YE24
EUROPE
2024 / 2025

ISO 9001 / ISO 14001

CUTTING TOOLS



THREADING

YG-1 CO., LTD.

THREADING TOOLS

SOLID CARBIDE THREAD MILL (with & without Coolant Holes)

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

HSS-PM PRIME TAP (Spiral Flute & Spiral Point)

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

HSS-E & HSS-PM YG TAP STEEL

HSS-E YG TAP CHIP BREAKER

HSS-E & HSS-PM YG TAP INOX

SOLID CARBIDE & HSS-E YG TAP CAST IRON

SOLID CARBIDE & HSS-E YG TAP HARDENED

HSS-PM YG TAP Ti Ni

HSS-E YG TAP ALU

HSS-E & HSS-PM YG TAP FORMING

HSS & HSS-E YG TAP GENERAL

HSS & HSS-E PIPE TAP

HSS-E SCREW THREAD INSERT TAP

HSS-E NUT TAP

TECHNICAL DATA

YG-1 CO., LTD.

CONTENTS

SOLID CARBIDE THREAD MILL

HSS-PM & HSS-E MACHINE TAP

HSS MACHINE TAP

SOLID CARBIDE & HSS MACHINE TAP

HSS MACHINE TAP

HSS MACHINE & HAND TAP

HSS PIPE TAP

HSS MACHINE TAP

TECHNICAL DATA

SOLID CARBIDE **THREAD MILL** (with & without Coolant Holes) — THREAD MILL
Threading Large Diameter in High Quality / Available with Chamfer

HSS-PM **SYNCHRO TAP** (Spiral Flute, Spiral Point, Straight Flute & Cold Forming) — SYNCHRO TAP
For High Speed Tapping on Rigid CNC Machine

HSS-PM **PRIME TAP** (Spiral Flute & Spiral Point) — PRIME TAP
Excellent Performance on Various Work Materials

HSS-E & HSS-PM **COMBO TAP** (Spiral Flute & Spiral Point) — COMBO TAP
For Multi Purpose Tapping

HSS-E & HSS-PM **YG TAP STEEL** — YG TAP STEEL
For Steel Materials but also other Long Chip Forming Materials

HSS-E **YG TAP CHIP BREAKER** — YG TAP CHIP BREAKER
TiN Coated Tap with Chip Breaker for Steel Materials

HSS-E & HSS-PM **YG TAP INOX** — YG TAP INOX
For Stainless Steels with Lamellar, Irregular Chip Formation where the Cutting Forces are Higher

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

SOLID CARBIDE & HSS-E **YG TAP HARDENED** — YG TAP HARDENED STEEL
For Hardened Steels Applications to Control the Continuous and Red-glowing Chips

HSS-PM **YG TAP Ti Ni** — YG TAP Ti Ni
For Heat Resistent Super Alloys and Titanium Alloys Applied with Cutting Edge Rake Angles and Thread Relief

HSS-E **YG TAP ALU** — YG TAP ALU
For long-chipping Aluminum Wrought Alloys with Large Chip Gullets to Avoid Clogging in the Threading Operations

HSS-E & HSS-PM **YG TAP FORMING** — YG TAP FORMING
Tapping by Forming Soft Materials

HSS & HSS-E **YG TAP GENERAL** — YG TAP GENERAL
Suitable for Tapping Blind / Through Holes due to Flute Geometry and Excellent Chip Evacuation

HSS & HSS-E **PIPE TAP** — PIPE TAP
Tapping Whitworth Pipe threads

HSS-E **SCREW THREAD INSERT TAP** — STI TAP
Tapping STI Threads of Soft Materials

HSS-E **NUT TAP** — NUT TAP
Nut Tapping Machines

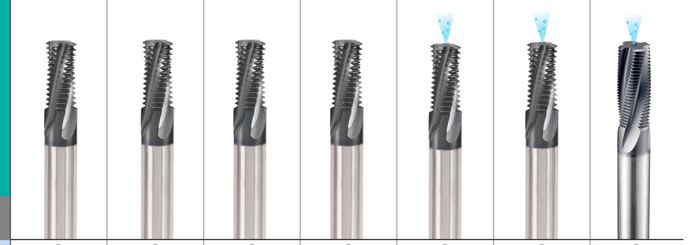
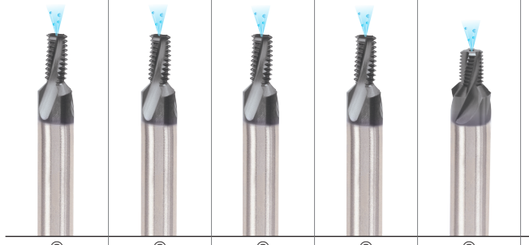
TECHNICAL DATA — TECHNICAL DATA

YG-1 CO., LTD.

SELECTION GUIDE

YG THREADING TOOLS

THREAD MILL

TYPE	Thread Mill without Coolant Hole				Thread Mill with Coolant Hole			Thread Mill with Coolant Hole & Chamfer					Miniature Thread Mill		Miniature Thread Mill for Hard Materials		Drill & Thread Mill with Chamfer
THREAD FORM	M	MF	UNC	UNF	M	MF	BSP(G)	M	MF	UNC	UNF	NPT	M	UNC	M	UNC	M
HOLE TYPE	Max. 2.0xD Blind /Through Hole	Max. 1.5xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	Max. 1.5xD Blind /Through Hole	Blind /Through Hole	Max. 2.0xD Blind /Through Hole	Max. 1.5xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	-	Max. 2.0xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole
TOOL MATERIAL	CARBIDE							CARBIDE									
FLUTE TYPE	Helix							Helix					Helix		Straight		Helix
HELIX ANGLE	R15							R15					R15		-		R25
SERIES NO.	L1211 (p.B36)	L1212 (p.B37)	L1213 (p.B38)	L1214 (p.B39)	L4211 (p.B40)	L4212 (p.B41)	L6215 (p.B42)	L4271 (p.B43)	L4272 (p.B44)	L4273 (p.B45)	L4274 (p.B46)	L4276 (p.B47)	L12D1 (p.B48)	L12D3 (p.B49)	L19E1 (p.B50)	L19E3 (p.B51)	L41A1 /L42A1 (p.B52)
SURFACE TREATMENT	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	AlTiN	AlTiN	Bright / TiAlN
MODEL																	

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

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

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

SELECTION GUIDE

YG THREADING TOOLS

SYNCHRO TAP

HOLE TYPE			Max. 2.5xD Blind Hole		Max. 3.0xD Through Hole		Max. 2.0xD Blind/Through Hole	Max. 3.0xD Blind/Through Hole	
TOOL MATERIAL			HSS-PM						
CHAMFER LEAD ACC. TO DIN2197			C		B		C	C	E
FLUTE TYPE			Spiral Flute		Spiral Point		Straight Flute	Cold Forming	Cold Forming
SPIRAL FLUTE ANGLE			R45		-		-	-	-
SERIES	M	DIN371/376	TTS31 (p.B60)		TTS33 (p.B62)		TKS35 (p.B64)	TTS37 (p.B66)	TTS39 (p.B68)
		DIN352							
		DIN357/LONG							
	MF	DIN374		TTS32 (p.B61)		TTS34 (p.B63)	TKS36 (p.B65)	TTS38 (p.B67)	
		DIN2181							
	UNC	DIN371/376							
		DIN351							
	UNF	DIN371/374							
		DIN2181							
	BSW	DIN2182/2183							
		DIN351							
	G(BSP)	DIN5156/5157							
	EG-M	DIN371/376							
	EG-UNC	DIN371/376							
	EG-UNF	DIN371/374							
SURFACE TREATMENT			TiN		TiN		TiCN	TiN	
MODEL									

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

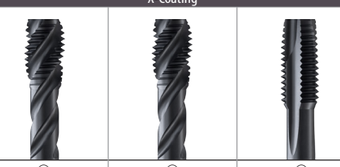
ISO	VDI 3323	Material Description	HB	HRc									
P	1	Non-alloy steel	125		◎	◎	◎	◎	○	○	◎	◎	◎
	2		190	13	◎	◎	◎	◎	○	○	◎	◎	◎
	3		250	25	◎	◎	◎	◎	○	○	◎	◎	◎
	4		270	28	◎	◎	◎	◎	○	○	◎	◎	◎
	5		300	32									
	6	Low alloy steel	180	10	◎	◎	◎	◎	○	○	◎	◎	◎
	7		275	29	◎	◎	◎	◎	○	○	◎	◎	◎
	8		300	32									
	9		350	38									
	10	High alloyed steel, and tool steel	200	15									
	11		325	35									
M	12	Stainless steel	200	15	◎	◎	◎	◎			◎	◎	◎
	13		240	23	◎	◎	◎	◎			◎	◎	◎
	14		180	10	○	○	○	○			◎	○	○
K	15	Grey cast iron	180	10	○	○	○	○	◎	◎			
	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	Non Metallic Materials											
	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	Max. 2.0xD Blind Hole	Max. 2.0xD Through Hole	Max. 3.0xD Blind/Through Hole	
TOOL MATERIAL	HSS-PM					
CHAMFER LEAD ACC. TO DIN2197	C	B	C	C	C	
FLUTE TYPE	Spiral Flute	Spiral Point	Straight Flute	Straight Flute	Cold Forming	
SPIRAL FLUTE ANGLE	R45	-	-	-	-	
	TTS41-IC (p.B69)	TTS42-RCP (p.B70)	TKS43-IC (p.B71)	TKS44-RCP (p.B72)	TTS45-RCP (p.B73)	
SURFACE TREATMENT	TiN		TiCN		TiN	
MODEL						

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							

PRIME TAP

HOLE TYPE	Max. 2.5xD Blind Hole		Max. 3.0xD Through Hole
TOOL MATERIAL	HSS-PM		
CHAMFER LEAD ACC. TO DIN2197	C	E	B
FLUTE TYPE	Spiral Flute	Spiral Flute	Spiral Point
SPIRAL FLUTE ANGLE	R45	R45	-
	TRE30 (p.B77)	TRE34 (p.B78)	TRJ15 (p.B83)
SURFACE TREATMENT	X-Coating		
MODEL			

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

SELECTION GUIDE

YG THREADING TOOLS

COMBO TAP

Max. 2.5xD Blind Hole

HSS-E

HOLE TYPE												
TOOL MATERIAL			HSS-E									
CHAMFER LEAD ACC. TO DIN2197			C	C	C	C	C	C	C	C	C	E
FLUTE TYPE			Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute
SPIRAL FLUTE ANGLE			R40	R40	R40	R40	R40	R40	R40	R40	R40	R40
SERIES	M	DIN371/376	TC804 (p.B94)	TD804 (p.B94)	TB804 (p.B94)	TCE05 (p.B96)	TDE05 (p.B96)	TBE05 (p.B96)	TCE06 (p.B97)	TDE06 (p.B97)	TBE06 (p.B97)	TCE07 (p.B98)
		DIN352										
		DIN357/LONG										
	MF	DIN374	TC844 (p.B100)	TD844 (p.B100)	TB844 (p.B100)	TCE09 (p.B103)	TDE09 (p.B103)					
		DIN2181										
	UNC	DIN371/376	TC824 (p.B108)	TD824 (p.B108)	TB824 (p.B108)	TCE01 (p.B109)	TDE01 (p.B109)					
		DIN351										
	UNF	DIN371/374	TC864 (p.B110)	TD864 (p.B110)	TB864 (p.B110)	TCE02 (p.B111)	TDE02 (p.B111)					
		DIN2181										
	BSW	DIN2182/2183										
		DIN351										
	G(BSP)	DIN5156/5157										
	EG-M	DIN371/376										
	EG-UNC	DIN371/376										
	EG-UNF	DIN371/374										
SURFACE TREATMENT			Bright	TiN	VAP	Bright	TiN	VAP	Bright	TiN	VAP	Bright
MODEL												

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

ISO	VDI 3323	Material Description	HB	HRc										
P	1	Non-alloy steel	125		○	○	○	○	○	○	○	○	○	○
	2		190	13	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	3		250	25	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	4		270	28	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	5		300	32	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	6	Low alloy steel	180	10	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	7		275	29	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	8		300	32	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	9		350	38	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	10	High alloyed steel, and tool steel	200	15	○	○	○	○	○	○	○	○	○	○
	11		325	35										
M	12	Stainless steel	200	15	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	13		240	23	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	14		180	10	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
K	15	Grey cast iron	180	10	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	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	Non Metallic Materials												
	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										

COMBO TAP

Max. 2.5xD Blind Hole

HSS-E

C	C	C	C	C	C	C	C	C	C	E	
Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	
R40	R40	R40	R40	R40	R40	R40	R40	R40	R40	R40	
TDE06 (p.B97)	TBE06 (p.B97)	TCE07 (p.B98)	TDE07 (p.B98)	TBE07 (p.B98)	TCE08 (p.B99)	TDE08 (p.B99)	TBE08 (p.B99)	TC804-IC (p.B105)		TC807 (p.B106)	M
									TC633 (p.B107)		
											MF
											UNC
											UNF
											BSW
											G(BSP)
											EG-M
											EG-UNC
											EG-UNF
TiN	VAP	Bright	TiN	VAP	Bright	TiN	VAP	Bright	Bright	Bright	
○	○	○	○	○	○	○	○	○	○	○	1
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	2
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	3
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	4
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	5
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	6 P
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	7
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	8
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	9
○	○	○	○	○	○	○	○	○	○	○	10
											11
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	12
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	13 M
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	14
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	15
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	16
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	17
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	18 K
											19
											20
											21
											22
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	23
											24
											25
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	26 N
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	27
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	28
											29
											30
											31
											32
											33
											34 S
											35
											36
											37
											38
											39
											40 H
											41

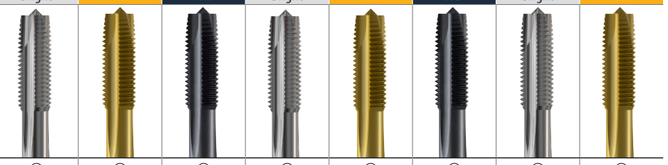
SELECTION GUIDE

YG THREADING TOOLS

COMBO TAP

Max. 3.0xD Through Hole

HSS-E

HOLE TYPE			Max. 3.0xD Through Hole							
TOOL MATERIAL			HSS-E							
CHAMFER LEAD ACC. TO DIN2197			B	B	B	B	B	B	B	B
FLUTE TYPE			Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point
SPIRAL FLUTE ANGLE			-	-	-	-	-	-	-	-
SERIES	M	DIN371/376	TC814 (p.B112)	TD814 (p.B112)	TB814 (p.B112)	TCJ05 (p.B114)	TDJ05 (p.B114)	TBJ05 (p.B114)	TCJ06 (p.B115)	TDJ06 (p.B115)
		DIN352								
		DIN357/LONG								
	MF	DIN374	TC854 (p.B118)	TD854 (p.B118)	TB854 (p.B118)	TCJ09 (p.B121)	TDJ09 (p.B121)			
		DIN2181								
	UNC	DIN371/376	TC834 (p.B125)	TD834 (p.B125)	TB834 (p.B125)	TCJ01 (p.B126)	TDJ01 (p.B126)			
		DIN351								
	UNF	DIN371/374	TC874 (p.B127)	TD874 (p.B127)	TB874 (p.B127)	TCJ02 (p.B128)	TDJ02 (p.B128)			
		DIN2181								
	BSW	DIN2182/2183								
		DIN351								
	G(BSP)	DIN5156/5157								
	EG-M	DIN371/376								
	EG-UNC	DIN371/376								
	EG-UNF	DIN371/374								
SURFACE TREATMENT			Bright	TiN	VAP	Bright	TiN	VAP	Bright	TiN
MODEL										

Please visit globalyg1.com/mat for material search

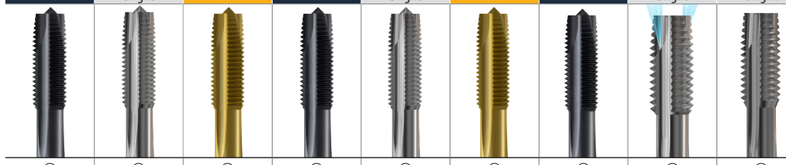
◎ : Excellent ○ : Good

ISO	VDI 3323	Material Description	HB	HRc								
P	1	Non-alloy steel	125		○	○	○	○	○	○	○	○
	2		190	13	◎	◎	◎	◎	◎	◎	◎	◎
	3		250	25	◎	◎	◎	◎	◎	◎	◎	◎
	4		270	28	◎	◎	◎	◎	◎	◎	◎	◎
	5		300	32	◎	◎	◎	◎	◎	◎	◎	◎
	6	Low alloy steel	180	10	◎	◎	◎	◎	◎	◎	◎	◎
	7		275	29	◎	◎	◎	◎	◎	◎	◎	◎
	8		300	32	◎	◎	◎	◎	◎	◎	◎	◎
	9		350	38	◎	◎	◎	◎	◎	◎	◎	◎
	10	High alloyed steel, and tool steel	200	15	○	○	○	○	○	○	○	○
	11		325	35								
M	12	Stainless steel	200	15	◎	◎	◎	◎	◎	◎	◎	◎
	13		240	23	◎	◎	◎	◎	◎	◎	◎	◎
	14		180	10	◎	◎	◎	◎	◎	◎	◎	◎
K	15	Grey cast iron	180	10	◎	◎	◎	◎	◎	◎	◎	◎
	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	Non Metallic Materials										
	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								

COMBO TAP

Max. 3.0xD Through Hole

HSS-E

B	B	B	B	B	B	B	B	B	
Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	
-	-	-	-	-	-	-	-	-	
TBJ06 (p.B115)	TCJ07 (p.B116)	TDJ07 (p.B116)	TBJ07 (p.B116)	TCJ08 (p.B117)	TDJ08 (p.B117)	TBJ08 (p.B117)	TC814-IC (p.B123)		M
								TC445 (p.B124)	
									MF
									UNC
									UNF
									BSW
									G(BSP)
									EG-M
									EG-UNC
									EG-UNF
VAP	Bright	TiN	VAP	Bright	TiN	VAP	Bright	Bright	
									

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

COMBO TAP SETS

Combo Spiral Flute Taps

TB804SET5	TC804SET7
VAP	Bright
5pcs	7pcs



Combo Spiral Flute Taps + Gold-P Drill

TD804SET7-GLP195

TiN

14pcs



p.B129

SELECTION GUIDE

YG
THREADING TOOLS

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

YG TAP STEEL

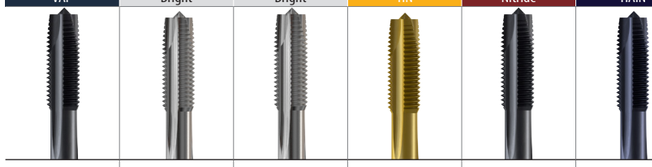
Max. 2.5xD Blind Hole

HOLE TYPE									
TOOL MATERIAL			HSS-PM		HSS-E				
CHAMFER LEAD ACC. TO DIN2197			C	C	C	C	C	C	C
FLUTE TYPE			Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute
SPIRAL FLUTE ANGLE			R40	R40	R40	R40	R40	R40	R40
SERIES	M	DIN371/376	TQ823 (p.B136)	TR823 (p.B137)	TC312 (p.B138)	TD312 (p.B139)	TB312 (p.B140)	TY312 (p.B141)	TB913 (p.B147)
		DIN352							
		DIN357/LONG							
	MF	DIN374			TC413 (p.B142)	TD413 (p.B143)			
		DIN2181							
	UNC	DIN371/376			TC174 (p.B144)	TD174 (p.B145)			
		DIN351							
	UNF	DIN371/374			TC184 (p.B146)				
		DIN2181							
	BSW	DIN2182/2183							
		DIN351							
	G(BSP)	DIN5156/5157							
	EG-M	DIN371/376							
	EG-UNC	DIN371/376							
	EG-UNF	DIN371/374							
SURFACE TREATMENT			VAP	Bright	Bright	TiN	VAP	TiAlN	VAP
MODEL									

ISO	VDI 3323	Material Description	HB	HRc							
P	1	Non-alloy steel	125								
	2		190	13	○	○	○	○	○	○	○
	3		250	25	○	○	○	○	○	○	○
	4		270	28	○	○	○	○	○	○	○
	5		300	32	◎	◎	◎	◎	◎	◎	◎
	6	Low alloy steel	180	10	○	○	○	○	○	○	○
	7		275	29	○	○	○	○	○	○	○
	8		300	32	◎	◎	◎	◎	◎	◎	◎
	9		350	38	◎	◎	◎	◎	◎	◎	◎
	10	High alloyed steel, and tool steel	200	15	○	○	○	○	○	○	○
	11		325	35							
M	12	Stainless steel	200	15							
	13		240	23							
	14		180	10	○	○	○	○	○	○	○
K	15	Grey cast iron	180	10							
	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	Non Metallic Materials									
	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 STEEL

Max. 3.0xD Through Hole

HSS-PM		HSS-E					
B	B	B	B	B	B		
Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point		
-	-	-	-	-	-		
TQ863 (p.B148)	TR863 (p.B149)	TC422 (p.B150)	TD422 (p.B151)	TE422 (p.B152)	TY422 (p.B153)		M
		TC263 (p.B154)	TD263 (p.B155)				MF
		TC244 (p.B156)	TD244 (p.B157)				UNC
		TC254 (p.B158)					UNF
							BSW
							G(BSP)
							EG-M
							EG-UNC
							EG-UNF
VAP	Bright	Bright	TiN	Nitride	TiAlN		
							

YG TAP CHIP BREAKER

Max. 2.5xD Blind Hole

HSS-E			
C	E	C	
Spiral Flute	Spiral Flute	Spiral Flute	
R15	R15	R15	
TDE24 (p.B163)	TDE26 (p.B165)	TDE28 (p.B167)	M
TDE25 (p.B164)	TDE27 (p.B166)	TDE29 (p.B168)	MF
			UNC
			UNF
			BSW
			G(BSP)
			EG-M
			EG-UNC
			EG-UNF
TiN			
			

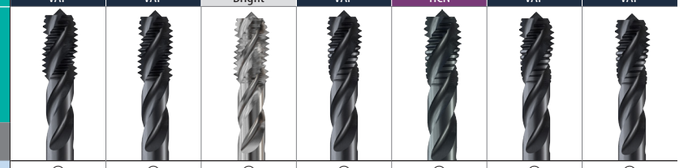
○	○	○								1
○	○	○	○	○	○	◎	◎	◎		2
○	○	○	○	○	○	◎	◎	◎		3
○	○	○	○	○	○					4
◎	◎	◎	◎	◎	◎					5
○	○	○	○	○	○	○	○	○	P	6
○	○	○	○	○	○	◎	◎	◎		7
◎	◎	◎	◎	◎	◎	◎	◎	◎		8
◎	◎	◎	◎	◎	◎	○	○	○		9
○	○	○	○	○	○	○	○	○		10
						○	○	○		11
○	○	○	○	○	○					12
○	○	○	○	○	○				M	13
○	○	○	○	○	○					14
										15
										16
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

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

SELECTION GUIDE

YG THREADING TOOLS

YG TAP INOX

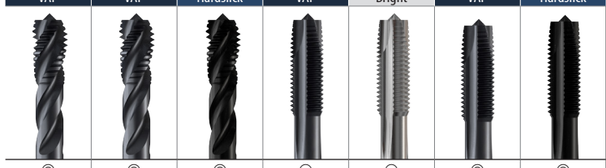
HOLE TYPE			Max. 2.0xD Blind Hole	Max. 2.5xD Blind Hole				
TOOL MATERIAL			HSS-E	HSS-PM		HSS-E		
CHAMFER LEAD ACC. TO DIN2197			C	C	C	C	C	C	C
FLUTE TYPE			Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute
SPIRAL FLUTE ANGLE			R40	R40	R40	R40	R40	R40	R40
SERIES	M	DIN371/376	TB711 (p.B174)	TQ813 (p.B175)	TR813 (p.B176)	TB914 (p.B177)	TI914 (p.B177)	TBE15 (p.B178)	TBE16 (p.B179)
		DIN352							
		DIN357/LONG							
	MF	DIN374				TB183 (p.B187)			
		DIN2181							
	UNC	DIN371/376				TB904 (p.B188)			
		DIN351							
	UNF	DIN371/374				TB924 (p.B189)			
		DIN2181							
	BSW	DIN2182/2183							
		DIN351							
	G(BSP)	DIN5156/5157							
	EG-M	DIN371/376							
	EG-UNC	DIN371/376							
	EG-UNF	DIN371/374							
SURFACE TREATMENT			VAP	VAP	Bright	VAP	TiCN	VAP	VAP
MODEL									

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

ISO	VDI 3323	Material Description	HB	HRc							
P	1	Non-alloy steel	125		◎	○	○	◎	◎	◎	◎
	2		190	13	◎	◎	◎	◎	◎	◎	◎
	3		250	25		○	○	○	○	○	○
	4		270	28		○	○	○	○	○	○
	5		300	32							
	6	Low alloy steel	180	10		○	○	○	○	○	○
	7		275	29							
	8		300	32							
	9		350	38							
	10	High alloyed steel, and tool steel	200	15							
	11		325	35							
M	12	Stainless steel	200	15	○	◎	◎	◎	◎	◎	◎
	13		240	23	○	◎	◎	◎	◎	◎	◎
	14		180	10	○	◎	◎	◎	◎	◎	◎
K	15	Grey cast iron	180	10							
	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	Non Metallic Materials									
	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			Max. 3.0xD Blind Hole		
TOOL MATERIAL			HSS-E			HSS-PM		HSS-E	
CHAMFER LEAD ACC. TO DIN2197			C	C	C	B	B	B	B
FLUTE TYPE			Spiral Flute	Spiral Flute	Spiral Flute	Spiral Point	Spiral Point	Spiral Point	Spiral Point
SPIRAL FLUTE ANGLE			R40	R40	R40	-	-	-	-
SERIES	M	DIN371/376	TBE17 (p.B180)	TBE18 (p.B181)	TCH14 (p.B182)	TQ853 (p.B183)	TR853 (p.B184)	TB623 (p.B185)	TCH23 (p.B186)
		DIN352							
		DIN357/LONG							
	MF	DIN374						TB123 (p.B190)	
		DIN2181							
	UNC	DIN371/376						TB264 (p.B191)	
		DIN351							
	UNF	DIN371/374						TB274 (p.B192)	
		DIN2181							
	BSW	DIN2182/2183							
		DIN351							
	G(BSP)	DIN5156/5157							
	EG-M	DIN371/376							
	EG-UNC	DIN371/376							
	EG-UNF	DIN371/374							
SURFACE TREATMENT			VAP	VAP	Hardslick	VAP	Bright	VAP	Hardslick
MODEL									

P	1	Non-alloy steel	125		◎	◎	◎	○	○	◎	◎		
	2		190	13	◎	◎	◎	◎	◎	◎	◎		
	3		250	25	○	○	○	○	○	○	○		
	4		270	28	○	○	○	○	○	○	○		
	5		300	32									
	6	Low alloy steel	180	10	○	○	○	○	○	○	○		
	7		275	29									
	8		300	32									
	9		350	38									
	10	High alloyed steel, and tool steel	200	15									
	11		325	35									
M	12	Stainless steel	200	15	◎	◎	◎	◎	◎	◎	◎		
	13		240	23	◎	◎	◎	◎	◎	◎	◎		
	14		180	10	◎	◎	◎	◎	◎	◎	◎		
K	15	Grey cast iron	180	10								◎	◎
	16		260	26								◎	◎
	17	Nodular cast iron	160	3								◎	◎
	18		250	25								◎	◎
	19	Malleable cast iron	130									○	○
	20		230	21								○	○
N	21	Aluminum-wrought alloy	60										
	22		100									◎	
	23	Aluminum-cast, alloyed	75										
	24		90									◎	
	25		130										
	26	Copper and Copper Alloys (Bronze / Brass)	110										
	27		90										○
	28		100										
	29	Non Metallic Materials											
	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 CAST IRON

HOLE TYPE			Max. 2.0xD Blind / Through Hole				
TOOL MATERIAL			CARBIDE	HSS-E			
CHAMFER LEAD ACC. TO DIN2197			C	C	C	C	C
FLUTE TYPE			Straight Flute	Straight Flute	Straight Flute	Straight Flute	Straight Flute
SPIRAL FLUTE ANGLE			-	-	-	-	-
SERIES	M	DIN371/376	T0993 (p.B197)	TE821 (p.B198)	TD821 (p.B199)	TI821 (p.B200)	TY821 (p.B201)
		DIN352					
		DIN357/LONG					
	MF	DIN374		TE403 (p.B202)			
		DIN2181					
	UNC	DIN371/376		TE434 (p.B203)			
		DIN351					
	UNF	DIN371/374		TE454 (p.B204)			
		DIN2181					
	BSW	DIN2182/2183					
		DIN351					
	G(BSP)	DIN5156/5157					
	EG-M	DIN371/376					
	EG-UNC	DIN371/376					
	EG-UNF	DIN371/374					
SURFACE TREATMENT			Bright	Nitride	TiN	TiCN	TiAlN
MODEL							

P	1	Non-alloy steel	125										
	2		190	13									
	3		250	25									
	4		270	28									
	5		300	32									
	6	Low alloy steel	180	10									
	7		275	29									
	8		300	32									
	9		350	38									
	10	High alloyed steel, and tool steel	200	15									
	11		325	35									
M	12	Stainless steel	200	15									
	13		240	23									
	14		180	10									
K	15	Grey cast iron	180	10	◎	◎	◎	◎	◎				
	16		260	26	◎	◎	◎	◎	◎				
	17	Nodular cast iron	160	3	◎	◎	◎	◎	◎				
	18		250	25	◎	◎	◎	◎	◎				
	19	Malleable cast iron	130		○	○	○	○	○				
	20		230	21	○	○	○	○	○				
N	21	Aluminum-wrought alloy	60										
	22		100		◎								
	23	Aluminum-cast, alloyed	75										
	24		90		◎								
	25		130										
	26	Copper and Copper Alloys (Bronze / Brass)	110										
	27		90			○	◎	◎	◎				
	28		100										
	29	Non Metallic Materials											
	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

YG
THREADING TOOLS

YG TAP HARDENED STEEL

HOLE TYPE			Max. 2.0xD Blind / Through Hole		Max. 2.5xD Blind Hole			Max. 3.0xD Through Hole	
TOOL MATERIAL			CARBIDE		HSS-E				
CHAMFER LEAD ACC. TO DIN2197			C	D	C	C	C	B	B
FLUTE TYPE			Straight Flute	Straight Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Point	Spiral Point
SPIRAL FLUTE ANGLE			-	-	R40	R40	R40	-	-
SERIES	M	DIN371/376	T0997-TIC (p.B210)	T0999-TIC (p.B211)	TC313 (p.B212)	TB313 (p.B213)	TY313 (p.B214)	TC283 (p.B215)	TY283 (p.B216)
		DIN352							
		DIN357/LONG							
	MF	DIN374							
		DIN2181							
	UNC	DIN371/376							
		DIN351							
	UNF	DIN371/374							
		DIN2181							
	BSW	DIN2182/2183							
		DIN351							
	G(BSP)	DIN5156/5157							
	EG-M	DIN371/376							
	EG-UNC	DIN371/376							
	EG-UNF	DIN371/374							
SURFACE TREATMENT			TiCN	TiCN	Bright	VAP	TiAlN	Bright	TiAlN
MODEL									

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

ISO	VDI 3323	Material Description	HB	HRc						
P	1	Non-alloy steel	125							
	2		190	13						
	3		250	25						
	4		270	28						
	5		300	32						
	6	Low alloy steel	180	10						
	7		275	29			○	○	○	○	○
	8		300	32			○	○	○	○	○
	9		350	38	○	○	◎	◎	◎	◎	◎
	10	High alloyed steel, and tool steel	200	15						
	11		325	35						
M	12	Stainless steel	200	15						
	13		240	23						
	14		180	10			○	○	○	○	○
K	15	Grey cast iron	180	10						
	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	Non Metallic Materials								
	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 Ti Ni

			Max. 2.5xD Blind Hole	Max. 3.0xD Through Hole	Max. 2.5xD Blind Hole	Max. 3.0xD Through Hole	Max. 2.5xD Blind Hole	Max. 3.0xD Through Hole				
			HSS-PM		HSS-PM							
			C	C	B	B	C	C	B	B	C	C	B	B
			Spiral Flute	Spiral Flute	Spiral Point	Spiral Point	Spiral Flute	Spiral Flute	Spiral Point	Spiral Point	Spiral Flute	Spiral Flute	Spiral Point	Spiral Point
			R25	R25	-	-	R40	R40	-	-	R40	R40	-	-
			TM903 (p.B222)	TZ903 (p.B223)	TM293 (p.B224)	TZ293 (p.B225)	TM933 (p.B226)	TZ933 (p.B227)	TM923 (p.B228)	TZ923 (p.B229)	TQ833 (p.B230)	TR833 (p.B231)	TQ873 (p.B232)	TR873 (p.B233)
SURFACE TREATMENT			Bright	TiAlN	Bright	TiAlN	Bright	TiAlN	Bright	TiAlN	VAP	Bright	VAP	Bright
MODEL														
P	1													
	2													
	3													
	4													
	5													
	6						◎	◎	◎	◎	◎	◎	◎	◎
	7		○	○	○	○	◎	◎	◎	◎	◎	◎	◎	◎
	8		○	○	○	○	◎	◎	◎	◎	◎	◎	◎	◎
	9		○	○	○	○	◎	◎	◎	◎	◎	◎	◎	◎
	10													
	11													
M	12													
	13													
	14													
K	15													
	16													
	17													
	18													
	19													
	20													
N	21													
	22													
	23													
	24													
	25													
	26													
	27													
	28													
	29													
	30													
S	31		○	○	○	○	◎	◎	◎	◎	◎	◎	◎	◎
	32				○	○	◎	◎	◎	◎	◎	◎	◎	◎
	33				○	○	◎	◎	◎	◎	◎	◎	◎	◎
	34				○	○	◎	◎	◎	◎	◎	◎	◎	◎
	35				○	○	◎	◎	◎	◎	◎	◎	◎	◎
	36		○	○	○	○					○	○	○	○
	37		◎	◎	◎	◎	○	○	○	○	◎	◎	◎	◎
H	38									○				
	39													
	40				○	○			○	○			○	○
	41													

SELECTION GUIDE

YG
THREADING TOOLS

YG TAP ALU

HOLE TYPE			Max. 2.5xD Blind Hole		Max. 3.0xD Through Hole		Max. 2.0xD Blind/Through Hole		
TOOL MATERIAL			HSS-E						
CHAMFER LEAD ACC. TO DIN2197			C	C	B	B	C	C	C
FLUTE TYPE			Spiral Flute	Spiral Flute	Spiral Point	Spiral Point	Straight Flute	Straight Flute	Straight Flute
SPIRAL FLUTE ANGLE			R45	R40	-	-	-	-	-
SERIES	M	DIN371/376	TC163 (p.B238)	TE953 (p.B239)	TC622 (p.B243)	TE943 (p.B244)	TC433 (p.B245)	TE443 (p.B246)	TY433 (p.B247)
		DIN352							
		DIN357/LONG							
	MF	DIN374	TC963 (p.B240)						
		DIN2181							
	UNC	DIN371/376	TC169 (p.B241)						
		DIN351							
	UNF	DIN371/374	TC170 (p.B242)						
		DIN2181							
	BSW	DIN2182/2183							
		DIN351							
	G(BSP)	DIN5156/5157							
	EG-M	DIN371/376							
	EG-UNC	DIN371/376							
	EG-UNF	DIN371/374							
SURFACE TREATMENT			Bright	Nitride	Bright	Nitride	Bright	Nitride	TiAlN
MODEL									

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

ISO	VDI 3323	Material Description	HB	HRc						
P	1	Non-alloy steel	125		○		○			
	2		190	13	○		○			
	3		250	25	○	○	○	○		
	4		270	28						
	5		300	32						
	6	Low alloy steel	180	10						
	7		275	29						
	8		300	32						
	9		350	38						
	10	High alloyed steel, and tool steel	200	15						
	11		325	35						
M	12	Stainless steel	200	15						
	13		240	23						
	14		180	10						
K	15	Grey cast iron	180	10						
	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	Non Metallic Materials									
	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 FORMING

			Max. 3.0xD Blind / Through Hole								
			HSS-E			HSS-PM	HSS-E		HSS-PM	HSS-E	
			C	C	C	C	C	C	C	C	C
			-	-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-	-
SERIES	M	DIN371/376	TD703 (p.B252)	TE703 (p.B253)	TY703 (p.B254)	TQ703 (p.B255)	TD713 (p.B256)	TE713 (p.B257)	TQ723 (p.B258)	TE723 (p.B259)	TD723 (p.B260)
		DIN352									
		DIN357/LONG									
	MF	DIN374	TD733 (p.B261)	TE733 (p.B262)							
		DIN2181									
	UNC	DIN371/376	TD704 (p.B263)	TE704 (p.B264)							
		DIN351									
	UNF	DIN371/374									
		DIN2181									
	BSW	DIN2182/2183									
		DIN351									
	G(BSP)	DIN5156/5157									
	EG-M	DIN371/376									
	EG-UNC	DIN371/376									
	EG-UNF	DIN371/374									
SURFACE TREATMENT			TiN	Nitride	TiAlN	VAP	TiN	Nitride	VAP	Nitride	TiN
MODEL											
P	1		◎	◎	◎	◎	◎	◎	◎	◎	◎
	2		◎	◎	◎	◎	◎	◎	◎	◎	◎
	3		◎	◎	◎	◎	◎	◎	◎	◎	◎
	4										
	5										
	6		◎	◎	◎	◎	◎	◎	◎	◎	◎
	7										
	8										
	9										
	10										
	11										
M	12		○	○	○	○	○	○	○	○	○
	13		○	○	○	○	○	○	○	○	○
	14		○	○	○	○	○	○	○	○	○
K	15										
	16										
	17										
	18										
	19										
	20										
N	21		◎	◎	◎	◎	◎	◎	◎	◎	◎
	22		◎	◎	◎	◎	◎	◎	◎	◎	◎
	23		○	○	○	○	○	○	○	○	○
	24		○	○	○	○	○	○	○	○	○
	25										
	26		○	○	○	○	○	○	○	○	○
	27										
	28		○	○	◎	○	◎	○	○	○	◎
	29										
	30										
S	31										
	32										
	33										
	34										
	35										
	36										
	37										
H	38										
	39										
	40										
	41										

SELECTION GUIDE

YG
THREADING TOOLS

YG TAP GENERAL

HOLE TYPE			Max. 2.5xD Blind Hole			Max. 3.0xD Through Hole		
TOOL MATERIAL			HSS-E					
CHAMFER LEAD ACC. TO DIN2197			C	C	C	B	B	B
FLUTE TYPE			Spiral Flute	Spiral Flute	Spiral Flute	Spiral Point	Spiral Point	Spiral Point
SPIRAL FLUTE ANGLE			R40	R40	R20	-	-	-
SERIES	M	DIN371/376	TC711 (p.B272)	TD711 (p.B273)	TC517 (p.B281)	TC127 (p.B283)	TD127 (p.B284)	TC227 (p.B293)
		DIN352			TC612 (p.B282)	TC122 (p.B285)		
		DIN357/LONG						
	MF	DIN374	TC411 (p.B274)	TD411 (p.B276)		TC222 (p.B286)	TD222 (p.B288)	
		DIN2181						
	UNC	DIN371/376	TC144 (p.B278)			TC214 (p.B290)		
		DIN351						
	UNF	DIN371/374	TC124 (p.B279)			TC234 (p.B291)		
		DIN2181						
	BSW	DIN2182/2183	TC134 (p.B280)			TC224 (p.B292)		
		DIN351						
	G(BSP)	DIN5156/5157						
	EG-M	DIN371/376						
	EG-UNC	DIN371/376						
	EG-UNF	DIN371/374						
SURFACE TREATMENT			Bright	TiN	Bright	Bright	TiN	Bright
MODEL								

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

ISO	VDI 3323	Material Description	HB	HRc						
P	1	Non-alloy steel	125		○	○	○	○	○	○
	2		190	13	◎	◎	◎	◎	◎	◎
	3		250	25	◎	◎	◎	◎	◎	◎
	4		270	28	◎	◎	◎	◎	◎	◎
	5		300	32	○	○	○	○	○	○
	6	Low alloy steel	180	10	◎	◎	◎	◎	◎	◎
	7		275	29	◎	◎	◎	◎	◎	◎
	8		300	32	○	○	○	○	○	○
	9		350	38						
	10	High alloyed steel, and tool steel	200	15						
	11		325	35						
M	12	Stainless steel	200	15	○	○	○	○	○	○
	13		240	23	○	○	○	○	○	○
	14		180	10						
K	15	Grey cast iron	180	10						
	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	Non Metallic Materials								
	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	Max. 2.0xD Blind/Through Hole	Max. 2.0xD Blind/Through Hole						
		HSS-E	HSS							
		B	C	C	I / II / III	I / III	I / II / III	I / III	I / II / III	I / II / III
		Spiral Point	Spiral Flute	Straight Flute	Straight Flute	Straight Flute	Straight Flute	Straight Flute	Straight Flute	Straight Flute
		-	L20	-	-	-	-	-	-	Left Hand Cut
	M	DIN371/376	TD227 (p.B294)	TC211 (p.B295)	TC463 (p.B296)					
		DIN352				T7109 (p.B299~B300)				T7343 (p.B306)
		DIN357/LONG								
	MF	DIN374			TC473 (p.B297)					
		DIN2181					T7309 (p.B301~B302)			
	UNC	DIN371/376			TC424 (p.B298)					
		DIN351						T7363 (p.B303)		
	UNF	DIN371/374								
		DIN2181						T7509 (p.B304)		
	BSW	DIN2182/2183								
		DIN351							T7609 (p.B305)	
	G(BSP)	DIN5156/5157								
	EG-M	DIN371/376								
	EG-UNC	DIN371/376								
	EG-UNF	DIN371/374								
			TiN	Bright	Bright	Bright	Bright	Bright	Bright	Bright	Bright
											

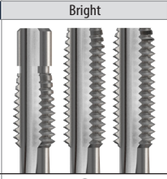
P	1	○	○	○	○	○	○	○	○	○	1
	2	◎	◎	○	○	○	○	○	○	○	2
	3	◎	◎	○	○	○	○	○	○	○	3
	4	◎	◎	○	○	○	○	○	○	○	4
	5	○	○	○							5
	6	◎	◎	○	○	○	○	○	○	○	6
	7	◎	◎	○	○	○	○	○	○	○	7
	8	○	○	○							8
	9										9
	10										10
	11										11
M	12	○	○	○							12
	13	○	○	○							13
	14										14
K	15			○							15
	16			○	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

SELECTION GUIDE

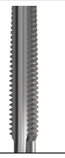
YG
THREADING TOOLS

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

			YG TAP GENERAL		PIPE TAP	
HOLE TYPE			Max. 2.0xD Blind/Through Hole		Max. 2.0xD Blind/Through Hole	Max. 2.5xD Blind Hole
TOOL MATERIAL			HSS-E		HSS	HSS-E
CHAMFER LEAD ACC. TO DIN2197			I / II / III	I / II / III	I/III	C
FLUTE TYPE			Straight Flute	Straight Flute	Straight Flute	Spiral Flute
SPIRAL FLUTE ANGLE			-	-	-	R40
SERIES	M	DIN371/376				
		DIN352	TB373 (p.B307)	TC353 (p.B308)		
		DIN357/LONG				
	MF	DIN374				
		DIN2181				
	UNC	DIN371/376				
		DIN351				
	UNF	DIN371/374				
		DIN2181				
	BSW	DIN2182/2183				
		DIN351				
	G(BSP)	DIN5156/5157			T7709 (p.B313)	TC728 (p.B314)
	EG-M	DIN371/376				
	EG-UNC	DIN371/376				
	EG-UNF	DIN371/374				
SURFACE TREATMENT			VAP	Bright	Bright	Bright
MODEL						

ISO	VDI 3323	Material Description	HB	HRc				
P	1	Non-alloy steel	125		○	○	○	
	2		190	13	○	○	○	◎
	3		250	25	○	○	○	◎
	4		270	28	○	○		◎
	5		300	32				
	6	Low alloy steel	180	10	○	○	○	◎
	7		275	29	○	○		◎
	8		300	32				
	9		350	38				
	10	High alloyed steel, and tool steel	200	15				
	11		325	35				
M	12	Stainless steel	200	15	○			
	13		240	23	○			
	14		180	10	○			
K	15	Grey cast iron	180	10			○	
	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	Non Metallic Materials						
	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				

	PIPE TAP			SCREW THREAD INSERT		NUT	
	Max. 2.5xD Blind Hole		Max. 3.0xD Through Hole	Max. 2.5xD Blind Hole	Max. 3.0xD Through Hole	Max. 2.0xD Through Hole	
	HSS-E			HSS-E		HSS-E	
	C	C	B	C	B	Long	
	Spiral Flute	Spiral Flute	Spiral Point	Spiral Flute	Spiral Point	Straight Flute	
	R40	R40	-	R40	-	-	
M							M
						TC803 (p.B329)	
MF							MF
UNC							UNC
UNF							UNF
BSW							BSW
G(BSP)	TC729 (p.B315)	TB514 (p.B316)	TC727 (p.B317)				G(BSP)
EG-M				TC909 (p.B321)	TC973 (p.B322)		EG-M
EG-UNC				TC944 (p.B323)	TC934 (p.B324)		EG-UNC
EG-UNF					TC954 (p.B325)		EG-UNF
	Bright	VAP	Bright	Bright	Bright	Bright	
							
P		◎		○	○	○	1
		◎	◎	○	○	○	2
			◎	○	○	○	3
			◎			○	4
							5
	○		◎			○	6
	○		◎			○	7
	◎						8
	◎						9
							10
							11
M		◎					12
		◎					13
	○	◎					14
K							15
							16
			◎			○	17
			◎			○	18
							19
							20
N			○	◎	◎		21
			○	◎	◎		22
			○	◎	◎		23
			○	◎	◎		24
			◎			○	25
			◎			○	26
			○	◎	◎	○	27
							28
							29
							30
S							31
							32
							33
							34
							35
							36
							37
H							38
							39
							40
							41

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

CUTTING SPEED TABLE SCHNITTGESCHWINDIGKEITSTABELLE
Cutting Speeds m/min. into revolutions per minute

TOOL RPM (rev/min.)																
Tool Dia.	Cutting Speed (m/min.)															
	1	2	3	4	5	6	8	10	12	15	20	25	30	40	50	60
1	318	637	955	1274	1592	1910	2548	3185	3822	4777	6396	7962	9554	12739	15924	19108
2	159	318	478	637	796	955	1274	1592	1911	2388	3185	3981	4777	6369	7962	9554
3	106	212	318	425	531	637	849	1062	1274	1592	2123	2654	3185	4246	5308	6369
4	80	159	239	318	398	478	637	796	955	1194	1592	1990	2389	3185	3981	4777
5	64	127	191	255	318	382	510	637	764	955	1274	1592	1911	2548	3185	3822
6	53	106	159	212	265	318	425	531	637	796	1062	1327	1592	2123	2653	3185
8	40	80	119	159	199	239	318	398	478	597	796	955	1194	1592	1990	2388
10	31	64	96	127	159	191	255	318	382	478	637	796	955	1274	1592	1911
12	26	53	80	106	133	159	212	265	318	398	531	663	796	1062	1327	1592
14	23	45	68	91	114	136	182	227	273	341	455	569	682	910	1137	1365
16	20	40	60	80	100	119	159	199	239	299	398	498	597	796	995	1194
18	18	35	53	71	88	106	142	177	212	265	354	442	531	708	885	1062
20	16	32	48	64	80	96	127	159	191	239	318	398	478	637	796	955
25	13	25	38	51	64	76	102	127	153	191	255	318	382	510	637	764
30	11	21	32	42	53	64	85	106	127	159	212	265	318	425	531	637
35	9	18	27	36	45	55	73	91	109	136	182	227	273	364	455	546
40	8	16	24	32	40	48	64	80	96	119	159	199	239	118	398	478

RPM = rev/min.
V = m/min.
D = Dia.(mm)

$$V = \frac{RPM \cdot \pi \cdot D}{1000}$$

$$RPM = \frac{1000 \cdot V}{\pi \cdot D}$$

The applied High Speed Steels holds a grant of good wear resistance and toughness. Therefore YG-1 normally delivers taps with bright and unfinished surface. For certain materials, various surface treatments provide higher advantage in machining.

STEAM TEMPERED - VAP

Steam Tempered is a Fe3O4-oxyd-coating which reduces friction between the tool and workpiece, also preventing cold welding.

NITRIDING - NI

Recommend surface treatment for machining materials that affect wear abrasion, such as grey cast iron, alu-alloys with high Si-percentages (more than 10%).

Below are the various surface treatments for excellent finish surfaces suitable for many applications. The surface treatments are produced and developed within the company.

X-COATING

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

TiN-COATING

TiN-coating yields a hardness of approx. 2,300 HV and also a heat resistant up to approx. 600°C. The current coating is an excellent all-round coating for normal applications.
(Colour : Golden Coefficient of friction against steel : 0.4)

TiCN-COATING

TiCN takes place of TiN when the conditions require the coating to have a different hardness and toughness. The TiCN brings advantages for machining very difficult steels or cutting interrupted bores. The TiCN-coating has a hardness of approx. 3,000 HV, but is heat resistance only holds up to approx. 400°C, meaning that the TiCN needs an excellent cooling system for a long service life. (Colour : Blue-Grey Coefficient of friction against steel : 0.4)

TiAlN-COATING

A special coating for machining abrasive materials such as grey cast iron, alu-alloys with silicon, fiber reinforced plastics, etc., or machining at high temperatures with insufficient cooling, or at high speeds ≥ 600m/min. TiAlN has a hardness of approx. 3,000 HV and is heat resistant up to approx. 800°C. (Colour : Violet-Grey Coefficient of friction against steel : 0.4)

HARDSLICK-COATING

Hardslick combines the advantages of an extremely hard, thermally stable TiAlN-coating with the sliding and lubricating properties of an outer WC/C(Tungsten carbide/carbon)-coating in a novel way. The Hardslick coating has a hardness of approx. 3,000 HVand is temperature-resistant up to approx. 800°C. (Colour : Violet-Grey Coefficient of friction against steel : 0.2)

EXAMPLES FOR APPLICATION MATERIAL GROUPS

11 Magnetic Soft Steels < 400 N/mm²

1.1013	RFe 100
1.1014	RFe 80
1.1015	RFe 60
1.0718	9 S MnPb 28

12 Structure/Case Carburizing Steels < 700 N/mm²

1.0037	St 37-2
1.0050	St 50-2
1.0060	St 60-2
1.0070	St 70-2
1.0401	C 15
1.1141	Ck 15

13 Plain Carbon Steels < 850 N/mm²

1.0501	C 35
1.0503	C 45
1.0535	C 55
1.0601	C 60
1.1181	Ck 35
1.1191	Ck 45

14 Alloy Steels < 850 N/mm²

1.2080	X210Cr12
1.2363	X100CrMoV5-1
1.3243	S 6-5-2-5
1.3343	S 6-5-2
1.7218	25CrMo4
1.7220	34CrMo4

15 Alloy, Hardened & Tempered Steels < 1,200 N/mm²

1.2581	X30WCrV9 3
1.2622	X60WCrMoV9
1.2550	60WCrV7
1.6580	30CrNiMo8
1.7361	32CrMo12
1.8515	31CrMo12

16 Alloy, Hardened & Tempered Steels > 1,200 N/mm²

To this group belong most of the materials of group 15, but present a higher tensile strength.

21 Free machining stainless Steels < 850 N/mm²

1.4005	X12CrS13
1.4006	X10Cr13
1.4016	X6Cr17
1.4104	X12CrMoS17
1.4305	X10CrNiS18 9

22 Austenitic stainless Steels < 850 N/mm²

1.4301	X5CrNi18 10
1.4406	X2CrNiMoN17 12 2
1.4435	X2CrNiMo18 14 3
1.4541	X6CrNiTi18 10
1.4571	X6CrNiMoTi17 12 2
1.4828	X15CrNiSi20 12

23 Matensitic/Ferritic/Fer.-Aus. Stainless Steels < 1,000 N/mm²

1.4112	X90CrMoV18
1.4125	X105CrMo17
1.4002	X6CrAl13
1.4512	X6CrTi12
1.4582	X4CrNiMoNb25 7
1.4821	X20CrNiSi25 4

31 Grey graphite cast irons < 500 N/mm²

0.6015	GG-15
0.6020	GG-20
0.6025	GG-25
0.6030	GG-30
0.6035	GG-35
0.6040	GG-40

32 Grey graphite cast irons < 1,000 N/mm²

0.6020	GG-20
0.6025	GG-25
0.6030	GG-30
0.6035	GG-35
0.6040	GG-40

33 Nodular graphite, Malleable cast irons < 700 N/mm²

0.7040	GGG-40
0.7043	GGG-40.3
0.7050	GGG-50
0.7060	GGG-60
0.8040	GTW-40
0.8065	GTW-65

34 Nodular graphite, Malleable cast irons < 1,000 N/mm²

0.7040	GGG-40
0.7043	GGG-40.3
0.7050	GGG-50
0.7060	GGG-60
0.7070	GGG-70
0.7080	GGG-80

41 Titanium unalloys < 700 N/mm²

3.7024	Ti99.5
3.7034	Ti99.7
3.7035	Ti2
3.7055	Ti99.4
3.7064	Ti99.2
3.7065	Ti4

42 Titanium alloys < 900 N/mm²

	TiA14Mn4
3.7114	TiA15Sn2
3.7124	TiCu2
3.7164	TiA16V4
3.7174	TiA16V6Sn2

43 Titanium alloys < 1,300 N/mm²

3.7124	TiCu2
3.7144	TiA16Sn2Zr4Mo2
3.7154	TiAl6Zr5
3.7164	TiA16V4
3.7174	TiA16V6Sn2
3.7184	TiAl4Mo4Sn2

51 Nickel unalloys < 500 N/mm²

2.1504	NiAlBz
2.4042	Ni99CSi
2.4060	Ni99.6
2.4062	Ni99.4Fe

52 Heat resisting Nickel alloys < 900 N/mm²

2.4360	Monel 400
2.4374	Monel 500
2.4665	Hastelloy X
2.4812	Hastelloy C
2.4816	Inconel 600
1.4876	Incoloy 800

53 Heat resisting Nickel alloys < 1,400 N/mm²

2.4631	Nimonic80A
2.4632	Nimonic90
2.4634	Nimonic105
2.4662	Nimonic901
2.4668	Inconel 718
2.4669	Inconel X-750

61 Copper unalloys < 350 N/mm²

2.0060	E-Cu57
2.0070	SE-Cu
2.0090	SF-Cu
2.1356	CuMn3
2.1522	CuSi2Mn

62 Short chip Brass, Bronze copper alloys < 700N/mm²

2.0360	CuZn40 (Ms60)
2.0380	CuZn39Pb2 (Ms58)
2.0410	CuZn44Pb2
2.0580	CuZn40Mn1Pb
2.1086	G-CuSn10Zn
2.1096	G-CuSn5ZnPb

63 Long chip Brass, Bronze copper alloys < 700 N/mm²

2.0250	CuZn20
2.0321	CuZn37
2.1020	CuSn6
2.1080	CuSn6Zn6
2.1245	CuBel.7
2.1293	CuCrZr

64 Cu-Al-Fe alloys < 1,500 N/mm²

71 Aluminum-Magnesium unalloys < 350 N/mm²

3.0250	Al99.5H
3.0280	Al99.8H
3.0305	Al99.9
3.3308	Al99.9Mg0.5

72 Aluminum alloys, Si < 1.5% < 600 N/mm²

3.0515	AlMn1
3.0525	AlMn1Mg0.5
3.1325	AlCuMg1
3.3315	AlMg1
3.3241	G-AlMg3Si
3.3292	GD-AlMg9

73 Aluminum alloys, 0.5-10% Si < 600 N/mm²

3.2134	G-AlSi5Cu1Mg
3.2152	GD-AlSi6Cu4
3.2162	GD-AlSi8Cu3
3.2373	G-AlSi9Mg

74 Aluminum alloys, Si > 10% < 600 N/mm²

3.2381	G-AlSi10Mg
3.2383	G-AlSi10Mg(Cu)
3.2581	G-AlSi12
3.2583	G-AlSi12(Cu)
3.5662	G-MgA16
3.5812	G-MgA18Zn1

81 Thermoplastics

Delrin(POM)
Teflon
Nylon

82 Thermosseting plastics

Bakelit
Novopan

83 Reinforced plastics materials

Glass fiber reinforced
Thermo and Duroplastics

Referance:DIN

MATERIAL GROUP

STANDARDS

GERMANY W.Nr	GERMANY DIN	FRANCE AFNOR	GREAT BRITAIN B.S.	EN & OTHER CLASSIFICATIONS	U.S.A. AISI
10 - STEEL					
11 - Magnetic soft steels - Hardness < 120 HB 30 - Tensile strength < 400 N/mm²					
1.1013	RFe 100		OSOA12	EN2	
1.1014	RFe 80				
1.1015	RFe 60		230Mo7	EN1	
1.0718	9 S MnPb 28				
12 - Structural steels - Hardness < 200 HB 30 - Tensile strength < 700 N/mm²					
12.1 - Structural steels					
1.0034	RSt 34-2	A34-2 EN	1449 34/20 HR		
1.0035	St 33	A33	Fe 310-0		
1.0036	St 37-2		060A35	EN3A,4,5,6,7,8	
1.0037	RSt 37-2				
1.0044	St 44-2				
1.0050	St 50-2		4360-50B	EN 207	
1.0060	St 60-2				
1.0070	St 70-2				
1.0116	St 37-3				
1.0144	St 44-3				
12.2 - Case carburizing steels					
1.0301	C 10	AF 34 C 10	040 A 10		M 1010
1.0401	C 15	AF 37 C 12	080 A 15		M 1015
1.1121	Ck 10	XC 10	040 A 10		1010
1.1141	Ck 15	XC 12	040 A 15		1015
1.5732	14 Ni Cr 10	14 NC 11			3415
1.7015	15 Cr 3	12 C 3	523 M 15		5015
1.7131	16 Mn Cr 5	16 MC 4	527 M 17	EN 32	5115
1.7147	20 Mn Cr 5	20 MC 5			5120
12.3 - Free machining steels					
1.0710	15 S 10				
1.0715	9 S Mn 28	S 250	230 M 07		1213
1.0718	9 S Mn Pb 28	S 250 Pb			12 L 13
1.0721	10 S 20	10 F1	210 M 15		1108 1109
1.0722	10 S Pb 20	10 Pb F 2			11 L 08
1.0723	15 S 20	.....	210 A 15		
1.0726	35 S 20	35 MF 6	212 M 36		1140
1.0727	45 S 20	45 MF 4			1146
1.0736	9 S Mn 36	S 300			1215
1.0737	9 S Mn Pb 36	S 300 Pb			12 L 14
12.4 - Cast structural steels					
1.0416	GS - 38				
1.0446	GS - 45				
1.0552	GS - 52				
1.0553	GS - 60	E 36 - 3			
1.0554	GS - 70				
13 - Plain carbon steels - tempered					
13.1 - Steels, tempered - Hardness < 250 HB 30 - Tensile strength < 850 N/mm²					
1.0402	C 22	1 C 22	070 M 20		M 1023
1.0501	C 35	1 C 35	080 A 32		1035
1.0503	C 45	1 C 45	060 A 47		1045
1.0535	C 55	1 C 55	070 M 55		1055
1.0601	C 60	1 C 60	060 A 62	EN 43	1060
1.1157	40 Mn 4	35 M 5	150 M 36		1035 1041
1.1151	Ck 22	2 C 22	055 M 15		1020 1023
1.1181	Ck 35	2 C 35	080 A 35		1035 1038
1.1191	Ck 45	2 C 45	080 M 46	EN 9, 10	1045
1.1203	Ck 55	2 C 55	060 A 57		1055
1.1221	Ck 60	2 C 60	060 A 62		1060 1064

MATERIAL GROUP

STANDARDS

GERMANY		FRANCE	GREAT BRITAIN	EN & OTHER	U.S.A.
W.Nr	DIN	AFNOR	B.S.	CLASSIFICATIONS	AISI
14 - Alloy steels - Hardness < 250 HB 30, < 25 HRC - Tensile strength < 850 N/mm²					
14.1 - Cold work tool steels					
1.2056	90 Cr 3				
1.2067	100 Cr 6	Y 100 C 6	BL 3		L 1 L 3
1.2080	X 210 Cr 12	Z 200 C 12	BD 3		D3
1.2083	X 42 Cr 13	Z 40 C 14			420
1.2363	X 100 CrMoV5 1	Z 100 CDV 5	BA 2		A 2
1.2379	X 155 CrVMo 12 1	Z 160 CDV 12	BD 2		D 2
1.2510	100 MnCrW 4	90 MWCV 5	BO 1		O1
1.2550	60 WCrV 7	55WC 20	BS 1		S1
1.2823	70 Si 7				
1.2826	60 Mn Si Cr 4				
1.2842	90 MnCrV 8	90 MV 8	BO 2		O 2
14.2 - High speed steels					
1.3202	S 12-4-4-5	Z 130 WKCV 12-05-04-04	BT 15		T 15
1.3207	S 10-4-3-10	Z130 WKCDV10-10-04-04-03	BT 42		T 42
1.3243	S 6-5-2-5	Z85 WDKCV 06-05-05-04-02	BM 35		M 35
1.3247	S 2-10-1-8	Z110 DKCWV 09-08-04-02-01	BM 42		M 42
1.3343	S 6-5-2	Z 85 WDCV 06-05-04-02	BM 2		M 2
1.3344	S 6-5-3	Z 120 WDCV 06-05-04-03			M 3 / 2
1.3348	S 2-9-2	Z 100 DCWV 09-04-02-02			M 7
ASP 23	(S 6-5-3)				
ASP 30					
ASP 60					
14.3 - Alloy steels					
1.5919	GS-15Cr Ni 6	16 NC 6			3115
1.7218	GS-25Cr Mo 4	25 C D 4	70 8A 25		4130
1.7220	GS-34Cr Mo 4	35 C D 4	70 8A 37		4135 4137
1.7379	GS-18 Cr Mo 9 10				
14.4 - Tempered steels					
1.0503	C 45	1 C 45	060 A 47		1045
1.7220	34 Cr Mo 4	34 Cr Mo 4	708 A 37		4135, 4137
1.7225	42 Cr Mo 4	42 CD 4	708 A 42	EN 16, 17, 19	4140, 4142
1.7228	50 Cr Mo 4	50 Cr Mo 4	708 A 47		4150
14.5 - Nitriding steels					
1.7779	20 Cr Mo V 13.5				
1.8504	34 Cr Al 6				
1.8506	34 Cr Al S 5				
1.8507	34 Cr Al Mo 5	30 CAD 6.12			A 355 Cl.D
1.8509	41 Cr Al Mo 7	40 CAD 6.12	905 M 39		A 355 Cl.A
1.8515	31 Cr Mo 12	30 CD 12	722 M 24		
15 - Alloy steels / Tempered steels - Hardness 250-350 HB 30, 25-38 HRC - Tensile strength 850-1,200 N/mm²					
15.1 - Alloy steels for tools					
1.2311	40 Cr Mn Mo 7				
1.2312	40 Cr Mn Mo S 86				
1.2436	X 210 Cr W 12	Z 200 CW 12			
1.2711	54 Ni Cr Mo V 6				
1.2713	55 Ni Cr Mo V 6	55 NCDV 7	826 M 40	S 95, S 97, S 98	L 6
1.2714	56 Ni Cr Mo V 7				
1.2743	60 Ni Cr Mo V 12 4				
1.2766	35 Ni Cr Mo 16				
15.2 - Alloy steels for hot work					
1.2343	X 38 Cr Mo V 5 1	Z 38 CDV 5	BH 11		H 11
1.2344	X 40 Cr Mo V 5 1	Z 40 CDV 5	BH 13		H 13
1.2365	X 32 Cr Mo V 3 3	32 DCV 28	BH 10		H 10
1.2367	X 40 Cr Mo V 5 3	Z 38 CDV 5.3			
1.2581	X 30 W Cr V 9 3	Z 30 WCV 9.3	BH 21		H 21
1.2622	X 60 W Cr Mo V 9				
1.2678	X 45 CoCrWV 5 5 5				
1.2550	60 WCr V 7	55 WC 20	BS 1		S 1
1.2567	X 30 W Cr V 5 3	Z 32 WCV 5			

MATERIAL GROUP

STANDARDS

GERMANY		FRANCE	GREAT BRITAIN	EN & OTHER	U.S.A.
W.Nr	DIN	AFNOR	B.S.	CLASSIFICATIONS	AISI
15.3 - Hardened tempered steels - Hardness may be different according to presentation and dimensions of material					
1.5864	35 Ni Cr 18				
1.6580	30 Cr Ni Mo 8	30 Cr Ni Mo 8			
1.7361	32 Cr Mo 12	30 CD 12	722 M 24		
1.7707	30 Cr Mo V 9				
1.8161	58 Cr V 4				
15.4 - Nitriding steels					
1.8515	31 Cr Mo 12	30 CD 12	722 M 24		
1.8519	31 Cr Mo V 9		830 M 31		
1.8523	39 Cr Mo V 13 9		897 M 39		
1.8550	34 Cr Al Ni 7		826 M 40		
16 - Alloy steels / Hardened tempered steels - Hardness > 38 HRC - Tensile strength > 1,200 N/mm²					
To this group belong most of the materials of group 15, but present a higher tensile strength					
20 - STAINLESS STEELS					
21 - Free machining stainless steels - Hardness < 250 HB 30 - Tensile strength < 850 N/mm²					
1.4104	X 12 Cr Mo S 17	Z 13 CF 17	416 S 37	EN 56	430 F
1.4305	X 10 Cr Ni S 18 09	Z 8 CNF 18-09	303 S 21	EN 60	303
22 - Austenitic stainless steels - Hardness < 250 HB 30 - Tensile strength < 850 N/mm²					
1.4300	X 12 Cr Ni 18 8		320 S 12		
1.4301	X 5 Cr Ni 18 10	Z 6 CN 18-09	304 S 15	EN 80, EN 58 + C	304
1.4311	X 2 CrNiN 18 10	Z 3 CN 18-07 Az	304 S 61		304 LN
1.4406	X 2 CrNiMoN 17 12 2	Z 3 CND 17 11 02	316 S 61		316 LN
1.4433	X 2 CrNiMo 18 15		316 S		
1.4435	X 2 CrNiMo 18 14 3	Z3 CND 17-12-03	316 S 11		316 L
1.4539	X 1 CrNiMoCu 25 20 5	Z 1 NCDU 25-20	321 S 17		UNS N08904
1.4541	X 6 CrNiTi 18 10	Z 6 CNT 18 10	321 S 18	EN 58 J, 316	321
1.4571	X 6 CrNiMoTi 17 12 2	Z 6 CNDT 17 12	320 S 18		316 Ti
1.4573	X 10 CrNiMoTi 18 12		320 S 33		
1.4828	X 15 CrNiSi 20 12	Z 15 CNS 20-12	309 S 24		309
22.1 - Cast austenitic stainless steels					
1.4308	G-X 6 CrNi 18 9	Z 6 CN 18.10 M	304 C 15(LT196)		CF-8
1.4313	G-X 5 CrNi 13 4	Z 8 CD 17-01	425 C 12		CA 6 -NM
1.4408	G-X 6 CrNiMo 18 10		316 C 16(LT196)		CF-8M
1.4581	G-X 5 CrNiMoNb 18 10	Z 4 CNDNb 18.12M	318 C 17		
23 - Martensitic stainless steels - Hardness < 320 HB 30 - Tensile strength < 1,000 N/mm²					
1.4021	X 20 Cr 13	Z 20 C 13	420 S 37		420
1.4034	X 46 Cr 13	Z 44 C 14	(420 S 45)		
1.4057	X 20 CrNi 17 2	Z 15 CN 16-02	431 S 29		431
1.4112	X 90 CrMoV 18				
1.4116	X 45 CrMoV 15			EN 58, b.e.j.t	
1.4125	X 105 CrMo 17	Z 100 CD 17		Duplex alloys	440 C
1.4718	X 45 CrSi 9 3	Z 45 CS 9	401 S 45		HNV 3
1.4747	X 80 CrNiSi 20	Z 80 CSN 20-02	443 S 65		HNV 6
1.4086	G-X 120 Cr 29				
1.4106	G-X 10 CrMo 13				
1.4138	G-X 120 CrMo 29 2				
24 - Ferritic stainless steels - Hardness < 320 HB 30 - Tensile strength < 1,100 N/mm²					
1.4002	X 6 Cr Al 13	Z 8 CA 12	405 S 17		405
1.4006	X 10 Cr 13	Z 10 C 13	410 C 21		410
1.4016	X 6 Cr 17	Z 8 C 17	430 S 17		430
1.4510	X 6 Cr Ti 17	Z 8 CT 17			430 Ti
1.4512	X 6 Cr Ti 12	Z 6 CT 12	409 S 19		409
25 - Ferritic-Austenitic stainless steels - Hardness < 320 HB 30 - Tensile strength < 1,100 N/mm²					
1.4460	X 8 CrNiMo 27 5	Z 5 CND 27-05 Az			329
1.4582	X 4 CrNiMoNb 25 7				
1.4821	X 20 CrNiSi 25 4				

MATERIAL GROUP

STANDARDS

GERMANY W.Nr	GERMANY DIN	FRANCE AFNOR	GREAT BRITAIN B.S.	EN & OTHER CLASSIFICATIONS	U.S.A. AISI
30 - CAST IRONS					
31 - Grey graphite cast irons - Hardness < 150 HB 30 - Tensile strength < 500 N/mm²					
0.6010	GG-10	Ft 10 D			A 48-20 B
0.6015	GG-15	Ft 20 D	Grade 150	Grey cast iron soft	A 48-25 B
0.6020	GG-20	Ft 25 D	Grade 220		A 48-30 B
0.6025	GG-25	Ft 30 D	Grade 260		A 48-40 B
0.6030	GG-30	Ft 30 D	Grade 300		A 48-45 B
0.6035	GG-35	Ft 35 D	Grade 350		A 48-50 B
0.6040	GG-40	Ft 40 D	Grade 400		A 48-60 B
31.1 - Meehanite - Hardness < 150 HB 30 - Tensile strength < 500 N/mm²					
.....	GF-150				
.....	GD-260				
32 - Grey graphite cast irons - Hardness 150 - 300 HB 30 - Tensile strength 500 - 1,000 N/mm²					
0.6020	GG - 20	Ft 25 D	Grade 220	Grey cast iron hard	A 48-30 B
0.6025	GG - 25	Ft 30 D	Grade 260		A 48-40 B
0.6030	GG - 30	Ft 30 D	Grade 300		A 48-45 B
0.6035	GG - 35	Ft 35 D	Grade 350		A 48-50 B
0.6040	GG - 40	Ft 40 D	Grade 400		A 48-60 B
32.1 - Meehanite - Hardness 150-300 HB 30 - Tensile strength 500-1,000 N/mm²					
.....	GF-150				
.....	GD-260				
15 - Alloy steels / Tempered steels - Hardness 250-350 HB 30, 25-38 HRC - Tensile strength 850-1,200 N/mm²					
0.7033	GGG-35.3				
0.7040	GGG-40	FGS 400-12	420 / 12		60-40-18
0.7043	GGG-40.3	FGS 370-17	370 / 17		
0.7050	GGG-50	FGS 500-7	500 / 7		65-45-12
0.7060	GGG-60	FGS 600-3	600 / 3	S.G.iron, Meehanite	80-55-06
0.8035	GTW-35		700/2,30g/72	Black & White Heart	
0.8040	GTW-40				
0.8045	GTW-45				
0.8065	GTW-65				
0.8135	GTS-35				
0.8145	GTS-45				
0.8155	GTS-55				
0.8165	GTS-65				
33.1 - Meehanite - Hardness < 200 HB 30 -Tensile strength < 700 N/mm²					
SF 400					
SPF 600					
34 - Nodular graphite, tempered malleable cast irons - Hardness 200-300 HB 30 - Tensile strength 700-1,000 N/mm²					
0.7070	GGG-70	FGS 700-2	700 / 2	S.G.iron,Meehanite	100-70-03
0.7080	GGG-80	FGS 800-2	800 / 2	Black & White Heart	120-90-02
And materials from group 33 tempered					
34.1 - Meehanite - Hardness 200-300 HB 30 - Tensile strength 700-1,000 N/mm²					
	SH 800		420/12, P 440/7		
	SH 1000				
40 - TITANIUM					
41 - Titanium, unalloys - Hardness < 200 HB 30 - Tensile strength < 700 N/mm²					
3.7024.1LN	Ti 99.5				
3.7034.1LN	Ti 99.7				
3.7035	Ti 2				
3.7055	Ti 99.4		TA 1-9	Ti 99.0	
3.7064.1LN	Ti 99.2				
3.7065	Ti 4				
3.7255	Ti 3 Pd				

MATERIAL GROUP

STANDARDS

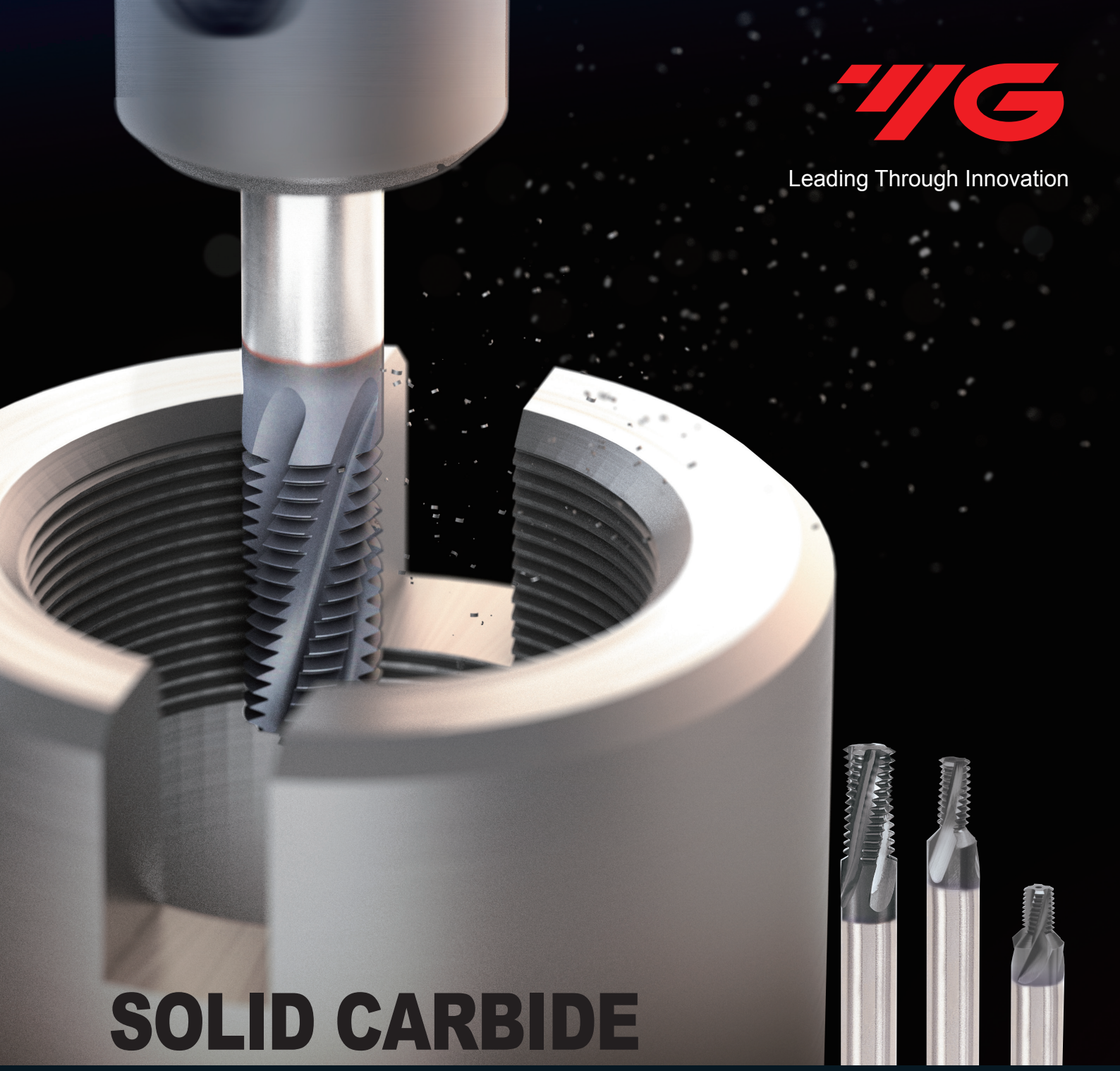
GERMANY W.Nr	GERMANY DIN	FRANCE AFNOR	GREAT BRITAIN B.S.	EN & OTHER CLASSIFICATIONS	U.S.A. AISI
42 - Titanium, alloys - Hardness < 270 HB 30 - Tensile strength < 900 N/mm²					
	Ti Al 4 Mn 4				
3.7144 LN	Ti Al 5 Sn 2				
3.7124 LN	Ti Cu 2		TA 10-14, TA 17	Ti - 2AL	
3.7164 LN	Ti Al 6 V 4		TA 18		
3.7174 LN	Ti Al 6 V 6 Sn 2				
43 - Titanium, alloys - Hardness 270-300 HB 30 - Tensile strength 900-1,300 N/mm²					
3.7124 LN	Ti Cu 2				
3.7144 LN	Ti Al 6 Sn 2 Zr4 Mo2			Ti AL	
3.7154 LN	Ti Al 6 Zr 5		TA 10-13, TA 28	3.7174LN, 3.7148LN	
3.7164 LN	Ti Al 6 V 4				
3.7174 LN	Ti Al 6 V Sn 2				
3.7184 LN	Ti Al 4 Mo 4 Sn 2				
50 - NICKEL					
51 - Nickel, unalloys - Hardness < 150 HB 30 - Tensile strength < 500 N/mm²					
2.1504 LN	Ni Al Bz				
2.4042	Ni 99 CSi		NA 11, NA 12	Nickel 200	
2.4060	Ni 99.6			Nickel 270	
2.4062	Ni 99.4 Fe				
52 - Heat resisting nickel alloys - Hardness < 270 HB 30 - Tensile strength < 900 N/mm²					
2.4360 LN	Monel 400				
2.4374 LN	Monel 500				
2.4617	Hastelloy B 2			Nimonic 75	
2.4665	Hastelloy X		HR 203		
2.4812	Hastelloy C		3027-76	Hastelloy C	
2.4816	Inconel 600			Haynes Alloys 263	
1.4876	Incoloy 800				
2.4983	Udimet 500				
53 - Heat resisting nickel alloys - Hardness 270-410 HB 30 - Tensile strength 900-1,400 N/mm²					
2.4631	Nimonic 80 A			Nimonic 80	
2.4632	Nimonic 90				
2.4634	Nimonic 105				
2.4662	Nimonic 901		HR 8		
2.4668	Inconel 718		HR 401, 601	Rene 41	
2.4669	Inconel X-750				
2.4670 LN	Nimocast 713				
2.4674 LN	Nimocast PK 24				
2.4856	Inconel 625				
2.6554 LN	Waspaloy				
60 - COPPER					
61 - Copper, unalloys - Hardness < 100 HB 30 - Tensile strength < 350 N/mm²					
2.0060	E - Cu 57				
2.0070	SE - Cu			Commercially Pure	
2.0090	SF - Cu		C 101		
2.1356	Cu Mn 3				
2.1522	Cu Si 2 Mn				
62 - Short chip copper alloys - Hardness < 200 HB 30 - Tensile strength < 700 N/mm²					
62.1 - Brass					
2.0360	Cu Zn 40(MS 60)				
2.0380	Cu Zn 39 Pb 2 (MS 58)		CZ120, CZ109		
2.0410	Cu Zn 44 Pb 2		PB104		
2.0561	Cu Zn 40 Al 1			2.1030, 2.1080	
2.0580	Cu Zn 40 Mn 1 Pb				
2.0771	Cu Ni 7 Zn 39 Mn 5 Pb3				
62.2 - Bronzes					
2.1086	G-Cu Sn 10 Zn				
2.1093	G-Cu Sn 6 Zn Ni				
2.1096	G-Cu Sn 5 Zn Pb				

MATERIAL GROUP

STANDARDS

GERMANY		FRANCE AFNOR	GREAT BRITAIN B.S.	EN & OTHER CLASSIFICATIONS	U.S.A. AISI
W.Nr	DIN				
63 - Long chip copper alloys - Hardness < 200 HB 30 - Tensile strength < 700 N/mm²					
63.1 - Brass					
2.0250	Cu Zn 20				
2.0265	Cu Zn 30				
2.0321	Cu Zn 37		CZ108, CZ106		
2.0335	Cu Zn 36 (Ms 63)				
63.2 - Bronzes					
2.1020	Cu Sn 6				
2.1030	Cu Sn 8				
2.1080	Cu Sn 6 Zn 6				
63.3 - Copper alloys tempered by forging					
2.1245	Cu Be 1.7				
2.1247	Cu Be 2				
2.1293	Cu Cr Zr				
64 - Cu - Al - Fe alloys Hardness < 440 HB 30 - Tensile strength < 1,500 N/mm²					
70 - ALUMINIUM - MAGNESIUM					
71 - Aluminum - Magnesium, unalloys - Hardness < 100 HB 30 - Tensile strength < 350 N/mm²					
3.0250	Al 99.5 H				
3.0280	Al 99.8 H				
3.0305	Al 99.9				
3.3308	Al 99.9 Mg 0.5				
72 - Aluminum alloys, Si < 1.5% - Hardness < 180 HB 30 - Tensile strength < 600 N/mm²					
72.1 - Forging aluminum alloys					
3.0515	Al Mn 1				
3.0516	S-Al Mn				
3.0525	Al Mn 1 Mg 0.5				
3.0615	Al Mg Si Pb				
3.1325	Al Cu Mg 1				
3.1355	Al Cu Mg 2				
3.3315	Al Mg 1				
3.3535	Al Mg 3				
3.4365	Al Zn Mg Cu 1.5				
72.2 - Cast aluminum alloys					
3.1841	G - Al Cu 4 Ti				
3.3241	G - Al Mg 3 Si				
3.3292	GD - Al Mg 9				
73 - Aluminum alloys, 0.5-10% Si - Hardness < 180 HB 30 - Tensile strength < 600 N/mm²					
73.1 - Cast aluminum alloys					
3.2134	G - Al Si 5 Cu 1 Mg				
3.2152	GD - Al Si 6 Cu 4				
3.2162	GD - Al Si 8 Cu 3				
3.2373	G - Al Si 9 Mg				
74 - Aluminum alloys, Si > 10% - Hardnes < 180 HB 30 - Tensile strength < 600 N/mm²					
74.1 - Cast aluminum alloys					
3.2381	G - Al Si 10 Mg				
3.2383	G - Al Si 10 Mg (Cu)				
3.2581	G - Al Si 12				
3.2583	G - Al Si 12 (Cu)				
3.2982	GD - Al Si 12 (Cu)				
74.2 - Cast aluminum - magnesium alloys					
3.5106	G - Mg Ag 3 SE 2 Zr 1				
3.5662	G - Mg Al 6				
3.5812	G - Mg Al 8 Zn 1				
3.5912	G - Mg Al 9 Zn 1				

Leading Through Innovation



SOLID CARBIDE

THREAD MILL
GEWINDEFRÄSER

- **Threading Large Diameter in High Quality Available with Chamfer**
- **Zur Fertigung von Gewinden mit großen Durchmessern in hoher Qualität, verfügbar mit Fase**

SELECTION GUIDE

YG THREADING TOOLS

SOLID CARBIDE THREAD MILL

Threading Large Diameter in High Quality
Available with Chamfer

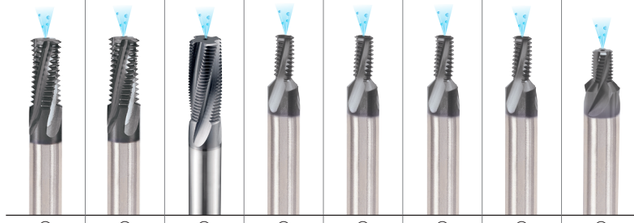
Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B54

TYPE	Thread Mill without Coolant Hole			
THREAD FORM	M	MF	UNC	UNF
HOLE TYPE	Max. 2.0xD Blind /Through Hole	Max. 1.5xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole
TOOL MATERIAL	CARBIDE			
FLUTE TYPE	Helix			
HELIX ANGLE	R15			
SERIES NO.	L1211 (p.B36)	L1212 (p.B37)	L1213 (p.B38)	L1214 (p.B39)
SURFACE TREATMENT	TiAlN	TiAlN	TiAlN	TiAlN
MODEL				

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc				
P	1	Non-alloy steel	About 0.15% C	Annealed	125		◎	◎	◎	◎
	2		About 0.45% C	Annealed	190	13	◎	◎	◎	◎
	3		About 0.45% C	Quenched & Tempered	250	25	◎	◎	◎	◎
	4		About 0.75% C	Annealed	270	28	◎	◎	◎	◎
	5		About 0.75% C	Quenched & Tempered	300	32	◎	◎	◎	◎
	6	Low alloy steel		Annealed	180	10	◎	◎	◎	◎
	7			Quenched & Tempered	275	29	◎	◎	◎	◎
	8			Quenched & Tempered	300	32	◎	◎	◎	◎
	9			Quenched & Tempered	350	38	◎	◎	◎	◎
	10	High alloyed steel, and tool steel		Annealed	200	15	◎	◎	◎	◎
	11			Quenched & Tempered	325	35	◎	◎	◎	◎
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15	○	○	○	○
	13		Martensitic	Quenched & Tempered	240	23	○	○	○	○
	14		Austenitic		180	10	○	○	○	○
K	15	Grey cast iron	Pearlitic / ferritic		180	10	◎	◎	◎	◎
	16		Pearlitic (Martensitic)		260	26	◎	◎	◎	◎
	17	Nodular Cast Iron	Ferritic		160	3	◎	◎	◎	◎
	18		Pearlitic		250	25	◎	◎	◎	◎
	19	Malleable cast iron	Ferritic		130		◎	◎	◎	◎
	20		Pearlitic		230	21	◎	◎	◎	◎
N	21	Aluminum-wrought alloy	Not Curable		60		◎	◎	◎	◎
	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	○	○	○	○
	32			Cured	280	30	○	○	○	○
	33		Ni or Co Based	Annealed	250	25	○	○	○	○
	34			Cured	350	38	○	○	○	○
	35			Cast	320	34	○	○	○	○
	36	Titanium Alloys	Pure Titanium		400 Rm		○	○	○	○
	37		Alpha + Beta Alloys	Hardened	1050 Rm		○	○	○	○
H	38	Hardened steel		Hardened	550	55				
	39			Hardened	630	60				
	40	Chilled Cast Iron		Cast	400	42				
	41	Hardened Cast Iron		Hardened	550	55				

TYPE	Thread Mill with Coolant Hole			Thread Mill with Coolant Hole & Chamfer					Miniature Thread Mill		Miniature Thread Mill for Hard Materials		Drill & Thread Mill with Chamfer
THREAD FORM	M	MF	BSP(G)	M	MF	UNC	UNF	NPT	M	UNC	M	UNC	M
HOLE TYPE	Max. 2.0xD Blind /Through Hole	Max. 1.5xD Blind /Through Hole	Blind /Through Hole	Max. 2.0xD Blind /Through Hole	Max. 1.5xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	-	Max. 2.0xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole
TOOL MATERIAL	CARBIDE												
FLUTE TYPE	Helix			Helix					Helix		Straight		Helix
HELIX ANGLE	R15			R15					R15		-		R25
SERIES NO.	L4211 (p.B40)	L4212 (p.B41)	L6215 (p.B42)	L4271 (p.B43)	L4272 (p.B44)	L4273 (p.B45)	L4274 (p.B46)	L4276 (p.B47)	L12D1 (p.B48)	L12D3 (p.B49)	L19E1 (p.B50)	L19E3 (p.B51)	L41A1 / L42A1 (p.B52)
SURFACE TREATMENT	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	TiAlN	AlTiN	AlTiN	Bright / TiAlN
MODEL													

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

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

THREAD MILL

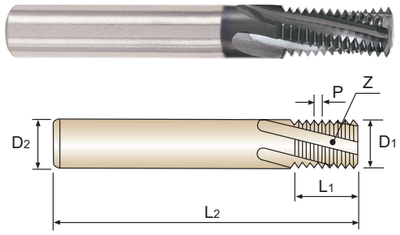
L1211 SERIES

M Solid Carbide Thread Mill for ISO Metric Internal Thread - DIN 13

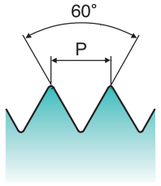
VOLLHARTMETALL GEWINDEFRÄSER für ISO METRISCHES INNENGEWINDE - DIN 13
FRAISES A FILETER CARBURE MONOBLOC POUR FILETAGE ISO INTER MÉTRIQUE - DIN13
Filettature interne, ISO metriche, passo grosso - DIN 13

▶ Easy to cut threads even for exotic materials like Nickel, Titanium and their alloys.

▶ Problemloses Gewindeschneiden sogar in exotischen Werkstoffen, wie Nickel, Titan und ihre Legierungen.



Thread Depth
2×D



Material groups **MU** | CARBIDE | DIN 6535HA | 60° | R15 | TiAlN | p.B54

Recommended ToolHolder

	Flat Shank	Plain Shank
END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER	
POWER MILLING CHUCK		
ER COLLET CHUCK SK SLIM CHUCK		

Unit : mm

EDP No.	Nominal Diameter [D]	Pitch	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	No. of Flute
TiAlN		P	D1	D2	L1	L2	Z
L1211200	M3	0.5	**2.2**	6	5	57	3
L1211240	M4	0.7	**2.9**	6	7	57	3
L1211280	M5	0.8	**3.8**	6	8	57	3
L1211310	M6	1.0	**4.5**	6	13	57	3
L1211360	M8	1.25	**6.0**	6	17.5	65	3
L1211420	M10	1.5	**7.5**	8	21	72	4
L1211500	M12	1.75	**9.5**	10	26.25	80	4
L1211540	M14	2.0	**10.0**	10	30	83	4
L1211600	M16	2.0	**12.0**	12	34	92	4
L1211650	M18	2.5	**14.0**	14	37.5	92	5
L1211700	M20	2.5	**16.0**	16	42.5	105	5

▶ Other coatings are available on your request.

◎ : Excellent ○ : Good

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

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

THREAD MILL

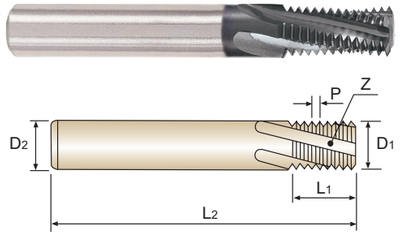
L1212 SERIES

MF Solid Carbide Thread Mill for ISO Metric Internal Thread - DIN 13

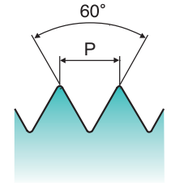
VOLLHARTMETALL GEWINDEFRÄSER für ISO METRISCH - FEIN INNENGEWINDE - DIN 13
FRAISES A FILETER CARBURE MONOBLOC POUR FILETAGE ISO INTER MÉTRIQUE - DIN13
Filettature interne, ISO metriche, passo grosso - DIN 13

▶ Easy to cut threads even for exotic materials like Nickel, Titanium and their alloys.

▶ Problemloses Gewindeschneiden sogar in exotischen Werkstoffen, wie Nickel, Titan und ihre Legierungen.



Thread Depth
1.5×D



Material groups **MU** | CARBIDE | DIN 6535HA | 60° | R15 | TiAlN | p.B54

Recommended ToolHolder

	Flat Shank	Plain Shank
END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER	
POWER MILLING CHUCK		
ER COLLET CHUCK SK SLIM CHUCK		

Unit : mm

EDP No.	Nominal Diameter [D]	Pitch	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	No. of Flute
TiAlN		P	D1	D2	L1	L2	Z
L1212370	M8	1.0	**6.0**	6	13	57	3
L1212380	M8	0.75	**6.0**	6	12.75	57	3
L1212440	M10	1.0	**8.0**	8	16	63	4
L1212510	M12	1.5	**9.5**	10	19.5	72	4
L1212520	M12	1.25	**9.5**	10	18.75	72	4
L1212530	M12	1.0	**9.5**	10	19	72	4
L1212550	M14	1.5	**10.0**	10	22.5	83	4
L1212570	M14	1.0	**10.0**	10	22	83	4
L1212610	M16	1.5	**12.0**	12	25.5	83	4
L1212620	M16	1.0	**12.0**	12	25	83	4
L1212670	M18	1.5	**14.0**	14	28.5	92	5
L1212680	M18	1.0	**14.0**	14	28	92	5
L1212720	M20	1.5	**16.0**	16	31.5	92	5
L1212730	M20	1.0	**16.0**	16	31	92	5

▶ Other coatings are available on your request.

◎ : Excellent ○ : Good

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

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

THREAD MILL

L1213 SERIES

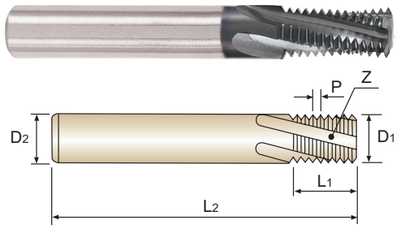
UNC

Solid Carbide Thread Mill for UNC Internal Thread - ANSI B 1.1

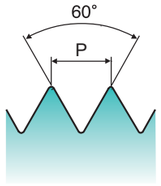
VOLLHARTMETALL GEWINDEFRÄSER für UNC INNENGEWINDE, ANSI B 1.1
FRAISES A FILETER CARBURE MONOBLOC POUR FILETAGE INTER UNC - ANSI B 1.1
Filettature interne, unificato, passo grosso - ANSI B 1.1

▶ Easy to cut threads even for exotic materials like Nickel, Titanium and their alloys.

▶ Problemloses Gewindeschneiden sogar in exotischen Werkstoffen, wie Nickel, Titan und ihre Legierungen.



