/UNF/UNS	UNC/UN8	NPT	NPTF	NPS/NPSF			
TQ858 (p.B195)	TK858 (p.B195)	TR858 (p.B195)		M4 (p.B197)	M5 (p.B197)	M6 (p.B197)	M7 (p.B197)		TQ808 (p.B198)	TK808 (p.B198)	TR808 (p.B198)	
SURFACE TREATMENT / COATING			Steam Oxide	TiCN	HardSlick	Steam Oxide	Bright	TiCN	HardSlick	Steam Oxide	TiCN	HardSlick
MODEL												
COMPOSITION / STRUCTURE / HEAT TREATMENT			○ 6-30	○ 10-35	○ 10-35	○ 6-30	○ 6-30	○ 10-35	○ 10-35	○ 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	◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12	◎ 6-12

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

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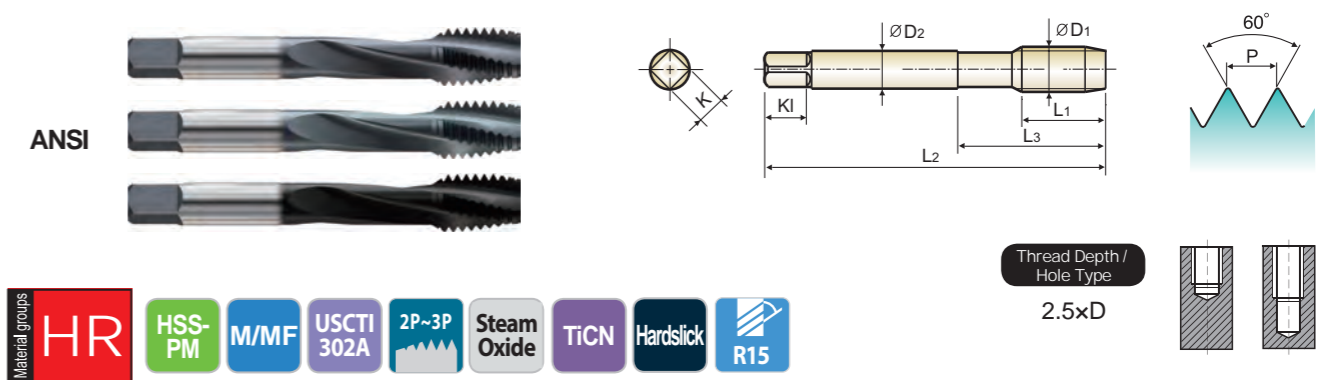
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17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

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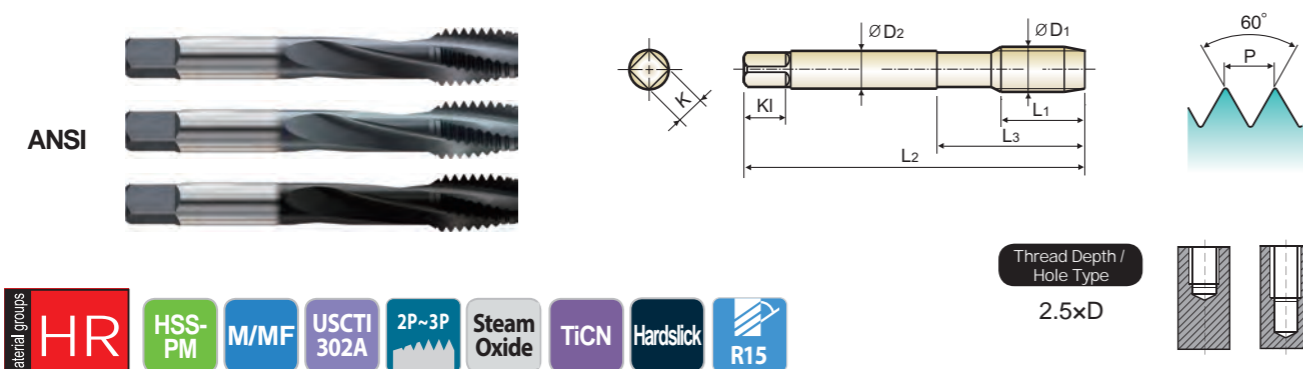
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17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



TQ858/TK858 SERIES
TR858 SERIES

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



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								
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

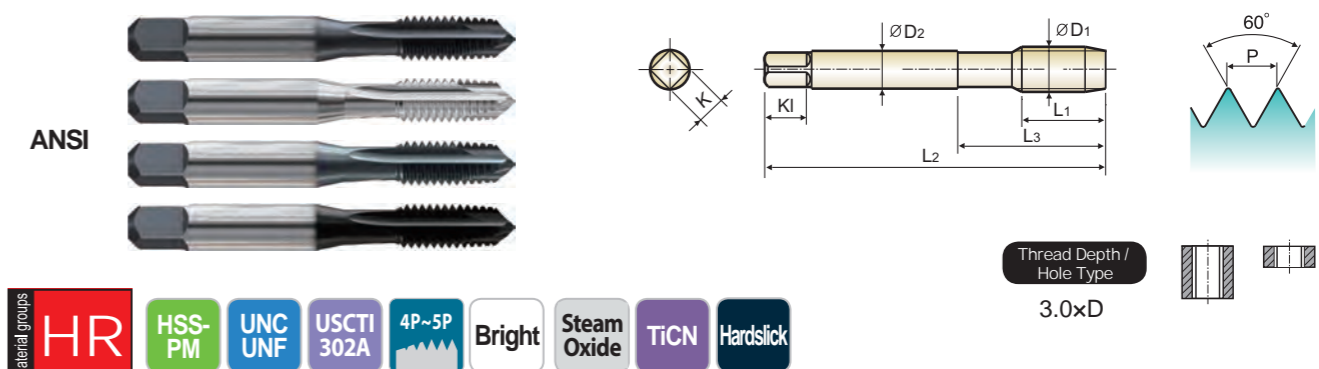
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ISO	P										M				K				H																							
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular cast iron		Malleable cast iron																			
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	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	3	25	21	13	13	25	28	10	26	3	25	15	30	25	38	34	55	60	42	55	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	130	190	190	270	300	180	260	160	250	200	280	250	350	320	400Rm	1050Rm	550	630	400	550		
Recommended						○	○	◎	◎	◎																									○	○						



M4/M5/M6/M7 SERIES

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



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	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

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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	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	3	25	21	13	13	25	28	10	26	3	25	15	30	25	38	34	55	60	42	55	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	130	190	190	270	300	180	260	160	250	200	280	250	350	320	400Rm	1050Rm	550	630	400	550		
Recommended						○	○	◎	◎	◎																									○	○						



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YG TAP GENERAL

- For General Purpose Through and Blind Hole Applications

SELECTION GUIDE



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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, HB, HRC. Includes images of various tap models.

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, HB, HRC. Includes images of various tap models.

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

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

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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 material compatibility (e.g., 25-50, 50-80, 12-35).

Table with columns: 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.

Table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and material compatibility (e.g., 25-50, 50-80, 12-35).

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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



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 compatibility.

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 compatibility.

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. Includes a 'Pulley Tap' section.



T7316/T7A16/T7B16 SERIES

HAND TAP TAPER, PLUG & BOTTOMING STYLE

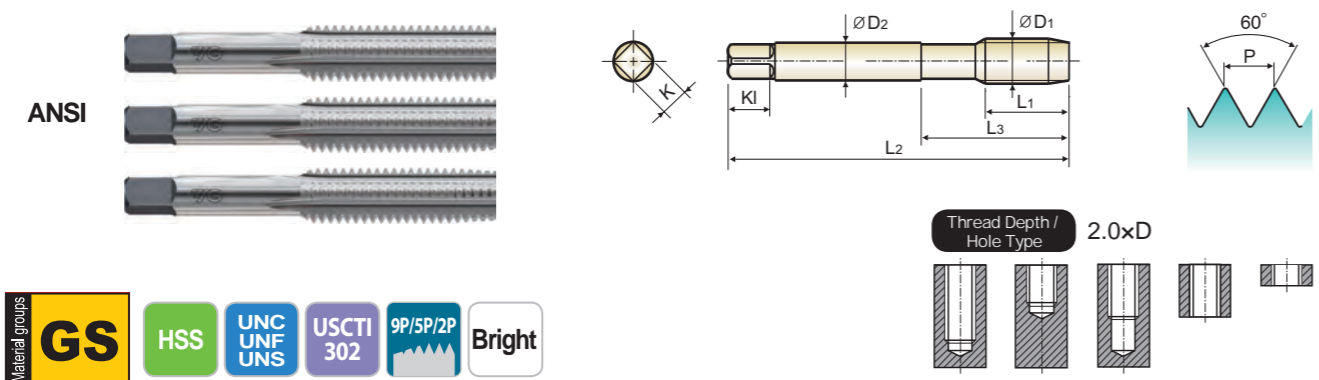


Table with columns: Size, TPI, EDP No. (Taper, Plug, Bottoming), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute. Lists various tap sizes from #0 to #5.

Unit : Inch

▶ NEXT PAGE

ISO material compatibility chart with columns for Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel, 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), H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).



T7316/T7A16/T7B16 SERIES

HAND TAP TAPER, PLUG & BOTTOMING STYLE

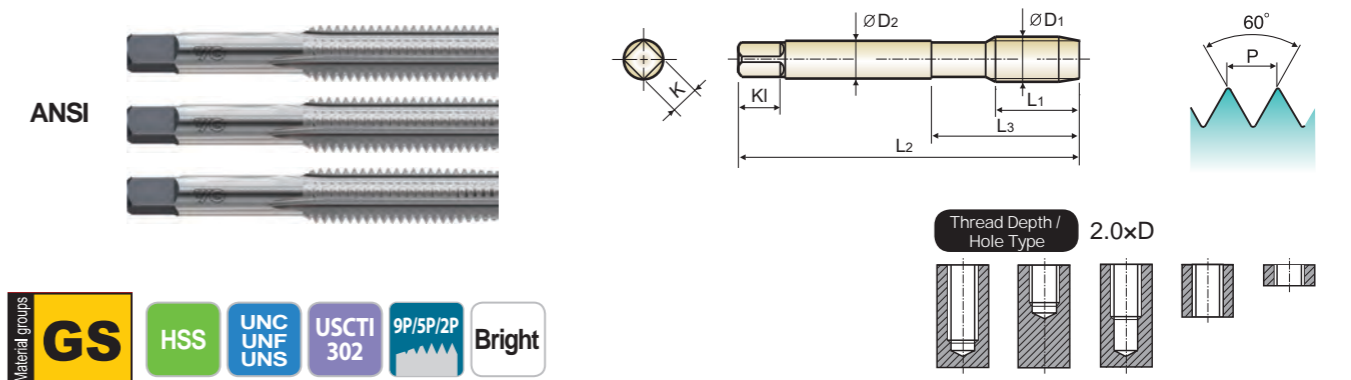


Table with columns: Size, TPI, EDP No. (Taper, Plug, Bottoming), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute. Lists various tap sizes from #5 to #10.

Unit : Inch

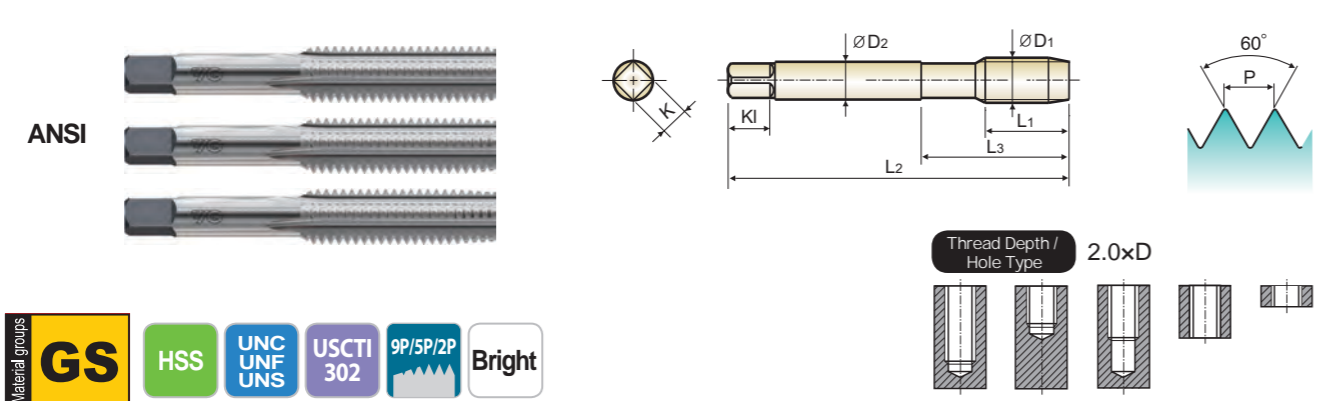
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ISO material compatibility chart with columns for Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel, and tool steel), M (Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), S (Aluminum-wrought alloy,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



T7316/T7A16/T7B16 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
		Taper	Bright Plug	Bottoming								
#10 - 24UNC	-	-	T7A16327	T7A16328	H3	2.374	.906	1.220	.194	.152	.250	2
#10 - 24UNC	-	-	T7B16327	T7B16328	H3	2.374	.906	1.220	.194	.152	.250	3
#10 - 24UNC	T7316326	T7316327	T7316328	H3	2.374	.906	1.220	.194	.152	.250	4	
#10 - 24UNC	-	T7B16327H7	T7B16328H7	H7	2.374	.906	1.220	.194	.152	.250	3	
#10 - 24UNC	-	T7316327H7	T7316328H7	H7	2.374	.906	1.220	.194	.152	.250	4	
#10 - 32UNF	-	T7A16347H1	T7A16348H1	H1	2.374	.906	1.220	.194	.152	.250	2	
#10 - 32UNF	T7316346H1	T7316347H1	T7316348H1	H1	2.374	.906	1.220	.194	.152	.250	4	
#10 - 32UNF	-	T7A16347H2	T7A16348H2	H2	2.374	.906	1.220	.194	.152	.250	2	
#10 - 32UNF	-	T7B16347H2	T7B16348H2	H2	2.374	.906	1.220	.194	.152	.250	3	
#10 - 32UNF	T7316346H2	T7316347H2	T7316348H2	H2	2.374	.906	1.220	.194	.152	.250	4	
#10 - 32UNF	-	T7A16347	T7A16348	H3	2.374	.906	1.220	.194	.152	.250	2	
#10 - 32UNF	-	T7B16347	T7B16348	H3	2.374	.906	1.220	.194	.152	.250	3	
#10 - 32UNF	T7316346	T7316347	T7316348	H3	2.374	.906	1.220	.194	.152	.250	4	
#10 - 32UNF	-	T7B16347H7	T7B16348H7	H7	2.374	.906	1.220	.194	.152	.250	3	
#10 - 32UNF	T7316346H7	T7316347H7	T7316348H7	H7	2.374	.906	1.220	.194	.152	.250	4	
#12 - 24UNC	T7316366	T7316367	T7316368	H3	2.374	.906	1.220	.220	.165	.280	4	
#12 - 28UNF	-	T7316387H1	-	H1	2.374	.906	1.220	.220	.165	.280	4	
#12 - 28UNF	T7316386	T7316387	T7316388	H3	2.374	.906	1.220	.220	.165	.280	4	
1/4 - 20UNC	-	T7B16407H1	-	H1	2.500	1.000	1.354	.255	.191	.310	3	
1/4 - 20UNC	T7316406H1	T7316407H1	T7316408H1	H1	2.500	1.000	1.354	.255	.191	.310	4	
1/4 - 20UNC	-	T7B16407H2	T7B16408H2	H2	2.500	1.000	1.354	.255	.191	.310	3	
1/4 - 20UNC	T7316406H2	T7316407H2	T7316408H2	H2	2.500	1.000	1.354	.255	.191	.310	4	
1/4 - 20UNC	-	T7A16407	T7A16408	H3	2.500	1.000	1.354	.255	.191	.310	2	
1/4 - 20UNC	-	T7B16407	T7B16408	H3	2.500	1.000	1.354	.255	.191	.310	3	
1/4 - 20UNC	T7316406	T7316407	T7316408	H3	2.500	1.000	1.354	.255	.191	.310	4	
1/4 - 20UNC	-	T7B16407H5	T7B16408H5	H5	2.500	1.000	1.354	.255	.191	.310	3	

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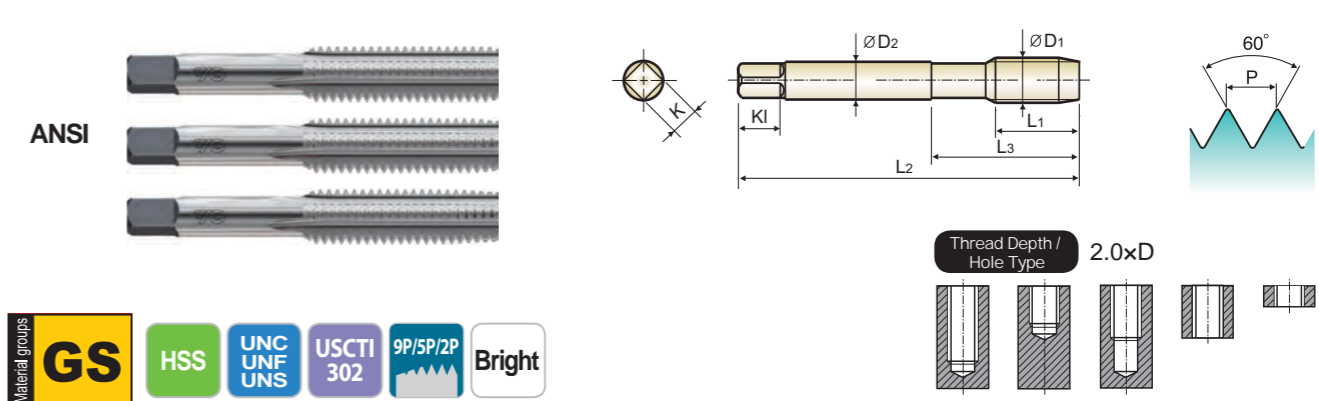
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17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



T7316/T7A16/T7B16 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
		Taper	Bright Plug	Bottoming								
1/4 - 20UNC	-	-	T7316407H5	T7316408H5	H5	2.500	1.000	1.354	.255	.191	.310	4
1/4 - 28UNF	-	-	T7316427H1	T7316428H1	H1	2.500	1.000	1.354	.255	.191	.310	4
1/4 - 28UNF	-	-	T7316427H2	T7316428H2	H2	2.500	1.000	1.354	.255	.191	.310	4
1/4 - 28UNF	-	-	T7A16427	T7A16428	H3	2.500	1.000	1.354	.255	.191	.310	2
1/4 - 28UNF	-	-	T7B16427	T7B16428	H3	2.500	1.000	1.354	.255	.191	.310	3
1/4 - 28UNF	T7316426	T7316427	T7316428	H3	2.500	1.000	1.354	.255	.191	.310	4	
1/4 - 28UNF	-	-	T7B16427H4	T7B16428H4	H4	2.500	1.000	1.354	.255	.191	.310	4
5/16 - 18UNC	-	-	T7B16447H1	T7B16448H1	H1	2.720	1.126	1.500	.318	.238	.380	3
5/16 - 18UNC	-	-	T7316447H1	T7316448H1	H1	2.720	1.126	1.500	.318	.238	.380	4
5/16 - 18UNC	T7316446H2	T7316447H2	T7316448H2	H2	2.720	1.126	1.500	.318	.238	.380	4	
5/16 - 18UNC	-	-	T7A16447	T7A16448	H3	2.720	1.126	1.500	.318	.238	.380	2
5/16 - 18UNC	-	-	T7B16447	T7B16448	H3	2.720	1.126	1.500	.318	.238	.380	3
5/16 - 18UNC	T7316446	T7316447	T7316448	H3	2.720	1.126	1.500	.318	.238	.380	4	
5/16 - 18UNC	-	-	T7B16447H5	T7B16448H5	H5	2.720	1.126	1.500	.318	.238	.380	3
5/16 - 18UNC	-	-	T7316447H5	T7316448H5	H5	2.720	1.126	1.500	.318	.238	.380	4
5/16 - 24UNF	-	-	T7B16467H1	T7B16468H1	H1	2.720	1.126	1.500	.318	.238	.380	3
5/16 - 24UNF	-	-	T7316467H1	T7316468H1	H1	2.720	1.126	1.500	.318	.238	.380	4
5/16 - 24UNF	-	-	T7316467H2	T7316468H2	H2	2.720	1.126	1.500	.318	.238	.380	4
5/16 - 24UNF	-	-	T7B16467	T7B16468	H3	2.720	1.126	1.500	.318	.238	.380	3
5/16 - 24UNF	T7316466	T7316467	T7316468	H3	2.720	1.126	1.500	.318	.238	.380	4	
5/16 - 24UNF	-	-	T7316467H4	T7316468H4	H4	2.720	1.126	1.500	.318	.238	.380	4
3/8 - 16UNC	-	-	T7B16487H1	T7B16488H1	H1	2.937	1.252	1.646	.381	.286	.440	3
3/8 - 16UNC	-	-	T7316487H1	T7316488H1	H1	2.937	1.252	1.646	.381	.286	.440	4
3/8 - 16UNC	-	-	T7316487H2	T7316488H2	H2	2.937	1.252	1.646	.381	.286	.440	4
3/8 - 16UNC	-	-	T7B16487	T7B16488	H3	2.937	1.252	1.646	.381	.286	.440	3
3/8 - 16UNC	T7316486	T7316487	T7316488	H3	2.937	1.252	1.646	.381	.286	.440	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	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	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	42	55	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



T7316/T7A16/T7B16 SERIES

HAND TAP TAPER, PLUG & BOTTOMING STYLE

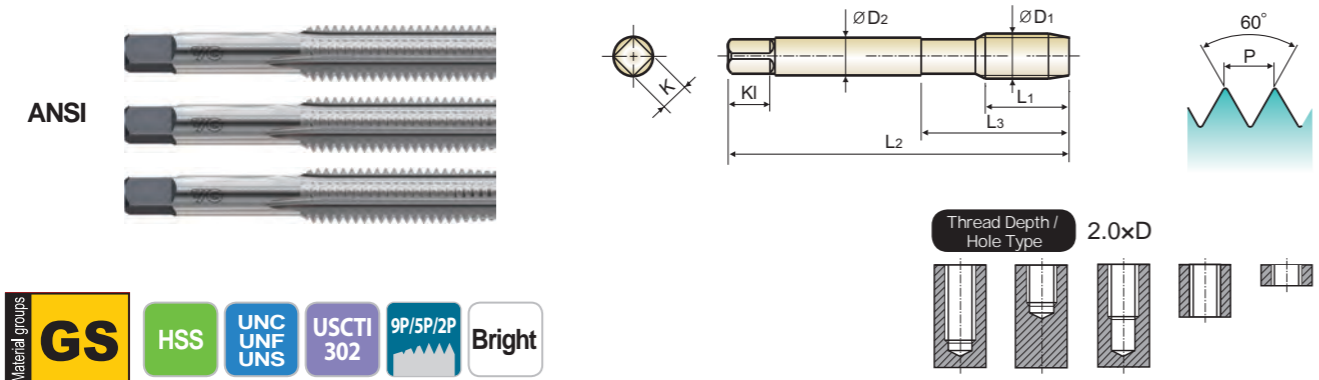


Table with columns: Size, TPI, EDP No. (Taper, Plug, Bottoming), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute. Lists various tap sizes from 3/8 to 9/16.