Thread Depth
2×D



Material groups **MU** | CARBIDE | DIN 6535HA | 60° | R15 | TiAlN

p.B54

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	POWER MILLING CHUCK	
○	ER COLLET CHUCK SK SLIM CHUCK	

Unit : mm

EDP No.	Nominal Diameter [D]	TPI	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	No. of Flute
TiAlN			D1	D2	L1	L2	Z
L1213400	1/4	20	**4.5**	6	14	57	3
L1213440	5/16	18	**5.8**	6	16.9	65	3
L1213480	3/8	16	**7.0**	8	20.6	72	4
L1213520	7/16	14	**8.0**	8	23.6	72	4
L1213560	1/2	13	**9.5**	10	27.4	80	4
L1213600	9/16	12	**10.0**	10	31.8	83	4
L1213640	5/8	11	**12.0**	12	34.6	92	4
L1213700	3/4	10	**14.0**	14	40.6	104	5

▶ Other coatings are available on your request.

◎ : Excellent ○ : Good

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

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

THREAD MILL

L1214 SERIES

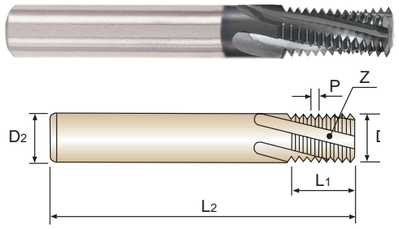
UNF

Solid Carbide Thread Mill for UNF Internal Thread - ANSI B 1.1

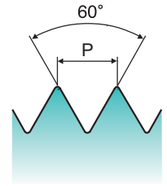
VOLLHARTMETALL GEWINDEFRÄSER für UNF INNENGEWINDE, ANSI B 1.1
FRAISES A FILETER CARBURE MONOBLOC POUR FILETAGE INTER UNC - ANSI B 1.1
Filettature interne, unificato, passo grosso - ANSI B 1.1

▶ Easy to cut threads even for exotic materials like Nickel, Titanium and their alloys.

▶ Problemloses Gewindeschneiden sogar in exotischen Werkstoffen, wie Nickel, Titan und ihre Legierungen.



Thread Depth
2×D



Material groups **MU** | CARBIDE | DIN 6535HA | 60° | R15 | TiAlN

p.B54

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	POWER MILLING CHUCK	
○	ER COLLET CHUCK SK SLIM CHUCK	

Unit : mm

EDP No.	Nominal Diameter [D]	TPI	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	No. of Flute
TiAlN			D1	D2	L1	L2	Z
L1214420	1/4	28	**5.0**	6	13.6	57	3
L1214460	5/16	24	**6.0**	6	16.9	65	3
L1214500	3/8	24	**8.0**	8	20.1	72	4
L1214540	7/16	20	**8.0**	8	24.1	72	4
L1214580	1/2	20	**10.0**	10	26.7	80	4
L1214620	9/16	18	**12.0**	12	29.6	83	4
L1214660	5/8	18	**12.0**	12	33.9	92	4
L1214720	3/4	16	**14.0**	14	39.7	104	5

▶ Other coatings are available on your request.

◎ : Excellent ○ : Good

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

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

THREAD MILL

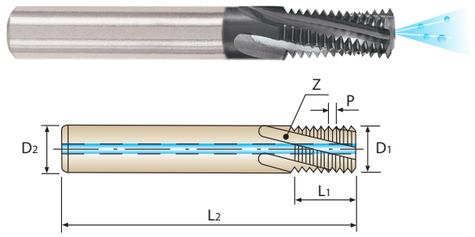
L4211 SERIES

M Solid Carbide Thread Mill with Coolant Hole for ISO Metric Internal Thread - DIN 13

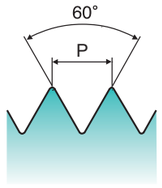
VOLLHARTMETALL GEWINDEFRÄSER mit KÜHLKANAL für ISO METRISCHES INNENGEWINDE - DIN 13
FRAISES A FILETER CARBURE MONOBLOC AVEC ARROSAGE CENTRAL POUR FILETAGE ISO INTER MÉTRIQUE - DIN13
Con fori di lubrificazione, Filettature interne, ISO metriche, passo grosso - DIN 13

▶ Easy to cut threads even for exotic materials like Nickel, Titanium and their alloys.

▶ Problemloses Gewindeschneiden sogar in exotischen Werkstoffen, wie Nickel, Titan und ihre Legierungen.



Thread Depth
2×D



Material groups **MU** | CARBIDE | DIN 6535HA | 60° | R15 | TiAlN

p.B54

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	POWER MILLING CHUCK	
○	ER COLLET CHUCK SK SLIM CHUCK	

Unit : mm

EDP No.	Nominal Diameter [D]	Pitch	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	No. of Flute
TiAlN		P	D1	D2	L1	L2	Z
L4211310	M6	1.0	**4.5**	6	13.0	57	3
L4211360	M8	1.25	**6.0**	6	17.5	65	3
L4211420	M10	1.5	**7.5**	8	21.0	72	4
L4211500	M12	1.75	**9.5**	10	26.25	80	4
L4211540	M14	2.0	**10.0**	10	30.0	83	4
L4211600	M16	2.0	**12.0**	12	34.0	92	4
L4211700	M20	2.5	**16.0**	16	42.5	105	5

▶ Other coatings are available on your request.

◎ : Excellent ○ : Good

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

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

THREAD MILL

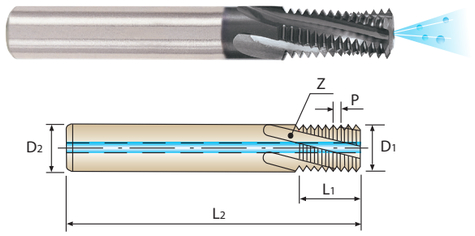
L4212 SERIES

MF Solid Carbide Thread Mill with Coolant Hole for ISO Metric Internal Thread - DIN 13

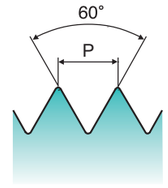
VOLLHARTMETALL GEWINDEFRÄSER mit KÜHLKANAL für ISO METRISCH - FEIN INNENGEWINDE - DIN 13
FRAISES A FILETER CARBURE MONOBLOC AVEC ARROSAGE CENTRAL POUR FILETAGE ISO INTER MÉTRIQUE - DIN13
Con fori di lubrificazione, Filettature interne, ISO metriche, passo grosso - DIN 13

▶ Easy to cut threads even for exotic materials like Nickel, Titanium and their alloys.

▶ Problemloses Gewindeschneiden sogar in exotischen Werkstoffen, wie Nickel, Titan und ihre Legierungen.



Thread Depth
1.5×D



Material groups **MU** | CARBIDE | DIN 6535HA | 60° | R15 | TiAlN

p.B54

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	POWER MILLING CHUCK	
○	ER COLLET CHUCK SK SLIM CHUCK	

Unit : mm

EDP No.	Nominal Diameter [D]	Pitch	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	No. of Flute
TiAlN		P	D1	D2	L1	L2	Z
L4212370	M8	1.0	**6.0**	6	13.0	57	3
L4212380	M8	0.75	**6.0**	6	12.75	57	3
L4212440	M10	1.0	**8.0**	8	16.0	63	4
L4212510	M12	1.5	**9.5**	10	19.5	72	4
L4212520	M12	1.25	**9.5**	10	18.75	72	4
L4212530	M12	1.0	**9.5**	10	19.0	72	4
L4212550	M14	1.5	**10.0**	10	22.5	83	4
L4212570	M14	1.0	**10.0**	10	22.0	83	4
L4212610	M16	1.5	**12.0**	12	25.5	83	4
L4212620	M16	1.0	**12.0**	12	25.0	83	4
L4212670	M18	1.5	**14.0**	14	28.5	92	5
L4212680	M18	1.0	**14.0**	14	28.0	92	5
L4212720	M20	1.5	**16.0**	16	31.5	92	5
L4212730	M20	1.0	**16.0**	16	31.0	92	5

▶ Other coatings are available on your request.

◎ : Excellent ○ : Good

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

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

THREAD MILL

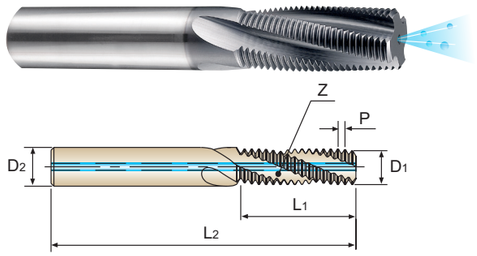
L6215 SERIES

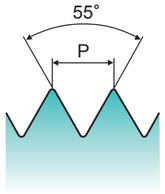
BSP(G) Solid Carbide Thread Mill with Coolant Hole for BSP(G) Internal/External Thread

VOLLHARTMETALL GEWINDEFRÄSER mit KÜHLKANAL für BSP (G) INNEN- /AUSSENGEWINDE
FRAISES A FILETER CARBURE MONOBLOC AVEC ARROSAGE CENTRAL POUR FILETAGE INTERNE/EXTERNE BSP(G)
Fresa con fori di lubrificazione, filettature interne ed esterne, BSP(G)

▶ Easy to cut threads even for exotic materials like Nickel, Titanium and their alloys.

▶ Problemloses Gewindeschneiden sogar in exotischen Werkstoffen, wie Nickel, Titan und ihre Legierungen.





Material groups **MU** | CARBIDE | DIN 6535HA | 55° | R15 | TiAlN

p.B54

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	POWER MILLING CHUCK	
○	ER COLLET CHUCK SK SLIM CHUCK	

Unit : mm

EDP No.	Nominal Diameter [D]	TPI	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	No. of Flute
TiAlN			D1	D2	L1	L2	Z
L6215020	1/16	28	**5.9**	6	16.3	65	3
L6215200	1/8	28	**7.9**	8	20.0	70	4
L6215400	1/4	19	**9.9**	10	26.7	80	4
L6215480	3/8	19	**13.9**	14	33.4	92	4
L6215560	1/2	14	**15.9**	16	43.5	104	5
L6215700	3/4	14	**17.9**	18	34.5	100	5
L6215780	1	11	**19.9**	20	34.6	100	5

▶ Other coatings are available on your request.

◎ : Excellent ○ : Good

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

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

THREAD MILL

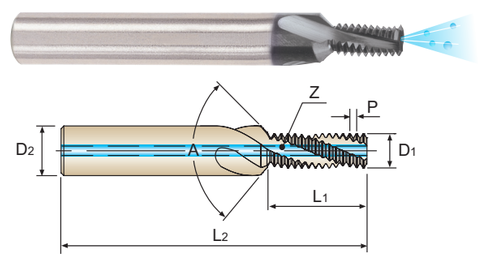
L4271 SERIES

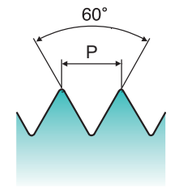
M Solid Carbide Thread Mill with Coolant Hole & Chamfer for ISO Metric Internal Thread - DIN 13

VOLLHARTMETALL GEWINDEFRÄSER mit KÜHLKANAL & FASE für METRISCHES INNENGEWINDE - DIN 13
FRAISES A FILETER CARBURE MONOBLOC AVEC ARROSAGE CENTRAL ET CHANFREIN POUR FILETAGE ISO INTER MÉTRIQUE DIN13
Con fori di lubrificazione e taglienti per smussi, filettature interne, ISO metriche - DIN 13

▶ Easy to cut threads even for exotic materials like Nickel, Titanium and their alloys.

▶ Problemloses Gewindeschneiden sogar in exotischen Werkstoffen, wie Nickel, Titan und ihre Legierungen.





Material groups **MU** | CARBIDE | DIN 6535HA | 60° | R15 | TiAlN

p.B54

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	POWER MILLING CHUCK	
○	ER COLLET CHUCK SK SLIM CHUCK	

Unit : mm

EDP No.	Nominal Diameter [D]	Pitch	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	Angle	No. of Flute
TiAlN		P	D1	D2	L1	L2	A	Z
L4271310	M6	1.0	**4.8**	8	12.4	62	90°	3
L4271360	M8	1.25	**6.5**	10	16.8	74	90°	3
L4271420	M10	1.5	**8.2**	12	20.15	80	90°	4
L4271500	M12	1.75	**9.9**	14	25.25	90	90°	4
L4271540	M14	2.0	**11.6**	16	28.85	100	90°	4
L4271600	M16	2.0	**13.6**	18	32.85	102	90°	4

▶ Other coatings are available on your request.

◎ : Excellent ○ : Good

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

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

THREAD MILL

L4272 SERIES

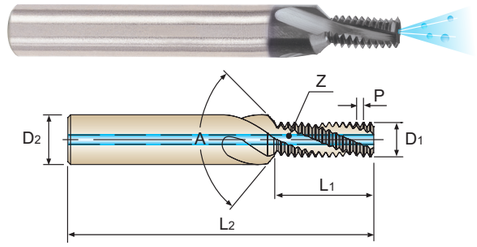
MF

Solid Carbide Thread Mill with Coolant Hole & Chamfer for ISO Metric Internal Thread - DIN 13

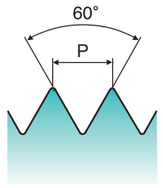
VOLLHARTMETALL GEWINDEFRÄSER mit KÜHLKANAL & FASE für METRISCH - FEIN INNENGEWINDE - DIN 13
FRAISES A FILETER CARBURE MONOBLOC AVEC ARROSAGE CENTRAL ET CHANFREIN POUR FILETAGE ISO INTER MÉTRIQUE DIN13
Con fori di lubrificazione e taglienti per smussi, filettature interne, ISO metriche, passo fine - DIN 13

▶ Easy to cut threads even for exotic materials like Nickel, Titanium and their alloys.

▶ Problemloses Gewindeschneiden sogar in exotischen Werkstoffen, wie Nickel, Titan und ihre Legierungen.



Thread Depth
1.5×D



Material groups **MU** | CARBIDE | DIN 6535HA | 60° | R15 | TiAlN

p.B54

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	POWER MILLING CHUCK	
○	ER COLLET CHUCK SK SLIM CHUCK	

Unit : mm

EDP No.	Nominal Diameter [D]	Pitch	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	Angle	No. of Flute
TiAlN		P	D1	D2	L1	L2	A	Z
L4272370	M8	1.0	**6.7**	10	12.4	74	90°	3
L4272430	M10	1.25	**8.3**	12	15.9	80	90°	4
L4272440	M10	1.0	**8.7**	12	15.4	80	90°	4
L4272510	M12	1.5	**10.0**	14	18.65	90	90°	4
L4272520	M12	1.25	**10.3**	14	18.3	80	90°	4
L4272530	M12	1.0	**10.7**	14	18.4	90	90°	4
L4272550	M14	1.5	**12.0**	16	21.65	100	90°	4
L4272610	M16	1.5	**14.0**	18	24.65	102	90°	5

▶ Other coatings are available on your request.

◎ : Excellent ○ : Good

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

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

THREAD MILL

L4273 SERIES

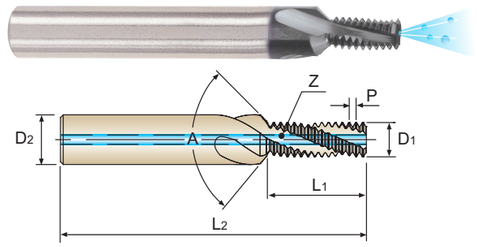
UNC

Solid Carbide Thread Mill with Coolant Hole & Chamfer for UNC Internal Thread - ANSI B 1.1

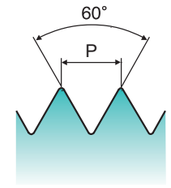
VOLLHARTMETALL GEWINDEFRÄSER mit KÜHLKANAL & FASE für UNC INNENGEWINDE - ANSI B 1.1
FRAISES A FILETER CARBURE MONOBLOC AVEC ARROSAGE CENTRAL ET CHANFREIN POUR FILETAGE INTER UNC - ANSI B 1.1
Con fori di lubrificazione e taglienti per smussi, filettature interne, unificato, passo grosso - ANSI B 1.1

▶ Easy to cut threads even for exotic materials like Nickel, Titanium and their alloys.

▶ Problemloses Gewindeschneiden sogar in exotischen Werkstoffen, wie Nickel, Titan und ihre Legierungen.



Thread Depth
2×D



Material groups **MU** | CARBIDE | DIN 6535HA | 60° | R15 | TiAlN

p.B55

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	POWER MILLING CHUCK	
○	ER COLLET CHUCK SK SLIM CHUCK	

Unit : mm

EDP No.	Nominal Diameter [D]	TPI	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	Angle	No. of Flute
TiAlN			D1	D2	L1	L2	A	Z
L4273400	1/4	20	**4.8**	8	13.3	62	90°	3
L4273440	5/16	18	**6.2**	10	16.18	74	90°	3
L4273480	3/8	16	**7.6**	12	19.8	80	90°	4
L4273520	7/16	14	**8.9**	12	22.62	80	90°	4
L4273560	1/2	13	**10.3**	14	26.32	90	90°	4
L4273600	9/16	12	**11.7**	16	30.63	100	90°	4
L4273640	5/8	11	**13.1**	18	33.41	102	90°	4
L4273700	3/4	10	**16.0**	20	39.29	110	90°	5

▶ Other coatings are available on your request.

◎ : Excellent ○ : Good

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

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

THREAD MILL

L4274 SERIES

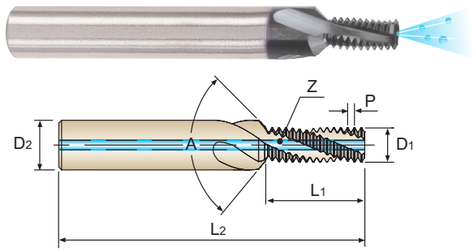
UNF

Solid Carbide Thread Mill with Coolant Hole & Chamfer for UNF Internal Thread - ANSI B 1.1

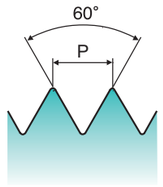
VOLLHARTMETALL GEWINDEFRÄSER mit KÜHLKANAL & FASE für UNF INNENGEWINDE - ANSI B 1.1
FRAISES A FILETER CARBURE MONOBLOC AVEC ARROSAGE CENTRAL ET CHANFREIN POUR FILETAGE INTER UNC - ANSI B 1.1
Con fori di lubrificazione e taglienti per smussi, filettature interne, unificato, passo fine - ANSI B 1.1

▶ Easy to cut threads even for exotic materials like Nickel, Titanium and their alloys.

▶ Problemloses Gewindeschneiden sogar in exotischen Werkstoffen, wie Nickel, Titan und ihre Legierungen.



Thread Depth
2×D



Material groups **MU** | CARBIDE | DIN 6535HA | 60° | R15 | TiAlN | p.B55

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	POWER MILLING CHUCK	
○	ER COLLET CHUCK SK SLIM CHUCK	

Unit : mm

EDP No.	Nominal Diameter [D]	TPI	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	Angle	No. of Flute
TiAlN			D1	D2	L1	L2	A	Z
L4274420	1/4	28	**5.1**	8	13.21	62	90°	3
L4274460	5/16	24	**6.5**	10	16.37	74	90°	3
L4274500	3/8	24	**8.1**	12	19.54	80	90°	4
L4274540	7/16	20	**9.4**	12	22.19	80	90°	4
L4274580	1/2	20	**11.0**	14	26	90	90°	4
L4274620	9/16	18	**12.4**	16	28.88	100	90°	4
L4274660	5/8	18	**14.0**	18	33.12	102	90°	5
L4274720	3/4	16	**17.0**	20	38.86	110	90°	5

▶ Other coatings are available on your request.

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

THREAD MILL

L4276 SERIES

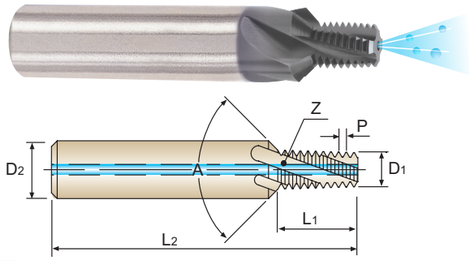
NPT

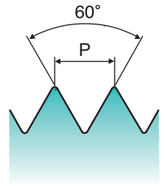
Solid Carbide Thread Mill with Coolant Hole & Chamfer for NPT Thread - ANSI B 1.20.1

VOLLHARTMETALL GEWINDEFRÄSER mit KÜHLKANAL & FASE für NPT INNENGEWINDE - ANSI B 1.20.1
FRAISES A FILETER CARBURE MONOBLOC AVEC ARROSAGE CENTRAL ET CHANFREIN POUR FILETAGE INTER NPT - ANSI B 1.20.1
Con fori di lubrificazione e taglienti per smussi, filettature interne, unificato, passo fine - ANSI B 1.1

▶ Easy to cut threads even for exotic materials like Nickel, Titanium and their alloys.

▶ Problemloses Gewindeschneiden sogar in exotischen Werkstoffen, wie Nickel, Titan und ihre Legierungen.





Material groups **MU** | CARBIDE | DIN 6535HA | 60° | R15 | TiAlN | p.B55

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	POWER MILLING CHUCK	
○	ER COLLET CHUCK SK SLIM CHUCK	

Unit : mm

EDP No.	Nominal Diameter [D]	TPI	Cutter Diameter	Shank Diameter	Thread Length	Overall Length	Angle	No. of Flute
TiAlN			D1	D2	L1	L2	A	Z
L4276020	NPT1/16	27	**5.9**	10	8.9	64	90°	3
L4276200	NPT1/8	27	**7.8**	12	8.9	70	90°	4
L4276400	NPT1/4	18	**10.05**	16	13.4	81	90°	4
L4276480	NPT3/8	18	**13.45**	18	13.4	81	90°	4

▶ Other coatings are available on your request.

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

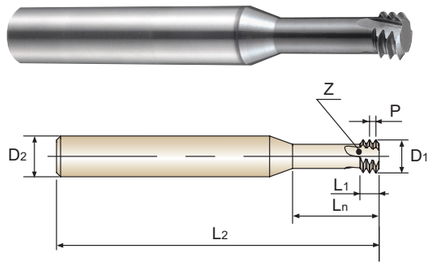
THREAD MILL

L12D1 SERIES

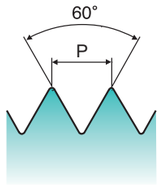
M Solid Carbide Miniature Thread Mill for ISO Metric Internal Thread - DIN 13

VOLLHARTMETALL MINI-GEWINDEFRÄSER für ISO METRISCHE INNENGEWINDE - DIN 13
FRAISES A FILETER À TOURBILLONNER CARBURE MONOBLOC POUR FILETAGE ISO INTER MÉTRIQUE - DIN13
Mini frese per filettature interne ISO metriche passo grosso - DIN 13

▶ Short thread length ▶ Kurze Gewindelänge



Thread Depth
2×D



Material groups **MU** | CARBIDE | DIN 6535HA | 60° | R15 | TiAlN | p.B55

Recommended ToolHolder

	Flat Shank	Plain Shank
END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER	
POWER MILLING CHUCK		
ER COLLET CHUCK SK SLIM CHUCK		

Unit : mm

EDP No.	Nominal Diameter [D]	Pitch	Cutter Diameter	Shank Diameter	Thread Length	Neck Length	Overall Length	No. of Flute
TiAlN		P	D1	D2	L1	Ln	L2	Z
L12D1010	M1	0.25	**0.70**	3	0.75	2.1	30	3
L12D1050	M1.2	0.25	**0.90**	3	0.75	2.5	30	3
L12D1070	M1.4	0.3	**1.04**	3	0.90	2.9	30	3
L12D1090	M1.6	0.35	**1.18**	3	1.05	3.4	30	3
L12D1130	M2	0.4	**1.52**	6	1.2	4.2	57	3
L12D1150	M2.2	0.45	**1.66**	6	1.35	4.6	57	3
L12D1170	M2.5	0.45	**1.96**	6	1.35	5.3	57	3
L12D1200	M3	0.5	**2.4**	6	1.5	6.3	57	3
L12D1240	M4	0.7	**3.16**	6	2.1	8.4	57	3
L12D1280	M5	0.8	**4.04**	6	2.4	10.5	57	3
L12D1310	M6	1.0	**4.8**	6	3.0	12.6	57	3
L12D1360	M8	1.25	**6.5**	8	3.75	16.8	63	3
L12D1420	M10	1.5	**8.2**	10	4.5	21.0	73	3
L12D1500	M12	1.75	**9.9**	10	5.25	25.2	73	3

▶ Other coatings are available on your request.

◎ : Excellent ○ : Good

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

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

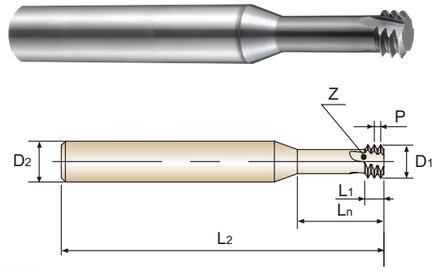
THREAD MILL

L12D3 SERIES

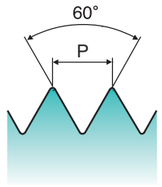
UNC Solid Carbide Miniature Thread Mill for UNC Internal Thread - ANSI B 1.1

VOLLHARTMETALL MINI-GEWINDEFRÄSER für UNC INNENGEWINDE - ANSI B 1.1
FRAISES A FILETER À TOURBILLONNER CARBURE MONOBLOC POUR FILETAGE POUR FILETAGE INTER UNC- ANSI B 1.1
Mini frese per filettature interne unificato passo grosso - ANSI B 1.1

▶ Short thread length ▶ Kurze Gewindelänge



Thread Depth
2×D



Material groups **MU** | CARBIDE | DIN 6535HA | 60° | R15 | TiAlN | p.B55

Recommended ToolHolder

	Flat Shank	Plain Shank
END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER	
POWER MILLING CHUCK		
ER COLLET CHUCK SK SLIM CHUCK		

Unit : mm

EDP No.	Nominal Diameter [D]	TPI	Cutter Diameter	Shank Diameter	Thread Length	Neck Length	Overall Length	No. of Flute
TiAlN			D1	D2	L1	Ln	L2	Z
L12D3040	#1	64	**1.38**	6	1.19	3.9	57	3
L12D3080	#2	56	**1.64**	6	1.36	4.6	57	3
L12D3160	#4	40	**2.08**	6	1.91	6.0	57	3
L12D3240	#6	32	**2.55**	6	2.38	7.4	57	3
L12D3280	#8	32	**3.21**	6	2.38	8.7	57	3
L12D3320	#10	24	**3.56**	6	3.18	10.1	57	3
L12D3360	#12	24	**4.22**	6	3.18	11.5	57	3
L12D3400	1/4	20	**4.83**	6	3.81	13.3	57	3
L12D3440	5/16	18	**6.24**	8	4.23	16.7	63	3
L12D3480	3/8	16	**7.62**	8	4.76	20.0	63	3
L12D3520	7/16	14	**8.94**	10	5.44	23.3	73	3

▶ Other coatings are available on your request.

◎ : Excellent ○ : Good

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

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

THREAD MILL

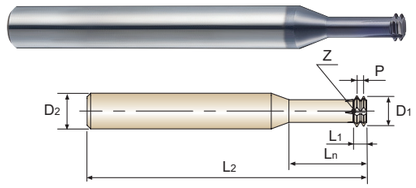
L19E1 SERIES

M — Solid Carbide Miniature Thread Mill for Hard Materials, ISO Metric Internal Thread - DIN 13

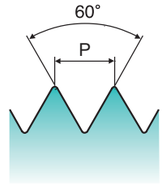
- VOLLHARTMETALL MINI-GEWINDEFRÄSER für GEHÄRTETE MATERIALIEN, ISO METRISCHE INNENGEWINDE - DIN 13
- FRAISES À TOURBILLONNER CARBURE MONOBLOC POUR MATÉRIAUX DURS, FILETAGE ISO INTER MÉTRIQUE - DIN13
- Mini frese per acciai temprati ISO metriche passo grosso - DIN 13

▶ Left hand Cut (CNC code : M04)
▶ Short thread length
▶ Straight Flute
▶ The work direction is from top to bottom (Climb Milling)
▶ For hard materials up to HRc62

▶ Linksschneidend (CNC Befehl : M04)
▶ Kurze Gewindelänge
▶ Linksschneidend, geradegenutet
▶ Die Fräsrichtung ist von oben nach unten (Gleichlauf)
▶ Für gehärtete Materialien bis zu HRc62



Thread Depth
2×D



Material groups **HR** | CARBIDE | DIN 6535HA | 60° | AlTiN | p.B55

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	POWER MILLING CHUCK	
○	ER COLLET CHUCK SK SLIM CHUCK	

Unit : mm

EDP No.	Nominal Diameter [D]	Pitch	Cutter Diameter	Shank Diameter	Thread Length	Neck Length	Overall Length	No. of Flute
AlTiN		P	D1	D2	L1	Ln	L2	Z
L19E1130	M2	0.4	**1.52**	6	0.8	4.2	57	4
L19E1150	M2.2	0.45	**1.66**	6	0.9	4.6	57	4
L19E1170	M2.5	0.45	**1.96**	6	0.9	5.3	57	4
L19E1200	M3	0.5	**2.4**	6	1.0	6.3	57	4
L19E1240	M4	0.7	**3.16**	6	1.4	8.4	57	4
L19E1280	M5	0.8	**4.04**	6	1.6	10.5	57	4
L19E1310	M6	1.0	**4.8**	6	2.0	12.6	57	5
L19E1360	M8	1.25	**6.5**	8	2.5	16.8	63	5
L19E1420	M10	1.5	**8.2**	10	3.0	21.0	73	6
L19E1500	M12	1.75	**9.9**	10	3.5	25.2	73	6

▶ Other coatings are available on your request.

◎ : Excellent ○ : Good

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

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

THREAD MILL

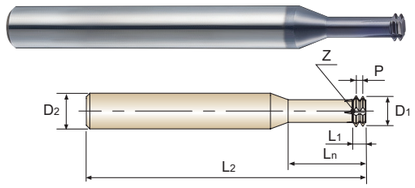
L19E3 SERIES

UNC — Solid Carbide Miniature Thread Mill for Hard Materials, UNC Internal Thread - ANSI B 1.1

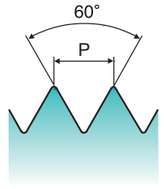
- VOLLHARTMETALL MINI-GEWINDEFRÄSER für GEHÄRTETE MATERIALIEN, UNC INNENGEWINDE - ANSI B 1.1
- FRAISES À TOURBILLONNER CARBURE MONOBLOC POUR MATÉRIAUX DURS POUR FILETAGE INTER UNC - ANSI B 1.1
- Mini frese per acciai temprati unificato passo grosso - ANSI B 1.1

▶ Left hand Cut (CNC code : M04)
▶ Short thread length
▶ Straight Flute
▶ The work direction is from top to bottom (Climb Milling)
▶ For hard materials up to HRc62

▶ Linksschneidend (CNC Befehl : M04)
▶ Kurze Gewindelänge
▶ Linksschneidend, geradegenutet
▶ Die Fräsrichtung ist von oben nach unten (Gleichlauf)
▶ Für gehärtete Materialien bis zu HRc62



Thread Depth
2×D



Material groups **HR** | CARBIDE | DIN 6535HA | 60° | AlTiN | p.B55

Recommended ToolHolder

	Flat Shank	Plain Shank
◎	END MILL HOLDER	HYDRAULIC CHUCK SHRINK FIT HOLDER
◎	POWER MILLING CHUCK	
○	ER COLLET CHUCK SK SLIM CHUCK	

Unit : mm

EDP No.	Nominal Diameter [D]	TPI	Cutter Diameter	Shank Diameter	Thread Length	Neck Length	Overall Length	No. of Flute
AlTiN			D1	D2	L1	Ln	L2	Z
L19E3080	#2	56	**1.64**	6	0.91	4.6	57	4
L19E3160	#4	40	**2.08**	6	1.27	6.0	57	4
L19E3240	#6	32	**2.55**	6	1.59	7.4	57	4
L19E3280	#8	32	**3.21**	6	1.59	8.7	57	4
L19E3320	#10	24	**3.56**	6	2.12	10.1	57	4
L19E3360	#12	24	**4.22**	6	2.12	11.5	57	4
L19E3400	1/4	20	**4.83**	6	2.54	13.3	57	5
L19E3440	5/16	18	**6.24**	8	2.82	16.7	63	5
L19E3480	3/8	16	**7.62**	8	3.18	20.0	63	6
L19E3520	7/16	14	**8.94**	10	3.63	23.3	73	6

▶ Other coatings are available on your request.

◎ : Excellent ○ : Good

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

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

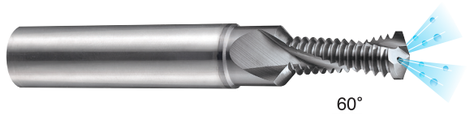
THREAD MILL

UNCOATED **L41A1** SERIES
TiAlN **L42A1** SERIES

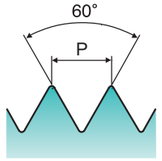
M Solid Carbide Drill and Thread Mill with Chamfer for ISO Metric Internal Thread - DIN 13

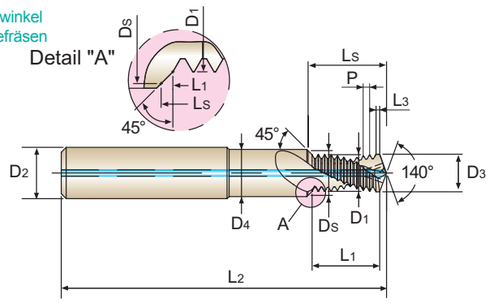
VOLLHARTMETALL BOHRGEWINDEFRÄSER MIT SENKFASE für ISO METRISCHE INNENGEWINDE - DIN 13
FRAISES À FILETER ET À PERCER CARBURE MONOBLOC AVEC CHANFREIN POUR FILETAGE INTER - DIN13
Fresa fora, filetta e smussa , filettature interne, ISO metriche passo grosso - DIN 13

- No. of Flute : 2
- Drill Point : 140° / Countersink : 90°
- Drilling, Chamfering and Thread milling
- Anz. der Nuten : 2
- 140° Spitzenwinkel, 90° Senkwinkel
- Bohren, Senken und Gewindefräsen



Thread Depth
2×D





Material groups GG | Material groups Al | CARBIDE | DIN 6535HA | 60° | R25 | Bright TiAlN | p.B55

Recommended ToolHolder

	Flat Shank	Plain Shank
END MILL HOLDER		HYDRAULIC CHUCK SHRINK FIT HOLDER
POWER MILLING CHUCK		
ER COLLET CHUCK SK SLIM CHUCK		

Unit : mm

EDP No. Bright	EDP No. TiAlN	Nominal Diameter [D]	Pitch P	Cutter Diameter D1	Shank Diameter D2	Effect. Diameter Ds	Drill Diameter D3	Max. C'sink D4	Thread Length L1	Effect. Length Ls	Drill Length L3	Overall Length L2
L41A1310	**L42A1310**	M6	1.0	**4.75**	8	6.3	5.00	6.6	13.00	14.68	1.00	62
L41A1360	**L42A1360**	M8	1.25	**6.35**	10	8.3	6.75	9.0	16.27	18.48	1.25	74
L41A1420	**L42A1420**	M10	1.5	**7.95**	12	10.3	8.50	11.0	21.05	23.77	1.50	79
L41A1500	**L42A1500**	M12	1.75	**9.95**	14	12.3	10.25	13.5	24.21	27.25	1.50	89
L41A1540	**L42A1540**	M14	2.0	**11.20**	16	14.3	12.00	15.5	29.58	33.32	1.50	102

▶ Other coatings are available on your request.

◎ : Excellent ○ : Good

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

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

THREAD MILL

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

For THREAD MILL

unit : mm

Materials	Hardness (HB)	Strength (N/mm²)	Feed per Tooth (fz) Cutter Diameter ≤Ø8.0	Feed per Tooth (fz) Cutter Diameter >Ø8.0
Low Carbon Steels	≤ 200	≤ 700	0.02 - 0.04	0.04 - 0.10
Medium Carbon Steels High Carbon Steels	≤ 250	≤ 850	0.02 - 0.04	0.04 - 0.10
Alloy Steels	≤ 250	≤ 850	0.02 - 0.04	0.04 - 0.10
Heat Treated Steels	≤ 400	≤ 1400	0.02 - 0.04	0.04 - 0.10
Stainless Steels	≤ 300	≤ 1000	0.01 - 0.02	0.02 - 0.06
Cast Iron	≤ 300	≤ 1000	0.02 - 0.04	0.04 - 0.10
Chrome-Nickel Alloys Titanium Alloys	≤ 350	≤ 1200	0.01 - 0.02	0.02 - 0.06
Non Ferrous Materials	≤ 200	≤ 700	0.03 - 0.07	0.05 - 0.10

For Drill and THREAD MILL

unit : mm

Material	Hardness (HB)	Strength (N/mm²)	Fz(Thread Milling) -Feed per Tooth Cutter Diameter ≤Ø8.0	Fz(Thread Milling) -Feed per Tooth Cutter Diameter >Ø8.0	Fdr(Drilling) - Feed per revolution Cutter Diameter ≤Ø8.0	Fdr(Drilling) - Feed per revolution Cutter Diameter >Ø8.0
Cast Iron	≤ 200	≤ 700	0.03-0.08	0.08-0.12	0.10-0.20	0.20-0.25
Aluminium Aluminium-alloy Magnesium	≤ 180	≤ 600	0.05-0.10	0.10-0.15	0.10-0.20	0.20-0.30
Plastics	-	-	0.05-0.10	0.10-0.15	0.10-0.20	0.20-0.30

For Hard Material Miniature THREAD MILL

unit : mm

Material	Hardness (HB)	Strength (N/mm²)	Feed(mm/tooth) Cutter Diameter ≤Ø6.0	Feed(mm/tooth) Cutter Diameter >Ø6.0
Alloy Steel	295-415HB	1000-1400	0.02-0.04	0.04-0.06
Stainless Steel	280-415HB	950-1250	0.02-0.04	0.04-0.06
Cast Iron	≤ HB300	≤ 1000	0.03-0.05	0.05-0.07
Chrome-Nickel Alloys Titanium Alloys	≤ HB445	≤ 1500	0.02-0.03	0.03-0.05
Hardened Material	45-50HRc	-	0.03-0.05	0.05-0.07
	51-55HRc	-	0.02-0.04	0.04-0.06
	56-62HRc	-	0.01-0.03	0.03-0.05

THREAD MILL

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

ISO	VDI 3323	Material Description	HB	HRc	L1211	L1212	L1213	L1214	L4211	L4212	L6215	L4271	L4272
					Vc (m/min.)								
P	1	Non-alloy steel	125		80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120
	2		190	13	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120
	3		250	25	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120
	4		270	28	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120
	5		300	32	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120
	6	Low alloy steel	180	10	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120
	7		275	29	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120
	8		300	32	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120
	9		350	38	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120
	10	High alloyed steel, and tool steel	200	15	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120
	11		325	35	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120	80-120
M	12	Stainless steel	200	15	40-80	40-80	40-80	40-80	40-80	40-80	40-80	40-80	40-80
	13		240	23	40-80	40-80	40-80	40-80	40-80	40-80	40-80	40-80	40-80
	14		180	10	40-80	40-80	40-80	40-80	40-80	40-80	40-80	40-80	40-80
K	15	Grey cast iron	180	10	50-100	50-100	50-100	50-100	50-100	50-100	50-100	50-100	50-100
	16		260	26	50-100	50-100	50-100	50-100	50-100	50-100	50-100	50-100	50-100
	17	Nodular cast iron	160	3	50-100	50-100	50-100	50-100	50-100	50-100	50-100	50-100	50-100
	18		250	25	50-100	50-100	50-100	50-100	50-100	50-100	50-100	50-100	50-100
	19	Malleable cast iron	130		50-100	50-100	50-100	50-100	50-100	50-100	50-100	50-100	50-100
	20		230	21	50-100	50-100	50-100	50-100	50-100	50-100	50-100	50-100	50-100
N	21	Aluminum-wrought alloy	60		100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300
	22		100		100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300
	23	Aluminum-cast, alloyed	75		100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300
	24		90		100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300
	25		130		100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300
	26	Copper and Copper Alloys (Bronze / Brass)	110		100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300
	27		90		100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300
	28		100		100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300
	29	Non Metallic Materials			100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300
	30				100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300	100-300
S	31	Heat Resistant Super Alloys	200	15	20-60	20-60	20-60	20-60	20-60	20-60	20-60	20-60	20-60
	32		280	30	20-60	20-60	20-60	20-60	20-60	20-60	20-60	20-60	20-60
	33		250	25	20-60	20-60	20-60	20-60	20-60	20-60	20-60	20-60	20-60
	34		350	38	20-60	20-60	20-60	20-60	20-60	20-60	20-60	20-60	20-60
	35		320	34	20-60	20-60	20-60	20-60	20-60	20-60	20-60	20-60	20-60
	36	Titanium Alloys	400 Rm		20-60	20-60	20-60	20-60	20-60	20-60	20-60	20-60	20-60
	37		1050 Rm		20-60	20-60	20-60	20-60	20-60	20-60	20-60	20-60	20-60
H	38	Hardened steel	550	55						25-60	25-60		
	39		630	60						25-50	25-50		
	40	Chilled Cast Iron	400	42						25-70	25-70		
	41	Hardened Cast Iron	550	55						25-60	25-60		

THREAD MILL

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

ISO	VDI 3323	Material Description	HB	HRc	L4273	L4274	L4276	L12D1	L12D3	L19E1	L19E3	L41A1 L42A1
					Vc (m/min.)							
P	1	Non-alloy steel	125		80-120	80-120	80-120	80-120	80-120			
	2		190	13	80-120	80-120	80-120	80-120	80-120			
	3		250	25	80-120	80-120	80-120	80-120	80-120			
	4		270	28	80-120	80-120	80-120	80-120	80-120			
	5		300	32	80-120	80-120	80-120	80-120	80-120			
	6	Low alloy steel	180	10	80-120	80-120	80-120	80-120	80-120	80-120	80-120	
	7		275	29	80-120	80-120	80-120	80-120	80-120	80-120	80-120	
	8		300	32	80-120	80-120	80-120	80-120	80-120	80-120	80-120	
	9		350	38	80-120	80-120	80-120	80-120	80-120	80-120	80-120	
	10	High alloyed steel, and tool steel	200	15	80-120	80-120	80-120	80-120	80-120	80-120	80-120	
	11		325	35	80-120	80-120	80-120	80-120	80-120	80-120	80-120	
M	12	Stainless steel	200	15	40-80	40-80	40-80	40-80	40-80	40-80	40-80	
	13		240	23	40-80	40-80	40-80	40-80	40-80	40-80	40-80	
	14		180	10	40-80	40-80	40-80	40-80	40-80	40-80	40-80	
K	15	Grey cast iron	180	10	50-100	50-100	50-100	50-100	50-100	50-100	50-100	80-150
	16		260	26	50-100	50-100	50-100	50-100	50-100	50-100	50-100	80-150
	17	Nodular cast iron	160	3	50-100	50-100	50-100	50-100	50-100	50-100	50-100	80-150
	18		250	25	50-100	50-100	50-100	50-100	50-100	50-100	50-100	80-150
	19	Malleable cast iron	130		50-100	50-100	50-100	50-100	50-100	50-100	50-100	80-150
	20		230	21	50-100	50-100	50-100	50-100	50-100	50-100	50-100	80-150
N	21	Aluminum-wrought alloy	60		100-300	100-300	100-300	100-300	100-300			100-300
	22		100		100-300	100-300	100-300	100-300	100-300			100-300
	23	Aluminum-cast, alloyed	75		100-300	100-300	100-300	100-300	100-300			100-300
	24		90		100-300	100-300	100-300	100-300	100-300			100-300
	25		130		100-300	100-300	100-300	100-300	100-300			100-300
	26	Copper and Copper Alloys (Bronze / Brass)	110		100-300	100-300	100-300	100-300	100-300			100-300
	27		90		100-300	100-300	100-300	100-300	100-300			100-300
	28		100		100-300	100-300	100-300	100-300	100-300			100-300
	29	Non Metallic Materials			100-300	100-300	100-300	100-300	100-300			80-150
	30				100-300	100-300	100-300	100-300	100-300			80-150
S	31	Heat Resistant Super Alloys	200	15	20-60	20-60	20-60	20-60	20-60	20-60	20-60	
	32		280	30	20-60	20-60	20-60	20-60	20-60	20-60	20-60	
	33		250	25	20-60	20-60	20-60	20-60	20-60	20-60	20-60	
	34		350	38	20-60	20-60	20-60	20-60	20-60	20-60	20-60	
	35		320	34	20-60	20-60	20-60	20-60	20-60	20-60	20-60	
	36	Titanium Alloys	400 Rm		20-60	20-60	20-60	20-60	20-60	20-60	20-60	
	37		1050 Rm		20-60	20-60	20-60	20-60	20-60	20-60	20-60	
H	38	Hardened steel	550	55						25-60	25-60	
	39		630	60						25-50	25-50	
	40	Chilled Cast Iron	400	42						25-70	25-70	
	41	Hardened Cast Iron	550	55						25-60	25-60	

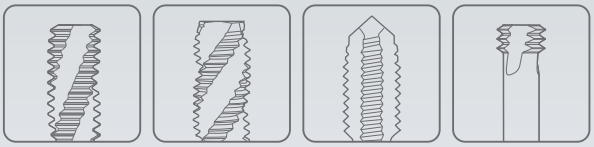
TO CALCULATE SPEED & FEED RATES
SCHNITTGESCHWINDIGKEIT & VORSCHUB KALKULIEREN

Calculate RPM of Cutter	Calculate Feed per Revolution	Finally Calculate Feed at Tool Center Line
$n = \frac{1000 \times V}{d \times \pi}$	$F_1 = Fz \times Z \times N$	$F_2 = \frac{F_1 \times (D - d)}{D}$

N	RPM
V	Recommended Cutting Speed
d	Diameter of Cutter
Fz	Recommended Feed per Tooth
Z	Number of Teeth
F_2	Feed at Center Line of Cutting
F_1	Feed at Cutting Edge
D	Major Diameter of Component

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

Global Cutting Tool Leader **YG-1**



THREADING

Leading Through Innovation



SYNCHRO TAP

Synchro Gewindebohrer

- **For High Speed Tapping on Rigid CNC Machine**
- **Für Hochgeschwindigkeits-Gewindebohren auf starren CNC-Maschinen**

SELECTION GUIDE

YG THREADING TOOLS

HSS-PM SYNCHRO TAP

For High Speed Tapping on Rigid CNC Machine

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B74

HOLE TYPE			Max. 2.5xD Blind Hole	Max. 3.0xD Through Hole
TOOL MATERIAL			HSS-PM	
CHAMFER LEAD ACC. TO DIN2197			C	B
FLUTE TYPE			Spiral Flute	Spiral Point
SPIRAL FLUTE ANGLE			R45	-
SERIES	M	DIN371/376	TTS31 (p.B60)	TTS33 (p.B62)
		DIN352		
		DIN357/LONG		
	MF	DIN374	TTS32 (p.B61)	TTS34 (p.B63)
		DIN2181		
	UNC	DIN371/376		
		DIN351		
	UNF	DIN371/374		
		DIN2181		
	BSW	DIN2182/2183		
		DIN351		
	G (BSP)	DIN5156/5157		
	EG-M	DIN371/376		
	EG-UNC	DIN371/376		
	EG-UNF	DIN371/374		
SURFACE TREATMENT			TiN	TiN
MODEL				  

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc				
P	1	Non-alloy steel	About 0.15% C	Annealed	125		◎	◎	◎	◎
	2		About 0.45% C	Annealed	190	13	◎	◎	◎	◎
	3		About 0.45% C	Quenched & Tempered	250	25	◎	◎	◎	◎
	4		About 0.75% C	Annealed	270	28	◎	◎	◎	◎
	5		About 0.75% C	Quenched & Tempered	300	32				
	6	Low alloy steel		Annealed	180	10	◎	◎	◎	◎
	7			Quenched & Tempered	275	29	◎	◎	◎	◎
	8			Quenched & Tempered	300	32				
	9			Quenched & Tempered	350	38				
	10	High alloyed steel, and tool steel		Annealed	200	15				
	11			Quenched & Tempered	325	35				
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15	◎	◎	◎	◎
	13		Martensitic	Quenched & Tempered	240	23	◎	◎	◎	◎
	14		Austenitic		180	10	○	○	○	○
K	15	Grey cast iron	Pearlitic / ferritic		180	10	○	○	○	○
	16		Pearlitic (Martensitic)		260	26				
	17	Nodular cast iron	Ferritic		160	3	◎	◎	◎	◎
	18		Pearlitic		250	25				
	19	Malleable cast iron	Ferritic		130					
	20		Pearlitic		230	21				
N	21	Aluminum-wrought alloy	Not Curable		60					
	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				
	32			Cured	280	30				
	33		Ni or Co Based	Annealed	250	25				
	34			Cured	350	38				
	35			Cast	320	34				
	36	Titanium Alloys	Pure Titanium		400 Rm					
	37		Alpha + Beta Alloys	Hardened	1050 Rm					
H	38	Hardened steel		Hardened	550	55				
	39			Hardened	630	60				
	40	Chilled Cast Iron		Cast	400	42				
	41	Hardened Cast Iron		Hardened	550	55				

	Max. 2.0xD Blind/Through Hole		Max. 3.0xD Blind/Through Hole		Max. 3.0xD Blind/Through Hole	Max. 2.5xD Blind Hole	Max. 3.0xD Through Hole	Max. 2.0xD Blind Hole	Max. 2.0xD Through Hole	Max. 3.0xD Blind/Through Hole	
	HSS-PM										
	C		C		E	C	B	C	C	C	
	Straight Flute		Cold Forming		Cold Forming	Spiral Flute	Spiral Point	Straight Flute	Straight Flute	Cold Forming	
	-		-		-	R45	-	-	-	-	
	TKS35 (p.B64)		TTS37 (p.B66)		TTS39 (p.B68)	TTS41-IC (p.B69)	TTS42-RCP (p.B70)	TKS43-IC (p.B71)	TKS44-RCP (p.B72)	TTS45-RCP (p.B73)	M
		TKS36 (p.B65)		TTS38 (p.B67)							MF
											UNC
											UNF
											BSW
											G(BSP)
											EG-M
											EG-UNC
											EG-UNF
	TiCN		TiN		TiN	TiN	TiN	TiCN	TiCN	TiN	
											
	○	○	◎	◎	◎	◎	◎	○	○	◎	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

SYNCHRO TAP

TTS31 SERIES

M ISO Metric Coarse Threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines
- Up to 3 times faster in tapping compared to conventional taps
- For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended
- High precision threads

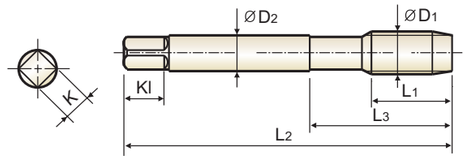
- Beschichtete HSS-PM-Gewindebohrer zum Hochgeschwindigkeitsgew indebohren auf starren CNC-Maschinen oder gleichwertige Maschinen
- Bis zu dreimal schnelleres Gewindeschneiden als bei herkömmlichen Gewindebohrern
- Beim Hochgeschwindigkeits-Gewindebohren wird die Verwendung eines Synchrofutters zur Erhöhung der Werkzeugstandzeit und der Gewindequalität empfohlen
- Hoch präzise Gewinde

DIN 371

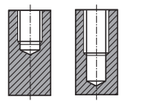


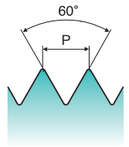
DIN 376

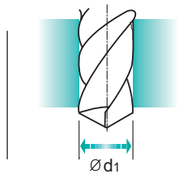




Hole type
2.5×D







Material groups **GS** | HSS PM | DIN 371/376 | 6HX | 60° | C | R45 | TiN | p.B74

Recommended ToolHolder: Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	× 0.5	**TTS31206**	6	56	18	3.5	2.7	6	3	2.5
M4	× 0.7	**TTS31246**	7	63	21	4.5	3.4	6	3	3.3
M5	× 0.8	**TTS31286**	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TTS31316**	10	80	30	6	4.9	8	3	5.0
M8	× 1.25	**TTS31366**	13	90	35	8	6.2	9	3	6.8
M10	× 1.5	**TTS31426**	15	100	39	10	8	11	3	8.5
M12	× 1.75	**TTS31506**	18	110	44	9	7	10	3	10.2
M14	× 2.0	**TTS31546**	20	110	44	11	9	12	3	12.0
M16	× 2.0	**TTS31606**	20	110	44	12	9	12	3	14.0
M18	× 2.5	**TTS31656**	25	125	50	14	11	14	4	15.5
M20	× 2.5	**TTS31706**	25	140	54	16	12	15	4	17.5

- DIN 371 (M3-M10) and DIN 376 (M12-M20)
- Coating (TiAlN) is available on your request.

◎ : 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			◎	◎	◎	◎		○													

SYNCHRO TAP

TTS32 SERIES

MF ISO Metric Fine Threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

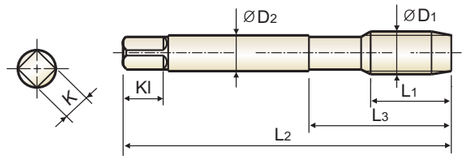
Machine taps
Maschinengewindebohrer

- Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines
- Up to 3 times faster in tapping compared to conventional taps
- For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended
- High precision threads

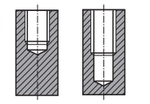
- Beschichtete HSS-PM-Gewindebohrer zum Hochgeschwindigkeitsgew indebohren auf starren CNC-Maschinen oder gleichwertige Maschinen
- Bis zu dreimal schnelleres Gewindeschneiden als bei herkömmlichen Gewindebohrern
- Beim Hochgeschwindigkeits-Gewindebohren wird die Verwendung eines Synchrofutters zur Erhöhung der Werkzeugstandzeit und der Gewindequalität empfohlen
- Hoch präzise Gewinde

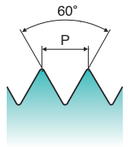
DIN 374

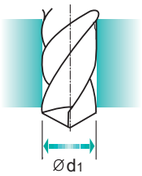




Hole type
2.5×D







Material groups **GS** | HSS PM | DIN 374 | 6HX | 60° | C | R45 | TiN | p.B74

Recommended ToolHolder: Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M8	× 1.0	**TTS32376**	10	90	36	6	4.9	8	3	7.0
M10	× 1.25	**TTS32436**	13	100	40	7	5.5	8	3	8.75
M10	× 1.0	**TTS32446**	10	90	40	7	5.5	8	3	9.0
M12	× 1.25	**TTS32526**	13	100	40	9	7	10	3	10.75
M12	× 1.5	**TTS32516**	15	100	40	9	7	10	3	10.5
M14	× 1.5	**TTS32556**	15	100	40	11	9	12	3	12.5
M16	× 1.5	**TTS32616**	15	100	40	12	9	12	3	14.5
M18	× 1.5	**TTS32676**	17	110	44	14	11	14	4	16.5
M20	× 1.5	**TTS32726**	17	125	50	16	12	15	4	18.5

- Coating (TiAlN) is available on your request.

◎ : 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			◎	◎	◎	◎		○													

SYNCHRO TAP

TTS33 SERIES

M ISO Metric Coarse Threads DIN 13

- Metrisches ISO-Gewinde DIN 13
- ISO MÉTRIQUE DIN13
- ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- ▶ Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines
- ▶ Up to 3 times faster in tapping compared to conventional taps
- ▶ For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended
- ▶ High precision threads

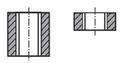
- ▶ Beschichtete HSS-PM-Gewindebohrer zum Hochgeschwindigkeitsgew indebohren auf starren CNC-Maschinen oder gleichwertige Maschinen
- ▶ Bis zu dreimal schnelleres Gewindeschneiden als bei herkömmlichen Gewindebohrern
- ▶ Beim Hochgeschwindigkeits-Gewindebohren wird die Verwendung eines Synchrofutters zur Erhöhung der Werkzeugstandzeit und der Gewindequalität empfohlen
- ▶ Hoch präzise Gewinde

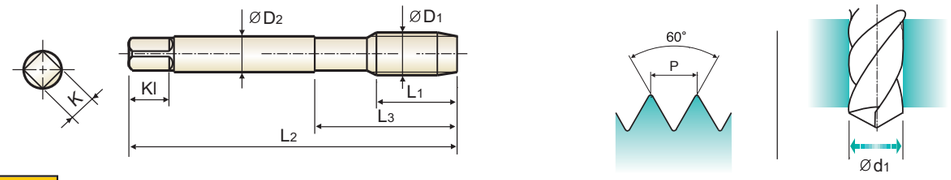
DIN 371

DIN 376



Hole type
3.0×D





Material groups **GS** | HSS PM | DIN 371/376 | 6HX | 60° | B | TiN | p.B74

Recommended ToolHolder — Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	× 0.5	**TTS33206**	5	56	18	3.5	2.7	6	3	2.5
M4	× 0.7	**TTS33246**	7	63	21	4.5	3.4	6	3	3.3
M5	× 0.8	**TTS33286**	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TTS33316**	10	80	30	6	4.9	8	3	5
M8	× 1.25	**TTS33366**	13	90	35	8	6.2	9	3	6.8
M10	× 1.5	**TTS33426**	15	100	39	10	8	11	3	8.5
M12	× 1.75	**TTS33506**	18	110	44	9	7	10	4	10.2
M14	× 2.0	**TTS33546**	20	110	44	11	9	12	4	12
M16	× 2.0	**TTS33606**	20	110	44	12	9	12	4	14
M18	× 2.5	**TTS33656**	25	125	50	14	11	14	4	15.5
M20	× 2.5	**TTS33706**	25	140	54	16	12	15	4	17.5

- ▶ DIN 371 (M3-M10) and DIN 376 (M12-M20)
- ▶ Coating (TiAlN) is available on your request.

◎ : 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			◎	◎	◎	◎		○													

SYNCHRO TAP

TTS34 SERIES

MF ISO Metric Fine Threads DIN 13

- Metrisches ISO-Feingewinde DIN 13
- ISO MÉTRIQUE PAS FINS DIN13
- ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

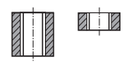
- ▶ Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines
- ▶ Up to 3 times faster in tapping compared to conventional taps
- ▶ For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended
- ▶ High precision threads

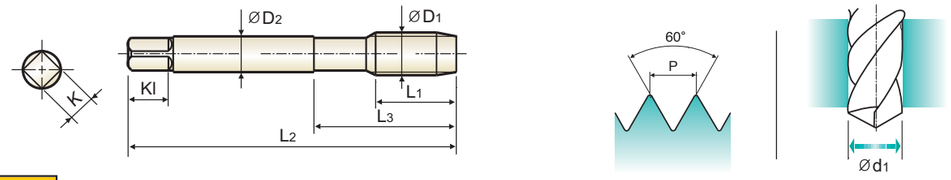
- ▶ Beschichtete HSS-PM-Gewindebohrer zum Hochgeschwindigkeitsgew indebohren auf starren CNC-Maschinen oder gleichwertige Maschinen
- ▶ Bis zu dreimal schnelleres Gewindeschneiden als bei herkömmlichen Gewindebohrern
- ▶ Beim Hochgeschwindigkeits-Gewindebohren wird die Verwendung eines Synchrofutters zur Erhöhung der Werkzeugstandzeit und der Gewindequalität empfohlen
- ▶ Hoch präzise Gewinde

DIN 374



Hole type
3.0×D





Material groups **GS** | HSS PM | DIN 374 | 6HX | 60° | B | TiN | p.B74

Recommended ToolHolder — Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M8	× 1.0	**TTS34376**	10	90	36	6	4.9	8	3	7.0
M10	× 1.25	**TTS34436**	13	100	40	7	5.5	8	3	8.75
M10	× 1.0	**TTS34446**	10	90	40	7	5.5	8	3	9.0
M12	× 1.5	**TTS34516**	15	100	40	9	7	10	4	10.5
M12	× 1.25	**TTS34526**	13	100	40	9	7	10	4	10.75
M14	× 1.5	**TTS34556**	15	100	40	11	9	12	4	12.5
M16	× 1.5	**TTS34616**	15	100	40	12	9	12	4	14.5
M18	× 1.5	**TTS34676**	17	110	44	14	11	14	4	16.5
M20	× 1.5	**TTS34726**	17	125	50	16	12	15	4	18.5

- ▶ Coating (TiAlN) is available on your request.

◎ : 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			◎	◎	◎	◎		○													

SYNCHRO TAP

TKS35 SERIES

M ISO Metric Coarse Threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines
- Up to 3 times faster in tapping compared to conventional taps
- For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended
- High precision threads

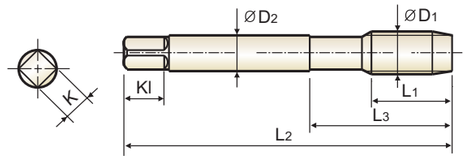
- Beschichtete HSS-PM-Gewindebohrer zum Hochgeschwindigkeitsgew indebohren auf starren CNC-Maschinen oder gleichwertige Maschinen
- Bis zu dreimal schnelleres Gewindeschneiden als bei herkömmlichen Gewindebohrern
- Beim Hochgeschwindigkeits-Gewindebohren wird die Verwendung eines Synchrofutters zur Erhöhung der Werkzeugstandzeit und der Gewindequalität empfohlen
- Hoch präzise Gewinde

DIN 371

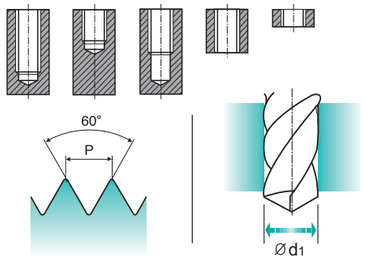


DIN 376





Hole type
2.0×D



Material groups **GG** | HSS PM | DIN 371/376 | 6HX | 60° | C | TiCN | p.B74

Recommended ToolHolder: Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiCN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	× 0.5	**TKS35206**	5	56	18	3.5	2.7	6	3	2.5
M4	× 0.7	**TKS35246**	7	63	21	4.5	3.4	6	3	3.3
M5	× 0.8	**TKS35286**	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TKS35316**	10	80	30	6	4.9	8	3	5.0
M8	× 1.25	**TKS35366**	13	90	35	8	6.2	9	3	6.8
M10	× 1.5	**TKS35426**	15	100	39	10	8	11	4	8.5
M12	× 1.75	**TKS35506**	18	110	44	9	7	10	4	10.2
M14	× 2.0	**TKS35546**	20	110	44	11	9	12	4	12.0
M16	× 2.0	**TKS35606**	20	110	44	12	9	12	4	14.0
M18	× 2.5	**TKS35656**	25	125	50	14	11	14	4	15.5
M20	× 2.5	**TKS35706**	25	140	54	16	12	15	4	17.5

- DIN 371 (M3-M10) and DIN 376 (M12-M20)
- Coating (TiAlN) is available on your request.

◎ : 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			○	○	○																

SYNCHRO TAP

TKS36 SERIES

MF ISO Metric Fine Threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

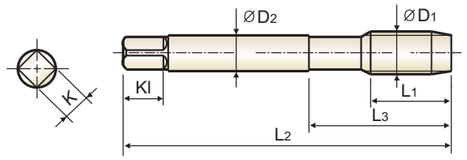
Machine taps
Maschinengewindebohrer

- Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines
- Up to 3 times faster in tapping compared to conventional taps
- For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended
- High precision threads

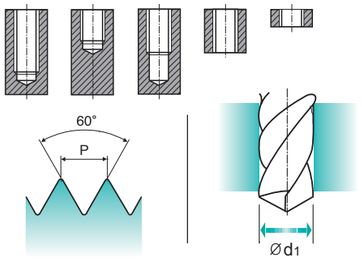
- Beschichtete HSS-PM-Gewindebohrer zum Hochgeschwindigkeitsgew indebohren auf starren CNC-Maschinen oder gleichwertige Maschinen
- Bis zu dreimal schnelleres Gewindeschneiden als bei herkömmlichen Gewindebohrern
- Beim Hochgeschwindigkeits-Gewindebohren wird die Verwendung eines Synchrofutters zur Erhöhung der Werkzeugstandzeit und der Gewindequalität empfohlen
- Hoch präzise Gewinde

DIN 374





Hole type
2.0×D



Material groups **GG** | HSS PM | DIN 374 | 6HX | 60° | C | TiCN | p.B74

Recommended ToolHolder: Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiCN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M8	× 1.0	**TKS36376**	10	90	36	6	4.9	8	3	7.0
M10	× 1.25	**TKS36436**	13	100	40	7	5.5	8	4	8.75
M10	× 1.0	**TKS36446**	10	90	40	7	5.5	8	4	9.0
M12	× 1.25	**TKS36526**	13	100	40	9	7	10	4	10.75
M12	× 1.5	**TKS36516**	15	100	40	9	7	10	4	10.5
M14	× 1.5	**TKS36556**	15	100	40	11	9	12	4	12.5
M16	× 1.5	**TKS36616**	15	100	40	12	9	12	4	14.5
M18	× 1.5	**TKS36676**	17	110	44	14	11	14	4	16.5
M20	× 1.5	**TKS36726**	17	125	50	16	12	15	4	18.5

- Coating (TiAlN) is available on your request.

◎ : 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			○	○	○																

SYNCHRO TAP

TTS37 SERIES

M ISO Metric Coarse Threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines
- Up to 3 times faster in tapping compared to conventional taps
- For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended
- High precision threads

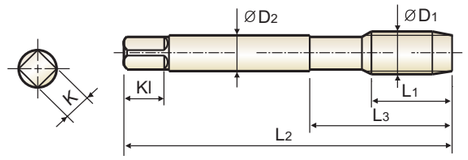
- Beschichtete HSS-PM-Gewindebohrer zum Hochgeschwindigkeitsgewindebohren auf starren CNC-Maschinen oder gleichwertige Maschinen
- Bis zu dreimal schnelleres Gewindeschneiden als bei herkömmlichen Gewindebohrern
- Beim Hochgeschwindigkeits-Gewindebohren wird die Verwendung eines Synchrofutters zur Erhöhung der Werkzeugstandzeit und der Gewindequalität empfohlen
- Hoch präzise Gewinde

DIN 371

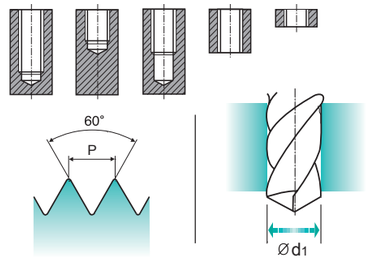
DIN 376







Hole type
3.0×D



Material groups **GV** | HSS PM | DIN 371/376 | 6HX | 60° | C | TiN |  p.B74

Recommended ToolHolder — Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Number of Oil Groove	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	× 0.5	**TTS37206**	5	56	18	3.5	2.7	6	5	2.8
M4	× 0.7	**TTS37246**	7	63	21	4.5	3.4	6	5	3.7
M5	× 0.8	**TTS37286**	8	70	25	6	4.9	8	5	4.65
M6	× 1.0	**TTS37316**	10	80	30	6	4.9	8	5	5.55
M8	× 1.25	**TTS37366**	13	90	35	8	6.2	9	6	7.4
M10	× 1.5	**TTS37426**	15	100	39	10	8	11	6	9.3
M12	× 1.75	**TTS37506**	18	110	44	9	7	10	6	11.2
M14	× 2.0	**TTS37546**	20	110	44	11	9	12	8	13.0
M16	× 2.0	**TTS37606**	20	110	44	12	9	12	8	15.0
M18	× 2.5	**TTS37656**	25	125	50	14	11	14	8	16.8
M20	× 2.5	**TTS37706**	25	140	54	16	12	15	8	18.8

- DIN 371 (M3-M10) and DIN 376 (M12-M20)
- Coating (TiAlN) is available on your request.

◎ : Excellent ○ : Good

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

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

SYNCHRO TAP

TTS38 SERIES

MF ISO Metric Fine Threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

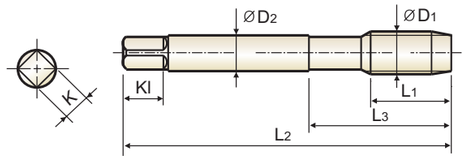
Machine taps
Maschinengewindebohrer

- Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines
- Up to 3 times faster in tapping compared to conventional taps
- For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended
- High precision threads

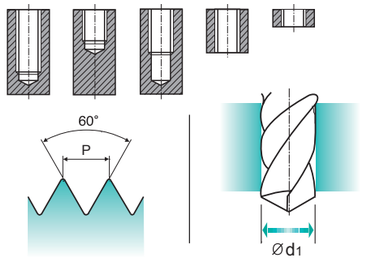
- Beschichtete HSS-PM-Gewindebohrer zum Hochgeschwindigkeitsgewindebohren auf starren CNC-Maschinen oder gleichwertige Maschinen
- Bis zu dreimal schnelleres Gewindeschneiden als bei herkömmlichen Gewindebohrern
- Beim Hochgeschwindigkeits-Gewindebohren wird die Verwendung eines Synchrofutters zur Erhöhung der Werkzeugstandzeit und der Gewindequalität empfohlen
- Hoch präzise Gewinde

DIN 374





Hole type
3.0×D



Material groups **GV** | HSS PM | DIN 374 | 6HX | 60° | C | TiN |  p.B74

Recommended ToolHolder — Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Number of Oil Groove	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M8	× 1.0	**TTS38376**	10	90	36	6	4.9	8	6	7.5
M10	× 1.25	**TTS38436**	13	100	40	7	5.5	8	6	9.4
M10	× 1.0	**TTS38446**	10	90	40	7	5.5	8	6	9.5
M12	× 1.25	**TTS38526**	13	100	40	9	7	10	6	11.4
M12	× 1.5	**TTS38516**	15	100	40	9	7	10	6	11.25
M14	× 1.5	**TTS38556**	15	100	40	11	9	12	8	13.25
M16	× 1.5	**TTS38616**	15	100	40	12	9	12	8	15.25
M18	× 1.5	**TTS38676**	17	110	44	14	11	14	8	17.25
M20	× 1.5	**TTS38726**	17	125	50	16	12	15	8	19.25

- Coating (TiAlN) is available on your request.

◎ : Excellent ○ : Good

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

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

SYNCHRO TAP

TTS39 SERIES

M ISO Metric Coarse Threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines
- Up to 3 times faster in tapping compared to conventional taps
- For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended
- High precision threads

- Beschichtete HSS-PM-Gewindebohrer zum Hochgeschwindigkeitsgew indebohren auf starren CNC-Maschinen oder gleichwertige Maschinen
- Bis zu dreimal schnelleres Gewindeschneiden als bei herkömmlichen Gewindebohrern
- Beim Hochgeschwindigkeits-Gewindebohren wird die Verwendung eines Synchrofutters zur Erhöhung der Werkzeugstandzeit und der Gewindequalität empfohlen
- Hoch präzise Gewinde

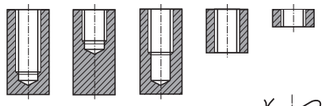
DIN 371



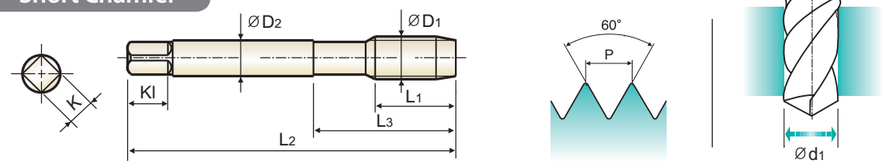
DIN 376



Hole type
3.0×D



Short Chamfer



Material groups **GV** | HSS PM | DIN 371/376 | 6HX | 60° | E | TiN | p.B74

Recommended ToolHolder: Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Number of Oil Groove	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	× 0.5	**TTS39206**	5	56	18	3.5	2.7	6	5	2.8
M4	× 0.7	**TTS39246**	7	63	21	4	3.4	6	5	3.7
M5	× 0.8	**TTS39286**	8	70	25	6	4.9	8	5	4.65
M6	× 1.0	**TTS39316**	10	80	30	6	4.9	8	5	5.55
M8	× 1.25	**TTS39366**	13	90	35	8	6.2	9	6	7.4
M10	× 1.5	**TTS39426**	15	100	39	10	8	11	6	9.3
M12	× 1.75	**TTS39506**	18	110	44	9	7	10	6	11.2
M14	× 2.0	**TTS39546**	20	110	44	11	9	12	8	13.0
M16	× 2.0	**TTS39606**	20	110	44	12	9	12	8	15.0
M18	× 2.5	**TTS39656**	25	125	50	14	11	14	8	16.8
M20	× 2.5	**TTS39706**	25	140	54	16	12	15	8	18.8

- DIN 371 (M3-M10) and DIN 376 (M12-M20)
- Coating (TiAlN) is available on your request.

◎ : 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	◎	◎	◎	◎	○			◎													

SYNCHRO TAP

TTS41-IC SERIES

M ISO Metric Coarse Threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines
- Up to 3 times faster in tapping compared to conventional taps
- For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended
- High precision threads

- Beschichtete HSS-PM-Gewindebohrer zum Hochgeschwindigkeitsgew indebohren auf starren CNC-Maschinen oder gleichwertige Maschinen
- Bis zu dreimal schnelleres Gewindeschneiden als bei herkömmlichen Gewindebohrern
- Beim Hochgeschwindigkeits-Gewindebohren wird die Verwendung eines Synchrofutters zur Erhöhung der Werkzeugstandzeit und der Gewindequalität empfohlen
- Hoch präzise Gewinde

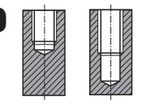
DIN 371



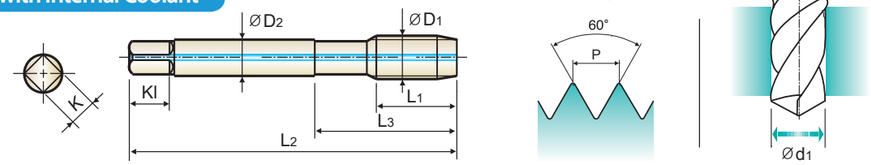
DIN 376



Hole type
2.5×D



with Internal Coolant



Material groups **GS** | HSS PM | DIN 371/376 | 6HX | 60° | C | R45° | TiN | p.B74

Recommended ToolHolder: Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiCN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M6	× 1.0	**TTS41316IC**	10	80	30	6	4.9	8	3	5.0
M8	× 1.25	**TTS41366IC**	13	90	35	8	6.2	9	3	6.8
M10	× 1.25	**TTS41426IC**	15	100	39	10	8	11	3	8.5
M12	× 1.75	**TTS41506IC**	18	110	44	9	7	10	3	10.2
M14	× 2.0	**TTS41546IC**	20	110	52	11	9	12	3	12.0
M16	× 2.0	**TTS41606IC**	20	110	52	12	9	12	3	14.0
M18	× 2.5	**TTS41656IC**	25	125	66	14	11	14	4	15.5
M20	× 2.5	**TTS41706IC**	25	140	72	16	12	15	4	17.5

- DIN 371 (M3-M10) and DIN 376 (M12-M20)
- Coating (TiAlN) is available on your request.

◎ : 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			◎	◎	◎	◎		○													

SYNCHRO TAP

TTS42-RCP SERIES

M ISO Metric Coarse Threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines
- Up to 3 times faster in tapping compared to conventional taps
- For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended
- High precision threads

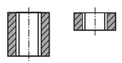
- Beschichtete HSS-PM-Gewindebohrer zum Hochgeschwindigkeitsgew indebohren auf starren CNC-Maschinen oder gleichwertige Maschinen
- Bis zu dreimal schnelleres Gewindeschneiden als bei herkömmlichen Gewindebohrern
- Beim Hochgeschwindigkeits-Gewindebohren wird die Verwendung eines Synchrofutters zur Erhöhung der Werkzeugstandzeit und der Gewindequalität empfohlen
- Hoch präzise Gewinde

DIN 371

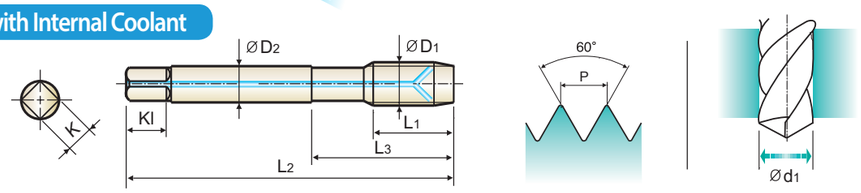
DIN 376



Hole type
3.0×D



with Internal Coolant



Material groups **GS** | HSS PM | DIN 371/376 | 6HX | 60° | B | TiN



p.B74

Recommended ToolHolder — Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M6	× 1.0	**TTS42316RCP**	10	80	30	6	4.9	8	3	5.0
M8	× 1.25	**TTS42366RCP**	13	90	35	8	6.2	9	3	6.8
M10	× 1.5	**TTS42426RCP**	15	100	39	10	8	11	3	8.5
M12	× 1.75	**TTS42506RCP**	18	110	44	9	7	10	4	10.2
M14	× 2.0	**TTS42546RCP**	20	110	52	11	9	12	4	12.0
M16	× 2.0	**TTS42606RCP**	20	110	52	12	9	12	4	14.0
M18	× 2.5	**TTS42656RCP**	25	125	66	14	11	14	4	15.5
M20	× 2.5	**TTS42706RCP**	25	140	72	16	12	15	4	17.5

- DIN 371 (M6-M10) and DIN 376 (M12-M20)
- Coating (TiAlN) is available on your request.

◎ : 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			◎	◎	◎	◎		○													

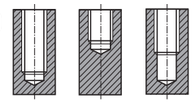
SYNCHRO TAP

TKS43-IC SERIES

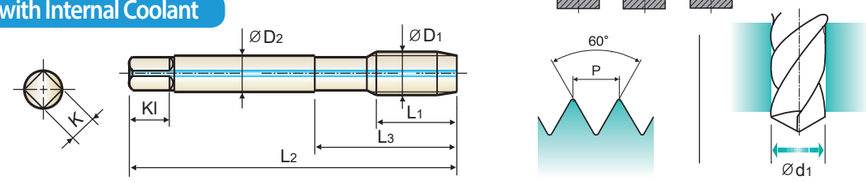
M ISO Metric Coarse Threads DIN 13
Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13
Machine taps
Maschinengewindebohrer
- Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines
- Up to 3 times faster in tapping compared to conventional taps
- For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended
- High precision threads
- Beschichtete HSS-PM-Gewindebohrer zum Hochgeschwindigkeitsgew indebohren auf starren CNC-Maschinen oder gleichwertige Maschinen
- Bis zu dreimal schnelleres Gewindeschneiden als bei herkömmlichen Gewindebohrern
- Beim Hochgeschwindigkeits-Gewindebohren wird die Verwendung eines Synchrofutters zur Erhöhung der Werkzeugstandzeit und der Gewindequalität empfohlen
- Hoch präzise Gewinde
DIN 371
DIN 376



Hole type
2.0×D



with Internal Coolant



Material groups **GG** | HSS PM | DIN 371/376 | 6HX | 60° | C | TiCN



p.B74

Recommended ToolHolder — Plain Shank — SYNCHRO TAPPING CHUCK
Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiCN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M6	× 1.0	**TKS43316IC**	10	80	30	6	4.9	8	3	5.0
M8	× 1.25	**TKS43366IC**	13	90	35	8	6.2	9	3	6.8
M10	× 1.5	**TKS43426IC**	15	100	39	10	8	11	4	8.5
M12	× 1.75	**TKS43506IC**	18	110	44	9	7	10	4	10.2
M14	× 2.0	**TKS43546IC**	20	110	52	11	9	12	4	12.0
M16	× 2.0	**TKS43606IC**	20	110	52	12	9	12	4	14.0
M18	× 2.5	**TKS43656IC**	25	125	66	14	11	14	4	15.5
M20	× 2.5	**TKS43706IC**	25	140	72	16	12	15	4	17.5

- DIN 371 (M6-M10) and DIN 376 (M12-M20)
- Coating (TiAlN) is available on your request.
◎ : 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			○	○	○																

SYNCHRO TAP

TKS44-RCP SERIES

M ISO Metric Coarse Threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

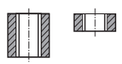
- Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines
- Up to 3 times faster in tapping compared to conventional taps
- For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended
- High precision threads

DIN 371

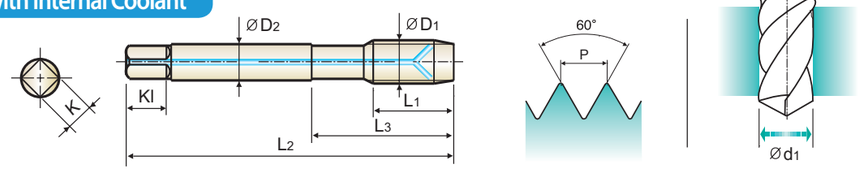
DIN 376



Hole type
2.0×D



with Internal Coolant



Material groups: GG | HSS PM | DIN 371/376 | 6HX | 60° | C | TiCN

p.B74

Recommended ToolHolder: Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiCN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M6	× 1.0	TKS44316RCP	10	80	30	6	4.9	8	3	5.0
M8	× 1.25	TKS44366RCP	13	90	35	8	6.2	9	3	6.8
M10	× 1.5	TKS44426RCP	15	100	39	10	8	11	4	8.5
M12	× 1.75	TKS44506RCP	18	110	44	9	7	10	4	10.2
M14	× 2.0	TKS44546RCP	20	110	52	11	9	12	4	12.0
M16	× 2.0	TKS44606RCP	20	110	52	12	9	12	4	14.0
M18	× 2.5	TKS44656RCP	25	125	66	14	11	14	4	15.5
M20	× 2.5	TKS44706RCP	25	140	72	16	12	15	4	17.5

- DIN 371 (M6-M10) and DIN 376 (M12-M20)
- Coating (TiAlN) is available on your request.

◎ : 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			○	○	○																

SYNCHRO TAP

TTS45-RCP SERIES

M ISO Metric Coarse Threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines
- Up to 3 times faster in tapping compared to conventional taps
- For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended
- High precision threads

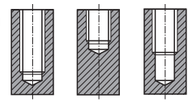
- Beschichtete HSS-PM-Gewindebohrer zum Hochgeschwindigkeitsgewindebohren auf starren CNC-Maschinen oder gleichwertige Maschinen
- Bis zu dreimal schnelleres Gewindeschneiden als bei herkömmlichen Gewindebohrern
- Beim Hochgeschwindigkeits-Gewindebohren wird die Verwendung eines Synchrofutters zur Erhöhung der Werkzeugstandzeit und der Gewindequalität empfohlen
- Hoch präzise Gewinde

DIN 371

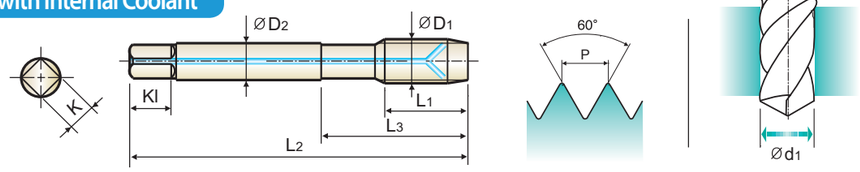
DIN 376



Hole type
3.0×D



with Internal Coolant



Material groups: GV | HSS PM | DIN 371/376 | 6HX | 60° | C | TiN

p.B74

Recommended ToolHolder: Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Number of Oil Groove	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M5	× 0.8	TTS45286RCP	8	70	25	6	4.9	8	5	4.65
M6	× 1.0	TTS45316RCP	10	80	30	6	4.9	8	5	5.55
M8	× 1.25	TTS45366RCP	13	90	35	8	6.2	9	6	7.4
M10	× 1.5	TTS45426RCP	15	100	39	10	8	11	6	9.3
M12	× 1.75	TTS45506RCP	18	110	44	9	7	10	6	11.2
M14	× 2.0	TTS45546RCP	20	110	52	11	9	12	8	13.0
M16	× 2.0	TTS45606RCP	20	110	52	12	9	12	8	15.0
M18	× 2.5	TTS45656RCP	25	125	66	14	11	14	8	16.8
M20	× 2.5	TTS45706RCP	25	140	72	16	12	15	8	18.8

- DIN 371 (M5-M10) and DIN 376 (M12-M20)
- Coating (TiAlN) is available on your request.

◎ : 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	◎	◎	◎	◎	○			◎													

SYNCHRO TAP

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

					TTS31,TTS32	TTS33,TTS34	TKS35,TKS36	TTS37,TTS38	TTS39
ISO	VDI 3323	Material Description	HB	HRc	Vc (m/min.)				
P	1	Non-alloy steel	125		41-46	41-46	41-46	41-46	30-35
	2		190	13	41-46	41-46	41-46	41-46	41-46
	3		250	25	35-40	35-40	35-40	35-40	35-40
	4		270	28	28-33	28-33	28-33	28-33	28-33
	5		300	32					
	6	Low alloy steel	180	10	28-33	28-33	28-33	28-33	28-33
	7		275	29	28-33	28-33	28-33	28-33	28-33
M	12	Stainless steel	200	15	18-23	18-23		18-23	18-23
	13		240	23	13-18	13-18		13-18	13-18
	14		180	10	10-14	10-14		10-14	10-14
K	15	Grey cast iron	180	10	28-33	28-33	28-33		
	16		260	26			28-33		
	17	Nodular cast iron	160	3	28-33	28-33	28-33		
	18		250	25			28-33		
	19	Malleable cast iron	130				28-33		
	20		230	21			28-33		
N	21	Aluminum-wrought alloy	60					28-33	28-33
	22		100					28-33	28-33
	23	Aluminum-cast, alloyed	75		41-46	41-46	30-35	41-46	41-46
	24		90		41-46	41-46	30-35	41-46	41-46
	25		130		30-35	30-35	30-35	30-35	30-35
	26	Copper and Copper Alloys (Bronze / Brass)	110		45-50	45-50			
	27		90						
	28		100		25-30	25-30		25-30	25-30

					TTS41-IC	TTS42-RCP	TKS43-IC	TKS44-RCP	TTS45-RCP
ISO	VDI 3323	Material Description	HB	HRc	Vc (m/min.)				
P	1	Non-alloy steel	125		41-57	41-57	41-57	41-57	41-57
	2		190	13	41-57	41-57	41-57	41-57	41-57
	3		250	25	35-50	35-50	35-50	35-50	35-50
	4		270	28	28-41	28-41	28-41	28-41	28-41
	5		300	32					
	6	Low alloy steel	180	10	28-41	28-41	28-41	28-41	28-41
	7		275	29	28-41	28-41	28-41	28-41	28-41
M	12	Stainless steel	200	15	18-28	18-28			18-28
	13		240	23	13-22	13-22			13-22
	14		180	10	10-17	10-17			10-17
K	15	Grey cast iron	180	10	28-41	28-41	28-41	28-41	
	16		260	26			28-41	28-41	
	17	Nodular cast iron	160	3	28-41	28-41	28-41	28-41	
	18		250	25			28-41	28-41	
	19	Malleable cast iron	130				28-41	28-41	
	20		230	21			28-41	28-41	
N	21	Aluminum-wrought alloy	60						28-41
	22		100						28-41
	23	Aluminum-cast, alloyed	75		41-57	41-57	30-43	30-43	41-57
	24		90		41-57	41-57	30-43	30-43	41-57
	25		130		30-43	30-43	30-43	30-43	30-43
	26	Copper and Copper Alloys (Bronze / Brass)	110		45-62	45-62			
	27		90						
	28		100		25-37	25-37			25-37



Leading Through Innovation

PRIME TAP

PRIME GEWINDEBOHRER

- Premium Spiral Point and Spiral Flute Taps for CNC Machines
- High and Reliable Performance on Various Ductile Materials
- Premium Gerade- und Spiralgenutete Gewindebohrer
- Ausgezeichnete und zuverlässige Leistung in verschiedenen Werkstoffen

SELECTION GUIDE

THREADING TOOLS

HSS-PM
PRIME TAP

Premium Spiral Point and Spiral Flute Taps for CNC Machines
High and Reliable Performance on Various Ductile Materials

HOLE TYPE				Max. 2.5xD Blind Hole	Max. 3.0xD Through Hole
TOOL MATERIAL				HSS-PM	
CHAMFER LEAD ACC. TO DIN2197				C	E	B
FLUTE TYPE				Spiral Flute	Spiral Flute	Spiral Point
SPIRAL FLUTE ANGLE				R45	R45	-
SERIES	M	DIN371/376		TRE30 (p.B77)	TRE34 (p.B78)	TRJ15 (p.B83)
		DIN352				
		DIN357/LONG				
	MF	DIN374		TRE31 (p.B79)		TRJ16 (p.B84)
		DIN2181				
	UNC	DIN371/376		TRE32 (p.B81)		TRJ17 (p.B86)
		DIN351				
	UNF	DIN371/374		TRE33 (p.B82)		TRJ18 (p.B87)
		DIN2181				
	BSW	DIN2182/2183				
		DIN351				
	G(BSP)	DIN5156/5157				
	EG-M	DIN371/376				
	EG-UNC	DIN371/376				
	EG-UNF	DIN371/374				
SURFACE TREATMENT				X-Coating		
MODEL						

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B88

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRC			
P	1	Non-alloy steel	About 0.15% C	Annealed	125		○	○	◎
	2		About 0.45% C	Annealed	190	13	◎	◎	◎
	3		About 0.45% C	Quenched & Tempered	250	25	◎	◎	◎
	4		About 0.75% C	Annealed	270	28	◎	◎	◎
	5		About 0.75% C	Quenched & Tempered	300	32	◎	◎	◎
	6	Low alloy steel		Annealed	180	10	◎	◎	◎
	7			Quenched & Tempered	275	29	◎	◎	◎
	8			Quenched & Tempered	300	32	◎	◎	◎
	9			Quenched & Tempered	350	38	○	○	◎
	10	High alloyed steel, and tool steel		Annealed	200	15	○	○	○
	11			Quenched & Tempered	325	35	○	○	○
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15	◎	◎	◎
	13		Martensitic	Quenched & Tempered	240	23	◎	◎	◎
	14		Austenitic		180	10	◎	◎	◎
K	15	Grey cast iron	Pearlitic / ferritic		180	10	○	○	◎
	16		Pearlitic (Martensitic)		260	26	○	○	◎
	17	Nodular cast iron	Ferritic		160	3	◎	◎	◎
	18		Pearlitic		250	25	◎	◎	◎
	19	Malleable cast iron	Ferritic		130				
	20		Pearlitic		230	21			
N	21	Aluminum-wrought alloy	Not Curable		60		○	○	○
	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			
	32			Cured	280	30			
	33		Ni or Co Based	Annealed	250	25			
	34			Cured	350	38			
	35			Cast	320	34			
	36	Titanium Alloys	Pure Titanium		400 Rm				
	37		Alpha + Beta Alloys	Hardened	1050 Rm				
H	38	Hardened steel		Hardened	550	55			
	39			Hardened	630	60			
	40	Chilled Cast Iron		Cast	400	42			
	41	Hardened Cast Iron		Hardened	550	55			

PRIME TAP

TRE30 SERIES

M ISO Metric Coarse Threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

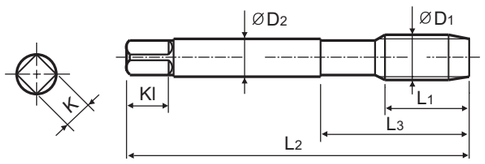
- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems
- Ausgezeichnete Leistung bei verschiedenen Werkstoffen.
- Speziell entwickelt, um zu gro ß e Gewindedurchmesser zu vermeiden und Messprobleme zu reduzieren.

DIN 371

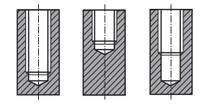


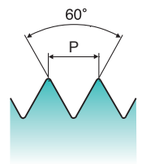
DIN 376

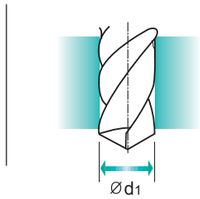




Hole type
2.5×D







Material groups **MU** | HSS PM | DIN 371/376 | 6HX | 60° | C | R45 | X Coating | p.B88

Recommended ToolHolder: Plain Shank; SYNCHRO TAPPING CHUCK; TAPPING ER CHUCK; TAPPING CHUCK; ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	X-Coating	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	x 0.4	TRE30136GS	3.2	45.0	13.0	2.8	2.1	5.0	2	1.6
M2.5	x 0.45	TRE30176GS	3.6	50.0	15.0	2.8	2.1	5.0	2	2.1
M3	x 0.5	TRE30206GS	4.0	56.0	18.0	3.5	2.7	6.0	3	2.5
M3.5	x 0.6	TRE30226GS	4.8	56.0	20.0	4.0	3.0	6.0	3	2.9
M4	x 0.7	TRE30246GS	5.6	63.0	21.0	4.5	3.4	6.0	3	3.3
M5	x 0.8	TRE30286GS	6.4	70.0	25.0	6.0	4.9	8.0	3	4.2
M6	x 1.0	TRE30316GS	8.0	80.0	30.0	6.0	4.9	8.0	3	5.0
M7	x 1.0	TRE30346GS	10.0	80.0	30.0	7.0	5.5	8.0	3	6.0
M8	x 1.25	TRE30366GS	13.0	90.0	35.0	8.0	6.2	9.0	3	6.8
M9	x 1.25	TRE30396GS	13.0	90.0	35.0	9.0	7.0	10.0	3	7.8
M10	x 1.5	TRE30426GS	15.0	100.0	39.0	10.0	8.0	11.0	3	8.5
M12	x 1.75	TRE30506GS	18.0	110.0	44.0	9.0	7.0	10.0	3	10.3
M14	x 2.0	TRE30546GS	20.0	110.0	44.0	11.0	9.0	12.0	3	12.0
M16	x 2.0	TRE30606GS	20.0	110.0	44.0	12.0	9.0	12.0	3	14.0
M18	x 2.5	TRE30656GS	25.0	125.0	50.0	14.0	11.0	14.0	4	15.5
M20	x 2.5	TRE30706GS	25.0	140.0	54.0	16.0	12.0	15.0	4	17.5
M22	x 2.5	TRE30746GS	25.0	140.0	54.0	18.0	14.5	17.0	4	19.5
M24	x 3.0	TRE30786GS	30.0	160.0	60.0	18.0	14.5	17.0	4	21.0

▶ DIN 371(M2~M10) and DIN 376(M12~M24)

◎ : Excellent ○ : Good

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

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

PRIME TAP

TRE34 SERIES

M — ISO Metric Coarse Threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

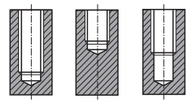
- ▶ High performance on various ductile materials
- ▶ Specially designed to prevent oversized threads and reduce gauging problems
- ▶ Ausgezeichnete Leistung bei verschiedenen Werkstoffen.
- ▶ Speziell entwickelt, um zu gro β e Gewindedurchmesser zu vermeiden und Messprobleme zu reduzieren.