Unit : Inch

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Material compatibility table with columns for ISO, Material Description, and various material groups (P, M, K, S, H) with hardness and strength values.



T7316/T7A16/T7B16 SERIES

HAND TAP TAPER, PLUG & BOTTOMING STYLE

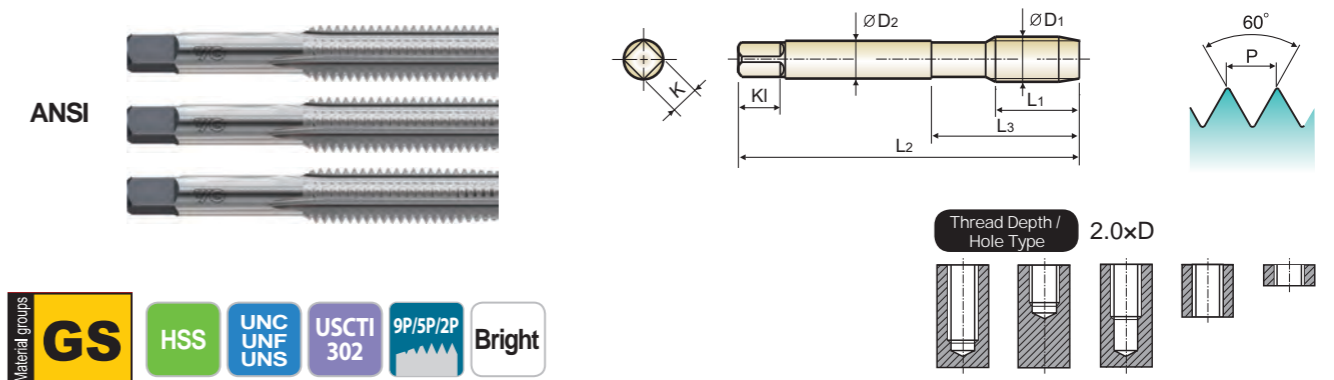


Table with columns: Size, TPI, EDP No. (Taper, Plug, Bottoming), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KI), No. of Flute. Lists various tap sizes from 9/16 to 7/8.

Unit : Inch

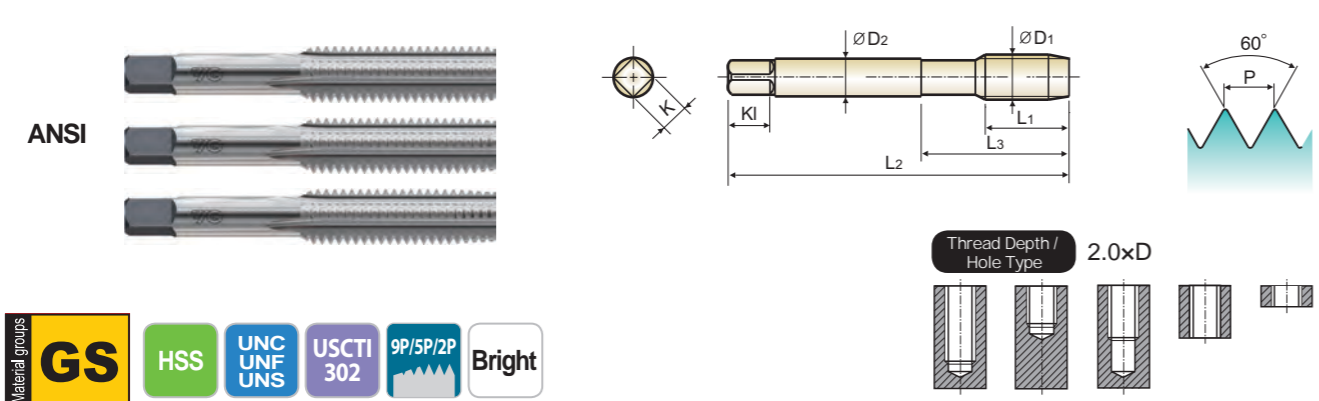
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Material compatibility table with columns for ISO, Material Description, and various material groups (P, M, K, S, H) with hardness and strength values.



T7316/T7A16/T7B16 SERIES

HAND TAP
TAPER, PLUG & BOTTOMING STYLE



Material groups: **GS** HSS UNC UNF UNS USCTI 302 9P/5P/2P Bright

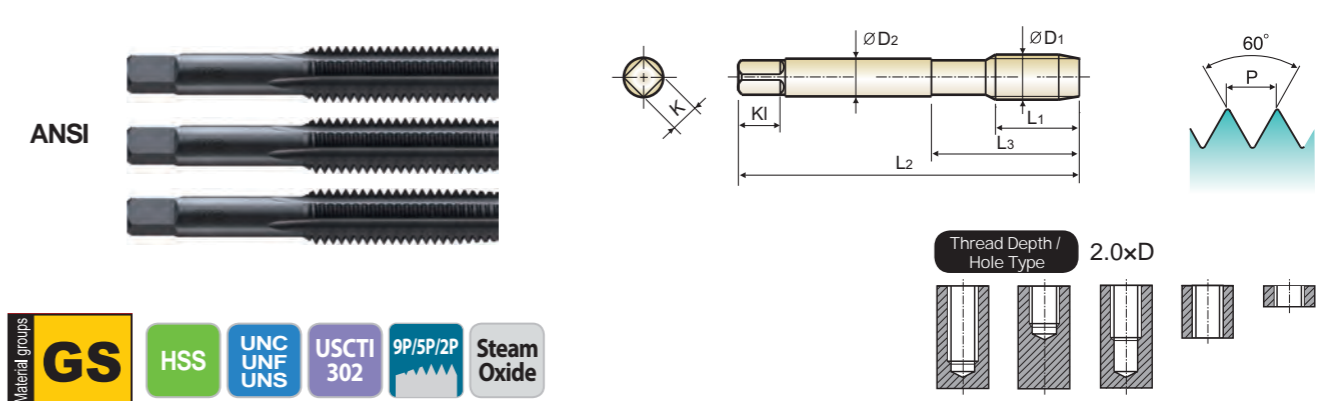
Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	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	



T6316 SERIES

HAND TAP
TAPER, PLUG & BOTTOMING STYLE



Material groups: **GS** HSS UNC UNF UNS USCTI 302 9P/5P/2P Steam Oxide

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								
#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	

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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	25	28	32	30	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	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

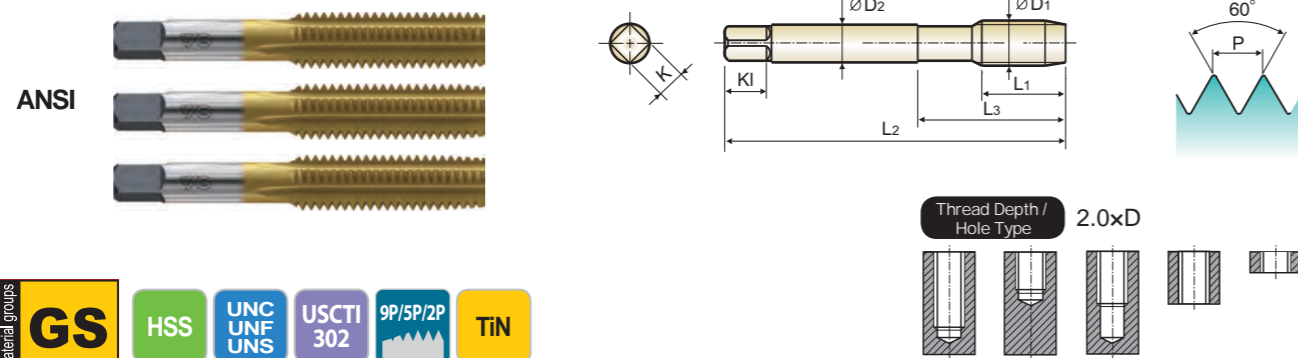
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
Material Description	21	22	23	24	25	26	27	28	29	30	31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

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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	25	28	32	30	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	42	55	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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



Unit : Inch

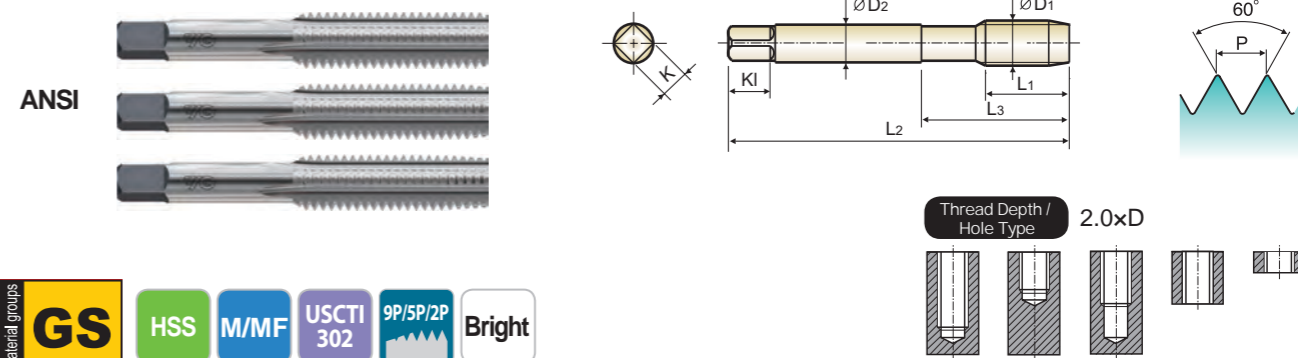
Size D1	TPI	EDP No.			Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Taper	Plug	Bottoming								
5/8	- 11UNC	-	T8316647	T8316648	H3	3.811	1.811	-	0.4800	0.360	.560	4
5/8	- 18UNF	-	T8316667	T8316668	H3	3.811	1.811	-	0.4800	0.360	.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 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	30	180	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	170	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	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	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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



Unit : Inch

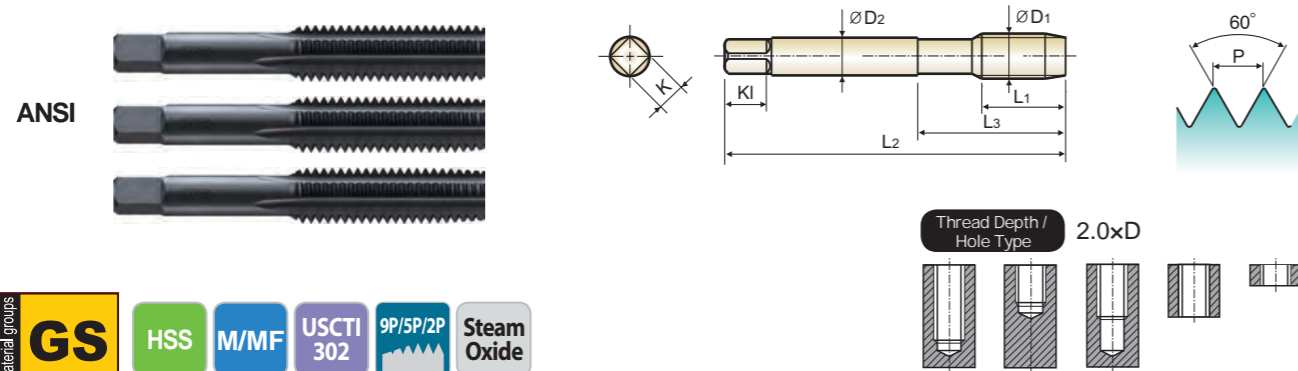
Size D1	Pitch	EDP No.			Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Taper	Bright Plug	Bottoming								
M1.6 x 0.35	-	-	T7315097	-	D3	1.634	0.315	-	0.1410	0.110	.190	3
M2 x 0.4	-	-	T7315137	T7315138	D3	1.752	0.394	-	0.1410	0.110	.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 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	30	180	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	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	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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



Unit : Inch

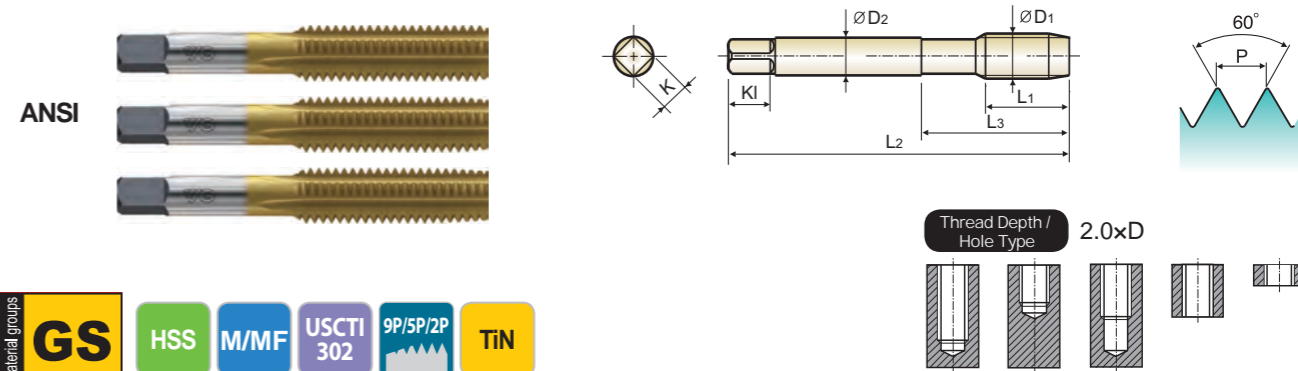
Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Steam Oxide										
		Taper	Plug	Bottoming								
M2 x 0.4	-	T6315137	T6315138	D3	1.752	.394	-	.141	.110	.190	3	
M2.5 x 0.45	-	T6315177	T6315178	D3	1.811	.457	-	.141	.110	.190	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				
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	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		

**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	

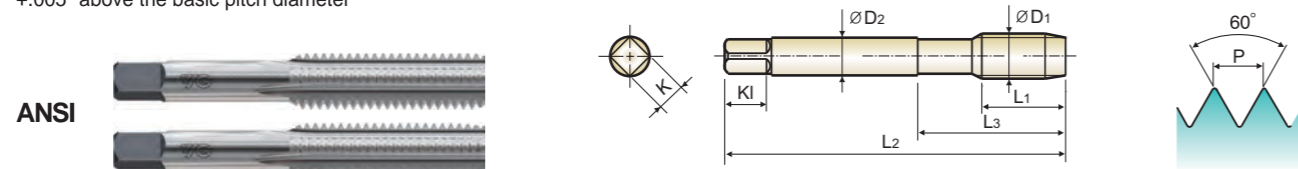
◎ : Excellent ○ : Good

ISO	P										M				K			H				
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	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		

**HAND TAP
Oversize Tap**

+0.005" above the basic pitch diameter



Unit : Inch

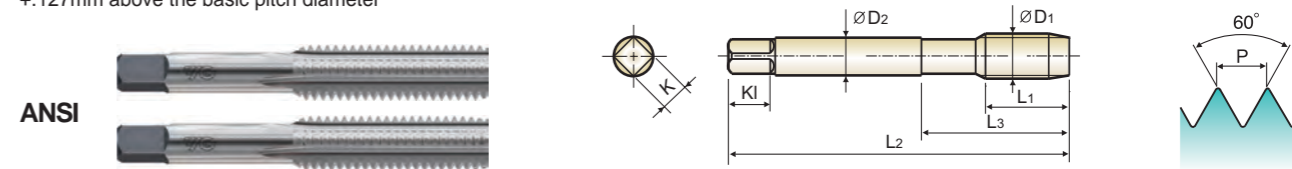
Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright									
		Plug	Bottoming								
#6	- 32UNC	T7326247	-	+0.005"	2.000	.689	.965	.141	.110	.190	3
#8	- 32UNC	T7326287	-	+0.005"	2.126	.752	1.047	.168	.131	.250	4
#10	- 24UNC	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	P										M				K			Malleable cast iron																																		
	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	42	43	44	45	46	47	48	49	50		
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	42	43	44	45	46	47	48	49	50		
HRc	13	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	130	230	130	230	130	230	130	230	130	230	130	230
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	130	230	130	230	130	180	260	160	250	130	180	260	160	250	130	180	260	160	250	130	230	130	230	130	230	130	230					
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○					

**HAND TAP
Oversize Tap**

+0.127mm above the basic pitch diameter



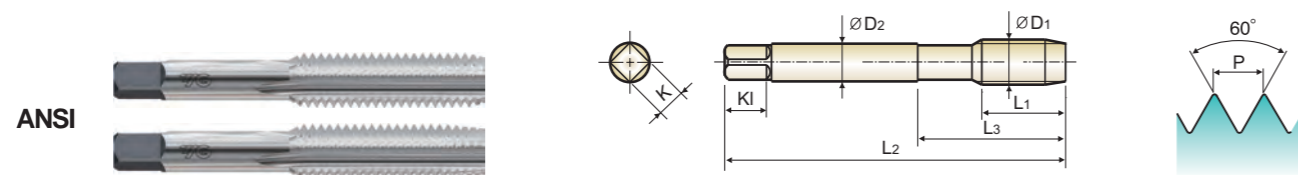
Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright									
		Plug	Bottoming								
M4	x 0.7	T7B15247	T7B15248	+0.127MM	2.126	.756	-	.168	.131	.250	4
M4.5	x 0.75	T7B15267	T7B15268	+0.127MM	2.374	.909	-	.194	.152	.250	4
M5	x 0.8	T7B15287	T7B15288	+0.127MM	2.374	.933	-	.194	.152	.250	4
M6	x 1.0	T7B15317	T7B15318	+0.127MM	2.500	.980	-	.255	.191	.310	4
M7	x 1.0	T7B15347	T7B15348	+0.127MM	2.500	1.091	-	.318	.238	.380	4
M8	x 1.25	T7B15367	T7B15368	+0.127MM	2.720	1.126	-	.318	.238	.380	4
M8	x 1.0	T7B15377	T7B15378	+0.127MM	2.720	1.126	-	.318	.238	.380	4
M10	x 1.5	T7B15427	T7B15428	+0.127MM	2.937	1.240	-	.381	.286	.440	4
M10	x 1.25	T7B15437	T7B15438	+0.127MM	2.937	1.240	-	.381	.286	.440	4
M12	x 1.75	T7B15507	T7B15508	+0.127MM	3.374	1.657	-	.367	.275	.440	4
M12	x 1.25	T7B15527	T7B15528	+0.127MM	3.374	1.657	-	.367	.275	.440	4
M16	x 2.0	T7B15607	T7B15608	+0.127MM	3.811	1.811	-	.480	.360	.560	4
M20	x 2.5	T7B15707	T7B15708	+0.127MM	4.469	2.000	-	.652	.489	.690	4
M24	x 3	T7B15787	T7B15788	+0.127MM	4.906	2.220	-	.760	.570	.750	4

© : Excellent ○ : Good

ISO	P										M				K			Malleable cast iron																																
	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	42	43	44	45	46	47	48	49	50
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	42	43	44	45	46	47	48	49	50
HRc	13	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	130	230	130	230	130	230				
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	130	230	130	230	130	180	260	160	250	130	180	260	160	250	130	180	260	160	250	130	230	130	230	130	230	130	230			
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○			

LEFT HAND TAP



Unit : Inch

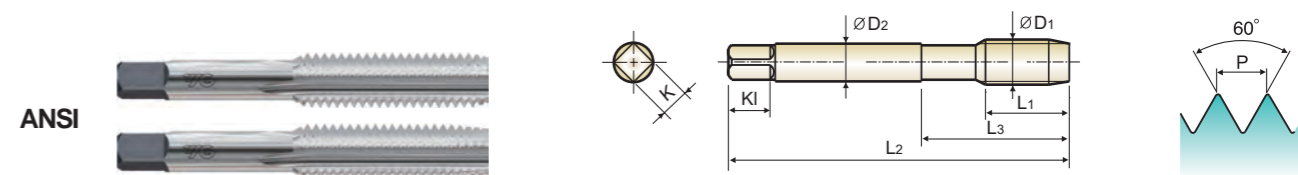
Size	TPI	EDP No.		Limit	Overall Length L2	Thread Length L1	Neck Length L3	Shank Diameter D2	Square Size K	Square Length KI	No. of Flute
		Bright									
		Plug	Bottoming								
#6	- 32UNC	T7336247	T7336248	H3	2.000	.689	.965	.141	.110	.190	3
#6	- 40UNF	T7336267	T7336268	H2	2.000	.689	.965	.141	.110	.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			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	40	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	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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

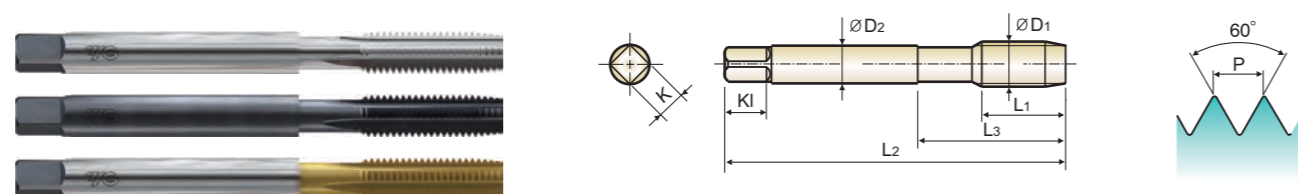
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	10	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	40	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	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

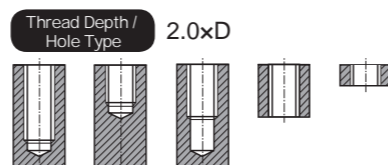


T7616/T6616/T8616 SERIES

STRAIGHT FLUTE PULLEY TAPS, 6" LONG LENGTH PLUG STYLE



ANSI Pulley Tap (ASME B94.9)



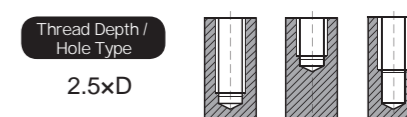
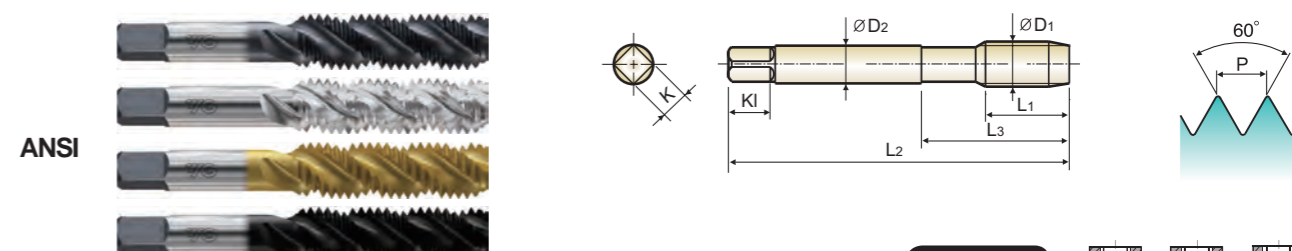
Unit : Inch

Table with 13 columns: Size, TPI, EDP No. (Bright, Steam Oxide, TiN), Limit, Overall Length (L2), Thread Length (L1, L3), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KL), No. of Flute. Rows include sizes 1/4 - 20UNC to 5/8 - 11UNC.