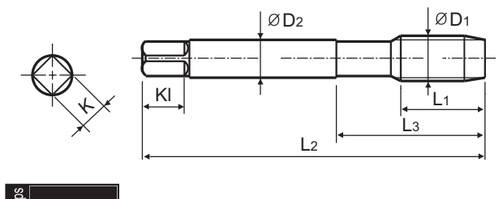
DIN 371

DIN 376



Hole type
2.5×D





Material groups **MU** | HSS PM | DIN 371/376 | 6HX | 60° | E | R45 | X Coating | p.B88

Recommended ToolHolder — Plain Shank
SYNCHRO TAPPING CHUCK
TAPPING ER CHUCK
TAPPING CHUCK
ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	X-Coating	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 x	0.4	TRE34136GS	3.2	45.0	13.0	2.8	2.1	5.0	2	1.6
M3 x	0.5	TRE34206GS	4.0	56.0	18.0	3.5	2.7	6.0	3	2.5
M4 x	0.7	TRE34246GS	5.6	63.0	21.0	4.5	3.4	6.0	3	3.3
M5 x	0.8	TRE34286GS	6.4	70.0	25.0	6.0	4.9	8.0	3	4.2
M6 x	1.0	TRE34316GS	8.0	80.0	30.0	6.0	4.9	8.0	3	5.0
M8 x	1.25	TRE34366GS	13.0	90.0	35.0	8.0	6.2	9.0	3	6.8
M10 x	1.5	TRE34426GS	15.0	100.0	39.0	10.0	8.0	11.0	3	8.5
M12 x	1.75	TRE34506GS	18.0	110.0	44.0	9.0	7.0	10.0	3	10.3
M14 x	2.0	TRE34546GS	20.0	110.0	44.0	11.0	9.0	12.0	3	12.0
M16 x	2.0	TRE34606GS	20.0	110.0	44.0	12.0	9.0	12.0	3	14.0
M20 x	2.5	TRE34706GS	25.0	140.0	54.0	16.0	12.0	15.0	4	17.5

▶ DIN 371(M2~M10) and DIN 376(M12~M20)

◎ : Excellent ○ : Good

ISO	P																			
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	○	○	◎	◎	○	◎	◎	◎													

PRIME TAP

TRE31 SERIES

MF — ISO Metric Fine Threads DIN 13

MMetrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

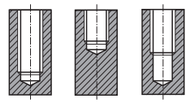
Machine taps
Maschinengewindebohrer

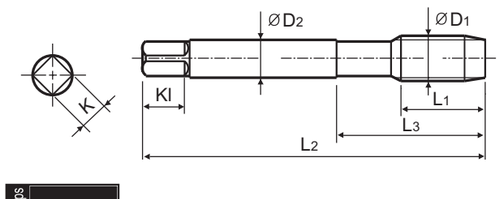
- ▶ High performance on various ductile materials
- ▶ Specially designed to prevent oversized threads and reduce gauging problems
- ▶ Ausgezeichnete Leistung bei verschiedenen Werkstoffen.
- ▶ Speziell entwickelt, um zu gro β e Gewindedurchmesser zu vermeiden und Messprobleme zu reduzieren.

DIN 374



Hole type
2.5×D





Material groups **MU** | HSS PM | DIN 374 | 6HX | 60° | C | R45 | X Coating | p.B88

Recommended ToolHolder — Plain Shank
SYNCHRO TAPPING CHUCK
TAPPING ER CHUCK
TAPPING CHUCK
ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	X-Coating	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4 x	0.5	TRE31256GS	5.6	63.0	21.0	2.8	2.1	5.0	3	3.5
M4 x	0.35	TRE31696GS	5.6	63.0	21.0	2.8	2.1	5.0	3	3.7
M5 x	0.5	TRE31296GS	6.4	70.0	25.0	3.5	2.7	6.0	3	4.5
M6 x	0.75	TRE31326GS	8.0	80.0	30.0	4.5	3.4	6.0	3	5.3
M6 x	0.5	TRE31336GS	8.0	80.0	30.0	4.5	3.4	6.0	3	5.5
M8 x	1.0	TRE31376GS	10.0	90.0	36.0	6.0	4.9	8.0	3	7.0
M8 x	0.75	TRE31386GS	10.0	80.0	30.0	6.0	4.9	8.0	3	7.3
M9 x	1.0	TRE31406GS	10.0	90.0	36.0	7.0	5.5	8.0	3	8.0
M9 x	0.75	TRE31416GS	10.0	80.0	30.0	7.0	5.5	8.0	3	8.3
M10 x	1.25	TRE31436GS	13.0	100.0	40.0	7.0	5.5	8.0	3	8.8
M10 x	1.0	TRE31446GS	10.0	90.0	36.0	7.0	5.5	8.0	3	9.0
M10 x	0.75	TRE31456GS	10.0	90.0	36.0	7.0	5.5	8.0	3	9.3
M12 x	1.5	TRE31516GS	15.0	100.0	40.0	9.0	7.0	10.0	3	10.5
M12 x	1.25	TRE31526GS	15.0	100.0	40.0	9.0	7.0	10.0	3	10.8
M12 x	1.0	TRE31536GS	15.0	100.0	40.0	9.0	7.0	10.0	3	11.0
M14 x	1.5	TRE31556GS	15.0	100.0	40.0	11.0	9.0	12.0	3	12.5
M14 x	1.25	TRE31566GS	15.0	100.0	40.0	11.0	9.0	12.0	3	12.8
M14 x	1.0	TRE31576GS	15.0	100.0	40.0	11.0	9.0	12.0	3	13.0
M16 x	1.5	TRE31616GS	15.0	100.0	40.0	12.0	9.0	12.0	3	14.5
M16 x	1.0	TRE31626GS	15.0	100.0	40.0	12.0	9.0	12.0	3	15.0

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO	P																			
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	○	○	◎	◎	○	◎	◎	◎													

PRIME TAP

TRE31 SERIES

MF ISO Metric Fine Threads DIN 13

- MMetrisches ISO-Feingewinde DIN 13
- ISO MÉTRIQUE PAS FINS DIN13
- ISO Metrico passo fine DIN 13

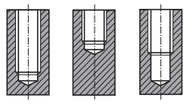
Machine taps
Maschinengewindebohrer

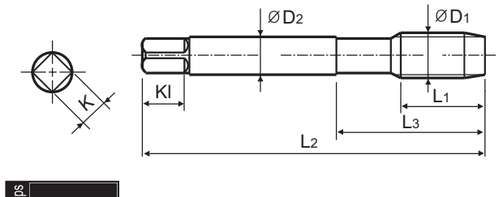
- ▶ High performance on various ductile materials
- ▶ Specially designed to prevent oversized threads and reduce gauging problems
- ▶ Ausgezeichnete Leistung bei verschiedenen Werkstoffen.
- ▶ Speziell entwickelt, um zu gro β e Gewindedurchmesser zu vermeiden und Messprobleme zu reduzieren.

DIN 374



Hole type
2.5×D





Material groups **MU** | HSS PM | DIN 374 | 6HX | 60° | C | R45 | X Coating | p.B88

Recommended ToolHolder — Plain Shank
SYNCHRO TAPPING CHUCK
TAPPING ER CHUCK
TAPPING CHUCK
ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	X-Coating	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M18 x	2.0	**TRE31666GS**	20.0	125.0	50.0	14.0	11.0	14.0	4	16.0
M18 x	1.5	**TRE31676GS**	15.0	110.0	44.0	14.0	11.0	14.0	4	16.5
M18 x	1.0	**TRE31686GS**	15.0	110.0	44.0	14.0	11.0	14.0	4	17.0
M20 x	2.0	**TRE31716GS**	20.0	140.0	54.0	16.0	12.0	15.0	4	18.0
M20 x	1.5	**TRE31726GS**	15.0	125.0	50.0	16.0	12.0	15.0	4	18.5
M20 x	1.0	**TRE31736GS**	15.0	125.0	50.0	16.0	12.0	15.0	4	19.0
M22 x	2.0	**TRE31756GS**	20.0	140.0	54.0	18.0	14.5	17.0	4	20.0
M22 x	1.5	**TRE31766GS**	15.0	125.0	50.0	18.0	14.5	17.0	4	20.5
M22 x	1.0	**TRE31776GS**	15.0	125.0	50.0	18.0	14.5	17.0	4	21.0
M24 x	2.0	**TRE31796GS**	20.0	140.0	54.0	18.0	14.5	17.0	4	22.0
M24 x	1.5	**TRE31806GS**	15.0	140.0	54.0	18.0	14.5	17.0	4	22.5
M24 x	1.0	**TRE31816GS**	15.0	140.0	54.0	18.0	14.5	17.0	4	23.0

◎ : 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	○	○	◎	◎	○	◎	◎	◎													

PRIME TAP

TRE32 SERIES

UNC Unified Coarse Threads

- Unified Grobgewinde
- UNC
- Unificato passo grosso

Machine taps
Maschinengewindebohrer

- ▶ High performance on various ductile materials
- ▶ Specially designed to prevent oversized threads and reduce gauging problems
- ▶ Ausgezeichnete Leistung bei verschiedenen Werkstoffen.
- ▶ Speziell entwickelt, um zu gro β e Gewindedurchmesser zu vermeiden und Messprobleme zu reduzieren.

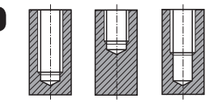
DIN 371

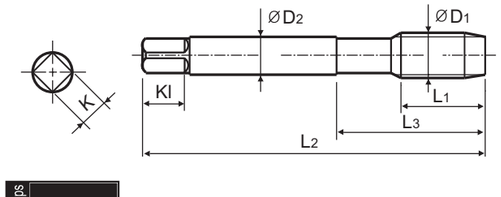


DIN 376



Hole type
2.5×D





Material groups **MU** | HSS PM | DIN 371/376 | 2BX | 60° | C | R45 | X Coating | p.B88

Recommended ToolHolder — Plain Shank
SYNCHRO TAPPING CHUCK
TAPPING ER CHUCK
TAPPING CHUCK
ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		X-Coating	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4 -	40 UNC	**TRE32162GS**	5.1	56.0	18.0	3.5	2.7	6.0	2	2.30
#5 -	40 UNC	**TRE32202GS**	5.1	56.0	18.0	3.5	2.7	6.0	3	2.60
#6 -	32 UNC	**TRE32242GS**	6.4	56.0	20.0	4.0	3.0	6.0	3	2.80
#8 -	32 UNC	**TRE32282GS**	6.4	63.0	21.0	4.5	3.4	6.0	3	3.40
#10 -	24 UNC	**TRE32322GS**	8.5	70.0	25.0	6.0	4.9	8.0	3	3.90
#12 -	24 UNC	**TRE32362GS**	8.5	80.0	30.0	6.0	4.9	8.0	3	4.50
1/4 -	20 UNC	**TRE32402GS**	10.2	80.0	30.0	7.0	5.5	8.0	3	5.10
5/16 -	18 UNC	**TRE32442GS**	14.2	90.0	35.0	8.0	6.2	9.0	3	6.60
3/8 -	16 UNC	**TRE32482GS**	15.9	100.0	39.0	9.0	7.0	10.0	3	8.00
7/16 -	14 UNC	**TRE32522GS**	18.2	100.0	40.0	8.0	6.2	9.0	3	9.40
1/2 -	13 UNC	**TRE32562GS**	19.6	110.0	44.0	9.0	7.0	10.0	3	10.80
9/16 -	12 UNC	**TRE32602GS**	21.2	110.0	44.0	11.0	9.0	12.0	3	12.20
5/8 -	11 UNC	**TRE32642GS**	23.1	110.0	44.0	12.0	9.0	12.0	3	13.60
3/4 -	10 UNC	**TRE32702GS**	25.4	125.0	50.0	14.0	11.0	14.0	4	16.50
7/8 -	9 UNC	**TRE32742GS**	28.3	140.0	54.0	18.0	14.5	17.0	4	19.50
1 -	8 UNC	**TRE32782GS**	31.8	160.0	60.0	20.0	16.0	19.0	4	22.20

▶ DIN 371(#4~3/8) and DIN 376(7/16~1)

◎ : 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	○	○	◎	◎	○	◎	◎	◎													

PRIME TAP

TRE33 SERIES

UNF Unified Fine Threads

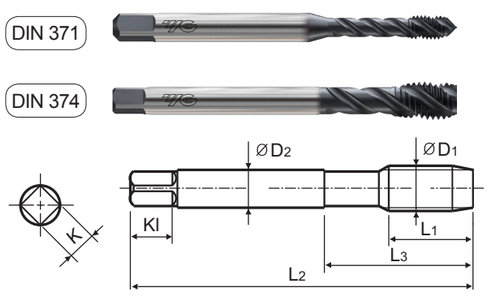
- Unified Feingewinde
- UNF
- Unificato passo fine

Machine taps
Maschinengewindebohrer

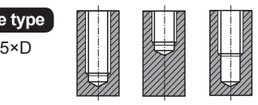
- ▶ High performance on various ductile materials
- ▶ Specially designed to prevent oversized threads and reduce gauging problems
- ▶ Ausgezeichnete Leistung bei verschiedenen Werkstoffen.
- ▶ Speziell entwickelt, um zu gro β e Gewindedurchmesser zu vermeiden und Messprobleme zu reduzieren.

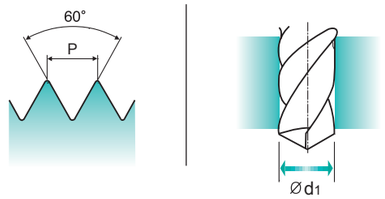
DIN 371

DIN 374



Hole type
2.5×D





Material groups **MU** | HSS PM | DIN 371/374 | 2BX | 60° | C | R45 | X Coating | p.B88

Recommended ToolHolder — Plain Shank: SYNCHRO TAPPING CHUCK, TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		X-Coating	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 48 UNF	TRE33182GS	5.1	56.0	18.0	3.5	2.7	6.0	2	2.40
#5	- 44 UNF	TRE33222GS	5.1	56.0	18.0	3.5	2.7	6.0	3	2.70
#6	- 40 UNF	TRE33262GS	6.4	56.0	20.0	4.0	3.0	6.0	3	2.90
#8	- 36 UNF	TRE33302GS	6.4	63.0	21.0	4.5	3.4	6.0	3	3.50
#10	- 32 UNF	TRE33342GS	8.5	70.0	25.0	6.0	4.9	8.0	3	4.10
#12	- 28 UNF	TRE33382GS	8.5	80.0	30.0	6.0	4.9	8.0	3	4.60
1/4	- 28 UNF	TRE33422GS	10.2	80.0	30.0	7.0	5.5	8.0	3	5.50
5/16	- 24 UNF	TRE33462GS	10.6	90.0	35.0	8.0	6.2	9.0	3	6.90
3/8	- 24 UNF	TRE33502GS	10.6	100.0	39.0	9.0	7.0	10.0	3	8.50
7/16	- 20 UNF	TRE33542GS	12.7	100.0	40.0	8.0	6.2	9.0	3	9.90
1/2	- 20 UNF	TRE33582GS	12.7	100.0	40.0	9.0	7.0	10.0	3	11.50
9/16	- 18 UNF	TRE33622GS	14.2	100.0	40.0	11.0	9.0	12.0	3	12.90
5/8	- 18 UNF	TRE33662GS	14.2	100.0	40.0	12.0	9.0	12.0	3	14.50
3/4	- 16 UNF	TRE33722GS	15.9	110.0	44.0	14.0	11.0	14.0	4	17.50
7/8	- 14 UNF	TRE33762GS	18.2	125.0	50.0	18.0	14.5	17.0	4	20.50
1	- 12 UNF	TRE33802GS	21.2	140.0	54.0	20.0	16.0	19.0	4	23.20

▶ DIN 371(#4~3/8) and DIN 374(7/16~1)

◎ : Excellent ○ : Good

ISO	P																			
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	○	○	◎	◎	○	◎	◎	◎													

PRIME TAP

TRJ15 SERIES

M ISO Metric Coarse Threads DIN 13

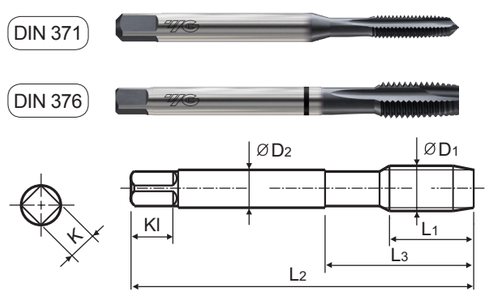
- Metrisches ISO-Gewinde DIN 13
- ISO MÉTRIQUE DIN13
- ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

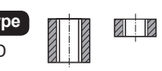
- ▶ High performance on various ductile materials
- ▶ Specially designed to prevent oversized threads and reduce gauging problems
- ▶ Ausgezeichnete Leistung bei verschiedenen Werkstoffen.
- ▶ Speziell entwickelt, um zu gro β e Gewindedurchmesser zu vermeiden und Messprobleme zu reduzieren.

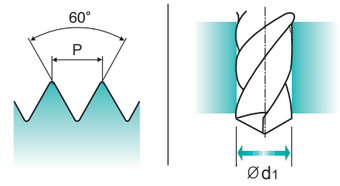
DIN 371

DIN 376



Hole type
3.0×D





Material groups **MU** | HSS PM | DIN 371/376 | 6HX | 60° | B | X Coating | p.B88

Recommended ToolHolder — Plain Shank: SYNCHRO TAPPING CHUCK, TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	X-Coating	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	x 0.4	TRJ15136GS	8.0	45.0	13.0	2.8	2.1	5.0	2	1.6
M2.5	x 0.45	TRJ15176GS	9.0	50.0	15.0	2.8	2.1	5.0	2	2.1
M3	x 0.5	TRJ15206GS	11.0	56.0	18.0	3.5	2.7	6.0	3	2.5
M3.5	x 0.6	TRJ15226GS	12.0	56.0	20.0	4.0	3.0	6.0	3	2.9
M4	x 0.7	TRJ15246GS	13.0	63.0	21.0	4.5	3.4	6.0	3	3.3
M5	x 0.8	TRJ15286GS	15.0	70.0	25.0	6.0	4.9	8.0	3	4.2
M6	x 1.0	TRJ15316GS	17.0	80.0	30.0	6.0	4.9	8.0	3	5.0
M7	x 1.0	TRJ15346GS	17.0	80.0	30.0	7.0	5.5	8.0	3	6.0
M8	x 1.25	TRJ15366GS	20.0	90.0	35.0	8.0	6.2	9.0	3	6.8
M9	x 1.25	TRJ15396GS	20.0	90.0	35.0	9.0	7.0	10.0	3	7.8
M10	x 1.5	TRJ15426GS	22.0	100.0	39.0	10.0	8.0	11.0	3	8.5
M12	x 1.75	TRJ15506GS	24.0	110.0	44.0	9.0	7.0	10.0	3	10.3
M14	x 2.0	TRJ15546GS	26.0	110.0	44.0	11.0	9.0	12.0	3	12.0
M16	x 2.0	TRJ15606GS	27.0	110.0	44.0	12.0	9.0	12.0	3	14.0
M18	x 2.5	TRJ15656GS	30.0	125.0	50.0	14.0	11.0	14.0	3	15.5
M20	x 2.5	TRJ15706GS	32.0	140.0	54.0	16.0	12.0	15.0	3	17.5
M22	x 2.5	TRJ15746GS	32.0	140.0	54.0	18.0	14.5	17.0	3	19.5
M24	x 3.0	TRJ15786GS	34.0	160.0	60.0	18.0	14.5	17.0	3	21.0

▶ DIN 371(M2~M10) and DIN 376(M12~M24)

◎ : 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	○	○	◎	◎	○	◎	◎	◎													

PRIME TAP

TRJ16 SERIES

MF ISO Metric Fine Threads DIN 13

- Metrisches ISO-Feingewinde DIN 13
- ISO MÉTRIQUE PAS FINS DIN13
- ISO Metrico passo grosso DIN 13

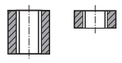
Machine taps
Maschinengewindebohrer

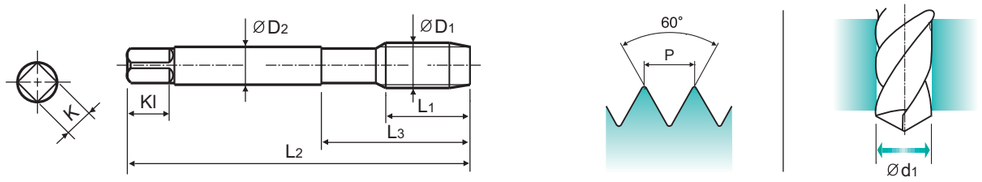
- ▶ High performance on various ductile materials
- ▶ Specially designed to prevent oversized threads and reduce gauging problems
- ▶ Ausgezeichnete Leistung bei verschiedenen Werkstoffen.
- ▶ Speziell entwickelt, um zu gro β e Gewindedurchmesser zu vermeiden und Messprobleme zu reduzieren.

DIN 374



Hole type
3.0×D





Material groups **MU** | HSS PM | DIN 374 | 6HX | 60° | B | X Coating | p.B88

Recommended ToolHolder — Plain Shank
SYNCHRO TAPPING CHUCK
TAPPING ER CHUCK
TAPPING CHUCK
ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	X-Coating	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4 x	0.5	TRJ16256GS	10.0	63.0	21.0	2.8	2.1	5.0	3	3.5
M4 x	0.35	TRJ16696GS	10.0	63.0	21.0	2.8	2.1	5.0	3	3.7
M5 x	0.5	TRJ16296GS	11.0	70.0	25.0	3.5	2.7	6.0	3	4.5
M6 x	0.75	TRJ16326GS	13.0	80.0	30.0	4.5	3.4	6.0	3	5.3
M6 x	0.5	TRJ16336GS	13.0	80.0	30.0	4.5	3.4	6.0	3	5.5
M8 x	1.0	TRJ16376GS	17.0	90.0	36.0	6.0	4.9	8.0	3	7.0
M8 x	0.75	TRJ16386GS	14.0	80.0	30.0	6.0	4.9	8.0	3	7.3
M9 x	1.0	TRJ16406GS	20.0	90.0	36.0	7.0	5.5	8.0	3	8.0
M9 x	0.75	TRJ16416GS	17.0	80.0	36.0	7.0	5.5	8.0	3	8.3
M10 x	1.25	TRJ16436GS	22.0	100.0	40.0	7.0	5.5	8.0	3	8.8
M10 x	1.0	TRJ16446GS	18.0	90.0	36.0	7.0	5.5	8.0	3	9.0
M10 x	0.75	TRJ16456GS	18.0	90.0	36.0	7.0	5.5	8.0	3	9.3
M12 x	1.5	TRJ16516GS	22.0	100.0	40.0	9.0	7.0	10.0	3	10.5
M12 x	1.25	TRJ16526GS	22.0	100.0	40.0	9.0	7.0	10.0	3	10.8
M12 x	1.0	TRJ16536GS	18.0	100.0	40.0	9.0	7.0	10.0	3	11.0
M14 x	1.5	TRJ16556GS	22.0	100.0	40.0	11.0	9.0	12.0	3	12.5
M14 x	1.25	TRJ16566GS	22.0	100.0	40.0	11.0	9.0	12.0	3	12.8
M14 x	1.0	TRJ16576GS	18.0	100.0	40.0	11.0	9.0	12.0	3	13.0
M16 x	1.5	TRJ16616GS	22.0	100.0	40.0	12.0	9.0	12.0	3	14.5
M16 x	1.0	TRJ16626GS	18.0	100.0	40.0	12.0	9.0	12.0	3	15.0

▶ 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	○	○	◎	◎	○	◎	◎	◎													

PRIME TAP

TRJ16 SERIES

MF ISO Metric Fine Threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ High performance on various ductile materials
▶ Specially designed to prevent oversized threads and reduce gauging problems
▶ Ausgezeichnete Leistung bei verschiedenen Werkstoffen.
▶ Speziell entwickelt, um zu gro β e Gewindedurchmesser zu vermeiden und Messprobleme zu reduzieren.

DIN 374

Hole type
3.0×D

ØD2 ØD1 K Kl L1 L3 L2 60° P Ød1

Material groups MU | HSS PM | DIN 374 | 6HX | 60° | B | X Coating | p.B88

Recommended ToolHolder — Plain Shank
SYNCHRO TAPPING CHUCK
TAPPING ER CHUCK
TAPPING CHUCK
ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	X-Coating	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M18 x	2.0	TRJ16666GS	26.0	125.0	50.0	14.0	11.0	14.0	3	16.0
M18 x	1.5	TRJ16676GS	25.0	110.0	44.0	14.0	11.0	14.0	3	16.5
M18 x	1.0	TRJ16686GS	20.0	110.0	44.0	14.0	11.0	14.0	3	17.0
M20 x	2.0	TRJ16716GS	27.0	140.0	54.0	16.0	12.0	15.0	3	18.0
M20 x	1.5	TRJ16726GS	25.0	125.0	50.0	16.0	12.0	15.0	3	18.5
M20 x	1.0	TRJ16736GS	20.0	125.0	50.0	16.0	12.0	15.0	3	19.0
M22 x	2.0	TRJ16756GS	27.0	140.0	54.0	18.0	14.5	17.0	3	20.0
M22 x	1.5	TRJ16766GS	25.0	125.0	50.0	18.0	14.5	17.0	3	20.5
M22 x	1.0	TRJ16776GS	20.0	125.0	50.0	18.0	14.5	17.0	3	21.0
M24 x	2.0	TRJ16796GS	27.0	140.0	54.0	18.0	14.5	17.0	3	22.0
M24 x	1.5	TRJ16806GS	27.0	140.0	54.0	18.0	14.5	17.0	3	22.5
M24 x	1.0	TRJ16816GS	20.0	140.0	54.0	18.0	14.5	17.0	3	23.0

◎ : 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	○	○	◎	◎	○	◎	◎	◎													

PRIME TAP

TRJ17 SERIES

UNC Unified Coarse Threads

Unified Grobgewinde
UNC
Unificato passo fine

Machine taps
Maschinengewindebohrer

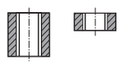
- ▶ High performance on various ductile materials
- ▶ Specially designed to prevent oversized threads and reduce gauging problems
- ▶ Ausgezeichnete Leistung bei verschiedenen Werkstoffen.
- ▶ Speziell entwickelt, um zu gro β e Gewindedurchmesser zu vermeiden und Messprobleme zu reduzieren.

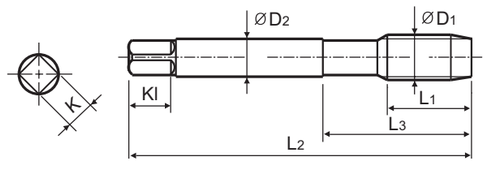
DIN 371

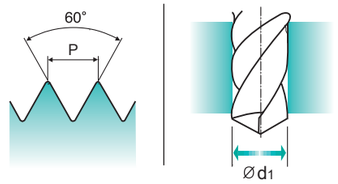
DIN 376



Hole type
3.0×D







Material groups **MU** | HSS PM | DIN 371/376 | 2BX | 60° | B | X Coating | p.B88

Recommended ToolHolder — Plain Shank: SYNCHRO TAPPING CHUCK, TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		X-Coating	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 40 UNC	**TRJ17162GS**	11.0	56.0	18.0	3.5	2.7	6.0	2	2.30
#5	- 40 UNC	**TRJ17202GS**	11.0	56.0	18.0	3.5	2.7	6.0	3	2.60
#6	- 32 UNC	**TRJ17242GS**	12.0	56.0	20.0	4.0	3.0	6.0	3	2.80
#8	- 32 UNC	**TRJ17282GS**	13.0	63.0	21.0	4.5	3.4	6.0	3	3.40
#10	- 24 UNC	**TRJ17322GS**	15.0	70.0	25.0	6.0	4.9	8.0	3	3.90
#12	- 24 UNC	**TRJ17362GS**	16.0	80.0	30.0	6.0	4.9	8.0	3	4.50
1/4	- 20 UNC	**TRJ17402GS**	17.0	80.0	30.0	7.0	5.5	8.0	3	5.10
5/16	- 18 UNC	**TRJ17442GS**	20.0	90.0	35.0	8.0	6.2	9.0	3	6.60
3/8	- 16 UNC	**TRJ17482GS**	22.0	100.0	39.0	9.0	7.0	10.0	3	8.00
7/16	- 14 UNC	**TRJ17522GS**	22.0	100.0	40.0	8.0	6.2	9.0	3	9.40
1/2	- 13 UNC	**TRJ17562GS**	25.0	110.0	44.0	9.0	7.0	10.0	3	10.80
9/16	- 12 UNC	**TRJ17602GS**	26.0	110.0	44.0	11.0	9.0	12.0	3	12.20
5/8	- 11 UNC	**TRJ17642GS**	27.0	110.0	44.0	12.0	9.0	12.0	3	13.60
3/4	- 10 UNC	**TRJ17702GS**	30.0	125.0	50.0	14.0	11.0	14.0	3	16.50
7/8	- 9 UNC	**TRJ17742GS**	32.0	140.0	54.0	18.0	14.5	17.0	3	19.50
1	- 8 UNC	**TRJ17782GS**	36.0	160.0	60.0	20.0	16.0	19.0	3	22.20

▶ DIN371 (#4~3/8) and DIN376 (7/16~1)

◎ : Excellent ○ : Good

ISO	P																			
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	○	○	◎	◎	○	◎	◎	◎													

PRIME TAP

TRJ18 SERIES

UNF Unified Fine Threads

Unified Feingewinde
UNF
Unificato passo fine

Machine taps
Maschinengewindebohrer

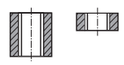
- ▶ High performance on various ductile materials
- ▶ Specially designed to prevent oversized threads and reduce gauging problems
- ▶ Ausgezeichnete Leistung bei verschiedenen Werkstoffen.
- ▶ Speziell entwickelt, um zu gro β e Gewindedurchmesser zu vermeiden und Messprobleme zu reduzieren.

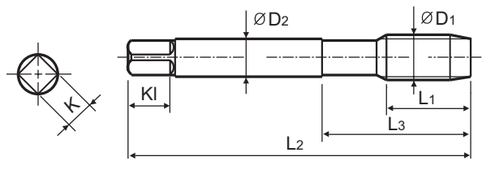
DIN 371

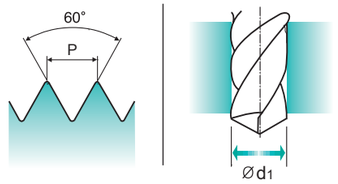
DIN 374



Hole type
3.0×D







Material groups **MU** | HSS PM | DIN 371/374 | 2BX | 60° | B | X Coating | p.B88

Recommended ToolHolder — Plain Shank: SYNCHRO TAPPING CHUCK, TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		X-Coating	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 48 UNF	**TRJ18182GS**	11.0	56.0	18.0	3.5	2.7	6.0	2	2.40
#5	- 44 UNF	**TRJ18222GS**	11.0	56.0	18.0	3.5	2.7	6.0	3	2.70
#6	- 40 UNF	**TRJ18262GS**	12.0	56.0	20.0	4.0	3.0	6.0	3	2.90
#8	- 36 UNF	**TRJ18302GS**	13.0	63.0	21.0	4.5	3.4	6.0	3	3.50
#10	- 32 UNF	**TRJ18342GS**	15.0	70.0	25.0	6.0	4.9	8.0	3	4.10
#12	- 28 UNF	**TRJ18382GS**	16.0	80.0	30.0	6.0	4.9	8.0	3	4.60
1/4	- 28 UNF	**TRJ18422GS**	17.0	80.0	30.0	7.0	5.5	8.0	3	5.50
5/16	- 24 UNF	**TRJ18462GS**	17.0	90.0	35.0	8.0	6.2	9.0	3	6.90
3/8	- 24 UNF	**TRJ18502GS**	18.0	100.0	39.0	9.0	7.0	10.0	3	8.50
7/16	- 20 UNF	**TRJ18542GS**	22.0	100.0	40.0	8.0	6.2	9.0	3	9.90
1/2	- 20 UNF	**TRJ18582GS**	22.0	100.0	40.0	9.0	7.0	10.0	3	11.50
9/16	- 18 UNF	**TRJ18622GS**	22.0	100.0	40.0	11.0	9.0	12.0	3	12.90
5/8	- 18 UNF	**TRJ18662GS**	22.0	100.0	40.0	12.0	9.0	12.0	3	14.50
3/4	- 16 UNF	**TRJ18722GS**	25.0	110.0	44.0	14.0	11.0	14.0	3	17.50
7/8	- 14 UNF	**TRJ18762GS**	26.0	125.0	50.0	18.0	14.5	17.0	3	20.50
1"	- 12 UNF	**TRJ18802GS**	28.0	140.0	54.0	20.0	16.0	19.0	3	23.20

▶ DIN371 (#4~3/8) and DIN374 (7/16~1)

◎ : Excellent ○ : Good

ISO	P																			
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	○	○	◎	◎	○	◎	◎	◎													

PRIME TAP

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

					TRE30, TRE31, TRE32 TRE33, TRE34	TRJ15, TRJ16 TRJ17, TRJ18
ISO	VDI 3323	Material Description	HB	HRc	Vc (m/min.)	
P	1	Non-alloy steel	125		5-20	15-45
	2		190	13	10-50	10-55
	3		250	25	10-50	10-55
	4		270	28	15-40	15-50
	5		300	32	15-40	15-50
	6	Low alloy steel	180	10	8-30	8-30
	7		275	29	8-30	8-30
	8		300	32	8-30	8-30
	9		350	38	8-30	8-30
	10	High alloyed steel, and tool steel	200	15	8-30	8-30
	11		325	35	8-30	8-30
M	12	Stainless steel	200	15	5-15	8-20
	13		240	23	5-15	8-20
	14		180	10	5-15	8-20
K	15	Grey cast iron	180	10	15-35	15-35
	16		260	26	15-35	15-35
	17	Nodular cast iron	160	3	15-35	15-35
	18		250	25	15-35	15-35
N	21	Aluminum-wrought alloy	60		15-35	15-35
	22		100		15-35	15-35
	23	Aluminum-cast, alloyed	75		15-35	15-35
	24		90		15-35	15-35
	25		130		15-35	15-35
	26	Copper and Copper Alloys (Bronze / Brass)	110		15-35	15-35
	27		90		15-35	15-35
	28		100		15-35	15-35

Leading Through Innovation



HSS-E & HSS-PM

COMBO TAP
COMBO GEWINDEBOHRER

- For Multi Purpose Tapping
- Für Mehrbereichs-Gewindebohren

SELECTION GUIDE

YG THREADING TOOLS

HSS-E COMBO TAP

HSS-E TAPS for Multi-Purpose

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B130

| | | |

SELECTION GUIDE

YG THREADING TOOLS

HSS-E COMBO TAP

HSS-E TAPS for Multi-Purpose

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B130

HOLE TYPE			Max. 3.0xD Through Hole										
TOOL MATERIAL			HSS-E										
CHAMFER LEAD ACC. TO DIN2197			B	B	B	B	B	B	B	B	B	B	B
FLUTE TYPE			Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point
SPIRAL FLUTE ANGLE			-	-	-	-	-	-	-	-	-	-	-
SERIES	M	DIN 371/376	TC814 (p.B112)	TD814 (p.B112)	TB814 (p.B112)	TCJ05 (p.B114)	TDJ05 (p.B114)	TBJ05 (p.B114)	TCJ06 (p.B115)	TDJ06 (p.B115)	TBJ06 (p.B115)	TCJ07 (p.B116)	TDJ07 (p.B116)
		DIN352											
		DIN357/LONG											
	MF	DIN374	TC854 (p.B118)	TD854 (p.B118)	TB854 (p.B118)	TCJ09 (p.B121)	TDJ09 (p.B121)						
		DIN2181											
	UNC	DIN 371/376	TC834 (p.B125)	TD834 (p.B125)	TB834 (p.B125)	TCJ01 (p.B126)	TDJ01 (p.B126)						
		DIN351											
	UNF	DIN 371/374	TC874 (p.B127)	TD874 (p.B127)	TB874 (p.B127)	TCJ02 (p.B128)	TDJ02 (p.B128)						
		DIN2181											
	BSW	DIN2182/2183											
		DIN351											
	G(BSP)	DIN5156/5157											
	EG-M	DIN 371/376											
	EG-UNC	DIN 371/376											
	EG-UNF	DIN 371/374											
SURFACE TREATMENT			Bright	TiN	VAP	Bright	TiN	VAP	Bright	TiN	VAP	Bright	TiN
MODEL													

HOLE TYPE			Max. 3.0xD Through Hole										
TOOL MATERIAL			HSS-E										
CHAMFER LEAD ACC. TO DIN2197			B	B	B	B	B	B	B	B	B	B	B
FLUTE TYPE			Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point
SPIRAL FLUTE ANGLE			-	-	-	-	-	-	-	-	-	-	-
SERIES	M	DIN 371/376	TDJ07 (p.B116)	TBJ07 (p.B116)	TCJ08 (p.B117)	TDJ08 (p.B117)	TBJ08 (p.B117)	TC814-IC (p.B123)					M
		DIN352											
		DIN357/LONG							TC445 (p.B124)				
	MF	DIN374											MF
		DIN2181											
	UNC	DIN 371/376											UNC
		DIN351											
	UNF	DIN 371/374											UNF
		DIN2181											
	BSW	DIN2182/2183											BSW
		DIN351											
	G(BSP)	DIN5156/5157											G(BSP)
	EG-M	DIN 371/376											EG-M
	EG-UNC	DIN 371/376											EG-UNC
	EG-UNF	DIN 371/374											EG-UNF
SURFACE TREATMENT			Bright	TiN	VAP	Bright	TiN	VAP	Bright	TiN	VAP	Bright	Bright
MODEL													

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRC								
P	1	Non-alloy steel	About 0.15% C	Annealed	125		○	○	○	○	○	○		
	2		About 0.45% C	Annealed	190	13	◎	◎	◎	◎	◎	◎	◎	◎
	3		About 0.45% C	Quenched & Tempered	250	25	◎	◎	◎	◎	◎	◎	◎	◎
	4		About 0.75% C	Annealed	270	28	◎	◎	◎	◎	◎	◎	◎	◎
	5		About 0.75% C	Quenched & Tempered	300	32	◎	◎	◎	◎	◎	◎	◎	◎
	6	Low alloy steel		Annealed	180	10	◎	◎	◎	◎	◎	◎	◎	◎
	7			Quenched & Tempered	275	29	◎	◎	◎	◎	◎	◎	◎	◎
	8			Quenched & Tempered	300	32	◎	◎	◎	◎	◎	◎	◎	◎
	9			Quenched & Tempered	350	38	◎	◎	◎	◎	◎	◎	◎	◎
	10	High alloyed steel, and tool steel		Annealed	200	15	○	○	○	○	○	○	○	○
	11			Quenched & Tempered	325	35								
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15	◎	◎	◎	◎	◎	◎	◎	◎
	13		Martensitic	Quenched & Tempered	240	23	◎	◎	◎	◎	◎	◎	◎	◎
	14		Austenitic		180	10	◎	◎	◎	◎	◎	◎	◎	◎
K	15	Grey cast iron	Pearlitic / ferritic		180	10	◎	◎	◎	◎	◎	◎	◎	◎
	16		Pearlitic (Martensitic)		260	26	◎	◎	◎	◎	◎	◎	◎	◎
	17	Nodular cast iron	Ferritic		160	3	◎	◎	◎	◎	◎	◎	◎	◎
	18		Pearlitic		250	25	◎	◎	◎	◎	◎	◎	◎	◎
	19	Malleable cast iron	Ferritic		130									
	20		Pearlitic		230	21								
N	21	Aluminum-wrought alloy	Not Curable		60									
	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								
	32			Cured	280	30								
	33		Ni or Co Based	Annealed	250	25								
	34			Cured	350	38								
	35			Cast	320	34								
	36	Titanium Alloys	Pure Titanium		400 Rm									
	37		Alpha + Beta Alloys	Hardened	1050 Rm									
H	38	Hardened steel		Hardened	550	55								
	39			Hardened	630	60								
	40	Chilled Cast Iron		Cast	400	42								
	41	Hardened Cast Iron		Hardened	550	55								

COMBO TAP SETS

Combo Spiral Flute Taps

TB804SET5	TC804SET7
VAP	Bright
5pcs	7pcs



Combo Spiral Flute Taps + Gold-P Drill

TD804SET7-GLP195

TiN

14pcs



p.B129

COMBO TAP

Vap **TB804** SERIES
Bright **TC804** SERIES
TiN **TD804** SERIES

M ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

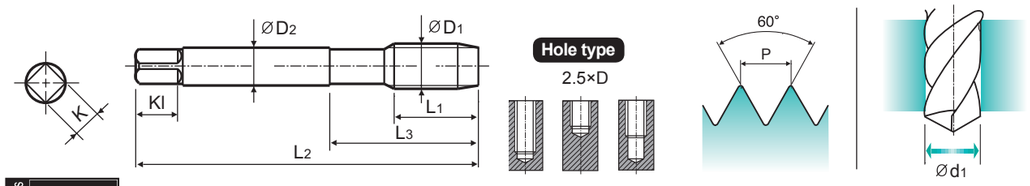
Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.







Material groups **MU** | HSS-E | DIN 371/376 | 6H | 60° | C | R40 | Vap / Bright / TiN

p.B130

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TB804136	TC804136	TD804136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TB804156	TC804156	TD804156	8	45	13	2.8	2.1	5	3	1.75
M2.3 ×	0.4	TB804196	TC804196	TD804196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TB804176	TC804176	TD804176	9	50	15	2.8	2.1	5	3	2.05
M2.6 ×	0.45	TB804496	TC804496	TD804496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TB804206	TC804206	TD804206	6	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TB804226	TC804226	TD804226	7	56	20	4	3	6	3	2.9
M4 ×	0.7	TB804246	TC804246	TD804246	7	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TB804266	TC804266	TD804266	8	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TB804286	TC804286	TD804286	8	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TB804316	TC804316	TD804316	10	80	30	6	4.9	8	3	5
M7 ×	1.0	TB804346	TC804346	TD804346	10	80	30	7	5.5	8	3	6
M8 ×	1.25	TB804366	TC804366	TD804366	13	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TB804396	TC804396	TD804396	13	90	35	9	7	10	3	7.8
M10 ×	1.5	TB804426	TC804426	TD804426	15	100	39	10	8	11	3	8.5
M11 ×	1.5	TB804466	TC804466	TD804466	17	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TB804506	TC804506	TD804506	18	110	44	9	7	10	3	10.2
M14 ×	2.0	TB804546	TC804546	TD804546	20	110	44	11	9	12	3	12
M16 ×	2.0	TB804606	TC804606	TD804606	20	110	44	12	9	12	3	14
M18 ×	2.5	TB804656	TC804656	TD804656	25	125	50	14	11	14	4	15.5
M20 ×	2.5	TB804706	TC804706	TD804706	25	140	54	16	12	15	4	17.5
M22 ×	2.5	TB804746	TC804746	TD804746	25	140	54	18	14.5	17	4	19.5

▶ DIN 371(M2~M10) and DIN 376(M11~M52)
▶ The other coating(TiCN or TiAlN) is available on your request.

▶ 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			◎			◎	◎	◎													

COMBO TAP

Vap TB804 SERIES
Bright TC804 SERIES
TiN TD804 SERIES

M ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

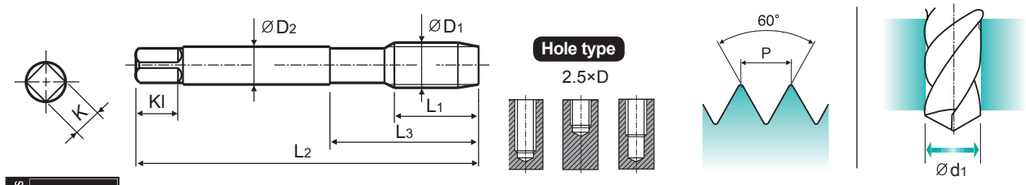
Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.







Material groups MU | HSS-E | DIN 371/376 | 6H | 60° | C | R40 | Vap / Bright / TiN

p.B130

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M24 ×	3.0	TB804786	TC804786	TD804786	30	160	60	18	14.5	17	4	21
M27 ×	3.0	TB804866	TC804866	TD804866	30	160	60	20	16	19	4	24
M30 ×	3.5	TB804946	TC804946	TD804946	35	180	70	22	18	21	4	26.5
M33 x	3.5	-	TC804A46	TD804A46	35	180	70	25	20	23	4	29.5
M36 x	4.0	-	TC804B36	TD804B36	40	200	80	28	22	25	4	32.0
M39 x	4.0	-	TC804C06	TD804C06	40	200	80	32	24	27	4	35.0
M42 x	4.5	-	TC804C86	TD804C86	45	200	85	32	24	27	4	37.5
M45 x	4.5	-	TC804D56	TD804D56	45	220	85	36	29	32	4	40.5
M48 x	5.0	-	TC804E26	TD804E26	50	250	90	36	29	32	4	43.0
M52 x	5.0	-	TC804F36	TD804F36	50	250	90	40	32	35	4	47.0

▶ DIN 371(M2~M10) and DIN 376(M11~M52)
▶ The other coating(TiCN or TiAlN) is available on your request.

◎ : 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			◎			◎	◎	◎													

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

COMBO TAP

Vap **TBE05** SERIES
Bright **TCE05** SERIES
TiN **TDE05** SERIES

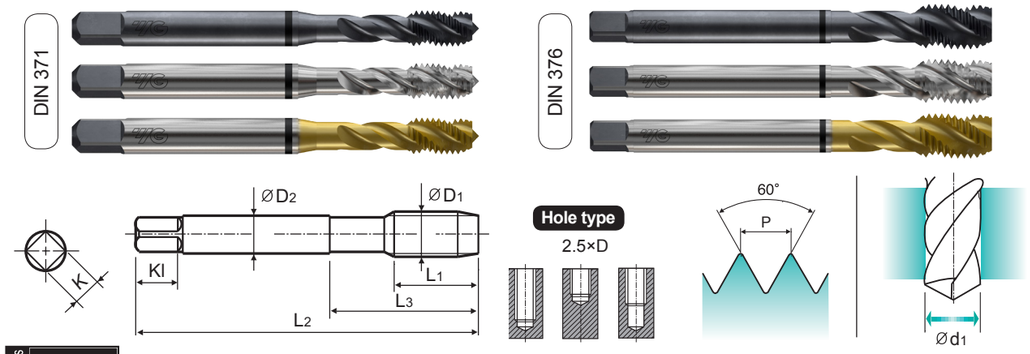
M ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Material groups **MU** | HSS-E | DIN 371/376 | 4H | 60° | C | R40 | Vap Bright TiN | p.B130

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TBE05136	TCE05136	TDE05136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TBE05156	TCE05156	TDE05156	8	45	13	2.8	2.1	5	3	1.75
M2.3 ×	0.4	TBE05196	TCE05196	TDE05196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TBE05176	TCE05176	TDE05176	9	50	15	2.8	2.1	5	3	2.05
M2.6 ×	0.45	TBE05496	TCE05496	TDE05496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TBE05206	TCE05206	TDE05206	6	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TBE05226	TCE05226	TDE05226	7	56	20	4	3	6	3	2.9
M4 ×	0.7	TBE05246	TCE05246	TDE05246	7	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TBE05266	TCE05266	TDE05266	8	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TBE05286	TCE05286	TDE05286	8	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TBE05316	TCE05316	TDE05316	10	80	30	6	4.9	8	3	5
M7 ×	1.0	TBE05346	TCE05346	TDE05346	10	80	30	7	5.5	8	3	6
M8 ×	1.25	TBE05366	TCE05366	TDE05366	13	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TBE05396	TCE05396	TDE05396	13	90	35	9	7	10	3	7.8
M10 ×	1.5	TBE05426	TCE05426	TDE05426	15	100	39	10	8	11	3	8.5
M11 ×	1.5	TBE05466	TCE05466	TDE05466	17	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TBE05506	TCE05506	TDE05506	18	110	44	9	7	10	3	10.2
M14 ×	2.0	TBE05546	TCE05546	TDE05546	20	110	44	11	9	12	3	12
M16 ×	2.0	TBE05606	TCE05606	TDE05606	20	110	44	12	9	12	3	14
M18 ×	2.5	TBE05656	TCE05656	TDE05656	25	125	50	14	11	14	4	15.5
M20 ×	2.5	TBE05706	TCE05706	TDE05706	25	140	54	16	12	15	4	17.5
M22 ×	2.5	TBE05746	TCE05746	TDE05746	25	140	54	18	14.5	17	4	19.5
M24 ×	3.0	TBE05786	TCE05786	TDE05786	30	160	60	18	14.5	17	4	21
M27 ×	3.0	TBE05866	TCE05866	TDE05866	30	160	60	20	16	19	4	24
M30 ×	3.5	TBE05946	TCE05946	TDE05946	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ The other coating(TiCN or TiAlN) is available on your request.

◎ : Excellent ○ : Good

ISO	P																			
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			◎			◎	◎	◎													

COMBO TAP

Vap **TBE06** SERIES
Bright **TCE06** SERIES
TiN **TDE06** SERIES

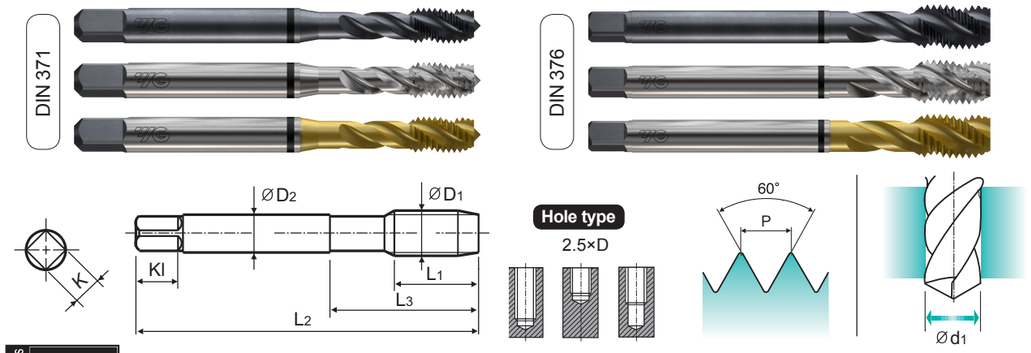
M ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Material groups MU | HSS-E | DIN 371/376 | 6H+0.1 | 60° | C | R40 | Vap Bright TiN | p.B130

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TBE06136	TCE06136	TDE06136	8	45	13	2.8	2.1	5	3	1.7
M2.2 ×	0.45	TBE06156	TCE06156	TDE06156	8	45	13	2.8	2.1	5	3	1.85
M2.3 ×	0.4	TBE06196	TCE06196	TDE06196	8	45	13	2.8	2.1	5	3	2
M2.5 ×	0.45	TBE06176	TCE06176	TDE06176	9	50	15	2.8	2.1	5	3	2.15
M2.6 ×	0.45	TBE06496	TCE06496	TDE06496	9	50	15	2.8	2.1	5	3	2.2
M3 ×	0.5	TBE06206	TCE06206	TDE06206	6	56	18	3.5	2.7	6	3	2.6
M3.5 ×	0.6	TBE06226	TCE06226	TDE06226	7	56	20	4	3	6	3	3
M4 ×	0.7	TBE06246	TCE06246	TDE06246	7	63	21	4.5	3.4	6	3	3.4
M4.5 ×	0.75	TBE06266	TCE06266	TDE06266	8	70	25	6	4.9	8	3	3.8
M5 ×	0.8	TBE06286	TCE06286	TDE06286	8	70	25	6	4.9	8	3	4.3
M6 ×	1.0	TBE06316	TCE06316	TDE06316	10	80	30	6	4.9	8	3	5.1
M7 ×	1.0	TBE06346	TCE06346	TDE06346	10	80	30	7	5.5	8	3	6.1
M8 ×	1.25	TBE06366	TCE06366	TDE06366	13	90	35	8	6.2	9	3	6.9
M9 ×	1.25	TBE06396	TCE06396	TDE06396	13	90	35	9	7	10	3	7.9
M10 ×	1.5	TBE06426	TCE06426	TDE06426	15	100	39	10	8	11	3	8.6
M11 ×	1.5	TBE06466	TCE06466	TDE06466	17	100	40	8	6.2	9	3	9.6
M12 ×	1.75	TBE06506	TCE06506	TDE06506	18	110	44	9	7	10	3	10.3
M14 ×	2.0	TBE06546	TCE06546	TDE06546	20	110	44	11	9	12	3	12.1
M16 ×	2.0	TBE06606	TCE06606	TDE06606	20	110	44	12	9	12	3	14.1
M18 ×	2.5	TBE06656	TCE06656	TDE06656	25	125	50	14	11	14	4	15.6
M20 ×	2.5	TBE06706	TCE06706	TDE06706	25	140	54	16	12	15	4	17.6
M22 ×	2.5	TBE06746	TCE06746	TDE06746	25	140	54	18	14.5	17	4	19.6
M24 ×	3.0	TBE06786	TCE06786	TDE06786	30	160	60	18	14.5	17	4	21.1
M27 ×	3.0	TBE06866	TCE06866	TDE06866	30	160	60	20	16	19	4	24.1
M30 ×	3.5	TBE06946	TCE06946	TDE06946	35	180	70	22	18	21	4	26.6

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ The other coating(TiCN or TiAlN) is available on your request.

◎ : Excellent ○ : Good

ISO	P																			
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			◎			◎	◎	◎													

COMBO TAP

Vap **TBE07 SERIES**
Bright **TCE07 SERIES**
TiN **TDE07 SERIES**

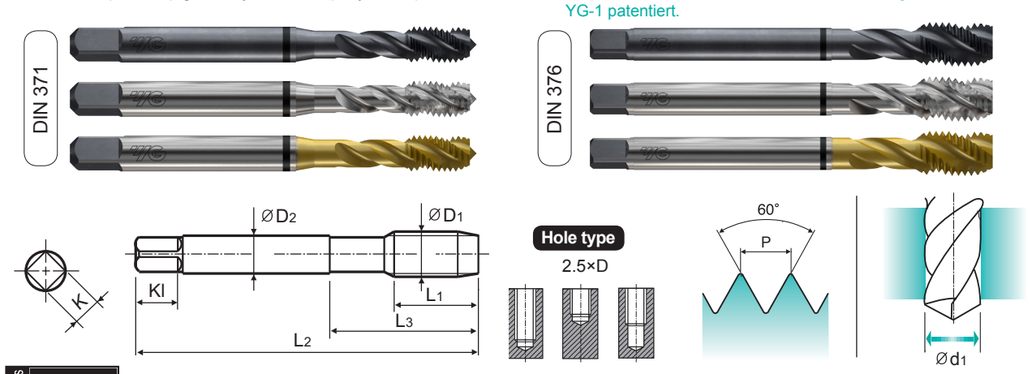
M ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Material groups **MU** | HSS-E | DIN 371/376 | 6G | 60° | C | R40 | Vap Bright TiN | p.B130

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TBE07136	TCE07136	TDE07136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TBE07156	TCE07156	TDE07156	8	45	13	2.8	2.1	5	3	1.75
M2.3 ×	0.4	TBE07196	TCE07196	TDE07196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TBE07176	TCE07176	TDE07176	9	50	15	2.8	2.1	5	3	2.05
M2.6 ×	0.45	TBE07496	TCE07496	TDE07496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TBE07206	TCE07206	TDE07206	6	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TBE07226	TCE07226	TDE07226	7	56	20	4	3	6	3	2.9
M4 ×	0.7	TBE07246	TCE07246	TDE07246	7	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TBE07266	TCE07266	TDE07266	8	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TBE07286	TCE07286	TDE07286	8	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TBE07316	TCE07316	TDE07316	10	80	30	6	4.9	8	3	5
M7 ×	1.0	TBE07346	TCE07346	TDE07346	10	80	30	7	5.5	8	3	6
M8 ×	1.25	TBE07366	TCE07366	TDE07366	13	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TBE07396	TCE07396	TDE07396	13	90	35	9	7	10	3	7.8
M10 ×	1.5	TBE07426	TCE07426	TDE07426	15	100	39	10	8	11	3	8.5
M11 ×	1.5	TBE07466	TCE07466	TDE07466	17	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TBE07506	TCE07506	TDE07506	18	110	44	9	7	10	3	10.2
M14 ×	2.0	TBE07546	TCE07546	TDE07546	20	110	44	11	9	12	3	12
M16 ×	2.0	TBE07606	TCE07606	TDE07606	20	110	44	12	9	12	3	14
M18 ×	2.5	TBE07656	TCE07656	TDE07656	25	125	50	14	11	14	4	15.5
M20 ×	2.5	TBE07706	TCE07706	TDE07706	25	140	54	16	12	15	4	17.5
M22 ×	2.5	TBE07746	TCE07746	TDE07746	25	140	54	18	14.5	17	4	19.5
M24 ×	3.0	TBE07786	TCE07786	TDE07786	30	160	60	18	14.5	17	4	21
M27 ×	3.0	TBE07866	TCE07866	TDE07866	30	160	60	20	16	19	4	24
M30 ×	3.5	TBE07946	TCE07946	TDE07946	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ The other coating(TiCN or TiAlN) is available on your request.

◎ : Excellent ○ : Good

ISO	P																			
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			◎			◎	◎	◎													

COMBO TAP

Vap TBE08 SERIES
Bright TCE08 SERIES
TiN TDE08 SERIES

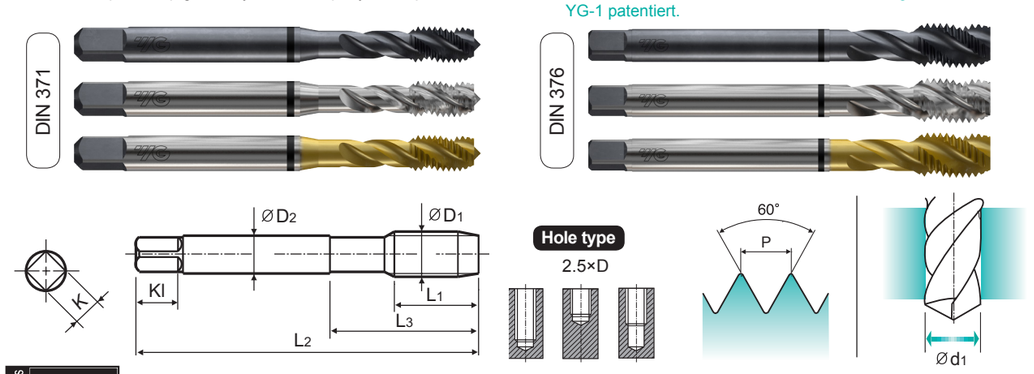
M ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Material groups MU | HSS-E | DIN 371/376 | 7G | 60° | C | R40 | Vap Bright TiN | p.B130

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TBE08136	TCE08136	TDE08136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TBE08156	TCE08156	TDE08156	8	45	13	2.8	2.1	5	3	1.75
M2.3 ×	0.4	TBE08196	TCE08196	TDE08196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TBE08176	TCE08176	TDE08176	9	50	15	2.8	2.1	5	3	2.05
M2.6 ×	0.45	TBE08496	TCE08496	TDE08496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TBE08206	TCE08206	TDE08206	6	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TBE08226	TCE08226	TDE08226	7	56	20	4	3	6	3	2.9
M4 ×	0.7	TBE08246	TCE08246	TDE08246	7	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TBE08266	TCE08266	TDE08266	8	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TBE08286	TCE08286	TDE08286	8	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TBE08316	TCE08316	TDE08316	10	80	30	6	4.9	8	3	5
M7 ×	1.0	TBE08346	TCE08346	TDE08346	10	80	30	7	5.5	8	3	6
M8 ×	1.25	TBE08366	TCE08366	TDE08366	13	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TBE08396	TCE08396	TDE08396	13	90	35	9	7	10	3	7.8
M10 ×	1.5	TBE08426	TCE08426	TDE08426	15	100	39	10	8	11	3	8.5
M11 ×	1.5	TBE08466	TCE08466	TDE08466	17	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TBE08506	TCE08506	TDE08506	18	110	44	9	7	10	3	10.2
M14 ×	2.0	TBE08546	TCE08546	TDE08546	20	110	44	11	9	12	3	12
M16 ×	2.0	TBE08606	TCE08606	TDE08606	20	110	44	12	9	12	3	14
M18 ×	2.5	TBE08656	TCE08656	TDE08656	25	125	50	14	11	14	4	15.5
M20 ×	2.5	TBE08706	TCE08706	TDE08706	25	140	54	16	12	15	4	17.5
M22 ×	2.5	TBE08746	TCE08746	TDE08746	25	140	54	18	14.5	17	4	19.5
M24 ×	3.0	TBE08786	TCE08786	TDE08786	30	160	60	18	14.5	17	4	21
M27 ×	3.0	TBE08866	TCE08866	TDE08866	30	160	60	20	16	19	4	24
M30 ×	3.5	TBE08946	TCE08946	TDE08946	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ The other coating(TiCN or TiAlN) is available on your request.

◎ : Excellent ○ : Good

ISO	P																			
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			◎			◎	◎	◎													

COMBO TAP

Vap **TB844** SERIES
Bright **TC844** SERIES
TiN **TD844** SERIES

MF ISO Metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

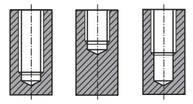
Machine taps
Maschinengewindebohrer

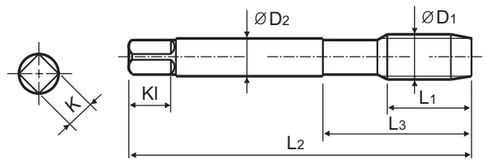
▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

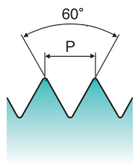
▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.

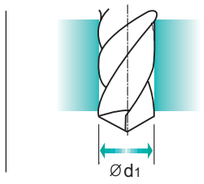


Hole type
2.5×D









Material groups **MU** | HSS-E | DIN 374 | 6H | 60° | C | R40 | Vap Bright TiN | p.B130

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4 ×	0.5	TB844256	TC844256	TD844256	5	63	21	2.8	2.1	5	3	3.5
M5 ×	0.5	TB844296	TC844296	TD844296	5	70	25	3.5	2.7	6	3	4.5
M6 ×	0.75	TB844326	TC844326	TD844326	8	80	30	4.5	3.4	6	3	5.2
M6 ×	0.5	TB844336	TC844336	TD844336	5	80	30	4.5	3.4	6	3	5.5
M7 ×	0.75	TB844356	TC844356	TD844356	10	80	30	5.5	4.3	7	3	6.2
M8 ×	1.0	TB844376	TC844376	TD844376	10	90	36	6	4.9	8	3	7
M8 ×	0.75	TB844386	TC844386	TD844386	8	80	30	6	4.9	8	3	7.2
M10 ×	1.25	TB844436	TC844436	TD844436	16	100	40	7	5.5	8	3	8.8
M10 ×	1.0	TB844446	TC844446	TD844446	10	90	36	7	5.5	8	3	9
M10 ×	0.75	TB844456	TC844456	TD844456	10	90	36	7	5.5	8	3	9.2
M12 ×	1.5	TB844516	TC844516	TD844516	15	100	40	9	7	10	3	10.5
M12 ×	1.25	TB844526	TC844526	TD844526	15	100	40	9	7	10	3	10.8
M12 ×	1.0	TB844536	TC844536	TD844536	11	100	40	9	7	10	3	11
M14 ×	1.5	TB844556	TC844556	TD844556	15	100	40	11	9	12	3	12.5
M14 ×	1.25	TB844566	TC844566	TD844566	15	100	40	11	9	12	3	12.8
M14 ×	1.0	TB844576	TC844576	TD844576	11	100	40	11	9	12	3	13
M16 ×	1.5	TB844616	TC844616	TD844616	15	100	40	12	9	12	3	14.5
M16 ×	1.0	TB844626	TC844626	TD844626	12	100	40	12	9	12	3	15
M18 ×	1.5	TB844676	TC844676	TD844676	17	110	44	14	11	14	4	16.5
M18 ×	1.0	TB844686	TC844686	TD844686	13	110	44	14	11	14	4	17
M20 ×	1.5	TB844726	TC844726	TD844726	17	125	50	16	12	15	4	18.5
M20 ×	1.0	TB844736	TC844736	TD844736	14	125	50	16	12	15	4	19
M22 ×	1.5	TB844766	TC844766	TD844766	17	125	50	18	14.5	17	4	20.5
M22 ×	1.0	TB844776	TC844776	TD844776	14	125	50	18	14.5	17	4	21

▶ The other coating(TiCN or TiAlN) is available on your request. ▶ NEXT PAGE

◎ : Excellent ○ : Good

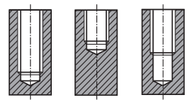
ISO	P													M			K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10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

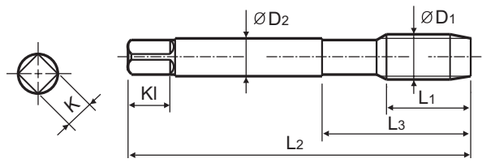
ISO	N										S							H		
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29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

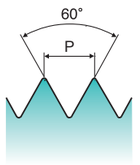
COMBO TAP
Vap TB844 SERIES
Bright TC844 SERIES
TiN TD844 SERIES
MF ISO Metric fine threads DIN 13
Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13
Machine taps
Maschinengewindebohrer
▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.
▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.

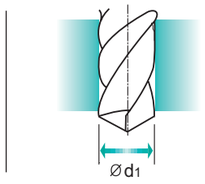


Hole type
2.5×D









Material groups MU | HSS-E | DIN 374 | 6H | 60° | C | R40 | Vap Bright TiN | p.B130
Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK
Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M24 ×	2.0	TB844796	TC844796	TD844796	20	140	54	18	14.5	17	4	22
M24 ×	1.5	TB844806	TC844806	TD844806	20	140	54	18	14.5	17	4	22.5
M26 ×	1.5	TB844856	TC844856	TD844856	20	140	54	18	14.5	17	4	24.5
M27 ×	2.0	TB844876	TC844876	TD844876	20	140	54	20	16	19	4	25
M27 ×	1.5	TB844886	TC844886	TD844886	20	140	54	20	16	19	4	25.5
M28 ×	1.5	TB844916	TC844916	TD844916	20	140	54	20	16	19	4	26.5
M30 ×	2.0	TB844966	TC844966	TD844966	22	150	57	22	18	21	4	28
M30 ×	1.5	TB844976	TC844976	TD844976	22	150	57	22	18	21	4	28.5
M32 x	2.0	-	TC844A16	TD844A16	22	150	57	22	18	21	4	30.0
M32 x	1.5	-	TC844A26	TD844A26	22	150	57	22	18	21	4	30.5
M33 x	2.0	-	TC844A66	TD844A66	24	160	60	25	20	23	4	31.0
M33 x	1.5	-	TC844A76	TD844A76	24	160	60	25	20	23	4	31.5
M34 x	1.5	-	TC844A96	TD844A96	24	170	70	28	22	25	4	32.5
M35 x	1.5	-	TC844B16	TD844B16	24	170	70	28	22	25	4	33.5
M36 x	3.0	-	TC844B46	TD844B46	30	200	80	28	22	25	4	33.0
M36 x	2.0	-	TC844B56	TD844B56	24	170	70	28	22	25	4	34.0
M36 x	1.5	-	TC844B66	TD844B66	24	170	70	28	22	25	4	34.5
M38 x	1.5	-	TC844B86	TD844B86	24	170	70	28	22	25	4	36.5
M39 x	1.5	-	TC844C36	TD844C36	25	170	70	32	24	27	4	37.5
M40 x	1.5	-	TC844C66	TD844C66	25	170	70	32	24	27	4	38.5
M42 x	3.0	-	TC844D06	TD844D06	30	200	80	32	24	27	4	39.0
M42 x	2.0	-	TC844D16	TD844D16	25	170	70	32	24	27	4	40.0
M42 x	1.5	-	TC844D26	TD844D26	25	170	70	32	24	27	4	40.5
M45 x	1.5	-	TC844D96	TD844D96	26	180	80	36	29	32	4	43.5

▶ The other coating(TiCN or TiAlN) is available on your request. ▶ 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			◎			◎	◎	◎													

COMBO TAP

Vap **TB844** SERIES
Bright **TC844** SERIES
TiN **TD844** SERIES

MF ISO Metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

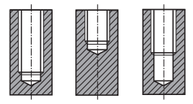
Machine taps
Maschinengewindebohrer

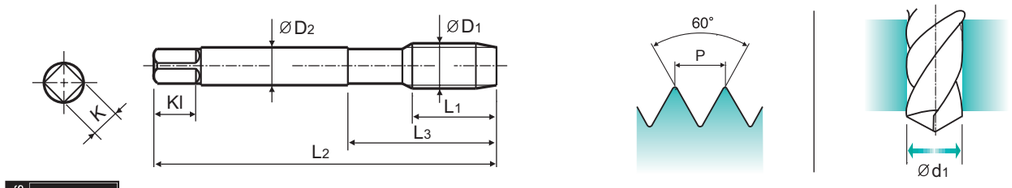
▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Hole type
2.5×D





Material groups **MU** | HSS-E | DIN 374 | 6H | 60° | C | R40 | Vap Bright TiN | p.B130

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M48 x	3.0	-	TC844E56	TD844E56	36	225	90	36	29	32	4	45.0
M48 x	2.0	-	TC844E66	TD844E66	28	190	80	36	29	32	4	46.0
M48 x	1.5	-	TC844E76	TD844E76	28	190	80	36	29	32	4	46.5
M50 x	1.5	-	TC844F16	TD844F16	28	190	80	36	29	32	4	48.5
M52 x	3.0	-	TC844F56	TD844F56	36	225	90	40	32	35	4	49.0
M52 x	2.0	-	TC844F66	TD844F66	28	190	80	40	32	35	4	50.0
M52 x	1.5	-	TC844F76	TD844F76	28	190	80	40	32	35	4	50.5

▶ The other coating(TiCN or TiAlN) is available on your request.

◎ : 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			◎			◎	◎	◎													

COMBO TAP

Bright **TCE09** SERIES
TiN **TDE09** SERIES

MF ISO Metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

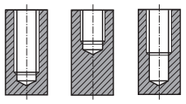
Machine taps
Maschinengewindebohrer

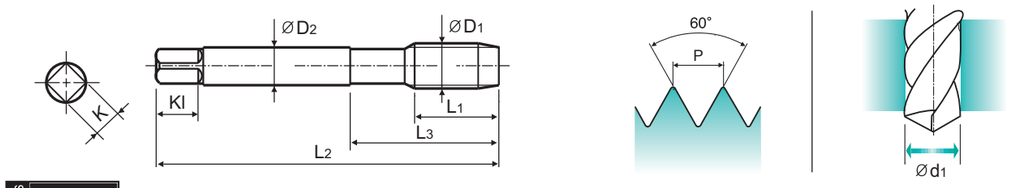
▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Hole type
2.5×D





Material groups **MU** | HSS-E | DIN 374 | 6G | 60° | C | R40 | TiN | Bright | p.B130

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.		Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4 ×	0.5	TCE09256	TDE09256	5	63	21	2.8	2.1	5	3	3.5
M5 ×	0.5	TCE09296	TDE09296	5	70	25	3.5	2.7	6	3	4.5
M6 ×	0.75	TCE09326	TDE09326	8	80	30	4.5	3.4	6	3	5.2
M6 ×	0.5	TCE09336	TDE09336	5	80	30	4.5	3.4	6	3	5.5
M7 ×	0.75	TCE09356	TDE09356	10	80	30	5.5	4.3	7	3	6.2
M8 ×	1.0	TCE09376	TDE09376	10	90	36	6	4.9	8	3	7
M8 ×	0.75	TCE09386	TDE09386	8	80	30	6	4.9	8	3	7.2
M10 ×	1.25	TCE09436	TDE09436	16	100	40	7	5.5	8	3	8.8
M10 ×	1.0	TCE09446	TDE09446	10	90	36	7	5.5	8	3	9
M10 ×	0.75	TCE09456	TDE09456	10	90	36	7	5.5	8	3	9.2
M12 ×	1.5	TCE09516	TDE09516	15	100	40	9	7	10	3	10.5
M12 ×	1.25	TCE09526	TDE09526	15	100	40	9	7	10	3	10.8
M12 ×	1.0	TCE09536	TDE09536	11	100	40	9	7	10	3	11
M14 ×	1.5	TCE09556	TDE09556	15	100	40	11	9	12	3	12.5
M14 ×	1.25	TCE09566	TDE09566	15	100	40	11	9	12	3	12.8
M14 ×	1.0	TCE09576	TDE09576	11	100	40	11	9	12	3	13
M16 ×	1.5	TCE09616	TDE09616	15	100	40	12	9	12	3	14.5
M16 ×	1.0	TCE09626	TDE09626	12	100	40	12	9	12	3	15
M18 ×	1.5	TCE09676	TDE09676	17	110	44	14	11	14	4	16.5
M18 ×	1.0	TCE09686	TDE09686	13	110	44	14	11	14	4	17
M20 ×	1.5	TCE09726	TDE09726	17	125	50	16	12	15	4	18.5
M20 ×	1.0	TCE09736	TDE09736	14	125	50	16	12	15	4	19
M22 ×	1.5	TCE09766	TDE09766	17	125	50	18	14.5	17	4	20.5
M22 ×	1.0	TCE09776	TDE09776	14	125	50	18	14.5	17	4	21

▶ The other coating(TiCN or TiAlN) or Surface Treatment(Steam Homo) is available on your request.

▶ 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			◎			◎	◎	◎													

COMBO TAP

Bright **TCE09** SERIES
TiN **TDE09** SERIES

MF ISO Metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

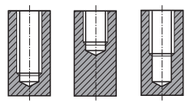
Machine taps
Maschinengewindebohrer

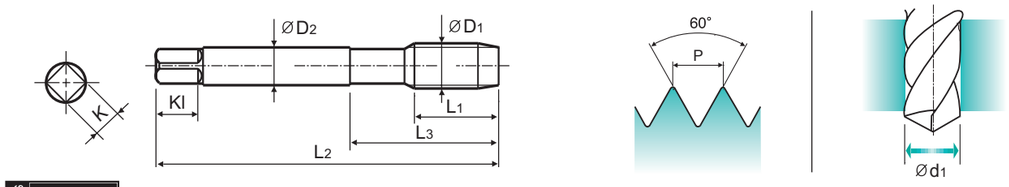
▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Hole type
2.5×D





Material groups **MU** | HSS-E | DIN 374 | 6G | 60° | C | R40 | TiN | Bright | p.B130

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.		Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M24 ×	2.0	TCE09796	TDE09796	20	140	54	18	14.5	17	4	22
M24 ×	1.5	TCE09806	TDE09806	20	140	54	18	14.5	17	4	22.5
M26 ×	1.5	TCE09856	TDE09856	20	140	54	18	14.5	17	4	24.5
M27 ×	2.0	TCE09876	TDE09876	20	140	54	20	16	19	4	25
M27 ×	1.5	TCE09886	TDE09886	20	140	54	20	16	19	4	25.5
M28 ×	1.5	TCE09916	TDE09916	20	140	54	20	16	19	4	26.5
M30 ×	2.0	TCE09966	TDE09966	22	150	57	22	18	21	4	28
M30 ×	1.5	TCE09976	TDE09976	22	150	57	22	18	21	4	28.5

▶ The other coating(TiCN or TiAlN) or Surface Treatment(Steam Homo) is available on your request.

◎ : Excellent ○ : Good

ISO	P																			
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			◎			◎	◎	◎													

COMBO TAP

TC804-IC SERIES

M ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

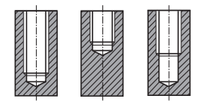
Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

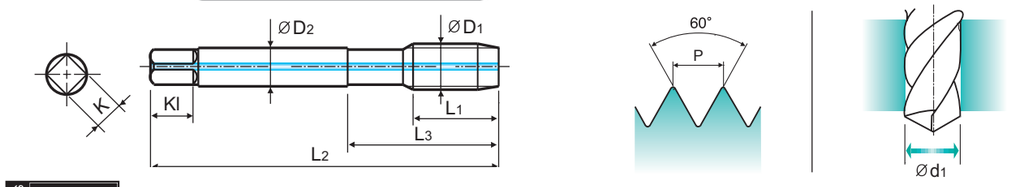
▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Hole type
2.5×D



with Internal Coolant



Material groups **MU** | HSS-E | DIN 371/376 | 6H | 60° | C | R40 | Bright | p.B130

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M6 ×	1.0	TC804316IC	10	80	30	6	4.9	8	3	5
M8 ×	1.25	TC804366IC	13	90	35	8	6.2	9	3	6.8
M10 ×	1.5	TC804426IC	15	100	39	10	8	11	3	8.5
M12 ×	1.75	TC804506IC	18	110	44	9	7	10	3	10.2
M14 ×	2.0	TC804546IC	20	110	44	11	9	12	3	12
M16 ×	2.0	TC804606IC	20	110	44	12	9	12	3	14
M18 ×	2.5	TC804656IC	25	125	50	14	11	14	4	15.5
M20 ×	2.5	TC804706IC	25	140	54	16	12	15	4	17.5

▶ DIN 371(M6~M10) and DIN 376(M12~M20)
▶ Coating(TiN, TiCN or TiAlN) or Surface Treatment(Steam Homo) is available on your request.

◎ : 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			◎			◎	◎	◎													

COMBO TAP

TC807 SERIES

M ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

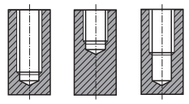
▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

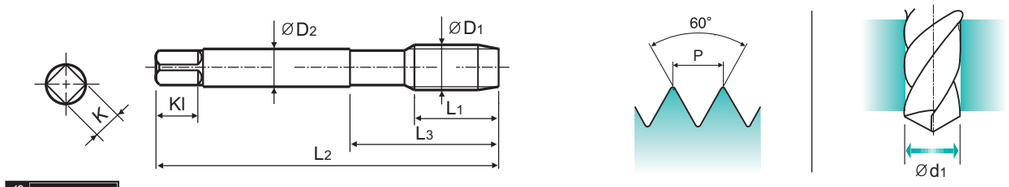
▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Short Chamfer

Hole type
2.5×D





Material groups MU | HSS-E | DIN 371/376 | 6H | 60° | E | R40 | Bright

p.B130

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TC807136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TC807156	8	45	13	2.8	2.1	5	3	1.75
M2.3 ×	0.4	TC807196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TC807176	9	50	15	2.8	2.1	5	3	2.05
M2.6 ×	0.45	TC807496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TC807206	6	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TC807226	7	56	20	4	3	6	3	2.9
M4 ×	0.7	TC807246	7	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TC807266	8	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TC807286	8	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TC807316	10	80	30	6	4.9	8	3	5
M7 ×	1.0	TC807346	10	80	30	7	5.5	8	3	6
M8 ×	1.25	TC807366	13	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TC807396	13	90	35	9	7	10	3	7.8
M10 ×	1.5	TC807426	15	100	39	10	8	11	3	8.5
M11 ×	1.5	TC807466	17	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TC807506	18	110	44	9	7	10	3	10.2
M14 ×	2.0	TC807546	20	110	44	11	9	12	3	12
M16 ×	2.0	TC807606	20	110	44	12	9	12	3	14
M18 ×	2.5	TC807656	25	125	50	14	11	14	4	15.5
M20 ×	2.5	TC807706	25	140	54	16	12	15	4	17.5
M22 ×	2.5	TC807746	25	140	54	18	14.5	17	4	19.5
M24 ×	3.0	TC807786	30	160	60	18	14.5	17	4	21
M27 ×	3.0	TC807866	30	160	60	20	16	19	4	24
M30 ×	3.5	TC807946	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ Coating(TiN, TiCN or TiAlN) or Surface Treatment(Steam Homo) is available on your request.

◎ : 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			◎			◎	◎	◎													

COMBO TAP

TC633 SERIES

M ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

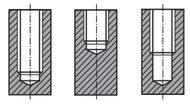
▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

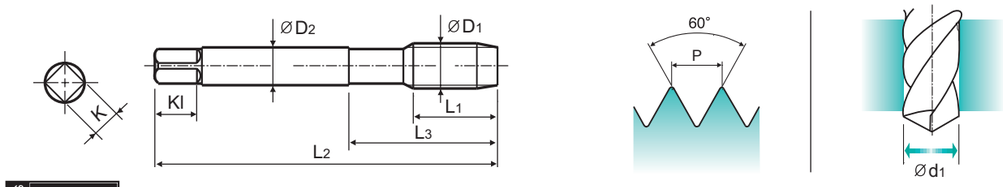
▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Long Shank

Hole type
2.5×D





Material groups MU | HSS-E | LONG | 6H | 60° | C | R40 | Bright

p.B130

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3 ×	0.5	TC633206	11	100	18	3.5	2.7	6	3	2.5
M4 ×	0.7	TC633246	13	125	21	4.5	3.4	6	3	3.3
M5 ×	0.8	TC633286	15	140	25	6	4.9	8	3	4.2
M6 ×	1.0	TC633316	17	160	30	6	4.9	8	3	5
M8 ×	1.25	TC633366	20	180	35	6	4.9	8	3	6.8
M10 ×	1.5	TC633426	22	200	39	7	5.5	8	3	8.5
M12 ×	1.75	TC633506	24	220	44	9	7	10	3	10.2
M14 ×	2.0	TC633546	26	220	44	11	9	12	3	12
M16 ×	2.0	TC633606	27	220	44	12	9	12	3	14
M20 ×	2.5	TC633706	32	280	54	16	12	15	4	17.5

▶ Coating(TiN, TiCN or TiAlN) or Surface Treatment(Steam Homo) is available on your request.

◎ : 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			◎			◎	◎	◎													

COMBO TAP

Vap **TB824** SERIES
Bright **TC824** SERIES
TiN **TD824** SERIES

UNC Unified coarse threads

Unified Grobgewinde
UNC
Unificato passo grosso

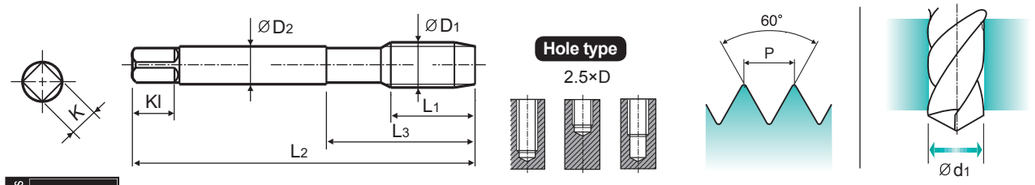
Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.







Material groups **MU** | HSS-E | DIN 371/376 | 2B | 60° | C | R40 | Vap Bright TiN | p.B130

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE ØD1	TPI	EDP No. Vap	Bright	TiN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length Kl	No. of Flute Z	Tapping Drill Diameter Ød1
#4	40UNC	TB824162	TC824162	TD824162	6	56	18	3.5	2.7	6	3	2.3
#5	40UNC	TB824202	TC824202	TD824202	7	56	18	3.5	2.7	6	3	2.6
#6	32UNC	TB824242	TC824242	TD824242	7	56	20	4	3	6	3	2.85
#8	32UNC	TB824282	TC824282	TD824282	8	63	21	4.5	3.4	6	3	3.5
#10	24UNC	TB824322	TC824322	TD824322	10	70	25	6	4.9	8	3	3.9
#12	24UNC	TB824362	TC824362	TD824362	10	80	30	6	4.9	8	3	4.5
1/4	20UNC	TB824402	TC824402	TD824402	13	80	30	7	5.5	8	3	5.2
5/16	18UNC	TB824442	TC824442	TD824442	14	90	35	8	6.2	9	3	6.6
3/8	16UNC	TB824482	TC824482	TD824482	16	100	39	9	7	10	3	8
7/16	14UNC	TB824522	TC824522	TD824522	17	100	40	8	6.2	9	3	9.4
1/2	13UNC	TB824562	TC824562	TD824562	20	110	44	9	7	10	3	10.75
9/16	12UNC	TB824602	TC824602	TD824602	20	110	44	11	9	12	3	12.25
5/8	11UNC	TB824642	TC824642	TD824642	22	110	44	12	9	12	3	13.5
3/4	10UNC	TB824702	TC824702	TD824702	25	125	50	14	11	14	4	16.5
7/8	9UNC	TB824742	TC824742	TD824742	27	140	54	18	14.5	17	4	19.5
1	8UNC	TB824782	TC824782	TD824782	30	160	60	20	16	19	4	22.25

▶ DIN 371(#4~3/8) and DIN 374(7/16~1)
▶ The other coating(TiCN or TiAlN) is available on your request.

◎ : 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			◎			◎	◎	◎													

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

COMBO TAP

Bright **TCE01** SERIES
TiN **TDE01** SERIES

UNC Unified coarse threads

Unified Grobgewinde
UNC
Unificato passo grosso

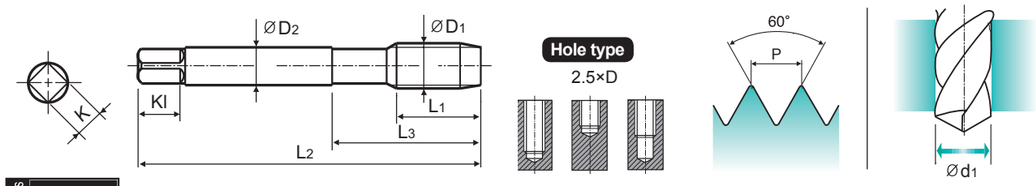
Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.







Material groups **MU** | HSS-E | DIN 371/376 | 3B | 60° | C | R40 | TiN | Bright | p.B130

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE ØD1	TPI	EDP No. Bright	TiN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length Kl	No. of Flute Z	Tapping Drill Diameter Ød1
#4	40UNC	TCE01162	TDE01162	6	56	18	3.5	2.7	6	3	2.3
#5	40UNC	TCE01202	TDE01202	7	56	18	3.5	2.7	6	3	2.6
#6	32UNC	TCE01242	TDE01242	7	56	20	4	3	6	3	2.85
#8	32UNC	TCE01282	TDE01282	8	63	21	4.5	3.4	6	3	3.5
#10	24UNC	TCE01322	TDE01322	10	70	25	6	4.9	8	3	3.9
#12	24UNC	TCE01362	TDE01362	10	80	30	6	4.9	8	3	4.5
1/4	20UNC	TCE01402	TDE01402	13	80	30	7	5.5	8	3	5.2
5/16	18UNC	TCE01442	TDE01442	14	90	35	8	6.2	9	3	6.6
3/8	16UNC	TCE01482	TDE01482	16	100	39	9	7	10	3	8
7/16	14UNC	TCE01522	TDE01522	17	100	40	8	6.2	9	3	9.4
1/2	13UNC	TCE01562	TDE01562	20	110	44	9	7	10	3	10.75
9/16	12UNC	TCE01602	TDE01602	20	110	44	11	9	12	3	12.25
5/8	11UNC	TCE01642	TDE01642	22	110	44	12	9	12	3	13.5
3/4	10UNC	TCE01702	TDE01702	25	125	50	14	11	14	4	16.5
7/8	9UNC	TCE01742	TDE01742	27	140	54	18	14.5	17	4	19.5
1	8UNC	TCE01782	TDE01782	30	160	60	20	16	19	4	22.25

▶ DIN 371(#4~3/8) and DIN 376(7/16~1)
▶ The other coating(TiCN or TiAlN) or Surface Treatment(Steam Homo) is available on your request.

◎ : 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			◎			◎	◎	◎													

COMBO TAP

Vap **TB864 SERIES**
Bright **TC864 SERIES**
TiN **TD864 SERIES**

UNF — Unified fine threads

Unified Feingewinde
UNF
Unificato passo fine

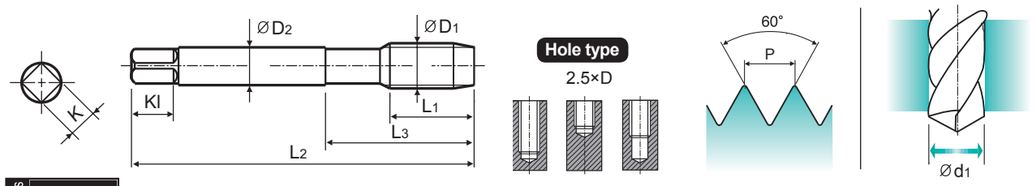
Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.







Material groups **MU** | HSS-E | DIN 371/374 | 2B | 60° | C | R40 | Vap Bright TiN | p.B130

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE ØD1	TPI	EDP No. Vap	Bright	TiN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length Kl	No. of Flute Z	Tapping Drill Diameter Ød1
#4	48UNF	TB864182	TC864182	TD864182	6	56	18	3.5	2.7	6	3	2.4
#5	44UNF	TB864222	TC864222	TD864222	7	56	18	3.5	2.7	6	3	2.7
#6	40UNF	TB864262	TC864262	TD864262	7	56	20	4	3	6	3	3
#8	36UNF	TB864302	TC864302	TD864302	8	63	21	4.5	3.4	6	3	3.5
#10	32UNF	TB864342	TC864342	TD864342	10	70	25	6	4.9	8	3	4.1
#12	28UNF	TB864382	TC864382	TD864382	10	80	30	6	4.9	8	3	4.7
1/4	28UNF	TB864422	TC864422	TD864422	10	80	30	7	5.5	8	3	5.5
5/16	24UNF	TB864462	TC864462	TD864462	10	90	35	8	6.2	9	3	6.9
3/8	24UNF	TB864502	TC864502	TD864502	10	100	39	9	7	10	3	8.5
7/16	20UNF	TB864542	TC864542	TD864542	13	100	40	8	6.2	9	3	9.9
1/2	20UNF	TB864582	TC864582	TD864582	13	100	40	9	7	10	3	11.5
9/16	18UNF	TB864622	TC864622	TD864622	15	100	40	11	9	12	3	12.9
5/8	18UNF	TB864662	TC864662	TD864662	15	100	40	12	9	12	3	14.5
3/4	16UNF	TB864722	TC864722	TD864722	17	110	44	14	11	14	4	17.5
7/8	14UNF	TB864762	TC864762	TD864762	17	125	50	18	14.5	17	4	20.5
1	12UNF	TB864802	TC864802	TD864802	20	140	54	20	16	19	4	23.25

▶ DIN 371(#4~3/8) and DIN 374(7/16~1)
▶ The other coating(TiCN or TiAlN) is available on your request.

◎ : 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			◎			◎	◎	◎													

COMBO TAP

Bright **TCE02 SERIES**
TiN **TDE02 SERIES**

UNF — Unified fine threads

Unified Feingewinde
UNF
Unificato passo fine

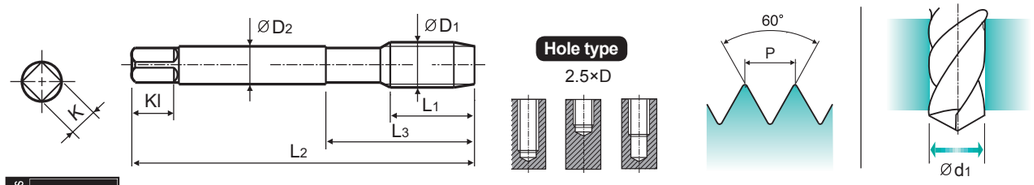
Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.







Material groups **MU** | HSS-E | DIN 371/374 | 3B | 60° | C | R40 | TiN | Bright | p.B130

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE ØD1	TPI	EDP No. Bright	TiN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length Kl	No. of Flute Z	Tapping Drill Diameter Ød1
#4	48UNF	TCE02182	TDE02182	6	56	18	3.5	2.7	6	3	2.4
#5	44UNF	TCE02222	TDE02222	7	56	18	3.5	2.7	6	3	2.7
#6	40UNF	TCE02262	TDE02262	7	56	20	4	3	6	3	3
#8	36UNF	TCE02302	TDE02302	8	63	21	4.5	3.4	6	3	3.5
#10	32UNF	TCE02342	TDE02342	10	70	25	6	4.9	8	3	4.1
#12	28UNF	TCE02382	TDE02382	10	80	30	6	4.9	8	3	4.7
1/4	28UNF	TCE02422	TDE02422	10	80	30	7	5.5	8	3	5.5
5/16	24UNF	TCE02462	TDE02462	10	90	35	8	6.2	9	3	6.9
3/8	24UNF	TCE02502	TDE02502	10	100	39	9	7	10	3	8.5
7/16	20UNF	TCE02542	TDE02542	13	100	40	8	6.2	9	3	9.9
1/2	20UNF	TCE02582	TDE02582	13	100	40	9	7	10	3	11.5
9/16	18UNF	TCE02622	TDE02622	15	100	40	11	9	12	3	12.9
5/8	18UNF	TCE02662	TDE02662	15	100	40	12	9	12	3	14.5
3/4	16UNF	TCE02722	TDE02722	17	110	44	14	11	14	4	17.5
7/8	14UNF	TCE02762	TDE02762	17	125	50	18	14.5	17	4	20.5
1	12UNF	TCE02802	TDE02802	20	140	54	20	16	19	4	23.25

▶ DIN 371(#4~3/8) and DIN 374(7/16~1)
▶ The other coating(TiCN or TiAlN) or Surface Treatment(Steam Homo) is available on your request.

◎ : 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			◎			◎	◎	◎													

COMBO TAP

Vap **TB814** SERIES
Bright **TC814** SERIES
TiN **TD814** SERIES

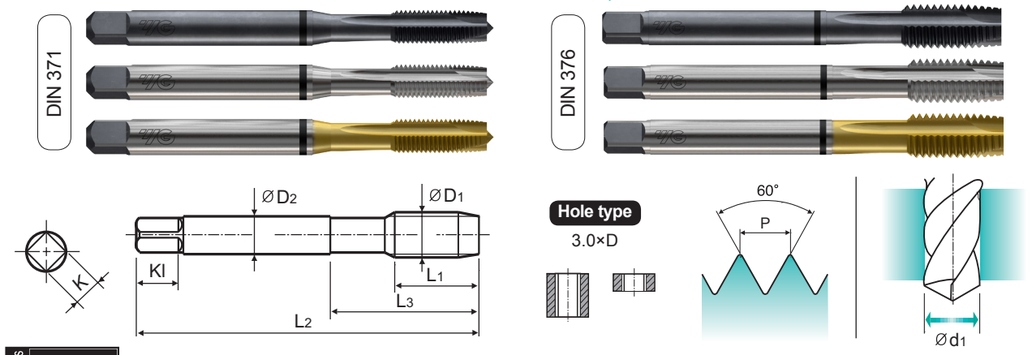
M ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Material groups **MU** | HSS-E | DIN 371/376 | 6H | 60° | B | Vap Bright TiN | p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TB814136	TC814136	TD814136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TB814156	TC814156	TD814156	8	45	13	2.8	2.1	5	3	1.75
M2.3 ×	0.4	TB814196	TC814196	TD814196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TB814176	TC814176	TD814176	9	50	15	2.8	2.1	5	3	2.05
M2.6 ×	0.45	TB814496	TC814496	TD814496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TB814206	TC814206	TD814206	11	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TB814226	TC814226	TD814226	12	56	20	4	3	6	3	2.9
M4 ×	0.7	TB814246	TC814246	TD814246	13	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TB814266	TC814266	TD814266	14	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TB814286	TC814286	TD814286	15	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TB814316	TC814316	TD814316	17	80	30	6	4.9	8	3	5
M7 ×	1.0	TB814346	TC814346	TD814346	17	80	30	7	5.5	8	3	6
M8 ×	1.25	TB814366	TC814366	TD814366	20	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TB814396	TC814396	TD814396	20	90	35	9	7	10	3	7.8
M10 ×	1.5	TB814426	TC814426	TD814426	22	100	39	10	8	11	3	8.5
M11 ×	1.5	TB814466	TC814466	TD814466	22	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TB814506	TC814506	TD814506	24	110	44	9	7	10	3	10.2
M14 ×	2.0	TB814546	TC814546	TD814546	26	110	44	11	9	12	3	12
M16 ×	2.0	TB814606	TC814606	TD814606	27	110	44	12	9	12	3	14
M18 ×	2.5	TB814656	TC814656	TD814656	30	125	50	14	11	14	4	15.5
M20 ×	2.5	TB814706	TC814706	TD814706	32	140	54	16	12	15	4	17.5
M22 ×	2.5	TB814746	TC814746	TD814746	32	140	54	18	14.5	17	4	19.5

▶ DIN 371(M2~M10) and DIN 376(M11~M52)
▶ The other coating(TiCN or TiAlN) is available on your request.

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO	P																			
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			◎			◎	◎	◎													

COMBO TAP

Vap TB814 SERIES
Bright TC814 SERIES
TiN TD814 SERIES

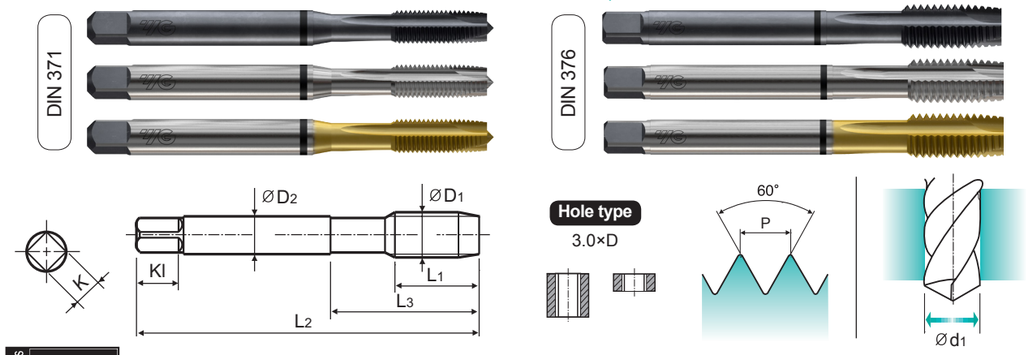
M ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Material groups MU | HSS-E | DIN 371/376 | 6H | 60° | B | Vap Bright TiN | p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M24 ×	3.0	TB814786	TC814786	TD814786	34	160	60	18	14.5	17	4	21
M27 ×	3.0	TB814866	TC814866	TD814866	36	160	60	20	16	19	4	24
M30 ×	3.5	TB814946	TC81 4946	TD814946	40	180	70	22	18	21	4	26.5
M33 x	3.5	-	TC814A46	TD814A46	40	180	70	25	20	23	4	29.5
M36 x	4.0	-	TC814B36	TD814B36	50	200	80	28	22	25	4	32.0
M39 x	4.0	-	TC814C06	TD814C06	50	200	80	32	24	27	4	35.0
M42 x	4.5	-	TC814C86	TD814C86	56	200	85	32	24	27	4	37.5
M45 x	4.5	-	TC814D56	TD814D56	58	220	85	36	29	32	4	40.5
M48 x	5.0	-	TC814E26	TD814E26	65	250	90	36	29	32	4	43.0
M52 x	5.0	-	TC814F36	TD814F36	65	250	90	40	32	35	4	47.0

▶ DIN 371(M2~M10) and DIN 376(M11~M52)
▶ The other coating(TiCN or TiAlN) is available on your request.

◎ : Excellent ○ : Good

ISO	P																			
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			◎			◎	◎	◎													

COMBO TAP

Vap **TBJ05** SERIES
Bright **TCJ05** SERIES
TiN **TDJ05** SERIES

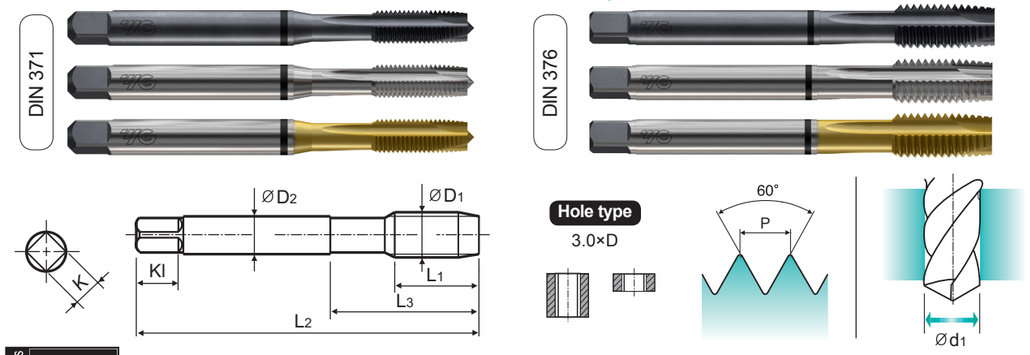
M ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Material groups **MU** | HSS-E | DIN 371/376 | 4H | 60° | B | Vap Bright TiN | p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TBJ05136	TCJ05136	TDJ05136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TBJ05156	TCJ05156	TDJ05156	8	45	13	2.8	2.1	5	3	1.75
M2.3 ×	0.4	TBJ05196	TCJ05196	TDJ05196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TBJ05176	TCJ05176	TDJ05176	9	50	15	2.8	2.1	5	3	2.05
M2.6 ×	0.45	TBJ05496	TCJ05496	TDJ05496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TBJ05206	TCJ05206	TDJ05206	11	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TBJ05226	TCJ05226	TDJ05226	12	56	20	4	3	6	3	2.9
M4 ×	0.7	TBJ05246	TCJ05246	TDJ05246	13	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TBJ05266	TCJ05266	TDJ05266	14	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TBJ05286	TCJ05286	TDJ05286	15	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TBJ05316	TCJ05316	TDJ05316	17	80	30	6	4.9	8	3	5
M7 ×	1.0	TBJ05346	TCJ05346	TDJ05346	17	80	30	7	5.5	8	3	6
M8 ×	1.25	TBJ05366	TCJ05366	TDJ05366	20	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TBJ05396	TCJ05396	TDJ05396	20	90	35	9	7	10	3	7.8
M10 ×	1.5	TBJ05426	TCJ05426	TDJ05426	22	100	39	10	8	11	3	8.5
M11 ×	1.5	TBJ05466	TCJ05466	TDJ05466	22	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TBJ05506	TCJ05506	TDJ05506	24	110	44	9	7	10	3	10.2
M14 ×	2.0	TBJ05546	TCJ05546	TDJ05546	26	110	44	11	9	12	3	12
M16 ×	2.0	TBJ05606	TCJ05606	TDJ05606	27	110	44	12	9	12	3	14
M18 ×	2.5	TBJ05656	TCJ05656	TDJ05656	30	125	50	14	11	14	4	15.5
M20 ×	2.5	TBJ05706	TCJ05706	TDJ05706	32	140	54	16	12	15	4	17.5
M22 ×	2.5	TBJ05746	TCJ05746	TDJ05746	32	140	54	18	14.5	17	4	19.5
M24 ×	3.0	TBJ05786	TCJ05786	TDJ05786	34	160	60	18	14.5	17	4	21
M27 ×	3.0	TBJ05866	TCJ05866	TDJ05866	36	160	60	20	16	19	4	24
M30 ×	3.5	TBJ05946	TCJ05946	TDJ05946	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ The other coating(TiCN or TiAlN) is available on your request.

◎ : Excellent ○ : Good

ISO	P																			
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			◎			◎	◎	◎													

COMBO TAP

Vap TBJ06 SERIES
Bright TCJ06 SERIES
TiN TDJ06 SERIES

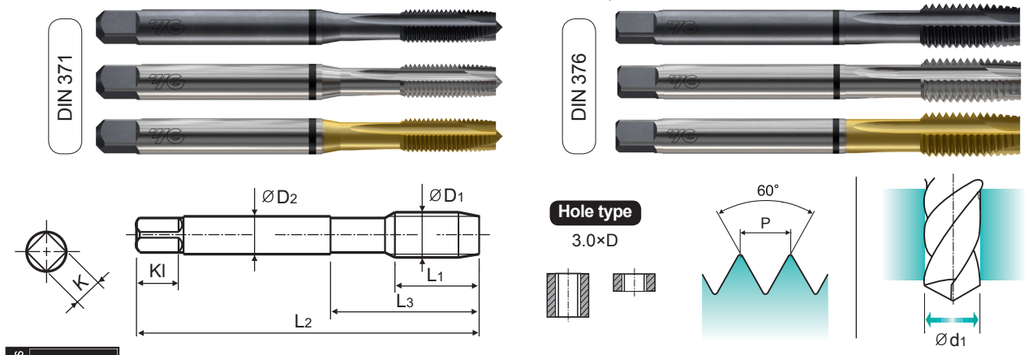
M ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Material groups MU | HSS-E | DIN 371/376 | 6H+0.1 | 60° | B | Vap Bright TiN | p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TBJ06136	TCJ06136	TDJ06136	8	45	13	2.8	2.1	5	3	1.7
M2.2 ×	0.45	TBJ06156	TCJ06156	TDJ06156	8	45	13	2.8	2.1	5	3	1.85
M2.3 ×	0.4	TBJ06196	TCJ06196	TDJ06196	8	45	13	2.8	2.1	5	3	2
M2.5 ×	0.45	TBJ06176	TCJ06176	TDJ06176	9	50	15	2.8	2.1	5	3	2.15
M2.6 ×	0.45	TBJ06496	TCJ06496	TDJ06496	9	50	15	2.8	2.1	5	3	2.2
M3 ×	0.5	TBJ06206	TCJ06206	TDJ06206	11	56	18	3.5	2.7	6	3	2.6
M3.5 ×	0.6	TBJ06226	TCJ06226	TDJ06226	12	56	20	4	3	6	3	3
M4 ×	0.7	TBJ06246	TCJ06246	TDJ06246	13	63	21	4.5	3.4	6	3	3.4
M4.5 ×	0.75	TBJ06266	TCJ06266	TDJ06266	14	70	25	6	4.9	8	3	3.8
M5 ×	0.8	TBJ06286	TCJ06286	TDJ06286	15	70	25	6	4.9	8	3	4.3
M6 ×	1.0	TBJ06316	TCJ06316	TDJ06316	17	80	30	6	4.9	8	3	5.1
M7 ×	1.0	TBJ06346	TCJ06346	TDJ06346	17	80	30	7	5.5	8	3	6.1
M8 ×	1.25	TBJ06366	TCJ06366	TDJ06366	20	90	35	8	6.2	9	3	6.9
M9 ×	1.25	TBJ06396	TCJ06396	TDJ06396	20	90	35	9	7	10	3	7.9
M10 ×	1.5	TBJ06426	TCJ06426	TDJ06426	22	100	39	10	8	11	3	8.6
M11 ×	1.5	TBJ06466	TCJ06466	TDJ06466	22	100	40	8	6.2	9	3	9.6
M12 ×	1.75	TBJ06506	TCJ06506	TDJ06506	24	110	44	9	7	10	3	10.3
M14 ×	2.0	TBJ06546	TCJ06546	TDJ06546	26	110	44	11	9	12	3	12.1
M16 ×	2.0	TBJ06606	TCJ06606	TDJ06606	27	110	44	12	9	12	3	14.1
M18 ×	2.5	TBJ06656	TCJ06656	TDJ06656	30	125	50	14	11	14	4	15.6
M20 ×	2.5	TBJ06706	TCJ06706	TDJ06706	32	140	54	16	12	15	4	17.6
M22 ×	2.5	TBJ06746	TCJ06746	TDJ06746	32	140	54	18	14.5	17	4	19.6
M24 ×	3.0	TBJ06786	TCJ06786	TDJ06786	34	160	60	18	14.5	17	4	21.1
M27 ×	3.0	TBJ06866	TCJ06866	TDJ06866	36	160	60	20	16	19	4	24.1
M30 ×	3.5	TBJ06946	TCJ06946	TDJ06946	40	180	70	22	18	21	4	26.6

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ The other coating(TiCN or TiAlN) is available on your request.

◎ : Excellent ○ : Good

ISO	P																			
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			◎			◎	◎	◎													

COMBO TAP

Vap **TBJ07** SERIES
Bright **TCJ07** SERIES
TiN **TDJ07** SERIES

M ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

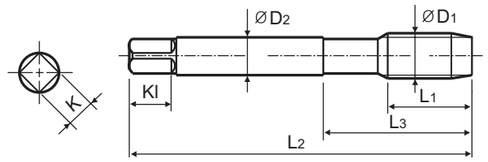
Machine taps
Maschinengewindebohrer

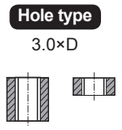
▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

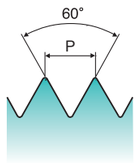
▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.

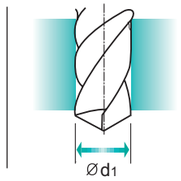












Material groups **MU** | HSS-E | DIN 371/376 | 6G | 60° | B | Vap Bright TiN | p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TBJ07136	TCJ07136	TDJ07136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TBJ07156	TCJ07156	TDJ07156	8	45	13	2.8	2.1	5	3	1.75
M2.3 ×	0.4	TBJ07196	TCJ07196	TDJ07196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TBJ07176	TCJ07176	TDJ07176	9	50	15	2.8	2.1	5	3	2.05
M2.6 ×	0.45	TBJ07496	TCJ07496	TDJ07496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TBJ07206	TCJ07206	TDJ07206	11	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TBJ07226	TCJ07226	TDJ07226	12	56	20	4	3	6	3	2.9
M4 ×	0.7	TBJ07246	TCJ07246	TDJ07246	13	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TBJ07266	TCJ07266	TDJ07266	14	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TBJ07286	TCJ07286	TDJ07286	15	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TBJ07316	TCJ07316	TDJ07316	17	80	30	6	4.9	8	3	5
M7 ×	1.0	TBJ07346	TCJ07346	TDJ07346	17	80	30	7	5.5	8	3	6
M8 ×	1.25	TBJ07366	TCJ07366	TDJ07366	20	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TBJ07396	TCJ07396	TDJ07396	20	90	35	9	7	10	3	7.8
M10 ×	1.5	TBJ07426	TCJ07426	TDJ07426	22	100	39	10	8	11	3	8.5
M11 ×	1.5	TBJ07466	TCJ07466	TDJ07466	22	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TBJ07506	TCJ07506	TDJ07506	24	110	44	9	7	10	3	10.2
M14 ×	2.0	TBJ07546	TCJ07546	TDJ07546	26	110	44	11	9	12	3	12
M16 ×	2.0	TBJ07606	TCJ07606	TDJ07606	27	110	44	12	9	12	3	14
M18 ×	2.5	TBJ07656	TCJ07656	TDJ07656	30	125	50	14	11	14	4	15.5
M20 ×	2.5	TBJ07706	TCJ07706	TDJ07706	32	140	54	16	12	15	4	17.5
M22 ×	2.5	TBJ07746	TCJ07746	TDJ07746	32	140	54	18	14.5	17	4	19.5
M24 ×	3.0	TBJ07786	TCJ07786	TDJ07786	34	160	60	18	14.5	17	4	21
M27 ×	3.0	TBJ07866	TCJ07866	TDJ07866	36	160	60	20	16	19	4	24
M30 ×	3.5	TBJ07946	TCJ07946	TDJ07946	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ The other coating(TiCN or TiAlN) is available on your request.

◎ : 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			◎			◎	◎	◎													

COMBO TAP

Vap **TBJ08** SERIES
Bright **TCJ08** SERIES
TiN **TDJ08** SERIES

M ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

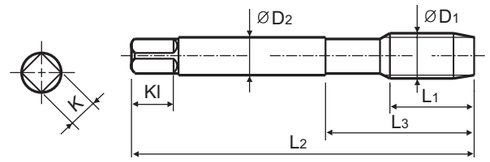
Machine taps
Maschinengewindebohrer

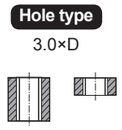
▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

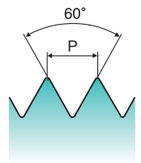
▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.

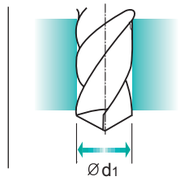












Material groups **MU** | HSS-E | DIN 371/376 | 7G | 60° | B | Vap Bright TiN | p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TBJ08136	TCJ08136	TDJ08136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TBJ08156	TCJ08156	TDJ08156	8	45	13	2.8	2.1	5	3	1.75
M2.3 ×	0.4	TBJ08196	TCJ08196	TDJ08196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TBJ08176	TCJ08176	TDJ08176	9	50	15	2.8	2.1	5	3	2.05
M2.6 ×	0.45	TBJ08496	TCJ08496	TDJ08496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TBJ08206	TCJ08206	TDJ08206	11	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TBJ08226	TCJ08226	TDJ08226	12	56	20	4	3	6	3	2.9
M4 ×	0.7	TBJ08246	TCJ08246	TDJ08246	13	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TBJ08266	TCJ08266	TDJ08266	14	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TBJ08286	TCJ08286	TDJ08286	15	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TBJ08316	TCJ08316	TDJ08316	17	80	30	6	4.9	8	3	5
M7 ×	1.0	TBJ08346	TCJ08346	TDJ08346	17	80	30	7	5.5	8	3	6
M8 ×	1.25	TBJ08366	TCJ08366	TDJ08366	20	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TBJ08396	TCJ08396	TDJ08396	20	90	35	9	7	10	3	7.8
M10 ×	1.5	TBJ08426	TCJ08426	TDJ08426	22	100	39	10	8	11	3	8.5
M11 ×	1.5	TBJ08466	TCJ08466	TDJ08466	22	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TBJ08506	TCJ08506	TDJ08506	24	110	44	9	7	10	3	10.2
M14 ×	2.0	TBJ08546	TCJ08546	TDJ08546	26	110	44	11	9	12	3	12
M16 ×	2.0	TBJ08606	TCJ08606	TDJ08606	27	110	44	12	9	12	3	14
M18 ×	2.5	TBJ08656	TCJ08656	TDJ08656	30	125	50	14	11	14	4	15.5
M20 ×	2.5	TBJ08706	TCJ08706	TDJ08706	32	140	54	16	12	15	4	17.5
M22 ×	2.5	TBJ08746	TCJ08746	TDJ08746	32	140	54	18	14.5	17	4	19.5
M24 ×	3.0	TBJ08786	TCJ08786	TDJ08786	34	160	60	18	14.5	17	4	21
M27 ×	3.0	TBJ08866	TCJ08866	TDJ08866	36	160	60	20	16	19	4	24
M30 ×	3.5	TBJ08946	TCJ08946	TDJ08946	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ The other coating(TiCN or TiAlN) is available on your request.

◎ : 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			◎			◎	◎	◎													

COMBO TAP

Vap **TB854** SERIES
Bright **TC854** SERIES
TiN **TD854** SERIES

MF ISO Metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

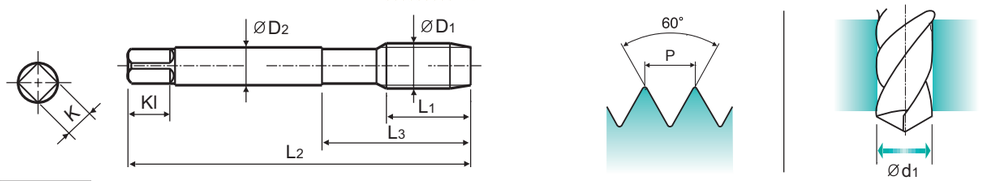
Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Hole type
3.0×D



Material groups **MU** | HSS-E | DIN 374 | 6H | 60° | B | Vap Bright TiN | p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4 ×	0.5	TB854256	TC854256	TD854256	10	63	21	2.8	2.1	5	3	3.5
M5 ×	0.5	TB854296	TC854296	TD854296	11	70	25	3.5	2.7	6	3	4.5
M6 ×	0.75	TB854326	TC854326	TD854326	13	80	30	4.5	3.4	6	3	5.2
M6 ×	0.5	TB854336	TC854336	TD854336	13	80	30	4.5	3.4	6	3	5.5
M7 ×	0.75	TB854356	TC854356	TD854356	14	80	30	5.5	4.3	7	3	6.2
M8 ×	1.0	TB854376	TC854376	TD854376	17	90	36	6	4.9	8	3	7
M8 ×	0.75	TB854386	TC854386	TD854386	14	80	30	6	4.9	8	3	7.2
M10 ×	1.25	TB854436	TC854436	TD854436	22	100	40	7	5.5	8	3	8.8
M10 ×	1.0	TB854446	TC854446	TD854446	18	90	36	7	5.5	8	3	9
M10 ×	0.75	TB854456	TC854456	TD854456	18	90	36	7	5.5	8	3	9.2
M12 ×	1.5	TB854516	TC854516	TD854516	22	100	40	9	7	10	3	10.5
M12 ×	1.25	TB854526	TC854526	TD854526	22	100	40	9	7	10	3	10.8
M12 ×	1.0	TB854536	TC854536	TD854536	18	100	40	9	7	10	3	11
M14 ×	1.5	TB854556	TC854556	TD854556	22	100	40	11	9	12	3	12.5
M14 ×	1.25	TB854566	TC854566	TD854566	22	100	40	11	9	12	3	12.8
M14 ×	1.0	TB854576	TC854576	TD854576	22	100	40	11	9	12	3	13
M16 ×	1.5	TB854616	TC854616	TD854616	22	100	40	12	9	12	3	14.5
M16 ×	1.0	TB854626	TC854626	TD854626	18	100	40	12	9	12	3	15
M18 ×	1.5	TB854676	TC854676	TD854676	25	110	44	14	11	14	4	16.5
M18 ×	1.0	TB854686	TC854686	TD854686	20	110	44	14	11	14	4	17
M20 ×	1.5	TB854726	TC854726	TD854726	25	125	50	16	12	15	4	18.5
M20 ×	1.0	TB854736	TC854736	TD854736	20	125	50	16	12	15	4	19

▶ The other coating(TiCN or TiAlN) is available on your request.

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO	P																			
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			◎			◎	◎	◎													

COMBO TAP

Vap TB854 SERIES
Bright TC854 SERIES
TiN TD854 SERIES

MF ISO Metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

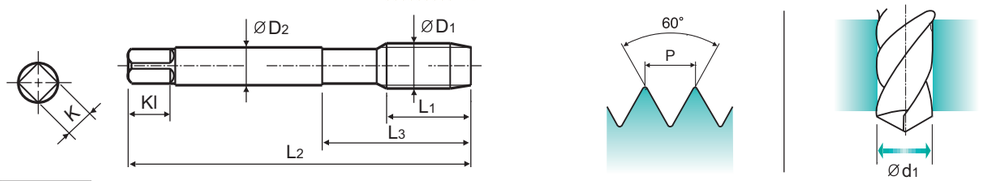
Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Hole type
3.0×D



Material groups MU | HSS-E | DIN 374 | 6H | 60° | B | Vap Bright TiN | p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M22 ×	1.5	TB854766	TC854766	TD854766	25	125	50	18	14.5	17	4	20.5
M22 ×	1.0	TB854776	TC854776	TD854776	20	125	50	18	14.5	17	4	21
M24 ×	2.0	TB854796	TC854796	TD854796	27	140	54	18	14.5	17	4	22
M24 ×	1.5	TB854806	TC854806	TD854806	27	140	54	18	14.5	17	4	22.5
M26 ×	1.5	TB854856	TC854856	TD854856	28	140	54	18	14.5	17	4	24.5
M27 ×	2.0	TB854876	TC854876	TD854876	28	140	54	20	16	19	4	25
M27 ×	1.5	TB854886	TC854886	TD854886	28	140	54	20	16	19	4	25.5
M28 ×	1.5	TB854916	TC854916	TD854916	28	140	54	20	16	19	4	26.5
M30 ×	2.0	TB854966	TC854966	TD854966	30	150	57	22	18	21	4	28
M30 ×	1.5	TB854976	TC854976	TD854976	30	150	57	22	18	21	4	28.5
M32 x	2.0	-	TC854A16	TD854A16	30	150	57	22	18	21	4	30.0
M32 x	1.5	-	TC854A26	TD854A26	30	150	57	22	18	21	4	30.5
M33 x	2.0	-	TC854A66	TD854A66	33	160	60	25	20	23	4	31.0
M33 x	1.5	-	TC854A76	TD854A76	32	160	60	25	20	23	4	31.5
M34 x	1.5	-	TC854A96	TD854A96	33	170	70	28	22	25	4	32.5
M35 x	1.5	-	TC854B16	TD854B16	33	170	70	28	22	25	4	33.5
M36 x	3.0	-	TC854B46	TD854B46	45	200	80	28	22	25	4	33.0
M36 x	2.0	-	TC854B56	TD854B56	33	170	70	28	22	25	4	34.0
M36 x	1.5	-	TC854B66	TD854B66	33	170	70	28	22	25	4	34.5
M38 x	1.5	-	TC854B86	TD854B86	33	170	70	28	22	25	4	36.5
M39 x	1.5	-	TC854C36	TD854C36	33	170	70	32	24	27	4	37.5
M40 x	1.5	-	TC854C66	TD854C66	33	170	70	32	24	27	4	38.5

▶ The other coating(TiCN or TiAlN) is available on your request.

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO	P																			
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			◎			◎	◎	◎													

COMBO TAP

Vap **TB854** SERIES
Bright **TC854** SERIES
TiN **TD854** SERIES

MF ISO Metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

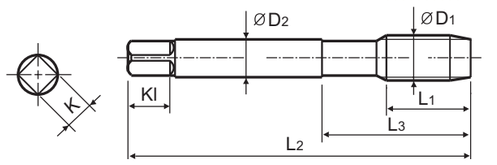
Machine taps
Maschinengewindebohrer

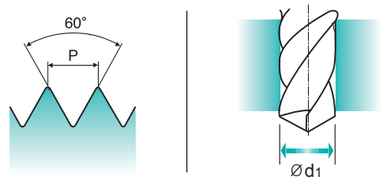
▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Hole type
3.0×D





Material groups **MU** | HSS-E | DIN 374 | 6H | 60° | B | Vap Bright TiN | p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M42 x	3.0	-	TC854D06	TD854D06	45	200	80	32	24	27	4	39.0
M42 x	2.0	-	TC854D16	TD854D16	33	170	70	32	24	27	4	40.0
M42 x	1.5	-	TC854D26	TD854D26	33	170	70	32	24	27	4	40.5
M45 x	1.5	-	TC854D96	TD854D96	33	180	80	36	29	32	4	43.5
M48 x	3.0	-	TC854E56	TD854E56	45	225	90	36	29	32	4	45.0
M48 x	2.0	-	TC854E66	TD854E66	36	190	80	36	29	32	4	46.0
M48 x	1.5	-	TC854E76	TD854E76	36	190	80	36	29	32	4	46.5
M50 x	1.5	-	TC854F16	TD854F16	36	190	80	36	29	32	4	48.5
M52 x	3.0	-	TC854F56	TD854F56	45	225	90	40	32	35	4	49.0
M52 x	2.0	-	TC854F66	TD854F66	36	190	80	40	32	35	4	50.0
M52 x	1.5	-	TC854F76	TD854F76	36	190	80	40	32	35	4	50.5

▶ The other coating(TiCN or TiAlN) is available on your request.

◎ : 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			◎			◎	◎	◎													

COMBO TAP

Bright **TCJ09** SERIES
TiN **TDJ09** SERIES

MF ISO Metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

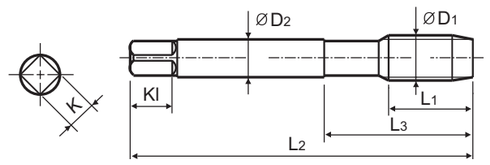
Machine taps
Maschinengewindebohrer

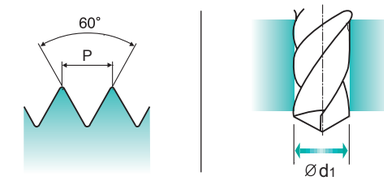
▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Hole type
3.0×D





Material groups **MU** | HSS-E | DIN 374 | 6G | 60° | B | TiN | Bright | p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.		Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4 ×	0.5	TCJ09256	TDJ09256	10	63	21	2.8	2.1	5	3	3.5
M5 ×	0.5	TCJ09296	TDJ09296	11	70	25	3.5	2.7	6	3	4.5
M6 ×	0.75	TCJ09326	TDJ09326	13	80	30	4.5	3.4	6	3	5.2
M6 ×	0.5	TCJ09336	TDJ09336	13	80	30	4.5	3.4	6	3	5.5
M7 ×	0.75	TCJ09356	TDJ09356	14	80	30	5.5	4.3	7	3	6.2
M8 ×	1.0	TCJ09376	TDJ09376	17	90	36	6	4.9	8	3	7
M8 ×	0.75	TCJ09386	TDJ09386	14	80	30	6	4.9	8	3	7.2
M10 ×	1.25	TCJ09436	TDJ09436	22	100	40	7	5.5	8	3	8.8
M10 ×	1.0	TCJ09446	TDJ09446	18	90	36	7	5.5	8	3	9
M10 ×	0.75	TCJ09456	TDJ09456	18	90	36	7	5.5	8	3	9.2
M12 ×	1.5	TCJ09516	TDJ09516	22	100	40	9	7	10	3	10.5
M12 ×	1.25	TCJ09526	TDJ09526	22	100	40	9	7	10	3	10.8
M12 ×	1.0	TCJ09536	TDJ09536	18	100	40	9	7	10	3	11
M14 ×	1.5	TCJ09556	TDJ09556	22	100	40	11	9	12	3	12.5
M14 ×	1.25	TCJ09566	TDJ09566	22	100	40	11	9	12	3	12.8
M14 ×	1.0	TCJ09576	TDJ09576	22	100	40	11	9	12	3	13
M16 ×	1.5	TCJ09616	TDJ09616	22	100	40	12	9	12	3	14.5
M16 ×	1.0	TCJ09626	TDJ09626	18	100	40	12	9	12	3	15
M18 ×	1.5	TCJ09676	TDJ09676	25	110	44	14	11	14	4	16.5
M18 ×	1.0	TCJ09686	TDJ09686	20	110	44	14	11	14	4	17
M20 ×	1.5	TCJ09726	TDJ09726	25	125	50	16	12	15	4	18.5
M20 ×	1.0	TCJ09736	TDJ09736	20	125	50	16	12	15	4	19

▶ The other coating(TiCN or TiAlN) or Surface Treatment(Steam Homo) is available on your request.

▶ 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			◎			◎	◎	◎													

COMBO TAP

Bright **TCJ09 SERIES**
TiN **TDJ09 SERIES**

MF ISO Metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

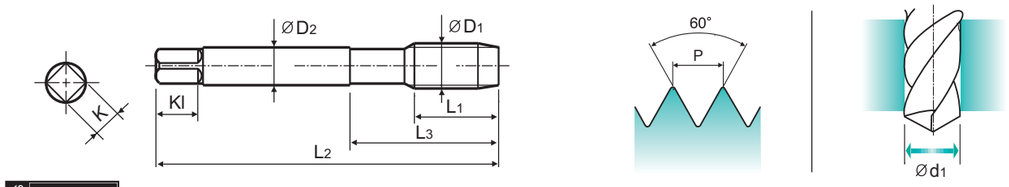
Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Hole type
3.0×D



Material groups **MU** | HSS-E | DIN 374 | 6G | 60° | B | TiN | Bright | p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.		Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M22 ×	1.5	TCJ09766	TDJ09766	25	125	50	18	14.5	17	4	20.5
M22 ×	1.0	TCJ09776	TDJ09776	20	125	50	18	14.5	17	4	21
M24 ×	2.0	TCJ09796	TDJ09796	27	140	54	18	14.5	17	4	22
M24 ×	1.5	TCJ09806	TDJ09806	27	140	54	18	14.5	17	4	22.5
M26 ×	1.5	TCJ09856	TDJ09856	28	140	54	18	14.5	17	4	24.5
M27 ×	2.0	TCJ09876	TDJ09876	28	140	54	20	16	19	4	25
M27 ×	1.5	TCJ09886	TDJ09886	28	140	54	20	16	19	4	25.5
M28 ×	1.5	TCJ09916	TDJ09916	28	140	54	20	16	19	4	26.5
M30 ×	2.0	TCJ09966	TDJ09966	30	150	57	22	18	21	4	28
M30 ×	1.5	TCJ09976	TDJ09976	30	150	57	22	18	21	4	28.5

▶ The other coating(TiCN or TiAlN) or Surface Treatment(Steam Homo) is available on your request.

◎ : Excellent ○ : Good

ISO	P																			
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			◎			◎	◎	◎													

COMBO TAP

TC814-IC SERIES

M ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13, AVEC ARROSAGE CENTRAL
ISO Metrico passo grosso DIN 13

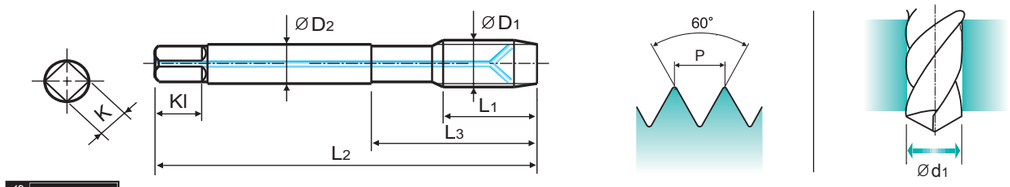
Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Hole type
3.0×D



Material groups **MU** | HSS-E | DIN 371/376 | 6H | 60° | B | Bright | p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M6 ×	1.0	TC814316IC	17	80	30	6	4.9	8	3	5
M8 ×	1.25	TC814366IC	20	90	35	8	6.2	9	3	6.8
M10 ×	1.5	TC814426IC	22	100	39	10	8	11	3	8.5
M12 ×	1.75	TC814506IC	24	110	44	9	7	10	3	10.2
M14 ×	2.0	TC814546IC	26	110	44	11	9	12	3	12
M16 ×	2.0	TC814606IC	27	110	44	12	9	12	3	14
M18 ×	2.5	TC814656IC	30	125	50	14	11	14	4	15.5
M20 ×	2.5	TC814706IC	32	140	54	16	12	15	4	17.5

▶ DIN 371(M6~M10) and DIN 376(M12~M20)
▶ Coating(TiN, TiCN or TiAlN) or Surface Treatment(Steam Homo) is available on your request.

◎ : 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			◎			◎	◎	◎													

COMBO TAP

TC445 SERIES

M — ISO Metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

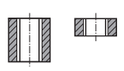
Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

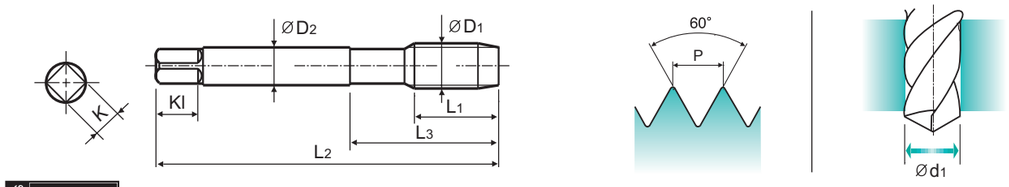
▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Hole type
3.0×D



Long Shank



Material groups **MU** | HSS-E | LONG | 6H | 60° | B | Bright



p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3 ×	0.5	**TC445206**	11	100	18	3.5	2.7	6	3	2.5
M4 ×	0.7	**TC445246**	13	125	21	4.5	3.4	6	3	3.3
M5 ×	0.8	**TC445286**	15	140	25	6	4.9	8	3	4.2
M6 ×	1.0	**TC445316**	17	160	30	6	4.9	8	3	5
M8 ×	1.25	**TC445366**	20	180	35	6	4.9	8	3	6.8
M10 ×	1.5	**TC445426**	22	200	39	7	5.5	8	3	8.5
M12 ×	1.75	**TC445506**	24	220	44	9	7	10	3	10.2
M14 ×	2.0	**TC445546**	26	220	44	11	9	12	3	12
M16 ×	2.0	**TC445606**	27	220	44	12	9	12	3	14
M20 ×	2.5	**TC445706**	32	280	54	16	12	15	4	17.5

▶ Coating(TiN, TiCN or TiAlN) or Surface Treatment(Steam Homo) is available on your request.

◎ : 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			◎			◎	◎	◎													

COMBO TAP

Vap **TB834 SERIES**
Bright **TC834 SERIES**
TiN **TD834 SERIES**

UNC — Unified coarse threads

Unified Grobgewinde
UNC
Unificato passo grosso

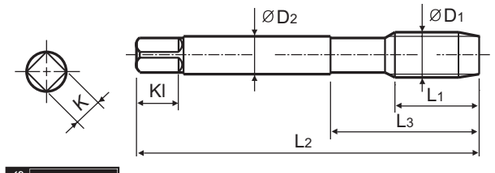
Machine taps
Maschinengewindebohrer

▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

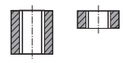
▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.

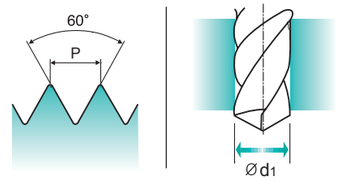






Hole type
3.0×D





Material groups **MU** | HSS-E | DIN 371/376 | 2B | 60° | B | Vap Bright TiN



p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4 -	40 UNC	**TB834162**	**TC834162**	**TD834162**	11	56	18	3.5	2.7	6	3	2.3
#5 -	40 UNC	**TB834202**	**TC834202**	**TD834202**	11	56	18	3.5	2.7	6	3	2.6
#6 -	32 UNC	**TB834242**	**TC834242**	**TD834242**	12	56	20	4	3	6	3	2.85
#8 -	32 UNC	**TB834282**	**TC834282**	**TD834282**	13	63	21	4.5	3.4	6	3	3.5
#10 -	24 UNC	**TB834322**	**TC834322**	**TD834322**	15	70	25	6	4.9	8	3	3.9
#12 -	24 UNC	**TB834362**	**TC834362**	**TD834362**	16	80	30	6	4.9	8	3	4.5
1/4 -	20 UNC	**TB834402**	**TC834402**	**TD834402**	17	80	30	7	5.5	8	3	5.2
5/16 -	18 UNC	**TB834442**	**TC834442**	**TD834442**	20	90	35	8	6.2	9	3	6.6
3/8 -	16 UNC	**TB834482**	**TC834482**	**TD834482**	22	100	39	9	7	10	3	8
7/16 -	14 UNC	**TB834522**	**TC834522**	**TD834522**	22	100	40	8	6.2	9	3	9.4
1/2 -	13 UNC	**TB834562**	**TC834562**	**TD834562**	25	110	44	9	7	10	3	10.75
9/16 -	12 UNC	**TB834602**	**TC834602**	**TD834602**	26	110	44	11	9	12	3	12.25
5/8 -	11 UNC	**TB834642**	**TC834642**	**TD834642**	27	110	44	12	9	12	3	13.5
3/4 -	10 UNC	**TB834702**	**TC834702**	**TD834702**	30	125	50	14	11	14	4	16.5
7/8 -	9 UNC	**TB834742**	**TC834742**	**TD834742**	32	140	54	18	14.5	17	4	19.5
1 -	8 UNC	**TB834782**	**TC834782**	**TD834782**	36	160	60	20	16	19	4	22.25

▶ DIN 371(#4~3/8) and DIN 376(7/16~1)
▶ The other coating(TiCN or TiAlN) is available on your request.

◎ : 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			◎			◎	◎	◎													

COMBO TAP

Bright **TCJ01** SERIES
TiN **TDJ01** SERIES

UNC Unified coarse threads

- Unified Grobgewinde
- UNC
- Unificato passo grosso

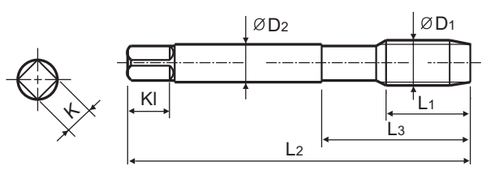
Machine taps
Maschinengewindebohrer

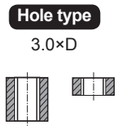
▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

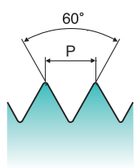
▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.

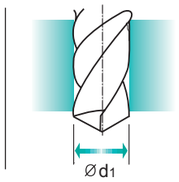












Material groups **MU** | HSS-E | DIN 371/376 | 3B | 60° | B | TiN | Bright

p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.		Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4 - 40 UNC		TCJ01162	TDJ01162	11	56	18	3.5	2.7	6	3	2.3
#5 - 40 UNC		TCJ01202	TDJ01202	11	56	18	3.5	2.7	6	3	2.6
#6 - 32 UNC		TCJ01242	TDJ01242	12	56	20	4	3	6	3	2.85
#8 - 32 UNC		TCJ01282	TDJ01282	13	63	21	4.5	3.4	6	3	3.5
#10 - 24 UNC		TCJ01322	TDJ01322	15	70	25	6	4.9	8	3	3.9
#12 - 24 UNC		TCJ01362	TDJ01362	16	80	30	6	4.9	8	3	4.5
1/4 - 20 UNC		TCJ01402	TDJ01402	17	80	30	7	5.5	8	3	5.2
5/16 - 18 UNC		TCJ01442	TDJ01442	20	90	35	8	6.2	9	3	6.6
3/8 - 16 UNC		TCJ01482	TDJ01482	22	100	39	9	7	10	3	8
7/16 - 14 UNC		TCJ01522	TDJ01522	22	100	40	8	6.2	9	3	9.4
1/2 - 13 UNC		TCJ01562	TDJ01562	25	110	44	9	7	10	3	10.75
9/16 - 12 UNC		TCJ01602	TDJ01602	26	110	44	11	9	12	3	12.25
5/8 - 11 UNC		TCJ01642	TDJ01642	27	110	44	12	9	12	3	13.5
3/4 - 10 UNC		TCJ01702	TDJ01702	30	125	50	14	11	14	4	16.5
7/8 - 9 UNC		TCJ01742	TDJ01742	32	140	54	18	14.5	17	4	19.5
1 - 8 UNC		TCJ01782	TDJ01782	36	160	60	20	16	19	4	22.25

▶ DIN 371(#4~3/8) and DIN 376(7/16~1)
▶ The other coating(TiCN or TiAlN) or Surface Treatment(Steam Homo) is available on your request.

◎ : Excellent ○ : Good

ISO	P																			
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			◎			◎	◎	◎													

COMBO TAP

Vap **TB874** SERIES
Bright **TC874** SERIES
TiN **TD874** SERIES

UNF Unified fine threads

- Unified Feingewindea
- UNF
- Unificato passo fine

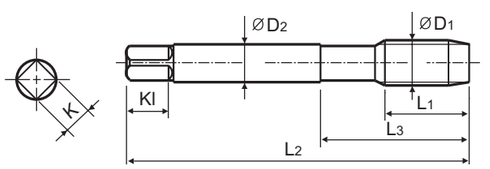
Machine taps
Maschinengewindebohrer

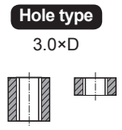
▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

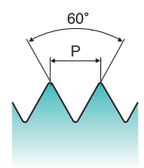
▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.

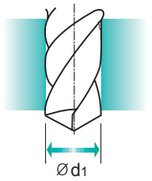












Material groups **MU** | HSS-E | DIN 371/374 | 2B | 60° | B | Vap Bright TiN

p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Vap	Bright	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4 - 48 UNF		TB874182	TC874182	TD874182	11	56	18	3.5	2.7	6	3	2.4
#5 - 44 UNF		TB874222	TC874222	TD874222	11	56	18	3.5	2.7	6	3	2.7
#6 - 40 UNF		TB874262	TC874262	TD874262	12	56	20	4	3	6	3	3
#8 - 36 UNF		TB874302	TC874302	TD874302	13	63	21	4.5	3.4	6	3	3.5
#10 - 32 UNF		TB874342	TC874342	TD874342	15	70	25	6	4.9	8	3	4.1
#12 - 28 UNF		TB874382	TC874382	TD874382	16	80	30	6	4.9	8	3	4.7
1/4 - 28 UNF		TB874422	TC874422	TD874422	17	80	30	7	5.5	8	3	5.5
5/16 - 24 UNF		TB874462	TC874462	TD874462	17	90	35	8	6.2	9	3	6.9
3/8 - 24 UNF		TB874502	TC874502	TD874502	18	100	39	9	7	10	3	8.5
7/16 - 20 UNF		TB874542	TC874542	TD874542	22	100	40	8	6.2	9	3	9.9
1/2 - 20 UNF		TB874582	TC874582	TD874582	22	100	40	9	7	10	3	11.5
9/16 - 18 UNF		TB874622	TC874622	TD874622	22	100	40	11	9	12	3	12.9
5/8 - 18 UNF		TB874662	TC874662	TD874662	22	100	40	12	9	12	3	14.5
3/4 - 16 UNF		TB874722	TC874722	TD874722	25	110	44	14	11	14	4	17.5
7/8 - 14 UNF		TB874762	TC874762	TD874762	26	125	50	18	14.5	17	4	20.5
1 - 12 UNF		TB874802	TC874802	TD874802	28	140	54	20	16	19	4	23.25

▶ DIN 371(#4~3/8) and DIN 374(7/16~1)
▶ The other coating(TiCN or TiAlN) is available on your request.

◎ : 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			◎			◎	◎	◎													

COMBO TAP

Bright **TCJ02 SERIES**
TiN **TDJ02 SERIES**

UNF — Unified fine threads

- Unified Grobgewinde
- UNF
- Unificato passo fine

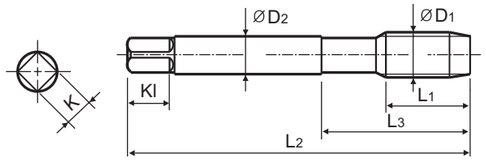
Machine taps
Maschinengewindebohrer

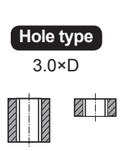
▶ For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

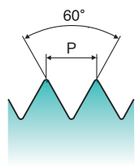
▶ Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.

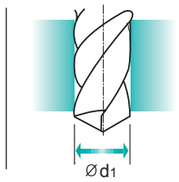












Material groups **MU** | HSS-E | DIN 371/374 | 3B | 60° | B | TiN | Bright | p.B131

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE ØD1	TPI	EDP No. Bright	EDP No. TiN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length Kl	No. of Flute Z	Tapping Drill Diameter Ød1
#4	48 UNF	TCJ02182	TDJ02182	11	56	18	3.5	2.7	6	3	2.4
#5	44 UNF	TCJ02222	TDJ02222	11	56	18	3.5	2.7	6	3	2.7
#6	40 UNF	TCJ02262	TDJ02262	12	56	20	4	3	6	3	3
#8	36 UNF	TCJ02302	TDJ02302	13	63	21	4.5	3.4	6	3	3.5
#10	32 UNF	TCJ02342	TDJ02342	15	70	25	6	4.9	8	3	4.1
#12	28 UNF	TCJ02382	TDJ02382	16	80	30	6	4.9	8	3	4.7
1/4	28 UNF	TCJ02422	TDJ02422	17	80	30	7	5.5	8	3	5.5
5/16	24 UNF	TCJ02462	TDJ02462	17	90	35	8	6.2	9	3	6.9
3/8	24 UNF	TCJ02502	TDJ02502	18	100	39	9	7	10	3	8.5
7/16	20 UNF	TCJ02542	TDJ02542	22	100	40	8	6.2	9	3	9.9
1/2	20 UNF	TCJ02582	TDJ02582	22	100	40	9	7	10	3	11.5
9/16	18 UNF	TCJ02622	TDJ02622	22	100	40	11	9	12	3	12.9
5/8	18 UNF	TCJ02662	TDJ02662	22	100	40	12	9	12	3	14.5
3/4	16 UNF	TCJ02722	TDJ02722	25	110	44	14	11	14	4	17.5
7/8	14 UNF	TCJ02762	TDJ02762	26	125	50	18	14.5	17	4	20.5
1	12 UNF	TCJ02802	TDJ02802	28	140	54	20	16	19	4	23.25

▶ DIN 371(#4~3/8) and DIN 374(7/16~1)
▶ The other coating(TiCN or TiAlN) or Surface Treatment(Steam Homo) is available on your request.

◎ : 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			◎			◎	◎	◎													

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

COMBO TAP

Combo Spiral Flute Tap Set



TB804SET5



TC804SET7

Set No.	Series	Surface Treatment	Size	Quantity
TB804SET5	TB804	VAP	M5, M6, M8, M10, M12	5 pcs
TC804SET7	TC804	Bright	M3, M4, M5, M6, M8, M10, M12	7 pcs

Combo Spiral Flute Tap + Gold-P Drill (HSS-E, DIN 338, Straight Shank, 135˚ Split Point, Jobber Length) Set



TD804SET7-GLP195

Set No.	Series	Surface Treatment	Size							Quantity
TD804SET7-GLP195	TD804	TiN	M3	M4	M5	M6	M8	M10	M12	14 pcs
	DLGP195	TiN	2.5	3.3	4.2	5	6.8	8.5	10.2	

COMBO TAP

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

ISO	VDI 3323	Material Description	HB	HRc	TC804 TC844 TC824 TC864	TD804 TD844 TD824 TD864	TB804 TB844 TB824 TB864	TCE05 TCE09 TCE01 TCE02	TDE05 TDE09 TDE01 TDE02	TBE05	TCE06	TDE06	TBE06
					Vc (m/min.)								
P	1	Non-alloy steel	125		15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20
	2		190	13	15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20
	3		250	25	12-18	18-24	12-18	12-18	18-24	12-18	12-18	18-24	12-18
	4		270	28	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	5		300	32	6-10	10-14	6-10	6-10	10-14	6-10	6-10	10-14	6-10
	6	Low alloy steel	180	10	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	7		275	29	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	8		300	32	6-10	10-14	6-10	6-10	10-14	6-10	6-10	10-14	6-10
	9		350	38	3-5	5-7	3-5	3-5	5-7	3-5	3-5	5-7	3-5
	10	High alloyed steel, and tool steel	200	15	3-5	5-7	3-5	3-5	5-7	3-5	3-5	5-7	3-5
M	12	Stainless steel	200	15	7-10	10-15	7-10	7-10	10-15	7-10	7-10	10-15	7-10
	13		240	23	5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8
	14		180	10	4-6	6-8	4-6	4-6	6-8	4-6	4-6	6-8	4-6
K	15	Grey cast iron	180	10	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	16		260	26	5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8
	17	Nodular cast iron	160	3	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	18		250	25	5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8
N	23	Aluminum-cast, alloyed	75		15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20
	26	Copper and Copper Alloys (Bronze / Brass)	110		25-35	35-40	25-35	25-35	35-40	25-35	25-35	35-40	25-35
	27		90		8-12	12-17	8-12	8-12	12-17	8-12	8-12	12-17	8-12
	28		100		15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20

ISO	VDI 3323	Material Description	HB	HRc	TCE07	TDE07	TBE07	TCE08	TDE08	TBE08	TC804-IC	TC633	TC807
					Vc (m/min.)								
P	1	Non-alloy steel	125		15-20	20-25	15-20	15-20	20-25	15-20	15-20	15-20	15-20
	2		190	13	15-20	20-25	15-20	15-20	20-25	15-20	15-20	15-20	15-20
	3		250	25	12-18	18-24	12-18	12-18	18-24	12-18	12-18	12-18	12-18
	4		270	28	10-15	15-20	10-15	10-15	15-20	10-15	10-15	10-15	10-15
	5		300	32	6-10	10-14	6-10	6-10	10-14	6-10	6-10	6-10	6-10
	6	Low alloy steel	180	10	10-15	15-20	10-15	10-15	15-20	10-15	10-15	10-15	10-15
	7		275	29	10-15	15-20	10-15	10-15	15-20	10-15	10-15	10-15	10-15
	8		300	32	6-10	10-14	6-10	6-10	10-14	6-10	6-10	6-10	6-10
	9		350	38	3-5	5-7	3-5	3-5	5-7	3-5	3-5	3-5	3-5
	10	High alloyed steel, and tool steel	200	15	3-5	5-7	3-5	3-5	5-7	3-5	3-5	3-5	3-5
M	12	Stainless steel	200	15	7-10	10-15	7-10	7-10	10-15	7-10	7-10	7-10	7-10
	13		240	23	5-8	8-11	5-8	5-8	8-11	5-8	5-8	5-8	5-8
	14		180	10	4-6	6-8	4-6	4-6	6-8	4-6	4-6	4-6	4-6
K	15	Grey cast iron	180	10	10-15	15-20	10-15	10-15	15-20	10-15	10-15	10-15	10-15
	16		260	26	5-8	8-11	5-8	5-8	8-11	5-8	5-8	5-8	5-8
	17	Nodular cast iron	160	3	10-15	15-20	10-15	10-15	15-20	10-15	10-15	10-15	10-15
	18		250	25	5-8	8-11	5-8	5-8	8-11	5-8	5-8	5-8	5-8
N	23	Aluminum-cast, alloyed	75		15-20	20-25	15-20	15-20	20-25	15-20	15-20	15-20	15-20
	26	Copper and Copper Alloys (Bronze / Brass)	110		25-35	35-40	25-35	25-35	35-40	25-35	25-35	25-35	25-35
	27		90		8-12	12-17	8-12	8-12	12-17	8-12	8-12	8-12	8-12
	28		100		15-20	20-25	15-20	15-20	20-25	15-20	15-20	15-20	15-20

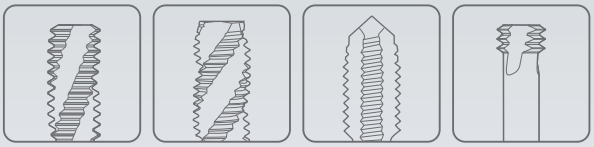
COMBO TAP

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

ISO	VDI 3323	Material Description	HB	HRc	TC814 TC854 TC834 TC874	TD814 TD854 TD834 TD874	TB814 TB854 TB834 TB874	TCJ05 TCJ09 TCJ01 TCJ02	TDJ05 TDJ09 TDJ01 TDJ02	TBJ05	TCJ06	TDJ06	TBJ06
					Vc (m/min.)								
P	1	Non-alloy steel	125		15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20
	2		190	13	15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20
	3		250	25	12-18	18-24	12-18	12-18	18-24	12-18	12-18	18-24	12-18
	4		270	28	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	5		300	32	6-10	10-14	6-10	6-10	10-14	6-10	6-10	10-14	6-10
	6	Low alloy steel	180	10	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	7		275	29	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	8		300	32	6-10	10-14	6-10	6-10	10-14	6-10	6-10	10-14	6-10
	9		350	38	3-5	5-7	3-5	3-5	5-7	3-5	3-5	5-7	3-5
	10	High alloyed steel, and tool steel	200	15	3-5	5-7	3-5	3-5	5-7	3-5	3-5	5-7	3-5
M	12	Stainless steel	200	15	7-10	10-15	7-10	7-10	10-15	7-10	7-10	10-15	7-10
	13		240	23	5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8
	14		180	10	4-6	6-8	4-6	4-6	6-8	4-6	4-6	6-8	4-6
K	15	Grey cast iron	180	10	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	16		260	26	5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8
	17	Nodular cast iron	160	3	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	18		250	25	5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8
N	23	Aluminum-cast, alloyed	75		15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20
	26	Copper and Copper Alloys (Bronze / Brass)	110		25-35	35-40	25-35	25-35	35-40	25-35	25-35	35-40	25-35
	27		90		8-12	12-17	8-12	8-12	12-17	8-12	8-12	12-17	8-12
	28		100		15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20

ISO	VDI 3323	Material Description	HB	HRc	TCJ07	TDJ07	TBJ07	TCJ08	TDJ08	TBJ08	TC814-IC	TC445
					Vc (m/min.)							
P	1	Non-alloy steel	125		15-20	20-25	15-20	15-20	20-25	15-20	15-20	15-20
	2		190	13	15-20	20-25	15-20	15-20	20-25	15-20	15-20	15-20
	3		250	25	12-18	18-24	12-18	12-18	18-24	12-18	12-18	12-18
	4		270	28	10-15	15-20	10-15	10-15	15-20	10-15	10-15	10-15
	5		300	32	6-10	10-14	6-10	6-10	10-14	6-10	6-10	6-10
	6	Low alloy steel	180	10	10-15	15-20	10-15	10-15	15-20	10-15	10-15	10-15
	7		275	29	10-15	15-20	10-15	10-15	15-20	10-15	10-15	10-15
	8		300	32	6-10	10-14	6-10	6-10	10-14	6-10	6-10	6-10
	9		350	38	3-5	5-7	3-5	3-5	5-7	3-5	3-5	3-5
	10	High alloyed steel, and tool steel	200	15	3-5	5-7	3-5	3-5	5-7	3-5	3-5	3-5
M	12	Stainless steel	200	15	7-10	10-15	7-10	7-10	10-15	7-10	7-10	7-10
	13		240	23	5-8	8-11	5-8	5-8	8-11	5-8	5-8	5-8
	14		180	10	4-6	6-8	4-6	4-6	6-8	4-6	4-6	4-6
K	15	Grey cast iron	180	10	10-15	15-20	10-15	10-15	15-20	10-15	10-15	10-15
	16		260	26	5-8	8-11	5-8	5-8	8-11	5-8	5-8	5-8
	17	Nodular cast iron	160	3	10-15	15-20	10-15	10-15	15-20	10-15	10-15	10-15
	18		250	25	5-8	8-11	5-8	5-8	8-11	5-8	5-8	5-8
N	23	Aluminum-cast, alloyed	75		15-20	20-25	15-20	15-20	20-25	15-20	15-20	15-20
	26	Copper and Copper Alloys (Bronze / Brass)	110		25-35	35-40	25-35	25-35	35-40	25-35	25-35	25-35
	27		90		8-12	12-17	8-12	8-12	12-17	8-12	8-12	8-12
	28		100		15-20	20-25	15-20	15-20	20-25	15-20	15-20	15-20

Global Cutting Tool Leader **YG-1**



THREADING



Leading Through Innovation

HSS-E & HSS-PM

YG TAP STEEL

YG Gewindebohrer Stähle

- **For Steel Materials but also other Long Chip Forming Materials**
- **Für Stahlwerkstoffe, aber auch andere langspanende Werkstoffe**

SELECTION GUIDE

YG THREADING TOOLS

HSS-E & HSS-PM
YG TAP STEEL

For Steel Materials but also other Long Chip Forming Materials

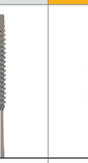
Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B159

HOLE TYPE			Max. 2.5xD Blind Hole				
TOOL MATERIAL			HSS-PM		HSS-E		
CHAMFER LEAD ACC. TO DIN2197			C	C	C	C	
FLUTE TYPE			Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	
SPIRAL FLUTE ANGLE			R40	R40	R40	R40	
SERIES	M	DIN371/376	TQ823 (p.B136)	TR823 (p.B137)	TC312 (p.B138)	TD312 (p.B139)	
		DIN352					
		DIN357/LONG					
	MF	DIN374			TC413 (p.B142)	TD413 (p.B143)	
		DIN2181					
	UNC	DIN371/376			TC174 (p.B144)	TD174 (p.B145)	
		DIN351					
	UNF	DIN371/374			TC184 (p.B146)		
		DIN2181					
	BSW	DIN2182/2183					
		DIN351					
	G(BSP)	DIN5156/5157					
	EG-M	DIN371/376					
	EG-UNC	DIN371/376					
	EG-UNF	DIN371/374					
SURFACE TREATMENT			VAP	Bright	Bright	TiN	
MODEL							

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc				
P	1	Non-alloy steel	About 0.15% C	Annealed	125					
	2		About 0.45% C	Annealed	190	13	○	○	○	○
	3		About 0.45% C	Quenched & Tempered	250	25	○	○	○	○
	4		About 0.75% C	Annealed	270	28	○	○	○	○
	5		About 0.75% C	Quenched & Tempered	300	32	◎	◎	◎	◎
	6	Low alloy steel		Annealed	180	10	○	○	○	○
	7			Quenched & Tempered	275	29	○	○	○	○
	8			Quenched & Tempered	300	32	◎	◎	◎	◎
	9			Quenched & Tempered	350	38	◎	◎	◎	◎
	10	High alloyed steel, and tool steel		Annealed	200	15	○	○	○	○
	11			Quenched & Tempered	325	35				
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15				
	13		Martensitic	Quenched & Tempered	240	23				
	14		Austenitic		180	10	○	○	○	○
K	15	Grey cast iron	Pearlitic / ferritic		180	10				
	16		Pearlitic (Martensitic)		260	26				
	17	Nodular cast iron	Ferritic		160	3				
	18		Pearlitic		250	25				
	19	Malleable cast iron	Ferritic		130					
	20		Pearlitic		230	21				
N	21	Aluminum-wrought alloy	Not Curable		60					
	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	○	○	○	○
	32			Cured	280	30				
	33		Ni or Co Based	Annealed	250	25				
	34			Cured	350	38				
	35			Cast	320	34				
	36	Titanium Alloys	Pure Titanium		400 Rm		○	○	○	○
	37		Alpha + Beta Alloys	Hardened	1050 Rm					
H	38	Hardened steel		Hardened	550	55				
	39			Hardened	630	60				
	40	Chilled Cast Iron		Cast	400	42				
	41	Hardened Cast Iron		Hardened	550	55				

	Max. 2.5xD Blind Hole			Max. 3.0xD Through Hole					
	HSS-E			HSS-PM		HSS-E			
	C	C	C	B	B	B	B	B	B
	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point
	R40	R40	R40	-	-	-	-	-	-
	TB312 (p.B140)	TY312 (p.B141)	TB913 (p.B147)	TQ863 (p.B148)	TR863 (p.B149)	TC422 (p.B150)	TD422 (p.B151)	TE422 (p.B152)	TY422 (p.B153)
						TC263 (p.B154)	TD263 (p.B155)		
						TC244 (p.B156)	TD244 (p.B157)		
						TC254 (p.B158)			
	VAP	TiAlN	VAP	VAP	Bright	Bright	TiN	Nitride	TiAlN
									
	○	○	○	○	○	○	○	○	○
	○	○	○	○	○	○	○	○	○
	○	○	○	○	○	○	○	○	○
	◎	◎	◎	◎	◎	◎	◎	◎	◎
	○	○	○	○	○	○	○	○	○
	○	○	○	○	○	○	○	○	○
	◎	◎	◎	◎	◎	◎	◎	◎	◎
	◎	◎	◎	◎	◎	◎	◎	◎	◎
	○	○	○	○	○	○	○	○	○
				○	○	○	○	○	○
				○	○	○	○	○	○
	○	○	○	○	○	○	○	○	○
	○	○	○	○	○	○	○	○	○
	○	○	○	○	○	○	○	○	○
	○	○	○	○	○	○	○	○	○
	○	○	○	○	○	○	○	○	○
	○	○	○	○	○	○	○	○	○

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

YG TAP STEEL

TQ823 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

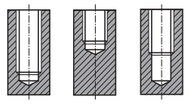
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

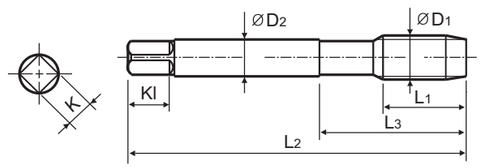
DIN 371

DIN 376



Hole type
2.5×D







Material groups **VG**

HSS PM | DIN 371/376 | 6H | 60° | C | R40 | Vap

p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TQ823136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TQ823156**	8	45	13	2.8	2.1	5	3	1.75
M2.5	× 0.45	**TQ823176**	9	50	15	2.8	2.1	5	3	2.05
M3	× 0.5	**TQ823206**	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TQ823226**	7	56	20	4	3	6	3	2.9
M4	× 0.7	**TQ823246**	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TQ823266**	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TQ823286**	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TQ823316**	10	80	30	6	4.9	8	3	5
M7	× 1.0	**TQ823346**	10	80	30	7	5.5	8	3	6
M8	× 1.25	**TQ823366**	13	90	35	8	6.2	9	3	6.8
M10	× 1.5	**TQ823426**	15	100	39	10	8	11	3	8.5
M12	× 1.75	**TQ823506**	18	110	44	9	7	10	3	10.2

▶ DIN 371(M2~M10) and DIN 376(M12)

◎ : Excellent ○ : Good

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

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

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

YG TAP STEEL

TR823 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

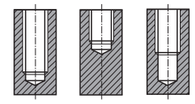
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

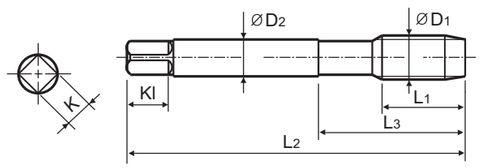
DIN 371

DIN 376



Hole type
2.5×D







Material groups **VG**

HSS PM | DIN 371/376 | 6H | 60° | C | R40 | Bright

p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TR823136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TR823156**	8	45	13	2.8	2.1	5	3	1.75
M2.5	× 0.45	**TR823176**	9	50	15	2.8	2.1	5	3	2.05
M3	× 0.5	**TR823206**	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TR823226**	7	56	20	4	3	6	3	2.9
M4	× 0.7	**TR823246**	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TR823266**	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TR823286**	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TR823316**	10	80	30	6	4.9	8	3	5
M7	× 1.0	**TR823346**	10	80	30	7	5.5	8	3	6
M8	× 1.25	**TR823366**	13	90	35	8	6.2	9	3	6.8
M10	× 1.5	**TR823426**	15	100	39	10	8	11	3	8.5
M12	× 1.75	**TR823506**	18	110	44	9	7	10	3	10.2

▶ DIN 371(M2~M10) and DIN 376(M12)

◎ : Excellent ○ : Good

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

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

YG TAP STEEL

TC312 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

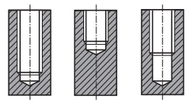
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

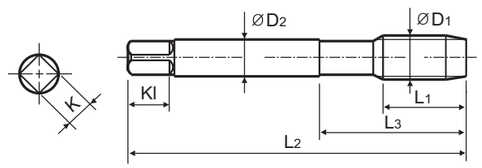
DIN 371

DIN 376



Hole type
2.5×D







Material groups **VG** | HSS-E | DIN 371/376 | 6H | 60° | C | R40 | Bright | p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TC312136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TC312156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	**TC312196**	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	**TC312176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	**TC312496**	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	**TC312206**	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TC312226**	7	56	20	4	3	6	3	2.9
M4	× 0.7	**TC312246**	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TC312266**	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TC312286**	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TC312316**	10	80	30	6	4.9	8	3	5
M7	× 1.0	**TC312346**	10	80	30	7	5.5	8	3	6
M8	× 1.25	**TC312366**	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	**TC312396**	13	90	35	9	7	10	3	7.8
M10	× 1.5	**TC312426**	15	100	39	10	8	11	3	8.5
M11	× 1.5	**TC312466**	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TC312506**	18	110	44	9	7	10	3	10.2
M14	× 2.0	**TC312546**	20	110	44	11	9	12	3	12
M16	× 2.0	**TC312606**	20	110	44	12	9	12	3	14
M18	× 2.5	**TC312656**	25	125	50	14	11	14	4	15.5
M20	× 2.5	**TC312706**	25	140	54	16	12	15	4	17.5
M22	× 2.5	**TC312746**	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TC312786**	30	160	60	18	14.5	17	4	21
M27	× 3.0	**TC312866**	30	160	60	20	16	19	4	24
M30	× 3.5	**TC312946**	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP STEEL

TD312 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

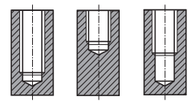
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

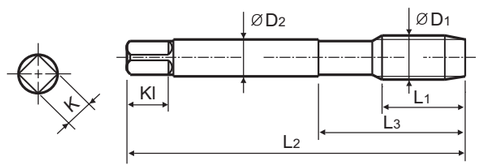
DIN 371

DIN 376



Hole type
2.5×D







Material groups **VG** | HSS-E | DIN 371/376 | 6H | 60° | C | R40 | TiN | p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TD312136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TD312156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	**TD312196**	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	**TD312176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	**TD312496**	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	**TD312206**	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TD312226**	7	56	20	4	3	6	3	2.9
M4	× 0.7	**TD312246**	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TD312266**	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TD312286**	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TD312316**	10	80	30	6	4.9	8	3	5
M7	× 1.0	**TD312346**	10	80	30	7	5.5	8	3	6
M8	× 1.25	**TD312366**	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	**TD312396**	13	90	35	9	7	10	3	7.8
M10	× 1.5	**TD312426**	15	100	39	10	8	11	3	8.5
M11	× 1.5	**TD312466**	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TD312506**	18	110	44	9	7	10	3	10.2
M14	× 2.0	**TD312546**	20	110	44	11	9	12	3	12
M16	× 2.0	**TD312606**	20	110	44	12	9	12	3	14
M18	× 2.5	**TD312656**	25	125	50	14	11	14	4	15.5
M20	× 2.5	**TD312706**	25	140	54	16	12	15	4	17.5
M22	× 2.5	**TD312746**	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TD312786**	30	160	60	18	14.5	17	4	21
M27	× 3.0	**TD312866**	30	160	60	20	16	19	4	24
M30	× 3.5	**TD312946**	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP STEEL

TB312 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for threading blind holes due to excellent chip evacuation of tempered steels or similar work materials.

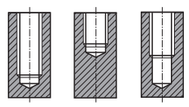
▶ Geeignet zum Gewinden von Sacklöchern dank ausgezeichneter Spanabfuhr von angelassenen Stählen oder ähnlichen Werkstoffen.

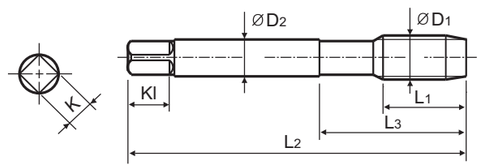
DIN 371

DIN 376



Hole type
2.5×D







Material groups **VG** | HSS-E | DIN 371/376 | 6H | 60° | C | R40 | Vap | p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	**TB312136**	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	**TB312156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	**TB312196**	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	**TB312176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	**TB312496**	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	**TB312206**	6	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	**TB312226**	7	56	20	4	3	6	3	2.9
M4 ×	0.7	**TB312246**	7	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	**TB312266**	8	70	25	6	4.9	8	3	3.7
M5 ×	0.8	**TB312286**	8	70	25	6	4.9	8	3	4.2
M6 ×	1.0	**TB312316**	10	80	30	6	4.9	8	3	5
M7 ×	1.0	**TB312346**	10	80	30	7	5.5	8	3	6
M8 ×	1.25	**TB312366**	13	90	35	8	6.2	9	3	6.8
M9 ×	1.25	**TB312396**	13	90	35	9	7	10	3	7.8
M10 ×	1.5	**TB312426**	15	100	39	10	8	11	3	8.5
M11 ×	1.5	**TB312466**	17	100	40	8	6.2	12	3	9.5
M12 ×	1.75	**TB312506**	18	110	44	9	7	10	3	10.2
M14 ×	2.0	**TB312546**	20	110	44	11	9	12	3	12
M16 ×	2.0	**TB312606**	20	110	44	12	9	12	3	14
M18 ×	2.5	**TB312656**	25	125	50	14	11	14	4	15.5
M20 ×	2.5	**TB312706**	25	140	54	16	12	15	4	17.5
M22 ×	2.5	**TB312746**	25	140	54	18	14.5	17	4	19.5
M24 ×	3.0	**TB312786**	30	160	60	18	14.5	17	4	21
M27 ×	3.0	**TB312866**	30	160	60	20	16	19	4	24
M30 ×	3.5	**TB312946**	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP STEEL

TY312 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

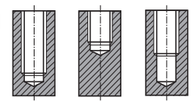
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

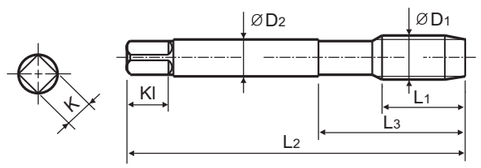
DIN 371

DIN 376



Hole type
2.5×D







Material groups **VG** | HSS-E | DIN 371/376 | 6H | 60° | C | R40 | TiAlN | p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiAlN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	**TY312136**	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	**TY312156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	**TY312196**	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	**TY312176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	**TY312496**	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	**TY312206**	6	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	**TY312226**	7	56	20	4	3	6	3	2.9
M4 ×	0.7	**TY312246**	7	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	**TY312266**	8	70	25	6	4.9	8	3	3.7
M5 ×	0.8	**TY312286**	8	70	25	6	4.9	8	3	4.2
M6 ×	1.0	**TY312316**	10	80	30	6	4.9	8	3	5
M7 ×	1.0	**TY312346**	10	80	30	7	5.5	8	3	6
M8 ×	1.25	**TY312366**	13	90	35	8	6.2	9	3	6.8
M9 ×	1.25	**TY312396**	13	90	35	9	7	10	3	7.8
M10 ×	1.5	**TY312426**	15	100	39	10	8	11	3	8.5
M11 ×	1.5	**TY312466**	17	100	40	8	6.2	9	3	9.5
M12 ×	1.75	**TY312506**	18	110	44	9	7	10	3	10.2
M14 ×	2.0	**TY312546**	20	110	44	11	9	12	3	12
M16 ×	2.0	**TY312606**	20	110	44	12	9	12	3	14
M18 ×	2.5	**TY312656**	25	125	50	14	11	14	4	15.5
M20 ×	2.5	**TY312706**	25	140	54	16	12	15	4	17.5
M22 ×	2.5	**TY312746**	25	140	54	18	14.5	17	4	19.5
M24 ×	3.0	**TY312786**	30	160	60	18	14.5	17	4	21
M27 ×	3.0	**TY312866**	30	160	60	20	16	19	4	24
M30 ×	3.5	**TY312946**	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP STEEL

TC413 SERIES

MF ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

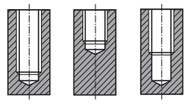
▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

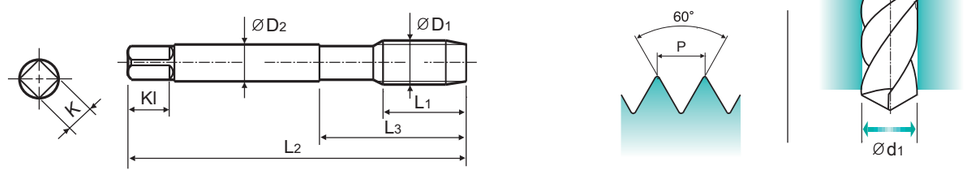
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

DIN 374



Hole type
2.5×D





Material groups: VG | HSS-E | DIN 374 | 6H | 60° | C | R40 | Bright | p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4	× 0.5	**TC413256**	5	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	**TC413296**	5	70	25	3.5	2.7	6	3	4.5
M6	× 0.75	**TC413326**	8	80	30	4.5	3.4	6	3	5.2
M6	× 0.5	**TC413336**	5	80	30	4.5	3.4	6	3	5.5
M7	× 0.75	**TC413356**	10	80	30	5.5	4.3	7	3	6.2
M8	× 1.0	**TC413376**	10	90	36	6	4.9	8	3	7
M8	× 0.75	**TC413386**	8	80	30	6	4.9	8	3	7.2
M10	× 1.25	**TC413436**	16	100	40	7	5.5	8	3	8.8
M10	× 1.0	**TC413446**	10	90	36	7	5.5	8	3	9
M10	× 0.75	**TC413456**	10	90	36	7	5.5	8	3	9.2
M12	× 1.5	**TC413516**	15	100	40	9	7	10	3	10.5
M12	× 1.25	**TC413526**	15	100	40	9	7	10	3	10.8
M12	× 1.0	**TC413536**	11	100	40	9	7	10	3	11
M14	× 1.5	**TC413556**	15	100	40	11	9	12	3	12.5
M14	× 1.25	**TC413566**	15	100	40	11	9	12	3	12.8
M16	× 1.5	**TC413616**	15	100	40	12	9	12	3	14.5
M18	× 1.5	**TC413676**	17	110	44	14	11	14	4	16.5
M20	× 1.5	**TC413726**	17	125	50	16	12	15	4	18.5
M22	× 1.5	**TC413766**	17	125	50	18	14.5	17	4	20.5
M24	× 1.5	**TC413806**	20	140	54	18	14.5	17	4	22.5

◎ : Excellent ○ : Good

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

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

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

YG TAP STEEL

TD413 SERIES

MF ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

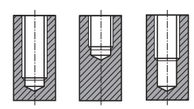
▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

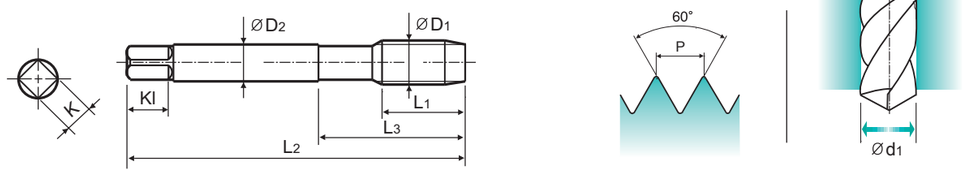
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

DIN 374



Hole type
2.5×D





Material groups: VG | HSS-E | DIN 374 | 6H | 60° | C | R40 | TiN | p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4	× 0.5	**TD413256**	5	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	**TD413296**	5	70	25	3.5	2.7	6	3	4.5
M6	× 0.75	**TD413326**	8	80	30	4.5	3.4	6	3	5.2
M6	× 0.5	**TD413336**	5	80	30	4.5	3.4	6	3	5.5
M7	× 0.75	**TD413356**	10	80	30	5.5	4.3	7	3	6.2
M8	× 1.0	**TD413376**	10	90	36	6	4.9	8	3	7
M8	× 0.75	**TD413386**	8	80	30	6	4.9	8	3	7.2
M10	× 1.25	**TD413436**	16	100	40	7	5.5	8	3	8.8
M10	× 1.0	**TD413446**	10	90	36	7	5.5	8	3	9
M10	× 0.75	**TD413456**	10	90	36	7	5.5	8	3	9.2
M12	× 1.5	**TD413516**	15	100	40	9	7	10	3	10.5
M12	× 1.25	**TD413526**	15	100	40	9	7	10	3	10.8
M12	× 1.0	**TD413536**	11	100	40	9	7	10	3	11
M14	× 1.5	**TD413556**	15	100	40	11	9	12	3	12.5
M14	× 1.25	**TD413566**	15	100	40	11	9	12	3	12.8
M16	× 1.5	**TD413616**	15	100	40	12	9	12	3	14.5
M18	× 1.5	**TD413676**	17	110	44	14	11	14	4	16.5
M20	× 1.5	**TD413726**	17	125	50	16	12	15	4	18.5
M22	× 1.5	**TD413766**	17	125	50	18	14.5	17	4	20.5
M24	× 1.5	**TD413806**	20	140	54	18	14.5	17	4	22.5

◎ : Excellent ○ : Good

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

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

YG TAP STEEL

TC174 SERIES

UNC Unified coarse threads

Unified Grobgewinde
UNC
Unificato passo grosso

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

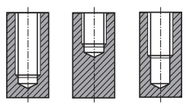
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

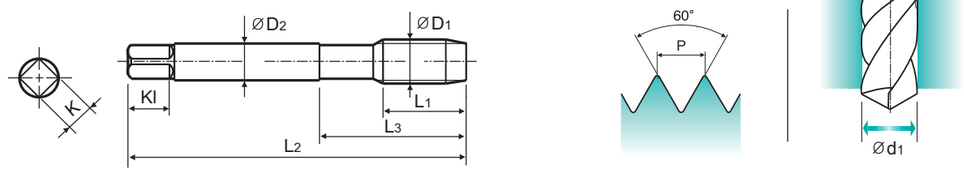
DIN 371

DIN 376



Hole type
2.5×D





Material groups: VG | HSS-E | DIN 371/376 | 2B | 60° | C | R40 | Bright



p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 40UNC	TC174162	6	56	18	3.5	2.7	6	3	2.3
#5	- 40UNC	TC174202	7	56	18	3.5	2.7	6	3	2.6
#6	- 32UNC	TC174242	7	56	20	4	3	6	3	2.85
#8	- 32UNC	TC174282	8	63	21	4.5	3.4	6	3	3.5
#10	- 24UNC	TC174322	10	70	25	6	4.9	8	3	3.9
#12	- 24UNC	TC174362	10	80	30	6	4.9	8	3	4.5
1/4	- 20UNC	TC174402	13	80	30	7	5.5	8	3	5.2
5/16	- 18UNC	TC174442	14	90	35	8	6.2	9	3	6.6
3/8	- 16UNC	TC174482	16	100	39	9	7	10	3	8
7/16	- 14UNC	TC174522	17	100	40	8	6.2	9	3	9.4
1/2	- 13UNC	TC174562	20	110	44	9	7	10	3	10.75
9/16	- 12UNC	TC174602	20	110	44	11	9	12	3	12.25
5/8	- 11UNC	TC174642	22	110	44	12	9	12	3	13.5
3/4	- 10UNC	TC174702	25	125	50	14	11	14	4	16.5
7/8	- 9UNC	TC174742	27	140	54	18	14.5	17	4	19.5
1	- 8UNC	TC174782	30	160	60	20	16	19	4	22.25
1-1/8	- 7UNC	TC174822	35	180	65	22	18	21	4	25

▶ DIN 371(#4~3/8) and DIN 376(7/16~1-1/8)

◎ : Excellent ○ : Good

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

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

YG TAP STEEL

TD174 SERIES

UNC Unified coarse threads

Unified Grobgewinde
UNC
Unificato passo grosso

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

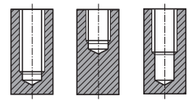
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

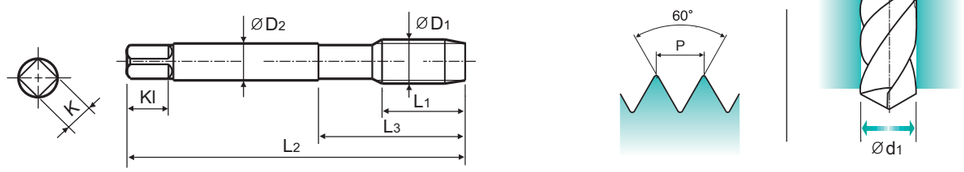
DIN 371

DIN 376



Hole type
2.5×D





Material groups: VG | HSS-E | DIN 371/376 | 2B | 60° | C | R40 | TiN



p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 40UNC	TD174162	6	56	18	3.5	2.7	6	3	2.3
#5	- 40UNC	TD174202	7	56	18	3.5	2.7	6	3	2.6
#6	- 32UNC	TD174242	7	56	20	4	3	6	3	2.85
#8	- 32UNC	TD174282	8	63	21	4.5	3.4	6	3	3.5
#10	- 24UNC	TD174322	10	70	25	6	4.9	8	3	3.9
#12	- 24UNC	TD174362	10	80	30	6	4.9	8	3	4.5
1/4	- 20UNC	TD174402	13	80	30	7	5.5	8	3	5.2
5/16	- 18UNC	TD174442	14	90	35	8	6.2	9	3	6.6
3/8	- 16UNC	TD174482	16	100	39	9	7	10	3	8
7/16	- 14UNC	TD174522	17	100	40	8	6.2	9	3	9.4
1/2	- 13UNC	TD174562	20	110	44	9	7	10	3	10.75
9/16	- 12UNC	TD174602	20	110	44	11	9	12	3	12.25
5/8	- 11UNC	TD174642	22	110	44	12	9	12	3	13.5
3/4	- 10UNC	TD174702	25	125	50	14	11	14	4	16.5
7/8	- 9UNC	TD174742	27	140	54	18	14.5	17	4	19.5
1	- 8UNC	TD174782	30	160	60	20	16	19	4	22.25
1-1/8	- 7UNC	TD174822	35	180	65	22	18	21	4	25

▶ DIN 371(#4~3/8) and DIN 376(7/16~1-1/8)

◎ : Excellent ○ : Good

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

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

YG TAP STEEL

TC184 SERIES

UNF — Unified fine threads

- Unified Feingewinde
- UNF
- Unificato passo fine

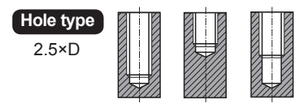
Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

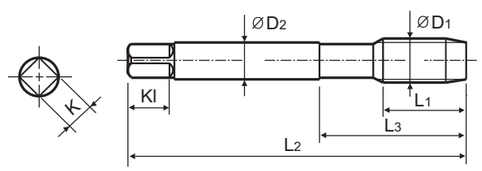
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

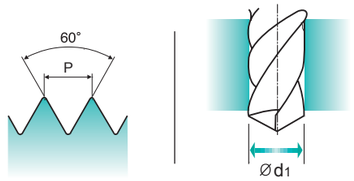
DIN 371

DIN 374



Hole type
2.5×D





Material groups **VG** | HSS-E | DIN 371/374 | 2B | 60° | C | R40 | Bright | p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 48UNF	TC184182	6	56	18	3.5	2.7	6	3	2.4
#5	- 44UNF	TC184222	7	56	18	3.5	2.7	6	3	2.7
#6	- 40UNF	TC184262	7	56	20	4	3	6	3	3
#8	- 36UNF	TC184302	8	63	21	4.5	3.4	6	3	3.5
#10	- 32UNF	TC184342	10	70	25	6	4.9	8	3	4.1
#12	- 28UNF	TC184382	10	80	30	6	4.9	8	3	4.7
1/4	- 28UNF	TC184422	10	80	30	7	5.5	8	3	5.5
5/16	- 24UNF	TC184462	10	90	35	8	6.2	9	3	6.9
3/8	- 24UNF	TC184502	10	100	39	9	7	10	3	8.5
7/16	- 20UNF	TC184542	13	100	40	8	6.2	9	3	9.9
1/2	- 20UNF	TC184582	13	100	40	9	7	10	3	11.5
9/16	- 18UNF	TC184622	15	100	40	11	9	12	3	12.9
5/8	- 18UNF	TC184662	15	100	40	12	9	12	3	14.5
3/4	- 16UNF	TC184722	17	110	44	14	11	14	4	17.5
7/8	- 14UNF	TC184762	17	125	50	18	14.5	17	4	20.5
1	- 12UNF	TC184802	20	140	54	18	14.5	17	4	23.25
1-1/8	- 12UNF	TC184842	22	150	60	22	18	21	4	26.5

▶ DIN 371(#4~3/8) and DIN 374(7/16~1-1/8)

◎ : Excellent ○ : Good

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

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

YG TAP STEEL

TB913 SERIES

M — ISO metric coarse threads DIN 13

- Metrisches ISO-Gewinde DIN 13
- ISO MÉTRIQUE DIN13
- ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ With recessed threads for machine tapping of deep blind holes.
▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

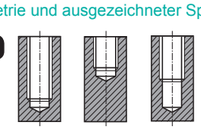
▶ Mit abgesetztem Gewinde zum Schneiden von tiefen Sacklochgewinden.
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

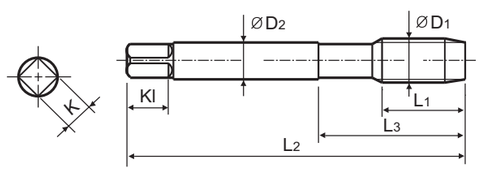
DIN 371

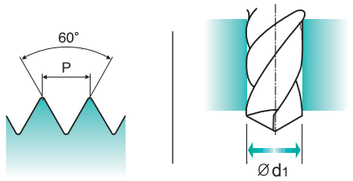
DIN 376



Hole type
2.5×D







Material groups **VG** | HSS-E | DIN 371/376 | 6H | 60° | C | R40 | Vap | p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	TB913136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TB913156	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	TB913196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TB913176	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	TB913496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TB913206	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TB913226	7	56	20	4	3	6	3	2.9
M4	× 0.7	TB913246	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TB913266	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	TB913286	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	TB913316	10	80	30	6	4.9	8	3	5
M7	× 1.0	TB913346	10	80	30	7	5.5	8	3	6
M8	× 1.25	TB913366	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	TB913396	13	90	35	9	7	10	3	7.8
M10	× 1.5	TB913426	15	100	39	10	8	11	3	8.5
M11	× 1.5	TB913466	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	TB913506	18	110	44	9	7	10	3	10.2
M14	× 2.0	TB913546	20	110	44	11	9	12	3	12
M16	× 2.0	TB913606	20	110	44	12	9	12	3	14
M18	× 2.5	TB913656	25	125	50	14	11	14	4	15.5
M20	× 2.5	TB913706	25	140	54	16	12	15	4	17.5
M22	× 2.5	TB913746	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	TB913786	30	160	60	18	14.5	17	4	21
M27	× 3.0	TB913866	30	160	60	20	16	19	4	24
M30	× 3.5	TB913946	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

YG TAP STEEL

TQ863 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web and the best substrate.

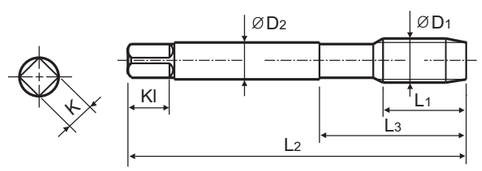
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke und bestem Werkstoff.

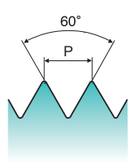
DIN 371

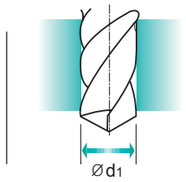
DIN 376



Hole type
3.0×D







Material groups **VG** | HSS PM | DIN 371/376 | 6H | 60° | B | Vap | p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	TQ863136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TQ863156	8	45	13	2.8	2.1	5	3	1.75
M2.5	× 0.45	TQ863176	9	50	15	2.8	2.1	5	3	2.05
M3	× 0.5	TQ863206	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TQ863226	12	56	20	4	3	6	3	2.9
M4	× 0.7	TQ863246	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TQ863266	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	TQ863286	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	TQ863316	17	80	30	6	4.9	8	3	5
M7	× 1.0	TQ863346	17	80	30	7	5.5	8	3	6
M8	× 1.25	TQ863366	20	90	35	8	6.2	9	3	6.8
M10	× 1.5	TQ863426	22	100	39	10	8	11	3	8.5
M12	× 1.75	TQ863506	24	110	44	9	7	10	3	10.2

▶ DIN 371(M2~M10) and DIN 376(M12)

◎ : Excellent ○ : Good

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

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

YG TAP STEEL

TR863 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web and the best substrate.

▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke und bestem Werkstoff.

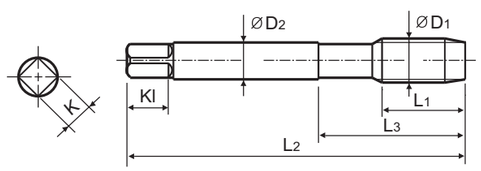
DIN 371

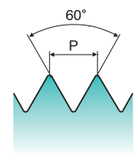
DIN 376

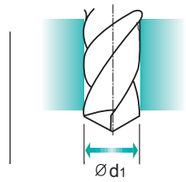


Hole type
3.0×D









Material groups **VG** | HSS PM | DIN 371/376 | 6H | 60° | B | Bright | p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	TR863136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TR863156	8	45	13	2.8	2.1	5	3	1.75
M2.5	× 0.45	TR863176	9	50	15	2.8	2.1	5	3	2.05
M3	× 0.5	TR863206	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TR863226	12	56	20	4	3	6	3	2.9
M4	× 0.7	TR863246	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TR863266	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	TR863286	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	TR863316	17	80	30	6	4.9	8	3	5
M7	× 1.0	TR863346	17	80	30	7	5.5	8	3	6
M8	× 1.25	TR863366	20	90	35	8	6.2	9	3	6.8
M10	× 1.5	TR863426	22	100	39	10	8	11	3	8.5
M12	× 1.75	TR863506	24	110	44	9	7	10	3	10.2

▶ DIN 371(M2~M10) and DIN 376(M12)

◎ : Excellent ○ : Good

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

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

YG TAP STEEL

TC422 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web.