C2/C3/C4/D9 SERIES

SPIRAL FLUTE TAPS BOTTOMING STYLE for General Purpose



Unit : Inch

Table with 13 columns: Size, TPI, EDP No. (Steam Oxide, Bright, TiN, Hardslick), Limit, Overall Length (L2), Thread Length (L1, L3), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KL), No. of Flute. Rows include sizes #4 - 40UNC to 5/8 - 11UNC.

▶ NEXT PAGE

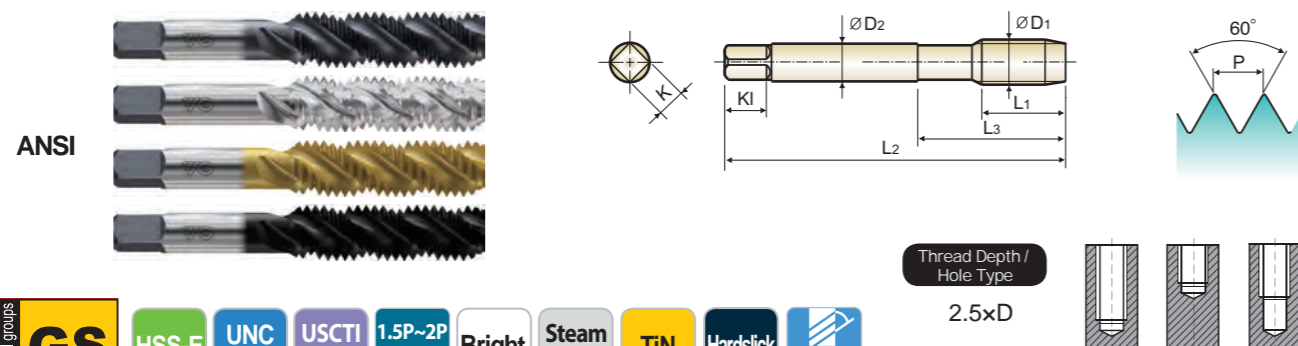
◎ : Excellent ○ : Good

ISO material compatibility chart for straight flute pulley taps. Columns include ISO, 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 H.

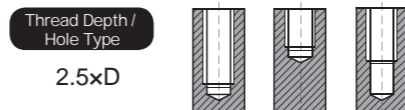
◎ : Excellent ○ : Good

ISO material compatibility chart for spiral flute taps. Columns include ISO, 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 H.

SPIRAL FLUTE TAPS BOTTOMING STYLE for General Purpose



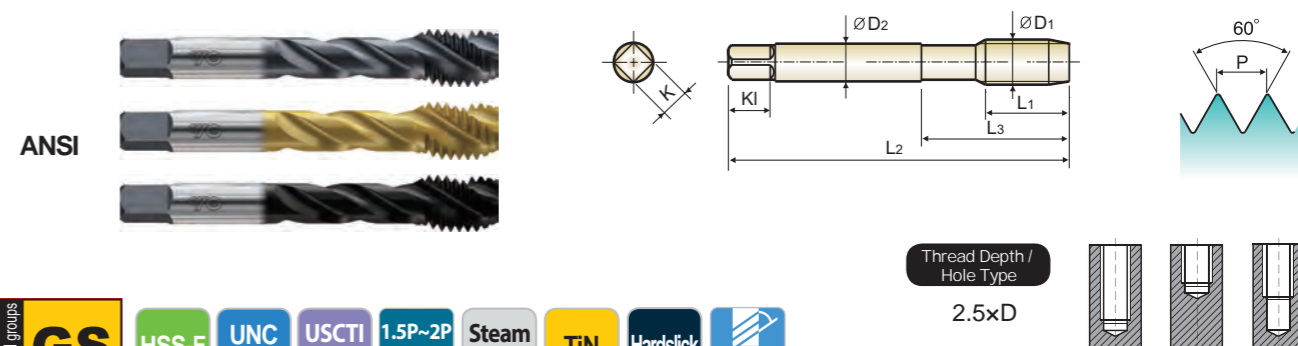
Material groups: **GS** HSS-E UNC UNF USCTI 302 1.5P~2P Bright Steam Oxide TiN Hardslick R45



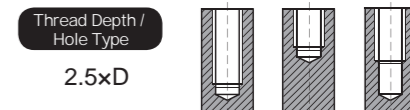
Unit : Inch

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

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



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 - 18UNC		F4445	F8445	F6445	H5	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

▶ 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																				
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	◎	◎	◎	○	○	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○

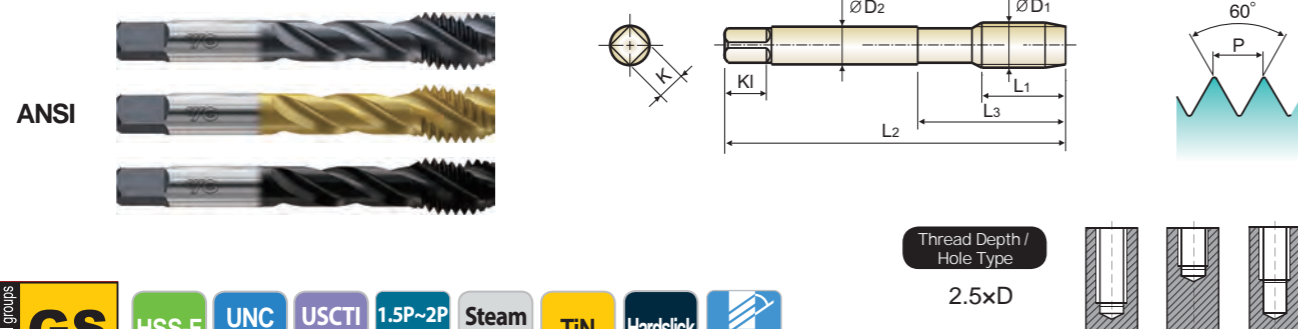
ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)	Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
Material Description	21	22	23	24	25	26	27	28	29	30	31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

SPIRAL FLUTE TAPS BOTTOMING STYLE for General Purpose

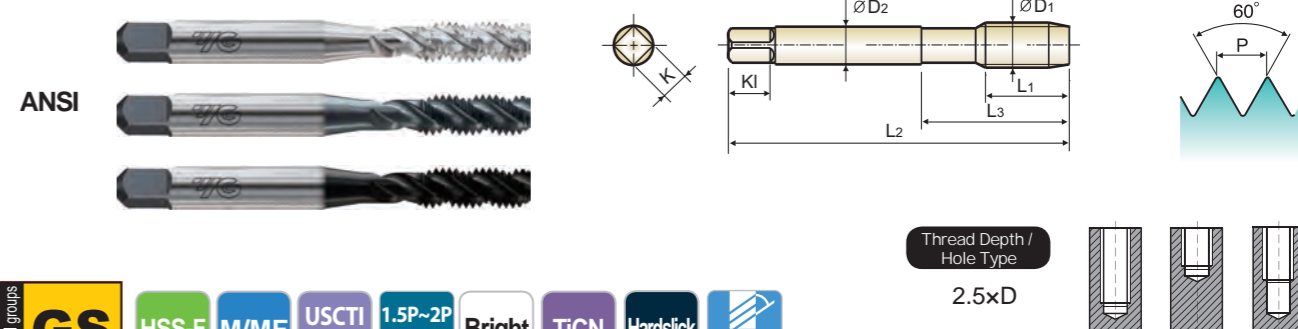


Thread Depth / Hole Type 2.5xD

Unit : Inch

Table with 13 columns: Size (D1, 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 (KL), No. of Flute. Lists various tap sizes from 9/16 - 18UNF to 1" - 12UNF.

SPIRAL FLUTE TAPS BOTTOMING STYLE for General Purpose



Thread Depth / Hole Type 2.5xD

Unit : Inch

Table with 13 columns: Size (D1, Pitch), EDP No. (Bright, TiCN, Hardslick), 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 sizes from M3 x 0.5 to M12 x 1.25.

Material compatibility chart for F4/F8/F6 series. Columns include ISO, 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, H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

◎ : Excellent ○ : Good

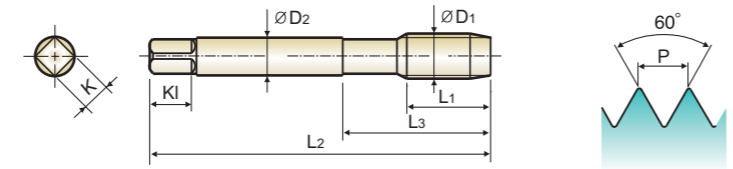
Material compatibility chart for G4/G5/G6 series. Columns include ISO, Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), M, K, H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

◎ : Excellent ○ : Good



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. Includes three diagrams showing different thread depths in a hole.

Unit : Inch

Table with 13 columns: Size (D1, TPI), EDP No. (Bright, TiN, Hardslick), Limit, Overall Length (L2), Thread Length (L1, L3), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KL), No. of Flute. Lists various tap sizes from #2 to 1/2 inch.

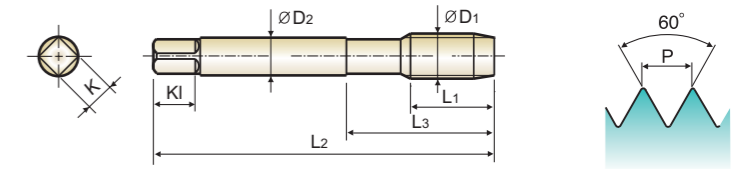
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ISO material compatibility chart. Columns include Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel), M (Grey cast iron, Nodular cast iron, Malleable cast iron), K, S (Aluminum, Copper, Titanium, Heat Resistant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



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. Includes three diagrams showing different thread depths in a hole.

Unit : Inch

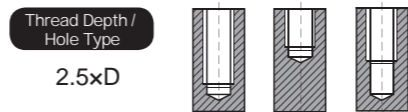
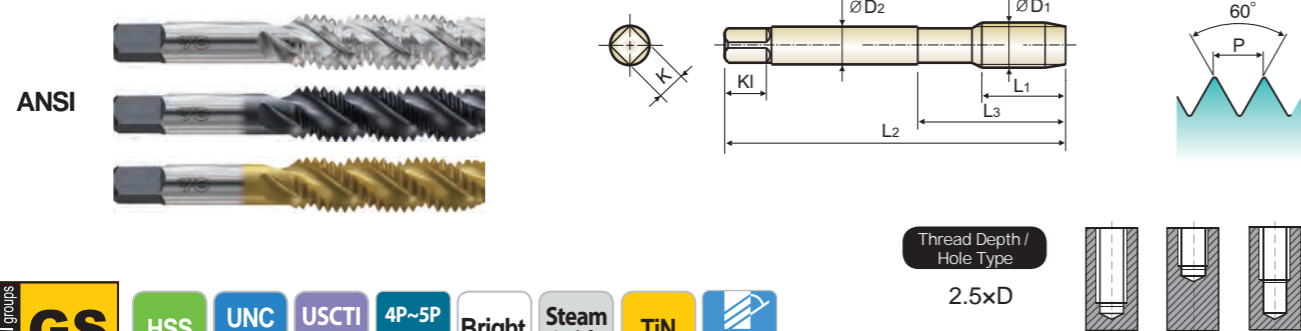
Table with 13 columns: Size (D1, TPI), EDP No. (Bright, TiN, Hardslick), Limit, Overall Length (L2), Thread Length (L1, L3), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KL), No. of Flute. Lists various tap sizes from 9/16 inch to 1 inch.

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



T7A96/T6A96/T8A96 SERIES

SPIRAL FLUTE TAPS 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	Steam Oxide	TiN								
#3 - 48UNC	T7A96122	T6A96122	T8A96122	H2	1.811	.492	.728	.141	.110	.190	2	
#4 - 40UNC	T7A96162	T6A96162	T8A96162	H2	1.874	.563	.799	.141	.110	.190	2	
#5 - 40UNC	T7A96202	T6A96202	T8A96202	H2	1.937	.626	.882	.141	.110	.190	2	
#6 - 32UNC	T7A96242	T6A96242	T8A96242	H2	2.000	.689	.965	.141	.110	.190	2	
#6 - 32UNC	T7A96243	T6A96243	T8A96243	H3	2.000	.689	.965	.141	.110	.190	2	
#8 - 32UNC	T7A96282	T6A96282	T8A96282	H2	2.126	.752	1.047	.168	.131	.250	3	
#8 - 32UNC	T7A96283	T6A96283	T8A96283	H3	2.126	.752	1.047	.168	.131	.250	3	
#10 - 24UNC	T7A96323	T6A96323	T8A96323	H3	2.374	.906	1.220	.194	.152	.250	3	
#10 - 32UNC	T7A96342	T6A96342	T8A96342	H2	2.374	.906	1.220	.194	.152	.250	3	
#10 - 32UNC	T7A96343	T6A96343	T8A96343	H3	2.374	.906	1.220	.194	.152	.250	3	
#12 - 24UNC	T7A96363	T6A96363	T8A96363	H3	2.374	.906	1.220	.220	.165	.280	3	
1/4 - 20UNC	T7A96403	T6A96403	T8A96403	H3	2.500	1.000	1.354	.255	.191	.310	3	
1/4 - 20UNC	T7A96405	T6A96405	T8A96405	H5	2.500	1.000	1.354	.255	.191	.310	3	
1/4 - 28UNF	T7A96423	T6A96423	T8A96423	H3	2.500	1.000	1.354	.255	.191	.310	3	
5/16 - 18UNC	T7A96443	T6A96443	T8A96443	H3	2.720	1.126	1.500	.318	.238	.380	3	
5/16 - 18UNC	T7A96445	T6A96445	T8A96445	H5	2.720	1.126	1.500	.318	.238	.380	3	
5/16 - 24UNF	T7A96463	T6A96463	T8A96463	H3	2.720	1.126	1.500	.318	.238	.380	3	
3/8 - 16UNC	T7A96483	T6A96483	T8A96483	H3	2.937	1.252	1.646	.381	.286	.440	3	
3/8 - 16UNC	T7A96485	T6A96485	T8A96485	H5	2.937	1.252	1.646	.381	.286	.440	3	
3/8 - 24UNF	T7A96503	T6A96503	T8A96503	H3	2.937	1.252	1.646	.381	.286	.440	3	
7/16 - 14UNC	T7A96523	T6A96523	T8A96523	H3	3.157	1.437	-	.323	.242	.410	3	
7/16 - 20UNF	T7A96543	T6A96543	T8A96543	H3	3.157	1.437	-	.323	.242	.410	3	
1/2 - 13UNC	T7A96563	T6A96563	T8A96563	H3	3.374	1.657	-	.367	.275	.440	3	
1/2 - 13UNC	T7A96565	T6A96565	T8A96565	H5	3.374	1.657	-	.367	.275	.440	3	
1/2 - 20UNF	T7A96583	T6A96583	T8A96583	H3	3.374	1.657	-	.367	.275	.440	3	
5/8 11UNC	T7A96643	T6A96643	T8A96643	H3	3.811	1.811	-	.480	.360	.560	4	
5/8 18UNF	T7A96663	T6A96663	T8A96663	H3	3.811	1.811	-	.480	.360	.560	4	
3/4 10UNC	T7A96703	T6A96703	T8A96703	H3	4.252	2.000	-	.590	.442	.690	4	
3/4 16UNF	T7A96723	T6A96723	T8A96723	H3	4.252	2.000	-	.590	.442	.690	4	

◎ : Excellent ○ : Good

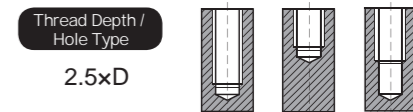
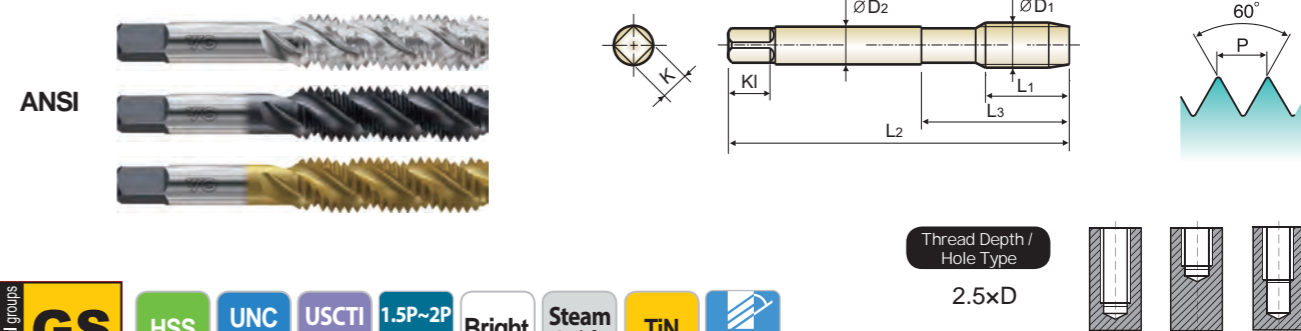
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17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



T7295/T6295/T8295 SERIES

SPIRAL FLUTE TAPS 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	Steam Oxide	TiN								
#3 - 48UNC	T7295122	T6295122	T8295122	H2	1.811	.492	.728	.141	.110	.190	2	
#4 - 40UNC	T7295162	T6295162	T8295162	H2	1.874	.563	.799	.141	.110	.190	2	
#5 - 40UNC	T7295202	T6295202	T8295202	H2	1.937	.626	.882	.141	.110	.190	2	
#6 - 32UNC	T7295242	T6295242	T8295242	H2	2.000	.689	.965	.141	.110	.190	2	
#6 - 32UNC	T7295243	T6295243	T8295243	H3	2.000	.689	.965	.141	.110	.190	2	
#8 - 32UNC	T7295282	T6295282	T8295282	H2	2.126	.752	1.047	.168	.131	.250	3	
#8 - 32UNC	T7295283	T6295283	T8295283	H3	2.126	.752	1.047	.168	.131	.250	3	
#10 - 24UNC	T7295323	T6295323	T8295323	H3	2.374	.906	1.220	.194	.152	.250	3	
#10 - 32UNC	T7295342	T6295342	T8295342	H2	2.374	.906	1.220	.194	.152	.250	3	
#10 - 32UNC	T7295343	T6295343	T8295343	H3	2.374	.906	1.220	.194	.152	.250	3	
#12 - 24UNC	T7295363	T6295363	T8295363	H3	2.374	.906	1.220	.220	.165	.280	3	
1/4 - 20UNC	T7295403	T6295403	T8295403	H3	2.500	1.000	1.354	.255	.191	.310	3	
1/4 - 20UNC	T7295405	T6295405	T8295405	H5	2.500	1.000	1.354	.255	.191	.310	3	
1/4 - 28UNF	T7295423	T6295423	T8295423	H3	2.500	1.000	1.354	.255	.191	.310	3	
5/16 - 18UNC	T7295443	T6295443	T8295443	H3	2.720	1.126	1.500	.318	.238	.380	3	
5/16 - 18UNC	T7295445	T6295445	T8295445	H5	2.720	1.126	1.500	.318	.238	.380	3	
5/16 - 24UNF	T7295463	T6295463	T8295463	H3	2.720	1.126	1.500	.318	.238	.380	3	
3/8 - 16UNC	T7295483	T6295483	T8295483	H3	2.937	1.252	1.646	.381	.286	.440	3	
3/8 - 16UNC	T7295485	T6295485	T8295485	H5	2.937	1.252	1.646	.381	.286	.440	3	
3/8 - 24UNF	T7295503	T6295503	T8295503	H3	2.937	1.252	1.646	.381	.286	.440	3	
7/16 - 14UNC	T7295523	T6295523	T8295523	H3	3.157	1.437	-	.323	.242	.410	3	
7/16 - 14UNC	T7295525	T6295525	T8295525	H5	3.157	1.437	-	.323	.242	.410	3	
7/16 - 20UNF	T7295543	T6295543	T8295543	H3	3.157	1.437	-	.323	.242	.410	3	
1/2 - 13UNC	T7295563	T6295563	T8295563	H3	3.374	1.657	-	.367	.275	.440	3	
1/2 - 13UNC	T7295565	T6295565	T8295565	H5	3.374	1.657	-	.367	.275	.440	3	
1/2 - 20UNF	T7295583	T6295583	T8295583	H3	3.374	1.657	-	.367	.275	.440	3	
5/8 11UNC	T7295643	T6295643	T8295643	H3	3.811	1.811	-	.480	.360	.560	4	
5/8 18UNF	T7295663	T6295663	T8295663	H3	3.811	1.811	-	.480	.360	.560	4	
3/4 10UNC	T7295703	T6295703	T8295703	H3	4.252	2.000	-	.590	.442	.690	4	
3/4 16UNF	T7295723	T6295723	T8295723	H3	4.252	2.000	-	.590	.442	.690	4	

◎ : Excellent ○ : Good

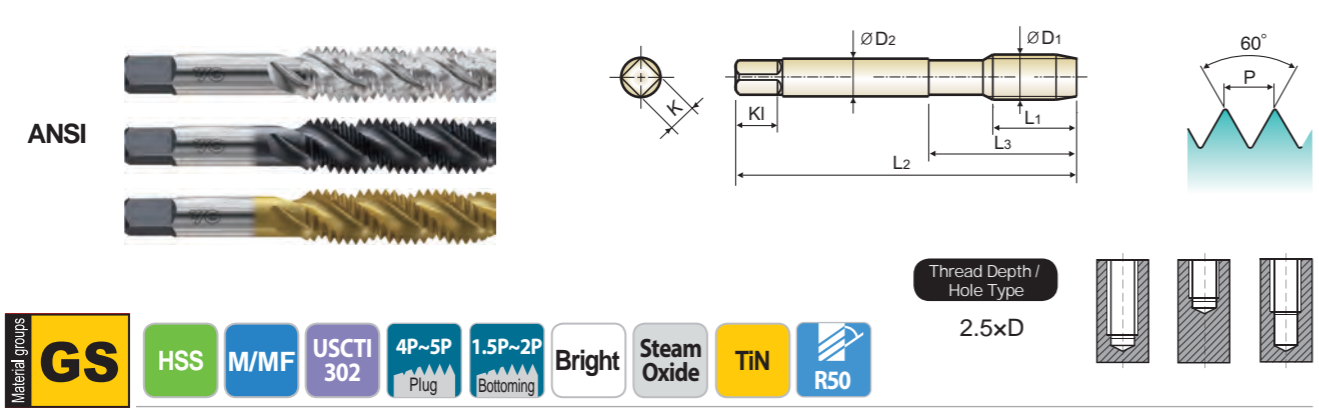
ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16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



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

SPIRAL FLUTE TAPS 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
		Plug										
D1		Bright	TiCN	Hardslick	L2	L1	L3	D2	K	KL		
M3	x 0.5	T7A86203	T6A86203	T8A86203	D3	1.937	.602	.622	.141	.110	.190	2
M4	x 0.7	T7A86244	T6A86244	T8A86244	D4	2.067	.732	.752	.168	.131	.250	3
M5	x 0.8	T7A86284	T6A86284	T8A86284	D4	2.303	.874	-	.194	.152	.250	3
M6	x 1.0	T7A86315	T6A86315	T8A86315	D5	2.500	1.000	-	.255	.191	.310	3
M8	x 1.25	T7A86365	T6A86365	T8A86365	D5	2.720	1.126	-	.318	.238	.380	3
M10	x 1.5	T7A86426	T6A86426	T8A86426	D6	2.937	1.252	-	.381	.286	.440	3
M12	x 1.75	T7A86506	T6A86506	T8A86506	D6	1.657	1.657	-	.367	.275	.440	3

Unit : Inch

Size	Pitch	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bottom										
D1		Bright	TiCN	Hardslick	L2	L1	L3	D2	K	KL		
M3	x 0.5	T7A85203	T6A85203	T8A85203	D3	1.937	.602	.622	.141	.110	.190	2
M4	x 0.7	T7A85244	T6A85244	T8A85244	D4	2.067	.732	.752	.168	.131	.250	3
M5	x 0.8	T7A85284	T6A85284	T8A85284	D4	2.303	.874	-	.194	.152	.250	3
M6	x 1.0	T7A85315	T6A85315	T8A85315	D5	2.500	1.000	-	.255	.191	.310	3
M8	x 1.25	T7A85365	T6A85365	T8A85365	D5	2.720	1.126	-	.318	.238	.380	3
M10	x 1.5	T7A85426	T6A85426	T8A85426	D6	2.937	1.252	-	.381	.286	.440	3
M12	x 1.75	T7A85506	T6A85506	T8A85506	D6	1.657	1.657	-	.367	.275	.440	3

◎ : Excellent ○ : Good

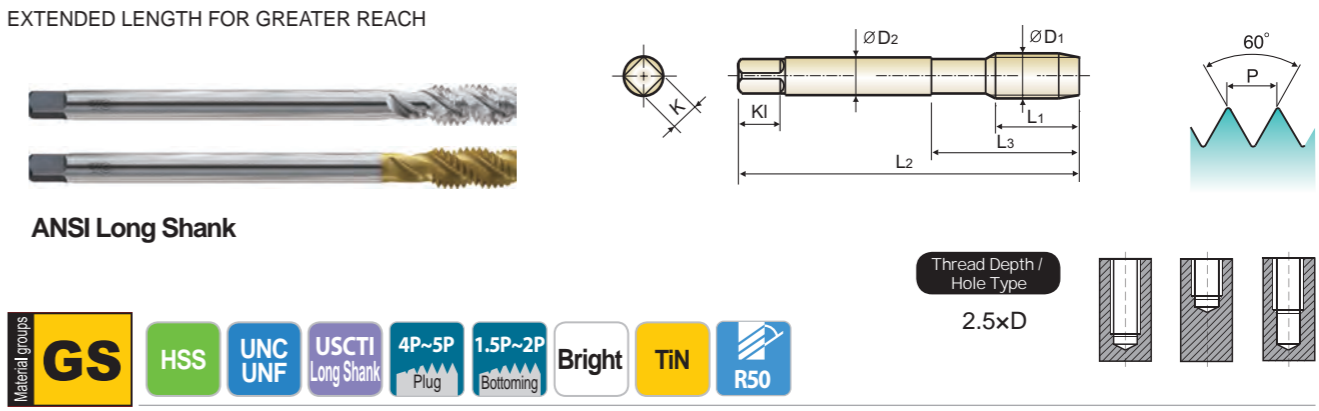
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17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



T7D01/T8D01 SERIES
T7D02/T8D02 SERIES

SPIRAL FLUTE TAP, 6" EXTENSION



Unit : Inch

Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Plug									
D1		Bright	TiN	L2	L1	L3	D2	K	KL		
#6	- 32UNC	T7D01243	T8D01243	H3	6.000	.413	.689	.141	.110	.190	2
#8	- 32UNC	T7D01283	T8D01283	H3	6.000	.453	.752	.168	.131	.250	3
#10	- 24UNC	T7D01323	T8D01323	H3	6.000	.531	.906	.194	.152	.250	3
#10	- 32UNF	T7D01343	T8D01343	H3	6.000	.531	.906	.194	.152	.250	3
1/4	- 20UNC	T7D01403	T8D01403	H3	6.000	.591	1.000	.255	.191	.310	3
1/4	- 28UNF	T7D01423	T8D01423	H3	6.000	.591	1.000	.255	.191	.310	3
5/16	- 18UNC	T7D01443	T8D01443	H3	6.000	.669	1.126	.318	.238	.380	3
3/8	- 16UNC	T7D01483	T8D01483	H3	6.000	.748	1.252	.381	.286	.440	3
7/16	- 14UNC	T7D01523	T8D01523	H3	6.000	.866	1.437	.323	.242	.410	3
1/2	- 13UNC	T7D01563	T8D01563	H3	6.000	.984	1.657	.367	.275	.440	3
5/8	- 11UNC	T7D01643	T8D01643	H3	6.000	1.083	1.811	.480	.360	.560	4

Unit : Inch

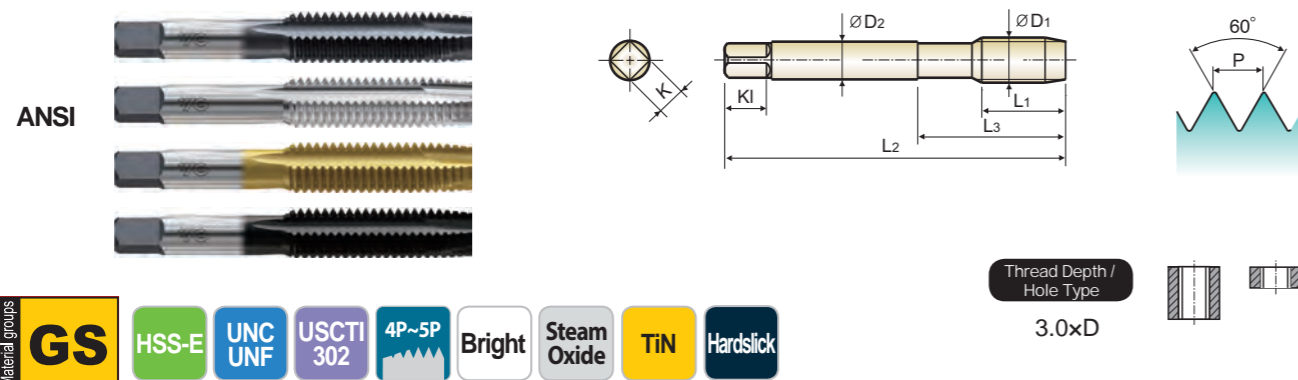
Size	TPI	EDP No.		Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bottom									
D1		Bright	TiN	L2	L1	L3	D2	K	KL		
#6	- 32UNC	T7D02243	T8D02243	H3	6.000	.413	.689	.141	.110	.190	2
#8	- 32UNC	T7D02283	T8D02283	H3	6.000	.453	.752	.168	.131	.250	3
#10	- 24UNC	T7D02323	T8D02323	H3	6.000	.531	.906	.194	.152	.250	3
#10	- 32UNF	T7D02343	T8D02343	H3	6.000	.531	.906	.194	.152	.250	3
1/4	- 20UNC	T7D02403	T8D02403	H3	6.000	.591	1.000	.255	.191	.310	3
1/4	- 28UNF	T7D02423	T8D02423	H3	6.000	.591	1.000	.255	.191	.310	3
5/16	- 18UNC	T7D02443	T8D02443	H3	6.000	.669	1.126	.318	.238	.380	3
3/8	- 16UNC	T7D02483	T8D02483	H3	6.000	.748	1.252	.381	.286	.440	3
7/16	- 14UNC	T7D02523	T8D02523	H3	6.000	.866	1.437	.323	.242	.410	3
1/2	- 13UNC	T7D02563	T8D02563	H3	6.000	.984	1.657	.367	.275	.440	3
5/8	- 11UNC	T7D02643	T8D02643	H3	6.000	1.083	1.811	.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 <th>6</th> <th>7</th> <th>8</th> <th>9</th> <th>10</th> <th>11</th> <th>12</th> <th>13</th> <th>14 <th>15</th><th>16 <th>17</th><th>18 <th>19</th><th>20</th> </th></th></th>	6	7	8	9	10	11	12	13	14 <th>15</th> <th>16 <th>17</th><th>18 <th>19</th><th>20</th> </th></th>	15	16 <th>17</th> <th>18 <th>19</th><th>20</th> </th>	17	18 <th>19</th> <th>20</th>	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 <th>26</th> <th>27</th> <th>28 <th>29</th><th>30 <th>31</th><th>32</th><th>33</th><th>34 <th>35</th><th>36</th><th>37 <th>38</th><th>39</th><th>40</th> <th>41</th> </th></th></th></th>	26	27	28 <th>29</th> <th>30 <th>31</th><th>32</th><th>33</th><th>34 <th>35</th><th>36</th><th>37 <th>38</th><th>39</th><th>40</th> <th>41</th> </th></th></th>	29	30 <th>31</th> <th>32</th> <th>33</th> <th>34 <th>35</th><th>36</th><th>37 <th>38</th><th>39</th><th>40</th> <th>41</th> </th></th>	31	32	33	34 <th>35</th> <th>36</th> <th>37 <th>38</th><th>39</th><th>40</th> <th>41</th> </th>	35	36	37 <th>38</th> <th>39</th> <th>40</th> <th>41</th>	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 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

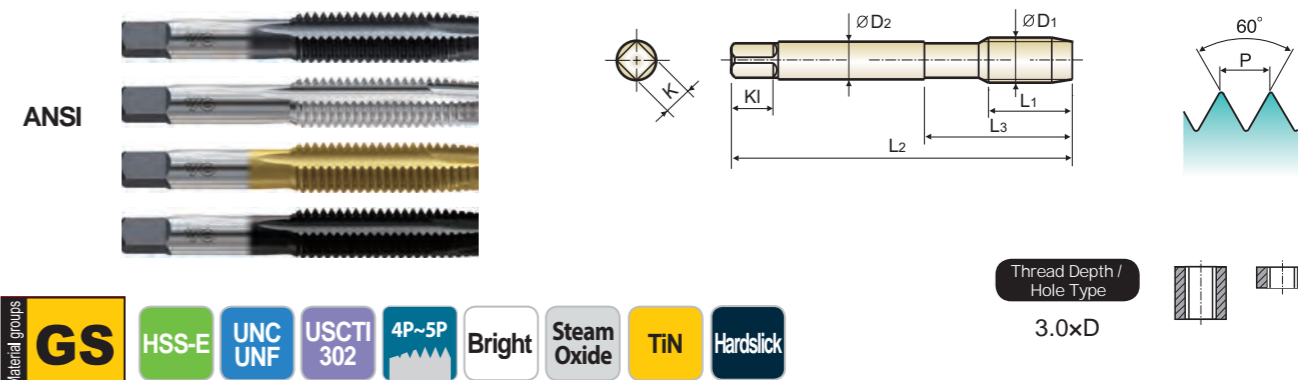
▶ NEXT PAGE

◎ : 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 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

◎ : Excellent ○ : Good

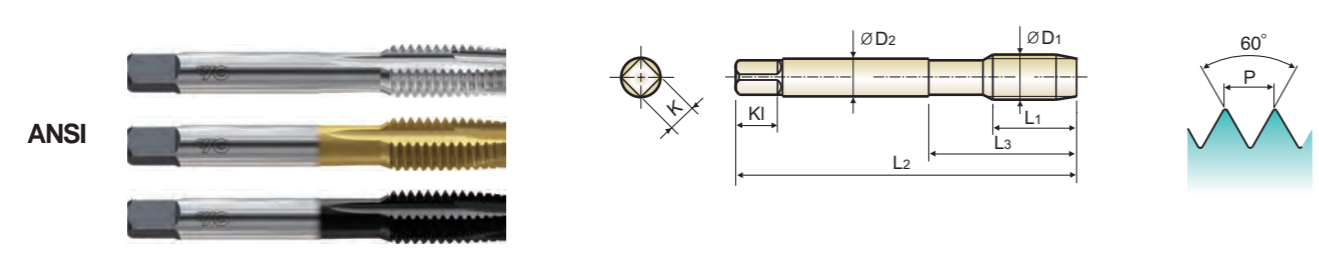
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17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



K9/L0/L1 SERIES

SPIRAL POINT TAPS PLUG STYLE for General Purpose



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

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	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

▶ NEXT PAGE

◎ : Excellent ○ : Good

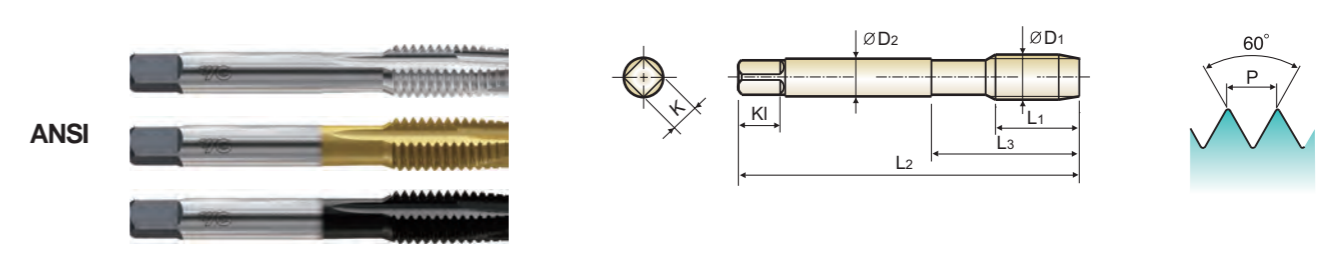
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	10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



K9/L0/L1 SERIES

SPIRAL POINT TAPS PLUG STYLE for General Purpose



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

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	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

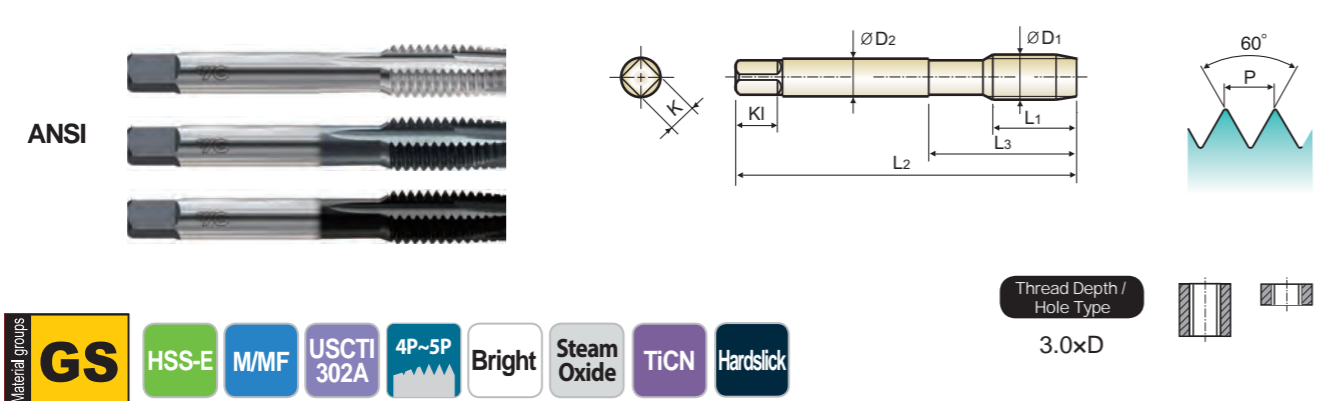
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	10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



L7/L8/L9 SERIES

SPIRAL POINT TAPS PLUG STYLE for General Purpose



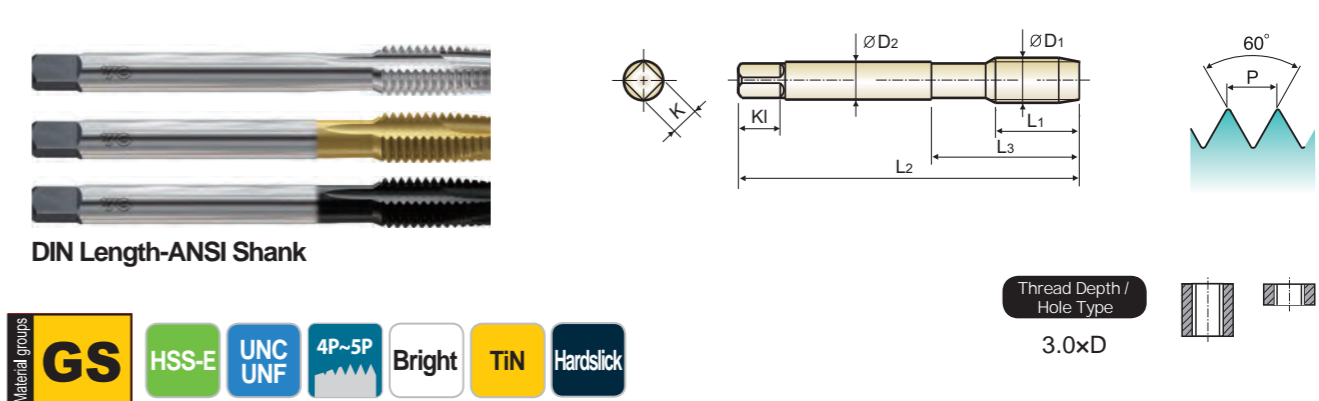
Unit : Inch

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		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



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

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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	3	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	○	○	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○

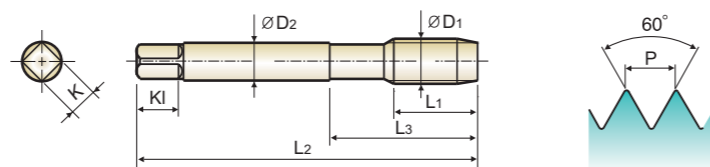
ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30	31	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			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
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
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	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	○	○	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○

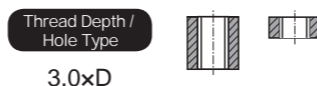
ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30	31	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 General Purpose



DIN Length-ANSI Shank

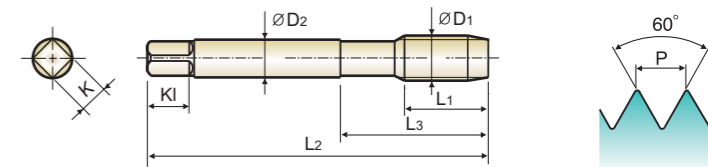
Material groups: **GS** HSS-E UNC UNF 4P~5P Bright TiN Hardslick



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

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																				
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																					
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	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																					
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

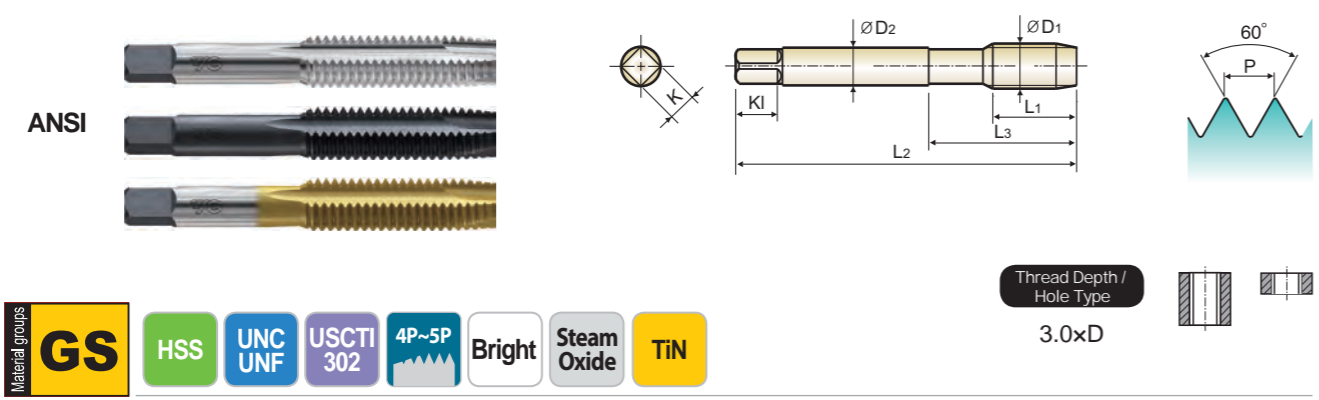


Table with 13 columns: Size, TPI, EDP No. (Bright, Steam Oxide, TiN), Limit, Overall Length, Thread Length, Neck Length, Shank Diameter, Square Size, Square Length, No. of Flute. Lists various tap specifications.

▶ NEXT PAGE

ISO Material Compatibility Chart showing hardness (VDI 3323, HRc, HB) and recommended use for various materials like Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, etc.



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

SPIRAL POINT PLUG STYLE for General Purpose

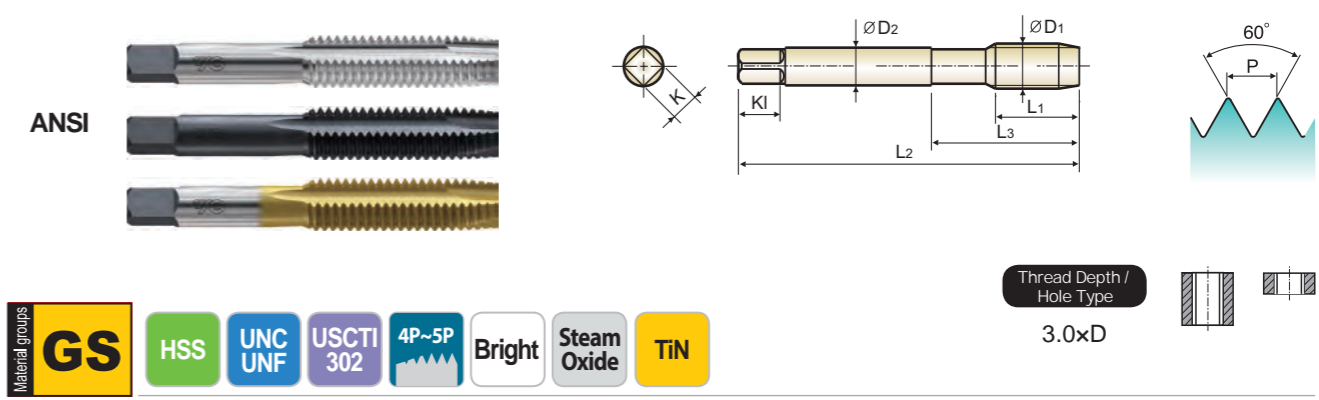


Table with 13 columns: Size, TPI, EDP No. (Bright, Steam Oxide, TiN), Limit, Overall Length, Thread Length, Neck Length, Shank Diameter, Square Size, Square Length, No. of Flute. Lists various tap specifications.