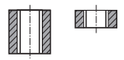
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

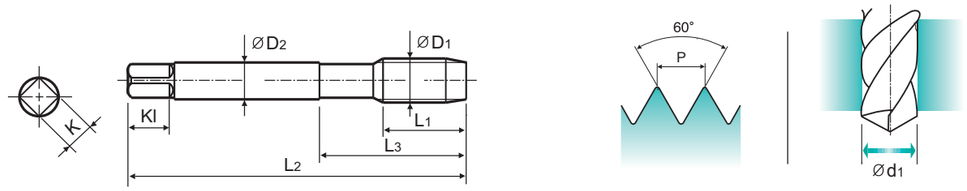
DIN 371

DIN 376



Hole type
3.0×D





Material groups: VG | HSS-E | DIN 371/376 | 6H | 60° | B | Bright

p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TC422136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TC422156	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	TC422196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TC422176	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	TC422496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TC422206	11	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TC422226	12	56	20	4	3	6	3	2.9
M4 ×	0.7	TC422246	13	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TC422266	14	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TC422286	15	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TC422316	17	80	30	6	4.9	8	3	5
M7 ×	1.0	TC422346	17	80	30	7	5.5	8	3	6
M8 ×	1.25	TC422366	20	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TC422396	20	90	35	9	7	10	3	7.8
M10 ×	1.5	TC422426	22	100	39	10	8	11	3	8.5
M11 ×	1.5	TC422466	22	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TC422506	24	110	44	9	7	10	3	10.2
M14 ×	2.0	TC422546	26	110	44	11	9	12	3	12
M16 ×	2.0	TC422606	27	110	44	12	9	12	3	14
M18 ×	2.5	TC422656	30	125	50	14	11	14	4	15.5
M20 ×	2.5	TC422706	32	140	54	16	12	15	4	17.5
M22 ×	2.5	TC422746	32	140	54	18	14.5	17	4	19.5
M24 ×	3.0	TC422786	34	160	60	18	14.5	17	4	21
M27 ×	3.0	TC422866	36	160	60	20	16	19	4	24
M30 ×	3.5	TC422946	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP STEEL

TD422 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web.

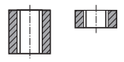
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

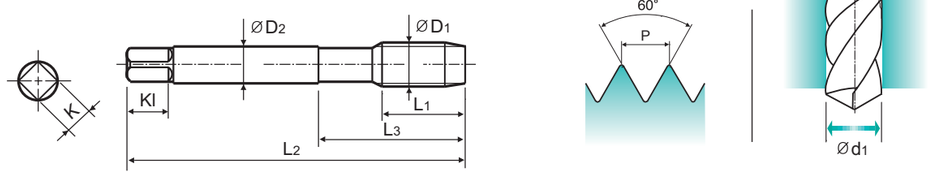
DIN 371

DIN 376



Hole type
3.0×D





Material groups: VG | HSS-E | DIN 371/376 | 6H | 60° | B | TiN

p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TD422136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TD422156	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	TD422196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TD422176	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	TD422496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TD422206	11	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TD422226	12	56	20	4	3	6	3	2.9
M4 ×	0.7	TD422246	13	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TD422266	14	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TD422286	15	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TD422316	17	80	30	6	4.9	8	3	5
M7 ×	1.0	TD422346	17	80	30	7	5.5	8	3	6
M8 ×	1.25	TD422366	20	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TD422396	20	90	35	9	7	10	3	7.8
M10 ×	1.5	TD422426	22	100	39	10	8	11	3	8.5
M11 ×	1.5	TD422466	22	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TD422506	24	110	44	9	7	10	3	10.2
M14 ×	2.0	TD422546	26	110	44	11	9	12	3	12
M16 ×	2.0	TD422606	27	110	44	12	9	12	3	14
M18 ×	2.5	TD422656	30	125	50	14	11	14	4	15.5
M20 ×	2.5	TD422706	32	140	54	16	12	15	4	17.5
M22 ×	2.5	TD422746	32	140	54	18	14.5	17	4	19.5
M24 ×	3.0	TD422786	34	160	60	18	14.5	17	4	21
M27 ×	3.0	TD422866	36	160	60	20	16	19	4	24
M30 ×	3.5	TD422946	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP STEEL

TE422 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Recommended for tapping abrasive materials due to nitriding, not suitable for tapping tough or high strength materials.

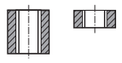
▶ Empfohlen für das Gewindeschneiden verschleißfordernder Werkstoffe wegen der Nitrierung; nicht geeignet für das Gewinden zaher oder hochfester Werkstoffe.

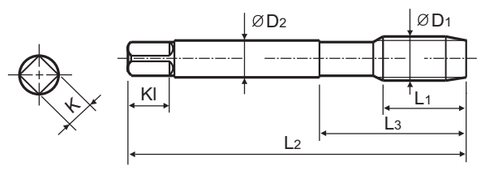
DIN 371

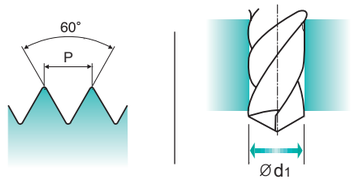
DIN 376



Hole type
3.0×D







Material groups **VG** | HSS-E | DIN 371/376 | 6H | 60° | B | Nitride | p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Ni	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TE422136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TE422156	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	TE422196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TE422176	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	TE422496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TE422206	11	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TE422226	12	56	20	4	3	6	3	2.9
M4 ×	0.7	TE422246	13	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TE422266	14	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TE422286	15	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TE422316	17	80	30	6	4.9	8	3	5
M7 ×	1.0	TE422346	17	80	30	7	5.5	8	3	6
M8 ×	1.25	TE422366	20	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TE422396	20	90	35	9	7	10	3	7.8
M10 ×	1.5	TE422426	22	100	39	10	8	11	3	8.5
M11 ×	1.5	TE422466	22	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TE422506	24	110	44	9	7	10	3	10.2
M14 ×	2.0	TE422546	26	110	44	11	9	12	3	12
M16 ×	2.0	TE422606	27	110	44	12	9	12	3	14
M18 ×	2.5	TE422656	30	125	50	14	11	14	4	15.5
M20 ×	2.5	TE422706	32	140	54	16	12	15	4	17.5
M22 ×	2.5	TE422746	32	140	54	18	14.5	17	4	19.5
M24 ×	3.0	TE422786	34	160	60	18	14.5	17	4	21
M27 ×	3.0	TE422866	36	160	60	20	16	19	4	24
M30 ×	3.5	TE422946	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP STEEL

TY422 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web.

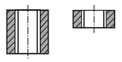
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

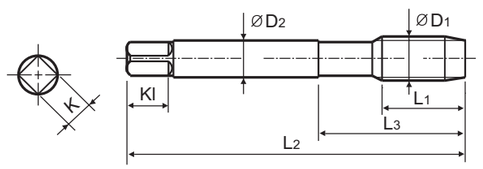
DIN 371

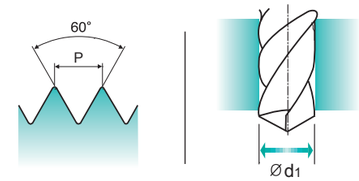
DIN 376



Hole type
3.0×D







Material groups **VG** | HSS-E | DIN 371/376 | 6H | 60° | B | TiAlN | p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiAlN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TY422136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TY422156	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	TY422196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TY422176	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	TY422496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TY422206	11	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TY422226	12	56	20	4	3	6	3	2.9
M4 ×	0.7	TY422246	13	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TY422266	14	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TY422286	15	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TY422316	17	80	30	6	4.9	8	3	5
M7 ×	1.0	TY422346	17	80	30	7	5.5	8	3	6
M8 ×	1.25	TY422366	20	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TY422396	20	90	35	9	7	10	3	7.8
M10 ×	1.5	TY422426	22	100	39	10	8	11	3	8.5
M11 ×	1.5	TY422466	22	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TY422506	24	110	44	9	7	10	3	10.2
M14 ×	2.0	TY422546	26	110	44	11	9	12	3	12
M16 ×	2.0	TY422606	27	110	44	12	9	12	3	14
M18 ×	2.5	TY422656	30	125	50	14	11	14	4	15.5
M20 ×	2.5	TY422706	32	140	54	16	12	15	4	17.5
M22 ×	2.5	TY422746	32	140	54	18	14.5	17	4	19.5
M24 ×	3.0	TY422786	34	160	60	18	14.5	17	4	21
M27 ×	3.0	TY422866	36	160	60	20	16	19	4	24
M30 ×	3.5	TY422946	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP STEEL

TC263 SERIES

MF ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

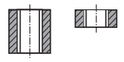
▶ Suitable for through hole in more cutting speed than other taps due to thick web.

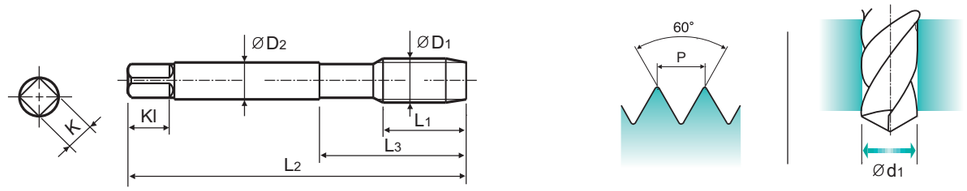
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

DIN 374



Hole type 3.0×D





Material groups **VG** | HSS-E | DIN 374 | 6H | 60° | B | Bright | p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4	× 0.5	**TC263256**	10	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	**TC263296**	11	70	25	3.5	2.7	6	3	4.5
M6	× 0.75	**TC263326**	13	80	30	4.5	3.4	6	3	5.2
M6	× 0.5	**TC263336**	13	80	30	4.5	3.4	6	3	5.5
M7	× 0.75	**TC263356**	14	80	30	5.5	4.3	7	3	6.2
M8	× 1.0	**TC263376**	17	90	36	6	4.9	8	3	7
M8	× 0.75	**TC263386**	14	80	30	6	4.9	8	3	7.2
M10	× 1.25	**TC263436**	22	100	40	7	5.5	8	3	8.8
M10	× 1.0	**TC263446**	18	90	36	7	5.5	8	3	9
M10	× 0.75	**TC263456**	18	90	36	7	5.5	8	3	9.2
M12	× 1.5	**TC263516**	22	100	40	9	7	10	3	10.5
M12	× 1.25	**TC263526**	22	100	40	9	7	10	3	10.8
M12	× 1.0	**TC263536**	18	100	40	9	7	10	3	11
M14	× 1.5	**TC263556**	22	100	40	11	9	12	3	12.5
M14	× 1.25	**TC263566**	22	100	40	11	9	12	3	12.8
M16	× 1.5	**TC263616**	22	100	40	12	9	12	3	14.5
M18	× 1.5	**TC263676**	25	110	44	14	11	14	4	16.5
M20	× 1.5	**TC263726**	25	125	50	16	12	15	4	18.5
M22	× 1.5	**TC263766**	25	125	50	18	14.5	17	4	20.5
M24	× 1.5	**TC263806**	27	140	54	18	14.5	17	4	22.5

◎ : Excellent ○ : Good

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

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

YG TAP STEEL

TD263 SERIES

MF ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

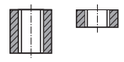
▶ Suitable for through hole in more cutting speed than other taps due to thick web.

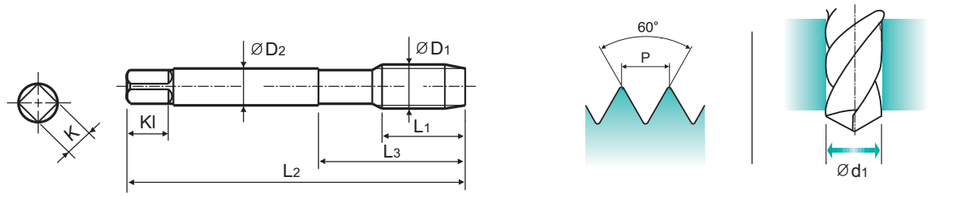
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

DIN 374



Hole type 3.0×D





Material groups **VG** | HSS-E | DIN 374 | 6H | 60° | B | TiN | p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4	× 0.5	**TD263256**	10	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	**TD263296**	11	70	25	3.5	2.7	6	3	4.5
M6	× 0.75	**TD263326**	13	80	30	4.5	3.4	6	3	5.2
M6	× 0.5	**TD263336**	13	80	30	4.5	3.4	6	3	5.5
M7	× 0.75	**TD263356**	14	80	30	5.5	4.3	7	3	6.2
M8	× 1.0	**TD263376**	17	90	36	6	4.9	8	3	7
M8	× 0.75	**TD263386**	14	80	30	6	4.9	8	3	7.2
M10	× 1.25	**TD263436**	22	100	40	7	5.5	8	3	8.8
M10	× 1.0	**TD263446**	18	90	36	7	5.5	8	3	9
M10	× 0.75	**TD263456**	18	90	36	7	5.5	8	3	9.2
M12	× 1.5	**TD263516**	22	100	40	9	7	10	3	10.5
M12	× 1.25	**TD263526**	22	100	40	9	7	10	3	10.8
M12	× 1.0	**TD263536**	18	100	40	9	7	10	3	11
M14	× 1.5	**TD263556**	22	100	40	11	9	12	3	12.5
M14	× 1.25	**TD263566**	22	100	40	11	9	12	3	12.8
M16	× 1.5	**TD263616**	22	100	40	12	9	12	3	14.5
M18	× 1.5	**TD263676**	25	110	44	14	11	14	4	16.5
M20	× 1.5	**TD263726**	25	125	50	16	12	15	4	18.5
M22	× 1.5	**TD263766**	25	125	50	18	14.5	17	4	20.5
M24	× 1.5	**TD263806**	27	140	54	18	14.5	17	4	22.5

◎ : Excellent ○ : Good

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

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

YG TAP STEEL

TC244 SERIES

UNC Unified coarse threads

Unified Grobgewinde
UNC
Unificato passo grosso

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web.

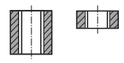
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

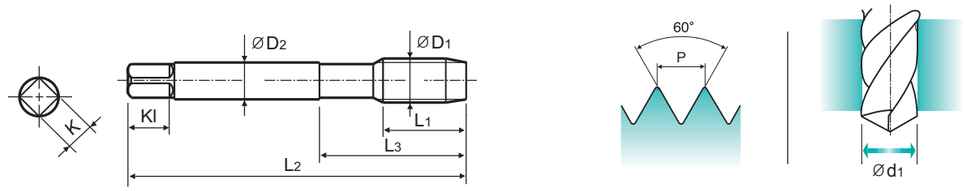
DIN 371

DIN 376



Hole type
3.0×D





Material groups **VG** | HSS-E | DIN 371/376 | 2B | 60° | B | Bright | p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 40UNC	TC244162	11	56	18	3.5	2.7	6	3	2.3
#5	- 40UNC	TC244202	11	56	18	3.5	2.7	6	3	2.6
#6	- 32UNC	TC244242	12	56	20	4	3	6	3	2.85
#8	- 32UNC	TC244282	13	63	21	4.5	3.4	6	3	3.5
#10	- 24UNC	TC244322	15	70	25	6	4.9	8	3	3.9
#12	- 24UNC	TC244362	16	80	30	6	4.9	8	3	4.5
1/4	- 20UNC	TC244402	17	80	30	7	5.5	8	3	5.2
5/16	- 18UNC	TC244442	20	90	35	8	6.2	9	3	6.6
3/8	- 16UNC	TC244482	22	100	39	9	7	10	3	8
7/16	- 14UNC	TC244522	22	100	40	8	6.2	9	3	9.4
1/2	- 13UNC	TC244562	25	110	44	9	7	10	3	10.75
9/16	- 12UNC	TC244602	26	110	44	11	9	12	3	12.25
5/8	- 11UNC	TC244642	27	110	44	12	9	12	3	13.5
3/4	- 10UNC	TC244702	30	125	50	14	11	14	4	16.5
7/8	- 9UNC	TC244742	32	140	54	18	14.5	17	4	19.5
1	- 8UNC	TC244782	36	160	60	20	16	19	4	22.25
1-1/8	- 7UNC	TC244822	40	180	70	22	18	21	4	25

▶ DIN 371(#4~3/8) and DIN 376(7/16~1-1/8)

◎ : Excellent ○ : Good

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

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

YG TAP STEEL

TD244 SERIES

UNC Unified coarse threads

Unified Grobgewinde
UNC
Unificato passo grosso

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web.

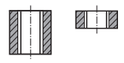
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

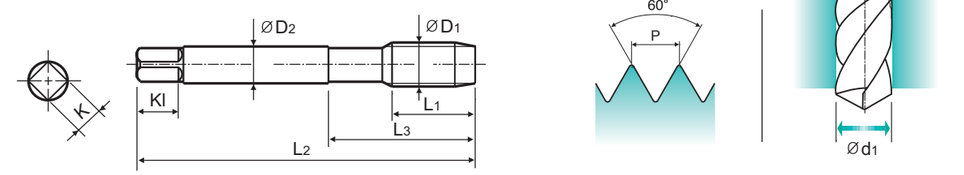
DIN 371

DIN 376



Hole type
3.0×D





Material groups **VG** | HSS-E | DIN 371/376 | 2B | 60° | B | TiN | p.B159

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 40UNC	TD244162	11	56	18	3.5	2.7	6	3	2.3
#5	- 40UNC	TD244202	11	56	18	3.5	2.7	6	3	2.6
#6	- 32UNC	TD244242	12	56	20	4	3	6	3	2.85
#8	- 32UNC	TD244282	13	63	21	4.5	3.4	6	3	3.5
#10	- 24UNC	TD244322	15	70	25	6	4.9	8	3	3.9
#12	- 24UNC	TD244362	16	80	30	6	4.9	8	3	4.5
1/4	- 20UNC	TD244402	17	80	30	7	5.5	8	3	5.2
5/16	- 18UNC	TD244442	20	90	35	8	6.2	9	3	6.6
3/8	- 16UNC	TD244482	22	100	39	9	7	10	3	8
7/16	- 14UNC	TD244522	22	100	40	8	6.2	9	3	9.4
1/2	- 13UNC	TD244562	25	110	44	9	7	10	3	10.75
9/16	- 12UNC	TD244602	26	110	44	11	9	12	3	12.25
5/8	- 11UNC	TD244642	27	110	44	12	9	12	3	13.5
3/4	- 10UNC	TD244702	30	125	50	14	11	14	4	16.5
7/8	- 9UNC	TD244742	32	140	54	18	14.5	17	4	19.5
1	- 8UNC	TD244782	36	160	60	20	16	19	4	22.25
1-1/8	- 7UNC	TD244822	40	180	70	22	18	21	4	25

▶ DIN 371(#4~3/8) and DIN 376(7/16~1-1/8)

◎ : Excellent ○ : Good

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

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

YG TAP STEEL

TC254 SERIES

UNF Unified fine threads

Unified Feingewinde
UNF
Unificato passo fine

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web.

▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

DIN 371

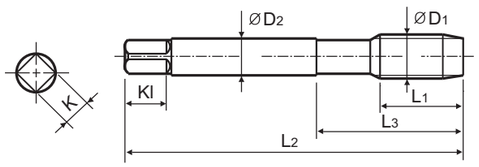


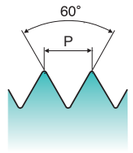
DIN 374

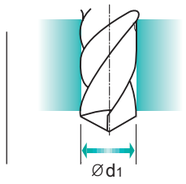


Hole type
3.0×D









Material groups VG | HSS-E | DIN 371/374 | 2B | 60° | B | Bright

p.B159

Recommended ToolHolder: Plain Shank, TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE ØD1	TPI	EDP No. Bright	Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length Kl	No. of Flute Z	Tapping Drill Diameter Ød1
#4	48UNF	TC254182	11	56	18	3.5	2.7	6	3	2.4
#5	44UNF	TC254222	11	56	18	3.5	2.7	6	3	2.7
#6	40UNF	TC254262	12	56	20	4	3	6	3	3
#8	36UNF	TC254302	13	63	21	4.5	3.4	6	3	3.5
#10	32UNF	TC254342	15	70	25	6	4.9	8	3	4.1
#12	28UNF	TC254382	16	80	30	6	4.9	8	3	4.7
1/4	28UNF	TC254422	17	80	30	7	5.5	8	3	5.5
5/16	24UNF	TC254462	17	90	35	8	6.2	9	3	6.9
3/8	24UNF	TC254502	18	100	39	9	7	10	3	8.5
7/16	20UNF	TC254542	22	100	40	8	6.2	9	3	9.9
1/2	20UNF	TC254582	22	100	40	9	7	10	3	11.5
9/16	18UNF	TC254622	22	100	40	11	9	12	3	12.9
5/8	18UNF	TC254662	22	100	40	12	9	12	3	14.5
3/4	16UNF	TC254722	25	110	44	14	11	14	4	17.5
7/8	14UNF	TC254762	26	125	50	18	14.5	17	4	20.5
1	12UNF	TC254802	28	140	54	18	14.5	17	4	23.25
1-1/8	12UNF	TC254842	30	150	60	22	18	21	4	26.5

▶ DIN 371(#4~3/8) and DIN 374(7/16~1-1/8)

◎ : 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		○	○	○	◎	○	○	◎	◎	○		○	○	○						

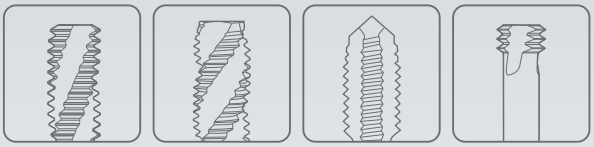
ISO	N										S							H		
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29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

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

ISO	VDI 3323	Material Description	HB	HRc	TQ823	TR823	TC312 TC413 TC174 TC184	TD312 TD413 TD174	TB312	TY312	TB913	TQ863	TR863	TC422 TC263 TC244 TC254	TD422 TD263 TD244	TE422	TY422
					Vc (m/min.)												
P	1	Non-alloy steel	125														
	2		190	13	15-20	15-20	15-20	20-25	15-20	20-25	15-20	15-20	15-20	15-20	15-20	20-25	20-25
	3		250	25	12-18	12-18	12-18	18-24	12-18	18-24	12-18	12-18	12-18	12-18	12-18	18-24	18-24
	4		270	28	10-15	10-15	10-15	15-20	10-15	15-20	10-15	10-15	10-15	10-15	10-15	15-20	15-20
	5		300	32	6-10	6-10	6-10	10-14	6-10	10-14	6-10	6-10	6-10	6-10	6-10	10-14	10-14
	6	Low alloy steel	180	10	10-15	10-15	10-15	15-20	10-15	15-20	10-15	10-15	10-15	10-15	10-15	15-20	15-20
	7		275	29	10-15	10-15	10-15	15-20	10-15	15-20	10-15	10-15	10-15	10-15	10-15	15-20	15-20
	8		300	32	6-10	6-10	6-10	10-14	6-10	10-14	6-10	6-10	6-10	6-10	6-10	10-14	10-14
	9		350	38	3-5	3-5	3-5	5-7	3-5	5-7	3-5	3-5	3-5	3-5	3-5	5-7	5-7
	10	High alloyed steel, and tool steel	200	15	3-5	3-5	3-5	5-7	3-5	5-7	3-5	3-5	3-5	3-5	3-5	5-7	5-7
M	12	Stainless steel	200	15								7-10	7-10	7-10	7-10	10-15	10-15
	13		240	23								5-8	5-8	5-8	5-8	8-11	8-11
	14		180	10	4-6	4-6	4-6	6-8	4-6	6-8	4-6	4-6	4-6	4-6	4-6	6-8	6-8
S	31	Heat Resistant Super Alloys	200	15	10-15	10-15	10-15	15-20	10-15	15-20	10-15	10-15	10-15	10-15	10-15	15-20	15-20
	36	Titanium Alloys	400 Rm		10-15	10-15	10-15	15-20	10-15	15-20	10-15	10-15	10-15	10-15	10-15	15-20	15-20

Global Cutting Tool Leader **YG-1**



THREADING



Leading Through Innovation

HSS-E

YG TAP CHIP BREAKER

YG Gewindebohrer Chip Breaker

- TiN Coated Tap with Chip Breaker for Steel Materials
- TiN-beschichteter Gewindebohrer mit Spanbrecher für Stahlwerkstoffe

SELECTION GUIDE

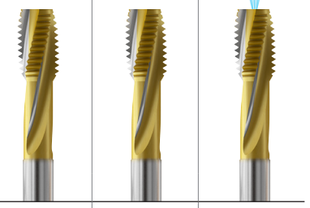
YG THREADING TOOLS

HSS-E YG TAP CHIP BREAKER

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B169

HOLE TYPE			Max. 2.0xD Blind Hole		
TOOL MATERIAL			HSS-E		
CHAMFER LEAD ACC. TO DIN2197			C	E	C
FLUTE TYPE			Spiral Flute		
SPIRAL FLUTE ANGLE			R15		
SERIES	M	DIN371/376	TDE24 (p.B163)	TDE26 (p.B165)	TDE28 (p.B167)
	MF	DIN374	TDE25 (p.B164)	TDE27 (p.B166)	TDE29 (p.B168)
SURFACE TREATMENT			TiN		
MODEL					

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc			
P	1	Non-alloy steel	About 0.15% C	Annealed	125		○	○	○
	2		About 0.45% C	Annealed	190	13	◎	◎	◎
	3		About 0.45% C	Quenched & Tempered	250	25	◎	◎	◎
	4		About 0.75% C	Annealed	270	28			
	5		About 0.75% C	Quenched & Tempered	300	32			
	6	Low alloy steel		Annealed	180	10	○	○	○
	7			Quenched & Tempered	275	29	◎	◎	◎
	8			Quenched & Tempered	300	32	◎	◎	◎
	9			Quenched & Tempered	350	38	○	○	○
	10	High alloyed steel, and tool steel		Annealed	200	15	○	○	○
	11			Quenched & Tempered	325	35	○	○	○
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15			
	13		Martensitic	Quenched & Tempered	240	23			
	14		Austenitic		180	10			
K	15	Grey cast iron	Pearlitic / ferritic		180	10			
	16		Pearlitic (Martensitic)		260	26			
	17	Nodular cast iron	Ferritic		160	3			
	18		Pearlitic		250	25			
	19	Malleable cast iron	Ferritic		130				
	20		Pearlitic		230	21			
N	21	Aluminum-wrought alloy	Not Curable		60				
	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			
	32			Cured	280	30			
	33		Ni or Co Based	Annealed	250	25			
	34			Cured	350	38			
	35			Cast	320	34			
	36	Titanium Alloys	Pure Titanium		400 Rm				
	37		Alpha + Beta Alloys	Hardened	1050 Rm				
H	38	Hardened steel		Hardened	550	55			
	39			Hardened	630	60			
	40	Chilled Cast Iron		Cast	400	42			
	41	Hardened Cast Iron		Hardened	550	55			

YG TAP CHIP BREAKER

TDE24 SERIES

M ISO Metric Coarse Threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- Solving the productivity problem caused by long chips.
- Particularly suitable for machining non-alloy steel, low alloy steel, high alloy steel, and tool steel

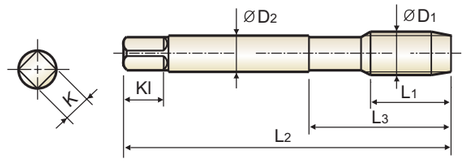
- Lösung des durch lange Späne verursachten Produktivitätsproblems
- Besonders geeignet für die Bearbeitung von unlegiertem Stahl, niedriglegiertem Stahl, hochlegiertem Stahl und Werkzeugstahl

DIN 371

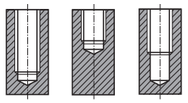


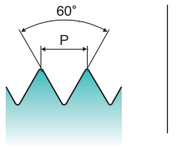
DIN 376

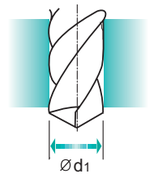




Hole type
2.0×D







HSS-E | DIN 371/376 | 6H | 60° | C | R15° | TiN

p.B169

Recommended Toolholder: Plain Shank, SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4	× 0.7	TDE24246R	7	63	21	4.5	3.4	6	3	3.3
M5	× 0.8	TDE24286R	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	TDE24316R	10	80	30	6	4.9	8	3	5.0
M8	× 1.25	TDE24366R	13	90	35	8	6.2	9	3	6.8
M10	× 1.5	TDE24426R	15	100	39	10	8.0	11	3	8.5
M12	× 1.75	TDE24506R	18	110	44	9	7.0	10	3	10.3
M14	× 2.0	TDE24546R	20	110	44	11	9.0	12	3	12.0
M16	× 2.0	TDE24606R	20	110	44	12	9.0	12	3	14.0
M18	× 2.5	TDE24656R	25	125	50	14	11.0	14	4	15.5
M20	× 2.5	TDE24706R	25	140	54	16	12.0	15	4	17.5

▶ DIN 371(M4-M10) and DIN 376(M12-M20)

◎ : Excellent ○ : Good

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

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

YG TAP CHIP BREAKER

TDE25 SERIES

MF ISO Metric Fine Threads DIN 13

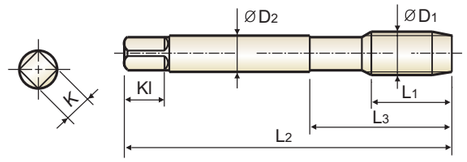
- Metrisches ISO-Feingewinde DIN 13
- ISO MÉTRIQUE PAS FINS DIN13
- ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

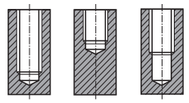
- ▶ Solving the productivity problem caused by long chips.
- ▶ Particularly suitable for machining non-alloy steel, low alloy steel, high alloy steel, and tool steel
- ▶ Lösung des durch lange Späne verursachten Produktivitätsproblems
- ▶ Besonders geeignet für die Bearbeitung von unlegiertem Stahl, niedriglegiertem Stahl, hochlegiertem Stahl und Werkzeugstahl

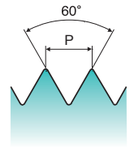
DIN 374

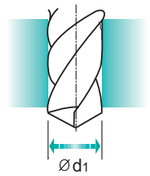




Hole type
2.0×D







HSS-E | DIN 374 | 6H | 60° | C | R15° | TiN

p.B169

Recommended ToolHolder — Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M8	× 1.0	TDE25376R	10	90	36	6	4.9	8	3	7.0
M10	× 1.25	TDE25436R	16	100	40	7	5.5	8	3	8.8
M10	× 1.0	TDE25446R	10	90	36	7	5.5	8	3	9.0
M12	× 1.5	TDE25516R	15	100	40	9	7.0	10	3	10.5
M12	× 1.25	TDE25526R	15	100	40	9	7.0	10	3	10.8
M14	× 1.5	TDE25556R	15	100	40	11	9.0	12	3	12.5
M16	× 1.5	TDE25616R	15	100	40	12	9.0	12	3	14.5
M18	× 1.5	TDE25676R	17	110	44	14	11.0	14	4	16.5
M20	× 1.5	TDE25726R	17	125	50	16	12.0	15	4	18.5

◎ : 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 TAP CHIP BREAKER

TDE26 SERIES

M ISO Metric Coarse Threads DIN 13

- Metrisches ISO-Gewinde DIN 13
- ISO MÉTRIQUE DIN13
- ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- ▶ Solving the productivity problem caused by long chips.
- ▶ Particularly suitable for machining non-alloy steel, low alloy steel, high alloy steel, and tool steel
- ▶ Lösung des durch lange Späne verursachten Produktivitätsproblems
- ▶ Besonders geeignet für die Bearbeitung von unlegiertem Stahl, niedriglegiertem Stahl, hochlegiertem Stahl und Werkzeugstahl

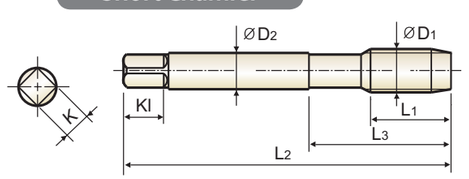
DIN 371



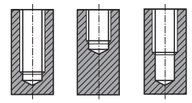
DIN 376

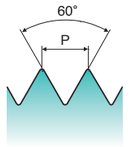


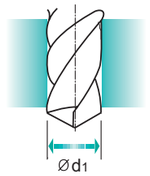
Short Chamfer



Hole type
2.0×D







HSS-E | DIN 371/376 | 6H | 60° | E | R15° | TiN

p.B169

Recommended ToolHolder — Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4	× 0.7	TDE26246R	7	63	21	4.5	3.4	6	3	3.3
M5	× 0.8	TDE26286R	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	TDE26316R	10	80	30	6	4.9	8	3	5.0
M8	× 1.25	TDE26366R	13	90	35	8	6.2	9	3	6.8
M10	× 1.5	TDE26426R	15	100	39	10	8.0	11	3	8.5
M12	× 1.75	TDE26506R	18	110	44	9	7.0	10	3	10.3
M14	× 2.0	TDE26546R	20	110	44	11	9.0	12	3	12.0
M16	× 2.0	TDE26606R	20	110	44	12	9.0	12	3	14.0
M18	× 2.5	TDE26656R	25	125	50	14	11.0	14	4	15.5
M20	× 2.5	TDE26706R	25	140	54	16	12.0	15	4	17.5

▶ DIN 371(M4-M10) and DIN 376(M12-M20)

◎ : 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 TAP CHIP BREAKER

TDE27 SERIES

MF ISO Metric Fine Threads DIN 13

- Metrisches ISO-Feingewinde DIN 13
- ISO MÉTRIQUE PAS FINS DIN13
- ISO Metrico passo fine DIN 13

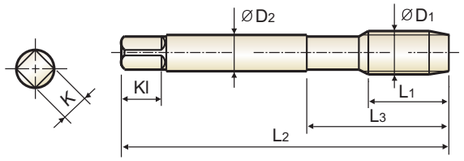
Machine taps
Maschinengewindebohrer

- ▶ Solving the productivity problem caused by long chips.
- ▶ Particularly suitable for machining non-alloy steel, low alloy steel, high alloy steel, and tool steel
- ▶ Lösung des durch lange Späne verursachten Produktivitätsproblems
- ▶ Besonders geeignet für die Bearbeitung von unlegiertem Stahl, niedriglegiertem Stahl, hochlegiertem Stahl und Werkzeugstahl

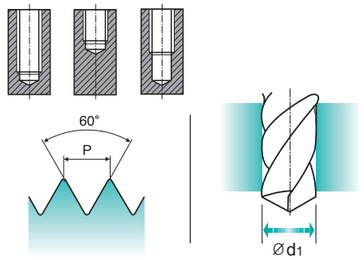
DIN 374



Short Chamfer



Hole type
2.0×D



HSS-E | DIN 374 | 6H | 60° | E | R15° | TiN

p.B169

Recommended ToolHolder — Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M8	× 1.0	TDE27376R	10	90	36	6	4.9	8	3	7.0
M10	× 1.25	TDE27436R	16	100	40	7	5.5	8	3	8.8
M10	× 1.0	TDE27446R	10	90	36	7	5.5	8	3	9.0
M12	× 1.5	TDE27516R	15	100	40	9	7.0	10	3	10.5
M12	× 1.25	TDE27526R	15	100	40	9	7.0	10	3	10.8
M14	× 1.5	TDE27556R	15	100	40	11	9.0	12	3	12.5
M16	× 1.5	TDE27616R	15	100	40	12	9.0	12	3	14.5
M18	× 1.5	TDE27676R	17	110	44	14	11.0	14	4	16.5
M20	× 1.5	TDE27726R	17	125	50	16	12.0	15	4	18.5

◎ : 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 TAP CHIP BREAKER

TDE28 SERIES

M ISO Metric Coarse Threads DIN 13

- Metrisches ISO-Gewinde DIN 13
- ISO MÉTRIQUE DIN13
- ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- ▶ Solving the productivity problem caused by long chips.
- ▶ Particularly suitable for machining non-alloy steel, low alloy steel, high alloy steel, and tool steel
- ▶ Lösung des durch lange Späne verursachten Produktivitätsproblems
- ▶ Besonders geeignet für die Bearbeitung von unlegiertem Stahl, niedriglegiertem Stahl, hochlegiertem Stahl und Werkzeugstahl

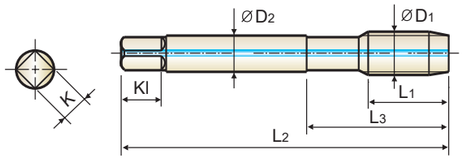
DIN 371



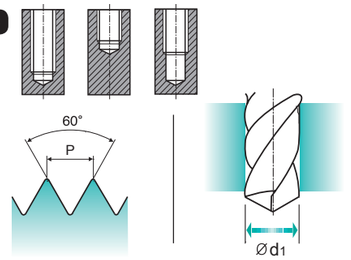
DIN 376



with Internal Coolant



Hole type
2.0×D



HSS-E | DIN 371/376 | 6H | 60° | C | R15° | TiN

p.B169

Recommended ToolHolder — Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M6	× 1.0	TDE28316R	10	80	30	6	4.9	8	3	5.0
M8	× 1.25	TDE28366R	13	90	35	8	6.2	9	3	6.8
M10	× 1.5	TDE28426R	15	100	39	10	8.0	11	3	8.5
M12	× 1.75	TDE28506R	18	110	44	9	7.0	10	3	10.3
M14	× 2.0	TDE28546R	20	110	44	11	9.0	12	3	12.0
M16	× 2.0	TDE28606R	20	110	44	12	9.0	12	3	14.0
M18	× 2.5	TDE28656R	25	125	50	14	11.0	14	4	15.5
M20	× 2.5	TDE28706R	25	140	54	16	12.0	15	4	17.5

▶ DIN 371(M6-M10) and DIN 376(M12-M20)

◎ : 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 TAP CHIP BREAKER

TDE29 SERIES

MF ISO Metric Fine Threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

- ▶ Solving the productivity problem caused by long chips.
- ▶ Particularly suitable for machining non-alloy steel, low alloy steel, high alloy steel, and tool steel

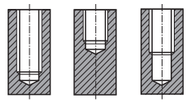
- ▶ Lösung des durch lange Späne verursachten Produktivitätsproblems
- ▶ Besonders geeignet für die Bearbeitung von unlegiertem Stahl, niedriglegiertem Stahl, hochlegiertem Stahl und Werkzeugstahl

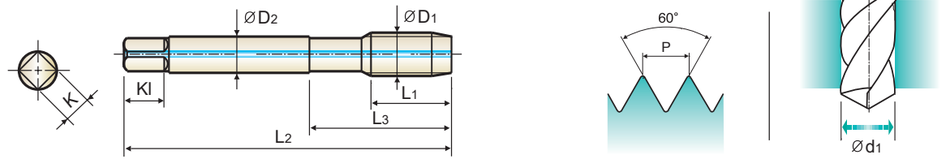
DIN 374



with Internal Coolant

Hole type
2.0×D





HSS-E | DIN 374 | 6H | 60° | C | R15° | TiN

p.B169

Recommended ToolHolder — Plain Shank — SYNCHRO TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M8	× 1.0	**TDE29376R**	10	90	36	6	4.9	8	3	7.0
M10	× 1.25	**TDE29436R**	16	100	40	7	5.5	8	3	8.8
M10	× 1.0	**TDE29446R**	10	90	36	7	5.5	8	3	9.0
M12	× 1.5	**TDE29516R**	15	100	40	9	7.0	10	3	10.5
M12	× 1.25	**TDE29526R**	15	100	40	9	7.0	10	3	10.8
M14	× 1.5	**TDE29556R**	15	100	40	11	9.0	12	3	12.5
M16	× 1.5	**TDE29616R**	15	100	40	12	9.0	12	3	14.5
M18	× 1.5	**TDE29676R**	17	110	44	14	11.0	14	4	16.5
M20	× 1.5	**TDE29726R**	17	125	50	16	12.0	15	4	18.5

◎ : Excellent ○ : Good

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

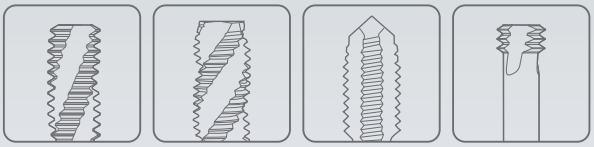
ISO	N										S							H		
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29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

YG TAP CHIP BREAKER

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

ISO	VDI 3323	Material Description	HB	HRc	TDE24	TDE25	TDE26	TDE27	TDE28	TDE29
					Vc (m/min.)					
P	1	Non-alloy steel	125		7-12	7-12	7-12	7-12	7-12	7-12
	2		190	13	7-12	7-12	7-12	7-12	7-12	7-12
	3		250	25	4-8	4-8	4-8	4-8	4-8	4-8
	6	Low alloy steel	180	10	7-12	7-12	7-12	7-12	7-12	7-12
	7		275	29	7-12	7-12	7-12	7-12	7-12	7-12
	8		300	32	4-8	4-8	4-8	4-8	4-8	4-8
	9		350	38	4-8	4-8	4-8	4-8	4-8	4-8
	10	High alloyed steel, and tool steel	200	15	6-9	6-9	6-9	6-9	6-9	6-9
	11		325	35	4-8	4-8	4-8	4-8	4-8	4-8

Global Cutting Tool Leader **YG-1**



THREADING



Leading Through Innovation

HSS-E & HSS-PM

YG TAP INOX

YG Gewindebohrer INOX

- **For Stainless Steels with Lamellar, Irregular Chip Formation where the Cutting Forces are Higher**
- **Für nichtrostende Stähle mit lamellarer, unregelmäßiger Spänebildung, bei denen die Schnittkräfte größer sind.**

SELECTION GUIDE

YG THREADING TOOLS

HSS-E & HSS-PM
YG TAP INOX

For Stainless Steels with Lamellar, Irregular Chip Formation where the Cutting Forces are Higher

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B193

| | | |

YG TAP INOX

TB711 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

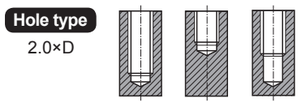
Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

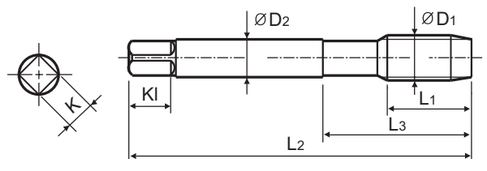
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

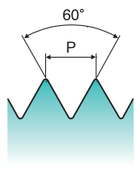
DIN 371

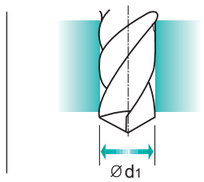
DIN 376



Hole type
2.0×D







Material groups **NW** | HSS-E | DIN 371/376 | 6H | 60° | C | R40 | Vap

p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
	ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TB711136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TB711156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	**TB711196**	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	**TB711176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	**TB711496**	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	**TB711206**	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TB711226**	7	56	20	4	3	6	3	2.9
M4	× 0.7	**TB711246**	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TB711266**	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TB711286**	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TB711316**	10	80	30	6	4.9	8	3	5
M7	× 1.0	**TB711346**	10	80	30	7	5.5	8	3	6
M8	× 1.25	**TB711366**	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	**TB711396**	13	90	35	9	7	10	3	7.8
M10	× 1.5	**TB711426**	15	100	39	10	8	11	3	8.5
M11	× 1.5	**TB711466**	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TB711506**	18	110	44	9	7	10	3	10.2
M14	× 2.0	**TB711546**	20	110	44	11	9	12	3	12
M16	× 2.0	**TB711606**	20	110	44	12	9	12	3	14
M18	× 2.5	**TB711656**	25	125	50	14	11	14	4	15.5
M20	× 2.5	**TB711706**	25	140	54	16	12	15	4	17.5
M22	× 2.5	**TB711746**	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TB711786**	30	160	60	18	14.5	17	4	21
M27	× 3.0	**TB711866**	30	160	60	20	16	19	4	24
M30	× 3.5	**TB711946**	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP INOX

TQ813 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

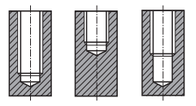
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

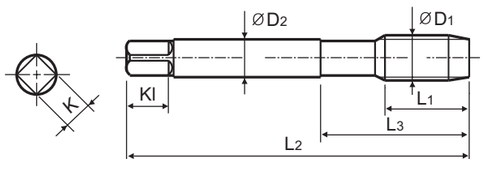
DIN 371

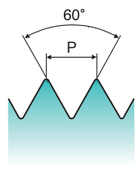
DIN 376

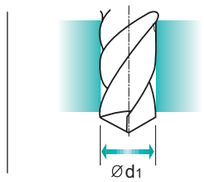


Hole type
2.5×D









Material groups **VA** | HSS PM | DIN 371/376 | 6H | 60° | C | R40 | Vap

p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
	ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TQ813136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TQ813156**	8	45	13	2.8	2.1	5	3	1.75
M2.5	× 0.45	**TQ813176**	9	50	15	2.8	2.1	5	3	2.05
M3	× 0.5	**TQ813206**	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TQ813226**	7	56	20	4	3	6	3	2.9
M4	× 0.7	**TQ813246**	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TQ813266**	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TQ813286**	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TQ813316**	10	80	30	6	4.9	8	3	5
M7	× 1.0	**TQ813346**	10	80	30	7	5.5	8	3	6
M8	× 1.25	**TQ813366**	13	90	35	8	6.2	9	3	6.8
M10	× 1.5	**TQ813426**	15	100	39	10	8	11	3	8.5
M12	× 1.75	**TQ813506**	18	110	44	9	7	10	3	10.2

▶ DIN 371(M2~M10) and DIN 376(M12)

◎ : 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 TAP INOX

TR813 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

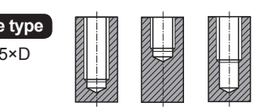
Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

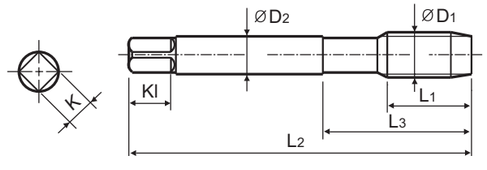
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

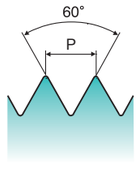
DIN 371

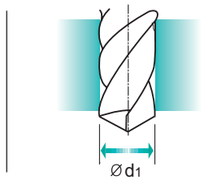
DIN 376



Hole type
2.5×D







Material groups **VA** | HSS PM | DIN 371/376 | 6H | 60° | C | R40 | Bright | p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	TR813136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TR813156	8	45	13	2.8	2.1	5	3	1.75
M2.5	× 0.45	TR813176	9	50	15	2.8	2.1	5	3	2.05
M3	× 0.5	TR813206	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TR813226	7	56	20	4	3	6	3	2.9
M4	× 0.7	TR813246	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TR813266	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	TR813286	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	TR813316	10	80	30	6	4.9	8	3	5
M7	× 1.0	TR813346	10	80	30	7	5.5	8	3	6
M8	× 1.25	TR813366	13	90	35	8	6.2	9	3	6.8
M10	× 1.5	TR813426	15	100	39	10	8	11	3	8.5
M12	× 1.75	TR813506	18	110	44	9	7	10	3	10.2

▶ DIN 371(M2~M10) and DIN 376(M12)

◎ : Excellent ○ : Good

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

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

YG TAP INOX

Vap **TB914 SERIES**
TiCN **TI914 SERIES**

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ With recessed threads for machine tapping of deep blind holes.
▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

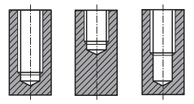
▶ Mit abgesetztem Gewinde zum Schneiden von tiefen Sacklochgewinden.
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

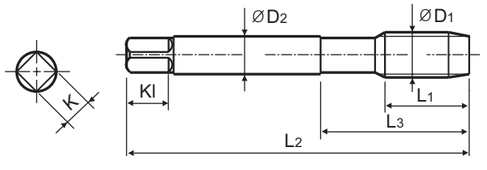
DIN 371

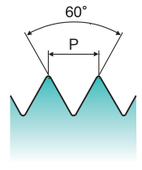
DIN 376

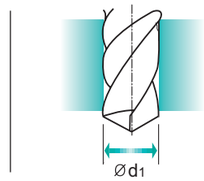


Hole type
2.5×D









Material groups **VA NW** | HSS-E | DIN 371/376 | 6H | 60° | C | R40 | Vap TiCN | p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.		Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	TiCN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	TB914136	TI914136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TB914156	TI914156	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	TB914196	TI914196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TB914176	TI914176	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	TB914496	TI914496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TB914206	TI914206	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TB914226	TI914226	7	56	20	4	3	6	3	2.9
M4	× 0.7	TB914246	TI914246	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TB914266	TI914266	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	TB914286	TI914286	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	TB914316	TI914316	10	80	30	6	4.9	8	3	5
M7	× 1.0	TB914346	TI914346	10	80	30	7	5.5	8	3	6
M8	× 1.25	TB914366	TI914366	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	TB914396	TI914396	13	90	35	9	7	10	3	7.8
M10	× 1.5	TB914426	TI914426	15	100	39	10	8	11	3	8.5
M11	× 1.5	TB914466	TI914466	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	TB914506	TI914506	18	110	44	9	7	10	3	10.2
M12	× 1.75	TB914506F4	TI914506F4	18	110	44	9	7	10	4	10.2
M14	× 2.0	TB914546	TI914546	20	110	44	11	9	12	3	12
M14	× 2.0	TB914546F4	TI914546F4	20	110	44	11	9	12	4	12
M16	× 2.0	TB914606	TI914606	20	110	44	12	9	12	3	14
M16	× 2.0	TB914606F4	TI914606F4	20	110	44	12	9	12	4	14
M18	× 2.5	TB914656	TI914656	25	125	50	14	11	14	4	15.5
M20	× 2.5	TB914706	TI914706	25	140	54	16	12	15	4	17.5
M22	× 2.5	TB914746	TI914746	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	TB914786	TI914786	30	160	60	18	14.5	17	4	21
M27	× 3.0	TB914866	TI914866	30	160	60	20	16	19	4	24
M30	× 3.5	TB914946	TI914946	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

YG TAP INOX

TBE15 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- With recessed threads for machine tapping of deep blind holes.
- Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

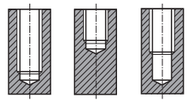
- Mit abgesetztem Gewinde zum Schneiden von tiefen Sacklochgewinden.
- Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

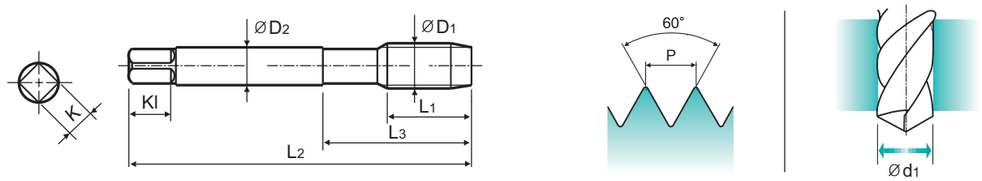
DIN 371

DIN 376



Hole type
2.5×D





Material groups: VA NW | HSS-E | DIN 371/376 | 4H | 60° | C | R40 | Vap

p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK — TAPPING CHUCK — ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 × 0.4		TBE15136	8	45	13	2.8	2.1	5	3	1.6
M2.2 × 0.45		TBE15156	8	45	13	2.8	2.1	5	3	1.75
*M2.3 × 0.4		TBE15196	8	45	13	2.8	2.1	5	3	1.9
M2.5 × 0.45		TBE15176	9	50	15	2.8	2.1	5	3	2.05
*M2.6 × 0.45		TBE15496	9	50	15	2.8	2.1	5	3	2.1
M3 × 0.5		TBE15206	6	56	18	3.5	2.7	6	3	2.5
M3.5 × 0.6		TBE15226	7	56	20	4	3	6	3	2.9
M4 × 0.7		TBE15246	7	63	21	4.5	3.4	6	3	3.3
M4.5 × 0.75		TBE15266	8	70	25	6	4.9	8	3	3.7
M5 × 0.8		TBE15286	8	70	25	6	4.9	8	3	4.2
M6 × 1.0		TBE15316	10	80	30	6	4.9	8	3	5
M7 × 1.0		TBE15346	10	80	30	7	5.5	8	3	6
M8 × 1.25		TBE15366	13	90	35	8	6.2	9	3	6.8
M9 × 1.25		TBE15396	13	90	35	9	7	10	3	7.8
M10 × 1.5		TBE15426	15	100	39	10	8	11	3	8.5
M11 × 1.5		TBE15466	17	100	40	8	6.2	9	3	9.5
M12 × 1.75		TBE15506	18	110	44	9	7	10	3	10.2
M14 × 2.0		TBE15546	20	110	44	11	9	12	3	12
M16 × 2.0		TBE15606	20	110	44	12	9	12	3	14
M18 × 2.5		TBE15656	25	125	50	14	11	14	4	15.5
M20 × 2.5		TBE15706	25	140	54	16	12	15	4	17.5
M22 × 2.5		TBE15746	25	140	54	18	14.5	17	4	19.5
M24 × 3.0		TBE15786	30	160	60	18	14.5	17	4	21
M27 × 3.0		TBE15866	30	160	60	20	16	19	4	24
M30 × 3.5		TBE15946	35	180	70	22	18	21	4	26.5

- DIN 371(M2~M10) and DIN 376(M11~M30)
- * DIN profile not ISO

◎ : 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 TAP INOX

TBE16 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- With recessed threads for machine tapping of deep blind holes.
- Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

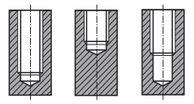
- Mit abgesetztem Gewinde zum Schneiden von tiefen Sacklochgewinden.
- Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

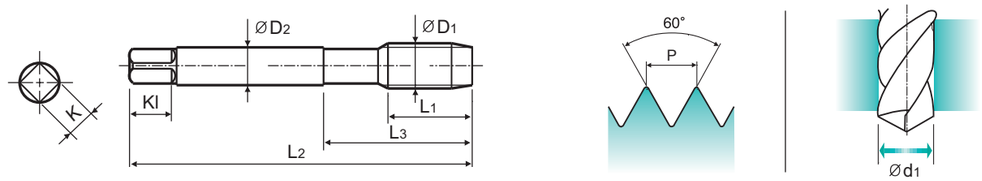
DIN 371

DIN 376



Hole type
2.5×D





Material groups: VA NW | HSS-E | DIN 371/376 | 6H+0.1 | 60° | C | R40 | Vap

p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK — TAPPING CHUCK — ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 × 0.4		TBE16136	8	45	13	2.8	2.1	5	3	1.7
M2.2 × 0.45		TBE16156	8	45	13	2.8	2.1	5	3	1.85
*M2.3 × 0.4		TBE16196	8	45	13	2.8	2.1	5	3	2
M2.5 × 0.45		TBE16176	9	50	15	2.8	2.1	5	3	2.15
*M2.6 × 0.45		TBE16496	9	50	15	2.8	2.1	5	3	2.2
M3 × 0.5		TBE16206	6	56	18	3.5	2.7	6	3	2.6
M3.5 × 0.6		TBE16226	7	56	20	4	3	6	3	3
M4 × 0.7		TBE16246	7	63	21	4.5	3.4	6	3	3.4
M4.5 × 0.75		TBE16266	8	70	25	6	4.9	8	3	3.8
M5 × 0.8		TBE16286	8	70	25	6	4.9	8	3	4.3
M6 × 1.0		TBE16316	10	80	30	6	4.9	8	3	5.1
M7 × 1.0		TBE16346	10	80	30	7	5.5	8	3	6.1
M8 × 1.25		TBE16366	13	90	35	8	6.2	9	3	6.9
M9 × 1.25		TBE16396	13	90	35	9	7	10	3	7.9
M10 × 1.5		TBE16426	15	100	39	10	8	11	3	8.6
M11 × 1.5		TBE16466	17	100	40	8	6.2	9	3	9.6
M12 × 1.75		TBE16506	18	110	44	9	7	10	3	10.3
M14 × 2.0		TBE16546	20	110	44	11	9	12	3	12.1
M16 × 2.0		TBE16606	20	110	44	12	9	12	3	14.1
M18 × 2.5		TBE16656	25	125	50	14	11	14	4	15.6
M20 × 2.5		TBE16706	25	140	54	16	12	15	4	17.6
M22 × 2.5		TBE16746	25	140	54	18	14.5	17	4	19.6
M24 × 3.0		TBE16786	30	160	60	18	14.5	17	4	21.1
M27 × 3.0		TBE16866	30	160	60	20	16	19	4	24.1
M30 × 3.5		TBE16946	35	180	70	22	18	21	4	26.6

- DIN 371(M2~M10) and DIN 376(M11~M30)
- * DIN profile not ISO

◎ : 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 TAP INOX

TBE17 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- With recessed threads for machine tapping of deep blind holes.
- Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

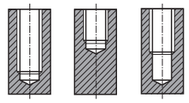
- Mit abgesetztem Gewinde zum Schneiden von tiefen Sacklochgewinden.
- Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

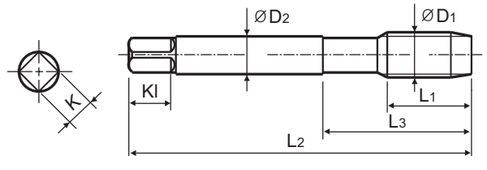
DIN 371

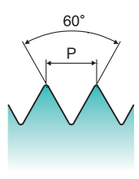
DIN 376

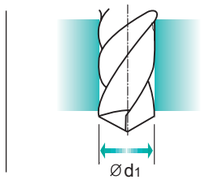


Hole type
2.5×D









Material groups: VA NW | HSS-E | DIN 371/376 | 6G | 60° | C | R40 | Vap

p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 × 0.4		TBE17136	8	45	13	2.8	2.1	5	3	1.6
M2.2 × 0.45		TBE17156	8	45	13	2.8	2.1	5	3	1.75
*M2.3 × 0.4		TBE17196	8	45	13	2.8	2.1	5	3	1.9
M2.5 × 0.45		TBE17176	9	50	15	2.8	2.1	5	3	2.05
*M2.6 × 0.45		TBE17496	9	50	15	2.8	2.1	5	3	2.1
M3 × 0.5		TBE17206	6	56	18	3.5	2.7	6	3	2.5
M3.5 × 0.6		TBE17226	7	56	20	4	3	6	3	2.9
M4 × 0.7		TBE17246	7	63	21	4.5	3.4	6	3	3.3
M4.5 × 0.75		TBE17266	8	70	25	6	4.9	8	3	3.7
M5 × 0.8		TBE17286	8	70	25	6	4.9	8	3	4.2
M6 × 1.0		TBE17316	10	80	30	6	4.9	8	3	5
M7 × 1.0		TBE17346	10	80	30	7	5.5	8	3	6
M8 × 1.25		TBE17366	13	90	35	8	6.2	9	3	6.8
M9 × 1.25		TBE17396	13	90	35	9	7	10	3	7.8
M10 × 1.5		TBE17426	15	100	39	10	8	11	3	8.5
M11 × 1.5		TBE17466	17	100	40	8	6.2	9	3	9.5
M12 × 1.75		TBE17506	18	110	44	9	7	10	3	10.2
M14 × 2.0		TBE17546	20	110	44	11	9	12	3	12
M16 × 2.0		TBE17606	20	110	44	12	9	12	3	14
M18 × 2.5		TBE17656	25	125	50	14	11	14	4	15.5
M20 × 2.5		TBE17706	25	140	54	16	12	15	4	17.5
M22 × 2.5		TBE17746	25	140	54	18	14.5	17	4	19.5
M24 × 3.0		TBE17786	30	160	60	18	14.5	17	4	21
M27 × 3.0		TBE17866	30	160	60	20	16	19	4	24
M30 × 3.5		TBE17946	35	180	70	22	18	21	4	26.5

- DIN 371(M2~M10) and DIN 376(M11~M30)
- * DIN profile not ISO

◎ : 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 TAP INOX

TBE18 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- With recessed threads for machine tapping of deep blind holes.
- Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

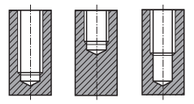
- Mit abgesetztem Gewinde zum Schneiden von tiefen Sacklochgewinden.
- Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

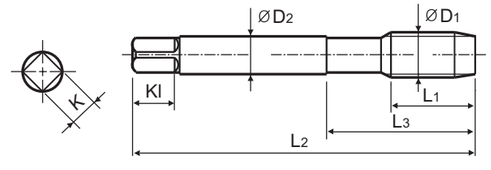
DIN 371

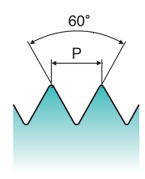
DIN 376

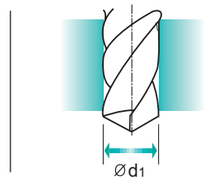


Hole type
2.5×D









Material groups: VA NW | HSS-E | DIN 371/376 | 7G | 60° | C | R40 | Vap

p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 × 0.4		TBE18136	8	45	13	2.8	2.1	5	3	1.6
M2.2 × 0.45		TBE18156	8	45	13	2.8	2.1	5	3	1.75
*M2.3 × 0.4		TBE18196	8	45	13	2.8	2.1	5	3	1.9
M2.5 × 0.45		TBE18176	9	50	15	2.8	2.1	5	3	2.05
*M2.6 × 0.45		TBE18496	9	50	15	2.8	2.1	5	3	2.1
M3 × 0.5		TBE18206	6	56	18	3.5	2.7	6	3	2.5
M3.5 × 0.6		TBE18226	7	56	20	4	3	6	3	2.9
M4 × 0.7		TBE18246	7	63	21	4.5	3.4	6	3	3.3
M4.5 × 0.75		TBE18266	8	70	25	6	4.9	8	3	3.7
M5 × 0.8		TBE18286	8	70	25	6	4.9	8	3	4.2
M6 × 1.0		TBE18316	10	80	30	6	4.9	8	3	5
M7 × 1.0		TBE18346	10	80	30	7	5.5	8	3	6
M8 × 1.25		TBE18366	13	90	35	8	6.2	9	3	6.8
M9 × 1.25		TBE18396	13	90	35	9	7	10	3	7.8
M10 × 1.5		TBE18426	15	100	39	10	8	11	3	8.5
M11 × 1.5		TBE18466	17	100	40	8	6.2	9	3	9.5
M12 × 1.75		TBE18506	18	110	44	9	7	10	3	10.2
M14 × 2.0		TBE18546	20	110	44	11	9	12	3	12
M16 × 2.0		TBE18606	20	110	44	12	9	12	3	14
M18 × 2.5		TBE18656	25	125	50	14	11	14	4	15.5
M20 × 2.5		TBE18706	25	140	54	16	12	15	4	17.5
M22 × 2.5		TBE18746	25	140	54	18	14.5	17	4	19.5
M24 × 3.0		TBE18786	30	160	60	18	14.5	17	4	21
M27 × 3.0		TBE18866	30	160	60	20	16	19	4	24
M30 × 3.5		TBE18946	35	180	70	22	18	21	4	26.5

- DIN 371(M2~M10) and DIN 376(M11~M30)
- * DIN profile not ISO

◎ : 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 TAP INOX

TCH14 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- With recessed threads for machine tapping of deep blind holes.
- Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

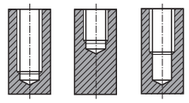
- Mit abgesetztem Gewinde zum Schneiden von tiefen Sacklochgewinden.
- Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

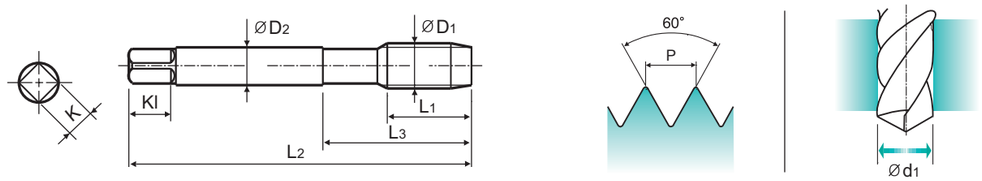
DIN 371

DIN 376



Hole type
2.5×D





Material groups: VA NW | HSS-E | DIN 371/376 | 6H | 60° | C | R40 | Hardslick

p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Hardslick	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TCH14136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TCH14156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	**TCH14196**	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	**TCH14176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	**TCH14496**	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	**TCH14206**	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TCH14226**	7	56	20	4	3	6	3	2.9
M4	× 0.7	**TCH14246**	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TCH14266**	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TCH14286**	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TCH14316**	10	80	30	6	4.9	8	3	5
M7	× 1.0	**TCH14346**	10	80	30	7	5.5	8	3	6
M8	× 1.25	**TCH14366**	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	**TCH14396**	13	90	35	9	7	10	3	7.8
M10	× 1.5	**TCH14426**	15	100	39	10	8	11	3	8.5
M11	× 1.5	**TCH14466**	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TCH14506**	18	110	44	9	7	10	3	10.2
M14	× 2.0	**TCH14546**	20	110	44	11	9	12	3	12
M16	× 2.0	**TCH14606**	20	110	44	12	9	12	3	14
M18	× 2.5	**TCH14656**	25	125	50	14	11	14	4	15.5
M20	× 2.5	**TCH14706**	25	140	54	16	12	15	4	17.5
M22	× 2.5	**TCH14746**	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TCH14786**	30	160	60	18	14.5	17	4	21
M27	× 3.0	**TCH14866**	30	160	60	20	16	19	4	24
M30	× 3.5	**TCH14946**	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP INOX

TQ853 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

- Suitable for through hole in more cutting speed than other taps due to thick web and the best substrate.

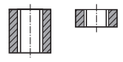
- Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke und bestem Werkstoff.

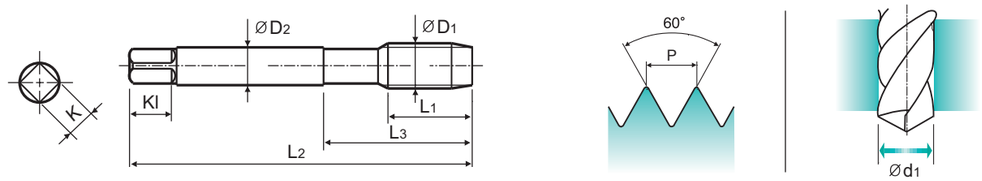
DIN 371

DIN 376



Hole type
3.0×D





Material groups: VA | HSS PM | DIN 371/376 | 6H | 60° | B | Vap

p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TQ853136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TQ853156**	8	45	13	2.8	2.1	5	3	1.75
M2.5	× 0.45	**TQ853176**	9	50	15	2.8	2.1	5	3	2.05
M3	× 0.5	**TQ853206**	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TQ853226**	12	56	20	4	3	6	3	2.9
M4	× 0.7	**TQ853246**	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TQ853266**	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TQ853286**	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TQ853316**	17	80	30	6	4.9	8	3	5
M7	× 1.0	**TQ853346**	17	80	30	7	5.5	8	3	6
M8	× 1.25	**TQ853366**	20	90	35	8	6.2	9	3	6.8
M10	× 1.5	**TQ853426**	22	100	39	10	8	11	3	8.5
M12	× 1.75	**TQ853506**	24	110	44	9	7	10	3	10.2

▶ DIN 371(M2~M10) and DIN 376(M12)

◎ : 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 TAP INOX

TR853 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web and the best substrate.

▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke und bestem Werkstoff.

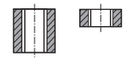
DIN 371

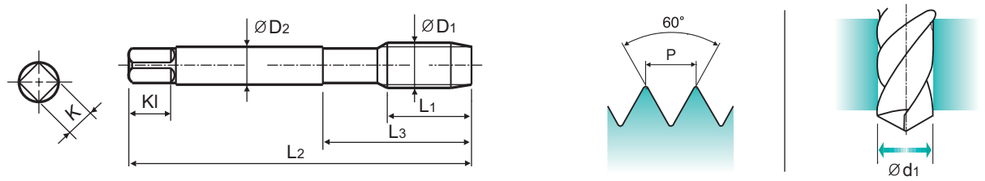


DIN 376



Hole type
3.0×D





Material groups: VA | HSS PM | DIN 371/376 | 6H | 60° | B | Bright

p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TR853136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TR853156**	8	45	13	2.8	2.1	5	3	1.75
M2.5	× 0.45	**TR853176**	9	50	15	2.8	2.1	5	3	2.05
M3	× 0.5	**TR853206**	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TR853226**	12	56	20	4	3	6	3	2.9
M4	× 0.7	**TR853246**	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TR853266**	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TR853286**	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TR853316**	17	80	30	6	4.9	8	3	5
M7	× 1.0	**TR853346**	17	80	30	7	5.5	8	3	6
M8	× 1.25	**TR853366**	20	90	35	8	6.2	9	3	6.8
M10	× 1.5	**TR853426**	22	100	39	10	8	11	3	8.5
M12	× 1.75	**TR853506**	24	110	44	9	7	10	3	10.2

▶ DIN 371(M2~M10) and DIN 376(M12)

◎ : Excellent ○ : Good

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

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

YG TAP INOX

TB623 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web.

▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

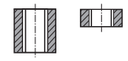
DIN 371

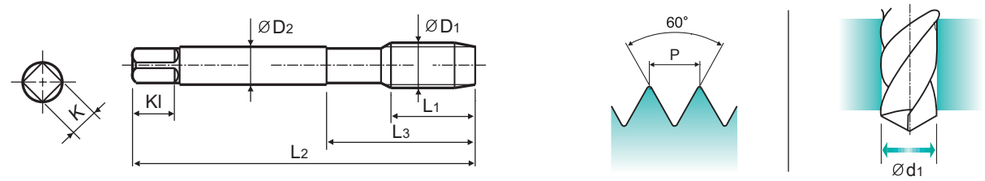


DIN 376



Hole type
3.0×D





Material groups: VA NW | HSS-E | DIN 371/376 | 6HX | 60° | B | Vap

p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TB623136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TB623156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	**TB623196**	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	**TB623176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	**TB623496**	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	**TB623206**	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TB623226**	12	56	20	4	3	6	3	2.9
M4	× 0.7	**TB623246**	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TB623266**	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TB623286**	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TB623316**	17	80	30	6	4.9	8	3	5
M7	× 1.0	**TB623346**	17	80	30	7	5.5	8	3	6
M8	× 1.25	**TB623366**	20	90	35	8	6.2	9	3	6.8
M9	× 1.25	**TB623396**	20	90	35	9	7	10	3	7.8
M10	× 1.5	**TB623426**	22	100	39	10	8	11	3	8.5
M11	× 1.5	**TB623466**	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TB623506**	24	110	44	9	7	10	4	10.2
M14	× 2.0	**TB623546**	26	110	44	11	9	12	4	12
M16	× 2.0	**TB623606**	27	110	44	12	9	12	4	14
M18	× 2.5	**TB623656**	30	125	50	14	11	14	4	15.5
M20	× 2.5	**TB623706**	32	140	54	16	12	15	4	17.5
M22	× 2.5	**TB623746**	32	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TB623786**	34	160	60	18	14.5	17	4	21
M27	× 3.0	**TB623866**	36	160	60	20	16	19	4	24
M30	× 3.5	**TB623946**	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

YG TAP INOX

TCH23 SERIES

M — ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web.

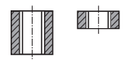
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

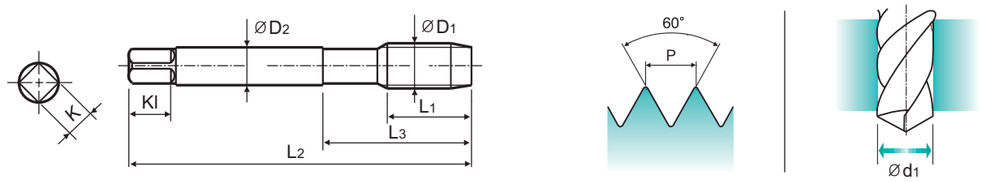
DIN 371

DIN 376



Hole type
3.0×D





Material groups: VA NW | HSS-E | DIN 371/376 | 6HX | 60° | B | Hardslick

p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Hardslick	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TCH23136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TCH23156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	**TCH23196**	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	**TCH23176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	**TCH23496**	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	**TCH23206**	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TCH23226**	12	56	20	4	3	6	3	2.9
M4	× 0.7	**TCH23246**	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TCH23266**	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TCH23286**	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TCH23316**	17	80	30	6	4.9	8	3	5
M7	× 1.0	**TCH23346**	17	80	30	7	5.5	8	3	6
M8	× 1.25	**TCH23366**	20	90	35	8	6.2	9	3	6.8
M9	× 1.25	**TCH23396**	20	90	35	9	7	10	3	7.8
M10	× 1.5	**TCH23426**	22	100	39	10	8	11	3	8.5
M11	× 1.5	**TCH23466**	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TCH23506**	24	110	44	9	7	10	4	10.2
M14	× 2.0	**TCH23546**	26	110	44	11	9	12	4	12
M16	× 2.0	**TCH23606**	27	110	44	12	9	12	4	14
M18	× 2.5	**TCH23656**	30	125	50	14	11	14	4	15.5
M20	× 2.5	**TCH23706**	32	140	54	16	12	15	4	17.5
M22	× 2.5	**TCH23746**	32	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TCH23786**	34	160	60	18	14.5	17	4	21
M27	× 3.0	**TCH23866**	36	160	60	20	16	19	4	24
M30	× 3.5	**TCH23946**	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP INOX

TB183 SERIES

MF — ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

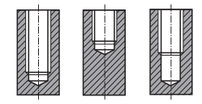
▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

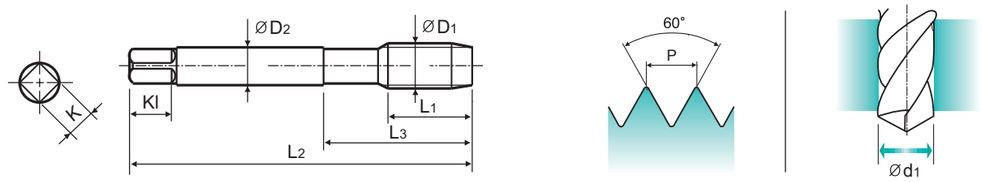
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

DIN 374



Hole type
2.5×D





Material groups: VA NW | HSS-E | DIN 374 | 6H | 60° | C | R40 | Vap

p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4	× 0.5	**TB183256**	5	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	**TB183296**	5	70	25	3.5	2.7	6	3	4.5
M6	× 0.75	**TB183326**	8	80	30	4.5	3.4	6	3	5.2
M6	× 0.5	**TB183336**	5	80	30	4.5	3.4	6	3	5.5
M7	× 0.75	**TB183356**	10	80	30	5.5	4.3	7	3	6.2
M8	× 1.0	**TB183376**	10	90	36	6	4.9	8	3	7
M8	× 0.75	**TB183386**	8	80	30	6	4.9	8	3	7.2
M10	× 1.25	**TB183436**	16	100	40	7	5.5	8	3	8.8
M10	× 1.0	**TB183446**	10	90	36	7	5.5	8	3	9
M10	× 0.75	**TB183456**	10	90	36	7	5.5	8	3	9.2
M12	× 1.5	**TB183516**	15	100	40	9	7	10	3	10.5
M12	× 1.25	**TB183526**	15	100	40	9	7	10	3	10.8
M12	× 1.0	**TB183536**	11	100	40	9	7	10	3	11
M14	× 1.5	**TB183556**	15	100	40	11	9	12	3	12.5
M14	× 1.25	**TB183566**	15	100	40	11	9	12	3	12.8
M16	× 1.5	**TB183616**	15	100	40	12	9	12	3	14.5
M18	× 1.5	**TB183676**	17	110	44	14	11	14	4	16.5
M20	× 1.5	**TB183726**	17	125	50	16	12	15	4	18.5
M22	× 1.5	**TB183766**	17	125	50	18	14.5	17	4	20.5
M24	× 1.5	**TB183806**	20	140	54	18	14.5	17	4	22.5

◎ : 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 TAP INOX

TB904 SERIES

UNC

Unified coarse threads

- Unified Grobgewinde
- UNC
- Unificato passo grosso

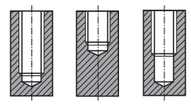
Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

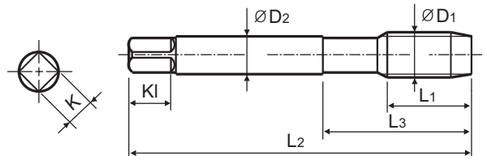
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

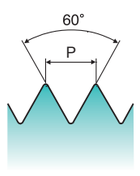
DIN 371

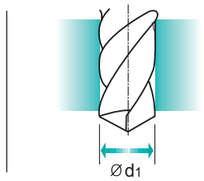
DIN 376



Hole type
2.5×D







Material groups: VA NW | HSS-E | DIN 371/376 | 2B | 60° | C | R40 | Vap

p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK; TAPPING CHUCK; ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 40UNC	TB904162	6	56	18	3.5	2.7	6	3	2.3
#5	- 40UNC	TB904202	7	56	18	3.5	2.7	6	3	2.6
#6	- 32UNC	TB904242	7	56	20	4	3	6	3	2.85
#8	- 32UNC	TB904282	8	63	21	4.5	3.4	6	3	3.5
#10	- 24UNC	TB904322	10	70	25	6	4.9	8	3	3.9
#12	- 24UNC	TB904362	10	80	30	6	4.9	8	3	4.5
1/4	- 20UNC	TB904402	13	80	30	7	5.5	8	3	5.2
5/16	- 18UNC	TB904442	14	90	35	8	6.2	9	3	6.6
3/8	- 16UNC	TB904482	16	100	39	9	7	10	3	8
7/16	- 14UNC	TB904522	17	100	40	8	6.2	9	3	9.4
1/2	- 13UNC	TB904562	20	110	44	9	7	10	3	10.75
9/16	- 12UNC	TB904602	20	110	44	11	9	12	3	12.25
5/8	- 11UNC	TB904642	22	110	44	12	9	12	3	13.5
3/4	- 10UNC	TB904702	25	125	50	14	11	14	4	16.5
7/8	- 9UNC	TB904742	27	140	54	18	14.5	17	4	19.5
1	- 8UNC	TB904782	30	160	60	20	16	19	4	22.25
1-1/8	- 7UNC	TB904822	35	180	65	22	18	21	4	25

▶ DIN 371(#4~3/8) and DIN 376(7/16~1-1/8)

◎ : Excellent ○ : Good

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

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

YG TAP INOX

TB924 SERIES

UNF

Unified fine threads

- Unified Feingewinde
- UNF
- Unificato passo fine

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

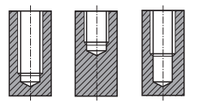
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

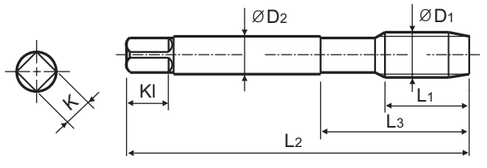
DIN 371

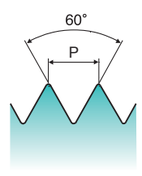
DIN 374

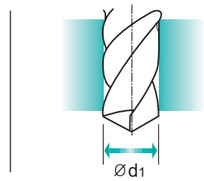


Hole type
2.5×D









Material groups: VA NW | HSS-E | DIN 371/374 | 2B | 60° | C | R40 | Vap

p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK; TAPPING CHUCK; ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 48UNF	TB924182	6	56	18	3.5	2.7	6	3	2.4
#5	- 44UNF	TB924222	7	56	18	3.5	2.7	6	3	2.7
#6	- 40UNF	TB924262	7	56	20	4	3	6	3	3
#8	- 36UNF	TB924302	8	63	21	4.5	3.4	6	3	3.5
#10	- 32UNF	TB924342	10	70	25	6	4.9	8	3	4.1
#12	- 28UNF	TB924382	10	80	30	6	4.9	8	3	4.7
1/4	- 28UNF	TB924422	10	80	30	7	5.5	8	3	5.5
5/16	- 24UNF	TB924462	10	90	35	8	6.2	9	3	6.9
3/8	- 24UNF	TB924502	10	100	39	9	7	10	3	8.5
7/16	- 20UNF	TB924542	13	100	40	8	6.2	9	3	9.9
1/2	- 20UNF	TB924582	13	100	40	9	7	10	3	11.5
9/16	- 18UNF	TB924622	15	100	40	11	9	12	3	12.9
5/8	- 18UNF	TB924662	15	100	40	12	9	12	3	14.5
3/4	- 16UNF	TB924722	17	110	44	14	11	14	4	17.5
7/8	- 14UNF	TB924762	17	125	50	18	14.5	17	4	20.5
1	- 12UNF	TB924802	20	140	54	18	14.5	17	4	23.25
1-1/8	- 12UNF	TB924842	22	150	60	22	18	21	4	26.5

▶ DIN 371(#4~3/8) and DIN 374(7/16~1-1/8)

◎ : Excellent ○ : Good

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

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

YG TAP INOX

TB123 SERIES

MF — ISO metric fine threads DIN 13

- Metrisches ISO-Feingewinde DIN 13
- ISO MÉTRIQUE PAS FINS DIN13
- ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

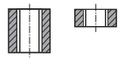
▶ Suitable for through hole in more cutting speed than other taps due to thick web.

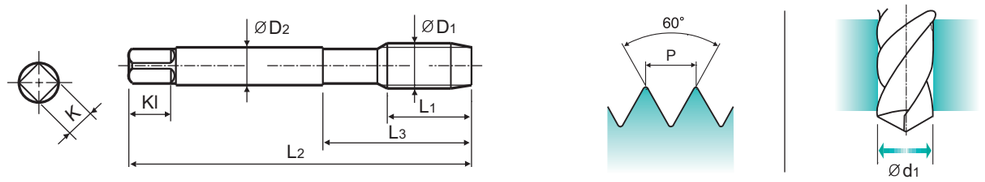
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

DIN 374



Hole type
3.0×D





Material groups: V A N W | HSS-E | DIN 374 | 6HX | 60° | B | Vap

p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK; TAPPING CHUCK; ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4	× 0.5	**TB123256**	10	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	**TB123296**	11	70	25	3.5	2.7	6	3	4.5
M6	× 0.75	**TB123326**	13	80	30	4.5	3.4	6	3	5.2
M6	× 0.5	**TB123336**	13	80	30	4.5	3.4	6	3	5.5
M7	× 0.75	**TB123356**	14	80	30	5.5	4.3	7	3	6.2
M8	× 1.0	**TB123376**	17	90	36	6	4.9	8	3	7
M8	× 0.75	**TB123386**	14	80	30	6	4.9	8	3	7.2
M10	× 1.25	**TB123436**	22	100	40	7	5.5	8	3	8.8
M10	× 1.0	**TB123446**	18	90	36	7	5.5	8	3	9
M10	× 0.75	**TB123456**	18	90	36	7	5.5	8	3	9.2
M12	× 1.5	**TB123516**	22	100	40	9	7	10	4	10.5
M12	× 1.25	**TB123526**	22	100	40	9	7	10	3	10.8
M12	× 1.0	**TB123536**	18	100	40	9	7	10	3	11
M14	× 1.5	**TB123556**	22	100	40	11	9	12	3	12.5
M14	× 1.25	**TB123566**	22	100	40	11	9	12	3	12.8
M16	× 1.5	**TB123616**	22	100	40	12	9	12	3	14.5
M18	× 1.5	**TB123676**	25	110	44	14	11	14	4	16.5
M20	× 1.5	**TB123726**	25	125	50	16	12	15	4	18.5
M22	× 1.5	**TB123766**	25	125	50	18	14.5	17	4	20.5
M24	× 1.5	**TB123806**	27	140	54	18	14.5	17	4	22.5

◎ : Excellent ○ : Good

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

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

YG TAP INOX

TB264 SERIES

UNC — Unified coarse threads

- Unified Grobgewinde
- UNC
- Unificato passo grosso

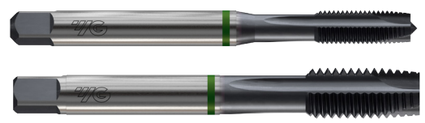
Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web.

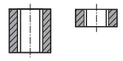
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

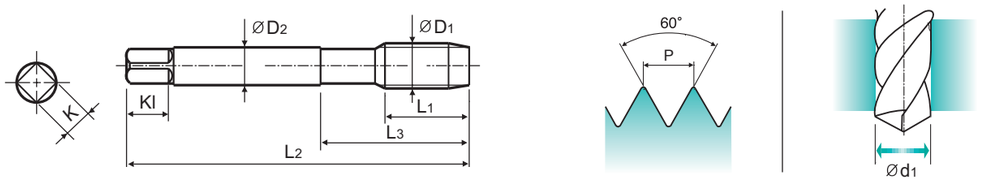
DIN 371

DIN 376



Hole type
3.0×D





Material groups: V A N W | HSS-E | DIN 371/376 | 2B | 60° | B | Vap

p.B193

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK; TAPPING CHUCK; ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 40UNC	**TB264162**	11	56	18	3.5	2.7	6	3	2.3
#5	- 40UNC	**TB264202**	11	56	18	3.5	2.7	6	3	2.6
#6	- 32UNC	**TB264242**	12	56	20	4	3	6	3	2.85
#8	- 32UNC	**TB264282**	13	63	21	4.5	3.4	6	3	3.5
#10	- 24UNC	**TB264322**	15	70	25	6	4.9	8	3	3.9
#12	- 24UNC	**TB264362**	16	80	30	6	4.9	8	3	4.5
1/4	- 20UNC	**TB264402**	17	80	30	7	5.5	8	3	5.2
5/16	- 18UNC	**TB264442**	20	90	35	8	6.2	9	3	6.6
3/8	- 16UNC	**TB264482**	22	100	39	9	7	10	3	8
7/16	- 14UNC	**TB264522**	22	100	44	8	6.2	9	3	9.4
1/2	- 13UNC	**TB264562**	25	110	44	9	7	10	3	10.75
9/16	- 12UNC	**TB264602**	26	110	44	11	9	12	3	12.25
5/8	- 11UNC	**TB264642**	27	110	44	12	9	12	3	13.5
3/4	- 10UNC	**TB264702**	30	125	50	14	11	14	4	16.5
7/8	- 9UNC	**TB264742**	32	140	54	18	14.5	17	4	19.5
1	- 8UNC	**TB264782**	36	160	60	20	16	17	4	22.25
1-1/8	- 7UNC	**TB264822**	40	180	70	22	18	21	4	25

▶ DIN 371(#4~3/8) and DIN 376(7/16~1-1/8)

◎ : Excellent ○ : Good

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

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

YG TAP INOX

TB274 SERIES

UNF Unified fine threads

Unified Feingewinde
UNF
Unificato passo fine

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web.

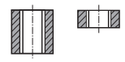
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

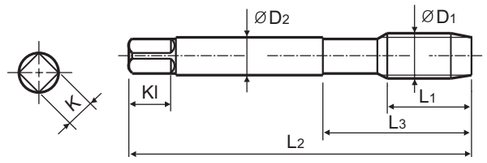
DIN 371

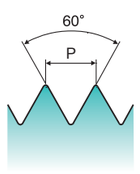
DIN 374

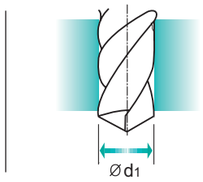


Hole type
3.0×D









Material groups VA NW | HSS-E | DIN 371/374 | 2B | 60° | B | Vap

p.B193

Recommended ToolHolder
Plain Shank
TAPPING ER CHUCK
TAPPING CHUCK
ONE STEP TAPPING CHUCK

Unit : mm

SIZE ØD1	TPI	EDP No. Vap	Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length Kl	No. of Flute Z	Tapping Drill Diameter Ød1
#4	48UNF	TB274182	11	56	18	3.5	2.7	6	3	2.4
#5	44UNF	TB274222	11	56	18	3.5	2.7	6	3	2.7
#6	40UNF	TB274262	12	56	20	4	3	6	3	3
#8	36UNF	TB274302	13	63	21	4.5	3.4	6	3	3.5
#10	32UNF	TB274342	15	70	25	6	4.9	8	3	4.1
#12	28UNF	TB274382	16	80	30	6	4.9	8	3	4.7
1/4	28UNF	TB274422	17	80	30	7	5.5	8	3	5.5
5/16	24UNF	TB274462	17	90	35	8	6.2	9	3	6.9
3/8	24UNF	TB274502	18	100	39	9	7	10	3	8.5
7/16	20UNF	TB274542	22	100	40	8	6.2	9	3	9.9
1/2	20UNF	TB274582	22	100	40	9	7	10	3	11.5
9/16	18UNF	TB274622	22	100	40	11	9	12	3	12.9
5/8	18UNF	TB274662	22	100	40	12	9	12	3	14.5
3/4	16UNF	TB274722	25	110	44	14	11	14	4	17.5
7/8	14UNF	TB274762	26	125	50	18	14.5	17	4	20.5
1	12UNF	TB274802	28	140	54	18	14.5	17	4	23.25
1-1/8	12UNF	TB274842	30	150	60	22	18	21	4	26.5

▶ DIN 371(#4~3/8) and DIN 374(7/16~1-1/8)

◎ : 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	◎	◎	○	○		○						◎	◎	◎						

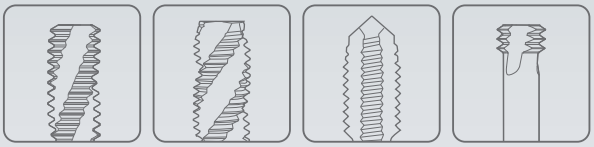
ISO	N										S							H		
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29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

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

ISO	VDI 3323	Material Description	HB	HRc	TB711	TQ813	TR813	TB914 TB183 TB904 TB924	TI914	TBE15	TBE16	TBE17	TBE18	TCH14	TQ853	TR853	TB623 TB123 TB264 TB274	TCH23
					Vc (m/min.)													
P	1	Non-alloy steel	125		15-20	15-20	15-20	15-20	20-25	15-20	15-20	15-20	15-20	20-25	15-20	15-20	15-20	20-25
	2		190	13	15-20	15-20	15-20	15-20	20-25	15-20	15-20	15-20	15-20	20-25	15-20	15-20	15-20	20-25
	3		250	25		12-18	12-18	12-18	18-24	12-18	12-18	12-18	12-18	18-24	12-18	12-18	12-18	18-24
	4		270	28		10-15	10-15	10-15	15-20	10-15	10-15	10-15	10-15	15-20	10-15	10-15	10-15	15-20
	6	Low alloy steel	180	10		10-15	10-15	10-15	15-20	10-15	10-15	10-15	10-15	15-20	10-15	10-15	10-15	15-20
M	12		200	15	7-10	7-10	7-10	7-10	10-13	7-10	7-10	7-10	7-10	10-13	7-10	7-10	7-10	10-13
	13	Stainless steel	240	23	5-8	5-8	5-8	5-8	8-11	5-8	5-8	5-8	5-8	8-11	5-8	5-8	5-8	8-11
	14		180	10	4-6	4-6	4-6	4-6	6-8	4-6	4-6	4-6	4-6	6-8	4-6	4-6	4-6	6-8
N	21	Aluminum-wrought alloy	60		10-15													
	28	Copper and Copper Alloys (Bronze / Brass)	100		15-20													
S	31	Heat Resistant Super Alloys	200	15		10-15	10-15	10-15	15-20	10-15	10-15	10-15	10-15	15-20	10-15	10-15	10-15	15-20
	36	Titanium Alloys	400Rm			10-15	10-15	10-15	15-20	10-15	10-15	10-15	10-15	15-20	10-15	10-15	10-15	15-20

Global Cutting Tool Leader **YG-1**



THREADING



Leading Through Innovation

SOLID CARBIDE & HSS-E

YG TAP CAST IRON

HSS YG Gewindebohrer Guss

- For Cast Iron or Similar Work Materials
- Für Gusseisen oder ähnliche Werkstoffe

SELECTION GUIDE

THREADING TOOLS

SOLID CARBIDE & HSS-E
YG TAP
CAST IRON

For Cast Iron or Similar Work Materials

HOLE TYPE			Max. 2.0xD Blind / Through Hole				
TOOL MATERIAL			CARBIDE	HSS-E			
CHAMFER LEAD ACC. TO DIN2197			C	C	C	C	C
FLUTE TYPE			Straight Flute	Straight Flute	Straight Flute	Straight Flute	Straight Flute
SPIRAL FLUTE ANGLE			-	-	-	-	-
SERIES	M	DIN371/376	T0993 (p.B197)	TE821 (p.B198)	TD821 (p.B199)	TI821 (p.B200)	TY821 (p.B201)
		DIN352					
		DIN357/LONG					
	MF	DIN374		TE403 (p.B202)			
		DIN2181					
	UNC	DIN371/376		TE434 (p.B203)			
		DIN351					
	UNF	DIN371/374		TE454 (p.B204)			
		DIN2181					
	BSW	DIN2182/2183					
		DIN351					
	G(BSP)	DIN5156/5157					
	EG-M	DIN371/376					
	EG-UNC	DIN371/376					
	EG-UNF	DIN371/374					
SURFACE TREATMENT			Bright	Nitride	TiN	TiCN	TiAlN
MODEL							

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B205

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc
P	1	Non-alloy steel	About 0.15% C	Annealed	125	
	2		About 0.45% C	Annealed	190	13
	3		About 0.45% C	Quenched & Tempered	250	25
	4		About 0.75% C	Annealed	270	28
	5		About 0.75% C	Quenched & Tempered	300	32
	6	Low alloy steel		Annealed	180	10
	7			Quenched & Tempered	275	29
	8			Quenched & Tempered	300	32
	9			Quenched & Tempered	350	38
	10	High alloyed steel, and tool steel		Annealed	200	15
	11			Quenched & Tempered	325	35
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15
	13		Martensitic	Quenched & Tempered	240	23
	14		Austenitic		180	10
K	15	Grey cast iron	Pearlitic / ferritic		180	10
	16		Pearlitic (Martensitic)		260	26
	17	Nodular cast iron	Ferritic		160	3
	18		Pearlitic		250	25
	19	Malleable cast iron	Ferritic		130	
	20		Pearlitic		230	21
N	21	Aluminum-wrought alloy	Not Curable		60	
	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
	32			Cured	280	30
	33		Ni or Co Based	Annealed	250	25
	34			Cured	350	38
	35			Cast	320	34
	36	Titanium Alloys	Pure Titanium		400 Rm	
	37		Alpha + Beta Alloys	Hardened	1050 Rm	
H	38	Hardened steel		Hardened	550	55
	39			Hardened	630	60
	40	Chilled Cast Iron		Cast	400	42
	41	Hardened Cast Iron		Hardened	550	55

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

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

YG TAP CAST IRON

T0993 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Carbide tap can increase tool life longer than HSS taps due to higher hardness. Suitable for cast iron and high silicon aluminiums.