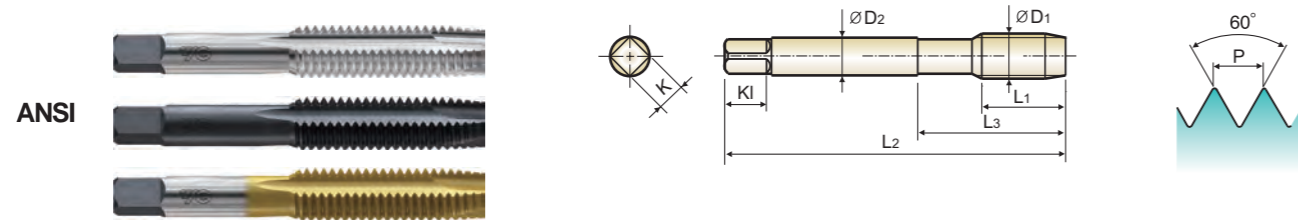
▶ NEXT PAGE

ISO Material Compatibility Chart showing hardness (VDI 3323, HRc, HB) and recommended use for various materials like Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, etc.



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. Rows include various sizes like 5/16 - 18UNC, 5/16 - 24UNF, 3/8 - 16UNC, etc.

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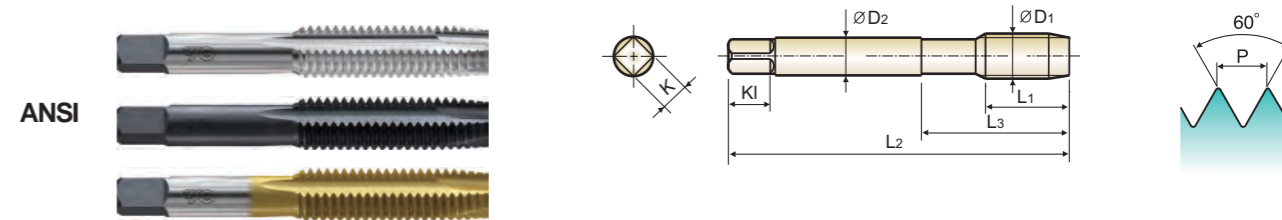
◎ : Excellent ○ : Good

ISO Material Compatibility Chart showing recommended usage (◎) or not recommended (○) for various materials like Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, etc.



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

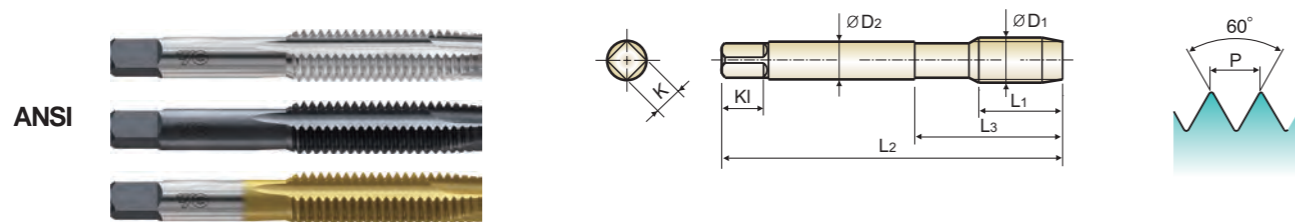
Unit : Inch

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. Rows include various sizes like 1/2 - 13UNC, 1/2 - 20UNF, 9/16 - 12UNC, etc.

◎ : Excellent ○ : Good

ISO Material Compatibility Chart showing recommended usage (◎) or not recommended (○) for various materials like Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, etc.

SPIRAL POINT PLUG STYLE for General Purpose



Material groups: GS, HSS, M/MF, USCTI 302, 4P~5P, Bright, Steam Oxide, TiN

Thread Depth / Hole Type 3.0xD

Unit : Inch

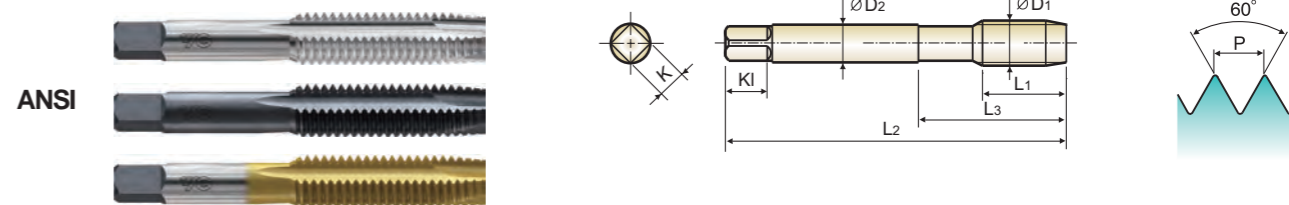
Table with 13 columns: Size (D1, Pitch), EDP No. (Bright, TiCN, Hardslick), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KL), No. of Flute.

◎: Excellent ○: Good

ISO Material Compatibility Chart showing hardness (HRC, HB) and recommended usage for various materials like Non-alloy steel, Low alloy steel, Stainless steel, etc.

SPIRAL POINT PLUG STYLE Oversize Tap

+0.005" above the basic pitch diameter



Material groups: GS, HSS, UNC UNF, USCTI 302, 4P~5P, Bright, Steam Oxide, TiN, +0.005" oversize

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.

◎: Excellent ○: Good

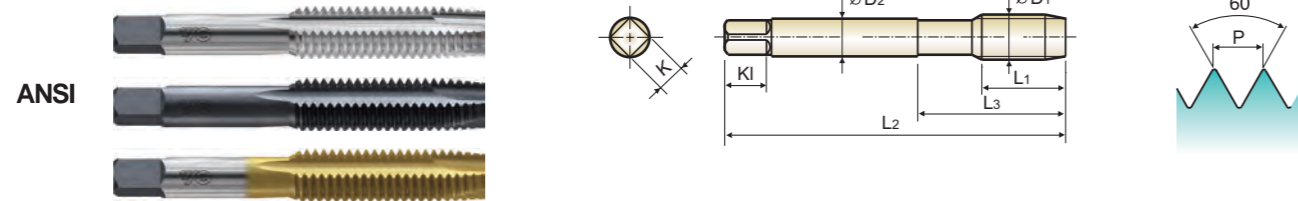
ISO Material Compatibility Chart showing hardness (HRC, HB) and recommended usage for various materials like Non-alloy steel, Low alloy steel, Stainless steel, etc.



T7B17/T6B17/T8B17 SERIES

SPIRAL POINT PLUG STYLE Oversize Tap

+ .127mm above the basic pitch diameter



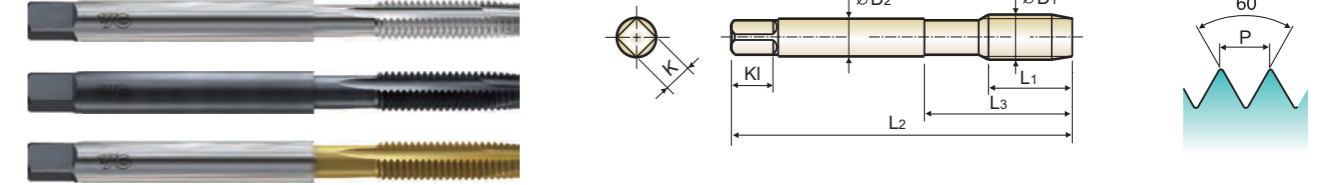
Material groups: GS, HSS, M/MF, USCTI 302, 4P~5P, Bright, Steam Oxide, TiN, +.127mm oversize. Thread Depth / Hole Type: 3.0xD. Unit: Inch

Table with 13 columns: Size (D1, Pitch), 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.



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

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.

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

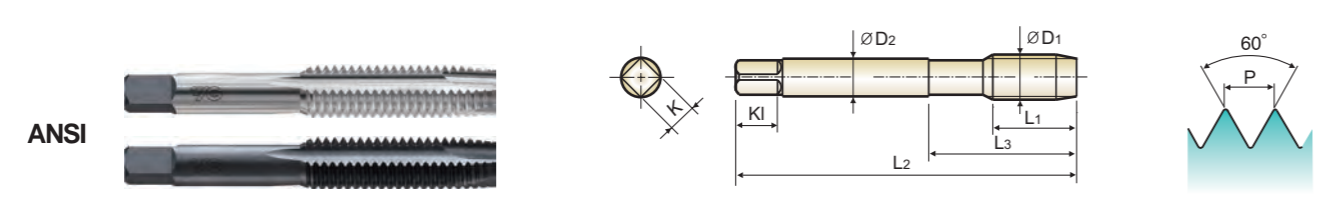
Material compatibility chart showing ISO grades and recommended hole types for various materials like Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, etc.

Material compatibility chart showing ISO grades and recommended hole types for various materials like Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, etc.



T7256/T6256 SERIES

SPIRAL POINT BOTTOMING STYLE for General Purpose



Material groups: GS, HSS, UNC UNF, USCTI 302, 1.5P~2P, Bright, Steam Oxide. Thread Depth / Hole Type: 3.0xD.

Table with 12 columns: Size (D1, TPI), EDP No. (Bright, 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 sizes from #0 to #10.

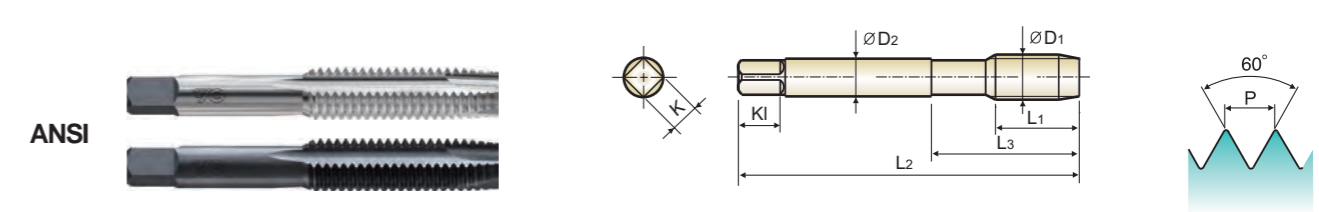
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ISO material compatibility chart for HSS. Columns: Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel, and tool steel), M (Stainless steel), K (Grey cast iron, Nodular cast iron, Malleable cast iron), S (Aluminum-wrought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



T7256/T6256 SERIES

SPIRAL POINT BOTTOMING STYLE for General Purpose



Material groups: GS, HSS, UNC UNF, USCTI 302, 1.5P~2P, Bright, Steam Oxide. Thread Depth / Hole Type: 3.0xD.

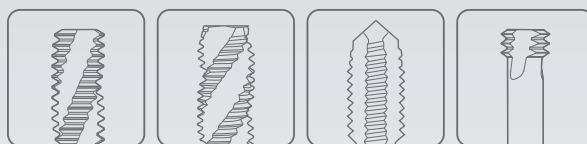
Table with 12 columns: Size (D1, TPI), EDP No. (Bright, TiN), Limit, Overall Length (L2), Thread Length (L1), Neck Length (L3), Shank Diameter (D2), Square Size (K), Square Length (KL), No. of Flute. Lists various tap sizes from #12 to 3/4.

Unit : Inch

ISO material compatibility chart for HSS. Columns: Material Description, P (Non-alloy steel, Low alloy steel, High alloyed steel, and tool steel), M (Stainless steel), K (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), H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).



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, SURFACE TREATMENT / COATING, MODEL. Includes material categories P, M, K, N, S, H.

Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SURFACE TREATMENT / COATING, MODEL. Includes material categories 4P-5P, 1.5P-2P, HSS-E, 1.5P-2P, 4P-5P.

SELECTION GUIDE



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

- For Forming Ductile Materials



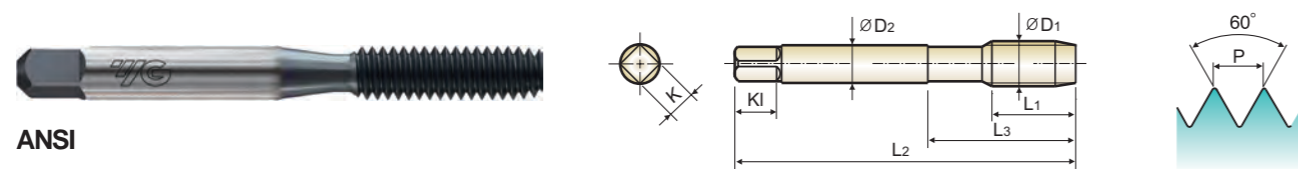
Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

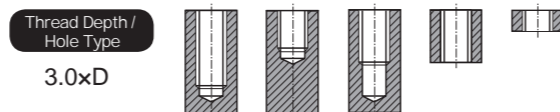
Table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and performance indicators for HSS-E (4P-5P, 1.5P-2P) and HSS (4P-5P, 1.5P-2P) series.

Table showing HSS-E and HSS series performance for various materials, including material descriptions, HB, HRC, and performance indicators (◎/○) for different hole types and coatings.

FORMING TAPS MODIFIED BOTTOMING STYLE



ANSI



Unit : Inch

Size D1	TPI	EDP No. Class of fit 2B (TiCN)	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobes
				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

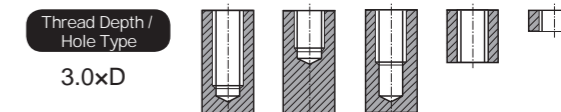
ISO Material Description	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10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

MINIATURE FORMING TAPS MODIFIED BOTTOMING STYLE



ANSI



Unit : Inch

Size D1	TPI	EDP No. Bright	Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobes
				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

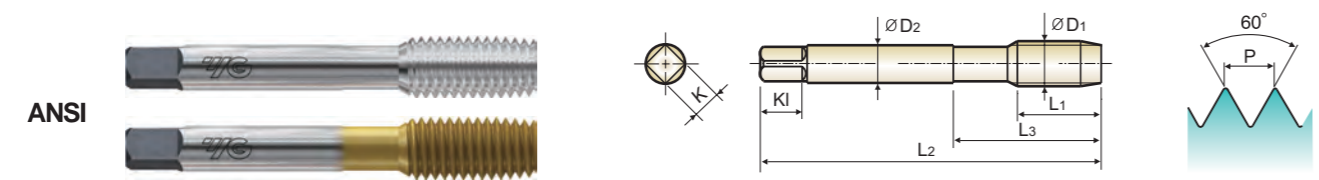
ISO Material Description	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10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



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

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								
#0 - 80UNF		-	-	Z2022	Z3022	H2	1.634	.315	.512	.141	.110	.190	4
#0 - 80UNF		-	-	Z2023	Z3023	H3	1.634	.315	.512	.141	.110	.190	4
#1 - 64UNC		-	-	Z2042	Z3042	H2	1.693	.374	.571	.141	.110	.190	4
#1 - 72UNF		-	-	Z2062	Z3062	H2	1.693	.374	.571	.141	.110	.190	4
#1 - 72UNF		-	-	Z2063	Z3063	H3	1.693	.374	.571	.141	.110	.190	4
#2 - 56UNC		-	-	Z2082	Z3082	H2	1.752	.433	.650	.141	.110	.190	4
#2 - 56UNC		-	-	Z2083	Z3083	H3	1.752	.433	.650	.141	.110	.190	4
#2 - 64UNF		-	-	Z2102	Z3102	H2	1.752	.433	.650	.141	.110	.190	4
#3 - 48UNC		-	-	Z2122	Z3122	H2	1.811	.492	.728	.141	.110	.190	4
#3 - 48UNC		-	-	Z2123	Z3123	H3	1.811	.492	.728	.141	.110	.190	4
#3 - 56UNF		-	-	Z2143	Z3143	H3	1.811	.492	.728	.141	.110	.190	4
#4 - 40UNC		Z0163	Z1163	Z2163	Z3163	H3	1.874	.563	.799	.141	.110	.190	4
#4 - 40UNC		Z0165	Z1165	Z2165	Z3165	H5	1.874	.563	.799	.141	.110	.190	4
#4 - 48UNC		Z0183	Z1183	Z2183	Z3183	H3	1.874	.563	.799	.141	.110	.190	4
#4 - 48UNC		Z0185	Z1185	Z2185	Z3185	H5	1.874	.563	.799	.141	.110	.190	4
#5 - 40UNC		Z0203	Z1203	Z2203	Z3203	H3	1.937	.626	.882	.141	.110	.190	4
#5 - 40UNC		Z0205	Z1205	Z2205	Z3205	H5	1.937	.626	.882	.141	.110	.190	4
#5 - 44UNF		Z0225	Z1225	Z2225	Z3225	H5	1.937	.626	.882	.141	.110	.190	4
#6 - 32UNC		Z0243	Z1243	Z2243	Z3243	H3	2.000	.480	.689	.141	.110	.190	4
#6 - 32UNC		Z0245	Z1245	Z2245	Z3245	H5	2.000	.480	.689	.141	.110	.190	4
#6 - 40UNF		Z0263	Z1263	Z2263	Z3263	H3	2.000	.480	.689	.141	.110	.190	4
#6 - 40UNF		Z0265	Z1265	Z2265	Z3265	H5	2.000	.480	.689	.141	.110	.190	4
#8 - 32UNC		Z0283	Z1283	Z2283	Z3283	H3	2.126	.500	.752	.168	.131	.250	4
#8 - 32UNC		Z0285	Z1285	Z2285	Z3285	H5	2.126	.500	.752	.168	.131	.250	4

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

◎ : Excellent ○ : Good

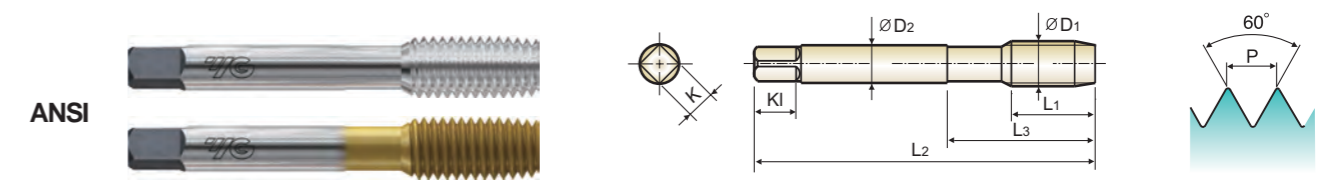
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRC	13	25	28	32	30	10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

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								
#8 - 36UNF		Z0303	Z1303	Z2303	Z3303	H3	2.126	.500	.752	.168	.131	.250	4
#8 - 36UNF		Z0305	Z1305	Z2305	Z3305	H5	2.126	.500	.752	.168	.131	.250	4
#10 - 24UNC		Z0324	Z1324	Z2324	Z3324	H4	2.374	.630	.906	.194	.152	.250	4
#10 - 24UNC		Z0326	Z1326	Z2326	Z3326	H6	2.374	.630	.906	.194	.152	.250	4
#10 - 32UNF		Z0344	Z1344	Z2344	Z3344	H4	2.374	.630	.906	.194	.152	.250	4
#10 - 32UNF		Z0346	Z1346	Z2346	Z3346	H6	2.374	.630	.906	.194	.152	.250	4
#12 - 24UNC		Z0364	Z1364	Z2364	Z3364	H4	2.374	.630	.906	.220	.165	.280	4
#12 - 24UNC		Z0366	Z1366	Z2366	Z3366	H6	2.374	.630	.906	.220	.165	.280	4
1/4 - 20UNC		Z0404	Z1404	Z2404	Z3404	H4	2.500	.858	1.000	.255	.191	.310	4
1/4 - 20UNC		Z0406	Z1406	Z2406	Z3406	H6	2.500	.858	1.000	.255	.191	.310	4
1/4 - 28UNF		Z0424	Z1424	Z2424	Z3424	H4	2.500	.858	1.000	.255	.191	.310	4
1/4 - 28UNF		Z0426	Z1426	Z2426	Z3426	H6	2.720	.858	1.000	.255	.191	.310	4
5/16 - 18UNC		Z0445	Z1445	Z2445	Z3445	H5	2.720	.929	1.126	.318	.238	.380	4
5/16 - 18UNC		Z0447	Z1447	Z2447	Z3447	H7	2.720	.929	1.126	.318	.238	.380	4
5/16 - 24UNF		Z0465	Z1465	Z2465	Z3465	H5	2.720	.929	1.126	.318	.238	.380	4
5/16 - 24UNF		Z0467	Z1467	Z2467	Z3467	H7	2.937	.929	1.126	.318	.238	.380	4
3/8 - 16UNC		Z0485	Z1485	Z2485	Z3485	H5	2.937	.980	1.252	.381	.286	.440	4
3/8 - 16UNC		Z0487	Z1487	Z2487	Z3487	H7	2.937	.980	1.252	.381	.286	.440	4
3/8 - 24UNF		Z0505	Z1505	Z2505	Z3505	H5	2.937	.980	1.252	.381	.286	.440	4
3/8 - 24UNF		Z0507	Z1507	Z2507	Z3507	H7	2.937	.980	1.252	.381	.286	.440	4
7/16 - 14UNC		Z0528	Z1528	Z2528	Z3528	H8	3.157	.949	1.437	.323	.242	.410	4
7/16 - 20UNF		Z0548	Z1548	Z2548	Z3548	H8	3.157	.949	1.437	.323	.242	.410	4
1/2 - 13UNC		Z0565	Z1565	Z2565	Z3565	H5	3.374	1.000	1.594	.367	.275	.440	4
1/2 - 13UNC		Z0568	Z1568	Z2568	Z3568	H8	3.374	1.000	1.594	.367	.275	.440	4

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

◎ : Excellent ○ : Good

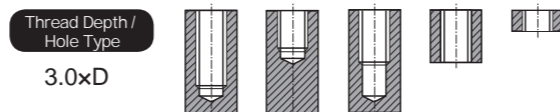
ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRC	13	25	28	32	30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

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		Z0708	Z1708	Z2708	Z3708	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

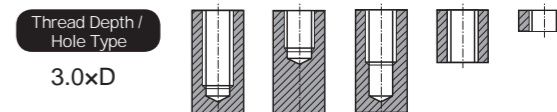
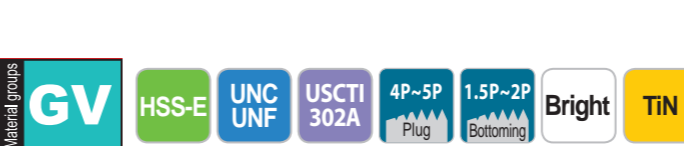
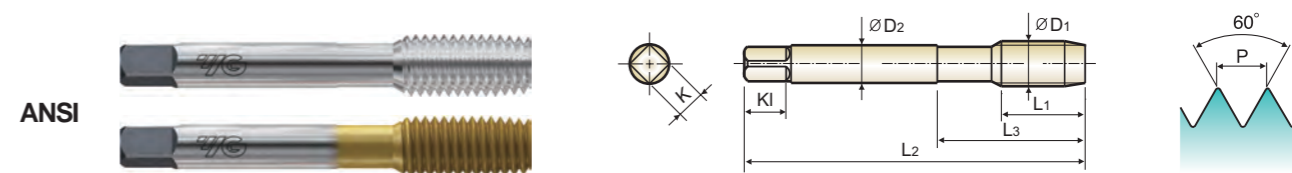
▶ Hardslck coating is available on your request (Bright Finish EDP No + H)

◎ : 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																				
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	◎	◎	○	○		◎	◎														

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

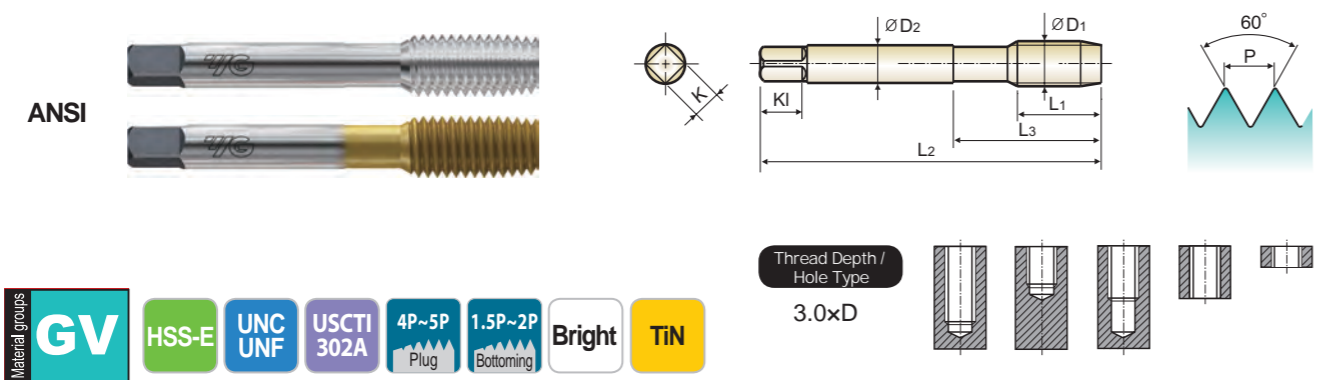
ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30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



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									
		Bright	TiN	Bright	TiN								
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 - 20UNF		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

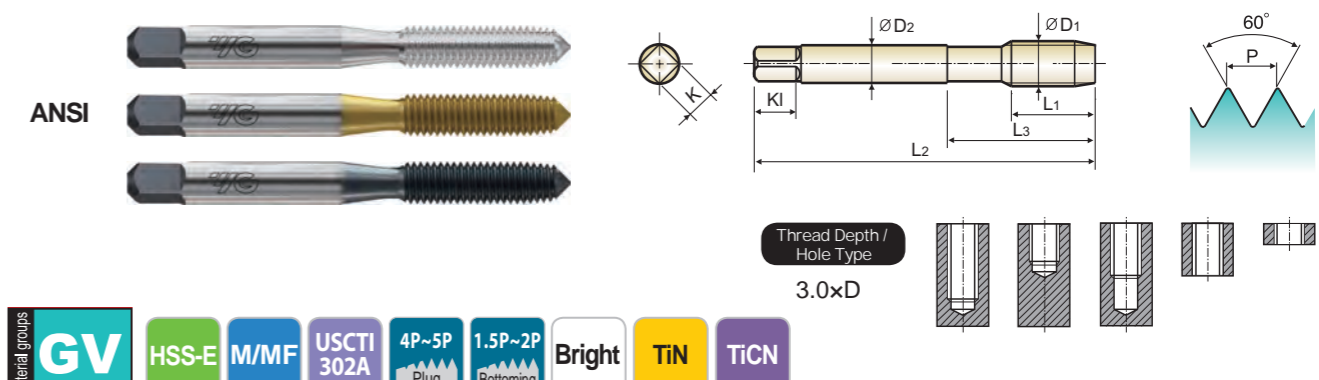
ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30	10	29	32	38	15	35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



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								
		Bright	TiN	TiCN								
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										
		Bright	TiN	TiCN								
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

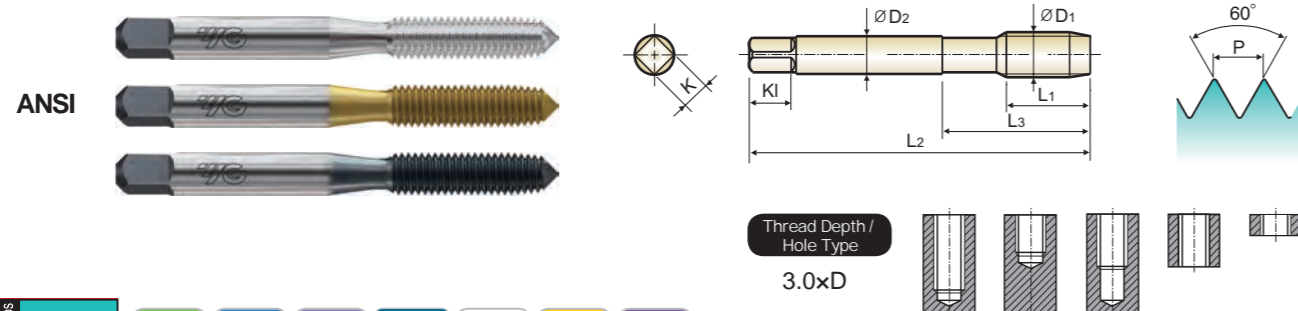
ISO	P										M				K			H			
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30	10	29	32	38	15	35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



T7R01/T8R01/THR01 SERIES

FORMING TAPS PLUG STYLE for General Purpose



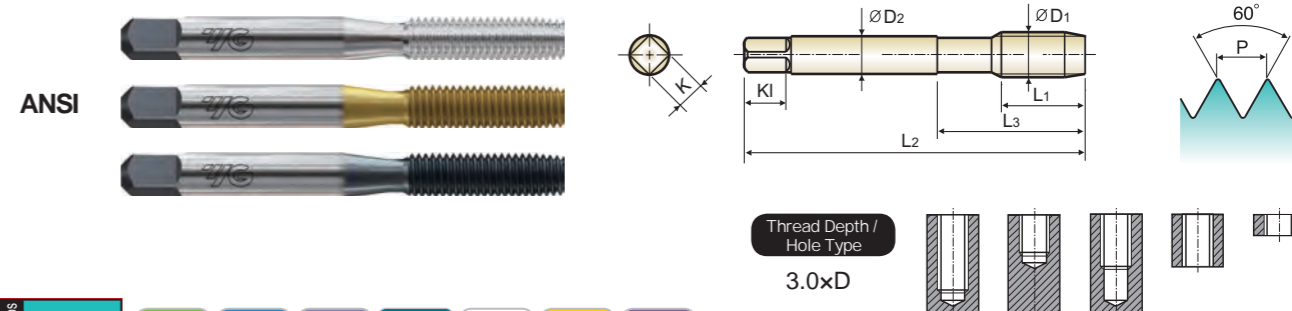
Unit : Inch

Size	TPI	EDP No.			Limit	Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobes
		Bright	Plug 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



T7R02/T8R02/THR02 SERIES

FORMING 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 Lobes
		Bottoming										
D1		Bright	TiN	TiCN		L2	L1	L3	D2	K	KI	
#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

◎ : 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	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	◎	◎	◎	◎	◎	◎	◎	◎													

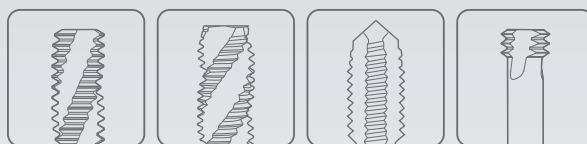
◎ : Excellent ○ : Good

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	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	◎	◎	◎	◎	◎	◎	◎	◎													



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

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



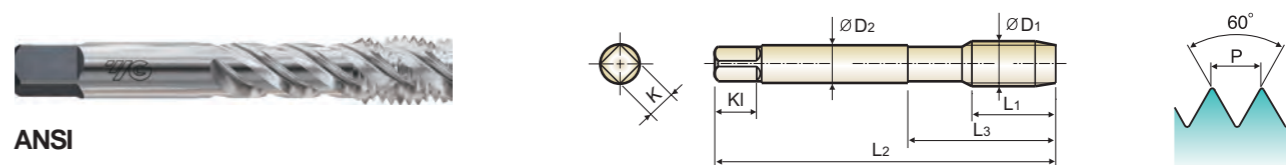
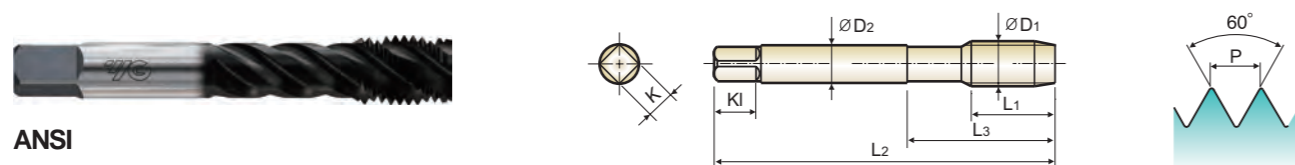
ST/SI SERIES



T7406 SERIES

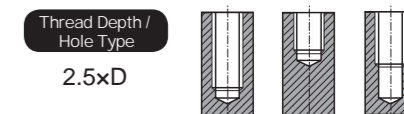
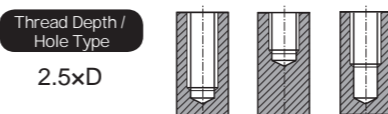
SPIRAL FLUTE STI TAP BOTTOMING STYLE

SPIRAL FLUTE STI TAP BOTTOMING STYLE HIGH HELIX for General Purpose



ANSI

ANSI



Unit : Inch

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

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 - 20UNF		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 - 18UNF		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 - 16UNF		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

▶ NEXT PAGE

◎ : Excellent ○ : Good

◎ : 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	○	○	○	○																	

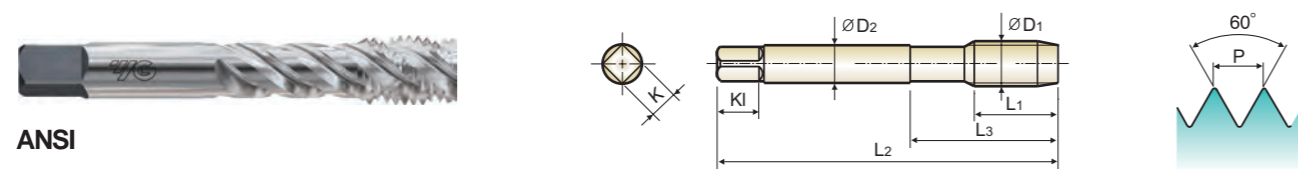
ISO	P										M				K				H				
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular cast iron		Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
HRC	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3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

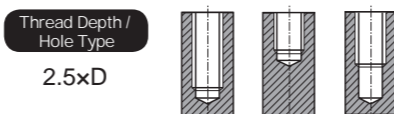
YG SCREW THREAD INSERT TAP

T7406 SERIES

SPIRAL FLUTE STI TAP BOTTOMING STYLE HIGH HELIX for General Purpose



ANSI



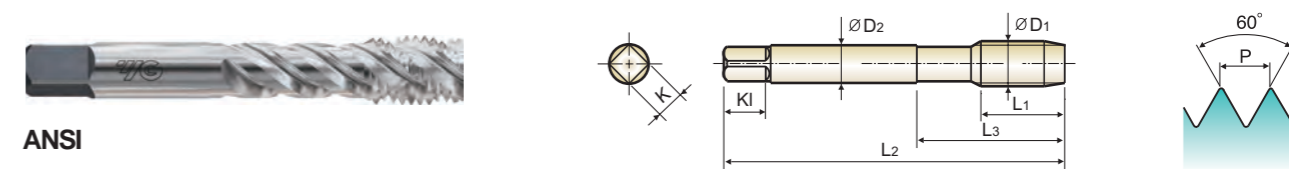
Unit : Inch

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

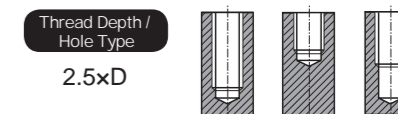
YG SCREW THREAD INSERT TAP

T7425 SERIES

SPIRAL FLUTE STI TAP BOTTOMING STYLE HIGH HELIX for General Purpose



ANSI



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	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

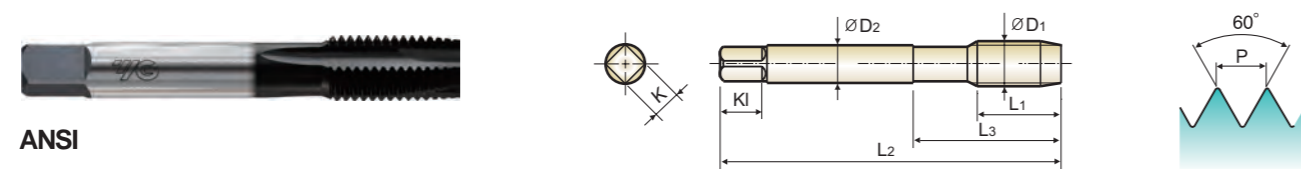
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc		13	25	28	32	10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

ST/SI SERIES

SPIRAL POINT STI TAP PLUG STYLE



ANSI



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	
#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

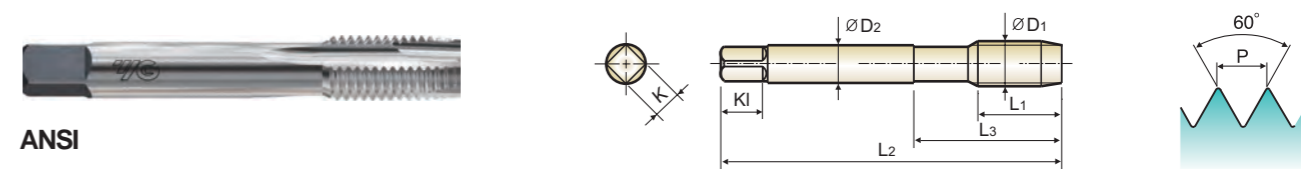
ISO	P										M				K							
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
HRc		13	25	28	32	10	29	32	38	15	35	15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

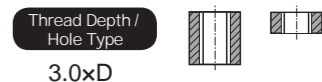
YG SCREW THREAD INSERT TAP

T7436 SERIES

SPIRAL POINT STI TAP PLUG STYLE for General Purpose



ANSI



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	KI	
#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

▶ NEXT PAGE

◎ : Excellent ○ : Good

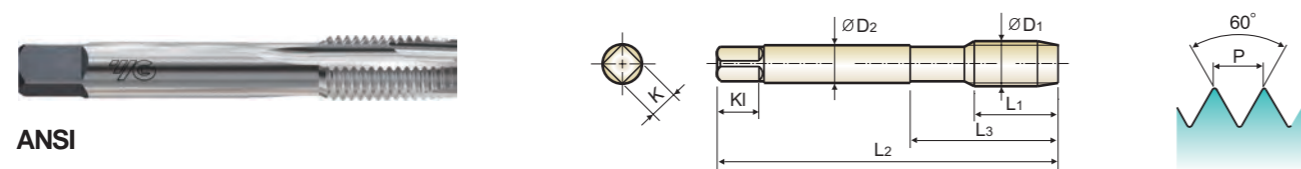
ISO	P										M				K							
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
HRc		13	25	28	32	10	29	32	38	15	35	15	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	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 3.0xD

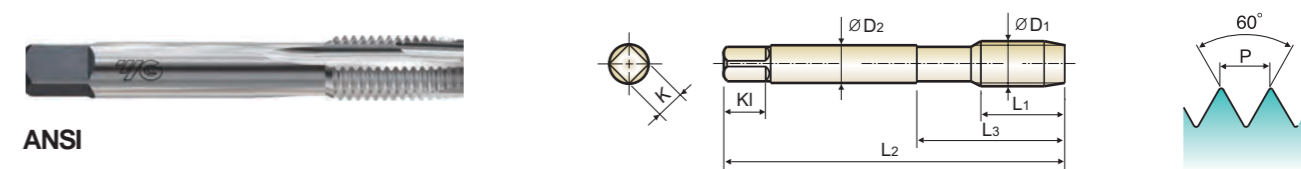
Unit : Inch

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	
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 3.0xD

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
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	○	○	○	○																	

◎ : Excellent ○ : Good

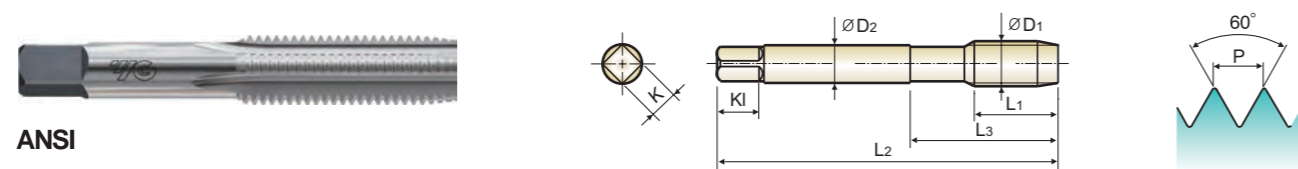
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21	
HB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

YG SCREW THREAD INSERT TAP

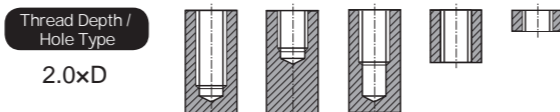
T7426 SERIES

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

▶ NEXT PAGE

◎ : Excellent ○ : Good

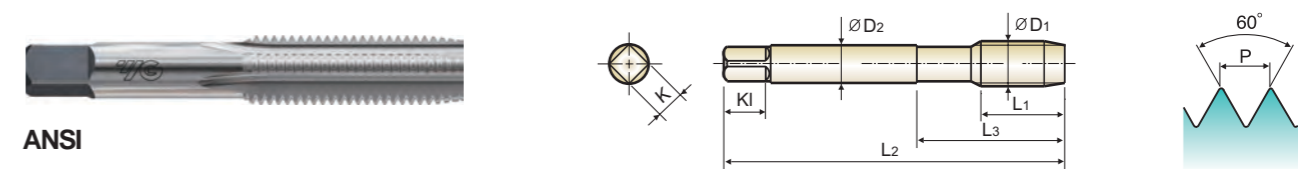
ISO	P										M				K			H		
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	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	○	○	○	○																	

YG SCREW THREAD INSERT TAP

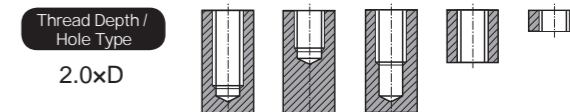
T7426 SERIES

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



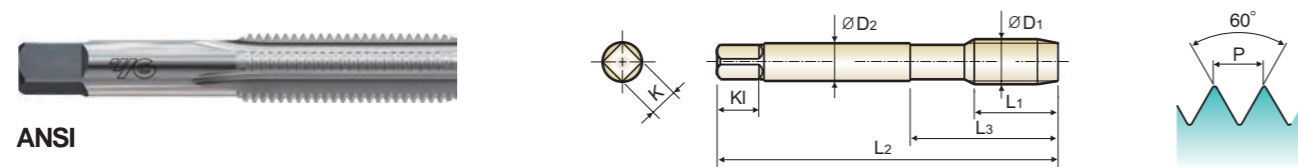
Unit : Inch

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

Y/G SCREW THREAD INSERT TAP

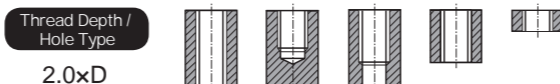
T7405 SERIES

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

© : 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	400Rm	1050Rm	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 & HSS PIPE TAP

- For Tapping National Pipe Threads



Please visit globalyg1.com/mat for material search

© : Excellent ○ : Good

Table with columns for HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, and SERIES (M, M/MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF) and SURFACE TREATMENT / COATING (Bright, Steam Oxide, HardSlick). Includes images of HSS-E pipe taps.

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, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron, Aluminum-wrought alloy, Aluminum-cast, alloyed, Copper and Copper Alloys, Titanium Alloys, Hardened steel, Chilled Cast Iron, and Hardened Cast Iron.

Table with columns for HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, and SERIES (M, MF, UNC, UNC/UNF, UNC/UNF/UNS, UNC/UN8, NPT, NPTF, NPS/NPSF) and SURFACE TREATMENT / COATING (Bright, TiN, HardSlick, Nitrided Steam Oxide). Includes images of HSS-E pipe taps.

SELECTION GUIDE



HSS-E & HSS PIPE TAP

- For Tapping National Pipe Threads



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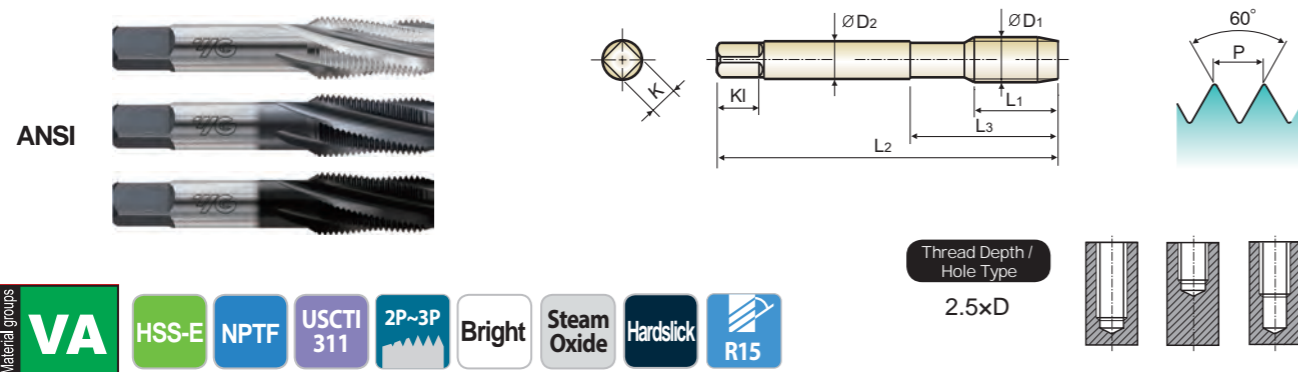
© : Excellent ○ : Good

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, SURFACE TREATMENT / COATING, MODEL. Includes rows for P, M, K, N, S, H series.



Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, SURFACE TREATMENT / COATING, MODEL. Includes rows for HSS, T7505, T6505, TH505, T7546, T8546, T6L36/T6536, T6L36/T6536.

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

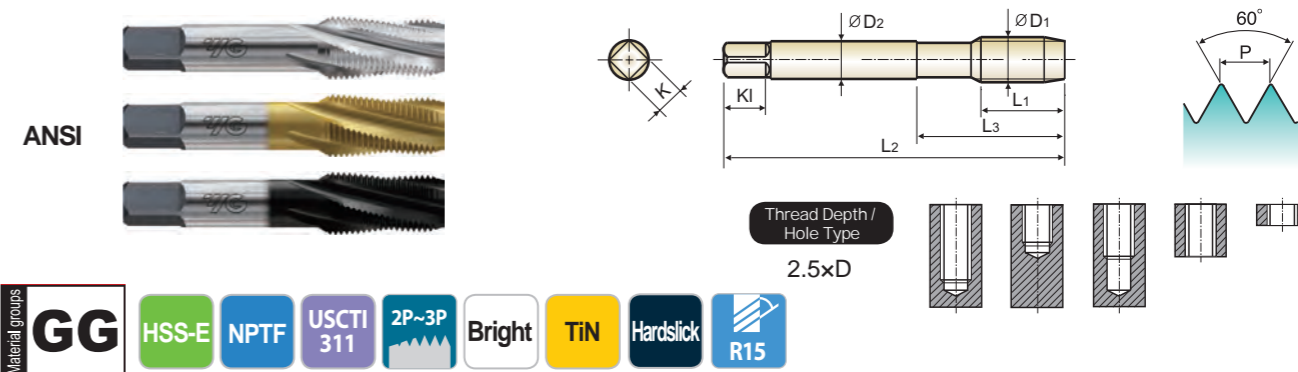


Unit : Inch

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	30	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	○	○	◎	○	○	◎	○	○	○			◎	◎	○			○	○			

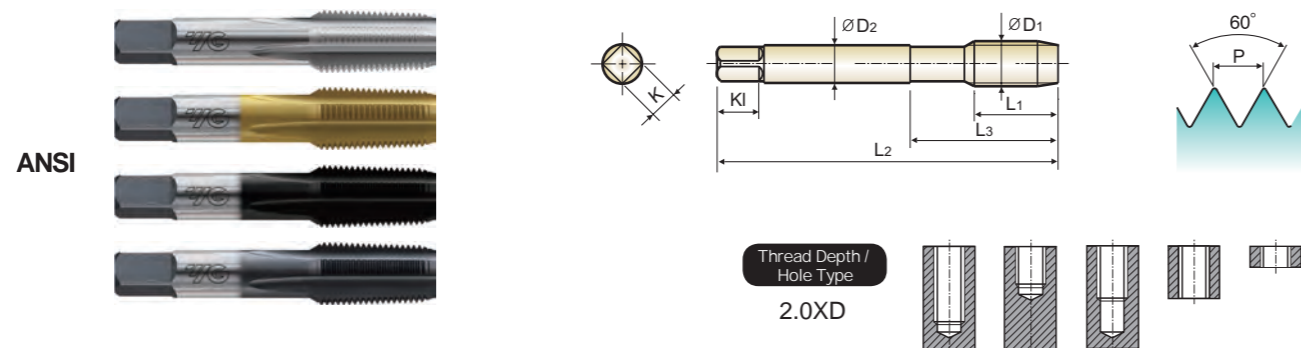
ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30	31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

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

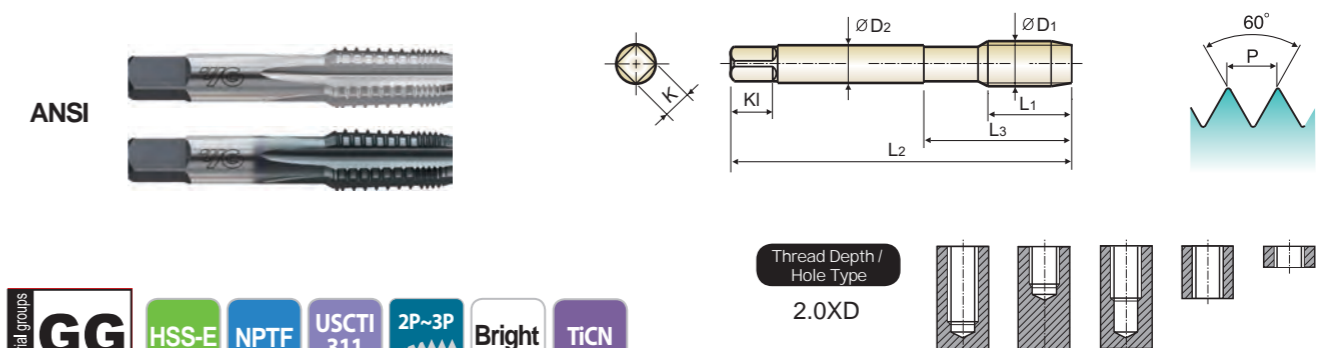
▶ These Taps meet both NPT and NPTF Standards.

◎ : 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																				
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	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																					

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

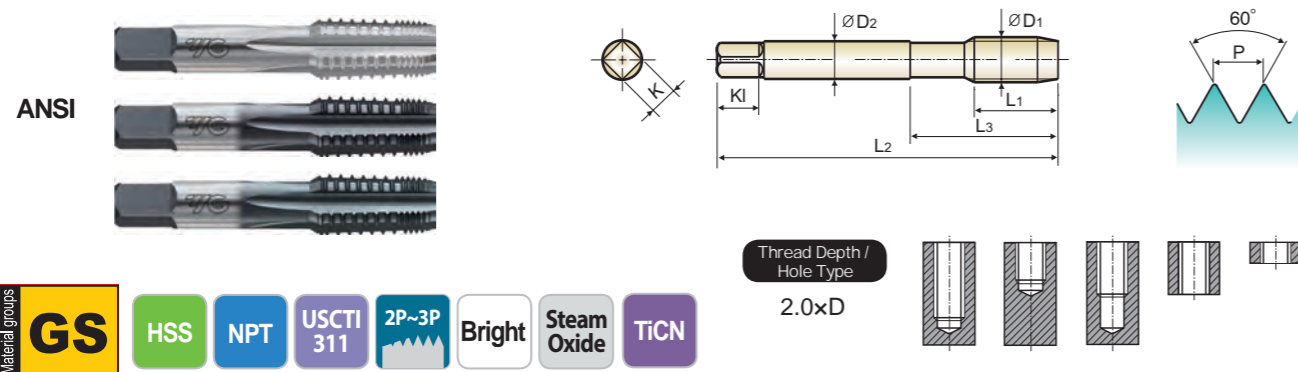
▶ These Taps meet both NPT and NPTF Standards.

◎ : 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																				
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	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																					

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



Unit : Inch

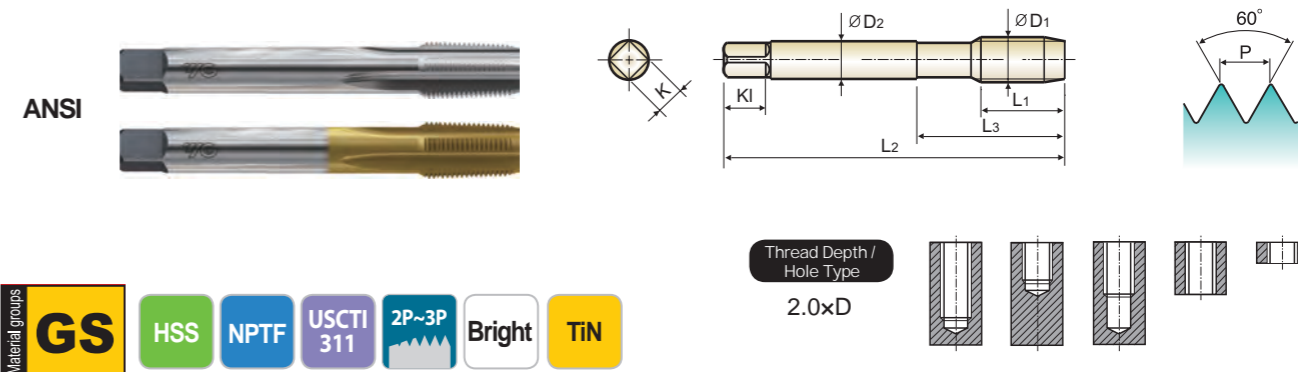
Size	TPI	EDP No.			Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide	TiCN							
NPT1/8 - 27		T7505200	T6505200	TH505200	2.130	.736	.906	.437	.328	.380	5
NPT1/8 - 27		T7505210	T6505210	TH505210	2.130	.748	-	.312	.234	.380	5
NPT1/4 - 18		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

◎ : 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
VDI 3323																				
HRc											15	30	25	38	34			55	60	42
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400
Recommended	○	○	○																	

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

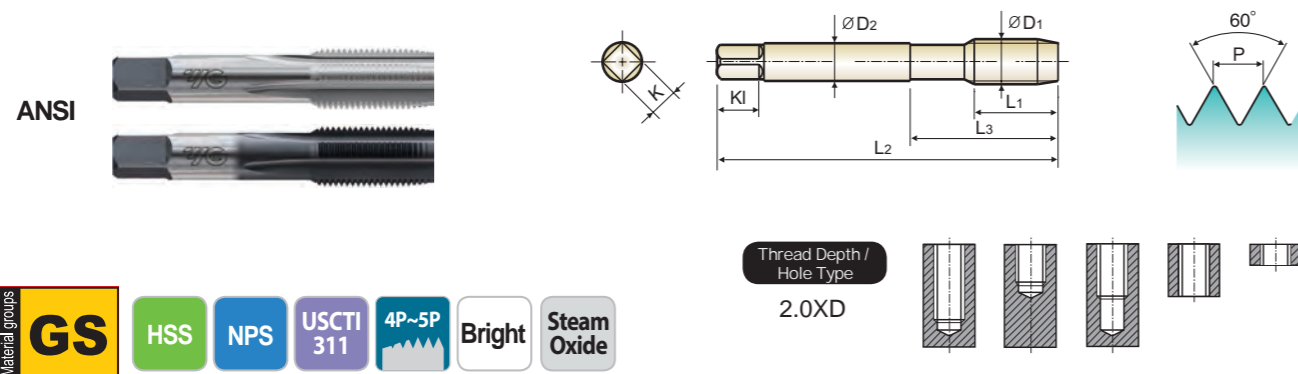
▶ These Taps meet both NPT and NPTF Standards.

◎ : Excellent ○ : Good

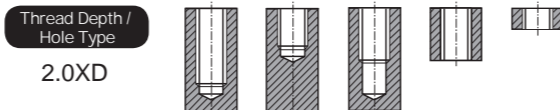
ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	30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

STRAIGHT PIPE TAP for General Purpose



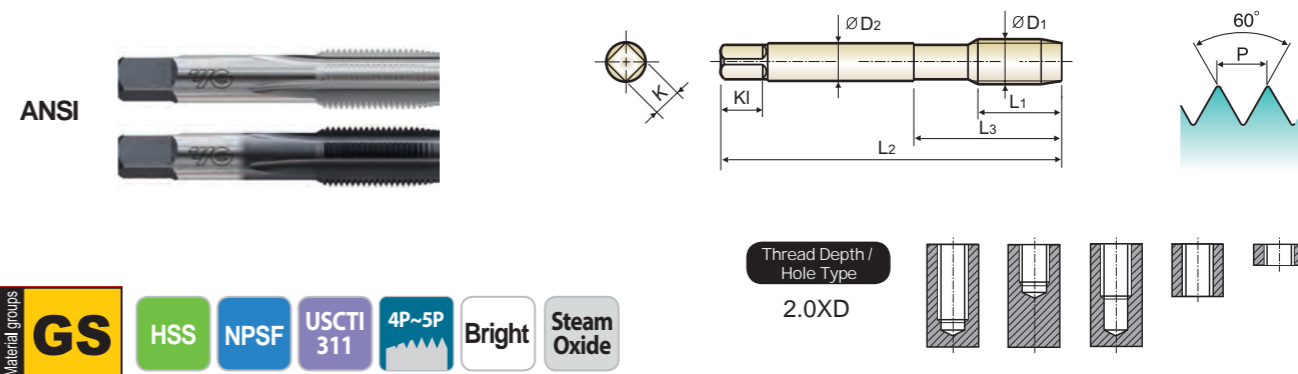
Material groups: **GS** (HSS, NPS, USCTI 311, 4P~5P, Bright, Steam Oxide)



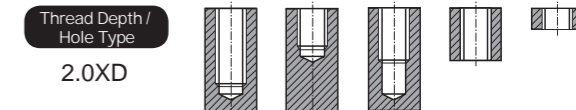
Unit : Inch

Size	TPI	EDP No.		Overall Length	Thread Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute
		Bright	Steam Oxide							
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



Material groups: **GS** (HSS, NPSF, USCTI 311, 4P~5P, Bright, 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							
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	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	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	○	○	○			○									○	○					

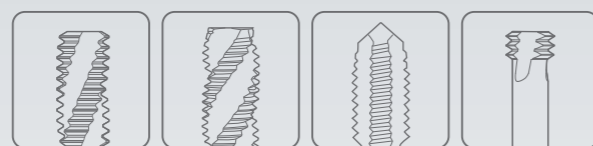
ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30	31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

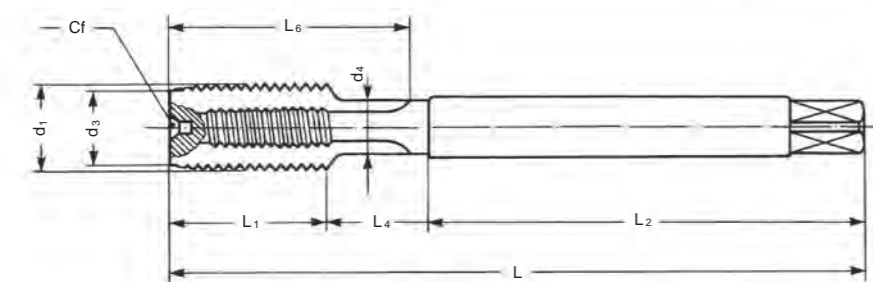
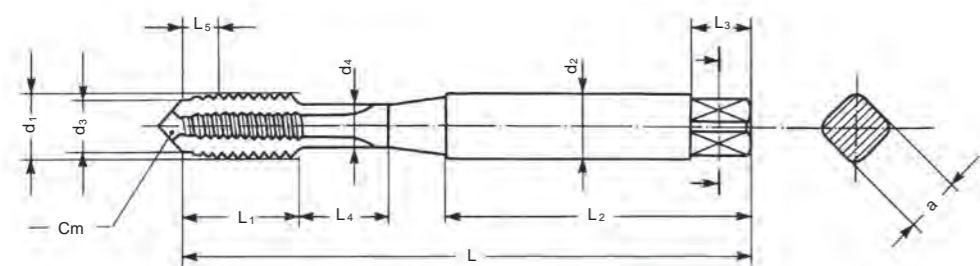


TAPS

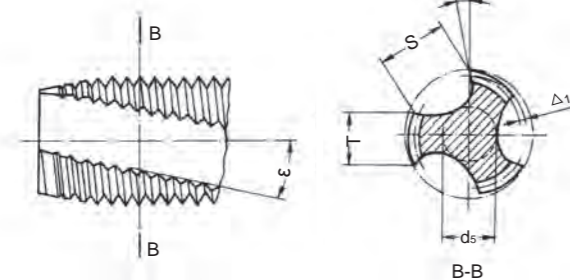
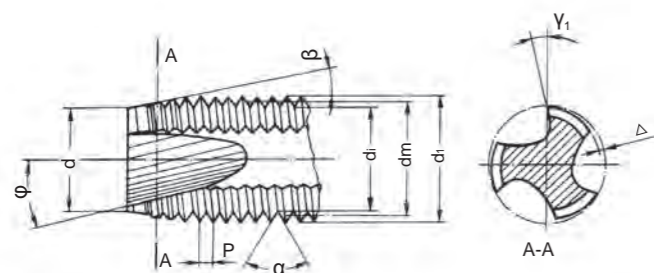
THREADING

TECHNICAL
DATA

TAPS TERMINOLOGY

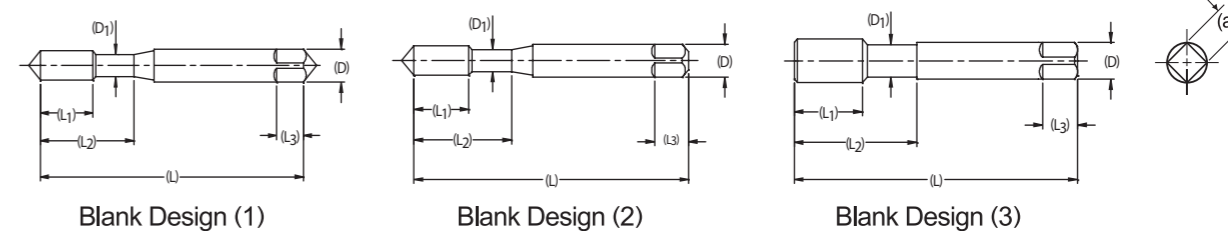


- d₁ Major diameter
- d₂ Shank diameter
- d₃ Chamfer diameter
- d₄ Neck diameter
- L Total length
- L₁ Thread length
- L₂ Shank length
- L₃ Square length
- L₄ Neck length
- L₅ Chamfer length
- L₆ Flutes length
- a Square size
- Cm Center male
- Cf Center female



- d₁ Major diameter
- d_m Flank diameter
- d₂ Minor diameter
- d₃ 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
- Rake angle
- T Width of land
- S Flute width
- ds Web thickness
- epsilon Angle of spiral flute

MODI TAP BLANK DIMENSION

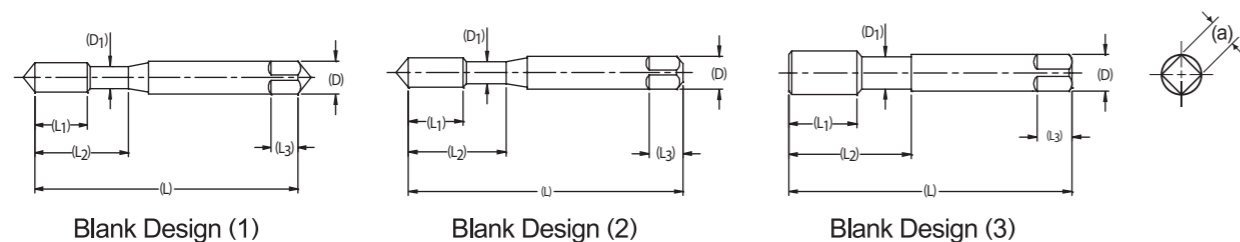


Unified Tap Blank

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

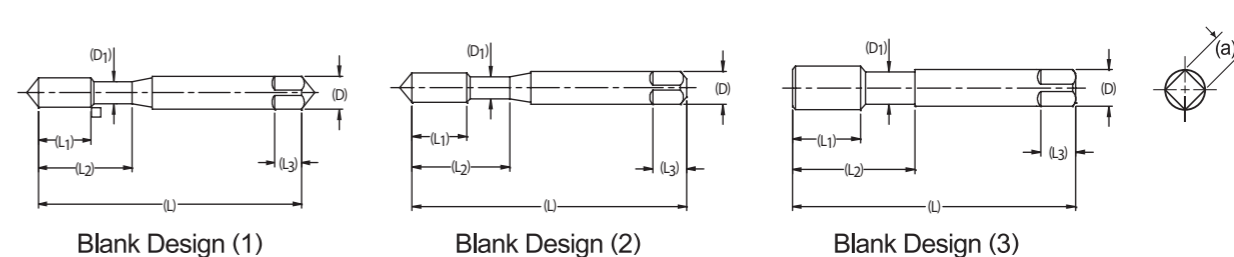


Metric Tap Blank

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

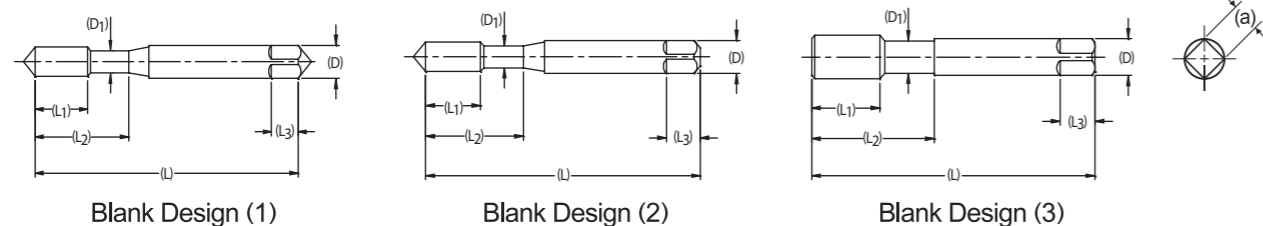
4 HIGH PERFORMANCE TAPS DIN LENGTH / ANSI SHANK - INCH



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

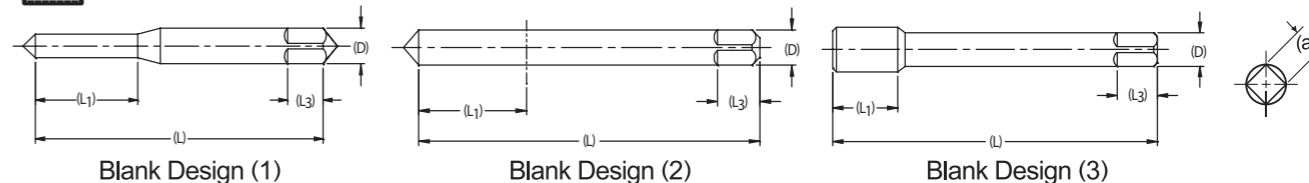
5 HIGH PERFORMANCE TAPS DIN LENGTH / ANSI SHANK - METRIC



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

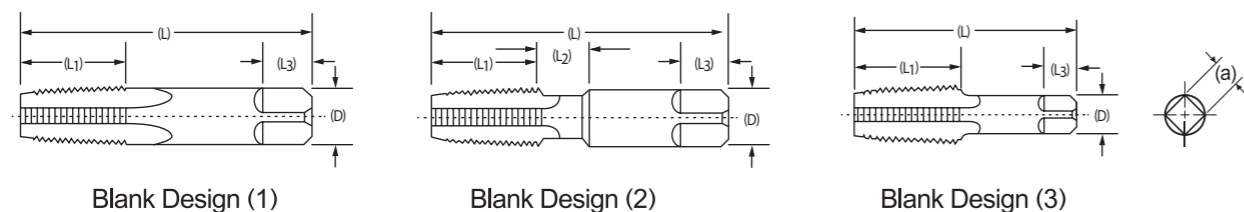
Nominal Size	Overall Length (L)	Thread Length (L ₁)	Shank Diameter (D)	Square Length (L ₃)	Square Size (A)	Blank Design No.
#0	1.63	.31	.141	.19	.110	1
#1	1.69	.38	.141	.19	.110	1
#2	1.75	.44	.141	.19	.110	1
#3	1.81	.50	.141	.19	.110	1
#4	1.88	.56	.141	.19	.110	1
#5	1.94	.63	.141	.19	.110	1
#6	2.00	.69	.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