▶ Der VHM-Gewindebohrer kann die Lebensdaüer gegenuber HSS-Gewindebohrern erhöhen dank der größeren Härte. Geeignet für Guss und Aluminium mit hohem Siliziumanteil

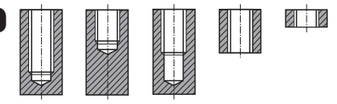
DIN 371

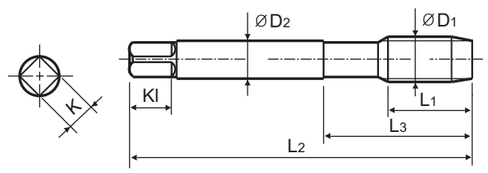


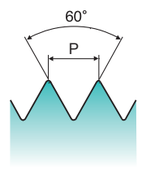
DIN 376

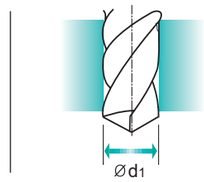


Hole type
2.0×D









Material groups **GG** | CARBIDE | DIN 371/376 | 6HX | 60° | C | Bright

p.B205

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK; TAPPING CHUCK; ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	×0.5	T0993206	11	56	18	3.5	2.7	6	3	2.5
M3.5	×0.6	T0993226	12	56	20	4	3	6	3	2.9
M4	×0.7	T0993246	13	63	21	4.5	3.4	6	3	3.3
M5	×0.8	T0993286	15	70	25	6	4.9	8	4	4.2
M6	×1.0	T0993316	17	80	30	6	4.9	8	4	5
M8	×1.25	T0993366	20	90	35	8	6.2	9	4	6.8
M10	×1.5	T0993426	22	100	39	10	8	11	4	8.5
M12	×1.75	T0993506	24	110	44	9	7	10	4	10.2
M14	×2.0	T0993546	26	110	44	11	9	12	4	12
M16	×2.0	T0993606	27	110	44	12	9	12	4	14
M18	×2.5	T0993656	30	125	50	14	11	14	4	15.5
M20	×2.5	T0993706	32	140	54	16	12	15	4	17.5

▶ DIN 371(M2~M10) and DIN 376(M11~M20)

◎ : Excellent ○ : Good

YG TAP CAST IRON

TE821 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping cast iron or similar work materials.

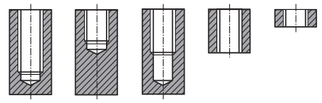
▶ Geeignet zum Gewindeschneiden von Guss oder ähnlichen Werkstoffen

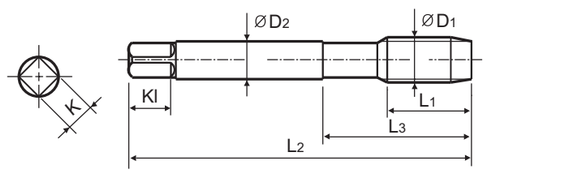
DIN 371

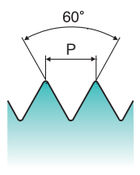
DIN 376

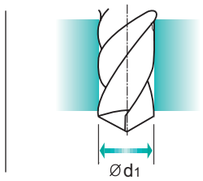


Hole type
2.0×D









Material groups **GG**

HSS-E | DIN 371/376 | 6HX | 60° | C | Nitride

p.B205

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK; TAPPING CHUCK; ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Ni	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	**TE821136**	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	**TE821156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	**TE821196**	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	**TE821176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	**TE821496**	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	**TE821206**	11	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	**TE821226**	12	56	20	4	3	6	3	2.9
M4 ×	0.7	**TE821246**	13	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	**TE821266**	14	70	25	6	4.9	8	3	3.7
M5 ×	0.8	**TE821286**	15	70	25	6	4.9	8	4	4.2
M6 ×	1.0	**TE821316**	17	80	30	6	4.9	8	4	5
M7 ×	1.0	**TE821346**	17	80	30	7	5.5	8	4	6
M8 ×	1.25	**TE821366**	20	90	35	8	6.2	9	4	6.8
M9 ×	1.25	**TE821396**	20	90	35	9	7	10	4	7.8
M10 ×	1.5	**TE821426**	22	100	39	10	8	11	4	8.5
M11 ×	1.5	**TE821466**	22	100	40	8	6.2	9	4	9.5
M12 ×	1.75	**TE821506**	24	110	44	9	7	10	4	10.2
M14 ×	2.0	**TE821546**	26	110	44	11	9	12	4	12
M16 ×	2.0	**TE821606**	27	110	44	12	9	12	4	14
M18 ×	2.5	**TE821656**	30	125	50	14	11	14	4	15.5
M20 ×	2.5	**TE821706**	32	140	54	16	12	15	4	17.5
M22 ×	2.5	**TE821746**	32	140	54	18	14.5	17	4	19.5
M24 ×	3.0	**TE821786**	34	160	60	18	14.5	17	4	21
M27 ×	3.0	**TE821866**	36	160	60	20	16	19	4	24
M30 ×	3.5	**TE821946**	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)

▶ * DIN profile not ISO

◎ : 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 TAP CAST IRON

TD821 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping cast iron or similar work materials.

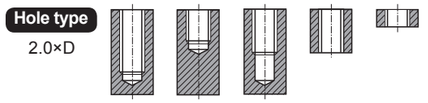
▶ Geeignet zum Gewindeschneiden von Guss oder ähnlichen Werkstoffen

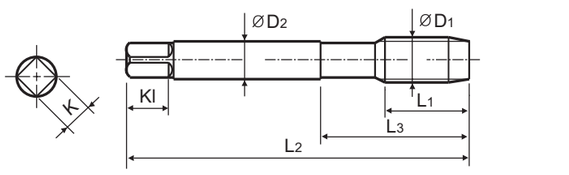
DIN 371

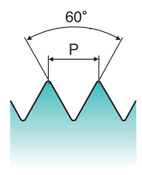
DIN 376

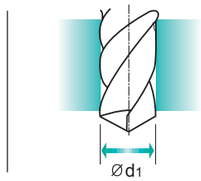


Hole type
2.0×D









Material groups **GG**

HSS-E | DIN 371/376 | 6HX | 60° | C | TiN

p.B205

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK; TAPPING CHUCK; ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	**TD821136**	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	**TD821156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	**TD821196**	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	**TD821176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	**TD821496**	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	**TD821206**	11	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	**TD821226**	12	56	20	4	3	6	3	2.9
M4 ×	0.7	**TD821246**	13	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	**TD821266**	14	70	25	6	4.9	8	3	3.7
M5 ×	0.8	**TD821286**	15	70	25	6	4.9	8	4	4.2
M6 ×	1.0	**TD821316**	17	80	30	6	4.9	8	4	5
M7 ×	1.0	**TD821346**	17	80	30	7	5.5	8	4	6
M8 ×	1.25	**TD821366**	20	90	35	8	6.2	9	4	6.8
M9 ×	1.25	**TD821396**	20	90	35	9	7	10	4	7.8
M10 ×	1.5	**TD821426**	22	100	39	10	8	11	4	8.5
M11 ×	1.5	**TD821466**	22	100	40	8	6.2	9	4	9.5
M12 ×	1.75	**TD821506**	24	110	44	9	7	10	4	10.2
M14 ×	2.0	**TD821546**	26	110	44	11	9	12	4	12
M16 ×	2.0	**TD821606**	27	110	44	12	9	12	4	14
M18 ×	2.5	**TD821656**	30	125	50	14	11	14	4	15.5
M20 ×	2.5	**TD821706**	32	140	54	16	12	15	4	17.5
M22 ×	2.5	**TD821746**	32	140	54	18	14.5	17	4	19.5
M24 ×	3.0	**TD821786**	34	160	60	18	14.5	17	4	21
M27 ×	3.0	**TD821866**	36	160	60	20	16	19	4	24
M30 ×	3.5	**TD821946**	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)

▶ * DIN profile not ISO

◎ : 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 TAP CAST IRON

TI821 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

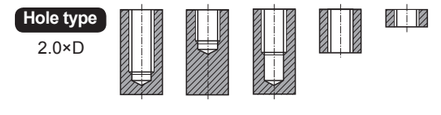
Machine taps
Maschinengewindebohrer

▶ Suitable for tapping cast iron or similar work materials.

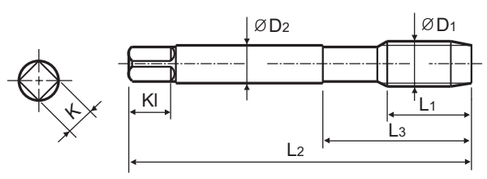
▶ Geeignet zum Gewindeschneiden von Guss oder ähnlichen Werkstoffen

DIN 371

DIN 376



Hole type
2.0×D



Material groups: GG | HSS-E | DIN 371/376 | 6HX | 60° | C | TiCN | p.B205

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiCN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	**TI821136**	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	**TI821156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	**TI821196**	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	**TI821176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	**TI821496**	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	**TI821206**	11	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	**TI821226**	12	56	20	4	3	6	3	2.9
M4 ×	0.7	**TI821246**	13	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	**TI821266**	14	70	25	6	4.9	8	3	3.7
M5 ×	0.8	**TI821286**	15	70	25	6	4.9	8	4	4.2
M6 ×	1.0	**TI821316**	17	80	30	6	4.9	8	4	5
M7 ×	1.0	**TI821346**	17	80	30	7	5.5	8	4	6
M8 ×	1.25	**TI821366**	20	90	35	8	6.2	9	4	6.8
M9 ×	1.25	**TI821396**	20	90	35	9	7	10	4	7.8
M10 ×	1.5	**TI821426**	22	100	39	10	8	11	4	8.5
M11 ×	1.5	**TI821466**	22	100	40	8	6.2	9	4	9.5
M12 ×	1.75	**TI821506**	24	110	44	9	7	10	4	10.2
M14 ×	2.0	**TI821546**	26	110	44	11	9	12	4	12
M16 ×	2.0	**TI821606**	27	110	44	12	9	12	4	14
M18 ×	2.5	**TI821656**	30	125	50	14	11	14	4	15.5
M20 ×	2.5	**TI821706**	32	140	54	16	12	15	4	17.5
M22 ×	2.5	**TI821746**	32	140	54	18	14.5	17	4	19.5
M24 ×	3.0	**TI821786**	34	160	60	18	14.5	17	4	21
M27 ×	3.0	**TI821866**	36	160	60	20	16	19	4	24
M30 ×	3.5	**TI821946**	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP CAST IRON

TY821 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping cast iron or similar work materials.

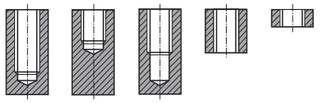
▶ Geeignet zum Gewindeschneiden von Guss oder ähnlichen Werkstoffen

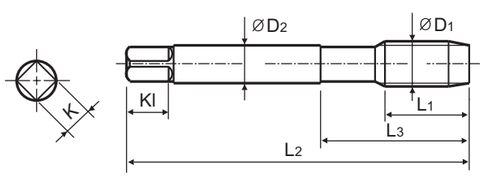
DIN 371

DIN 376



Hole type
2.0×D





Material groups: GG | HSS-E | DIN 371/376 | 6HX | 60° | C | TiAlN | p.B205

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiAlN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	**TY821136**	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	**TY821156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	**TY821196**	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	**TY821176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	**TY821496**	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	**TY821206**	11	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	**TY821226**	12	56	20	4	3	6	3	2.9
M4 ×	0.7	**TY821246**	13	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	**TY821266**	14	70	25	6	4.9	8	3	3.7
M5 ×	0.8	**TY821286**	15	70	25	6	4.9	8	4	4.2
M6 ×	1.0	**TY821316**	17	80	30	6	4.9	8	4	5
M7 ×	1.0	**TY821346**	17	80	30	7	5.5	8	4	6
M8 ×	1.25	**TY821366**	20	90	35	8	6.2	9	4	6.8
M9 ×	1.25	**TY821396**	20	90	35	9	7	10	4	7.8
M10 ×	1.5	**TY821426**	22	100	39	10	8	11	4	8.5
M11 ×	1.5	**TY821466**	22	100	40	8	6.2	9	4	9.5
M12 ×	1.75	**TY821506**	24	110	44	9	7	10	4	10.2
M14 ×	2.0	**TY821546**	26	110	44	11	9	12	4	12
M16 ×	2.0	**TY821606**	27	110	44	12	9	12	4	14
M18 ×	2.5	**TY821656**	30	125	50	14	11	14	4	15.5
M20 ×	2.5	**TY821706**	32	140	54	16	12	15	4	17.5
M22 ×	2.5	**TY821746**	32	140	54	18	14.5	17	4	19.5
M24 ×	3.0	**TY821786**	34	160	60	18	14.5	17	4	21
M27 ×	3.0	**TY821866**	36	160	60	20	16	19	4	24
M30 ×	3.5	**TY821946**	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP CAST IRON

TE403 SERIES

MF — ISO metric fine threads DIN 13

- Metrisches ISO-Feingewinde DIN 13
- ISO MÉTRIQUE PAS FINS DIN13
- ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

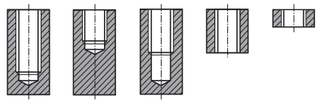
▶ Suitable for tapping cast iron or similar work materials due to nitriding.

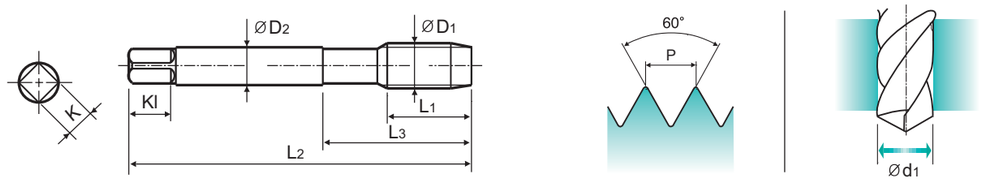
▶ Geeignet zum Gewindeschneiden von Guss oder ähnlichen Werkstoffen dank der Nitrierung

DIN 374



Hole type
2.0×D





Material groups: GG | HSS-E | DIN 374 | 6HX | 60° | C | Nitride

p.B205

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Ni	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4	× 0.5	TE403256	10	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	TE403296	11	70	25	3.5	2.7	6	4	4.5
M6	× 0.75	TE403326	13	80	30	4.5	3.4	6	4	5.2
M6	× 0.5	TE403336	13	80	30	4.5	3.4	6	4	5.5
M7	× 0.75	TE403356	14	80	30	5.5	4.3	7	4	6.2
M8	× 1.0	TE403376	17	90	36	6	4.9	8	4	7
M8	× 0.75	TE403386	14	80	30	6	4.9	8	4	7.2
M10	× 1.25	TE403436	22	100	40	7	5.5	8	4	8.8
M10	× 1.0	TE403446	18	90	36	7	5.5	8	4	9
M10	× 0.75	TE403456	18	90	36	7	5.5	8	4	9.2
M12	× 1.5	TE403516	22	100	40	9	7	10	4	10.5
M12	× 1.25	TE403526	22	100	40	9	7	10	4	10.8
M12	× 1.0	TE403536	18	100	40	9	7	10	4	11
M14	× 1.5	TE403556	22	100	40	11	9	12	4	12.5
M14	× 1.25	TE403566	22	100	40	11	9	12	4	12.8
M16	× 1.5	TE403616	22	100	40	12	9	12	4	14.5
M18	× 1.5	TE403676	25	110	44	14	11	14	4	16.5
M20	× 1.5	TE403726	25	125	50	16	12	15	4	18.5
M22	× 1.5	TE403766	25	125	50	18	14.5	17	4	20.5
M24	× 1.5	TE403806	27	140	54	18	14.5	17	4	22.5

◎ : Excellent ○ : Good

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

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

YG TAP CAST IRON

TE434 SERIES

UNC — Unified coarse threads

- Unified Grobgewinde
- UNC
- Unificato passo grosso

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping cast iron or similar work materials due to nitriding.

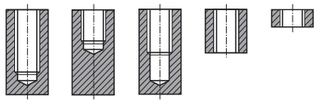
▶ Geeignet zum Gewindeschneiden von Guss oder ähnlichen Werkstoffen dank der Nitrierung

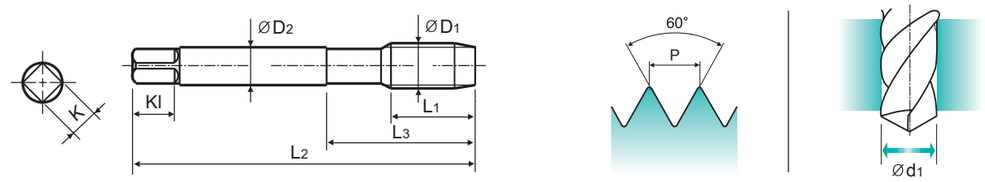
DIN 371

DIN 376



Hole type
2.0×D





Material groups: GG | HSS-E | DIN 371/376 | 2BX | 60° | C | Nitride

p.B205

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Ni	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 40UNC	TE434162	11	56	18	3.5	2.7	6	3	2.3
#5	- 40UNC	TE434202	11	56	18	3.5	2.7	6	3	2.6
#6	- 32UNC	TE434242	12	56	20	4	3	6	3	2.85
#8	- 32UNC	TE434282	13	63	21	4.5	3.4	6	3	3.5
#10	- 24UNC	TE434322	15	70	25	6	4.9	8	3	3.9
#12	- 24UNC	TE434362	16	80	30	6	4.9	8	3	4.5
1/4	- 20UNC	TE434402	17	80	30	7	5.5	8	4	5.2
5/16	- 18UNC	TE434442	20	90	35	8	6.2	9	4	6.6
3/8	- 16UNC	TE434482	22	100	39	9	7	10	4	8
7/16	- 14UNC	TE434522	22	100	40	8	6.2	9	4	9.4
1/2	- 13UNC	TE434562	25	110	44	9	7	10	4	10.75
9/16	- 12UNC	TE434602	26	110	44	11	9	12	4	12.25
5/8	- 11UNC	TE434642	27	110	44	12	9	12	4	13.5
3/4	- 10UNC	TE434702	30	125	50	14	11	14	4	16.5
7/8	- 9UNC	TE434742	32	140	54	18	14.5	17	4	19.5
1	- 8UNC	TE434782	36	160	60	20	16	17	4	22.25
1-1/8	- 7UNC	TE434822	40	180	70	22	18	21	4	25

▶ DIN 371(#4~3/8) and DIN 376(7/16~1-1/8)

◎ : Excellent ○ : Good

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

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

YG TAP CAST IRON

TE454 SERIES

UNF Unified fine threads

Unified Feingewinde
UNF
Unificato passo fine

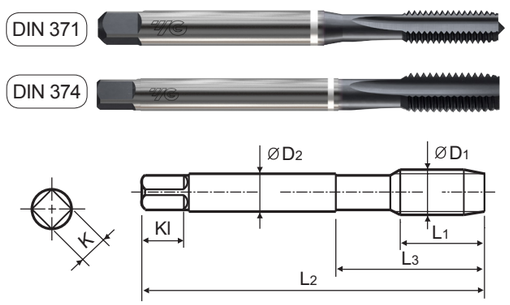
Machine taps
Maschinengewindebohrer

▶ Suitable for tapping cast iron or similar work materials due to nitriding.

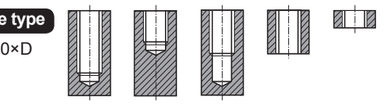
▶ Geeignet zum Gewindeschneiden von Guss oder ähnlichen Werkstoffen dank der Nitrierung

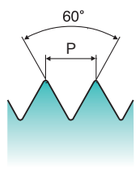
DIN 371

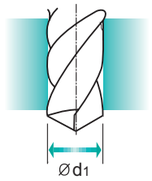
DIN 374



Hole type
2.0×D







Material groups **GG**

HSS-E | DIN 371/374 | 2BX | 60° | C | Nitride

p.B205

Recommended ToolHolder: Plain Shank / TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE ØD1	TPI	EDP No. Ni	Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length Kl	No. of Flute Z	Tapping Drill Diameter Ød1
#4	48UNF	**TE454182**	11	56	18	3.5	2.7	6	3	2.4
#5	44UNF	**TE454222**	11	56	18	3.5	2.7	6	3	2.7
#6	40UNF	**TE454262**	12	56	20	4	3	6	3	3
#8	36UNF	**TE454302**	13	63	21	4.5	3.4	6	3	3.5
#10	32UNF	**TE454342**	15	70	25	6	4.9	8	3	4.1
#12	28UNF	**TE454382**	16	80	30	6	4.9	8	4	4.7
1/4	28UNF	**TE454422**	17	80	30	7	5.5	8	4	5.5
5/16	24UNF	**TE454462**	17	90	35	8	6.2	9	4	6.9
3/8	24UNF	**TE454502**	18	100	39	9	7	10	4	8.5
7/16	20UNF	**TE454542**	22	100	40	8	6.2	9	4	9.9
1/2	20UNF	**TE454582**	22	100	40	9	7	10	4	11.5
9/16	18UNF	**TE454622**	22	100	40	11	9	12	4	12.9
5/8	18UNF	**TE454662**	22	100	40	12	9	12	4	14.5
3/4	16UNF	**TE454722**	25	110	44	14	11	14	4	17.5
7/8	14UNF	**TE454762**	26	125	50	18	14.5	17	4	20.5
1	12UNF	**TE454802**	28	140	54	18	14.5	17	4	23.25
1-1/8	12UNF	**TE454842**	30	150	60	22	18	21	4	26.5

▶ DIN 371(#4~3/8) and DIN 374(7/16~1-1/8)

◎ : 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															◎	◎	◎	◎	○	○

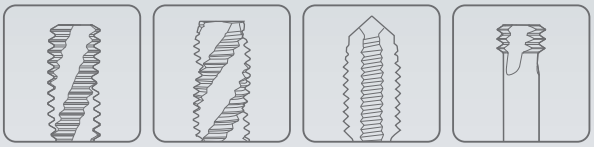
ISO	N										S							H		
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	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 TAP CAST IRON

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

ISO	VDI 3323	Material Description	HB	HRc	T0993	TE821 TE403 TE434 TE454	TD821	TI821	TY821
					Vc (m/min.)				
K	15	Grey cast iron	180	10	10-15	10-15	15-20	15-20	15-20
	16		260	26	5-8	5-8	8-11	8-11	8-11
	17	Nodular cast iron	160	3	10-15	10-15	15-20	15-20	15-20
	18		250	25	5-8	5-8	8-11	8-11	8-11
	19	Malleable cast iron	130		10-15	10-15	15-20	15-20	15-20
	20		230	21	5-8	5-8	8-11	8-11	8-11
N	23	Aluminum-cast, alloyed	75		15-20				
	25		130		10-15				
	27	Copper and Copper Alloys (Bronze / Brass)	90			8-12	12-16	12-16	12-16
H	40	Chilled Cast Iron	400	42	3-5				

Global Cutting Tool Leader **YG-1**



THREADING



Leading Through Innovation

SOLID CARBIDE & HSS-E

YG TAP HARDENED

YG GEWINDEBOHRER FÜR GEHÄRTET

- **For Hardened Steels Applications to Control the Continuous and Red-glowing Chips**
- **Für gehärtete Stähle zur Kontrolle der kontinuierlichen und rotglühenden Späne**

SELECTION GUIDE

YG THREADING TOOLS

SOLID CARBIDE & HSS-E
YG TAP HARDENED

For Hardened Steels Applications
to Control the Continuous and Red-glowing Chips

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B217

HOLE TYPE			Max. 2.0xD Blind / Through Hole	
TOOL MATERIAL			CARBIDE	
CHAMFER LEAD ACC. TO DIN2197			C	D
FLUTE TYPE			Straight Flute	Straight Flute
SPIRAL FLUTE ANGLE			-	-
	M	DIN371/376	T0997-TIC (p.B210)	T0999-TIC (p.B211)
		DIN352		
		DIN357/LONG		
	MF	DIN—374		
		DIN2181		
	UNC	DIN371/376		
		DIN351		
	UNF	DIN371/374		
		DIN2181		
	BSW	DIN2182/2183		
		DIN351		
	G(BSP)	DIN5156/5157		
	EG-M	DIN371/376		
	EG-UNC	DIN371/376		
	EG-UNF	DIN371/374		
SURFACE TREATMENT			TiCN	TiCN
MODEL				

	ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc		
P		1	Non-alloy steel	About 0.15% C	Annealed	125			
		2		About 0.45% C	Annealed	190	13		
		3		About 0.45% C	Quenched & Tempered	250	25		
		4		About 0.75% C	Annealed	270	28		
		5		About 0.75% C	Quenched & Tempered	300	32		
		6	Low alloy steel		Annealed	180	10		
		7			Quenched & Tempered	275	29	○	○
		8			Quenched & Tempered	300	32	○	○
		9			Quenched & Tempered	350	38	◎	◎
		10	High alloyed steel, and tool steel		Annealed	200	15		
		11			Quenched & Tempered	325	35		
M		12	Stainless steel	Ferritic / Martensitic	Annealed	200	15		
		13		Martensitic	Quenched & Tempered	240	23		
		14		Austenitic		180	10	○	○
K		15	Grey cast iron	Pearlitic / ferritic		180	10		
		16		Pearlitic (Martensitic)		260	26		
		17	Nodular cast iron	Ferritic		160	3		
		18		Pearlitic		250	25		
		19	Malleable cast iron	Ferritic		130			
		20		Pearlitic		230	21		
N		21	Aluminum-wrought alloy	Not Curable		60			
		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		
		32			Cured	280	30		
		33		Ni or Co Based	Annealed	250	25		
		34			Cured	350	38		
		35			Cast	320	34		
		36	Titanium Alloys	Pure Titanium		400 Rm			
		37		Alpha + Beta Alloys	Hardened	1050 Rm			
H		38	Hardened steel		Hardened	550	55	◎	◎
		39			Hardened	630	60	◎	◎
		40	Chilled Cast Iron		Cast	400	42	◎	◎
		41	Hardened Cast Iron		Hardened	550	55	◎	◎

	Max. 2.5xD Blind Hole			Max. 3.0xD Through Hole	
	HSS-E			HSS-E	
C	C	C	B	B	
Spiral Flute	Spiral Flute	Spiral Flute	Spiral Point	Spiral Point	
R40	R40	R40	-	-	
TC313 (p.B212)	TB313 (p.B213)	TY313 (p.B214)	TC283 (p.B215)	TY283 (p.B216)	M
					MF
					UNC
					UNF
					BSW
					G(BSP)
					EG-M
					EG-UNC
					EG-UNF
Bright	VAP	TiAlN	Bright	TiAlN	
					
					1
					2
					3
					4
					5
					6 P
○	○	○	○	○	7
○	○	○	○	○	8
◎	◎	◎	◎	◎	9
					10
					11
					12
					13 M
○	○	○	○	○	14
					15
					16
					17
					18 K
					19
					20
					21
					22
					23
					24
					25
○	○	○	○	○	26 N
					27
					28
					29
					30
					31
					32
					33
					34 S
					35
					36
					37
					38
					39
					40 H
					41

YG TAP HARDENED

T0997-TIC SERIES

M ISO metric coarse threads DIN 13

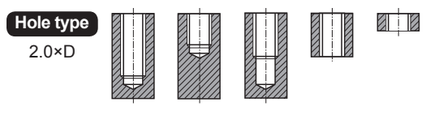
Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

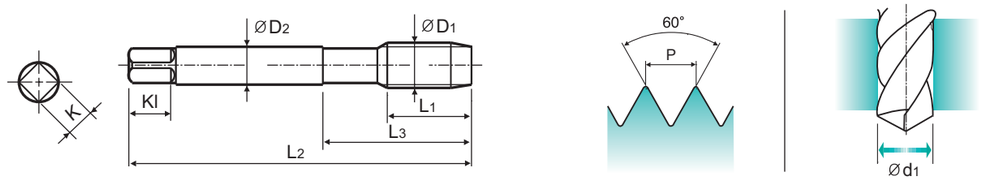
▶ Carbide tap can increase tool life longer than HSS taps due to higher hardness. Suitable for hardened steels (HRc50~60)

▶ VHM-Gewindebohrer ermöglichen aufgrund ihrer höheren Härte bessere Standzeiten als HSS-Gewindebohrer. Geeignet für gehärtete Stähle (HRc50~60)

DIN 371

DIN 376





Material groups **HR** | CARBIDE | DIN 371/376 | 6HX | 60° | C | TiCN | p.B217

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiCN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	× 0.5	T0997206TIC	11	56	18	3.5	2.7	6	4	2.55
M4	× 0.7	T0997246TIC	13	63	21	4.5	3.4	6	4	3.4
M5	× 0.8	T0997286TIC	15	70	25	6	4.9	8	4	4.3
M6	× 1.0	T0997316TIC	17	80	30	6	4.9	8	5	5.1
M8	× 1.25	T0997366TIC	20	90	35	8	6.2	9	5	6.9
M10	× 1.5	T0997426TIC	22	100	39	10	8	11	5	8.6
M12	× 1.75	T0997506TIC	24	110	–	9	7	12	5	10.4
M14	× 2.0	T0997546TIC	26	110	–	11	9	12	6	12.2
M16	× 2.0	T0997606TIC	27	110	–	12	9	12	6	14.2
M18	× 2.5	T0997656TIC	30	125	–	14	11	14	6	15.7
M20	× 2.5	T0997706TIC	32	140	–	16	12	15	6	17.7

▶ DIN 371(M3~M10) and DIN 376(M12~M20)

◎ : 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																		◎	◎	◎	◎

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

YG TAP HARDENED

T0999-TIC SERIES

M ISO metric coarse threads DIN 13

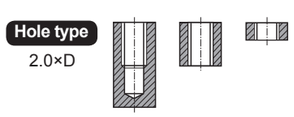
Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

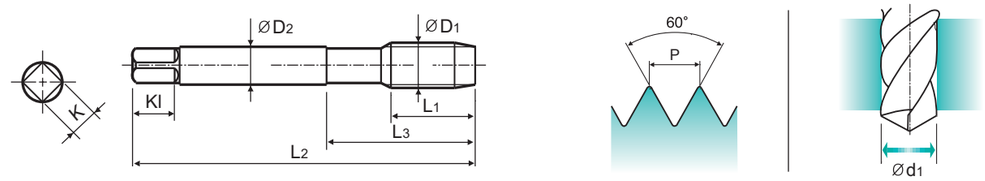
▶ Carbide tap can increase tool life longer than HSS taps due to higher hardness. Suitable for hardened steels (HRc50~60)

▶ VHM-Gewindebohrer ermöglichen aufgrund ihrer höheren Härte bessere Standzeiten als HSS-Gewindebohrer. Geeignet für gehärtete Stähle (HRc50~60)

DIN 371

DIN 376





Material groups **HR** | CARBIDE | DIN 371/376 | 6HX | 60° | D | TiCN | p.B217

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiCN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	× 0.5	T0999206TIC	11	56	18	3.5	2.7	6	4	2.55
M4	× 0.7	T0999246TIC	13	63	21	4.5	3.4	6	4	3.4
M5	× 0.8	T0999286TIC	15	70	25	6	4.9	8	4	4.3
M6	× 1.0	T0999316TIC	17	80	30	6	4.9	8	5	5.1
M8	× 1.25	T0999366TIC	20	90	35	8	6.2	9	5	6.9
M10	× 1.5	T0999426TIC	22	100	39	10	8	11	5	8.6
M12	× 1.75	T0999506TIC	24	110	–	9	7	12	5	10.4
M14	× 2.0	T0999546TIC	26	110	–	11	9	12	6	12.2
M16	× 2.0	T0999606TIC	27	110	–	12	9	12	6	14.2
M18	× 2.5	T0999656TIC	30	125	–	14	11	14	6	15.7
M20	× 2.5	T0999706TIC	32	140	–	16	12	15	6	17.7

▶ DIN 371(M3~M10) and DIN 376(M12~M20)

◎ : 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 TAP HARDENED

TC313 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

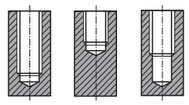
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

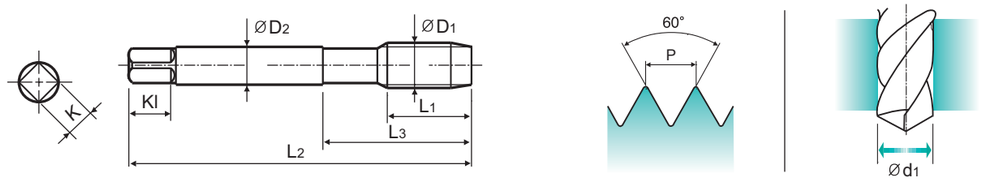
DIN 371

DIN 376



Hole type
2.5×D





Material groups **HR** | HSS-E | DIN 371/376 | 6H | 60° | C | R40 | Bright | p.B217

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TC313136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TC313156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	**TC313196**	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	**TC313176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	**TC313496**	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	**TC313206**	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TC313226**	7	56	20	4	3	6	3	2.9
M4	× 0.7	**TC313246**	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TC313266**	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TC313286**	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TC313316**	10	80	30	6	4.9	8	3	5
M7	× 1.0	**TC313346**	10	80	30	7	5.5	8	3	6
M8	× 1.25	**TC313366**	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	**TC313396**	13	90	35	9	7	10	3	7.8
M10	× 1.5	**TC313426**	15	100	39	10	8	11	3	8.5
M11	× 1.5	**TC313466**	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TC313506**	18	110	44	9	7	10	3	10.2
M14	× 2.0	**TC313546**	20	110	44	11	9	12	3	12
M16	× 2.0	**TC313606**	20	110	44	12	9	12	3	14
M18	× 2.5	**TC313656**	25	125	50	14	11	14	4	15.5
M20	× 2.5	**TC313706**	25	140	54	16	12	15	4	17.5
M22	× 2.5	**TC313746**	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TC313786**	30	160	60	18	14.5	17	4	21
M27	× 3.0	**TC313866**	30	160	60	20	16	19	4	24
M30	× 3.5	**TC313946**	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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						○															

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

YG TAP HARDENED

TB313 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

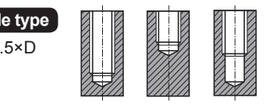
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

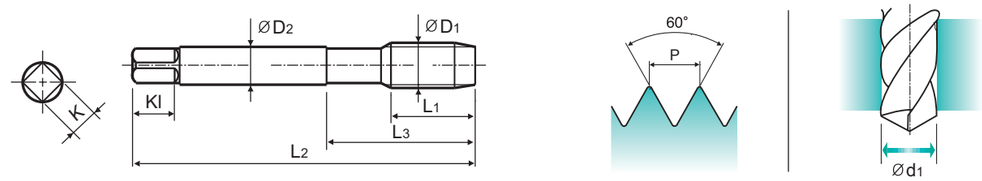
DIN 371

DIN 376



Hole type
2.5×D





Material groups **HR** | HSS-E | DIN 371/376 | 6H | 60° | C | R40 | Vap | p.B217

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TB313136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TB313156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	**TB313196**	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	**TB313176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	**TB313496**	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	**TB313206**	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TB313226**	7	56	20	4	3	6	3	2.9
M4	× 0.7	**TB313246**	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TB313266**	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TB313286**	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TB313316**	10	80	30	6	4.9	8	3	5
M7	× 1.0	**TB313346**	10	80	30	7	5.5	8	3	6
M8	× 1.25	**TB313366**	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	**TB313396**	13	90	35	9	7	10	3	7.8
M10	× 1.5	**TB313426**	15	100	39	10	8	11	3	8.5
M11	× 1.5	**TB313466**	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TB313506**	18	110	44	9	7	10	3	10.2
M14	× 2.0	**TB313546**	20	110	44	11	9	12	3	12
M16	× 2.0	**TB313606**	20	110	44	12	9	12	3	14
M18	× 2.5	**TB313656**	25	125	50	14	11	14	4	15.5
M20	× 2.5	**TB313706**	25	140	54	16	12	15	4	17.5
M22	× 2.5	**TB313746**	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TB313786**	30	160	60	18	14.5	17	4	21
M27	× 3.0	**TB313866**	30	160	60	20	16	19	4	24
M30	× 3.5	**TB313946**	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP HARDENED

TY313 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

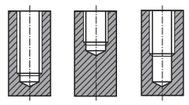
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

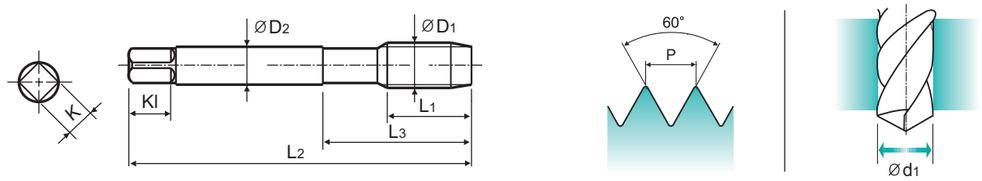
DIN 371

DIN 376



Hole type
2.5×D





Material groups: HR | HSS-E | DIN 371/376 | 6H | 60° | C | R40 | TiAlN

p.B217

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiAlN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 × 0.4		**TY313136**	8	45	13	2.8	2.1	5	3	1.6
M2.2 × 0.45		**TY313156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3 × 0.4		**TY313196**	8	45	13	2.8	2.1	5	3	1.9
M2.5 × 0.45		**TY313176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6 × 0.45		**TY313496**	9	50	15	2.8	2.1	5	3	2.1
M3 × 0.5		**TY313206**	6	56	18	3.5	2.7	6	3	2.5
M3.5 × 0.6		**TY313226**	7	56	20	4	3	6	3	2.9
M4 × 0.7		**TY313246**	7	63	21	4.5	3.4	6	3	3.3
M4.5 × 0.75		**TY313266**	8	70	25	6	4.9	8	3	3.7
M5 × 0.8		**TY313286**	8	70	25	6	4.9	8	3	4.2
M6 × 1.0		**TY313316**	10	80	30	6	4.9	8	3	5
M7 × 1.0		**TY313346**	10	80	30	7	5.5	8	3	6
M8 × 1.25		**TY313366**	13	90	35	8	6.2	9	3	6.8
M9 × 1.25		**TY313396**	13	90	35	9	7	10	3	7.8
M10 × 1.5		**TY313426**	15	100	39	10	8	11	3	8.5
M11 × 1.5		**TY313466**	17	100	40	8	6.2	9	3	9.5
M12 × 1.75		**TY313506**	18	110	44	9	7	10	3	10.2
M14 × 2.0		**TY313546**	20	110	44	11	9	12	3	12
M16 × 2.0		**TY313606**	20	110	44	12	9	12	3	14
M18 × 2.5		**TY313656**	25	125	50	14	11	14	4	15.5
M20 × 2.5		**TY313706**	25	140	54	16	12	15	4	17.5
M22 × 2.5		**TY313746**	25	140	54	18	14.5	17	4	19.5
M24 × 3.0		**TY313786**	30	160	60	18	14.5	17	4	21
M27 × 3.0		**TY313866**	30	160	60	20	16	19	4	24
M30 × 3.5		**TY313946**	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP HARDENED

TC283 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web.

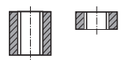
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

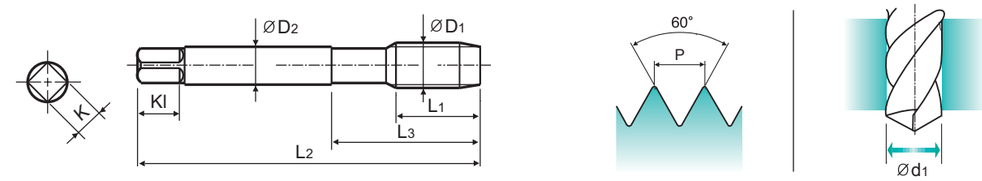
DIN 371

DIN 376



Hole type
3.0×D





Material groups: HR | HSS-E | DIN 371/376 | 6H | 60° | B | Bright

p.B217

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 × 0.4		**TC283136**	8	45	13	2.8	2.1	5	3	1.6
M2.2 × 0.45		**TC283156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3 × 0.4		**TC283196**	8	45	13	2.8	2.1	5	3	1.9
M2.5 × 0.45		**TC283176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6 × 0.45		**TC283496**	9	50	15	2.8	2.1	5	3	2.1
M3 × 0.5		**TC283206**	11	56	18	3.5	2.7	6	3	2.5
M3.5 × 0.6		**TC283226**	12	56	20	4	3	6	3	2.9
M4 × 0.7		**TC283246**	13	63	21	4.5	3.4	6	3	3.3
M4.5 × 0.75		**TC283266**	14	70	25	6	4.9	8	3	3.7
M5 × 0.8		**TC283286**	15	70	25	6	4.9	8	3	4.2
M6 × 1.0		**TC283316**	17	80	30	6	4.9	8	3	5
M7 × 1.0		**TC283346**	17	80	30	7	5.5	8	3	6
M8 × 1.25		**TC283366**	20	90	35	8	6.2	9	3	6.8
M9 × 1.25		**TC283396**	20	90	35	9	7	10	3	7.8
M10 × 1.5		**TC283426**	22	100	39	10	8	11	3	8.5
M11 × 1.5		**TC283466**	22	100	40	8	6.2	9	3	9.5
M12 × 1.75		**TC283506**	24	110	44	9	7	10	3	10.2
M14 × 2.0		**TC283546**	26	110	44	11	9	12	3	12
M16 × 2.0		**TC283606**	27	110	44	12	9	12	3	14
M18 × 2.5		**TC283656**	30	125	50	14	11	14	4	15.5
M20 × 2.5		**TC283706**	32	140	54	16	12	15	4	17.5
M22 × 2.5		**TC283746**	32	140	54	18	14.5	17	4	19.5
M24 × 3.0		**TC283786**	34	160	60	18	14.5	17	4	21
M27 × 3.0		**TC283866**	36	160	60	20	16	19	4	24
M30 × 3.5		**TC283946**	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP HARDENED

TY283 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web.

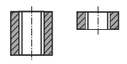
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

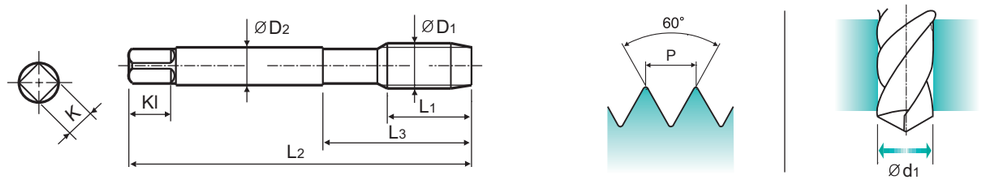
DIN 371

DIN 376



Hole type
3.0×D





Material groups **HR** | HSS-E | DIN 371/376 | 6H | 60° | B | TiAlN

p.B217

Recommended ToolHolder: Plain Shank; TAPPING ER CHUCK; TAPPING CHUCK; ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiAlN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TY283136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TY283156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	**TY283196**	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	**TY283176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	**TY283496**	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	**TY283206**	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TY283226**	12	56	20	4	3	6	3	2.9
M4	× 0.7	**TY283246**	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TY283266**	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TY283286**	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TY283316**	17	80	30	6	4.9	8	3	5
M7	× 1.0	**TY283346**	17	80	30	7	5.5	8	3	6
M8	× 1.25	**TY283366**	20	90	35	8	6.2	9	3	6.8
M9	× 1.25	**TY283396**	20	90	35	9	7	10	3	7.8
M10	× 1.5	**TY283426**	22	100	39	10	8	11	3	8.5
M11	× 1.5	**TY283466**	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TY283506**	24	110	44	9	7	10	3	10.2
M14	× 2.0	**TY283546**	26	110	44	11	9	12	3	12
M16	× 2.0	**TY283606**	27	110	44	12	9	12	3	14
M18	× 2.5	**TY283656**	30	125	50	14	11	14	4	15.5
M20	× 2.5	**TY283706**	32	140	54	16	12	15	4	17.5
M22	× 2.5	**TY283746**	32	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TY283786**	34	160	60	18	14.5	17	4	21
M27	× 3.0	**TY283866**	36	160	60	20	16	19	4	24
M30	× 3.5	**TY283946**	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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							○	○	◎					○						

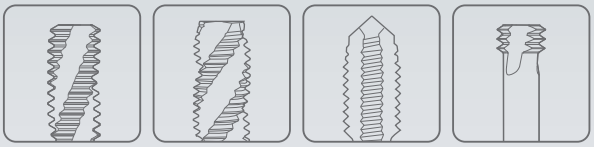
ISO	N										S							H		
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29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

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

					T0997-TIC	T0999-TIC	TC313 TB313 TY313	TC283 TY283
ISO	VDI 3323	Material Description	HB	HRc	Vc (m/min.)			
P	7	Non-alloy steel	275	29			10-15	10-15
	8		300	32			6-10	6-10
	9		350	38	5-8	5-8	3-5	3-5
M	14	Stainless steel	180	10			4-6	4-6
N	26	Copper and Copper Alloys (Bronze / Brass)	110				25-35	25-35
H	38	Hardened steel	550	55	3-7	3-7		
	39		630	60	3-7	3-7		
	40	Chilled Cast Iron	400	42	3-7	3-7		
	41	Hardened Cast Iron	550	55	3-7	3-7		

Global Cutting Tool Leader **YG-1**



THREADING



Leading Through Innovation

HSS-PM

YG TAP Ti Ni

YG Gewindebohrer Titan / Superlegierungen

- For Heat Resistent Super Alloys and Titanium Alloys Applied with Cutting Edge Rake Angles and Thread Relief
- Für hitzebeständige Superlegierungen und Titanlegierungen, mit Schneidkanten-Spanwinkeln und Gewindehinterschliff

SELECTION GUIDE

YG THREADING TOOLS

HSS-PM
YG TAP
Ti Ni

For Heat Resistent Super Alloys and Titanium Alloys
Applied with Cutting Edge Rake Angles and Thread Relief

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B234

			Max. 2.5xD Blind Hole	Max. 3.0xD Through Hole	Max. 2.5xD Blind Hole	Max. 3.0xD Through Hole
HOLE TYPE						
TOOL MATERIAL			HSS-PM			
CHAMFER LEAD ACC. TO DIN2197			C	C	B	B
FLUTE TYPE			Spiral Flute	Spiral Flute	Spiral Point	Spiral Point
SPIRAL FLUTE ANGLE			R25	R25	-	-
SERIES	M	DIN371/376	TM903 (p.B222)	TZ903 (p.B223)	TM293 (p.B224)	TZ293 (p.B225)
		DIN352				
		DIN357/LONG				
	MF	DIN374				
		DIN2181				
	UNC	DIN371/376				
		DIN351				
	UNF	DIN371/374				
		DIN2181				
	BSW	DIN2182/2183				
		DIN351				
	G(BSP)	DIN5156/5157				
	EG-M	DIN371/376				
	EG-UNC	DIN371/376				
	EG-UNF	DIN371/374				
SURFACE TREATMENT			Bright	TiAlN	Bright	TiAlN
MODEL						

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc				
P	1	Non-alloy steel	About 0.15% C	Annealed	125					
	2		About 0.45% C	Annealed	190	13				
	3		About 0.45% C	Quenched & Tempered	250	25				
	4		About 0.75% C	Annealed	270	28				
	5		About 0.75% C	Quenched & Tempered	300	32				
	6	Low alloy steel		Annealed	180	10				
	7			Quenched & Tempered	275	29	○	○	○	○
	8			Quenched & Tempered	300	32	○	○	○	○
	9			Quenched & Tempered	350	38	○	○	○	○
	10	High alloyed steel, and tool steel		Annealed	200	15				
	11			Quenched & Tempered	325	35				
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15				
	13		Martensitic	Quenched & Tempered	240	23				
	14		Austenitic		180	10				
K	15	Grey cast iron	Pearlitic / ferritic		180	10				
	16		Pearlitic (Martensitic)		260	26				
	17	Nodular cast iron	Ferritic		160	3				
	18		Pearlitic		250	25				
	19	Malleable cast iron	Ferritic		130					
	20		Pearlitic		230	21				
N	21	Aluminum-wrought alloy	Not Curable		60					
	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	○	○	○	○
	32			Cured	280	30			○	○
	33		Ni or Co Based	Annealed	250	25			○	○
	34			Cured	350	38			○	○
	35			Cast	320	34			○	○
	36	Titanium Alloys	Pure Titanium		400 Rm		○	○	○	○
	37		Alpha + Beta Alloys	Hardened	1050 Rm		◎	◎	◎	◎
H	38	Hardened steel		Hardened	550	55				
	39			Hardened	630	60				
	40	Chilled Cast Iron		Cast	400	42			○	○
	41	Hardened Cast Iron		Hardened	550	55				

			Max. 2.5xD Blind Hole	Max. 3.0xD Through Hole	Max. 2.5xD Blind Hole	Max. 3.0xD Through Hole
HOLE TYPE						
TOOL MATERIAL			HSS-PM			
CHAMFER LEAD ACC. TO DIN2197			C	C	B	B
FLUTE TYPE			Spiral Flute	Spiral Flute	Spiral Point	Spiral Point
SPIRAL FLUTE ANGLE			R40	R40	-	-
SERIES	M	DIN371/376	TM933 (p.B226)	TZ933 (p.B227)	TM923 (p.B228)	TZ923 (p.B229)
		DIN352				
		DIN357/LONG				
	MF	DIN374				
		DIN2181				
	UNC	DIN371/376				
		DIN351				
	UNF	DIN371/374				
		DIN2181				
	BSW	DIN2182/2183				
		DIN351				
	G(BSP)	DIN5156/5157				
	EG-M	DIN371/376				
	EG-UNC	DIN371/376				
	EG-UNF	DIN371/374				
SURFACE TREATMENT			Bright	TiAlN	Bright	TiAlN
MODEL						

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

YG TAP Ti Ni

TM903 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

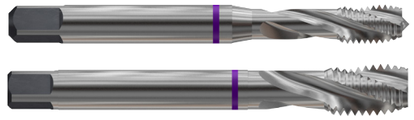
Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

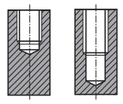
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

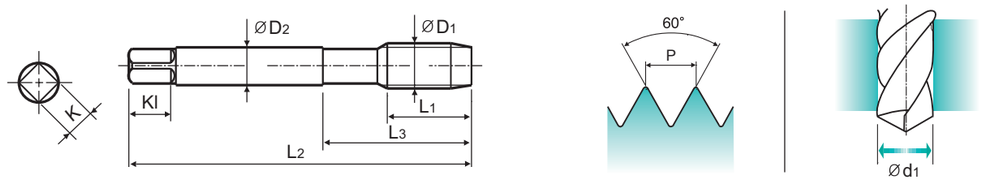
DIN 371

DIN 376



Hole type
2.5×D





Material groups: Ti

HSS PM | DIN 371/376 | 6H | 60° | C | R25 | Bright



p.B234

Recommended ToolHolder
Plain Shank
TAPPING ER CHUCK
TAPPING CHUCK
ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TM903136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TM903156	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	TM903196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TM903176	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	TM903496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TM903206	6	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TM903226	7	56	20	4	3	6	3	2.9
M4 ×	0.7	TM903246	7	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TM903266	8	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TM903286	8	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TM903316	10	80	30	6	4.9	8	3	5
M7 ×	1.0	TM903346	10	80	30	7	5.5	8	3	6
M8 ×	1.25	TM903366	13	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TM903396	13	90	35	9	7	10	3	7.8
M10 ×	1.5	TM903426	15	100	39	10	8	11	3	8.5
M11 ×	1.5	TM903466	17	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TM903506	18	110	44	9	7	10	3	10.2
M14 ×	2.0	TM903546	20	110	44	11	9	12	3	12
M16 ×	2.0	TM903606	20	110	44	12	9	12	3	14
M18 ×	2.5	TM903656	25	125	50	14	11	14	4	15.5
M20 ×	2.5	TM903706	25	140	54	16	12	15	4	17.5
M22 ×	2.5	TM903746	25	140	54	18	14.5	17	4	19.5
M24 ×	3.0	TM903786	30	160	60	18	14.5	17	4	21
M27 ×	3.0	TM903866	30	160	60	20	16	19	4	24
M30 ×	3.5	TM903946	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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											○					○	◎				

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

YG TAP Ti Ni

TZ903 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

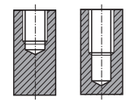
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

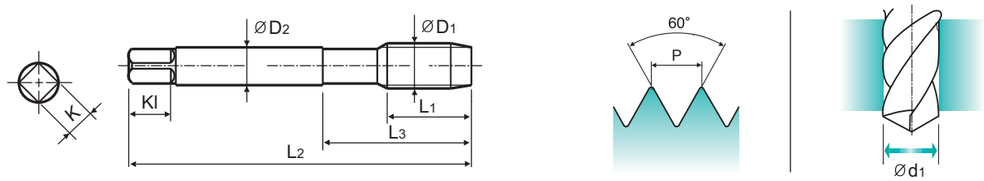
DIN 371

DIN 376



Hole type
2.5×D





Material groups: Ti

HSS PM | DIN 371/376 | 6H | 60° | C | R25 | TiAlN



p.B234

Recommended ToolHolder
Plain Shank
TAPPING ER CHUCK
TAPPING CHUCK
ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiAlN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TZ903136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TZ903156	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	TZ903196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TZ903176	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	TZ903496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TZ903206	6	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TZ903226	7	56	20	4	3	6	3	2.9
M4 ×	0.7	TZ903246	7	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TZ903266	8	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TZ903286	8	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TZ903316	10	80	30	6	4.9	8	3	5
M7 ×	1.0	TZ903346	10	80	30	7	5.5	8	3	6
M8 ×	1.25	TZ903366	13	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TZ903396	13	90	35	9	7	10	3	7.8
M10 ×	1.5	TZ903426	15	100	39	10	8	11	3	8.5
M11 ×	1.5	TZ903466	17	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TZ903506	18	110	44	9	7	10	3	10.2
M14 ×	2.0	TZ903546	20	110	44	11	9	12	3	12
M16 ×	2.0	TZ903606	20	110	44	12	9	12	3	14
M18 ×	2.5	TZ903656	25	125	50	14	11	14	4	15.5
M20 ×	2.5	TZ903706	25	140	54	16	12	15	4	17.5
M22 ×	2.5	TZ903746	25	140	54	18	14.5	17	4	19.5
M24 ×	3.0	TZ903786	30	160	60	18	14.5	17	4	21
M27 ×	3.0	TZ903866	30	160	60	20	16	19	4	24
M30 ×	3.5	TZ903946	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP Ti Ni

TM293 SERIES

M-Az ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

▶ Interrupted tap to reduce contact area and tapping torque, and to give more chip space.

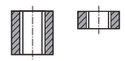
▶ Gewindebohrer mit ausgesetzten Zahnen um die Kontaktzone mit dem Werkstuck und das Drehmoment zu minimieren und dem Span mehr Raum zu geben.

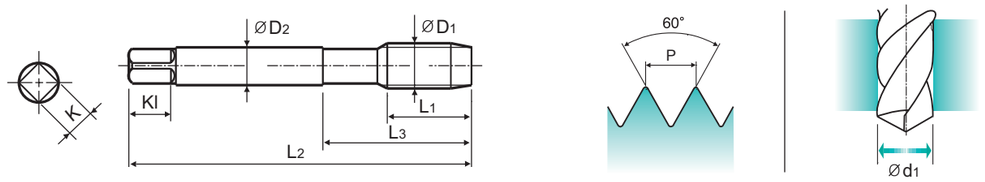
DIN 371

DIN 376



Hole type
3.0×D





Material groups: **Ti**

HSS PM | DIN 371/376 | 6H | 60° | B | Bright



p.B234

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	**TM293136**	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	**TM293156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	**TM293196**	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	**TM293176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	**TM293496**	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	**TM293206**	11	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	**TM293226**	12	56	20	4	3	6	3	2.9
M4 ×	0.7	**TM293246**	13	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	**TM293266**	14	70	25	6	4.9	8	3	3.7
M5 ×	0.8	**TM293286**	15	70	25	6	4.9	8	3	4.2
M6 ×	1.0	**TM293316**	17	80	30	6	4.9	8	3	5
M7 ×	1.0	**TM293346**	17	80	30	7	5.5	8	3	6
M8 ×	1.25	**TM293366**	20	90	35	8	6.2	9	3	6.8
M9 ×	1.25	**TM293396**	20	90	35	9	7	10	3	7.8
M10 ×	1.5	**TM293426**	22	100	39	10	8	11	3	8.5
M11 ×	1.5	**TM293466**	22	100	40	8	6.2	9	3	9.5
M12 ×	1.75	**TM293506**	24	110	44	9	7	10	3	10.2
M14 ×	2.0	**TM293546**	26	110	44	11	9	12	3	12
M16 ×	2.0	**TM293606**	27	110	44	12	9	12	3	14
M18 ×	2.5	**TM293656**	30	125	50	14	11	14	4	15.5
M20 ×	2.5	**TM293706**	32	140	54	16	12	15	4	17.5
M22 ×	2.5	**TM293746**	32	140	54	18	14.5	17	4	19.5
M24 ×	3.0	**TM293786**	34	160	60	18	14.5	17	4	21
M27 ×	3.0	**TM293866**	36	160	60	20	16	19	4	24
M30 ×	3.5	**TM293946**	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP Ti Ni

TZ293 SERIES

M-Az ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

▶ Interrupted tap to reduce contact area and tapping torque, and to give more chip space.

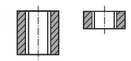
▶ Gewindebohrer mit ausgesetzten Zahnen um die Kontaktzone mit dem Werkstuck und das Drehmoment zu minimieren und dem Span mehr Raum zu geben.

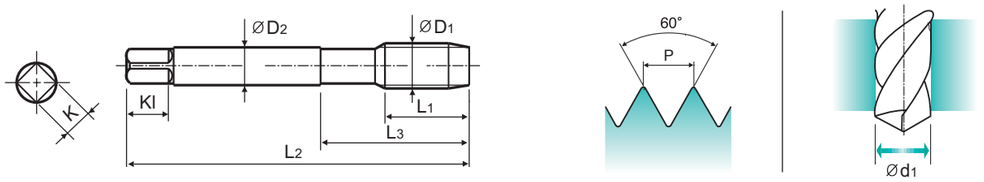
DIN 371

DIN 376



Hole type
3.0×D





Material groups: **Ti**

HSS PM | DIN 371/376 | 6H | 60° | B | TiAlN



p.B234

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiAlN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	**TZ293136**	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	**TZ293156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	**TZ293196**	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	**TZ293176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	**TZ293496**	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	**TZ293206**	11	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	**TZ293226**	12	56	20	4	3	6	3	2.9
M4 ×	0.7	**TZ293246**	13	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	**TZ293266**	14	70	25	6	4.9	8	3	3.7
M5 ×	0.8	**TZ293286**	15	70	25	6	4.9	8	3	4.2
M6 ×	1.0	**TZ293316**	17	80	30	6	4.9	8	3	5
M7 ×	1.0	**TZ293346**	17	80	30	7	5.5	8	3	6
M8 ×	1.25	**TZ293366**	20	90	35	8	6.2	9	3	6.8
M9 ×	1.25	**TZ293396**	20	90	35	9	7	10	3	7.8
M10 ×	1.5	**TZ293426**	22	100	39	10	8	11	3	8.5
M11 ×	1.5	**TZ293466**	22	100	40	8	6.2	9	3	9.5
M12 ×	1.75	**TZ293506**	24	110	44	9	7	10	3	10.2
M14 ×	2.0	**TZ293546**	26	110	44	11	9	12	3	12
M16 ×	2.0	**TZ293606**	27	110	44	12	9	12	3	14
M18 ×	2.5	**TZ293656**	30	125	50	14	11	14	4	15.5
M20 ×	2.5	**TZ293706**	32	140	54	16	12	15	4	17.5
M22 ×	2.5	**TZ293746**	32	140	54	18	14.5	17	4	19.5
M24 ×	3.0	**TZ293786**	34	160	60	18	14.5	17	4	21
M27 ×	3.0	**TZ293866**	36	160	60	20	16	19	4	24
M30 ×	3.5	**TZ293946**	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP Ti Ni

TM933 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

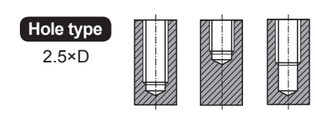
Machine taps
Maschinengewindebohrer

▶ For tapping Nickel alloys and heat resistant alloy steels which are used in aerospace and checmical industries.

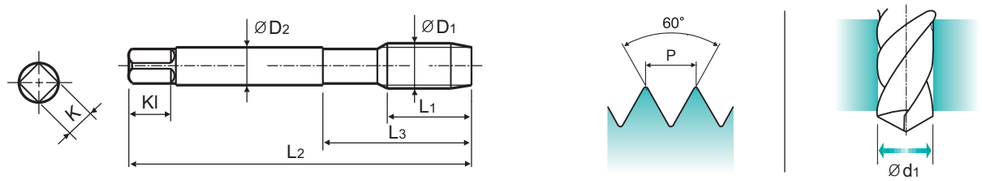
▶ Zum Gewindeschneiden von Nickellegierungen und hitzefesten Legierungsstählen, die in der Luftfahrtindustrie und chemischen Industrie verwendet werden.

DIN 371

DIN 376



Hole type
2.5×D



Material groups: Ni

HSS PM | DIN 371/376 | 6H | 60° | C | R40 | Bright



p.B234

Recommended ToolHolder
Plain Shank
TAPPING ER CHUCK
TAPPING CHUCK
ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TM933136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TM933156	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	TM933196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TM933176	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	TM933496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TM933206	6	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TM933226	7	56	20	4	3	6	3	2.9
M4 ×	0.7	TM933246	7	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TM933266	8	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TM933286	8	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TM933316	10	80	30	6	4.9	8	3	5
M7 ×	1.0	TM933346	10	80	30	7	5.5	8	3	6
M8 ×	1.25	TM933366	13	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TM933396	13	90	35	9	7	10	3	7.8
M10 ×	1.5	TM933426	15	100	39	10	8	11	3	8.5
M11 ×	1.5	TM933466	17	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TM933506	18	110	44	9	7	10	3	10.2
M14 ×	2.0	TM933546	20	110	44	11	9	12	3	12
M16 ×	2.0	TM933606	20	110	44	12	9	12	3	14
M18 ×	2.5	TM933656	25	125	50	14	11	14	4	15.5
M20 ×	2.5	TM933706	25	140	54	16	12	15	4	17.5
M22 ×	2.5	TM933746	25	140	54	18	14.5	17	4	19.5
M24 ×	3.0	TM933786	30	160	60	18	14.5	17	4	21
M27 ×	3.0	TM933866	30	160	60	20	16	19	4	24
M30 ×	3.5	TM933946	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP Ti Ni

TZ933 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ For tapping Nickel alloys and heat resistant alloy steels which are used in aerospace and checmical industries.

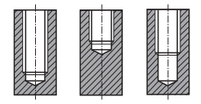
▶ Zum Gewindeschneiden von Nickellegierungen und hitzefesten Legierungsstählen, die in der Luftfahrtindustrie und chemischen Industrie verwendet werden.

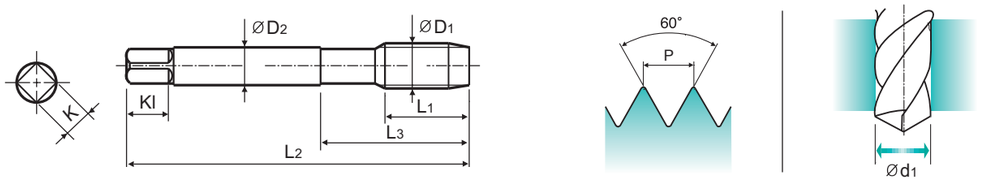
DIN 371

DIN 376



Hole type
2.5×D





Material groups: Ni

HSS PM | DIN 371/376 | 6H | 60° | C | R40 | TiAlN



p.B234

Recommended ToolHolder
Plain Shank
TAPPING ER CHUCK
TAPPING CHUCK
ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiAlN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	TZ933136	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	TZ933156	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	TZ933196	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	TZ933176	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	TZ933496	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	TZ933206	6	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	TZ933226	7	56	20	4	3	6	3	2.9
M4 ×	0.7	TZ933246	7	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	TZ933266	8	70	25	6	4.9	8	3	3.7
M5 ×	0.8	TZ933286	8	70	25	6	4.9	8	3	4.2
M6 ×	1.0	TZ933316	10	80	30	6	4.9	8	3	5
M7 ×	1.0	TZ933346	10	80	30	7	5.5	8	3	6
M8 ×	1.25	TZ933366	13	90	35	8	6.2	9	3	6.8
M9 ×	1.25	TZ933396	13	90	35	9	7	10	3	7.8
M10 ×	1.5	TZ933426	15	100	39	10	8	11	3	8.5
M11 ×	1.5	TZ933466	17	100	40	8	6.2	9	3	9.5
M12 ×	1.75	TZ933506	18	110	44	9	7	10	3	10.2
M14 ×	2.0	TZ933546	20	110	44	11	9	12	3	12
M16 ×	2.0	TZ933606	20	110	44	12	9	12	3	14
M18 ×	2.5	TZ933656	25	125	50	14	11	14	4	15.5
M20 ×	2.5	TZ933706	25	140	54	16	12	15	4	17.5
M22 ×	2.5	TZ933746	25	140	54	18	14.5	17	4	19.5
M24 ×	3.0	TZ933786	30	160	60	18	14.5	17	4	21
M27 ×	3.0	TZ933866	30	160	60	20	16	19	4	24
M30 ×	3.5	TZ933946	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP Ti Ni

TM923 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ For tapping Nickel alloys and heat resistant alloy steels which are used in aero space and checmical industries.

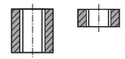
▶ Zum Gewindeschneiden von Nickellegierungen und hitzefesten Legierungsstählen, die in der Luftfahrtindustrie und chemischen Industrie verwendet werden.

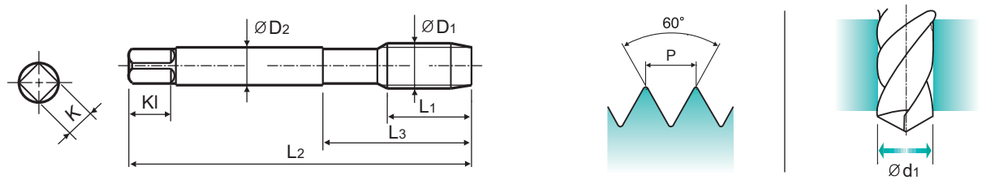
DIN 371

DIN 376



Hole type
3.0×D





Material groups: Ni | HSS PM | DIN 371/376 | 6H | 60° | B | Bright | p.B234

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 × 0.4		TM923136	8	45	13	2.8	2.1	5	3	1.6
M2.2 × 0.45		TM923156	8	45	13	2.8	2.1	5	3	1.75
*M2.3 × 0.4		TM923196	8	45	13	2.8	2.1	5	3	1.9
M2.5 × 0.45		TM923176	9	50	15	2.8	2.1	5	3	2.05
*M2.6 × 0.45		TM923496	9	50	15	2.8	2.1	5	3	2.1
M3 × 0.5		TM923206	11	56	18	3.5	2.7	6	3	2.5
M3.5 × 0.6		TM923226	12	56	20	4	3	6	3	2.9
M4 × 0.7		TM923246	13	63	21	4.5	3.4	6	3	3.3
M4.5 × 0.75		TM923266	14	70	25	6	4.9	8	3	3.7
M5 × 0.8		TM923286	15	70	25	6	4.9	8	3	4.2
M6 × 1.0		TM923316	17	80	30	6	4.9	8	3	5
M7 × 1.0		TM923346	17	80	30	7	5.5	8	3	6
M8 × 1.25		TM923366	20	90	35	8	6.2	9	3	6.8
M9 × 1.25		TM923396	20	90	35	9	7	10	3	7.8
M10 × 1.5		TM923426	22	100	39	10	8	11	3	8.5
M11 × 1.5		TM923466	22	100	40	8	6.2	9	3	9.5
M12 × 1.75		TM923506	24	110	44	9	7	10	3	10.2
M14 × 2.0		TM923546	26	110	44	11	9	12	3	12
M16 × 2.0		TM923606	27	110	44	12	9	12	3	14
M18 × 2.5		TM923656	30	125	50	14	11	14	4	15.5
M20 × 2.5		TM923706	32	140	54	16	12	15	4	17.5
M22 × 2.5		TM923746	32	140	54	18	14.5	17	4	19.5
M24 × 3.0		TM923786	34	160	60	18	14.5	17	4	21
M27 × 3.0		TM923866	36	160	60	20	16	19	4	24
M30 × 3.5		TM923946	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP Ti Ni

TZ923 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ For tapping Nickel alloys and heat resistant alloy steels which are used in aero space and checmical industries.

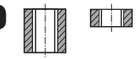
▶ Zum Gewindeschneiden von Nickellegierungen und hitzefesten Legierungsstählen, die in der Luftfahrtindustrie und chemischen Industrie verwendet werden.

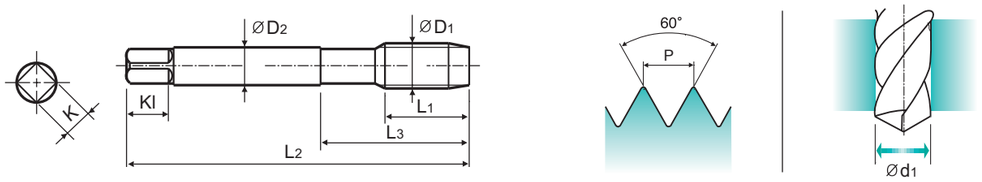
DIN 371

DIN 376



Hole type
3.0×D





Material groups: Ni | HSS PM | DIN 371/376 | 6H | 60° | B | TiAlN | p.B234

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiAlN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 × 0.4		TZ923136	8	45	13	2.8	2.1	5	3	1.6
M2.2 × 0.45		TZ923156	8	45	13	2.8	2.1	5	3	1.75
*M2.3 × 0.4		TZ923196	8	45	13	2.8	2.1	5	3	1.9
M2.5 × 0.45		TZ923176	9	50	15	2.8	2.1	5	3	2.05
*M2.6 × 0.45		TZ923496	9	50	15	2.8	2.1	5	3	2.1
M3 × 0.5		TZ923206	11	56	18	3.5	2.7	6	3	2.5
M3.5 × 0.6		TZ923226	12	56	20	4	3	6	3	2.9
M4 × 0.7		TZ923246	13	63	21	4.5	3.4	6	3	3.3
M4.5 × 0.75		TZ923266	14	70	25	6	4.9	8	3	3.7
M5 × 0.8		TZ923286	15	70	25	6	4.9	8	3	4.2
M6 × 1.0		TZ923316	17	80	30	6	4.9	8	3	5
M7 × 1.0		TZ923346	17	80	30	7	5.5	8	3	6
M8 × 1.25		TZ923366	20	90	35	8	6.2	9	3	6.8
M9 × 1.25		TZ923396	20	90	35	9	7	10	3	7.8
M10 × 1.5		TZ923426	22	100	39	10	8	11	3	8.5
M11 × 1.5		TZ923466	22	100	40	8	6.2	9	3	9.5
M12 × 1.75		TZ923506	24	110	44	9	7	10	3	10.2
M14 × 2.0		TZ923546	26	110	44	11	9	12	3	12
M16 × 2.0		TZ923606	27	110	44	12	9	12	3	14
M18 × 2.5		TZ923656	30	125	50	14	11	14	4	15.5
M20 × 2.5		TZ923706	32	140	54	16	12	15	4	17.5
M22 × 2.5		TZ923746	32	140	54	18	14.5	17	4	19.5
M24 × 3.0		TZ923786	34	160	60	18	14.5	17	4	21
M27 × 3.0		TZ923866	36	160	60	20	16	19	4	24
M30 × 3.5		TZ923946	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP Ti Ni

TQ833 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

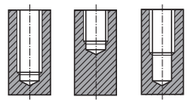
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

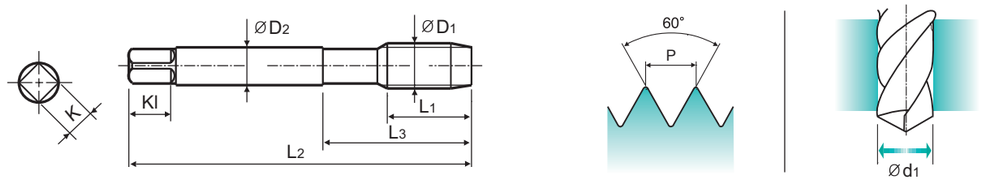
DIN 371

DIN 376



Hole type
2.5×D





Material groups: Ti Ni

HSS PM | DIN 371/376 | 6H | 60° | C | R40 | Vap



p.B234

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	**TQ833136**	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	**TQ833156**	8	45	13	2.8	2.1	5	3	1.75
M2.5 ×	0.45	**TQ833176**	9	50	15	2.8	2.1	5	3	2.05
M3 ×	0.5	**TQ833206**	6	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	**TQ833226**	7	56	20	4	3	6	3	2.9
M4 ×	0.7	**TQ833246**	7	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	**TQ833266**	8	70	25	6	4.9	8	3	3.7
M5 ×	0.8	**TQ833286**	8	70	25	6	4.9	8	3	4.2
M6 ×	1.0	**TQ833316**	10	80	30	6	4.9	8	3	5
M7 ×	1.0	**TQ833346**	10	80	30	7	5.5	8	3	6
M8 ×	1.25	**TQ833366**	13	90	35	8	6.2	9	3	6.8
M10 ×	1.5	**TQ833426**	15	100	39	10	8	11	3	8.5
M12 ×	1.75	**TQ833506**	18	110	44	9	7	10	3	10.2

▶ DIN 371(M2~M10) and DIN 376(M12)

◎ : Excellent ○ : Good

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

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

YG TAP Ti Ni

TR833 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

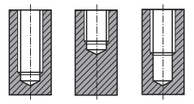
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

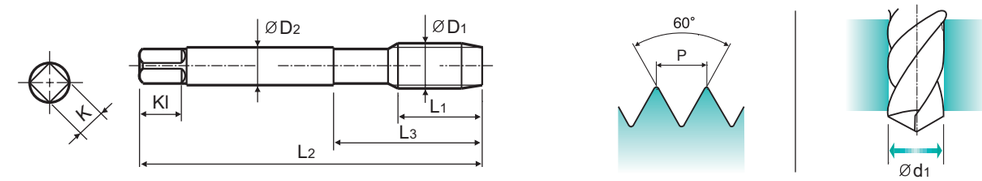
DIN 371

DIN 376



Hole type
2.5×D





Material groups: Ti Ni

HSS PM | DIN 371/376 | 6H | 60° | C | R40 | Bright



p.B234

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	**TR833136**	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	**TR833156**	8	45	13	2.8	2.1	5	3	1.75
M2.5 ×	0.45	**TR833176**	9	50	15	2.8	2.1	5	3	2.05
M3 ×	0.5	**TR833206**	6	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	**TR833226**	7	56	20	4	3	6	3	2.9
M4 ×	0.7	**TR833246**	7	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	**TR833266**	8	70	25	6	4.9	8	3	3.7
M5 ×	0.8	**TR833286**	8	70	25	6	4.9	8	3	4.2
M6 ×	1.0	**TR833316**	10	80	30	6	4.9	8	3	5
M7 ×	1.0	**TR833346**	10	80	30	7	5.5	8	3	6
M8 ×	1.25	**TR833366**	13	90	35	8	6.2	9	3	6.8
M10 ×	1.5	**TR833426**	15	100	39	10	8	11	3	8.5
M12 ×	1.75	**TR833506**	18	110	44	9	7	10	3	10.2

▶ DIN 371(M2~M10) and DIN 376(M12)

◎ : Excellent ○ : Good

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

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

YG TAP Ti Ni

TQ873 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web and the best substrate.

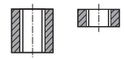
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke und bestem Werkstoff.

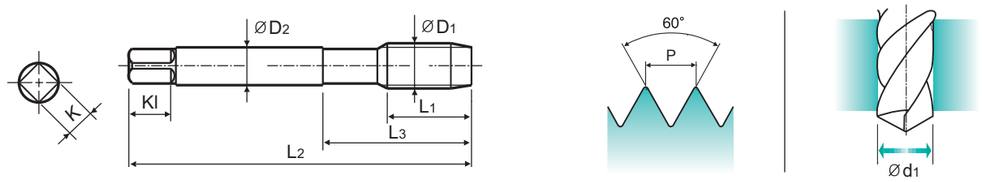
DIN 371

DIN 376



Hole type
3.0×D





Material groups: Ti Ni | HSS PM | DIN 371/376 | 6H | 60° | B | Vap

p.B234

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TQ873136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TQ873156**	8	45	13	2.8	2.1	5	3	1.75
M2.5	× 0.45	**TQ873176**	9	50	15	2.8	2.1	5	3	2.05
M3	× 0.5	**TQ873206**	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TQ873226**	12	56	20	4	3	6	3	2.9
M4	× 0.7	**TQ873246**	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TQ873266**	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TQ873286**	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TQ873316**	17	80	30	6	4.9	8	3	5
M7	× 1.0	**TQ873346**	17	80	30	7	5.5	8	3	6
M8	× 1.25	**TQ873366**	20	90	35	8	6.2	9	3	6.8
M10	× 1.5	**TQ873426**	22	100	39	10	8	11	3	8.5
M12	× 1.75	**TQ873506**	24	110	44	9	7	10	3	10.2

▶ DIN 371(M2~M10) and DIN 376(M12)

◎ : Excellent ○ : Good

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

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

YG TAP Ti Ni

TR873 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web and the best substrate.

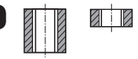
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke und bestem Werkstoff.

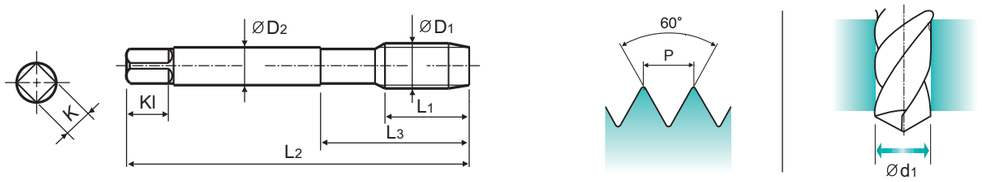
DIN 371

DIN 376



Hole type
3.0×D





Material groups: Ti Ni | HSS PM | DIN 371/376 | 6H | 60° | B | Bright

p.B234

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TR873136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TR873156**	8	45	13	2.8	2.1	5	3	1.75
M2.5	× 0.45	**TR873176**	9	50	15	2.8	2.1	5	3	2.05
M3	× 0.5	**TR873206**	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TR873226**	12	56	20	4	3	6	3	2.9
M4	× 0.7	**TR873246**	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TR873266**	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TR873286**	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TR873316**	17	80	30	6	4.9	8	3	5
M7	× 1.0	**TR873346**	17	80	30	7	5.5	8	3	6
M8	× 1.25	**TR873366**	20	90	35	8	6.2	9	3	6.8
M10	× 1.5	**TR873426**	22	100	39	10	8	11	3	8.5
M12	× 1.75	**TR873506**	24	110	44	9	7	10	3	10.2

▶ DIN 371(M2~M10) and DIN 376(M12)

◎ : Excellent ○ : Good

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

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

YG TAP Ti Ni

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

					TM903	TZ903	TM293	TZ293	TM933	TZ933	TM923	TZ923	TQ833	TR833	TQ873	TR873
ISO	VDI 3323	Material Description	HB	HRc	Vc (m/min.)											
P	6	Low alloy steel	180	10					10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15
	7		275	29	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15
	8		300	32	6-10	6-10	6-10	6-10	6-10	6-10	6-10	6-10	6-10	6-10	6-10	6-10
	9		350	38	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5
S	31	Heat Resistant Super Alloys	200	15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15
	32		280	30			10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15
	33		250	25			2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4
	34		350	38			2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4
	35		320	34			2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4
	36	Titanium Alloys	400 Rm		10-15	10-15	10-15	10-15					10-15	10-15	10-15	10-15
	37		1050 Rm		4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6
H	38	Hardened steel	550	55								3-5				
	40	Chilled Cast Iron	400	42			3-5	3-5			3-5	3-5			3-5	3-5



Leading Through Innovation

HSS-E

YG TAP ALU

YG TAP Aluminium

- **For long-chipping Aluminum Wrought Alloys with Large Chip Gullets to Avoid Clogging in the Threading Operations**
- **Für langspanende Aluminium-Knetlegierungen mit großen Spanabständen zur Vermeidung von Verstopfungen beim Gewindeschneiden.**

SELECTION GUIDE

YG THREADING TOOLS

HSS-E
YG TAP
ALU

For long-chipping Aluminum Wrought Alloys with Large Chip Gullets to Avoid Clogging in the Threading Operations

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B248

			Max. 2.5xD Blind Hole		Max. 3.0xD Through Hole		Max. 2.0xD Blind/Through Hole		
HOLE TYPE									
TOOL MATERIAL			HSS-E						
CHAMFER LEAD ACC. TO DIN2197			C	C	B	B	C	C	C
FLUTE TYPE			Spiral Flute	Spiral Flute	Spiral Point	Spiral Point	Straight Flute	Straight Flute	Straight Flute
SPIRAL FLUTE ANGLE			R45	R40	-	-	-	-	-
SERIES	M	DIN371/376	TC163 (p.B238)	TE953 (p.B239)	TC622 (p.B243)	TE943 (p.B244)	TC433 (p.B245)	TE443 (p.B246)	TY433 (p.B247)
		DIN352							
		DIN357/LONG							
	MF	DIN374	TC963 (p.B240)						
		DIN2181							
	UNC	DIN371/376	TC169 (p.B241)						
		DIN351							
	UNF	DIN371/374	TC170 (p.B242)						
		DIN2181							
	BSW	DIN2182/2183							
		DIN351							
	G(BSP)	DIN5156/5157							
	EG-M	DIN371/376							
	EG-UNC	DIN371/376							
	EG-UNF	DIN371/374							
SURFACE TREATMENT			Bright	Nitride	Bright	Nitride	Bright	Nitride	TiAlN
MODEL									

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

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

YG TAP ALU

TC163 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

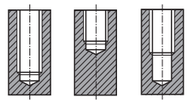
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

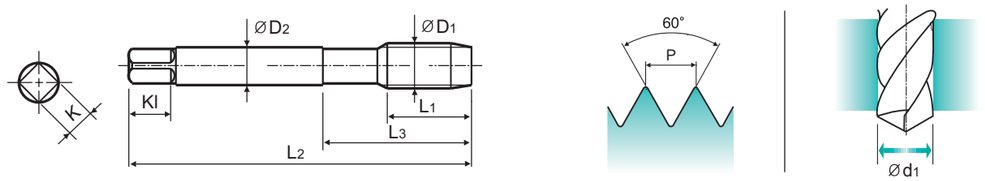
DIN 371

DIN 374



Hole type
2.5×D





Material groups: Al

HSS-E | DIN 371/376 | 6H | 60° | C | R45 | Bright | p.B248

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TC163136**	8	45	13	2.8	2.1	5	2	1.6
M2.2	× 0.45	**TC163156**	8	45	13	2.8	2.1	5	2	1.75
*M2.3	× 0.4	**TC163196**	8	45	13	2.8	2.1	5	2	1.9
M2.5	× 0.45	**TC163176**	9	50	15	2.8	2.1	5	2	2.05
*M2.6	× 0.45	**TC163496**	9	50	15	2.8	2.1	5	2	2.1
M3	× 0.5	**TC163206**	6	56	18	3.5	2.7	6	2	2.5
M3.5	× 0.6	**TC163226**	7	56	20	4	3	6	2	2.9
M4	× 0.7	**TC163246**	7	63	21	4.5	3.4	6	2	3.3
M4.5	× 0.75	**TC163266**	8	70	25	6	4.9	8	2	3.7
M5	× 0.8	**TC163286**	8	70	25	6	4.9	8	2	4.2
M6	× 1.0	**TC163316**	10	80	30	6	4.9	8	2	5
M7	× 1.0	**TC163346**	10	80	30	7	5.5	8	2	6
M8	× 1.25	**TC163366**	13	90	35	8	6.2	9	2	6.8
M9	× 1.25	**TC163396**	13	90	35	9	7	10	2	7.8
M10	× 1.5	**TC163426**	15	100	39	10	8	11	2	8.5
M11	× 1.5	**TC163466**	17	100	40	8	6.2	9	2	9.5
M12	× 1.75	**TC163506**	18	110	44	9	7	10	2	10.2
M14	× 2.0	**TC163546**	20	110	44	11	9	12	3	12
M16	× 2.0	**TC163606**	20	110	44	12	9	12	3	14
M18	× 2.5	**TC163656**	25	125	50	14	11	14	3	15.5
M20	× 2.5	**TC163706**	25	140	54	16	12	15	3	17.5
M22	× 2.5	**TC163746**	25	140	54	18	14.5	17	3	19.5
M24	× 3.0	**TC163786**	30	160	60	18	14.5	17	3	21
M27	× 3.0	**TC163866**	30	160	60	20	16	19	3	24
M30	× 3.5	**TC163946**	35	180	70	22	18	21	3	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP ALU

TE953 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

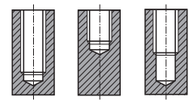
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

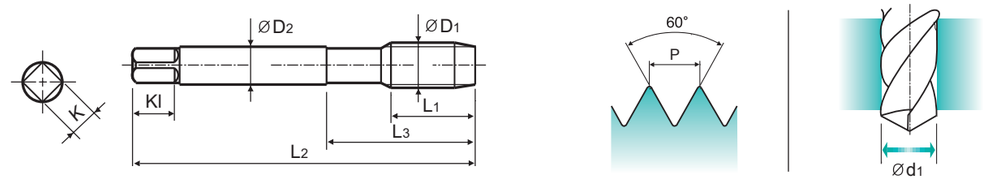
DIN 371

DIN 376



Hole type
2.5×D





Material groups: Al

HSS-E | DIN 371/376 | 6H | 60° | C | R40 | Nitride | p.B248

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Ni	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TE953136**	8	45	13	2.8	2.1	5	2	1.6
M2.2	× 0.45	**TE953156**	8	45	13	2.8	2.1	5	2	1.75
*M2.3	× 0.4	**TE953196**	8	45	13	2.8	2.1	5	2	1.9
M2.5	× 0.45	**TE953176**	9	50	15	2.8	2.1	5	2	2.05
*M2.6	× 0.45	**TE953496**	9	50	15	2.8	2.1	5	2	2.1
M3	× 0.5	**TE953206**	6	56	18	3.5	2.7	6	2	2.5
M3.5	× 0.6	**TE953226**	7	56	20	4	3	6	2	2.9
M4	× 0.7	**TE953246**	7	63	21	4.5	3.4	6	2	3.3
M4.5	× 0.75	**TE953266**	8	70	25	6	4.9	8	2	3.7
M5	× 0.8	**TE953286**	8	70	25	6	4.9	8	2	4.2
M6	× 1.0	**TE953316**	10	80	30	6	4.9	8	2	5
M7	× 1.0	**TE953346**	10	80	30	7	5.5	8	2	6
M8	× 1.25	**TE953366**	13	90	35	8	6.2	9	2	6.8
M9	× 1.25	**TE953396**	13	90	35	9	7	10	3	7.8
M10	× 1.5	**TE953426**	15	100	39	10	8	11	3	8.5
M11	× 1.5	**TE953466**	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TE953506**	18	110	44	9	7	10	3	10.2
M14	× 2.0	**TE953546**	20	110	44	11	9	12	3	12
M16	× 2.0	**TE953606**	20	110	44	12	9	12	3	14
M18	× 2.5	**TE953656**	25	125	50	14	11	14	4	15.5
M20	× 2.5	**TE953706**	25	140	54	16	12	15	4	17.5
M22	× 2.5	**TE953746**	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TE953786**	30	160	60	18	14.5	17	4	21
M27	× 3.0	**TE953866**	30	160	60	20	16	19	4	24
M30	× 3.5	**TE953946**	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP ALU

TC963 SERIES

MF ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

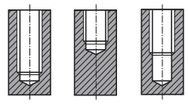
▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

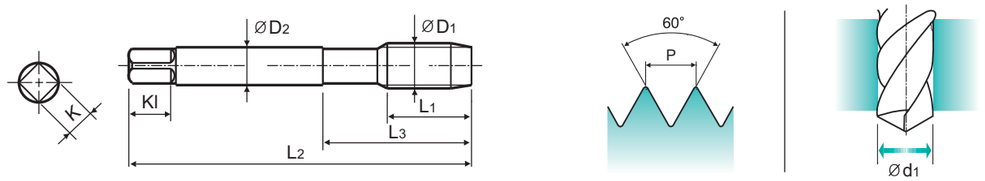
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

DIN 374



Hole type
2.5×D





Material groups: Al
HSS-E | DIN 374 | 6H | 60° | C | R45 | Bright
p.B248

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4	× 0.5	**TC963256**	5	63	21	2.8	2.1	5	2	3.5
M5	× 0.5	**TC963296**	5	70	25	3.5	2.7	6	2	4.5
M6	× 0.75	**TC963326**	8	80	30	4.5	3.4	6	2	5.2
M6	× 0.5	**TC963336**	5	80	30	4.5	3.4	6	2	5.5
M7	× 0.75	**TC963356**	10	80	30	5.5	4.3	7	2	6.2
M8	× 1.0	**TC963376**	10	90	36	6	4.9	8	2	7
M8	× 0.75	**TC963386**	8	80	30	6	4.9	8	2	7.2
M10	× 1.25	**TC963436**	16	100	40	7	5.5	8	2	8.8
M10	× 1.0	**TC963446**	10	90	36	7	5.5	8	2	9
M10	× 0.75	**TC963456**	10	90	36	7	5.5	8	2	9.2
M12	× 1.5	**TC963516**	15	100	40	9	7	10	2	10.5
M12	× 1.25	**TC963526**	15	100	40	9	7	10	2	10.8
M12	× 1.0	**TC963536**	11	100	40	9	7	10	2	11
M14	× 1.5	**TC963556**	15	100	40	11	9	12	3	12.5
M14	× 1.25	**TC963566**	15	100	40	11	9	12	3	12.8
M16	× 1.5	**TC963616**	15	100	40	12	9	12	3	14.5
M18	× 1.5	**TC963676**	17	110	44	14	11	14	3	16.5
M20	× 1.5	**TC963726**	17	125	50	16	12	15	3	18.5
M22	× 1.5	**TC963766**	17	125	50	18	14.5	17	3	20.5
M24	× 1.5	**TC963806**	20	140	54	18	14.5	17	3	22.5

◎ : Excellent ○ : Good

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

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

YG TAP ALU

TC169 SERIES

UNC Unified coarse threads

Unified Grobgewinde
UNC
Unificato passo grosso

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

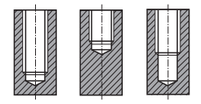
DIN 371

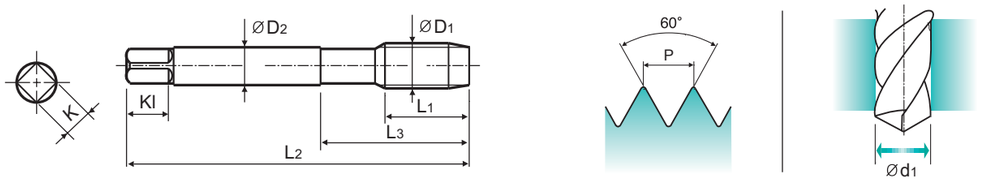


DIN 374



Hole type
2.5×D





Material groups: Al
HSS-E | DIN 371/376 | 2B | 60° | C | R45 | Bright
p.B248

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 40UNC	**TC169162**	6	56	18	3.5	2.7	6	2	2.3
#5	- 40UNC	**TC169202**	7	56	18	3.5	2.7	6	2	2.6
#6	- 32UNC	**TC169242**	7	56	20	4	3	6	2	2.85
#8	- 32UNC	**TC169282**	8	63	21	4.5	3.4	6	2	3.5
#10	- 24UNC	**TC169322**	10	70	25	6	4.9	8	2	3.9
#12	- 24UNC	**TC169362**	10	80	30	6	4.9	8	2	4.5
1/4	- 20UNC	**TC169402**	13	80	30	7	5.5	8	2	5.2
5/16	- 18UNC	**TC169442**	14	90	35	8	6.2	9	2	6.6
3/8	- 16UNC	**TC169482**	16	100	39	9	7	10	2	8
7/16	- 14UNC	**TC169522**	17	100	40	8	6.2	9	2	9.4
1/2	- 13UNC	**TC169562**	20	110	44	9	7	10	2	10.75
9/16	- 12UNC	**TC169602**	20	110	44	11	9	12	3	12.25
5/8	- 11UNC	**TC169642**	22	110	44	12	9	12	3	13.5
3/4	- 10UNC	**TC169702**	25	125	50	14	11	14	3	16.5
7/8	- 9UNC	**TC169742**	27	140	54	18	14.5	17	3	19.5
1	- 8UNC	**TC169782**	30	160	60	20	16	19	3	22.25
1-1/8	- 7UNC	**TC169822**	35	180	65	22	18	21	3	25

▶ DIN 371(#4~3/8) and DIN 376(7/16~1-1/8)

◎ : Excellent ○ : Good

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

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

YG TAP ALU

TC170 SERIES

UNF — Unified fine threads

- Unified Feingewinde
- UNF
- Unificato passo fine

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

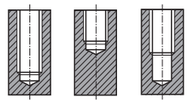
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

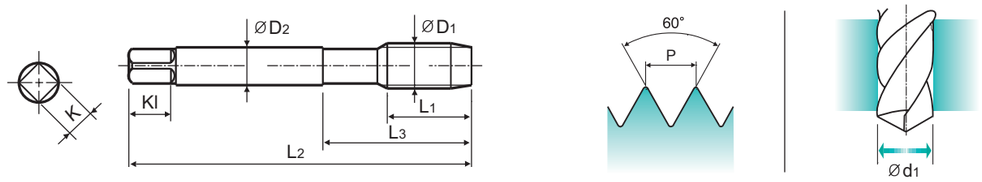
DIN 371

DIN 374



Hole type
2.5×D





Material groups: Al

HSS-E | DIN 371/374 | 2B | 60° | C | R45 | Bright



p.B248

Recommended ToolHolder
Plain Shank
TAPPING ER CHUCK
TAPPING CHUCK
ONE STEP TAPPING CHUCK

Unit : mm

SIZE ØD1	TPI	EDP No. Bright	Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length Kl	No. of Flute Z	Tapping Drill Diameter Ød1
#4	48UNF	TC170182	6	56	18	3.5	2.7	6	2	2.4
#5	44UNF	TC170222	7	56	18	3.5	2.7	6	2	2.7
#6	40UNF	TC170262	7	56	20	4	3	6	2	3
#8	36UNF	TC170302	8	63	21	4.5	3.4	6	2	3.5
#10	32UNF	TC170342	10	70	25	6	4.9	8	2	4.1
#12	28UNF	TC170382	10	80	30	6	4.9	8	2	4.7
1/4	28UNF	TC170422	10	80	30	7	5.5	8	2	5.5
5/16	24UNF	TC170462	10	90	35	8	6.2	9	2	6.9
3/8	24UNF	TC170502	10	100	39	9	7	10	2	8.5
7/16	20UNF	TC170542	13	100	40	8	6.2	9	2	9.9
1/2	20UNF	TC170582	13	100	40	9	7	10	2	11.5
9/16	18UNF	TC170622	15	100	40	11	9	12	3	12.9
5/8	18UNF	TC170662	15	100	40	12	9	12	3	14.5
3/4	16UNF	TC170722	17	110	44	14	11	14	3	17.5
7/8	14UNF	TC170762	17	125	50	18	14.5	17	3	20.5
1	12UNF	TC170802	20	140	54	18	14.5	17	3	23.25
1-1/8	12UNF	TC170842	22	150	60	22	18	21	3	26.5

▶ DIN 371(#4~3/8) and DIN 374(7/16~1-1/8)

◎ : 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 TAP ALU

TC622 SERIES

M-Az — ISO metric coarse threads DIN 13

- Metrisches ISO-Gewinde DIN 13
- ISO MÉTRIQUE DIN13
- ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Interrupted tap to reduce contact area and tapping torque, and to give more chip space.