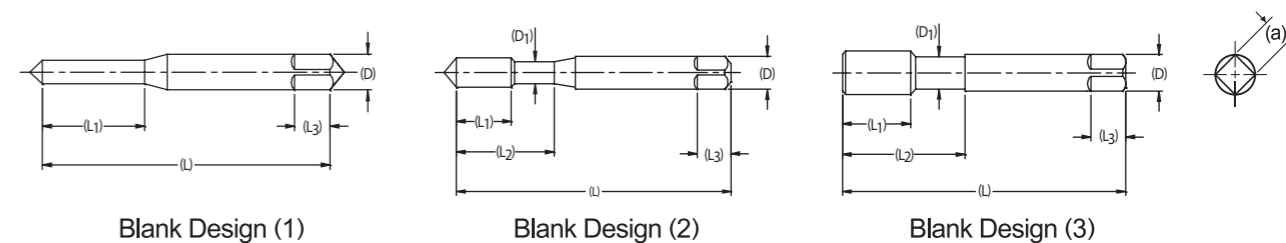
STANDARD PIPE TAP DIMENSION (STRAIGHT AND TAPER, GROUND THREAD)



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



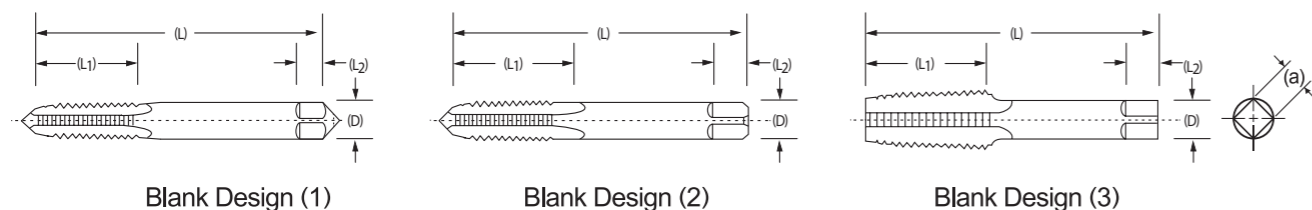
Forming Tap Blank (Inch)

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



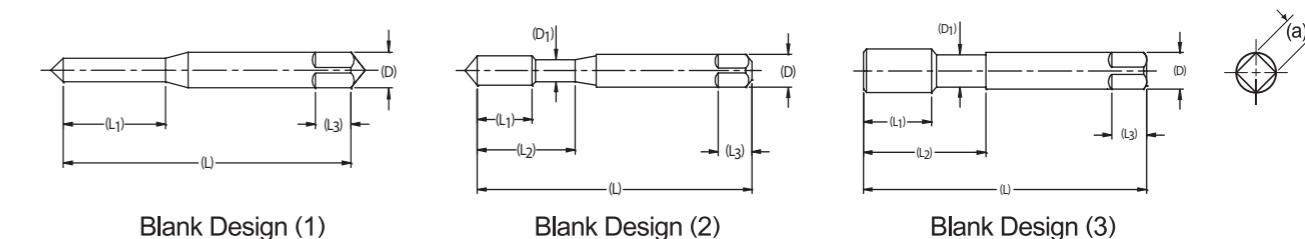
STI Tap blank (Inch)

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
	1.5100	2.0100	MINUS	.0030
Square Size - a	2.0100	4.0100	MINUS	.0030
	.0520	.5100	MINUS	.004
	.5100	1.0100	MINUS	.006
	1.0100	2.0100	MINUS	.008
	2.0100	4.0100	MINUS	.010



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

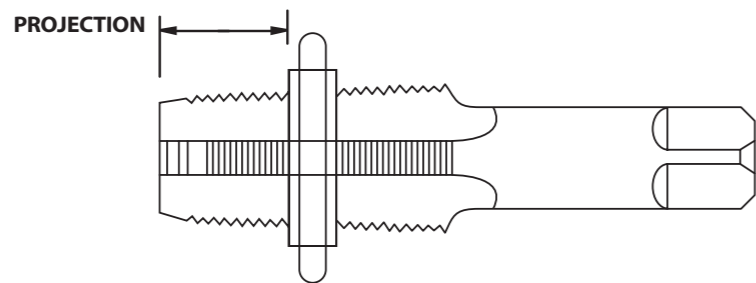
Size	Pitch		Major Diameter (Inches)			Pitch Diameter Limits (Inches)									
	Coarse	Fine	Basic	Min.	Max.	Basic Pitch Dia.	D2 Limit		D3 Limit		D4 Limit		D5 Limit		
							Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
M14	2	-	.5512	.5575	.5600	.5000	.5015	.5031	.5020	.5036	.5025	.5041	-	-	
	-	1.5	.5512	.5559	.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	
	-	2	.9449	.9512	.9537	.8938	.8952	.8968	.8957	.8973	.8962	.8978	-	-	
M27	3	-	1.0630	1.0725	1.0764	.9863	.9873	.9893	.9878	.9898	.9883	.9903	.9888	.9908	
	-	2	1.0630	1.0693	1.0718	1.0118	1.0133	1.0149	1.0138	1.0154	1.0143	1.0159	-	-	
M28	3	-	1.1024	1.1087	1.1112	1.0512	1.0527	1.0543	1.0532	1.0548	1.0537	1.0553	-	-	
	-	1.5	1.1024	1.1071	1.1096	1.0640	1.0659	1.0671	1.0664	1.0676	1.0669	1.0681	-	-	
M30	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	
	-	3	1.1811	1.1906	1.1945	1.1044	1.1054	1.1074	1.1059	1.1079	1.1064	1.1084	1.1069	1.1089	
M33	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	
	-	3	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	1.3056	1.3081	1.2481	1.2495	1.2511	1.2500	1.2516	1.2505	1.2521	-	-		
-	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)

Table with columns: Nominal Size Inches, Threads per Inch, Projection* Inches, Projection Tolerance + or -, Taper per Foot Limits (MIN., MAX.), Length (L1), Tap Drill Size** NPT, ANPT, NPTF. Rows include sizes from 1/16 to 4 inches.

* 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

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 #0 to 5/8.



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
5/8	-	-	-	12	.5350	.5530	.5463	.5384	.5438	.5492	.5546	.5601
	-	-	-	16	.5570	.5710	.5662	.5601	.5641	.5682	.5722	.5763
	-	18	-	-	.5650	.5780	.5730	.5673	.5709	.5745	.5781	.5817
	-	-	-	20	.5710	.5820	.5787	.5730	.5763	.5795	.5828	.5860
11/16	-	-	24	-	.5800	.5900	.5869	.5817	.5844	.5871	.5898	.5925
	-	-	-	28	.5860	.5950	.5926	.5879	.5902	.5925	.5948	.5972
	-	-	-	32	.5910	.5980	.5969	.5925	.5946	.5966	.5986	.6006
	-	-	-	12	.5970	.6150	.6085	.6009	.6063	.6117	.6171	.6226
3/4	-	-	-	16	.6200	.6340	.6284	.6226	.6266	.6307	.6347	.6388
	-	-	-	20	.6330	.6450	.6412	.6355	.6388	.6420	.6453	.6485
	-	-	24	-	.6420	.6520	.6494	.6442	.6469	.6496	.6523	.6550
	-	-	-	28	.6490	.6570	.6551	.6504	.6527	.6550	.6573	.6597
13/16	-	-	-	32	.6540	.6610	.6594	.6550	.6571	.6591	.6611	.6631
	10	-	-	-	.6420	.6630	.6545	.6461	.6526	.6591	.6656	.6721
	-	-	-	12	.6600	.6780	.6707	.6634	.6688	.6742	.6796	.6851
	-	16	-	-	.6820	.6960	.6908	.6851	.6891	.6932	.6972	.7013
7/8	-	-	20	-	.6960	.7070	.7037	.6980	.7013	.7045	.7078	.7110
	-	-	-	28	.7110	.7200	.7176	.7129	.7152	.7175	.7198	.7222
	-	-	-	32	.7160	.7240	.7219	.7175	.7196	.7216	.7236	.7256
	-	-	-	12	.7220	.7400	.7329	.7259	.7313	.7367	.7421	.7476
15/16	-	-	-	16	.7450	.7590	.7533	.7476	.7516	.7557	.7597	.7638
	-	-	20	-	.7580	.7700	.7662	.7605	.7638	.7670	.7703	.7735
	-	-	-	28	.7740	.7820	.7801	.7754	.7777	.7800	.7823	.7847
	-	-	-	32	.7790	.7860	.7844	.7800	.7821	.7841	.7861	.7881
1	9	-	-	-	.7550	.7780	.7681	.7595	.7668	.7740	.7812	.7884
	-	-	-	12	.7850	.8030	.7948	.7884	.7938	.7992	.8046	.8101
	-	14	-	-	.7980	.8140	.8068	.8008	.8054	.8101	.8147	.8193
	-	-	-	16	.8070	.8210	.8158	.8101	.8141	.8182	.8222	.8263
1-1/16	-	-	20	-	.8210	.8320	.8287	.8230	.8263	.8295	.8328	.8360
	-	-	-	28	.8360	.8450	.8426	.8379	.8402	.8425	.8448	.8472
	-	-	-	32	.8410	.8490	.8469	.8425	.8446	.8466	.8486	.8506
	-	-	-	12	.8470	.8650	.8575	.8509	.8563	.8617	.8671	.8726
1-1/8	-	-	-	16	.8700	.8840	.8783	.8726	.8766	.8807	.8847	.8888
	-	-	20	-	.8830	.8950	.8912	.8855	.8888	.8920	.8953	.8985
	-	-	-	28	.8990	.9070	.9051	.9004	.9027	.9050	.9073	.9097
	-	-	-	32	.9040	.9110	.9094	.9050	.9071	.9091	.9111	.9131
1-1/4	8	-	-	-	.8650	.8900	.8797	.8701	.8782	.8863	.8945	.9026
	-	12	-	-	.9100	.9280	.9198	.9134	.9188	.9242	.9296	.9351
	-	-	-	16	.9320	.9460	.9408	.9351	.9391	.9432	.9472	.9513
	-	-	20	-	.9460	.9570	.9537	.9480	.9513	.9545	.9578	.9610
1-3/8	-	-	-	28	.9610	.9700	.9676	.9629	.9652	.9675	.9698	.9722
	-	-	-	32	.9660	.9740	.9719	.9675	.9696	.9716	.9736	.9756
	-	-	-	8	.9270	.9520	.9422	.9326	.9407	.9488	.9570	.9651
	-	-	-	12	.9720	.9900	.9823	.9759	.9813	.9867	.9921	.9976
1-1/2	-	-	-	16	.9950	1.0090	1.0033	.9976	1.0016	1.0057	1.0097	1.0138
	-	-	18	-	1.0020	1.0150	1.0105	1.0048	1.0084	1.0120	1.0156	1.0192
	-	-	-	20	1.0080	1.0200	1.0162	1.0105	1.0138	1.0170	1.0203	1.0235
	-	-	-	28	1.0240	1.0320	1.0301	1.0254	1.0277	1.0300	1.0323	1.0347
1-5/8	7	-	-	-	.9700	.9980	.9875	.9765	.9858	.9951	1.0044	1.0137
	-	-	-	8	.9900	1.0150	1.0047	.9951	1.0032	1.0113	1.0195	1.0276
	-	12	-	-	1.0350	1.0530	1.0448	1.0384	1.0438	1.0492	1.0546	1.0601
	-	-	-	16	1.0570	1.0710	1.0658	1.0601	1.0641	1.0682	1.0722	1.0763
1-3/4	-	-	18	-	1.0650	1.0780	1.0730	1.0673	1.0709	1.0745	1.0781	1.0817
	-	-	-	20	1.0710	1.0820	1.0787	1.0730	1.0763	1.0795	1.0828	1.0860



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
1-1/8	-	-	-	28	1.0860	1.0950	1.0926	1.0879	1.0902	1.0925	1.0948	1.0972
	-	-	-	8	1.0520	1.0770	1.0672	1.0576	1.0657	1.0738	1.0820	1.0901
1-3/16	-	-	-	12	1.0970	1.1150	1.1073	1.1009	1.1063	1.1117	1.1171	1.1226
	-	-	-	16	1.1200	1.1340	1.1283	1.1226	1.1266	1.1307	1.1347	1.1388
	-	-	18	-	1.1270	1.1400	1.1355	1.1298	1.1334	1.1370	1.1406	1.1442
	-	-	-	20	1.1330	1.1450	1.1412	1.1355	1.1388	1.1420	1.1453	1.1485
1-1/4	-	-	-	28	1.1490	1.1570	1.1551	1.1504	1.1527	1.1550	1.1573	1.1597
	7	-	-	-	1.0950	1.1230	1.1125	1.1015	1.1108	1.1201	1.1294	1.1387
	-	-	-	8	1.1150	1.1400	1.1297	1.1201	1.1282	1.1363	1.1445	1.1526
	-	12	-	-	1.1600	1.1780	1.1698	1.1634	1.1688	1.1742	1.1796	1.1851
1-5/16	-	-	-	16	1.1820	1.1960	1.1908	1.1851	1.1891	1.1932	1.1972	1.2013
	-	-	18	-	1.1900	1.2030	1.1980	1.1923	1.1959	1.1995	1.2031	1.2067
	-	-	-	20	1.1960	1.2070	1.2037	1.1980	1.2013	1.2045	1.2078	1.2110
	-	-	-	28	1.2110	1.2200	1.2176	1.2129	1.2152	1.2175	1.2198	1.2222
1-3/8	-	-	-	8	1.1770	1.2020	1.1922	1.1826	1.1907	1.1988	1.2070	1.2151
	-	-	-	12	1.2220	1.2400	1.2323	1.2259	1.2313	1.2367	1.2421	1.2476
	-	-	-	16	1.2450	1.2590	1.2533	1.2476	1.2516	1.2557	1.2597	1.2638
	-	-	18	-	1.2520	1.2650	1.2605	1.2548	1.2584	1.2620	1.2656	1.2692
1-1/2	-	-	-	20	1.2580	1.2700	1.2662	1.2605	1.2638	1.2670	1.2703	1.2735
	-	-	-	28	1.2740	1.2820	1.2801	1.2754	1.2777	1.2800	1.2823	1.2847
	6	-	-	-	1.1950	1.2250	1.2146	1.2018	1.2126	1.2235	1.2343	1.2451
	-	-	-	8	1.2400	1.2650	1.2547	1.2451	1.2532	1.2613	1.2695	1.2776
1-5/8	-	12	-	-	1.2850	1.3030	1.2948	1.2884	1.2938	1.2992	1.3046	1.3101
	-	-	-	16	1.3070	1.3210	1.3158	1.3101	1.3141	1.3182	1.3222	1.3263
	-	-	18	-	1.3150	1.3280	1.3230	1.3173	1.3209	1.3245	1.3281	1.3317
	-	-	-	20	1.3210	1.3320	1.3287	1.3230	1.3263	1.3295	1.3328	1.3360
1-3/4	-	-	-	28	1.3360	1.3450	1.3426	1.3379	1.3402	1.3425	1.3448	1.3472
	-	-	-	6	1.2570	1.2880	1.2771	1.2643	1.2751	1.2860	1.2968	1.3076
	-	-	-	8	1.3020	1.3270	1.3172	1.3076	1.3157	1.3238	1.3320	1.3401
	-	-	-	12	1.3470	1.3650	1.3573	1.3509	1.3563	1.3617	1.3671	1.3726
1-7/16	-	-	-	16	1.3700	1.3840	1.3783	1.3726	1.3766	1.3807	1.3847	1.3888
	-	-	18	-	1.3770	1.3900	1.3855	1.3798	1.3834	1.3870	1.3906	1.3942
	-	-	-	20	1.3830	1.3950	1.3912	1.3855	1.3888	1.3920	1.3953	1.3985
	-	-	-	28	1.3990	1.4070	1.4051	1.4004	1.4027	1.4050	1.4073	1.4097
1-1/2	6	-	-	-	1.3200	1.3500	1.3396	1.3268	1.3376	1.3485	1.3593	1.3701
	-	-	-	8	1.3650	1.3900	1.3797	1.3701	1.3782	1.3863	1.3945	1.4026
	-	12	-	-	1.4100	1.4280	1.4198	1.4134	1.4188	1.4242	1.4296	1.4351
	-	-	-	16	1.4320	1.4460	1.4408	1.4351	1.4391	1.4432	1.4472	1.4513
1-5/8	-	-	18	-	1.4400	1.4520	1.4480	1.4423	1.4459	1.4495	1.4531	1.4567
	-	-	-	20	1.4460	1.4570	1.4537	1.4480	1.4513	1.4545	1.4578	1.4610
	-	-										



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
1-3/4	-	-	-	20	1.6330	1.6450	1.6412	1.6355	1.6388	1.6420	1.6453	1.6485
	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
1-13/16	-	-	-	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
	-	-	-	20	1.6960	1.7070	1.7037	1.6980	1.7013	1.7045	1.7078	1.7110
	-	-	-	6	1.6320	1.6630	1.6521	1.6393	1.6501	1.6610	1.6718	1.6826
1-7/8	-	-	-	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
1-15/16	-	-	-	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
2	-	-	-	20	1.8210	1.8320	1.8287	1.8230	1.8263	1.8295	1.8328	1.8360
	-	-	-	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
2-1/8	-	-	-	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
	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
2-1/4	-	-	-	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
	-	-	-	20	1.9460	1.9570	1.9537	1.9480	1.9513	1.9545	1.9578	1.9610
2-3/8	-	-	-	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
2-1/2	-	-	-	20	2.0710	2.0820	2.0787	2.0730	2.0763	2.0795	2.0828	2.0860
	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
2-3/4	-	-	-	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
	-	-	-	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
3	-	-	-	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
	-	-	-	20	2.3210	2.3320	2.3287	2.3230	2.3263	2.3295	2.3328	2.3360
3-1/2	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
4	-	-	-	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	2.029	2.098	2.04	.0803	2.06	.0810	2.07	.0816	2.09	.0822	2.11	.0829
	0.45	-	2.013	2.138	2.03	.0800	2.06	.0812	2.09	.0823	2.12	.0835	2.15	.0846
M3	-	0.35	2.121	2.221	2.14	.0841	2.16	.0850	2.18	.0859	2.20	.0868	2.23	.0877
	0.45	-	2.113	2.238	2.13	.0840	2.16	.0851	2.19	.0863	2.22	.0874	2.25	.0886
M3.5	-	0.35	2.221	2.321	2.24	.0880	2.26	.0889	2.28	.0898	2.30	.0907	2.33	.0916
	0.5	-	2.459	2.599	2.48	.0977	2.51	.0989	2.55	.1002	2.58	.1015	2.61	.1028
M4	-	0.35	2.621	2.721	2.64	.1038	2.66	.1047	2.68	.1056	2.70	.1065	2.73	.1074
	0.6	-	2.850	3.010	2.88	.1132	2.92	.1148	2.95	.1163	2.99	.1178	3.03	.1194
M4.5	-	0.35	3.121	3.221	3.14	.1235	3.16	.1244	3.18	.1253	3.20	.1262	3.23	.1271
	0.7	-	3.242	3.422	3.27	.1288	3.32	.1306	3.36	.1324	3.41	.1342	3.45	.1360
M5	-	0.5	3.459	3.599	3.48	.1370	3.51	.1383	3.55	.1396	3.58	.1409	3.61	.1421
	0.75	-	3.688	3.878	3.72	.1465	3.77	.1484	3.82	.1503	3.87	.1522	3.92	.1542
M5.5	-	0.5	3.959	4.099	3.98	.1567	4.01	.1580	4.05	.1593	4.08	.1605	4.11	.1618
	0.9	-	4.026	4.226	4.06	.1600	4.12	.1623	4.18	.1646	4.24	.1669	4.30	.1692
M6	-	0.5	4.134	4.334	4.17	.1641	4.22	.1662	4.27	.1682	4.32	.1703	4.38	.1723



Table with columns: Size, Pitch (M, MF), Minor dia. (Min. 6H, Max. 6H), Tap Drill Diameter (80% Thread, 75% Thread, 70% Thread, 65% Thread, 60% Thread). Rows include sizes M9 through M19.



Table with columns: Size, Pitch (M, MF), Minor dia. (Min. 6H, Max. 6H), Tap Drill Diameter (80% Thread, 75% Thread, 70% Thread, 65% Thread, 60% Thread). Rows include sizes M19 through M33.

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								



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	20	-	-	.1960	.2070	.2067	.2245	.2262	.2279	.2296	.2313
	-	28	-	.2110	.2200	.2190	.2318	.2330	.2342	.2354	.2366
5/16	18	-	-	.2520	.2650	.2630	.2842	.2861	.2879	.2898	.2917
	-	24	-	.2670	.2770	.2754	.2913	.2927	.2941	.2955	.2969
3/8	16	-	-	.3070	.3210	.3182	.3431	.3453	.3474	.3495	.3516
	-	24	-	.3300	.3400	.3372	.3538	.3552	.3566	.3580	.3594
7/16	14	-	-	.3600	.3760	.3717	.4011	.4035	.4059	.4084	.4108
	-	20	-	.3830	.3950	.3916	.4120	.4137	.4154	.4171	.4188
1/2	13	-	-	.4170	.4340	.4284	.4608	.4634	.4660	.4686	.4712
	-	20	-	.4460	.4570	.4537	.4745	.4762	.4779	.4796	.4813
9/16	12	-	-	.4720	.4900	.4843	.5200	.5228	.5257	.5285	.5313
	-	18	-	.5020	.5150	.5106	.5342	.5361	.5379	.5398	.5417
5/8	11	-	-	.5270	.5460	.5391	.5786	.5817	.5848	.5879	.5910
	-	18	-	.5650	.5780	.5730	.5967	.5986	.6004	.6023	.6042
3/4	10	-	-	.6420	.6630	.6545	.6990	.7024	.7058	.7092	.7126
	-	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). 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). Rows include sizes M10 through M30.



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		



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	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	1. Use spiral pointed or spiral fluted taps 2. Use larger drill size
Chattering on Tapped Thread	Tool Free Cutting	1. Reduce cutting angle 2. Reduce amount of thread relief
	Tool Condition	1. Do not grind the bottom of the flute 2. Avoid too narrow a land width