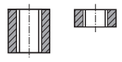
▶ Gewindebohrer mit ausgesetzten Zahnen um die Kontaktzone mit dem Werkstuck und das Drehmoment zu minimieren und dem Span mehr Raum zu geben.

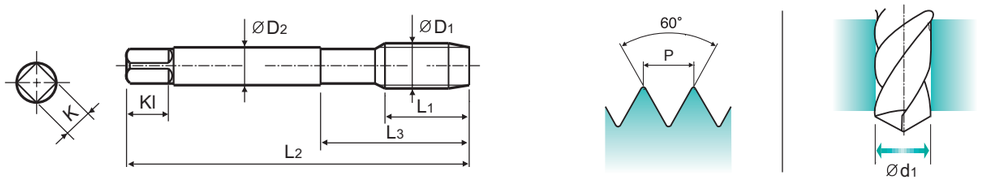
DIN 371

DIN 376



Hole type
3.0×D





Material groups: Al

HSS-E | DIN 371/376 | 6H | 60° | B | Bright



p.B248

Recommended ToolHolder
Plain Shank
TAPPING ER CHUCK
TAPPING CHUCK
ONE STEP TAPPING CHUCK

Unit : mm

SIZE ØD1	Pitch P	EDP No. Bright	Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length Kl	No. of Flute Z	Tapping Drill Diameter Ød1
M2	× 0.4	TC622136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TC622156	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	TC622196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TC622176	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	TC622496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TC622206	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TC622226	12	56	20	4	3	6	3	2.9
M4	× 0.7	TC622246	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TC622266	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	TC622286	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	TC622316	17	80	30	6	4.9	8	3	5
M7	× 1.0	TC622346	17	80	30	7	5.5	8	3	6
M8	× 1.25	TC622366	20	90	35	8	6.2	9	3	6.8
M9	× 1.25	TC622396	20	90	35	9	7	10	3	7.8
M10	× 1.5	TC622426	22	100	39	10	8	11	3	8.5
M11	× 1.5	TC622466	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	TC622506	24	110	44	9	7	10	3	10.2
M14	× 2.0	TC622546	26	110	44	11	9	12	3	12
M16	× 2.0	TC622606	27	110	44	12	9	12	3	14
M18	× 2.5	TC622656	30	125	50	14	11	14	3	15.5
M20	× 2.5	TC622706	32	140	54	16	12	15	3	17.5
M22	× 2.5	TC622746	32	140	54	18	14.5	17	3	19.5
M24	× 3.0	TC622786	34	160	60	18	14.5	17	3	21
M27	× 3.0	TC622866	36	160	60	20	16	19	3	24
M30	× 3.5	TC622946	40	180	70	22	18	21	3	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)

▶ * DIN profile not ISO

◎ : 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 TAP ALU

TE943 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web.

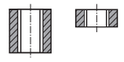
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

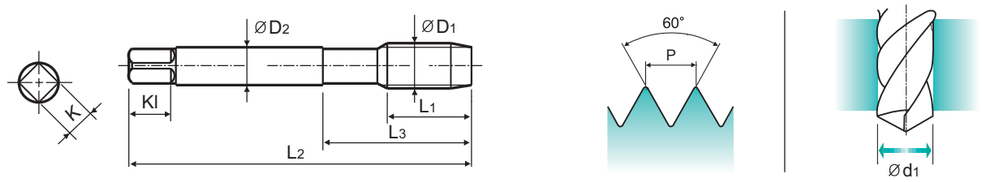
DIN 371

DIN 376



Hole type
3.0×D





Material groups: Al | HSS-E | DIN 371/376 | 6H | 60° | B | Nitride

p.B248

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Ni	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TE943136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TE943156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	**TE943196**	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	**TE943176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	**TE943496**	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	**TE943206**	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TE943226**	12	56	20	4	3	6	3	2.9
M4	× 0.7	**TE943246**	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TE943266**	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TE943286**	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TE943316**	17	80	30	6	4.9	8	3	5
M7	× 1.0	**TE943346**	17	80	30	7	5.5	8	3	6
M8	× 1.25	**TE943366**	20	90	35	8	6.2	9	3	6.8
M9	× 1.25	**TE943396**	20	90	35	9	7	10	3	7.8
M10	× 1.5	**TE943426**	22	100	39	10	8	11	3	8.5
M11	× 1.5	**TE943466**	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TE943506**	24	110	44	9	7	10	3	10.2
M14	× 2.0	**TE943546**	26	110	44	11	9	12	3	12
M16	× 2.0	**TE943606**	27	110	44	12	9	12	3	14
M18	× 2.5	**TE943656**	30	125	50	14	11	14	4	15.5
M20	× 2.5	**TE943706**	32	140	54	16	12	15	4	17.5
M22	× 2.5	**TE943746**	32	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TE943786**	34	160	60	18	14.5	17	4	21
M27	× 3.0	**TE943866**	36	160	60	20	16	19	4	24
M30	× 3.5	**TE943946**	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP ALU

TC433 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

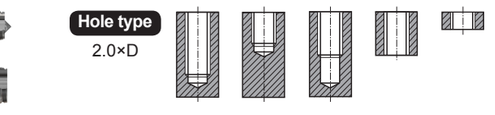
Machine taps
Maschinengewindebohrer

▶ Suitable for brass and short chip work materials.

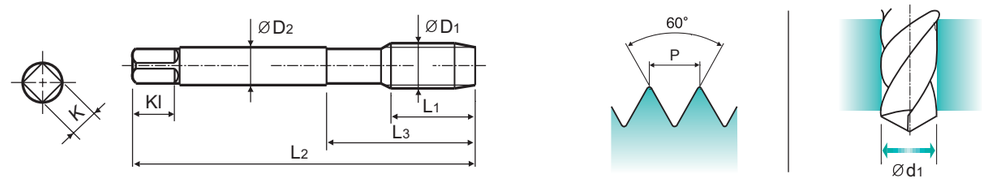
▶ Geeignet zum Gewindeschneiden von Messing und anderen kurzspanenden Werkstoffen

DIN 371

DIN 376



Hole type
2.0×D



Material groups: Ms | HSS-E | DIN 371/376 | 6H | 60° | C | Bright

p.B248

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TC433136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TC433156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	**TC433196**	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	**TC433176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	**TC433496**	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	**TC433206**	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TC433226**	12	56	20	4	3	6	3	2.9
M4	× 0.7	**TC433246**	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TC433266**	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TC433286**	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TC433316**	17	80	30	6	4.9	8	3	5
M7	× 1.0	**TC433346**	17	80	30	7	5.5	8	3	6
M8	× 1.25	**TC433366**	20	90	35	8	6.2	9	3	6.8
M9	× 1.25	**TC433396**	20	90	35	9	7	10	3	7.8
M10	× 1.5	**TC433426**	22	100	39	10	8	11	3	8.5
M11	× 1.5	**TC433466**	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TC433506**	24	110	44	9	7	10	3	10.2
M14	× 2.0	**TC433546**	26	110	44	11	9	12	3	12
M16	× 2.0	**TC433606**	27	110	44	12	9	12	3	14
M18	× 2.5	**TC433656**	30	125	50	14	11	14	4	15.5
M20	× 2.5	**TC433706**	32	140	54	16	12	15	4	17.5
M22	× 2.5	**TC433746**	32	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TC433786**	34	160	60	18	14.5	17	4	21
M27	× 3.0	**TC433866**	36	160	60	20	16	19	4	24
M30	× 3.5	**TC433946**	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP ALU

TE443 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for brass and short chip work materials.

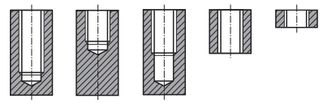
▶ Geeignet zum Gewindeschneiden von Messing und anderen kurzspanenden Werkstoffen

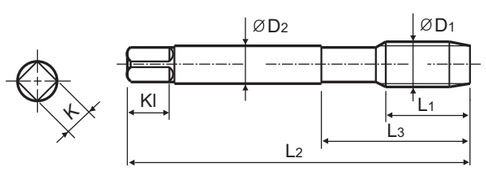
DIN 371

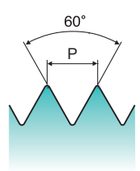
DIN 376

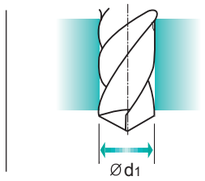


Hole type
2.0×D









Material groups: Ms | HSS-E | DIN 371/376 | 6HX | 60° | C | Nitride

p.B248

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Ni	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TE443136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TE443156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	**TE443196**	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	**TE443176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	**TE443496**	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	**TE443206**	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TE443226**	12	56	20	4	3	6	3	2.9
M4	× 0.7	**TE443246**	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TE443266**	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TE443286**	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TE443316**	17	80	30	6	4.9	8	3	5
M7	× 1.0	**TE443346**	17	80	30	7	5.5	8	3	6
M8	× 1.25	**TE443366**	20	90	35	8	6.2	9	3	6.8
M9	× 1.25	**TE443396**	20	90	35	9	7	10	3	7.8
M10	× 1.5	**TE443426**	22	100	39	10	8	11	3	8.5
M11	× 1.5	**TE443466**	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TE443506**	24	110	44	9	7	10	3	10.2
M14	× 2.0	**TE443546**	26	110	44	11	9	12	3	12
M16	× 2.0	**TE443606**	27	110	44	12	9	12	3	14
M18	× 2.5	**TE443656**	30	125	50	14	11	14	4	15.5
M20	× 2.5	**TE443706**	32	140	54	16	12	15	4	17.5
M22	× 2.5	**TE443746**	32	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TE443786**	34	160	60	18	14.5	17	4	21
M27	× 3.0	**TE443866**	36	160	60	20	16	19	4	24
M30	× 3.5	**TE443946**	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

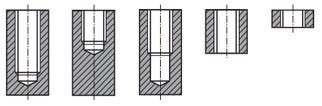
YG TAP ALU

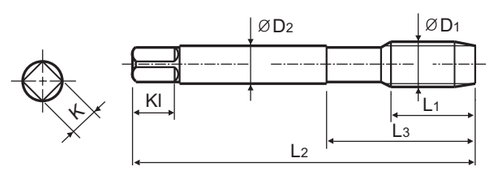
TY433 SERIES

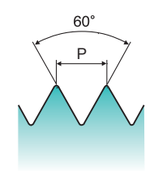
M ISO metric coarse threads DIN 13
Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13
Machine taps
Maschinengewindebohrer
▶ Suitable for brass and short chip work materials.
▶ Geeignet zum Gewindeschneiden von Messing und anderen kurzspanenden Werkstoffen
DIN 371
DIN 376

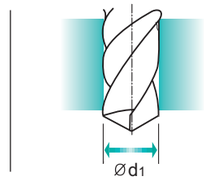


Hole type
2.0×D









Material groups: Ms | HSS-E | DIN 371/376 | 6H | 60° | C | TiAlN

p.B248

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK
Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiAlN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TY433136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TY433156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	**TY433196**	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	**TY433176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	**TY433496**	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	**TY433206**	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TY433226**	12	56	20	4	3	6	3	2.9
M4	× 0.7	**TY433246**	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TY433266**	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TY433286**	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TY433316**	17	80	30	6	4.9	8	3	5
M7	× 1.0	**TY433346**	17	80	30	7	5.5	8	3	6
M8	× 1.25	**TY433366**	20	90	35	8	6.2	9	3	6.8
M9	× 1.25	**TY433396**	20	90	35	9	7	10	3	7.8
M10	× 1.5	**TY433426**	22	100	39	10	8	11	3	8.5
M11	× 1.5	**TY433466**	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TY433506**	24	110	44	9	7	10	3	10.2
M14	× 2.0	**TY433546**	26	110	44	11	9	12	3	12
M16	× 2.0	**TY433606**	27	110	44	12	9	12	3	14
M18	× 2.5	**TY433656**	30	125	50	14	11	14	4	15.5
M20	× 2.5	**TY433706**	32	140	54	16	12	15	4	17.5
M22	× 2.5	**TY433746**	32	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TY433786**	34	160	60	18	14.5	17	4	21
M27	× 3.0	**TY433866**	36	160	60	20	16	19	4	24
M30	× 3.5	**TY433946**	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO
◎ : Excellent ○ : Good

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

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

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

YG TAP ALU

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

ISO	VDI 3323	Material Description	HB	HRc	TC163 TC963 TC169 TC170	TE953	TC622	TE943	TC433	TE443	TY433
					Vc (m/min.)						
P	1	Non-alloy steel	125		15-20		15-20				
	2		190	13	15-20		15-20				
	3		250	25	12-18	12-18	12-18	12-18			
N	21	Aluminum-wrought alloy	60		10-15	10-15	10-15	10-15			
	22		100		10-15	10-15	10-15	10-15			
	23	Aluminum-cast, alloyed	75		15-20	15-20	15-20	15-20			
	24		90		15-20	15-20	15-20	15-20			
	25		130			10-15		10-15			
	26	Copper and Copper Alloys (Bronze / Brass)	110						25-35	25-35	35-40
	27		90		8-12		8-12		8-12	8-12	12-16
	28		100						15-20		20-25



Leading Through Innovation

HSS-E & HSS-PM

YG TAP FORMING
YG INNENGEWINDEFORMER

- **Tapping by Forming Soft Materials**
- **Gewindeherstellung duch Formen von weichen Materialien**

SELECTION GUIDE

YG THREADING TOOLS

HSS-E & HSS-PM
YG TAP FORMING

Tapping by Forming Soft Materials

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B265

| | | |

YG TAP FORMING

TD703 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten

- ▶ Suitable for threading soft materials with at least 8-10% elongation.
- ▶ The pre-drilling holes are bigger than normal sized holes.

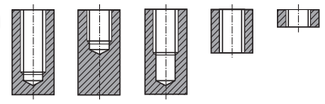
- ▶ Geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
- ▶ Die Kernlochbohrungen sind größer als normale Kernlöcher.

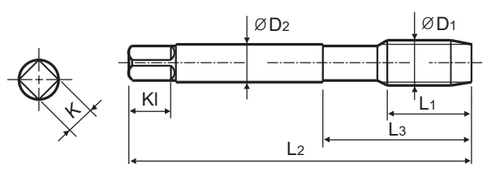
DIN 371

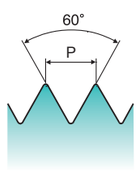
DIN 376

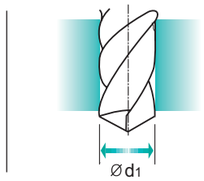


Hole type
3.0×D









Material groups **GV** | HSS-E | DIN 371/376 | 6HX | 60° | C | TiN | p.B265

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Ød1
M2	× 0.4	**TD703136**	8	45	13	2.8	2.1	5	1.83
M2.2	× 0.45	**TD703156**	8	45	13	2.8	2.1	5	2
*M2.3	× 0.4	**TD703196**	8	45	13	2.8	2.1	5	2.1
M2.5	× 0.45	**TD703176**	9	50	15	2.8	2.1	5	2.3
*M2.6	× 0.45	**TD703496**	9	50	15	2.8	2.1	5	2.4
M3	× 0.5	**TD703206**	11	56	18	3.5	2.7	6	2.8
M3.5	× 0.6	**TD703226**	12	56	20	4	3	6	3.25
M4	× 0.7	**TD703246**	13	63	21	4.5	3.4	6	3.7
M4.5	× 0.75	**TD703266**	14	70	25	6	4.9	8	4.15
M5	× 0.8	**TD703286**	15	70	25	6	4.9	8	4.65
M6	× 1.0	**TD703316**	17	80	30	6	4.9	8	5.55
M7	× 1.0	**TD703346**	17	80	30	7	5.5	8	6.55
M8	× 1.25	**TD703366**	20	90	35	8	6.2	9	7.4
M9	× 1.25	**TD703396**	20	90	35	9	7	10	8.4
M10	× 1.5	**TD703426**	22	100	39	10	8	11	9.3
M11	× 1.5	**TD703466**	22	100	40	8	6.2	9	10.3
M12	× 1.75	**TD703506**	24	110	44	9	7	10	11.2
M14	× 2.0	**TD703546**	26	110	44	11	9	12	13
M16	× 2.0	**TD703606**	27	110	44	12	9	12	15
M18	× 2.5	**TD703656**	30	125	50	14	11	14	16.8
M20	× 2.5	**TD703706**	32	140	54	16	12	15	18.8

- ▶ DIN 371(M2~M10) and DIN 376(M11~M20)
- ▶ * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

YG TAP FORMING

TE703 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten

- ▶ Suitable for threading soft materials with at least 8-10% elongation.
- ▶ The pre-drilling holes are bigger than normal sized holes.

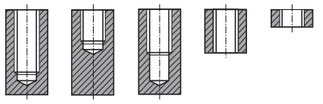
- ▶ Geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
- ▶ Die Kernlochbohrungen sind größer als normale Kernlöcher.

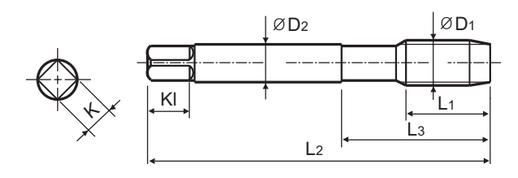
DIN 371

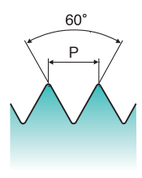
DIN 376

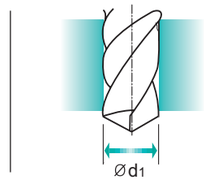


Hole type
3.0×D









Material groups **GV** | HSS-E | DIN 371/376 | 6HX | 60° | C | Nitride | p.B265

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1	P	Ni	L1	L2	L3	ØD2	K	Kl	Ød1
M2	× 0.4	**TE703136**	8	45	13	2.8	2.1	5	1.83
M2.2	× 0.45	**TE703156**	8	45	13	2.8	2.1	5	2
*M2.3	× 0.4	**TE703196**	8	45	13	2.8	2.1	5	2.1
M2.5	× 0.45	**TE703176**	9	50	15	2.8	2.1	5	2.3
*M2.6	× 0.45	**TE703496**	9	50	15	2.8	2.1	5	2.4
M3	× 0.5	**TE703206**	11	56	18	3.5	2.7	6	2.8
M3.5	× 0.6	**TE703226**	12	56	20	4	3	6	3.25
M4	× 0.7	**TE703246**	13	63	21	4.5	3.4	6	3.7
M4.5	× 0.75	**TE703266**	14	70	25	6	4.9	8	4.15
M5	× 0.8	**TE703286**	15	70	25	6	4.9	8	4.65
M6	× 1.0	**TE703316**	17	80	30	6	4.9	8	5.55
M7	× 1.0	**TE703346**	17	80	30	7	5.5	8	6.55
M8	× 1.25	**TE703366**	20	90	35	8	6.2	9	7.4
M9	× 1.25	**TE703396**	20	90	35	9	7	10	8.4
M10	× 1.5	**TE703426**	22	100	39	10	8	11	9.3
M11	× 1.5	**TE703466**	22	100	40	8	6.2	9	10.3
M12	× 1.75	**TE703506**	24	110	44	9	7	10	11.2
M14	× 2.0	**TE703546**	26	110	44	11	9	12	13
M16	× 2.0	**TE703606**	27	110	44	12	9	12	15
M18	× 2.5	**TE703656**	30	125	50	14	11	14	16.8
M20	× 2.5	**TE703706**	32	140	54	16	12	15	18.8

- ▶ DIN 371(M2~M10) and DIN 376(M11~M20)
- ▶ * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

YG TAP FORMING

TY703 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten

- ▶ Suitable for threading soft materials with at least 8-10% elongation.
- ▶ The pre-drilling holes are bigger than normal sized holes.

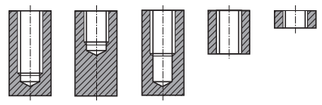
- ▶ Geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
- ▶ Die Kernlochbohrungen sind größer als normale Kernlöcher.

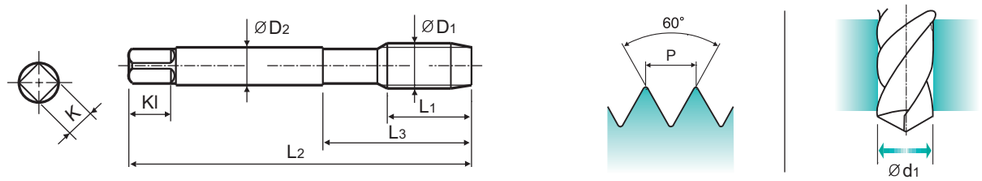
DIN 371

DIN 376



Hole type
3.0×D





Material groups **GV** | HSS-E | DIN 371/376 | 6HX | 60° | C | TiAlN | p.B265

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1	P	TiAlN	L1	L2	L3	ØD2	K	Kl	Ød1
M2	× 0.4	**TY703136**	8	45	13	2.8	2.1	5	1.83
M2.2	× 0.45	**TY703156**	8	45	13	2.8	2.1	5	2
*M2.3	× 0.4	**TY703196**	8	45	13	2.8	2.1	5	2.1
M2.5	× 0.45	**TY703176**	9	50	15	2.8	2.1	5	2.3
*M2.6	× 0.45	**TY703496**	9	50	15	2.8	2.1	5	2.4
M3	× 0.5	**TY703206**	11	56	18	3.5	2.7	6	2.8
M3.5	× 0.6	**TY703226**	12	56	20	4	3	6	3.25
M4	× 0.7	**TY703246**	13	63	21	4.5	3.4	6	3.7
M4.5	× 0.75	**TY703266**	14	70	25	6	4.9	8	4.15
M5	× 0.8	**TY703286**	15	70	25	6	4.9	8	4.65
M6	× 1.0	**TY703316**	17	80	30	6	4.9	8	5.55
M7	× 1.0	**TY703346**	17	80	30	7	5.5	8	6.55
M8	× 1.25	**TY703366**	20	90	35	8	6.2	9	7.4
M9	× 1.25	**TY703396**	20	90	35	9	7	10	8.4
M10	× 1.5	**TY703426**	22	100	39	10	8	11	9.3
M11	× 1.5	**TY703466**	22	100	40	8	6.2	9	10.3
M12	× 1.75	**TY703506**	24	110	44	9	7	10	11.2
M14	× 2.0	**TY703546**	26	110	44	11	9	12	13
M16	× 2.0	**TY703606**	27	110	44	12	9	12	15
M18	× 2.5	**TY703656**	30	125	50	14	11	14	16.8
M20	× 2.5	**TY703706**	32	140	54	16	12	15	18.8

- ▶ DIN 371(M2~M10) and DIN 376(M11~M20)
- ▶ * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

YG TAP FORMING

TQ703 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten

- ▶ Suitable for threading soft materials with at least 8-10% elongation in the best substrate.
- ▶ The pre-drilling holes are bigger than normal sized holes.

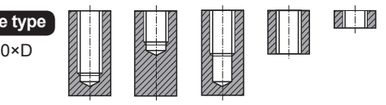
- ▶ Aus bestem Werkstoff geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
- ▶ Die Kernlochbohrungen sind größer als normale Kernlöcher.

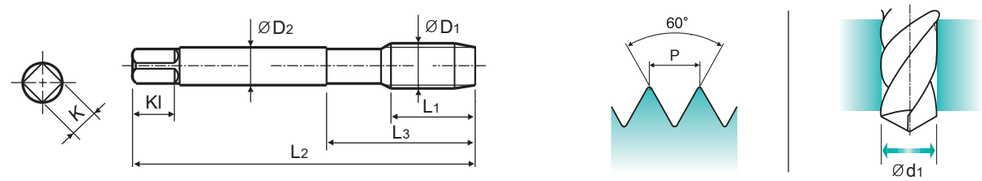
DIN 371

DIN 376



Hole type
3.0×D





Material groups **GV** | HSS PM | DIN 371/376 | 6HX | 60° | C | Vap | p.B265

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Ød1
M2	× 0.4	**TQ703136**	8	45	13	2.8	2.1	5	1.83
M2.2	× 0.45	**TQ703156**	8	45	13	2.8	2.1	5	2
*M2.3	× 0.4	**TQ703196**	8	45	13	2.8	2.1	5	2.1
M2.5	× 0.45	**TQ703176**	9	50	15	2.8	2.1	5	2.3
*M2.6	× 0.45	**TQ703496**	9	50	15	2.8	2.1	5	2.4
M3	× 0.5	**TQ703206**	11	56	18	3.5	2.7	6	2.8
M3.5	× 0.6	**TQ703226**	12	56	20	4	3	6	3.25
M4	× 0.7	**TQ703246**	13	63	21	4.5	3.4	6	3.7
M4.5	× 0.75	**TQ703266**	14	70	25	6	4.9	8	4.15
M5	× 0.8	**TQ703286**	15	70	25	6	4.9	8	4.65
M6	× 1.0	**TQ703316**	17	80	30	6	4.9	8	5.55
M7	× 1.0	**TQ703346**	17	80	30	7	5.5	8	6.55
M8	× 1.25	**TQ703366**	20	90	35	8	6.2	9	7.4
M9	× 1.25	**TQ703396**	20	90	35	9	7	10	8.4
M10	× 1.5	**TQ703426**	22	100	39	10	8	11	9.3
M11	× 1.5	**TQ703466**	22	100	40	8	6.2	9	10.3
M12	× 1.75	**TQ703506**	24	110	44	9	7	10	11.2
M14	× 2.0	**TQ703546**	26	110	44	11	9	12	13
M16	× 2.0	**TQ703606**	27	110	44	12	9	12	15
M18	× 2.5	**TQ703656**	30	125	50	14	11	14	16.8
M20	× 2.5	**TQ703706**	32	140	54	16	12	15	18.8

- ▶ DIN 371(M2~M10) and DIN 376(M11~M20)
- ▶ * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

YG TAP FORMING

TD713 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

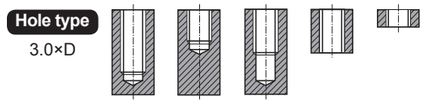
Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten

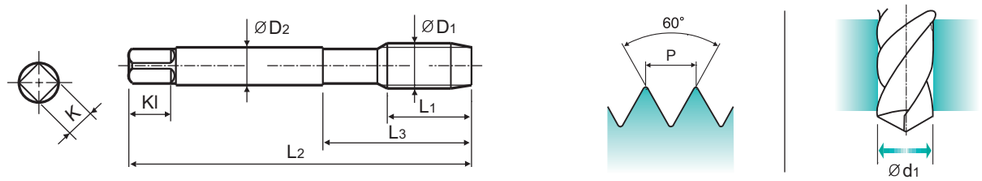
- Suitable for threading soft materials with at least 8-10% elongation.
- The pre-drilling holes are bigger than normal sized holes.

- Geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
- Die Kernlochbohrungen sind größer als normale Kernlöcher.

DIN 371

DIN 376





Material groups: GV | HSS-E | DIN 371/376 | 6GX | 60° | C | TiN

p.B265

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Ød1
M2	× 0.4	**TD713136**	8	45	13	2.8	2.1	5	1.83
M2.2	× 0.45	**TD713156**	8	45	13	2.8	2.1	5	2
*M2.3	× 0.4	**TD713196**	8	45	13	2.8	2.1	5	2.1
M2.5	× 0.45	**TD713176**	9	50	15	2.8	2.1	5	2.3
*M2.6	× 0.45	**TD713496**	9	50	15	2.8	2.1	5	2.4
M3	× 0.5	**TD713206**	11	56	18	3.5	2.7	6	2.8
M3.5	× 0.6	**TD713226**	12	56	20	4	3	6	3.25
M4	× 0.7	**TD713246**	13	63	21	4.5	3.4	6	3.7
M4.5	× 0.75	**TD713266**	14	70	25	6	4.9	8	4.15
M5	× 0.8	**TD713286**	15	70	25	6	4.9	8	4.65
M6	× 1.0	**TD713316**	17	80	30	6	4.9	8	5.55
M7	× 1.0	**TD713346**	17	80	30	7	5.5	8	6.55
M8	× 1.25	**TD713366**	20	90	35	8	6.2	9	7.4
M9	× 1.25	**TD713396**	20	90	35	9	7	10	8.4
M10	× 1.5	**TD713426**	22	100	39	10	8	11	9.3
M11	× 1.5	**TD713466**	22	100	40	8	6.2	9	10.3
M12	× 1.75	**TD713506**	24	110	44	9	7	10	11.2
M14	× 2.0	**TD713546**	26	110	44	11	9	12	13
M16	× 2.0	**TD713606**	27	110	44	12	9	12	15
M18	× 2.5	**TD713656**	30	125	50	14	11	14	16.8
M20	× 2.5	**TD713706**	32	140	54	16	12	15	18.8

- DIN 371(M2~M10) and DIN 376(M11~M20)
- * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

YG TAP FORMING

TE713 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

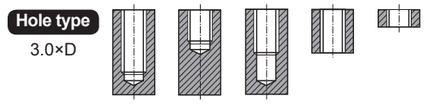
Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten

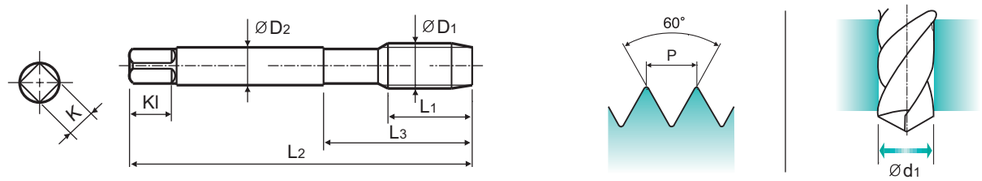
- Suitable for threading soft materials with at least 8-10% elongation.
- The pre-drilling holes are bigger than normal sized holes.

- Aus bestem Werkstoff geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
- Die Kernlochbohrungen sind größer als normale Kernlöcher.

DIN 371

DIN 376





Material groups: GV | HSS-E | DIN 371/376 | 6GX | 60° | C | Nitride

p.B265

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1	P	Ni	L1	L2	L3	ØD2	K	Kl	Ød1
M2	× 0.4	**TE713136**	8	45	13	2.8	2.1	5	1.83
M2.2	× 0.45	**TE713156**	8	45	13	2.8	2.1	5	2
*M2.3	× 0.4	**TE713196**	8	45	13	2.8	2.1	5	2.1
M2.5	× 0.45	**TE713176**	9	50	15	2.8	2.1	5	2.3
*M2.6	× 0.45	**TE713496**	9	50	15	2.8	2.1	5	2.4
M3	× 0.5	**TE713206**	11	56	18	3.5	2.7	6	2.8
M3.5	× 0.6	**TE713226**	12	56	20	4	3	6	3.25
M4	× 0.7	**TE713246**	13	63	21	4.5	3.4	6	3.7
M4.5	× 0.75	**TE713266**	14	70	25	6	4.9	8	4.15
M5	× 0.8	**TE713286**	15	70	25	6	4.9	8	4.65
M6	× 1.0	**TE713316**	17	80	30	6	4.9	8	5.55
M7	× 1.0	**TE713346**	17	80	30	7	5.5	8	6.55
M8	× 1.25	**TE713366**	20	90	35	8	6.2	9	7.4
M9	× 1.25	**TE713396**	20	90	35	9	7	10	8.4
M10	× 1.5	**TE713426**	22	100	39	10	8	11	9.3
M11	× 1.5	**TE713466**	22	100	40	8	6.2	9	10.3
M12	× 1.75	**TE713506**	24	110	44	9	7	10	11.2
M14	× 2.0	**TE713546**	26	110	44	11	9	12	13
M16	× 2.0	**TE713606**	27	110	44	12	9	12	15
M18	× 2.5	**TE713656**	30	125	50	14	11	14	16.8
M20	× 2.5	**TE713706**	32	140	54	16	12	15	18.8

- DIN 371(M2~M10) and DIN 376(M11~M20)
- * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

YG TAP FORMING

TQ723 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Cold forming taps
Gewindeformer

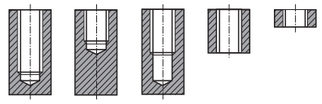
- ▶ Suitable for threading soft materials with at least 8-10% elongation in the best substrate.
- ▶ The pre-drilling holes are bigger than normal sized holes.
- ▶ Aus bestem Werkstoff geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
- ▶ Die Kernlochbohrungen sind größer als normale Kernlöcher.

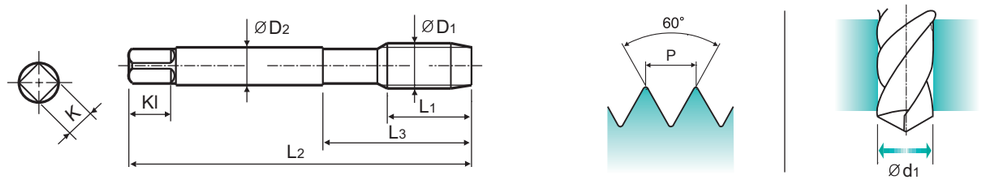
DIN 371

DIN 376



Hole type
3.0×D





Material groups: GV

HSS PM | DIN 371/376 | 6HX | 60° | C | Vap

p.B265

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK; TAPPING CHUCK; ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Ød1
M2	× 0.4	**TQ723136**	8	45	13	2.8	2.1	5	1.83
M2.2	× 0.45	**TQ723156**	8	45	13	2.8	2.1	5	2
*M2.3	× 0.4	**TQ723196**	8	45	13	2.8	2.1	5	2.1
M2.5	× 0.45	**TQ723176**	9	50	15	2.8	2.1	5	2.3
*M2.6	× 0.45	**TQ723496**	9	50	15	2.8	2.1	5	2.4
M3	× 0.5	**TQ723206**	11	56	18	3.5	2.7	6	2.8
M3.5	× 0.6	**TQ723226**	12	56	20	4	3	6	3.25
M4	× 0.7	**TQ723246**	13	63	21	4.5	3.4	6	3.7
M4.5	× 0.75	**TQ723266**	14	70	25	6	4.9	8	4.15
M5	× 0.8	**TQ723286**	15	70	25	6	4.9	8	4.65
M6	× 1.0	**TQ723316**	17	80	30	6	4.9	8	5.55
M7	× 1.0	**TQ723346**	17	80	30	7	5.5	8	6.55
M8	× 1.25	**TQ723366**	20	90	35	8	6.2	9	7.4
M9	× 1.25	**TQ723396**	20	90	35	9	7	10	8.4
M10	× 1.5	**TQ723426**	22	100	39	10	8	11	9.3
M11	× 1.5	**TQ723466**	22	100	40	8	6.2	9	10.3
M12	× 1.75	**TQ723506**	24	110	44	9	7	10	11.2
M14	× 2.0	**TQ723546**	26	110	44	11	9	12	13
M16	× 2.0	**TQ723606**	27	110	44	12	9	12	15
M18	× 2.5	**TQ723656**	30	125	50	14	11	14	16.8
M20	× 2.5	**TQ723706**	32	140	54	16	12	15	18.8

- ▶ DIN 371(M2~M10) and DIN 376(M11~M20)
- ▶ * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

YG TAP FORMING

TE723 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Cold forming taps
Gewindeformer

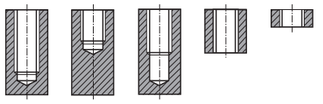
- ▶ Suitable for threading soft materials with at least 8-10% elongation.
- ▶ The pre-drilling holes are bigger than normal sized holes.
- ▶ Geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
- ▶ Die Kernlochbohrungen sind größer als normale Kernlöcher.

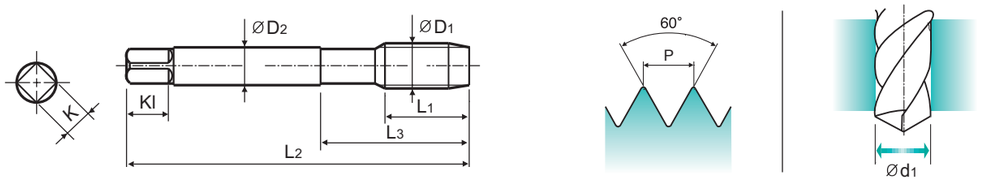
DIN 371

DIN 376



Hole type
3.0×D





Material groups: GV

HSS-E | DIN 371/376 | 6HX | 60° | C | Nitride

p.B265

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK; TAPPING CHUCK; ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1	P	Ni	L1	L2	L3	ØD2	K	Kl	Ød1
M2	× 0.4	**TE723136**	8	45	13	2.8	2.1	5	1.83
M2.2	× 0.45	**TE723156**	8	45	13	2.8	2.1	5	2
*M2.3	× 0.4	**TE723196**	8	45	13	2.8	2.1	5	2.1
M2.5	× 0.45	**TE723176**	9	50	15	2.8	2.1	5	2.3
*M2.6	× 0.45	**TE723496**	9	50	15	2.8	2.1	5	2.4
M3	× 0.5	**TE723206**	11	56	18	3.5	2.7	6	2.8
M3.5	× 0.6	**TE723226**	12	56	20	4	3	6	3.25
M4	× 0.7	**TE723246**	13	63	21	4.5	3.4	6	3.7
M4.5	× 0.75	**TE723266**	14	70	25	6	4.9	8	4.15
M5	× 0.8	**TE723286**	15	70	25	6	4.9	8	4.65
M6	× 1.0	**TE723316**	17	80	30	6	4.9	8	5.55
M7	× 1.0	**TE723346**	17	80	30	7	5.5	8	6.55
M8	× 1.25	**TE723366**	20	90	35	8	6.2	9	7.4
M9	× 1.25	**TE723396**	20	90	35	9	7	10	8.4
M10	× 1.5	**TE723426**	22	100	39	10	8	11	9.3
M11	× 1.5	**TE723466**	22	100	40	8	6.2	9	10.3
M12	× 1.75	**TE723506**	24	110	44	9	7	10	11.2
M14	× 2.0	**TE723546**	26	110	44	11	9	12	13
M16	× 2.0	**TE723606**	27	110	44	12	9	12	15
M18	× 2.5	**TE723656**	30	125	50	14	11	14	16.8
M20	× 2.5	**TE723706**	32	140	54	16	12	15	18.8

- ▶ DIN 371(M2~M10) and DIN 376(M11~M20)
- ▶ * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

YG TAP FORMING

TD723 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Cold forming taps
Gewindeformer

- Suitable for threading soft materials with at least 8-10% elongation.
- The pre-drilling holes are bigger than normal sized holes.

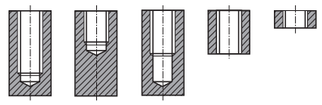
- Geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
- Die Kernlochbohrungen sind größer als normale Kernlöcher.

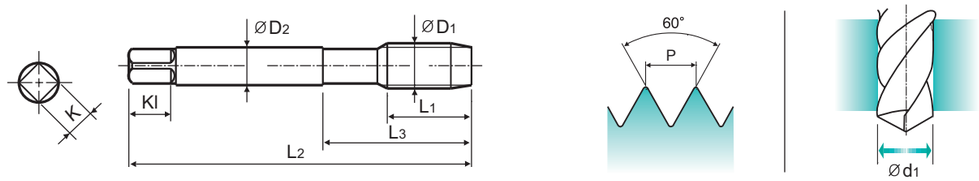
DIN 371

DIN 376



Hole type
3.0×D





Material groups: GV | HSS-E | DIN 371/376 | 6HX | 60° | C | TiN

p.B265

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Ød1
M2	× 0.4	**TD723136**	8	45	13	2.8	2.1	5	1.83
M2.2	× 0.45	**TD723156**	8	45	13	2.8	2.1	5	2
*M2.3	× 0.4	**TD723196**	8	45	13	2.8	2.1	5	2.1
M2.5	× 0.45	**TD723176**	9	50	15	2.8	2.1	5	2.3
*M2.6	× 0.45	**TD723496**	9	50	15	2.8	2.1	5	2.4
M3	× 0.5	**TD723206**	11	56	18	3.5	2.7	6	2.8
M3.5	× 0.6	**TD723226**	12	56	20	4	3	6	3.25
M4	× 0.7	**TD723246**	13	63	21	4.5	3.4	6	3.7
M4.5	× 0.75	**TD723266**	14	70	25	6	4.9	8	4.15
M5	× 0.8	**TD723286**	15	70	25	6	4.9	8	4.65
M6	× 1.0	**TD723316**	17	80	30	6	4.9	8	5.55
M7	× 1.0	**TD723346**	17	80	30	7	5.5	8	6.55
M8	× 1.25	**TD723366**	20	90	35	8	6.2	9	7.4
M9	× 1.25	**TD723396**	20	90	35	9	7	10	8.4
M10	× 1.5	**TD723426**	22	100	39	10	8	11	9.3
M11	× 1.5	**TD723466**	22	100	40	8	6.2	9	10.3
M12	× 1.75	**TD723506**	24	110	44	9	7	10	11.2
M14	× 2.0	**TD723546**	26	110	44	11	9	12	13
M16	× 2.0	**TD723606**	27	110	44	12	9	12	15
M18	× 2.5	**TD723656**	30	125	50	14	11	14	16.8
M20	× 2.5	**TD723706**	32	140	54	16	12	15	18.8

- DIN 371(M2~M10) and DIN 376(M11~M20)
- * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

YG TAP FORMING

TD733 SERIES

MF ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Cold forming taps with oil grooves
Gewindeformer

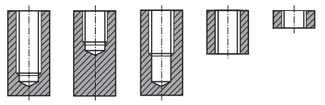
- Suitable for threading soft materials with at least 8-10% elongation.
- The pre-drilling holes are bigger than normal sized holes.

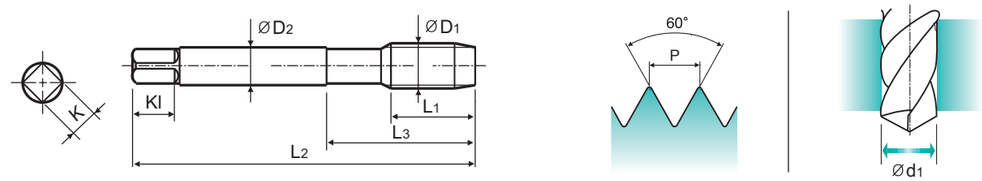
- Geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
- Die Kernlochbohrungen sind größer als normale Kernlöcher.

DIN 374



Hole type
3.0×D





Material groups: GV | HSS-E | DIN 374 | 6HX | 60° | C | TiN

p.B265

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Ød1
M4	× 0.5	**TD733256**	10	63	21	2.8	2.1	5	3.75
M5	× 0.5	**TD733296**	11	70	25	3.5	2.7	6	4.75
M6	× 0.75	**TD733326**	13	80	30	4.5	3.4	6	5.65
M6	× 0.5	**TD733336**	13	80	30	4.5	3.4	6	5.75
M7	× 0.75	**TD733356**	14	80	30	5.5	4.3	7	6.65
M8	× 1.0	**TD733376**	17	90	36	6	4.9	8	7.5
M8	× 0.75	**TD733386**	14	80	30	6	4.9	8	7.65
M10	× 1.25	**TD733436**	22	100	40	7	5.5	8	9.4
M10	× 1.0	**TD733446**	18	90	36	7	5.5	8	9.5
M10	× 0.75	**TD733456**	18	90	36	7	5.5	8	9.65
M12	× 1.5	**TD733516**	22	100	40	9	7	10	11.25
M12	× 1.25	**TD733526**	22	100	40	9	7	10	11.4
M12	× 1.0	**TD733536**	18	100	40	9	7	10	11.5
M14	× 1.5	**TD733556**	22	100	40	11	9	12	13.25
M14	× 1.25	**TD733566**	22	100	40	11	9	12	13.4
M16	× 1.5	**TD733616**	22	100	40	12	9	12	15.25
M18	× 1.5	**TD733676**	25	110	44	14	11	14	17.25
M20	× 1.5	**TD733726**	25	125	50	16	12	15	19.25

◎ : Excellent ○ : Good

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

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

YG TAP FORMING

TE733 SERIES

MF

ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten

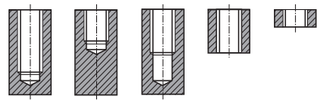
▶ Suitable for threading soft materials with at least 8-10% elongation.
▶ The pre-drilling holes are bigger than normal sized holes.

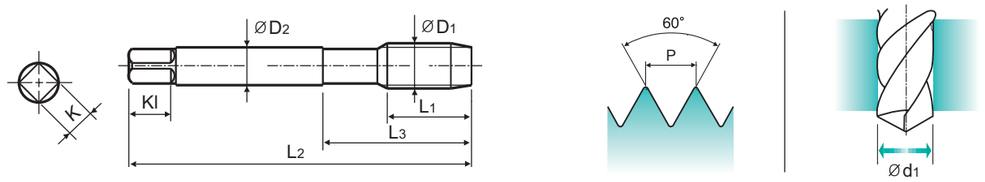
▶ Geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
▶ Die Kernlochbohrungen sind größer als normale Kernlöcher.

DIN 374



Hole type
3.0×D





Material groups: GV | HSS-E | DIN 374 | 6HX | 60° | C | Nitride

p.B265

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK; TAPPING CHUCK; ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1	P	Ni	L1	L2	L3	ØD2	K	Kl	Ød1
M4	× 0.5	**TE733256**	10	63	21	2.8	2.1	5	3.75
M5	× 0.5	**TE733296**	11	70	25	3.5	2.7	6	4.75
M6	× 0.75	**TE733326**	13	80	30	4.5	3.4	6	5.65
M6	× 0.5	**TE733336**	13	80	30	4.5	3.4	6	5.75
M7	× 0.75	**TE733356**	14	80	30	5.5	4.3	7	6.65
M8	× 1.0	**TE733376**	17	90	36	6	4.9	8	7.5
M8	× 0.75	**TE733386**	14	80	30	6	4.9	8	7.65
M10	× 1.25	**TE733436**	22	100	40	7	5.5	8	9.4
M10	× 1.0	**TE733446**	18	90	36	7	5.5	8	9.5
M10	× 0.75	**TE733456**	18	90	36	7	5.5	8	9.65
M12	× 1.5	**TE733516**	22	100	40	9	7	10	11.25
M12	× 1.25	**TE733526**	22	100	40	9	7	10	11.4
M12	× 1.0	**TE733536**	18	100	40	9	7	10	11.5
M14	× 1.5	**TE733556**	22	100	40	11	9	12	13.25
M14	× 1.25	**TE733566**	22	100	40	11	9	12	13.4
M16	× 1.5	**TE733616**	22	100	40	12	9	12	15.25
M18	× 1.5	**TE733676**	25	110	44	14	11	14	17.25
M20	× 1.5	**TE733726**	25	125	50	16	12	15	19.25

◎ : 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 TAP FORMING

TD704 SERIES

UNC

Unified coarse threads

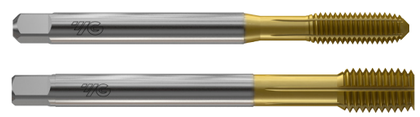
Unified Grobgewinde
UNC
Unificato passo grosso

Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten

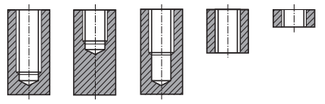
▶ Suitable for threading soft materials with at least 8-10% elongation.
▶ The pre-drilling holes are bigger than normal sized holes.

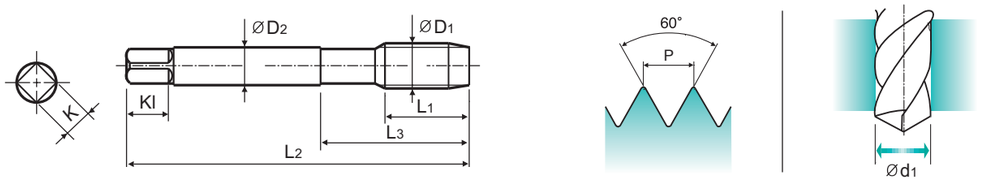
▶ Geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
▶ Die Kernlochbohrungen sind größer als normale Kernlöcher.

DIN 371
DIN 376



Hole type
3.0×D





Material groups: GV | HSS-E | DIN 371/376 | 2BX | 60° | C | TiN

p.B265

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK; TAPPING CHUCK; ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1		TiN	L1	L2	L3	ØD2	K	Kl	Ød1
#5	- 40 UNC	**TD704202**	11	56	18	3.5	2.7	6	2.87
#6	- 32 UNC	**TD704242**	12	56	20	4	3	6	3.1
#8	- 32 UNC	**TD704282**	13	63	21	4.5	3.4	6	3.8
#10	- 24 UNC	**TD704322**	15	70	25	6	4.9	8	4.3
#12	- 24 UNC	**TD704362**	16	80	30	6	4.9	8	4.95
1/4	- 20 UNC	**TD704402**	17	80	30	7	5.5	8	5.75
5/16	- 18 UNC	**TD704442**	20	90	35	8	6.2	9	7.25
3/8	- 16 UNC	**TD704482**	22	100	39	9	7	10	8.75
7/16	- 14 UNC	**TD704522**	22	100	40	8	6.2	9	10.2
1/2	- 13 UNC	**TD704562**	25	110	44	9	7	10	11.7
9/16	- 12 UNC	**TD704602**	26	110	40	11	9	12	13.2
5/8	- 11 UNC	**TD704642**	27	110	44	12	9	12	14.7
3/4	- 10 UNC	**TD704702**	30	125	50	14	11	14	17.8

▶ DIN 371(#4~3/8) and DIN 376(7/16~3/4)

◎ : Excellent ○ : Good

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

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

YG TAP FORMING

TE704 SERIES

UNC

Unified coarse threads

Unified Grobgewinde
UNC
Unificato passo grosso

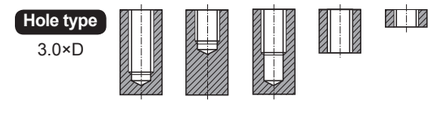
Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten

▶ Suitable for threading soft materials with at least 8-10% elongation.
▶ The pre-drilling holes are bigger than normal sized holes.

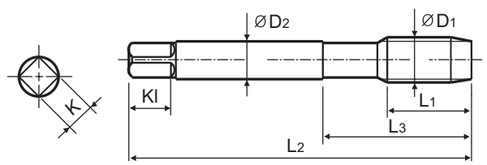
▶ Geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
▶ Die Kernlochbohrungen sind größer als normale Kernlöcher.

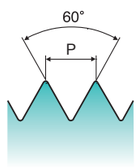
DIN 371

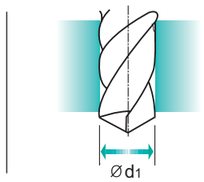
DIN 376



Hole type
3.0×D







Material groups GV | HSS-E | DIN 371/376 | 2BX | 60° | C | Nitride | p.B265

Recommended ToolHolder: Plain Shank, TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE ØD1	TPI	EDP No. Ni	Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length Kl	Tapping Drill Diameter Ød1
#5	40 UNC	**TE704202**	11	56	18	3.5	2.7	6	2.87
#6	32 UNC	**TE704242**	12	56	20	4	3	6	3.1
#8	32 UNC	**TE704282**	13	63	21	4.5	3.4	6	3.8
#10	24 UNC	**TE704322**	15	70	25	6	4.9	8	4.3
#12	24 UNC	**TE704362**	16	80	30	6	4.9	8	4.95
1/4	20 UNC	**TE704402**	17	80	30	7	5.5	8	5.75
5/16	18 UNC	**TE704442**	20	90	35	8	6.2	9	7.25
3/8	16 UNC	**TE704482**	22	100	39	9	7	10	8.75
7/16	14 UNC	**TE704522**	22	100	40	8	6.2	9	10.2
1/2	13 UNC	**TE704562**	25	110	44	9	7	10	11.7
9/16	12 UNC	**TE704602**	26	110	40	11	9	12	13.2
5/8	11 UNC	**TE704642**	27	110	44	12	9	12	14.7
3/4	10 UNC	**TE704702**	30	125	50	14	11	14	17.8

▶ DIN 371(#4~3/8) and DIN 376(7/16~3/4)

◎ : Excellent ○ : Good

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

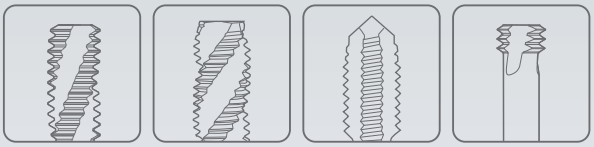
ISO	N										S							H		
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29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

YG TAP FORMING

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

ISO	VDI 3323	Material Description	HB	HRc	TD703 TD733 TD704	TE703 TE733 TE704	TY703	TQ703	TD713	TE713	TQ723	TE723	TD723
					Vc (m/min)								
P	1	Non-alloy steel	125		15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20
	2		190	13	15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20
	3		250	25	12-18	12-18	12-18	12-18	12-18	12-18	12-18	12-18	12-18
	6	Low alloy steel	180	10	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15
M	12	Stainless steel	200	15	10-13	7-10	10-13	7-10	10-13	7-10	7-10	7-10	10-13
	13		240	23	8-11	5-8	8-11	5-8	8-11	5-8	5-8	5-8	8-11
	14		180	10	6-8	4-6	6-8	4-6	6-8	4-6	4-6	4-6	6-8
N	21	Aluminum-wrought alloy	60		10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15
	22		100		10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15
	23	Aluminum-cast, alloyed	75		15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20
	24		90		10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15
	26	Copper and Copper Alloys (Bronze / Brass)	110		25-35	25-35	25-35	25-35	25-35	25-35	25-35	25-35	25-35
	28		100		15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20

Global Cutting Tool Leader **YG-1**



THREADING



Leading Through Innovation

HSS & HSS-E

YG TAP GENERAL

YG Gewindebohrer Universal

- **Suitable for Tapping Blind / Through Holes due to Flute Geometry and Excellent Chip Evacuation**
- **Geeignet für das Gewindeschneiden von Grund- und Durchgangsbohrungen aufgrund der Nutengeometrie und der hervorragenden Spanabfuhr**

SELECTION GUIDE

YG THREADING TOOLS

HSS & HSS-E
YG TAP GENERAL

Suitable for Tapping Blind / Through Holes
due to Flute Geometry and Excellent Chip Evacuation

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B309

			Max. 2.5xD Blind Hole		
HOLE TYPE					
TOOL MATERIAL			HSS-E		
CHAMFER LEAD ACC. TO DIN2197			C	C	C
FLUTE TYPE			Spiral Flute	Spiral Flute	Spiral Flute
SPIRAL FLUTE ANGLE			R40	R40	R20
SERIES	M	DIN371/376	TC711 (p.B272)	TD711 (p.B273)	TC517 (p.B281)
		DIN352			TC612 (p.B282)
		DIN357/LONG			
	MF	DIN374	TC411 (p.B274)	TD411 (p.B276)	
		DIN2181			
	UNC	DIN371/376	TC144 (p.B278)		
		DIN351			
	UNF	DIN371/374	TC124 (p.B279)		
		DIN2181			
	BSW	DIN2182/2183	TC134 (p.B280)		
		DIN351			
	G(BSP)	DIN5156/5157			
	EG-M	DIN371/376			
	EG-UNC	DIN371/376			
	EG-UNF	DIN371/374			
SURFACE TREATMENT			Bright	TiN	Bright
MODEL					

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc			
P	1	Non-alloy steel	About 0.15% C	Annealed	125		○	○	○
	2		About 0.45% C	Annealed	190	13	◎	◎	◎
	3		About 0.45% C	Quenched & Tempered	250	25	◎	◎	◎
	4		About 0.75% C	Annealed	270	28	◎	◎	◎
	5		About 0.75% C	Quenched & Tempered	300	32	○	○	○
	6	Low alloy steel		Annealed	180	10	◎	◎	◎
	7			Quenched & Tempered	275	29	◎	◎	◎
	8			Quenched & Tempered	300	32	○	○	○
	9			Quenched & Tempered	350	38			
	10	High alloyed steel, and tool steel		Annealed	200	15			
	11			Quenched & Tempered	325	35			
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15	○	○	○
	13		Martensitic	Quenched & Tempered	240	23	○	○	○
	14		Austenitic		180	10			
K	15	Grey cast iron	Pearlitic / ferritic		180	10			
	16		Pearlitic (Martensitic)		260	26			
	17	Nodular cast iron	Ferritic		160	3	◎	◎	◎
	18		Pearlitic		250	25	◎	◎	◎
	19	Malleable cast iron	Ferritic		130				
	20		Pearlitic		230	21			
N	21	Aluminum-wrought alloy	Not Curable		60		○	○	○
	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			
	32			Cured	280	30			
	33		Ni or Co Based	Annealed	250	25			
	34			Cured	350	38			
	35			Cast	320	34			
	36	Titanium Alloys	Pure Titanium		400 Rm				
	37		Alpha + Beta Alloys	Hardened	1050 Rm				
H	38	Hardened steel		Hardened	550	55			
	39			Hardened	630	60			
	40	Chilled Cast Iron		Cast	400	42			
	41	Hardened Cast Iron		Hardened	550	55			

	Max. 3.0xD Through Hole				Max. 2.0xD Blind/Through Hole		
	HSS-E						
	B	B	B	B	C	C	
	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Flute	Straight Flute	
	-	-	-	-	L20	-	
M	TC127 (p.B283)	TD127 (p.B284)	TC227 (p.B293)	TD227 (p.B294)	TC211 (p.B295)	TC463 (p.B296)	M
	TC122 (p.B285)						
MF	TC222 (p.B286)	TD222 (p.B288)				TC473 (p.B297)	MF
UNC	TC214 (p.B290)					TC424 (p.B298)	UNC
UNF	TC234 (p.B291)						UNF
BSW	TC224 (p.B292)						BSW
G(BSP)							G(BSP)
EG-M							EG-M
EG-UNC							EG-UNC
EG-UNF							EG-UNF
Bright	TiN	Bright	TiN	Bright	Bright		
							

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

SELECTION GUIDE

YG THREADING TOOLS

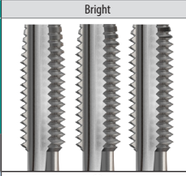
HSS & HSS-E YG TAP GENERAL

Suitable for Tapping Blind / Through Holes
due to Flute Geometry and Excellent Chip Evacuation

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B309

				HSS	
HOLE TYPE				Max. 2.0xD Blind/Through Hole	
TOOL MATERIAL				HSS	
CHAMFER LEAD ACC. TO DIN2197				I / II / III	I / III
FLUTE TYPE				Straight Flute	Straight Flute
SPIRAL FLUTE ANGLE				-	-
		M	DIN371/376		
			DIN352	T7109 (p.B299)	
			DIN357/LONG		
		MF	DIN374		
			DIN2181		T7309 (p.B301)
		UNC	DIN371/376		
			DIN351		
		UNF	DIN371/374		
			DIN2181		
		BSW	DIN2182/2183		
			DIN351		
		G(BSP)	DIN5156/5157		
		EG-M	DIN371/376		
		EG-UNC	DIN371/376		
		EG-UNF	DIN371/374		
SURFACE TREATMENT				Bright	Bright
MODEL					

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc		
P	1	Non-alloy steel	About 0.15% C	Annealed	125		○	○
	2		About 0.45% C	Annealed	190	13	○	○
	3		About 0.45% C	Quenched & tempered	250	25	○	○
	4		About 0.75% C	Annealed	270	28	○	○
	5		About 0.75% C	Quenched & tempered	300	32		
	6	Low alloy steel		Annealed	180	10	○	○
	7			Quenched & tempered	275	29	○	○
	8			Quenched & tempered	300	32		
	9			Quenched & tempered	350	38		
	10	High alloyed steel, and tool steel		Annealed	200	15		
	11			Quenched & Tempered	325	35		
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15		
	13		Martensitic	Quenched & Tempered	240	23		
	14		Austenitic		180	10		
K	15	Grey cast iron	Pearlitic / ferritic		180	10		
	16		Pearlitic (Martensitic)		260	26		
	17	Nodular cast iron	Ferritic		160	3	○	○
	18		Pearlitic		250	25	○	○
	19	Malleable cast iron	Ferritic		130			
	20		Pearlitic		230	21		
N	21	Aluminum-wrought alloy	Not Curable		60			
	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		
	32			Cured	280	30		
	33		Ni or Co Based	Annealed	250	25		
	34			Cured	350	38		
	35			Cast	320	34		
	36	Titanium Alloys	Pure Titanium		400 Rm			
	37		Alpha + Beta Alloys	Hardened	1050 Rm			
H	38	Hardened steel		Hardened	550	55		
	39			Hardened	630	60		
	40	Chilled Cast Iron		Cast	400	42		
	41	Hardened Cast Iron		Hardened	550	55		

	HSS				HSS-E		
Max. 2.0xD Blind/Through Hole							
I / II / III	I / III	I / II / III	I / II / III		I / II / III	I / II / III	
Straight Flute	Straight Flute	Straight Flute	Straight Flute		Straight Flute	Straight Flute	
-	-	-	Left Hand Cut		-	-	
				M			M
			T7343 (p.B306)	MF	TB373 (p.B307)	TC353 (p.B308)	MF
				UNC			UNC
T7363 (p.B303)				UNF			UNF
	T7509 (p.B304)			BSW			BSW
		T7609 (p.B305)		G(BSP)			G(BSP)
				EG-M			EG-M
				EG-UNC			EG-UNC
				EG-UNF			EG-UNF
Bright	Bright	Bright	Bright		VAP	Bright	
							
○	○	○	○		○	○	1 P
○	○	○	○		○	○	2 P
○	○	○	○		○	○	3 P
○	○	○	○		○	○	4 P
							5 P
○	○	○	○		○	○	6 P
○	○	○	○		○	○	7 P
							8 P
							9 P
							10 P
							11 P
					○		12 M
					○		13 M
					○		14 M
							15 K
							16 K
○	○	○	○				17 K
○	○	○	○				18 K
							19 K
							20 K
							21 N
							22 N
							23 N
							24 N
○	○	○	○				25 N
○	○	○	○				26 N
○	○	○	○				27 N
							28 N
							29 N
							30 N
							31 S
							32 S
							33 S
							34 S
							35 S
							36 S
							37 S
							38 H
							39 H
							40 H
							41 H

YG TAP GENERAL

TC711 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

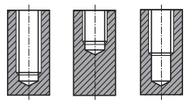
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

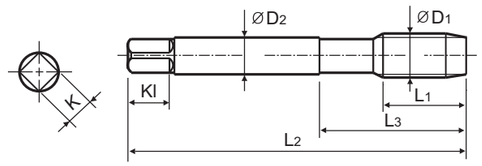
DIN 371

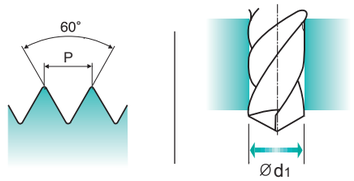
DIN 376



Hole type
2.5×D







Material groups **GS** | HSS-E | DIN 371/376 | 6H | 60° | C | R40 | Bright | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TC711136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TC711156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	**TC711196**	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	**TC711176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	**TC711496**	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	**TC711206**	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TC711226**	7	56	20	4	3	6	3	2.9
M4	× 0.7	**TC711246**	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TC711266**	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TC711286**	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TC711316**	10	80	30	6	4.9	8	3	5
M7	× 1.0	**TC711346**	10	80	30	7	5.5	8	3	6
M8	× 1.25	**TC711366**	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	**TC711396**	13	90	35	9	7	10	3	7.8
M10	× 1.5	**TC711426**	15	100	39	10	8	11	3	8.5
M11	× 1.5	**TC711466**	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TC711506**	18	110	44	9	7	10	3	10.2
M14	× 2.0	**TC711546**	20	110	44	11	9	12	3	12
M16	× 2.0	**TC711606**	20	110	44	12	9	12	3	14
M18	× 2.5	**TC711656**	25	125	50	14	11	14	4	15.5
M20	× 2.5	**TC711706**	25	140	54	16	12	15	4	17.5
M22	× 2.5	**TC711746**	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TC711786**	30	160	60	18	14.5	17	4	21
M27	× 3.0	**TC711866**	30	160	60	20	16	19	4	24
M30	× 3.5	**TC711946**	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP GENERAL

TD711 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

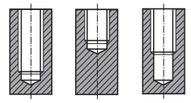
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

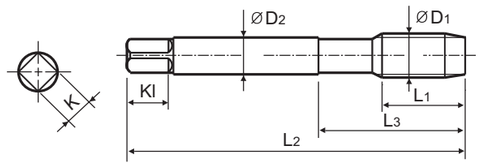
DIN 371

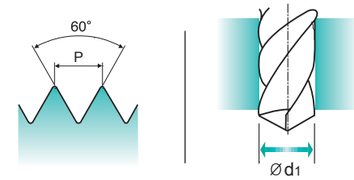
DIN 376



Hole type
2.5×D







Material groups **GS** | HSS-E | DIN 371/376 | 6H | 60° | C | R40 | TiN | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TD711136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TD711156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	**TD711196**	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	**TD711176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	**TD711496**	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	**TD711206**	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TD711226**	7	56	20	4	3	6	3	2.9
M4	× 0.7	**TD711246**	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TD711266**	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TD711286**	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TD711316**	10	80	30	6	4.9	8	3	5
M7	× 1.0	**TD711346**	10	80	30	7	5.5	8	3	6
M8	× 1.25	**TD711366**	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	**TD711396**	13	90	35	9	7	10	3	7.8
M10	× 1.5	**TD711426**	15	100	39	10	8	11	3	8.5
M11	× 1.5	**TD711466**	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TD711506**	18	110	44	9	7	10	3	10.2
M14	× 2.0	**TD711546**	20	110	44	11	9	12	3	12
M16	× 2.0	**TD711606**	20	110	44	12	9	12	3	14
M18	× 2.5	**TD711656**	25	125	50	14	11	14	4	15.5
M20	× 2.5	**TD711706**	25	140	54	16	12	15	4	17.5
M22	× 2.5	**TD711746**	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TD711786**	30	160	60	18	14.5	17	4	21
M27	× 3.0	**TD711866**	30	160	60	20	16	19	4	24
M30	× 3.5	**TD711946**	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : 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 TAP GENERAL

TC411 SERIES

MF ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

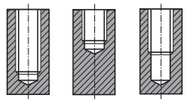
▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

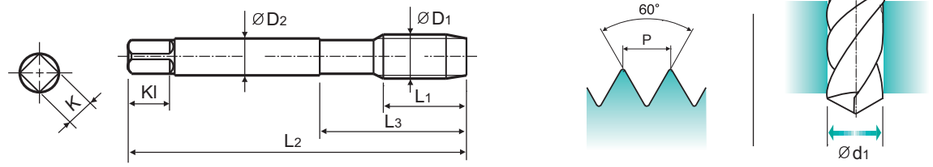
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

DIN 374



Hole type
2.5×D





Material groups **GS** | HSS-E | DIN 374 | 6H | 60° | C | R40 | Bright | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4	× 0.5	TC411256	5	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	TC411296	5	70	25	3.5	2.7	6	3	4.5
M6	× 0.75	TC411326	8	80	30	4.5	3.4	6	3	5.2
M6	× 0.5	TC411336	5	80	30	4.5	3.4	6	3	5.5
M7	× 0.75	TC411356	10	80	30	5.5	4.3	7	3	6.2
M8	× 1.0	TC411376	10	90	36	6	4.9	8	3	7
M8	× 0.75	TC411386	8	80	30	6	4.9	8	3	7.2
M8	× 0.5	TC411936	5	80	30	6	4.9	8	3	7.5
M10	× 1.25	TC411436	16	100	40	7	5.5	8	3	8.8
M10	× 1.0	TC411446	10	90	36	7	5.5	8	3	9
M10	× 0.75	TC411456	10	90	36	7	5.5	8	3	9.2
M12	× 1.5	TC411516	15	100	40	9	7	10	3	10.5
M12	× 1.25	TC411526	15	100	40	9	7	10	3	10.8
M12	× 1.0	TC411536	11	100	40	9	7	10	3	11
M14	× 1.5	TC411556	15	100	40	11	9	12	3	12.5
M14	× 1.25	TC411566	15	100	40	11	9	12	3	12.8
M14	× 1.0	TC411576	11	100	40	11	9	12	3	13
M16	× 1.5	TC411616	15	100	40	12	9	12	3	14.5
M16	× 1.0	TC411626	12	100	40	12	9	12	3	15
M18	× 1.5	TC411676	17	110	44	14	11	14	4	16.5
M18	× 1.0	TC411686	13	110	44	14	11	14	4	17

▶ NEXT PAGE

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TC411 SERIES

MF ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

DIN 374

Hole type
2.5×D

Material groups GS | HSS-E | DIN 374 | 6H | 60° | C | R40 | Bright | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M20	× 1.5	TC411726	17	125	50	16	12	15	4	18.5
M20	× 1.0	TC411736	14	125	50	16	12	15	4	19
M22	× 1.5	TC411766	17	125	50	18	14.5	17	4	20.5
M22	× 1.0	TC411776	14	125	50	18	14.5	17	4	21
M24	× 2.0	TC411796	20	140	54	18	14.5	17	4	22
M24	× 1.5	TC411806	20	140	54	18	14.5	17	4	22.5
M26	× 1.5	TC411856	20	140	54	18	14.5	17	4	24.5
M27	× 2.0	TC411876	20	140	54	20	16	19	4	25
M27	× 1.5	TC411886	20	140	54	20	16	19	4	25.5
M28	× 1.5	TC411916	20	140	54	20	16	19	4	26.5
M30	× 2.0	TC411966	22	150	57	22	18	21	4	28
M30	× 1.5	TC411976	22	150	57	22	18	21	4	28.5

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TD411 SERIES

MF ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

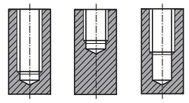
▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

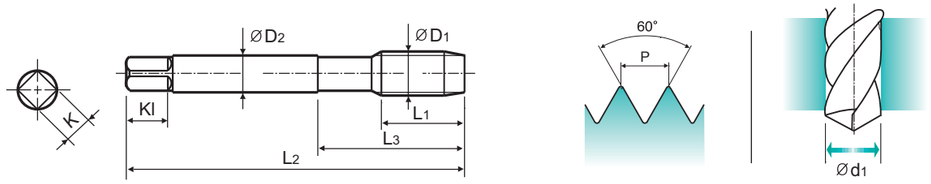
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

DIN 374



Hole type
2.5×D





Material groups **GS** | HSS-E | DIN 374 | 6H | 60° | C | R40 | TiN | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4 ×	0.5	TD411256	5	63	21	2.8	2.1	5	3	3.5
M5 ×	0.5	TD411296	5	70	25	3.5	2.7	6	3	4.5
M6 ×	0.75	TD411326	8	80	30	4.5	3.4	6	3	5.2
M6 ×	0.5	TD411336	5	80	30	4.5	3.4	6	3	5.5
M7 ×	0.75	TD411356	10	80	30	5.5	4.3	7	3	6.2
M8 ×	1.0	TD411376	10	90	36	6	4.9	8	3	7
M8 ×	0.75	TD411386	8	80	30	6	4.9	8	3	7.2
M8 ×	0.5	TD411936	5	80	30	6	4.9	8	3	7.5
M10 ×	1.25	TD411436	16	100	40	7	5.5	8	3	8.8
M10 ×	1.0	TD411446	10	90	36	7	5.5	8	3	9
M10 ×	0.75	TD411456	10	90	36	7	5.5	8	3	9.2
M12 ×	1.5	TD411516	15	100	40	9	7	10	3	10.5
M12 ×	1.25	TD411526	15	100	40	9	7	10	3	10.8
M12 ×	1.0	TD411536	11	100	40	9	7	10	3	11
M14 ×	1.5	TD411556	15	100	40	11	9	12	3	12.5
M14 ×	1.25	TD411566	15	100	40	11	9	12	3	12.8
M14 ×	1.0	TD411576	11	100	40	11	9	12	3	13
M16 ×	1.5	TD411616	15	100	40	12	9	12	3	14.5

▶ NEXT PAGE

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TD411 SERIES

MF ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

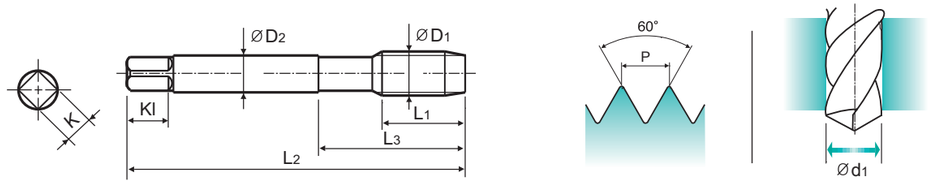
Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

DIN 374

Hole type
2.5×D



Material groups **GS** | HSS-E | DIN 374 | 6H | 60° | C | R40 | TiN | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M16 ×	1.0	TD411626	12	100	40	12	9	12	3	15
M18 ×	1.5	TD411676	17	110	44	14	11	14	4	16.5
M18 ×	1.0	TD411686	13	110	44	14	11	14	4	17
M20 ×	1.5	TD411726	17	125	50	16	12	15	4	18.5
M20 ×	1.0	TD411736	14	125	50	16	12	15	4	19
M22 ×	1.5	TD411766	17	125	50	18	14.5	17	4	20.5
M22 ×	1.0	TD411776	14	125	50	18	14.5	17	4	21
M24 ×	2.0	TD411796	20	140	54	18	14.5	17	4	22
M24 ×	1.5	TD411806	20	140	54	18	14.5	17	4	22.5
M26 ×	1.5	TD411856	20	140	54	18	14.5	17	4	24.5
M27 ×	2.0	TD411876	20	140	54	20	16	19	4	25
M27 ×	1.5	TD411886	20	140	54	20	16	19	4	25.5
M28 ×	1.5	TD411916	20	140	54	20	16	19	4	26.5
M30 ×	2.0	TD411966	22	150	57	22	18	21	4	28
M30 ×	1.5	TD411976	22	150	57	22	18	21	4	28.5

◎ : 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 TAP GENERAL

TC144 SERIES

UNC Unified coarse threads

Unified Grobgewinde
UNC
Unificato passo grosso

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

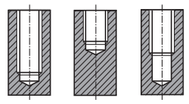
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

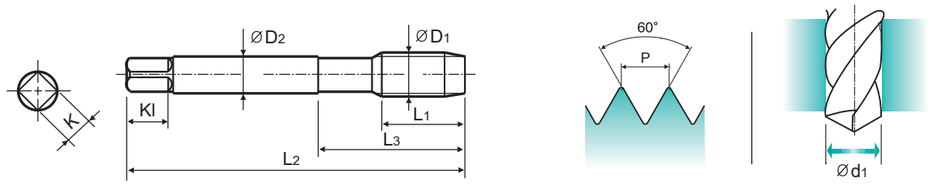
DIN 371

DIN 376



Hole type
2.5×D





Material groups **GS** | HSS-E | DIN 371/376 | 2B | 60° | C | R40 | Bright | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	-40UNC	TC144162	6	56	18	3.5	2.7	6	3	2.3
#5	-40UNC	TC144202	7	56	18	3.5	2.7	6	3	2.6
#6	-32UNC	TC144242	7	56	20	4	3	6	3	2.85
#8	-32UNC	TC144282	8	63	21	4.5	3.4	6	3	3.5
#10	-24UNC	TC144322	10	70	25	6	4.9	8	3	3.9
#12	-24UNC	TC144362	10	80	30	6	4.9	8	3	4.5
1/4	-20UNC	TC144402	13	80	30	7	5.5	8	3	5.2
5/16	-18UNC	TC144442	14	90	35	8	6.2	9	3	6.6
3/8	-16UNC	TC144482	16	100	39	9	7	10	3	8
7/16	-14UNC	TC144522	17	100	40	8	6.2	9	3	9.4
1/2	-13UNC	TC144562	20	110	44	9	7	10	3	10.75
9/16	-12UNC	TC144602	20	110	44	11	9	12	3	12.25
5/8	-11UNC	TC144642	22	110	44	12	9	12	3	13.5
3/4	-10UNC	TC144702	25	125	50	14	11	14	4	16.5
7/8	- 9UNC	TC144742	27	140	54	18	14.5	17	4	19.5
1	- 8UNC	TC144782	30	160	60	20	16	19	4	22.25
1-1/8	- 7UNC	TC144822	35	180	65	22	18	21	4	25

▶ DIN 371(#4~3/8) and DIN 376(7/16~1-1/8)

◎ : 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 TAP GENERAL

TC124 SERIES

UNF Unified fine threads

Unified Feingewinde
UNF
Unificato passo fine

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

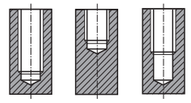
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

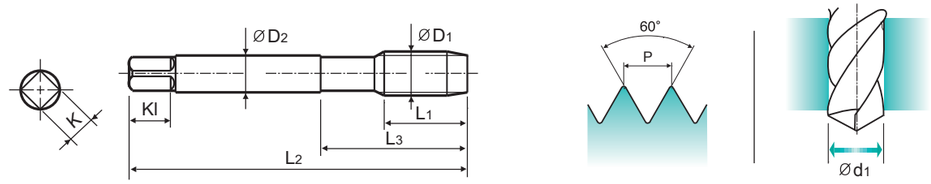
DIN 371

DIN 374



Hole type
2.5×D





Material groups **GS** | HSS-E | DIN 371/374 | 2B | 60° | C | R40 | Bright | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	-48UNF	TC124182	6	56	18	3.5	2.7	6	3	2.4
#5	-44UNF	TC124222	7	56	18	3.5	2.7	6	3	2.7
#6	-40UNF	TC124262	7	56	20	4	3	6	3	3
#8	-36UNF	TC124302	8	63	21	4.5	3.4	6	3	3.5
#10	-32UNF	TC124342	10	70	25	6	4.9	8	3	4.1
#12	-28UNF	TC124382	10	80	30	6	4.9	8	3	4.7
1/4	-28UNF	TC124422	10	80	30	7	5.5	8	3	5.5
5/16	-24UNF	TC124462	10	90	35	8	6.2	9	3	6.9
3/8	-24UNF	TC124502	10	100	39	9	7	10	3	8.5
7/16	-20UNF	TC124542	13	100	40	8	6.2	9	3	9.9
1/2	-20UNF	TC124582	13	100	40	9	7	10	3	11.5
9/16	-18UNF	TC124622	15	100	40	11	9	12	3	12.9
5/8	-18UNF	TC124662	15	100	40	12	9	12	3	14.5
3/4	-16UNF	TC124722	17	110	44	14	11	14	4	17.5
7/8	-14UNF	TC124762	17	125	50	18	14.5	17	4	20.5
1	-12UNF	TC124802	20	140	54	18	14.5	17	4	23.25
1-1/8	-12UNF	TC124842	22	150	60	22	18	21	4	26.5

▶ DIN 371(#4~3/8) and DIN 374(7/16~1-1/8)

◎ : 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 TAP GENERAL

TC134 SERIES

BSW Whitworth threads

Whitworth Gewinde
BSW
Unificato passo grosso

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

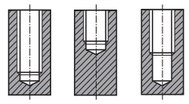
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

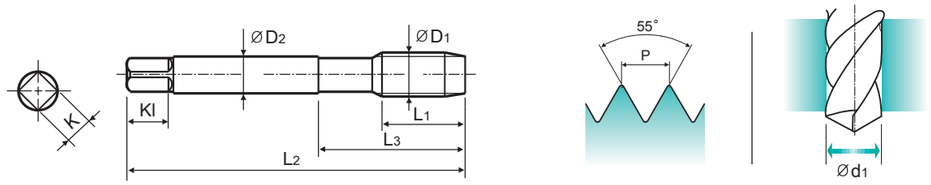
DIN 2182

DIN 2183



Hole type
2.5×D





Material groups GS | HSS-E | DIN 2182/2183 | 55° | C | R40 | Bright | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
W1/8	- 40	TC134200	7	56	18	3.5	2.7	6	3	2.5
W5/32	- 32	TC134280	7	63	21	4.5	3.4	6	3	3.1
W3/16	- 24	TC134320	10	70	25	6	4.9	8	3	3.6
W7/32	- 24	TC134360	10	80	30	6	4.9	8	3	4.4
W1/4	- 20	TC134400	13	80	30	7	5.5	8	3	5.1
W5/16	- 18	TC134440	14	90	35	8	6.2	9	3	6.5
W3/8	- 16	TC134480	16	100	39	9	7	10	3	7.9
W7/16	- 14	TC134520	17	100	40	8	6.2	9	3	9.3
W1/2	- 12	TC134560	20	110	44	9	7	10	3	10.5
W9/16	- 12	TC134600	20	110	44	11	9	12	3	12
W5/8	- 11	TC134640	22	110	40	12	9	12	3	13.5
W3/4	- 10	TC134700	25	125	50	14	11	14	4	16.5
W7/8	- 9	TC134740	27	140	54	18	14.5	17	4	19.25
W1	- 8	TC134780	30	160	60	20	16	19	4	22
W1-1/8	- 7	TC134820	35	180	65	22	18	21	4	24.75

▶ DIN 2182(W1/8~W3/8) and DIN 2183(W7/16~W1-1/8)

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TC517 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

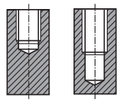
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

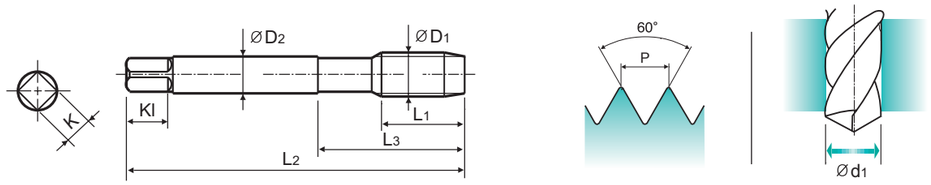
DIN 371

DIN 376



Hole type
2.5×D





Material groups GS | HSS-E | DIN 371/376 | 6H | 60° | C | R20 | Bright | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	TC517136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TC517156	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	TC517196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TC517176	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	TC517496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TC517206	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TC517226	7	56	20	4	3	6	3	2.9
M4	× 0.7	TC517246	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TC517266	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	TC517286	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	TC517316	10	80	30	6	4.9	8	3	5
M7	× 1.0	TC517346	10	80	30	7	5.5	8	3	6
M8	× 1.25	TC517366	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	TC517396	13	90	35	9	7	10	3	7.8
M10	× 1.5	TC517426	15	100	39	10	8	11	3	8.5
M11	× 1.5	TC517466	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	TC517506	18	110	44	9	7	10	3	10.2
M14	× 2.0	TC517546	20	110	44	11	9	12	3	12
M16	× 2.0	TC517606	20	110	44	12	9	12	3	14
M18	× 2.5	TC517656	25	125	50	14	11	14	4	15.5
M20	× 2.5	TC517706	25	140	54	16	12	15	4	17.5
M22	× 2.5	TC517746	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	TC517786	30	160	60	18	14.5	17	4	21
M27	× 3.0	TC517866	30	160	60	20	16	19	4	24
M30	× 3.5	TC517946	35	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TC612 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

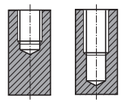
▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

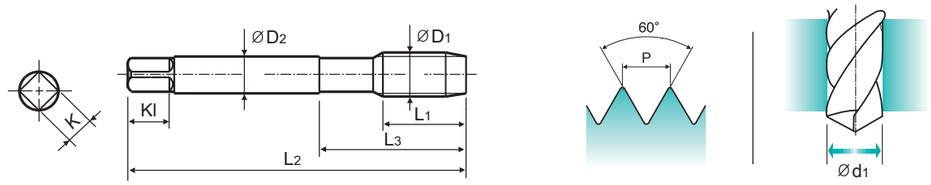
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

DIN 352



Hole type
2.5×D





Material groups **GS** | HSS-E | DIN 352 | 6H | 60° | C | R20 | Bright | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	× 0.5	TC612206	11	40	18	3.5	2.7	6	3	2.5
M4	× 0.7	TC612246	13	45	21	4.5	3.4	6	3	3.3
M5	× 0.8	TC612286	16	52	26	6	4.9	8	3	4.2
M6	× 1.0	TC612316	18	56	27	6	4.9	8	3	5
M8	× 1.25	TC612366	20	63	34	6	4.9	8	3	6.8
M10	× 1.5	TC612426	22	70	38	7	5.5	8	3	8.5
M12	× 1.75	TC612506	24	80	45	9	7	10	3	10.2
M14	× 2.0	TC612546	26	80	45	11	9	12	3	12
M16	× 2.0	TC612606	27	80	45	12	9	12	3	14
M18	× 2.5	TC612656	30	95	58	14	11	14	4	15.5
M20	× 2.5	TC612706	32	95	58	16	12	15	4	17.5

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TC127 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

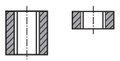
▶ Suitable for through hole in more cutting speed than other taps due to thick web.

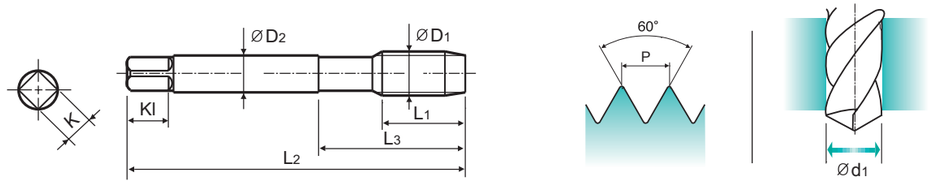
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

DIN 371



Hole type
3.0×D





Material groups **GS** | HSS-E | DIN 371 | 6H | 60° | B | Bright | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	TC127136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TC127156	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	TC127196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TC127176	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	TC127496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TC127206	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TC127226	12	56	20	4	3	6	3	2.9
M4	× 0.7	TC127246	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TC127266	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	TC127286	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	TC127316	17	80	30	6	4.9	8	3	5
M7	× 1.0	TC127346	17	80	30	7	5.5	8	3	6
M8	× 1.25	TC127366	20	90	35	8	6.2	9	3	6.8
M9	× 1.25	TC127396	20	90	35	9	7	10	3	7.8
M10	× 1.5	TC127426	22	100	39	10	8	11	3	8.5
M11	× 1.5	TC127466	22	100	39	11	9	12	3	9.5
M12	× 1.75	TC127506	24	110	44	12	9	12	3	10.2

▶ * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TD127 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

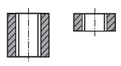
▶ Suitable for through hole in more cutting speed than other taps due to thick web.

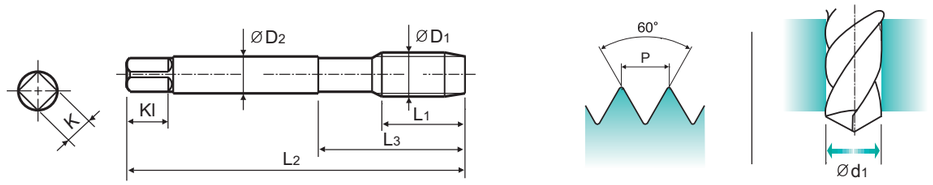
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

DIN 371



Hole type
3.0×D





Material groups: GS | HSS-E | DIN 371 | 6H | 60° | B | TiN

p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	**TD127136**	8	45	13	2.8	2.1	5	3	1.6
M2.2 ×	0.45	**TD127156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3 ×	0.4	**TD127196**	8	45	13	2.8	2.1	5	3	1.9
M2.5 ×	0.45	**TD127176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6 ×	0.45	**TD127496**	9	50	15	2.8	2.1	5	3	2.1
M3 ×	0.5	**TD127206**	11	56	18	3.5	2.7	6	3	2.5
M3.5 ×	0.6	**TD127226**	12	56	20	4	3	6	3	2.9
M4 ×	0.7	**TD127246**	13	63	21	4.5	3.4	6	3	3.3
M4.5 ×	0.75	**TD127266**	14	70	25	6	4.9	8	3	3.7
M5 ×	0.8	**TD127286**	15	70	25	6	4.9	8	3	4.2
M6 ×	1.0	**TD127316**	17	80	30	6	4.9	8	3	5
M7 ×	1.0	**TD127346**	17	80	30	7	5.5	8	3	6
M8 ×	1.25	**TD127366**	20	90	35	8	6.2	9	3	6.8
M9 ×	1.25	**TD127396**	20	90	35	9	7	10	3	7.8
M10 ×	1.5	**TD127426**	22	100	39	10	8	11	3	8.5
M11 ×	1.5	**TD127466**	22	100	39	11	9	12	3	9.5
M12 ×	1.75	**TD127506**	24	110	44	12	9	12	3	10.2

▶ *DIN profile not ISO

◎ : 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 TAP GENERAL

TC122 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

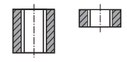
▶ Suitable for through hole in more cutting speed than other taps due to thick web.

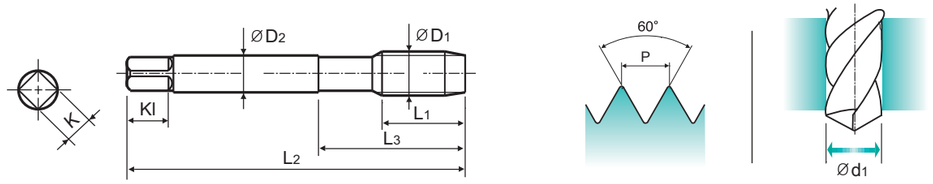
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

DIN 352



Hole type
3.0×D





Material groups: GS | HSS-E | DIN 352 | 6H | 60° | B | Bright

p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 ×	0.4	**TC122136**	8	36	13	2.8	2.1	5	3	1.6
M2.5 ×	0.45	**TC122176**	9	40	15	2.8	2.1	5	3	2.05
M3 ×	0.5	**TC122206**	11	40	18	3.5	2.7	6	3	2.5
M4 ×	0.7	**TC122246**	13	45	21	4.5	3.4	6	3	3.3
M5 ×	0.8	**TC122286**	16	52	26	6	4.9	8	3	4.2
M6 ×	1.0	**TC122316**	18	56	27	6	4.9	8	3	5
M8 ×	1.25	**TC122366**	20	63	34	6	4.9	8	3	6.8
M10 ×	1.5	**TC122426**	22	70	38	7	5.5	8	3	8.5
M12 ×	1.75	**TC122506**	24	80	45	9	7	10	3	10.2
M14 ×	2.0	**TC122546**	26	80	45	11	9	12	3	12
M16 ×	2.0	**TC122606**	27	80	45	12	9	12	3	14

◎ : 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 TAP GENERAL

TC222 SERIES

MF ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

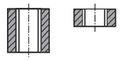
▶ Suitable for through hole in more cutting speed than other taps due to thick web.

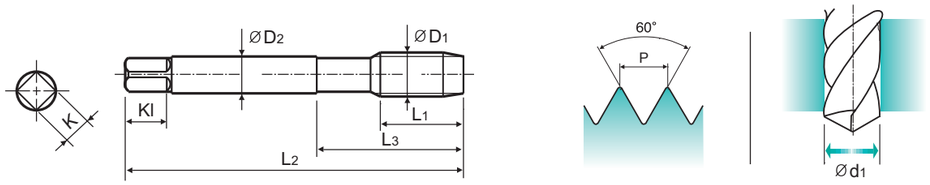
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

DIN 374



Hole type
3.0×D





Material groups GS | HSS-E | DIN 374 | 6H | 60° | B | Bright

p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4	× 0.5	TC222256	10	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	TC222296	11	70	25	3.5	2.7	6	3	4.5
M6	× 0.75	TC222326	13	80	30	4.5	3.4	6	3	5.2
M6	× 0.5	TC222336	13	80	30	4.5	3.4	6	3	5.5
M7	× 0.75	TC222356	14	80	30	5.5	4.3	7	3	6.2
M8	× 1.0	TC222376	17	90	36	6	4.9	8	3	7
M8	× 0.75	TC222386	14	80	30	6	4.9	8	3	7.2
M8	× 0.5	TC222936	14	80	30	6	4.9	8	3	7.5
M10	× 1.25	TC222436	22	100	40	7	5.5	8	3	8.8
M10	× 1.0	TC222446	18	90	36	7	5.5	8	3	9
M10	× 0.75	TC222456	18	90	36	7	5.5	8	3	9.2
M12	× 1.5	TC222516	22	100	40	9	7	10	3	10.5
M12	× 1.25	TC222526	22	100	40	9	7	10	3	10.8
M12	× 1.0	TC222536	18	100	40	9	7	10	3	11
M14	× 1.5	TC222556	22	100	40	11	9	12	3	12.5
M14	× 1.25	TC222566	22	100	40	11	9	12	3	12.8
M14	× 1.0	TC222576	18	100	40	11	9	12	3	13

▶ NEXT PAGE

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TC222 SERIES

MF ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web.

▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

DIN 374

Hole type
3.0×D

Material groups GS | HSS-E | DIN 374 | 6H | 60° | B | Bright

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M16	× 1.5	TC222616	22	100	40	12	9	12	3	14.5
M16	× 1.0	TC222626	18	100	40	12	9	12	3	15
M18	× 1.5	TC222676	25	110	44	14	11	14	4	16.5
M18	× 1.0	TC222686	20	110	44	14	11	14	4	17
M20	× 1.5	TC222726	25	125	50	16	12	15	4	18.5
M20	× 1.0	TC222736	20	125	50	16	12	15	4	19
M22	× 1.5	TC222766	25	125	50	18	14.5	17	4	20.5
M22	× 1.0	TC222776	20	125	50	18	14.5	17	4	21
M24	× 2.0	TC222796	27	140	54	18	14.5	17	4	22
M24	× 1.5	TC222806	27	140	54	18	14.5	17	4	22.5
M26	× 1.5	TC222856	28	140	54	18	14.5	17	4	24.5
M27	× 2.0	TC222876	28	140	54	20	16	19	4	25
M27	× 1.5	TC222886	28	140	54	20	16	19	4	25.5
M28	× 1.5	TC222916	28	140	54	20	16	19	4	26.5
M30	× 2.0	TC222966	30	150	57	22	18	21	4	28
M30	× 1.5	TC222976	30	150	57	22	18	21	4	28.5

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TD222 SERIES

MF ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

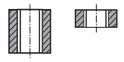
▶ Suitable for through hole in more cutting speed than other taps due to thick web.

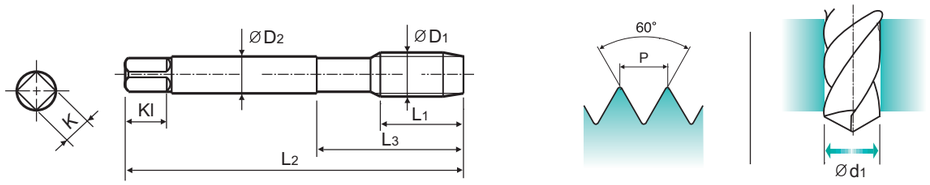
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

DIN 374



Hole type
3.0×D





Material groups GS | HSS-E | DIN 374 | 6H | 60° | B | TiN

p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4	× 0.5	**TD222256**	10	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	**TD222296**	11	70	25	3.5	2.7	6	3	4.5
M6	× 0.75	**TD222326**	13	80	30	4.5	3.4	6	3	5.2
M6	× 0.5	**TD222336**	13	80	30	4.5	3.4	6	3	5.5
M7	× 0.75	**TD222356**	14	80	30	5.5	4.3	7	3	6.2
M8	× 1.0	**TD222376**	17	90	36	6	4.9	8	3	7
M8	× 0.75	**TD222386**	14	80	30	6	4.9	8	3	7.2
M8	× 0.5	**TD222936**	14	80	30	6	4.9	8	3	7.5
M10	× 1.25	**TD222436**	22	100	40	7	5.5	8	3	8.8
M10	× 1.0	**TD222446**	18	90	36	7	5.5	8	3	9
M10	× 0.75	**TD222456**	18	90	36	7	5.5	8	3	9.2
M12	× 1.5	**TD222516**	22	100	40	9	7	10	3	10.5
M12	× 1.25	**TD222526**	22	100	40	9	7	10	3	10.8
M12	× 1.0	**TD222536**	18	100	40	9	7	10	3	11
M14	× 1.5	**TD222556**	22	100	40	11	9	12	3	12.5
M14	× 1.25	**TD222566**	22	100	40	11	9	12	3	12.8
M14	× 1.0	**TD222576**	18	100	40	11	9	12	3	13
M16	× 1.5	**TD222616**	22	100	40	12	9	12	3	14.5

▶ NEXT PAGE

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TD222 SERIES

MF ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web.

▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

DIN 374

Hole type
3.0×D

Material groups GS | HSS-E | DIN 374 | 6H | 60° | B | TiN

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M16	× 1.0	**TD222626**	18	100	40	12	9	12	3	15
M18	× 1.5	**TD222676**	25	110	44	14	11	14	4	16.5
M18	× 1.0	**TD222686**	20	110	44	14	11	14	4	17
M20	× 1.5	**TD222726**	25	125	50	16	12	15	4	18.5
M20	× 1.0	**TD222736**	20	125	50	16	12	15	4	19
M22	× 1.5	**TD222766**	25	125	50	18	14.5	17	4	20.5
M22	× 1.0	**TD222776**	20	125	50	18	14.5	17	4	21
M24	× 2.0	**TD222796**	27	140	54	18	14.5	17	4	22
M24	× 1.5	**TD222806**	27	140	54	18	14.5	17	4	22.5
M26	× 1.5	**TD222856**	28	140	54	18	14.5	17	4	24.5
M27	× 2.0	**TD222876**	28	140	54	20	16	19	4	25
M27	× 1.5	**TD222886**	28	140	54	20	16	19	4	25.5
M28	× 1.5	**TD222916**	28	140	54	20	16	19	4	26.5
M30	× 2.0	**TD222966**	30	150	57	22	18	21	4	28
M30	× 1.5	**TD222976**	30	150	57	22	18	21	4	28.5

◎ : 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 TAP GENERAL

TC214 SERIES

UNC

Unified coarse threads

Unified Grobgewinde
UNC
Unificato passo grosso

Machine taps
Maschinengewindebohrer

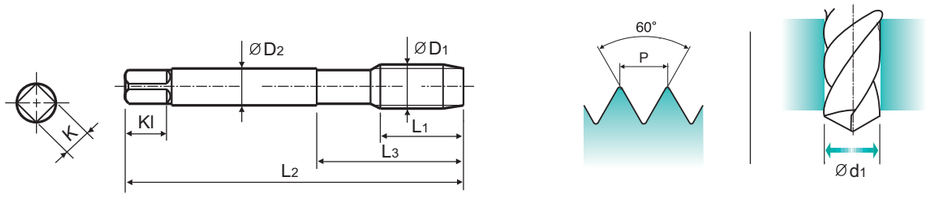
▶ Suitable for through hole in more cutting speed than other taps due to thick web.

▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

DIN 371

DIN 376

Hole type
3.0×D



Material groups: GS | HSS-E | DIN 371/376 | 2B | 60° | B | Bright

p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 40UNC	TC214162	11	56	18	3.5	2.7	6	3	2.3
#5	- 40UNC	TC214202	11	56	18	3.5	2.7	6	3	2.6
#6	- 32UNC	TC214242	12	56	20	4	3	6	3	2.85
#8	- 32UNC	TC214282	13	63	21	4.5	3.4	6	3	3.5
#10	- 24UNC	TC214322	15	70	25	6	4.9	8	3	3.9
#12	- 24UNC	TC214362	16	80	30	6	4.9	8	3	4.5
1/4	- 20UNC	TC214402	17	80	30	7	5.5	8	3	5.2
5/16	- 18UNC	TC214442	20	90	35	8	6.2	9	3	6.6
3/8	- 16UNC	TC214482	22	100	39	9	7	10	3	8
7/16	- 14UNC	TC214522	22	100	40	8	6.2	9	3	9.4
1/2	- 13UNC	TC214562	25	110	44	9	7	10	3	10.75
9/16	- 12UNC	TC214602	26	110	44	11	9	12	3	12.25
5/8	- 11UNC	TC214642	27	110	44	12	9	12	3	13.5
3/4	- 10UNC	TC214702	30	125	50	14	11	14	4	16.5
7/8	- 9UNC	TC214742	32	140	54	18	14.5	17	4	19.5
1	- 8UNC	TC214782	36	160	60	20	16	19	4	22.25
1-1/8	- 7UNC	TC214822	40	180	70	22	18	21	4	25

▶ DIN 371(#4~3/8) and DIN 376(7/16~1-1/8)

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TC234 SERIES

UNF

Unified fine threads

Unified Feingewinde
UNF
Unificato passo fine

Machine taps
Maschinengewindebohrer

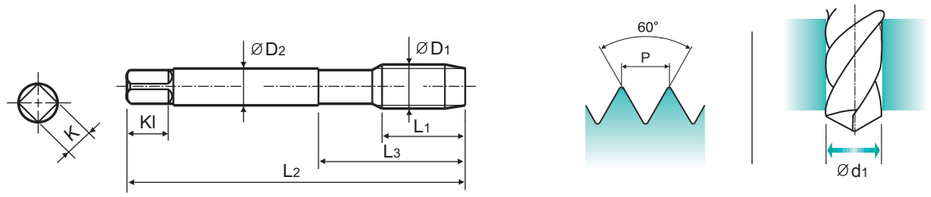
▶ Suitable for through hole in more cutting speed than other taps due to thick web.

▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

DIN 371

DIN 374

Hole type
3.0×D



Material groups: GS | HSS-E | DIN 371/374 | 2B | 60° | B | Bright

p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 48UNF	TC234182	11	56	18	3.5	2.7	6	3	2.4
#5	- 44UNF	TC234222	11	56	18	3.5	2.7	6	3	2.7
#6	- 40UNF	TC234262	12	56	20	4	3	6	3	3
#8	- 36UNF	TC234302	13	63	21	4.5	3.4	6	3	3.5
#10	- 32UNF	TC234342	15	70	25	6	4.9	8	3	4.1
#12	- 28UNF	TC234382	16	80	30	6	4.9	8	3	4.7
1/4	- 28UNF	TC234422	17	80	30	7	5.5	8	3	5.5
5/16	- 24UNF	TC234462	17	90	35	8	6.2	9	3	6.9
3/8	- 24UNF	TC234502	18	100	39	9	7	10	3	8.5
7/16	- 20UNF	TC234542	22	100	40	8	6.2	9	3	9.9
1/2	- 20UNF	TC234582	22	100	40	9	7	10	3	11.5
9/16	- 18UNF	TC234622	22	100	40	11	9	12	3	12.9
5/8	- 18UNF	TC234662	22	100	40	12	9	12	3	14.5
3/4	- 16UNF	TC234722	25	110	44	14	11	14	4	17.5
7/8	- 14UNF	TC234762	26	125	50	18	14.5	17	4	20.5
1	- 12UNF	TC234802	28	140	54	18	14.5	17	4	23.25
1-1/8	- 12UNF	TC234842	30	150	60	22	18	21	4	26.5

▶ DIN 371(#4~3/8) and DIN 374(7/16~1-1/8)

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TC224 SERIES

BSW Whitworth threads

Whitworth Gewinde
BSW
Filettatura Whitworth

Machine taps
Maschinengewindebohrer

▶ Suitable for through hole in more cutting speed than other taps due to thick web.

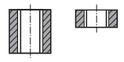
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

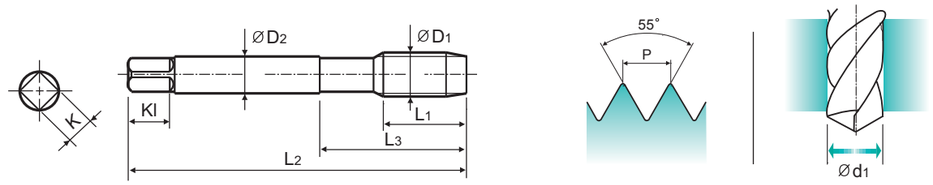
DIN 2182

DIN 2183



Hole type
3.0×D





Material groups GS | HSS-E | DIN 2182/2183 | 6H | 55° | B | Bright

p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
W1/8	- 40	TC224200	11	56	18	3.5	2.7	6	3	2.5
W5/32	- 32	TC224280	13	63	21	4.5	3.4	6	3	3.1
W3/16	- 24	TC224320	15	70	25	6	4.9	8	3	3.6
W7/32	- 24	TC224360	16	80	30	6	4.9	8	3	4.4
W1/4	- 20	TC224400	17	80	30	7	5.5	8	3	5.1
W5/16	- 18	TC224440	20	90	35	8	6.2	9	3	6.5
W3/8	- 16	TC224480	22	100	39	9	7	10	3	7.9
W7/16	- 14	TC224520	22	100	40	8	6.2	9	3	9.3
W1/2	- 12	TC224560	25	110	44	9	7	10	3	10.5
W9/16	- 12	TC224600	26	110	44	11	9	12	3	12
W5/8	- 11	TC224640	27	110	44	12	9	12	3	13.5
W3/4	- 10	TC224700	30	125	50	14	11	14	4	16.5
W7/8	- 9	TC224740	32	140	54	18	14.5	17	4	19.25
W1	- 8	TC224780	36	160	60	20	16	19	4	22
W1-1/8	- 7	TC224820	40	180	65	22	18	21	4	24.75

▶ DIN 2182(W1/8~W3/8) and DIN 2183(W7/16~W1-1/8)

◎ : 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 TAP GENERAL

TC227 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

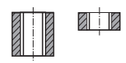
▶ Suitable for through hole in more cutting speed than other taps due to thick web.

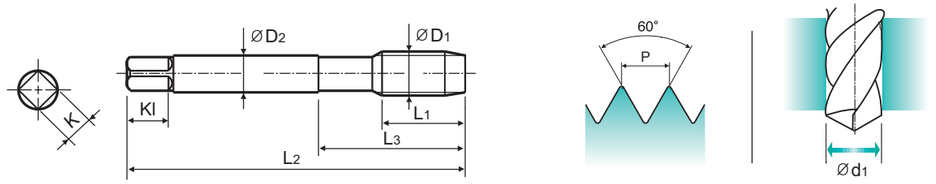
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

DIN 376



Hole type
3.0×D





Material groups GS | HSS-E | DIN 376 | 6H | 60° | B | Bright

p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	× 0.5	TC227206	11	56	18	2.2	1.8	5	3	2.5
M3.5	× 0.6	TC227226	12	56	20	2.5	2.1	5	3	2.9
M4	× 0.7	TC227246	13	63	21	2.8	2.1	5	3	3.3
M4.5	× 0.75	TC227266	14	70	25	3.5	2.7	6	3	3.7
M5	× 0.8	TC227286	15	70	25	3.5	2.7	6	3	4.2
M6	× 1.0	TC227316	17	80	30	4.5	3.4	6	3	5
M7	× 1.0	TC227346	17	80	30	5.5	4.3	7	3	6
M8	× 1.25	TC227366	20	90	36	6	4.9	8	3	6.8
M9	× 1.25	TC227396	20	90	36	7	5.5	8	3	7.8
M10	× 1.5	TC227426	22	100	40	7	5.5	8	3	8.5
M11	× 1.5	TC227466	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	TC227506	24	110	44	9	7	10	3	10.2
M14	× 2.0	TC227546	26	110	44	11	9	12	3	12
M16	× 2.0	TC227606	27	110	44	12	9	12	3	14
M18	× 2.5	TC227656	30	125	50	14	11	14	4	15.5
M20	× 2.5	TC227706	32	140	54	16	12	15	4	17.5
M22	× 2.5	TC227746	32	140	54	18	14.5	17	4	19.5
M24	× 3.0	TC227786	34	160	60	18	14.5	17	4	21
M27	× 3.0	TC227866	36	160	60	20	16	19	4	24
M30	× 3.5	TC227946	40	180	70	22	18	21	4	26.5

◎ : 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 TAP GENERAL

TD227 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

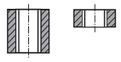
▶ Suitable for through hole in more cutting speed than other taps due to thick web.

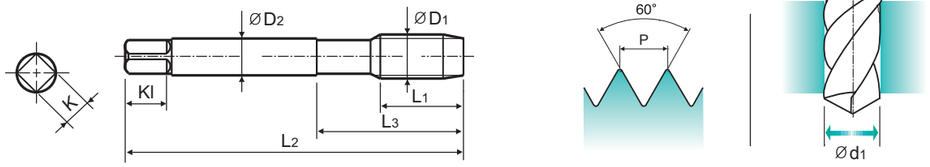
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

DIN 376



Hole type
3.0×D





Material groups **GS** | HSS-E | DIN 376 | 6H | 60° | B | TiN | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	× 0.5	**TD227206**	11	56	18	2.2	1.8	5	3	2.5
M3.5	× 0.6	**TD227226**	12	56	20	2.5	2.1	5	3	2.9
M4	× 0.7	**TD227246**	13	63	21	2.8	2.1	5	3	3.3
M4.5	× 0.75	**TD227266**	14	70	25	3.5	2.7	6	3	3.7
M5	× 0.8	**TD227286**	15	70	25	3.5	2.7	6	3	4.2
M6	× 1.0	**TD227316**	17	80	30	4.5	3.4	6	3	5
M7	× 1.0	**TD227346**	17	80	30	5.5	4.3	7	3	6
M8	× 1.25	**TD227366**	20	90	36	6	4.9	8	3	6.8
M9	× 1.25	**TD227396**	20	90	36	7	5.5	8	3	7.8
M10	× 1.5	**TD227426**	22	100	40	7	5.5	8	3	8.5
M11	× 1.5	**TD227466**	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TD227506**	24	110	44	9	7	10	3	10.2
M14	× 2.0	**TD227546**	26	110	44	11	9	12	3	12
M16	× 2.0	**TD227606**	27	110	44	12	9	12	3	14
M18	× 2.5	**TD227656**	30	125	50	14	11	14	4	15.5
M20	× 2.5	**TD227706**	32	140	54	16	12	15	4	17.5
M22	× 2.5	**TD227746**	32	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TD227786**	34	160	60	18	14.5	17	4	21
M27	× 3.0	**TD227866**	36	160	60	20	16	19	4	24
M30	× 3.5	**TD227946**	40	180	70	22	18	21	4	26.5

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TC211 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Left spiral flute and right hand thread tap to push chips ahead in powerful than spiral point taps.

▶ Rechtsschneidender Gewindebohrer mit Linksdrall um kraftvoller nach vorne zu entspanen als mit Gewindebohrern mit Rechtsdrall.

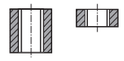
DIN 371

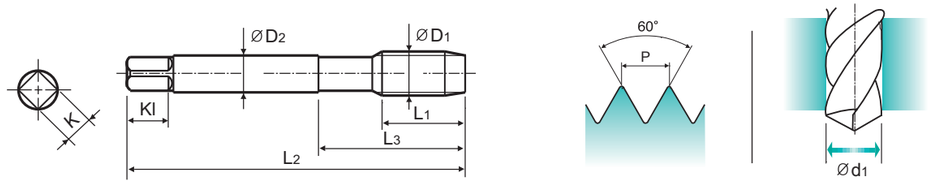


DIN 376



Hole type
3.0×D





Material groups **GS** | HSS-E | DIN 371/376 | 6H | 60° | C | Bright | L20 | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	**TC211136**	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	**TC211156**	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	**TC211196**	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	**TC211176**	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	**TC211496**	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	**TC211206**	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TC211226**	12	56	20	4	3	6	3	2.9
M4	× 0.7	**TC211246**	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TC211266**	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	**TC211286**	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	**TC211316**	17	80	30	6	4.9	8	3	5
M7	× 1.0	**TC211346**	17	80	30	7	5.5	8	3	6
M8	× 1.25	**TC211366**	20	90	35	8	6.2	9	3	6.8
M9	× 1.25	**TC211396**	20	90	35	9	7	10	3	7.8
M10	× 1.5	**TC211426**	22	100	39	10	8	11	3	8.5
M11	× 1.5	**TC211466**	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	**TC211506**	24	110	44	9	7	10	3	10.2
M14	× 2.0	**TC211546**	26	110	44	11	9	12	3	12
M16	× 2.0	**TC211606**	27	110	44	12	9	12	3	14
M18	× 2.5	**TC211656**	30	125	50	14	11	14	4	15.5
M20	× 2.5	**TC211706**	32	140	54	16	12	15	4	17.5
M22	× 2.5	**TC211746**	32	140	54	18	14.5	17	4	19.5
M24	× 3.0	**TC211786**	34	160	60	18	14.5	17	4	21
M27	× 3.0	**TC211866**	36	160	60	20	16	19	4	24
M30	× 3.5	**TC211946**	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TC463 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping shallow holes and the blind holes having enough chip space at the bottom of holes.

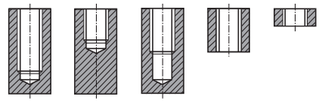
▶ Geeignet zum Schneiden von kurzem Durchgangsgewinde und in Sacklöchern mit ausreichendem Raum für Späne am Bohrungsgrund.

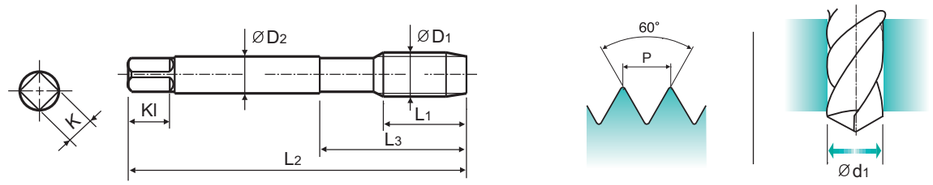
DIN 371

DIN 376



Hole type
2.0×D





Material groups GS | HSS-E | DIN 371/376 | 6H | 60° | C | Bright

p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 × 0.4		TC463136	8	45	13	2.8	2.1	5	3	1.6
M2.2 × 0.45		TC463156	8	45	13	2.8	2.1	5	3	1.75
*M2.3 × 0.4		TC463196	8	45	13	2.8	2.1	5	3	1.9
M2.5 × 0.45		TC463176	9	50	15	2.8	2.1	5	3	2.05
*M2.6 × 0.45		TC463496	9	50	15	2.8	2.1	5	3	2.1
M3 × 0.5		TC463206	11	56	18	3.5	2.7	6	3	2.5
M3.5 × 0.6		TC463226	12	56	20	4	3	6	3	2.9
M4 × 0.7		TC463246	13	63	21	4.5	3.4	6	3	3.3
M4.5 × 0.75		TC463266	14	70	25	6	4.9	8	3	3.7
M5 × 0.8		TC463286	15	70	25	6	4.9	8	3	4.2
M6 × 1.0		TC463316	17	80	30	6	4.9	8	3	5
M7 × 1.0		TC463346	17	80	30	7	5.5	8	3	6
M8 × 1.25		TC463366	20	90	35	8	6.2	9	3	6.8
M9 × 1.25		TC463396	20	90	35	9	7	10	3	7.8
M10 × 1.5		TC463426	22	100	39	10	8	11	3	8.5
M11 × 1.5		TC463466	22	100	40	8	6.2	9	3	9.5
M12 × 1.75		TC463506	24	110	44	9	7	10	3	10.2
M14 × 2.0		TC463546	26	110	44	11	9	12	3	12
M16 × 2.0		TC463606	27	110	44	12	9	12	3	14
M18 × 2.5		TC463656	30	125	50	14	11	14	4	15.5
M20 × 2.5		TC463706	32	140	54	16	12	15	4	17.5
M22 × 2.5		TC463746	32	140	54	18	14.5	17	4	19.5
M24 × 3.0		TC463786	34	160	60	18	14.5	17	4	21
M27 × 3.0		TC463866	36	160	60	20	16	19	4	24
M30 × 3.5		TC463946	40	180	70	22	18	21	4	26.5

▶ DIN 371(M2~M10) and DIN 376(M11~M30)
▶ * DIN profile not ISO

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TC473 SERIES

MF ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Machine taps
Maschinengewindebohrer

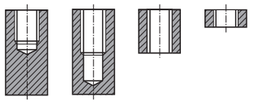
▶ Suitable for tapping shallow holes.

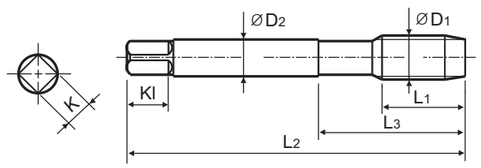
▶ Geeignet zum Gewindeschneiden flacher Sacklöcher.

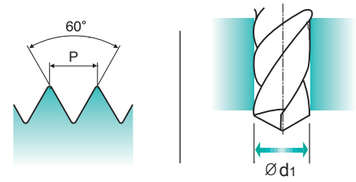
DIN 374



Hole type
2.0×D







Material groups GS | HSS-E | DIN 374 | 6H | 60° | C | Bright

p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4 × 0.5		TC473256	10	63	21	2.8	2.1	5	3	3.5
M5 × 0.5		TC473296	11	70	25	3.5	2.7	6	3	4.5
M6 × 0.75		TC473326	13	80	30	4.5	3.4	6	3	5.2
M6 × 0.5		TC473336	13	80	30	4.5	3.4	6	3	5.5
M7 × 0.75		TC473356	14	80	30	5.5	4.3	7	3	6.2
M8 × 1.0		TC473376	17	90	36	6	4.9	8	3	7
M8 × 0.75		TC473386	14	80	30	6	4.9	8	3	7.2
M8 × 0.5		TC473936	14	80	30	6	4.9	8	3	7.5
M10 × 1.25		TC473436	22	100	40	7	5.5	8	3	8.8
M10 × 1.0		TC473446	18	90	36	7	5.5	8	3	9
M10 × 0.75		TC473456	18	90	36	7	5.5	8	3	9.2
M12 × 1.5		TC473516	22	100	40	9	7	10	3	10.5
M12 × 1.25		TC473526	22	100	40	9	7	10	3	10.8
M12 × 1.0		TC473536	18	100	40	9	7	10	3	11
M14 × 1.5		TC473556	22	100	40	11	9	12	3	12.5
M14 × 1.25		TC473566	22	100	40	11	9	12	3	12.8
M14 × 1.0		TC473576	18	100	40	11	9	12	3	13
M16 × 1.5		TC473616	22	100	40	12	9	12	3	14.5
M18 × 1.5		TC473676	25	110	44	14	11	14	4	16.5
M20 × 1.5		TC473726	25	125	50	16	12	15	4	18.5
M22 × 1.5		TC473766	25	125	50	18	14.5	17	4	20.5
M24 × 1.5		TC473806	27	140	54	18	14.5	17	4	22.5

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TC424 SERIES

UNC Unified coarse threads

- Unified Grobgewinde
- UNC
- Unificato passo grosso

Machine taps
Maschinengewindebohrer

▶ Suitable for tapping shallow holes.

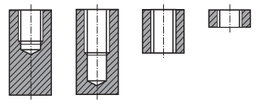
▶ Geeignet zum Gewindeschneiden flacher Sacklöcher.

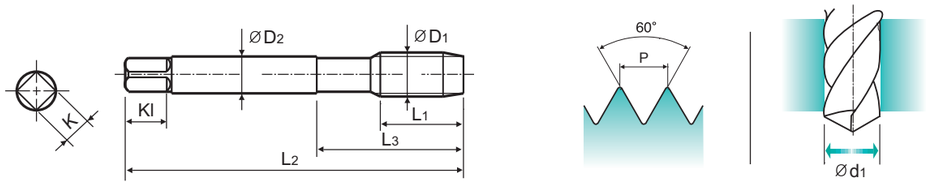
DIN 371

DIN 376



Hole type
2.0×D





Material groups GS | HSS-E | DIN 371/376 | 2B | 60° | C | Bright | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4 -	40UNC	TC424162	11	56	18	3.5	2.7	6	3	2.3
#5 -	40UNC	TC424202	11	56	18	3.5	2.7	6	3	2.6
#6 -	32UNC	TC424242	12	56	20	4	3	6	3	2.85
#8 -	32UNC	TC424282	13	63	21	4.5	3.4	6	3	3.5
#10 -	24UNC	TC424322	15	70	25	6	4.9	8	3	3.9
#12 -	24UNC	TC424362	16	80	30	6	4.9	8	3	4.5
1/4 -	20UNC	TC424402	17	80	30	7	5.5	8	3	5.2
5/16 -	18UNC	TC424442	20	90	35	8	6.2	9	3	6.6
3/8 -	16UNC	TC424482	22	100	39	9	7	10	3	8
7/16 -	14UNC	TC424522	22	100	40	8	6.2	9	3	9.4
1/2 -	13UNC	TC424562	25	110	44	9	7	10	3	10.75
9/16 -	12UNC	TC424602	26	110	44	11	9	12	3	12.25
5/8 -	11UNC	TC424642	27	110	44	12	9	12	3	13.5
3/4 -	10UNC	TC424702	30	125	50	14	11	14	4	16.5
7/8 -	9UNC	TC424742	32	140	54	18	14.5	17	4	19.5
1 -	8UNC	TC424782	36	160	60	20	16	19	4	22.25
1-1/8 -	7UNC	TC424822	40	180	70	22	18	21	4	25

▶ DIN 371(#4~3/8) and DIN 376(7/16~1- 1/8)

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

T7109 SERIES

M ISO metric coarse threads DIN 13

- Metrisches ISO-Gewinde DIN 13
- ISO MÉTRIQUE DIN13
- ISO Metrico passo grosso DIN 13

Sets of taps
Gewindebohrer -Satz

▶ This tap is a serial hand tap in set, First, Second and Bottoming.
▶ Bottoming tap of set has final internal thread dimensions only.

▶ Dies ist ein Handgewindebohrer im Satz mit Vor-, Mittel- und Fertigschneider.
▶ Nur der Fertigschneider kann das gewünschte Gewinde schneiden

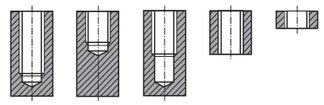
First

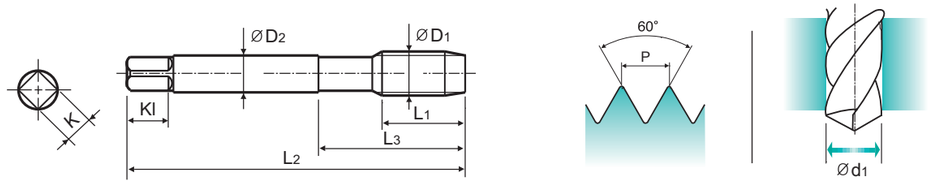
Second

Bottoming



Hole type
2.0×D





Material groups GS | HSS | DIN 352 | 6H | 60° | I/II/III | Bright | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	T7109139	8	36	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	T7109159	9	36	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	T7109199	9	36	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	T7109179	9	40	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	T7109499	9	40	15	2.8	2.1	5	3	2.1
M3	× 0.5	T7109209	11	40	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	T7109229	13	45	21	4	3	6	3	2.9
M4	× 0.7	T7109249	13	45	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	T7109269	16	50	25	6	4.9	8	3	3.7
M5	× 0.8	T7109289	16	52	26	6	4.9	8	3	4.2
M5.5	× 0.9	T7109N69	18	56	27	6	4.9	8	3	4.6
M6	× 1.0	T7109319	18	56	27	6	4.9	8	3	5
M7	× 1.0	T7109349	18	56	28.5	6	4.9	8	3	6
M8	× 1.25	T7109369	20	63	34	6	4.9	8	3	6.8
M9	× 1.25	T7109399	20	63	34	7	5.5	8	4	7.8
M10	× 1.5	T7109429	22	70	38	7	5.5	8	4	8.5
M11	× 1.5	T7109469	22	70	38	8	6.2	9	4	9.5
M12	× 1.75	T7109509	24	80	45	9	7	10	4	10.2
M14	× 2.0	T7109549	26	80	45	11	9	12	4	12
M16	× 2.0	T7109609	27	80	45	12	9	12	4	14
M18	× 2.5	T7109659	30	95	58	14	11	14	4	15.5
M20	× 2.5	T7109709	32	95	58	16	12	15	4	17.5

▶ *DIN profile not ISO

▶ NEXT PAGE

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

T7109 SERIES

M ISO metric coarse threads DIN 13

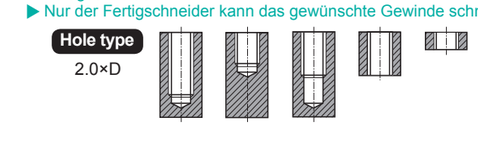
Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Sets of taps
Gewindebohrer-Satz

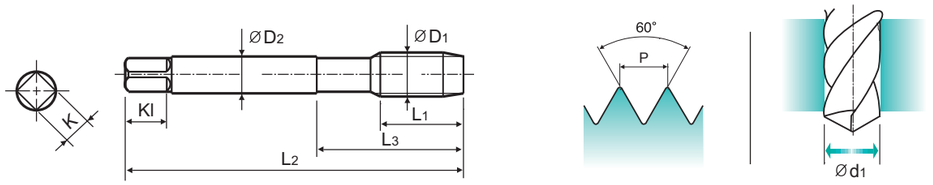
▶ This tap is a serial hand tap in set, First, Second and Bottoming.
▶ Bottoming tap of set has final internal thread dimensions only.

▶ Dies ist ein Handgewindebohrer im Satz mit Vor-, Mittel- und Fertigschneider.
▶ Nur der Fertigschneider kann das gewünschte Gewinde schneiden.

First
Second
Bottoming



Hole type
2.0×D



Material groups: GS | HSS | DIN 352 | 6H | 60° | I/II/III | Bright

p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M22	× 2.5	**T7109749**	32	100	62	18	14.5	17	4	19.5
M24	× 3.0	**T7109789**	34	110	69	18	14.5	17	4	21
M27	× 3.0	**T7109869**	36	110	69	20	16	19	4	24
M30	× 3.5	**T7109949**	40	125	77	22	18	21	4	26.5
M33	× 3.5	**T7109A49**	40	125	77	25	20	23	4	29.5
M36	× 4.0	**T7109B39**	50	150	88	28	22	25	4	32
M39	× 4.0	**T7109C09**	50	150	88	32	24	27	4	35
M42	× 4.5	**T7109C89**	56	150	88	32	24	27	4	37.5
M45	× 4.5	**T7109D59**	58	160	93	36	29	32	4	40.5
M48	× 5.0	**T7109E29**	65	180	102	36	29	32	4	43
M52	× 5.0	**T7109F39**	65	180	102	40	32	35	4	47

▶ *DIN profile not ISO

◎ : 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 TAP GENERAL

T7309 SERIES

MF ISO metric fine threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE PAS FINS DIN13
ISO Metrico passo fine DIN 13

Sets of taps
Gewindebohrer-Satz

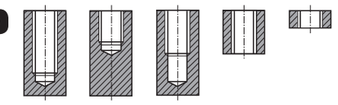
▶ This tap is a serial hand tap in set, First and Bottoming.
▶ Bottoming tap of set has final internal thread dimensions only.

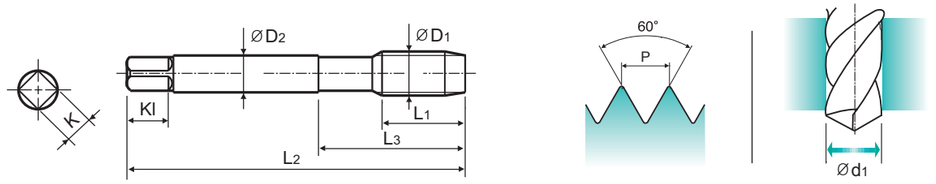
▶ Handgewindebohrersatz mit Vor- und Fertigschneider.
▶ Nur der Fertigschneider kann das gewünschte Gewinde schneiden.

First
Bottoming



Hole type
2.0×D





Material groups: GS | HSS | DIN 2181 | 6H | 60° | I/III | Bright

p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	× 0.35	**T7309219**	9	40	18	3.5	2.7	6	3	2.65
M4	× 0.5	**T7309259**	10	45	18	4.5	3.4	6	3	3.5
M5	× 0.5	**T7309299**	13	52	22	6	4.9	8	3	4.5
M6	× 0.75	**T7309329**	14	56	24	6	4.9	8	3	5.2
M6	× 0.5	**T7309339**	13	56	24	6	4.9	8	3	5.5
M7	× 0.75	**T7309359**	14	56	27	6	4.9	8	3	6.2
M8	× 1.0	**T7309379**	17	63	27	6	4.9	8	3	7
M8	× 0.75	**T7309389**	14	63	27	6	4.9	8	3	7.2
M8	× 0.5	**T7309939**	14	63	27	6	4.9	8	3	7.5
M9	× 1.0	**T7309409**	17	63	27	7	5.5	8	4	8
M10	× 1.25	**T7309439**	22	70	32	7	5.5	8	4	8.8
M10	× 1.0	**T7309449**	18	63	27	7	5.5	8	4	9
M10	× 0.75	**T7309459**	18	63	27	7	5.5	8	4	9.2
M11	× 1.0	**T7309479**	18	63	27	8	6.2	9	4	10
M12	× 1.5	**T7309519**	20	70	32	9	7	10	4	10.5
M12	× 1.25	**T7309529**	20	70	32	9	7	10	4	10.8
M12	× 1.0	**T7309539**	18	70	32	9	7	10	4	11
M13	× 1.5	**T7309N19**	20	70	32	11	9	12	4	11.5
M13	× 1.0	**T7309N29**	18	70	32	11	9	12	4	12
M14	× 1.5	**T7309559**	20	70	32	11	9	12	4	12.5
M14	× 1.25	**T7309569**	20	70	32	11	9	12	4	12.8
M14	× 1.0	**T7309579**	18	70	32	11	9	12	4	13
M15	× 1.5	**T7309589**	20	70	32	12	9	12	4	13.5
M15	× 1.0	**T7309599**	18	70	32	12	9	12	4	14
M16	× 1.5	**T7309619**	20	70	32	12	9	12	4	14.5

▶ NEXT PAGE

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

T7309 SERIES

MF ISO metric fine threads DIN 13

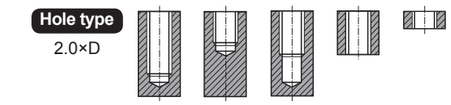
- Metrisches ISO-Feingewinde DIN 13
- ISO MÉTRIQUE PAS FINS DIN13
- ISO Metrico passo fine DIN 13

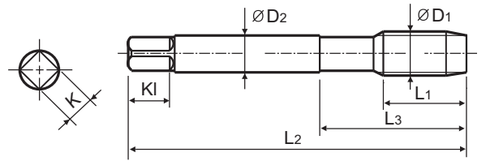
Sets of taps
Gewindebohrer-Satz

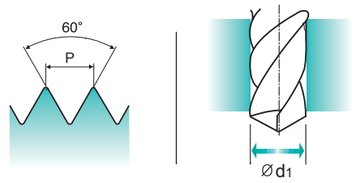
▶ This tap is a serial hand tap in set, First and Bottoming.
▶ Bottoming tap of set has final internal thread dimensions only.

▶ Handgewindebohrersatz mit Vor- und Fertigschneider.
▶ Nur der Fertigschneider kann das gewünschte Gewinde schneiden.









Material groups **GS** | HSS | DIN 2181 | 6H | 60° | I/III | Bright | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M16 × 1.0		T7309629	18	70	32	12	9	12	4	15
M18 × 2.0		T7309669	22	80	35	14	11	14	4	16
M18 × 1.5		T7309679	22	80	35	14	11	14	4	16.5
M18 × 1.0		T7309689	18	80	35	14	11	14	4	17
M20 × 2.0		T7309719	22	80	35	16	12	15	4	18
M20 × 1.5		T7309729	22	80	35	16	12	15	4	18.5
M20 × 1.0		T7309739	18	80	35	16	12	15	4	19
M22 × 2.0		T7309759	22	80	35	18	14.5	17	4	20
M22 × 1.5		T7309769	22	80	35	18	14.5	17	4	20.5
M22 × 1.0		T7309779	18	80	35	18	14.5	17	4	21
M24 × 2.0		T7309799	22	90	40	18	14.5	17	4	22
M24 × 1.5		T7309809	22	90	40	18	14.5	17	4	22.5
M24 × 1.0		T7309819	18	90	40	18	14.5	17	4	23
M25 × 1.5		T7309839	22	90	40	18	14.5	17	4	23.5
M25 × 1.0		T7309849	18	90	40	18	14.5	17	4	24
M26 × 1.5		T7309859	22	90	40	18	14.5	17	4	24.5
M26 × 1.0		T7309N59	18	90	40	18	14.5	17	4	25
M27 × 2.0		T7309879	22	90	40	20	16	19	4	25
M27 × 1.5		T7309889	22	90	40	20	16	19	4	25.5
M27 × 1.0		T7309899	18	90	40	20	16	19	4	26
M28 × 2.0		T7309909	22	90	40	20	16	19	4	26
M28 × 1.5		T7309919	22	90	40	20	16	19	4	26.5
M30 × 2.0		T7309969	22	90	40	22	18	21	4	28
M30 × 1.5		T7309979	22	90	40	22	18	21	4	28.5
M30 × 1.0		T7309989	18	90	40	22	18	21	4	29

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

T7363 SERIES

UNC Unified coarse threads

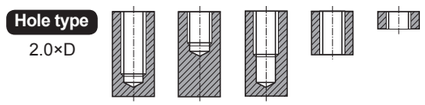
- Unified Grobgewinde
- UNC
- Unificato passo grosso

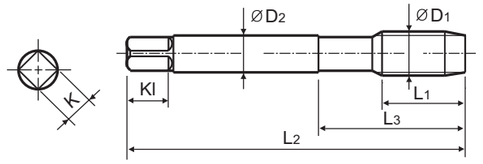
Sets of taps
Gewindebohrer-Satz

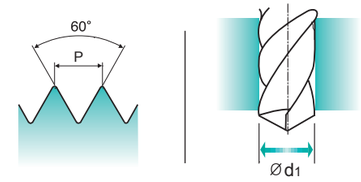
▶ This tap is a serial hand tap in set, First, Second and Bottoming.
▶ Bottoming tap of set has final internal thread dimensions only.

▶ Dies ist ein Handgewindebohrer im Satz mit Vor-, Mittel- und Fertigschneider.
▶ Nur der Fertigschneider kann das gewünschte Gewinde schneiden.









Material groups **GS** | HSS | DIN 351 | 2B | 60° | I/II/III | Bright | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#2 -	56UNC	T7363089	9	36	13	2.8	2.1	5	3	1.8
#3 -	48UNC	T7363129	10	40	15	2.8	2.1	5	3	2.1
#4 -	40UNC	T7363169	10	42	18	3.5	2.7	6	3	2.3
#5 -	40UNC	T7363209	10	42	18	3.5	2.7	6	3	2.6
#6 -	32UNC	T7363249	11	45	18	4	3	6	3	2.85
#8 -	32UNC	T7363289	12	48	23	4.5	3.4	6	3	3.5
#10 -	24UNC	T7363329	14	52	26	6	4.9	6	3	3.9
#12 -	24UNC	T7363369	16	56	27	6	4.9	8	3	4.5
1/4 -	20UNC	T7363409	16	56	27	6	4.9	8	3	5.2
5/16 -	18UNC	T7363449	20	63	34	6	4.9	8	3	6.6
3/8 -	16UNC	T7363489	22	70	38	7	5.5	8	4	8
7/16 -	14UNC	T7363529	22	70	38	8	6.2	9	4	9.4
1/2 -	13UNC	T7363569	25	80	45	9	7	10	4	10.75
9/16 -	12UNC	T7363609	26	80	45	11	9	12	4	12.25
5/8 -	11UNC	T7363649	27	90	55	12	9	12	4	13.5
3/4 -	10UNC	T7363709	32	105	65	14	11	14	4	16.5
7/8 -	9UNC	T7363749	32	110	69	18	14.5	17	4	19.5
1 -	8UNC	T7363789	36	110	69	20	16	19	4	22.25
1-1/8 -	7UNC	T7363829	40	125	77	22	18	21	4	25
1-1/4 -	7UNC	T7363869	40	125	77	25	20	23	4	28.25
1-1/8 -	6UNC	T7363909	50	150	88	28	22	25	4	30.75
1-1/2 -	6UNC	T7363949	50	150	88	32	24	27	4	34
1-3/4 -	5UNC	T7363B89	58	160	93	36	29	32	4	39.5
2 -	4½UNC	T7363D29	65	180	102	40	32	35	4	45.25

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

T7509 SERIES

UNF

Unified fine threads

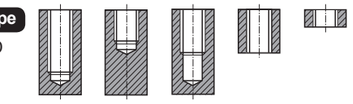
Unified Feingewinde
UNF
Unificato passo fine

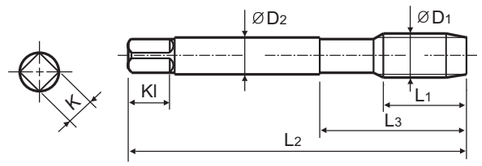
Sets of taps
Gewindebohrer-Satz

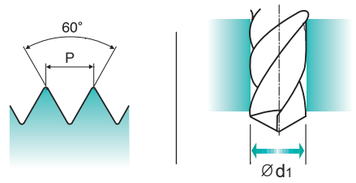
▶ This tap is a serial hand tap in set, First and Bottoming.
▶ Bottoming tap of set has final internal thread dimensions only.

▶ Handgewindebohrersatz mit Vor- und Fertigschneider.
▶ Nur der Fertigschneider kann das gewünschte Gewinde schneiden.









Material groups **GS** | HSS | DIN 2181 | 2B | 60° | I/III | Bright | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4 -	48 UNF	T7509189	10	42	18	3.5	2.7	6	3	2.4
#5 -	44 UNF	T7509229	10	42	18	3.5	2.7	6	3	2.7
#6 -	40 UNF	T7509269	11	45	18	4	3	6	3	3
#8 -	36 UNF	T7509309	12	48	23	4.5	3.4	6	3	3.5
#10 -	32 UNF	T7509349	14	52	22	6	4.9	8	3	4.1
#12 -	28 UNF	T7509389	16	56	24	6	4.9	8	3	4.7
1/4 -	28 UNF	T7509429	16	56	24	6	4.9	8	3	5.5
5/16 -	24 UNF	T7509469	17	63	27	6	4.9	8	3	6.9
3/8 -	24 UNF	T7509509	18	63	27	7	5.5	8	4	8.5
7/16 -	20 UNF	T7509549	20	70	32	8	6.2	9	4	9.9
1/2 -	20 UNF	T7509589	20	70	32	9	7	10	4	11.5
9/16 -	18 UNF	T7509629	20	70	32	11	9	12	4	12.9
5/8 -	18 UNF	T7509669	20	70	32	12	9	12	4	14.5
3/4 -	16 UNF	T7509729	22	80	38	14	11	14	4	17.5
7/8 -	14 UNF	T7509769	22	80	38	18	14.5	17	4	20.5
1 -	12 UNF	T7509809	22	90	40	18	14.5	17	4	23.25
1-1/8 -	12 UNF	T7509849	22	90	40	22	18	21	4	26.5

◎ : Excellent ○ : Good

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

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

phone:+82-32-526-0909, www.yg1.solutions, E-mail:yg1@yg1.solutions
YG-1 CO., LTD.

YG TAP GENERAL

T7609 SERIES

BSW

Whitworth threads

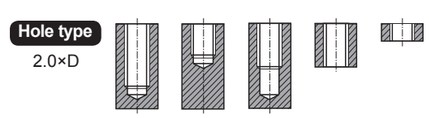
Whitworth Gewinde
BSW
Filettatura Whitworth

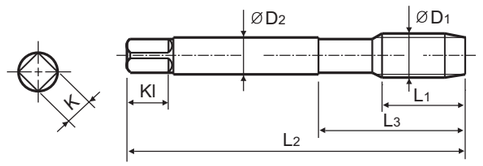
Sets of taps
Gewindebohrer-Satz

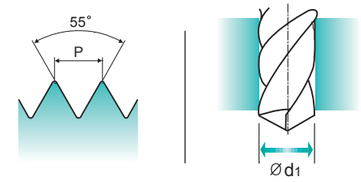
▶ This tap is a serial hand tap in set, First, Second and Bottoming.
▶ Bottoming tap of set has final internal thread dimensions only.

▶ Dies ist ein Handgewindebohrer im Satz mit Vor-, Mittel- und Fertigschneider.
▶ Nur der Fertigschneider kann das gewünschte Gewinde schneiden.









Material groups **GS** | HSS | DIN 351 | 55° | I/II/III | Bright | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
W3/32 -	48	T7609129	10	40	15	2.8	2.1	5	3	1.8
W1/8 -	40	T7609209	10	42	18	3.5	2.7	6	3	2.5
W5/32 -	32	T7609289	12	48	23	4.5	3.4	6	3	3.1
W3/16 -	24	T7609329	14	52	26	6	4.9	8	3	3.6
W7/32 -	24	T7609369	16	56	27	6	4.9	8	3	4.4
W1/4 -	20	T7609409	16	56	27	6	4.9	8	3	5.1
W5/16 -	18	T7609449	20	63	34	6	4.9	8	3	6.5
W3/8 -	16	T7609489	22	70	38	7	5.5	8	4	7.9
W7/16 -	14	T7609529	22	70	38	8	6.2	9	4	9.3
W1/2 -	12	T7609569	25	80	45	9	7	10	4	10.5
W9/16 -	12	T7609609	26	80	45	11	9	12	4	12
W5/8 -	11	T7609649	27	90	55	12	9	12	4	13.5
W3/4 -	10	T7609709	32	105	65	14	11	14	4	16.5
W7/8 -	9	T7609749	32	110	69	18	14.5	17	4	19.25
W1 -	8	T7609789	36	110	69	20	16	19	4	22
W1-1/8 -	7	T7609829	40	125	77	22	18	21	4	24.75
W1-1/4 -	7	T7609869	40	125	77	25	20	23	4	27.75
W1-3/8 -	6	T7609909	50	150	88	28	22	25	4	30.5
W1-1/2 -	6	T7609949	50	150	88	32	24	27	4	33.5
W1-5/8 -	5	T7609B29	56	150	88	32	24	27	4	35.5
W1-3/4 -	5	T7609B89	58	160	93	36	29	32	4	39
W1-7/8 -	4½	T7609C69	65	180	102	36	29	32	4	41.5
W2 -	4½	T7609D29	65	180	102	40	32	35	4	44.5

◎ : Excellent ○ : Good

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

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

YG-1 CO., LTD.
phone:+82-32-526-0909, www.yg1.solutions, E-mail:yg1@yg1.solutions

YG TAP GENERAL

T7343 SERIES

M-LH ISO metric coarse threads DIN 13

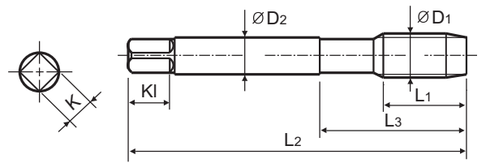
Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Sets of taps
Gewindebohrer-Satz

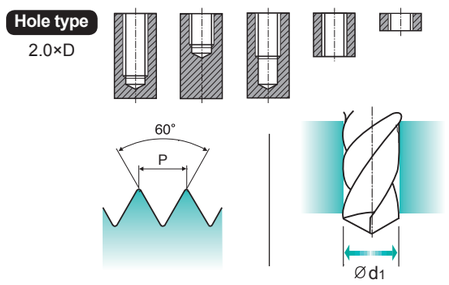
▶ This tap is a serial hand tap in set, First, Second and Bottoming.
▶ Bottoming tap of set has final internal thread dimensions only.

▶ Dies ist ein Handgewindebohrer im Satz mit Vor-, Mittel- und Fertigschneider.
▶ Nur der Fertigschneider kann das gewünschte Gewinde schneiden.





Hole type
2.0×D



Material groups **GS** | HSS | DIN 352 | 6H | 60° | I/II/III | Bright | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	× 0.5	**T7343209**	11	40	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**T7343229**	13	45	21	4	3	6	3	2.9
M4	× 0.7	**T7343249**	13	45	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**T7343269**	16	50	25	6	4.9	8	3	3.7
M5	× 0.8	**T7343289**	16	52	26	6	4.9	8	3	4.2
M6	× 1.0	**T7343319**	18	56	27	6	4.9	8	3	5
M8	× 1.25	**T7343369**	20	63	34	6	4.9	8	3	6.8
M10	× 1.5	**T7343429**	22	70	38	7	5.5	8	4	8.5
M12	× 1.75	**T7343509**	24	80	45	9	7	10	4	10.2
M14	× 2.0	**T7343549**	26	80	45	11	9	12	4	12
M16	× 2.0	**T7343609**	27	80	45	12	9	12	4	14
M18	× 2.5	**T7343659**	30	95	58	14	11	14	4	15.5
M20	× 2.5	**T7343709**	32	95	58	16	12	15	4	17.5
M22	× 2.5	**T7343749**	32	100	62	18	14.5	17	4	19.5
M24	× 3.0	**T7343789**	34	110	69	18	14.5	17	4	21
M27	× 3.0	**T7343869**	36	110	69	20	16	19	4	24
M30	× 3.5	**T7343949**	40	125	77	22	18	21	4	26.5

▶ LH=Left hand thread

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TB373 SERIES

M ISO metric coarse threads DIN 13

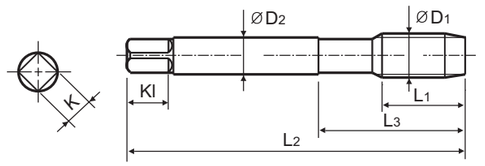
Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Sets of taps
Gewindebohrer-Satz

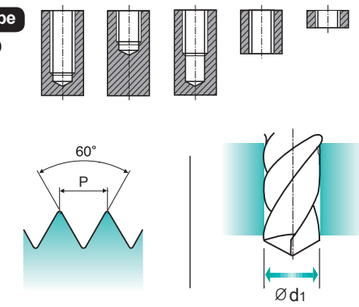
▶ This tap is a serial hand tap in set, First, Second and Bottoming.
▶ Bottoming tap of set has final internal thread dimensions only.

▶ Dies ist ein Handgewindebohrer im Satz mit Vor-, Mittel- und Fertigschneider.
▶ Nur der Fertigschneider kann das gewünschte Gewinde schneiden.





Hole type
2.0×D



Material groups **GS** | HSS-E | DIN 352 | 6HX | 60° | I/II/III | Vap | p.B309

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	× 0.5	**TB373209**	11	40	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TB373229**	13	45	21	4	3	6	3	2.9
M4	× 0.7	**TB373249**	13	45	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TB373269**	16	50	25	6	4.9	8	3	3.7
M5	× 0.8	**TB373289**	16	52	26	6	4.9	8	3	4.2
M6	× 1.0	**TB373319**	18	56	27	6	4.9	8	3	5
M8	× 1.25	**TB373369**	20	63	34	6	4.9	8	3	6.8
M10	× 1.5	**TB373429**	22	70	38	7	5.5	8	4	8.5
M12	× 1.75	**TB373509**	24	80	45	9	7	10	4	10.2
M14	× 2.0	**TB373549**	26	80	45	11	9	12	4	12
M16	× 2.0	**TB373609**	27	80	45	12	9	12	4	14
M18	× 2.5	**TB373659**	30	95	58	14	11	14	4	15.5
M20	× 2.5	**TB373709**	32	95	58	16	12	15	4	17.5

▶ First with pilot guide

◎ : Excellent ○ : Good

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

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

YG TAP GENERAL

TC353 SERIES

M ISO metric coarse threads DIN 13

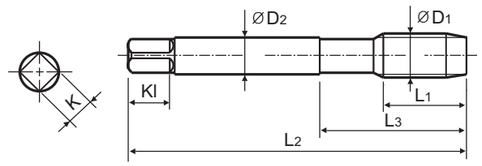
Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

Sets of taps
Gewindebohrer-Satz

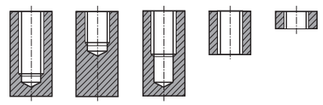
▶ This tap is a serial hand tap in set, First, Second and Bottoming.
▶ Bottoming tap of set has final internal thread dimensions only..

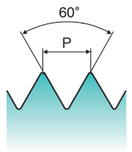
▶ Dies ist ein Handgewindebohrer im Satz mit Vor-, Mittel- und Fertigschneider.
▶ Nur der Fertigschneider kann das gewünschte Gewinde schneiden.

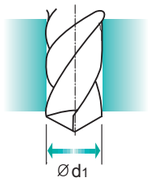




Hole type
2.0×D







Material groups VG | HSS-E | DIN 352 | 6H | 60° | I/II/III | Bright | p.B309

Recommended ToolHolder — Plain Shank: TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	× 0.5	**TC353209**	11	40	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	**TC353229**	13	45	21	4	3	6	3	2.9
M4	× 0.7	**TC353249**	13	45	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	**TC353269**	16	50	25	6	4.9	8	3	3.7
M5	× 0.8	**TC353289**	16	52	26	6	4.9	8	3	4.2
M6	× 1.0	**TC353319**	18	56	27	6	4.9	8	3	5
M8	× 1.25	**TC353369**	20	63	34	6	4.9	8	3	6.8
M10	× 1.5	**TC353429**	22	70	38	7	5.5	8	4	8.5
M12	× 1.75	**TC353509**	24	80	45	9	7	10	4	10.2
M14	× 2.0	**TC353549**	26	80	45	11	9	12	4	12
M16	× 2.0	**TC353609**	27	80	45	12	9	12	4	14
M18	× 2.5	**TC353659**	30	95	58	14	11	14	4	15.5
M20	× 2.5	**TC353709**	32	95	58	16	12	15	4	17.5

▶ First with pilot guide

◎ : 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	○	○	○	○		○	○													

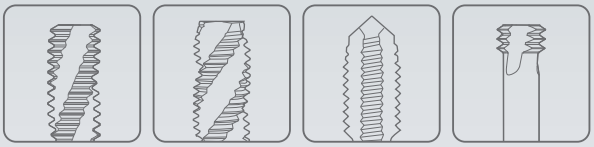
ISO	N										S							H		
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29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

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

ISO	VDI 3323	Material Description	HB	HRc	TC711 TC411 TC144 TC124 TC134	TD711 TD411	TC517 TC612	TC127 TC122 TC222 TC214 TC234 TC224	TD127 TD222	TC227	TD227	TC211	TC463 TC473 TC424
					Vc (m/min.)								
P	1	Non-alloy steel	125		15-20	20-25	15-20	15-20	20-25	15-20	20-25	15-20	15-20
	2		190	13	15-20	20-25	15-20	15-20	20-25	15-20	20-25	15-20	15-20
	3		250	25	12-18	18-24	12-18	12-18	18-24	12-18	18-24	12-18	12-18
	4		270	28	10-15	15-20	10-15	10-15	15-20	10-15	15-20	10-15	10-15
	5		300	32	6-10	10-14	6-10	6-10	10-14	6-10	10-14	6-10	6-10
	6	Low alloy steel	180	10	10-15	15-20	10-15	10-15	15-20	10-15	15-20	10-15	10-15
	7		275	29	10-15	15-20	10-15	10-15	15-20	10-15	15-20	10-15	10-15
	8		300	32	6-10	10-14	6-10	6-10	10-14	6-10	10-14	6-10	6-10
M	12	Stainless steel	200	15	7-10	10-13	7-10	7-10	10-13	7-10	10-13	7-10	7-10
	13		240	23	5-8	8-11	5-8	5-8	8-11	5-8	8-11	5-8	5-8
K	15	Grey cast iron	180	10									10-15
	16		260	26									5-8
	17	Nodular cast iron	160	3	10-15	15-20	10-15	10-15	15-20	10-15	15-20	10-15	10-15
	18		250	25	5-8	8-11	5-8	5-8	8-11	5-8	8-11	5-8	5-8
N	21	Aluminum-wrought alloy	60		10-15	15-20	10-15	10-15	15-20	10-15	15-20	10-15	
	23	Aluminum-cast, alloyed	75		15-20	20-25	15-20	15-20	20-25	15-20	20-25	15-20	
	24		90		15-20	20-25	15-20	15-20	20-25	15-20	20-25	15-20	
	25		130		10-15	15-20	10-15	10-15	15-20	10-15	15-20	10-15	10-15
	26	Copper and Copper Alloys (Bronze / Brass)	110		25-35	35-40	25-35	25-35	35-40	25-35	35-40	25-35	25-35
	27		90										8-12
	28		100		15-20	20-25	15-20	15-20	20-25	15-20	20-25	15-20	

Global Cutting Tool Leader **YG-1**



THREADING



Leading Through Innovation

HSS & HSS-E

PIPE TAP
GASGEWINDEBOHRER

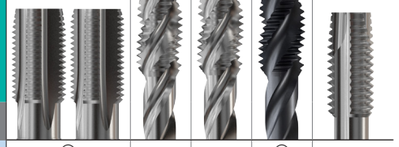
- **Tapping Whitworth Pipe threads**
- **Zum Gewindeschneiden von Whitworth-Rohrgewinden**

SELECTION GUIDE

YG THREADING TOOLS

HSS & HSS-E PIPE TAP

Tapping Whitworth Pipe threads

			Max. 2.0xD Blind/Through Hole	Max. 2.5xD Blind Hole			Max. 3.0xD Through Hole
HOLE TYPE							
TOOL MATERIAL			HSS	HSS-E			
CHAMFER LEAD ACC. TO DIN2197			I/III	C			B
FLUTE TYPE			Straight Flute	Spiral Flute			Spiral Point
SPIRAL FLUTE ANGLE			-	R40	R40	R40	-
SERIES	M	DIN371/376					
		DIN352					
		DIN357/LONG					
	MF	DIN374					
		DIN2181					
	UNC	DIN371/376					
		DIN351					
	UNF	DIN371/374					
		DIN2181					
	BSW	DIN2182/2183					
		DIN351					
	G(BSP)	DIN5156/5157	T7709 (p.B313)	TC728 (p.B314)	TC729 (p.B315)	TB514 (p.B316)	TC727 (p.B317)
	EG-M	DIN371/376					
	EG-UNC	DIN371/376					
	EG-UNF	DIN371/374					
SURFACE TREATMENT			Bright	Bright	Bright	VAP	Bright
MODEL							

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B318

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc					
P	1	Non-alloy steel	About 0.15% C	Annealed	125		○			◎	
	2		About 0.45% C	Annealed	190	13	○	◎		◎	◎
	3		About 0.45% C	Quenched & Tempered	250	25	○	◎			◎
	4		About 0.75% C	Annealed	270	28		◎			◎
	5		About 0.75% C	Quenched & Tempered	300	32					
	6	Low alloy steel		Annealed	180	10	○	◎	○		◎
	7			Quenched & Tempered	275	29		◎	○		◎
	8			Quenched & Tempered	300	32			◎		
	9			Quenched & Tempered	350	38			◎		
	10	High alloyed steel, and tool steel		Annealed	200	15					
	11			Quenched & Tempered	325	35					
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15				◎	
	13		Martensitic	Quenched & Tempered	240	23				◎	
	14		Austenitic		180	10			○	◎	
K	15	Grey cast iron	Pearlitic / ferritic		180	10	○				
	16		Pearlitic (Martensitic)		260	26	○				
	17	Nodular cast iron	Ferritic		160	3		◎			◎
	18		Pearlitic		250	25		◎			◎
	19	Malleable cast iron	Ferritic		130						
	20		Pearlitic		230	21					
N	21	Aluminum-wrought alloy	Not Curable		60		○	○			○
	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					
	32			Cured	280	30					
	33		Ni or Co Based	Annealed	250	25					
	34			Cured	350	38					
	35			Cast	320	34					
	36	Titanium Alloys	Pure Titanium		400 Rm						
	37		Alpha + Beta Alloys	Hardened	1050 Rm						
H	38	Hardened steel		Hardened	550	55					
	39			Hardened	630	60					
	40	Chilled Cast Iron		Cast	400	42					
	41	Hardened Cast Iron		Hardened	550	55					

PIPE TAP

T7709 SERIES

G(BSP) Whitworth Pipe threads DIN ISO 228/1

Whitworth Rohrgewinde DIN ISO 228/1
G(BSP) PROFIL 55° DIN ISO 228/1
Filettatura Whitworth per tubi DIN ISO 228/1

Sets of taps
Gewindebohrer-Satz

▶ Serial hand tap set in First and Bottoming.
▶ Bottoming tap of set has final internal thread dimensions only.

▶ Handgewindebohrersatz mit Vor- und Fertigschneider.
▶ Nur der Fertigschneider kann das gewünschte Gewinde schneiden.

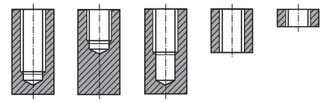
First

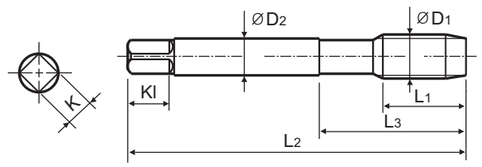


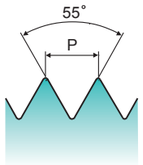
Bottoming

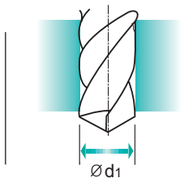


Hole type
2.0×D









Material groups GS | HSS | DIN 5157 | 55° | I/III | Bright

p.B318

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

SIZE ØD1	TPI	EDP No. Bright	Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length Kl	No. of Flute Z	Tapping Drill Diameter Ød1
G1/16	28	T7709029	22	56	26	6	4.9	8	3	6.8
G1/8	28	T7709209	20	63	27	7	5.5	8	4	8.8
G1/4	19	T7709409	22	70	32	11	9	12	4	11.8
G3/8	19	T7709489	22	70	32	12	9	12	4	15.25
G1/2	14	T7709569	22	80	35	16	12	15	4	19
G3/4	14	T7709709	22	90	40	20	16	19	4	24.5
G1	11	T7709789	25	100	45	25	20	23	6	30.75
G1-1/4	11	T7709869	40	125	77	32	24	27	6	39.5
G1-1/2	11	T7709949	40	140	85	36	29	32	6	45.2

◎ : Excellent ○ : Good

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

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

PIPE TAP

TC728 SERIES

G(BSP) Whitworth pipe threads DIN ISO 228/1

Whitworth Rohrgewinde DIN ISO 228/1
G(BSP) PROFIL 55° DIN ISO 228/1
Filettatura Whitworth per tubi DIN ISO 228/1

Machine taps
Maschinengewindebohrer

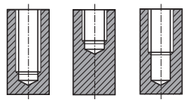
▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

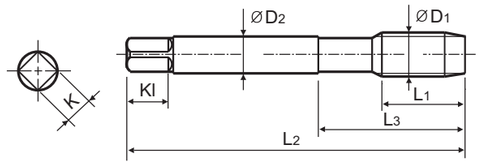
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

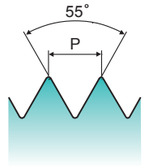
DIN 5156

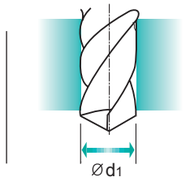


Hole type
2.5×D









Material groups **GS** | HSS-E | DIN 5156 | 55° | C | R40 | Bright

p.B318

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK; TAPPING CHUCK; ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
G1/8	- 28	**TC728200**	20	90	36	7	5.5	8	3	8.8
G1/4	- 19	**TC728400**	22	100	40	11	9	12	3	11.8
G3/8	- 19	**TC728480**	22	100	40	12	9	12	3	15.25
G1/2	- 14	**TC728560**	25	125	50	16	12	15	4	19
G3/4	- 14	**TC728700**	28	140	54	20	16	19	4	24.5
G1	- 11	**TC728780**	30	160	60	25	20	23	4	30.75

◎ : Excellent ○ : Good

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

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

PIPE TAP

TC729 SERIES

G(BSP) Whitworth pipe threads DIN ISO 228/1

Whitworth Rohrgewinde DIN ISO 228/1
G(BSP) PROFIL 55° DIN ISO 228/1
Filettatura Whitworth per tubi DIN ISO 228/1

Machine taps
Maschinengewindebohrer

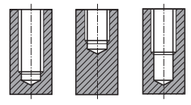
▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

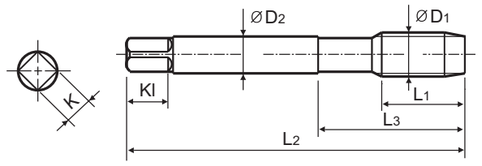
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

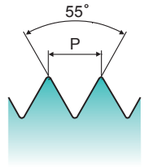
DIN 5156

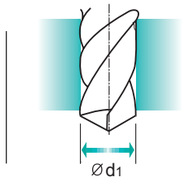


Hole type
2.5×D









Material groups **VG** | HSS-E | DIN 5156 | 55° | C | R40 | Bright

p.B318

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK; TAPPING CHUCK; ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
G1/8	- 28	**TC729200**	20	90	36	7	5.5	8	3	8.8
G1/4	- 19	**TC729400**	22	100	40	11	9	12	3	11.8
G3/8	- 19	**TC729480**	22	100	40	12	9	12	3	15.25
G1/2	- 14	**TC729560**	25	125	50	16	12	15	4	19
G3/4	- 14	**TC729700**	28	140	54	20	16	19	4	24.5
G1	- 11	**TC729780**	30	160	60	25	20	23	4	30.75

◎ : Excellent ○ : Good

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

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

PIPE TAP

TB514 SERIES

G(BSP) Whitworth pipe threads DIN ISO 228/1

Whitworth Rohrgewinde DIN ISO 228/1
G(BSP) PROFIL 55° DIN ISO 228/1
Filettatura Whitworth per tubi DIN ISO 228/1

Machine taps
Maschinengewindebohrer

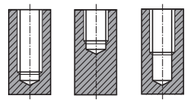
▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

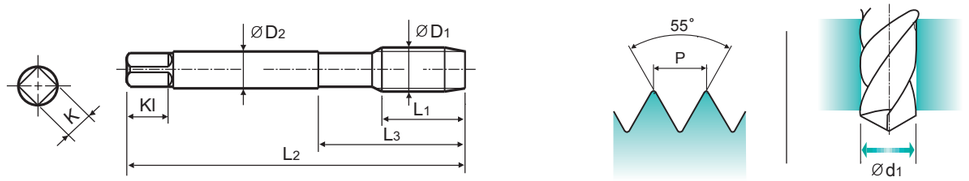
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

DIN 5156



Hole type
2.5×D





Material groups: VA NW | HSS-E | DIN 5156 | 55° | C | R40 | Vap

p.B318

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
G1/8	- 28	**TB514200**	20	90	36	7	5.5	8	3	8.8
G1/4	- 19	**TB514400**	22	100	40	11	9	12	3	11.8
G3/8	- 19	**TB514480**	22	100	40	12	9	12	3	15.25
G1/2	- 14	**TB514560**	25	125	50	16	12	15	4	19
G3/4	- 14	**TB514700**	28	140	54	20	16	19	4	24.5
G1	- 11	**TB514780**	30	160	60	25	20	23	4	30.75

◎ : Excellent ○ : Good

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

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

PIPE TAP

TC727 SERIES

G(BSP) Whitworth Pipe threads DIN ISO 228/1

Whitworth Rohrgewinde DIN ISO 228/1
G(BSP) PROFIL 55° DIN ISO 228/1
Filettatura Whitworth per tubi DIN ISO 228/1

Machine taps
Maschinengewindebohrer

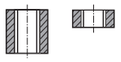
▶ Suitable for through hole in more cutting speed than other taps due to strong geometry.

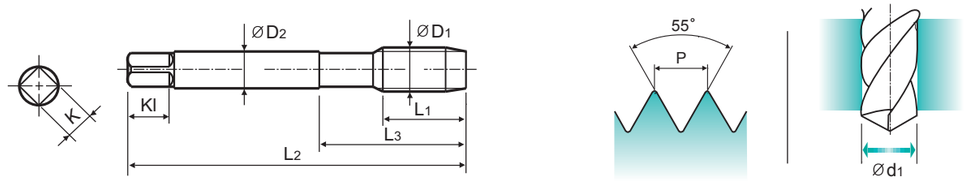
▶ Geeignet für Sacklöcher in höherer Schnittgeschwindigkeit als andere Gewindebohrer dank einer stabilen Bohrergeometrie.

DIN 5156



Hole type
3.0×D





Material groups: GS | HSS-E | DIN 5156 | 55° | B | Bright

p.B318

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
G1/8	- 28	**TC727200**	20	90	36	7	5.5	8	3	8.8
G1/4	- 19	**TC727400**	22	100	40	11	9	12	3	11.8
G3/8	- 19	**TC727480**	22	100	40	12	9	12	3	15.25
G1/2	- 14	**TC727560**	25	125	50	16	12	15	4	19
G3/4	- 14	**TC727700**	28	140	54	20	16	19	4	24.5
G1	- 11	**TC727780**	30	160	60	25	20	23	4	30.75

◎ : Excellent ○ : Good

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

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

PIPE TAP

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

					TC728	TC729	TB514	TC727
ISO	VDI 3323	Material Description	HB	HRc	Vc (m/min.)			
P	1	Non-alloy steel	125				15-20	
	2		190	13	15-20		15-20	15-20
	3		250	25	12-18			12-18
	4		270	28	10-15			10-15
	5		300	32				
	6	Low alloy steel	180	10	10-15	10-15		10-15
	7		275	29	10-15	10-15		10-15
	8		300	32		6-10		
	9		350	38		3-5		
M	12	Stainless steel	200	15			7-10	
	13		240	23			5-8	
	14		180	10		4-6	4-6	
K	17	Nodular cast iron	160	3	10-15			10-15
	18		250	25	5-8			5-8
N	21	Aluminum-wrought alloy	60		10-15			10-15
	22		100		10-15			10-15
	23	Aluminum-cast, alloyed	75		15-20			15-20
	24		90		15-20			15-20
	25		130		10-15			10-15
	26	Copper and Copper Alloys (Bronze / Brass)	110		25-35			25-35
	27		90		8-12			8-12

Leading Through Innovation



HSS-E

SCREW THREAD INSERT TAP

EINSATZGEWINDE INSERT TAPS

- Tapping STI Threads of Soft Materials
- Gewindeschneiden von STI-Gewinden in weichen Materialien

SELECTION GUIDE

THREADING TOOLS

HSS-E SCREW THREAD INSERT TAP

Tapping STI Threads of Soft Materials

HOLE TYPE			Max. 2.5xD Blind Hole	Max. 3.0xD Through Hole
TOOL MATERIAL			HSS-E	
CHAMFER LEAD ACC. TO DIN2197			C	B
FLUTE TYPE			Spiral Flute	Spiral Point
SPIRAL FLUTE ANGLE			R40	-
SERIES	M	DIN371/376		
		DIN352		
		DIN357/LONG		
	MF	DIN374		
		DIN2181		
	UNC	DIN371/376		
		DIN351		
	UNF	DIN371/374		
		DIN2181		
	BSW	DIN2182/2183		
		DIN351		
	G(BSP)	DIN5156/5157		
	EG-M	DIN371/376	TC909(p.B321)	TC973(p.B322)
	EG-UNC	DIN371/376	TC944(p.B323)	TC934(p.B324)
	EG-UNF	DIN371/374		TC954(p.B325)
SURFACE TREATMENT			Bright	Bright
MODEL				

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.B326

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc		
P	1	Non-alloy steel	About 0.15% C	Annealed	125		○	○
	2		About 0.45% C	Annealed	190	13	○	○
	3		About 0.45% C	Quenched & Tempered	250	25	○	○
	4		About 0.75% C	Annealed	270	28		
	5		About 0.75% C	Quenched & Tempered	300	32		
	6	Low alloy steel		Annealed	180	10		
	7			Quenched & Tempered	275	29		
	8			Quenched & Tempered	300	32		
	9			Quenched & Tempered	350	38		
	10	High alloyed steel, and tool steel		Annealed	200	15		
	11			Quenched & Tempered	325	35		
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15		
	13		Martensitic	Quenched & Tempered	240	23		
	14		Austenitic		180	10		
K	15	Grey cast iron	Pearlitic / ferritic		180	10		
	16		Pearlitic (Martensitic)		260	26		
	17	Nodular cast iron	Ferritic		160	3		
	18		Pearlitic		250	25		
	19	Malleable cast iron	Ferritic		130			
	20		Pearlitic		230	21		
N	21	Aluminum-wrought alloy	Not Curable		60		◎	◎
	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		
	32			Cured	280	30		
	33		Ni or Co Based	Annealed	250	25		
	34			Cured	350	38		
	35			Cast	320	34		
	36	Titanium Alloys	Pure Titanium		400 Rm			
	37		Alpha + Beta Alloys	Hardened	1050 Rm			
H	38	Hardened steel		Hardened	550	55		
	39			Hardened	630	60		
	40	Chilled Cast Iron		Cast	400	42		
	41	Hardened Cast Iron		Hardened	550	55		

SCREW THREAD INSERT TAP

TC909 SERIES

EG-M ISO metric coarse threads for Screw Thread insert

Metrisches ISO Regelgew.f.Gew. Drahteins
ISO MÉTRIQUE DIN13 POUR FILETS RAPPORTÉS
ISO Metrico passo grosso per Helicoil

Machine taps
Maschinengewindebohrer

▶ Wire insert threads are used for increasing fastening strength in soft materials.

▶ Gewinde mit Drahteinsätzen werden verwendet um größere Drehmomente in weichen Werkstoffen zu erreichen.

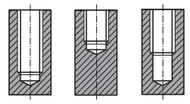
DIN 371

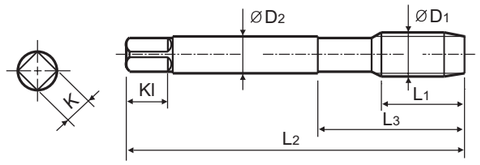


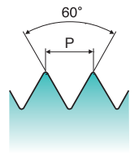
DIN 376

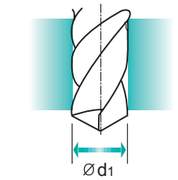


Hole type
2.5×D









Material groups: Al | HSS-E | DIN 371/376 | 6H Mod. | 60° | C | R40 | Bright p.B326

Recommended ToolHolder: Plain Shank; TAPPING ER CHUCK; TAPPING CHUCK; ONE STEP TAPPING CHUCK

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2.5	× 0.45	TC909176	6	56	18	3.5	2.7	6	3	2.65
M3	× 0.5	TC909206	5	63	21	4.5	3.4	6	3	3.15
M3.5	× 0.6	TC909226	8	70	25	6	4.9	8	3	3.7
M4	× 0.7	TC909246	8	70	25	6	4.9	8	3	4.2
M5	× 0.8	TC909286	8	80	30	6	4.9	8	3	5.25
M6	× 1.0	TC909316	10	90	35	8	6.2	9	3	6.3
M8	× 1.25	TC909366	16	100	39	10	8	11	3	8.4
M10	× 1.5	TC909426	15	110	44	9	7	10	3	10.4
M12	× 1.75	TC909506	20	110	44	11	9	12	3	12.5
M14	× 2.0	TC909546	22	110	44	12	9	12	3	14.5
M16	× 2.0	TC909606	25	125	50	14	11	14	4	16.5
M18	× 2.5	TC909656	27	140	54	18	14.5	17	4	18.75
M20	× 2.5	TC909706	30	160	60	18	14.5	17	4	20.75

▶ DIN 371(M2.5~M8) and DIN 376(M10~M20)

◎ : Excellent ○ : Good

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

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

SCREW THREAD INSERT TAP

TC973 SERIES

EG-M ISO metric coarse threads for Screw Thread insert

Metrisches ISO Regelgew.f.Gew. Drahteins
ISO MÉTRIQUE DIN13 POUR FILETS RAPPORTÉS
ISO Metrico passo grosso per Helicoil

Machine taps
Maschinengewindebohrer

▶ Wire insert threads are used for increasing fastening strength in soft materials.

▶ Gewinde mit Drahteinsätzen werden verwendet um größere Drehmomente in weichen Werkstoffen zu erreichen.

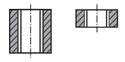
DIN 371

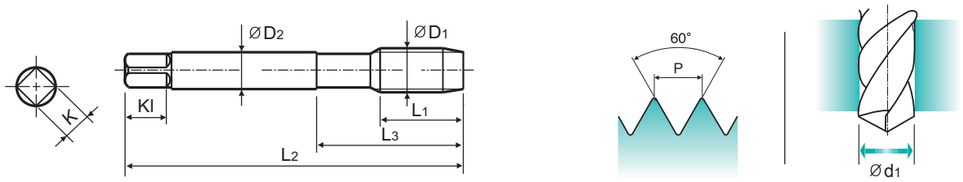


DIN 376



Hole type
3.0×D





Material groups: Al | HSS-E | DIN 371/376 | 6H Mod. | 60° | B | Bright | p.B326

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE ØD1	Pitch P	EDP No. Bright	Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length Kl	No. of Flute Z	Tapping Drill Diameter Ød1
M2.5	× 0.45	**TC973176**	11	56	18	3.5	2.7	6	3	2.65
M3	× 0.5	**TC973206**	10	63	21	4.5	3.4	6	3	3.15
M3.5	× 0.6	**TC973226**	14	70	25	6	4.9	8	3	3.7
M4	× 0.7	**TC973246**	13	70	25	6	4.9	8	3	4.2
M5	× 0.8	**TC973286**	13	80	30	6	4.9	8	3	5.25
M6	× 1.0	**TC973316**	17	90	35	8	6.2	9	3	6.3
M8	× 1.25	**TC973366**	18	100	39	10	8	11	3	8.4
M10	× 1.5	**TC973426**	22	110	44	9	7	10	3	10.4
M12	× 1.75	**TC973506**	26	110	44	11	9	12	3	12.5
M14	× 2.0	**TC973546**	27	110	44	12	9	12	3	14.5
M16	× 2.0	**TC973606**	30	125	50	14	11	14	4	16.5
M18	× 2.5	**TC973656**	32	140	54	18	14.5	17	4	18.75
M20	× 2.5	**TC973706**	34	160	60	18	14.5	17	4	20.75

▶ DIN 371(M2.5~M8) and DIN 376(M10~M20)

◎ : Excellent ○ : Good

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

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

SCREW THREAD INSERT TAP

TC944 SERIES

EG-UNC Unified coarse threads for Screw Thread insert

Unified Regelgew.f.Gew.Drahteins
UNC POUR FILETS RAPPORTÉS
ISO Metrico passo grosso per Helicoil

Machine taps
Maschinengewindebohrer

▶ Wire insert threads are used for increasing fastening strength in soft materials.

▶ Gewinde mit Drahteinsätzen werden verwendet um größere Drehmomente in weichen Werkstoffen zu erreichen.

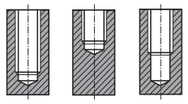
DIN 371

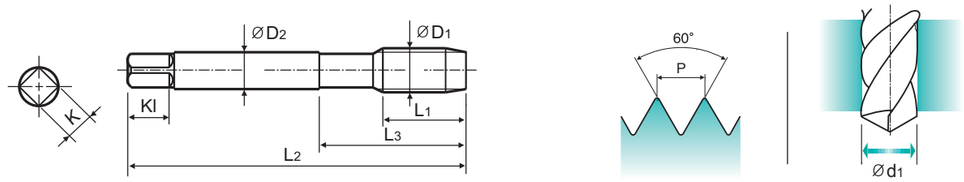


DIN 376



Hole type
2.5×D





Material groups: Al | HSS-E | DIN 371/376 | 2B | 60° | C | R40 | Bright | p.B326

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE ØD1	TPI	EDP No. Bright	Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length Kl	No. of Flute Z	Tapping Drill Diameter Ød1
#4	- 40 UNC	**TC944162**	7	63	21	4.5	3.4	6	3	3.1
#5	- 40 UNC	**TC944202**	7	63	21	4.5	3.4	6	3	3.4
#6	- 32 UNC	**TC944242**	8	70	25	6	4.9	8	3	3.8
#8	- 32 UNC	**TC944282**	8	80	25	6	4.9	8	3	4.4
#10	- 24 UNC	**TC944322**	10	80	30	7	5.5	8	3	5.2
#12	- 24 UNC	**TC944362**	10	80	30	7	5.5	8	3	5.8
1/4	- 20 UNC	**TC944402**	14	90	35	8	6.2	9	3	6.7
5/16	- 18 UNC	**TC944442**	16	100	39	10	8	11	3	8.4
3/8	- 16 UNC	**TC944482**	16	110	39	12	9	12	3	10
7/16	- 14 UNC	**TC944522**	20	110	44	11	9	12	3	11.6
1/2	- 13 UNC	**TC944562**	22	110	44	12	9	12	3	13.3
9/16	- 12 UNC	**TC944602**	22	125	50	14	11	14	3	15
5/8	- 11 UNC	**TC944642**	25	125	50	14	11	14	4	16.5
3/4	- 10 UNC	**TC944702**	27	140	56	18	14.5	17	4	19.75

▶ DIN 371(#4~3/8) and DIN 376(7/16~3/4)

◎ : Excellent ○ : Good

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

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

SCREW THREAD INSERT TAP

TC934 SERIES

EG-UNC

Unified coarse threads for Screw Thread insert

- Unified Regelgew.f.Gew.Drahteins
- UNC POUR FILETS RAPPORTÉS
- ISO Metrico passo grosso per Helicoil

Machine taps
Maschinengewindebohrer

▶ Wire insert threads are used for increasing fastening strength in soft materials.

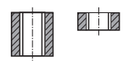
▶ Gewinde mit Drahteinsätzen werden verwendet um größere Drehmomente in weichen Werkstoffen zu erreichen.

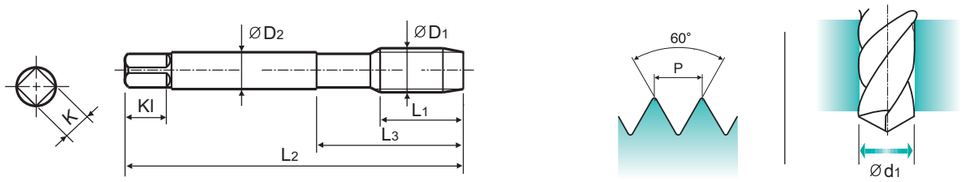
DIN 371

DIN 376



Hole type
3.0×D





Material groups: Al | HSS-E | DIN 371/376 | 2B | 60° | B | Bright

p.B326

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 40 UNC	**TC934162**	13	63	21	4.5	3.4	6	3	3.1
#5	- 40 UNC	**TC934202**	13	63	21	4.5	3.4	6	3	3.4
#6	- 32 UNC	**TC934242**	14	70	25	6	4.9	8	3	3.8
#8	- 32 UNC	**TC934282**	13	80	25	6	4.9	8	3	4.4
#10	- 24 UNC	**TC934322**	17	80	30	7	5.5	8	3	5.2
#12	- 24 UNC	**TC934362**	17	80	30	7	5.5	8	3	5.8
1/4	- 20 UNC	**TC934402**	20	90	35	8	6.2	9	3	6.7
5/16	- 18 UNC	**TC934442**	22	100	39	10	8	11	3	8.4
3/8	- 16 UNC	**TC934482**	21	110	39	12	9	12	3	10
7/16	- 14 UNC	**TC934522**	26	110	44	11	9	12	3	11.6
1/2	- 13 UNC	**TC934562**	27	110	44	12	9	12	3	13.3
9/16	- 12 UNC	**TC934602**	30	125	50	14	11	14	3	15
5/8	- 11 UNC	**TC934642**	30	125	50	14	11	14	4	16.5
3/4	- 10 UNC	**TC934702**	32	140	54	18	14.5	17	4	19.75

▶ DIN 371(#4~3/8) and DIN 376(7/16~3/4)

◎ : Excellent ○ : Good

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

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

SCREW THREAD INSERT TAP

TC954 SERIES

EG-UNF

Unified fine threads for Screw Thread insert

- Unified Feingew.f.Gew.Drahteins
- UNC POUR FILETS RAPPORTÉS
- ISO Metrico passo fine per Helicoil

Machine taps
Maschinengewindebohrer

▶ Wire insert threads are used for increasing fastening strength in soft materials.

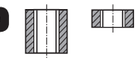
▶ Gewinde mit Drahteinsätzen werden verwendet um größere Drehmomente in weichen Werkstoffen zu erreichen.

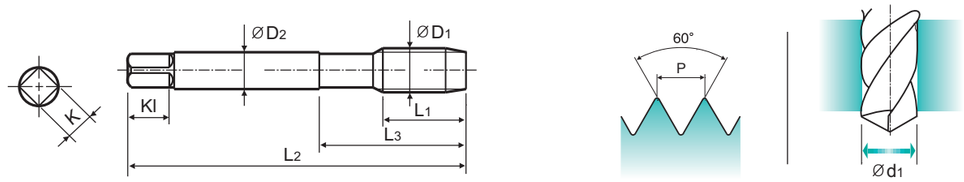
DIN 371

DIN 374



Hole type
3.0×D





Material groups: Al | HSS-E | DIN 371/374 | 2B | 60° | B | Bright

p.B326

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK / TAPPING CHUCK / ONE STEP TAPPING CHUCK

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#4	- 48 UNF	**TC954182**	12	56	20	4	3	6	3	3.1
#6	- 40 UNF	**TC954262**	14	70	25	6	4.9	8	3	3.7
#8	- 36 UNF	**TC954302**	13	70	25	6	4.9	8	3	4.4
#10	- 32 UNF	**TC954342**	13	80	25	6	4.9	8	3	5.1
1/4	- 28 UNF	**TC954422**	17	90	35	8	6.2	9	3	6.6
5/16	- 24 UNF	**TC954462**	18	100	39	10	8	11	3	8.25
3/8	- 24 UNF	**TC954502**	18	110	39	12	9	12	3	9.8
7/16	- 20 UNF	**TC954542**	22	100	40	9	7	10	3	11.5
1/2	- 20 UNF	**TC954582**	22	100	40	11	9	12	3	13.1
9/16	- 18 UNF	**TC954622**	22	100	40	12	9	12	3	14.75
5/8	- 18 UNF	**TC954662**	25	110	44	14	11	14	4	16.25
3/4	- 16 UNF	**TC954722**	25	125	50	16	12	15	4	19.5

▶ DIN 371(#4~3/8) and DIN 374(7/16~3/4)

◎ : Excellent ○ : Good

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

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

SCREW THREAD INSERT TAP

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

					TC909 TC944	TC973 TC934 TC954
ISO	VDI 3323	Material Description	HB	HRc	Vc (m/min.)	
P	1	Non-alloy steel	125		15-20	15-20
	2		190	13	15-20	15-20
	3		250	25	12-18	12-18
N	21	Aluminum-wrought alloy	60		10-15	10-15
	22		100		10-15	10-15
	23	Aluminum-cast, alloyed	75		15-20	15-20
	24		90		15-20	15-20
	27	Copper and Copper Alloys (Bronze / Brass)	90		8-12	8-12



NUT TAP
MUTTERGEWINDEBOHRER

- Nut Tapping Machines
- Zum Gewindeschneiden von Muttern

SELECTION GUIDE

YG THREADING TOOLS

HSS-E NUT TAP

Nut Tapping Machines

HOLE TYPE			Max. 2.0xD Through Hole
TOOL MATERIAL			HSS-E
CHAMFER LEAD ACC. TO DIN2197			Long
FLUTE TYPE			Straight Flute
SPIRAL FLUTE ANGLE			-
SERIES	M	DIN371/376	
		DIN352	
		DIN357/LONG	TC803 (p.B329)
	MF	DIN374	
		DIN2181	
	UNC	DIN371/376	
		DIN351	
	UNF	DIN371/374	
		DIN2181	
	BSW	DIN2182/2183	
		DIN351	
	G(BSP)	DIN5156/5157	
	EG-M	DIN371/376	
	EG-UNC	DIN371/376	
	EG-UNF	DIN371/374	
SURFACE TREATMENT			Bright
MODEL			

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc		Vc (m/min.)
P	1	Non-alloy steel	About 0.15% C	Annealed	125		○	15-20
	2		About 0.45% C	Annealed	190	13	○	15-20
	3		About 0.45% C	Quenched & Tempered	250	25	○	12-18
	4		About 0.75% C	Annealed	270	28	○	10-15
	5		About 0.75% C	Quenched & Tempered	300	32		
	6	Low alloy steel		Annealed	180	10	○	10-15
	7			Quenched & Tempered	275	29	○	10-15
	8			Quenched & Tempered	300	32		
	9			Quenched & Tempered	350	38		
	10	High alloyed steel, and tool steel		Annealed	200	15		
	11			Quenched & Tempered	325	35		
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15		
	13		Martensitic	Quenched & Tempered	240	23		
	14		Austenitic		180	10		
K	15	Grey cast iron	Pearlitic / ferritic		180	10		
	16		Pearlitic (Martensitic)		260	26		
	17	Nodular cast iron	Ferritic		160	3	○	10-15
	18		Pearlitic		250	25	○	5-8
	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		○	10-15
	26	Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%		110		○	25-35
	27		CuZn, CuSnZn (Brass)		90		○	8-12
	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		Ni or Co Based	Annealed	250	25		
	34			Cured	350	38		
	35			Cast	320	34		
	36	Titanium Alloys	Pure Titanium		400 Rm			
	37		Alpha + Beta Alloys	Hardened	1050 Rm			
H	38	Hardened steel		Hardened	550	55		
	39			Hardened	630	60		
	40	Chilled Cast Iron		Cast	400	42		
	41	Hardened Cast Iron		Hardened	550	55		

NUT TAP

TC803 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

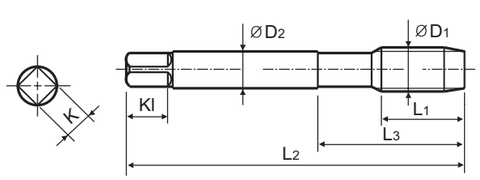
Nut taps
Muttergewindebohrer

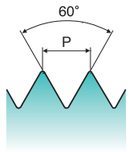
- For making nuts on machines.
- The work pieces can be taken out from shank side only.
- Zur Herstellung von Muttern auf Sondermaschinen.
- Die fertigen Muttern können nur über das Schaftende entnommen werden.

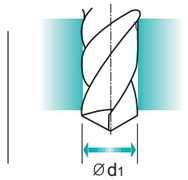
DIN 357



Hole type 2.0×D







Material groups GS | HSS-E | DIN 357 | 6H | 60° | LONG | Bright

p.B328

Recommended ToolHolder: Plain Shank — TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Unit : mm

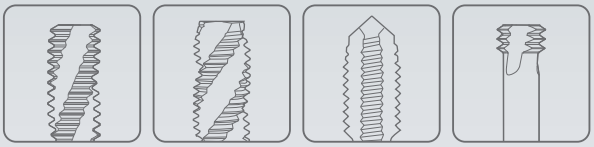
SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4	× 0.7	TC803246	25	90	45	2.8	2.1	5	3	3.3
M5	× 0.8	TC803286	28	100	50	3.5	2.7	6	3	4.2
M6	× 1.0	TC803316	32	110	55	4.5	3.4	6	3	5
M7	× 1.0	TC803346	36	110	55	5.5	4.3	7	3	6
M8	× 1.25	TC803366	40	125	62	6	4.9	8	3	6.8
M10	× 1.5	TC803426	45	140	70	7	5.5	8	3	8.5
M12	× 1.75	TC803506	50	180	90	9	7	10	3	10.2
M14	× 2.0	TC803546	56	200	100	11	9	12	4	12
M16	× 2.0	TC803606	63	200	100	12	9	12	4	14
M18	× 2.5	TC803656	63	220	110	14	11	14	4	15.5
M20	× 2.5	TC803706	70	250	125	16	12	15	4	17.5

◎ : Excellent ○ : Good

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

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

Global Cutting Tool Leader **YG-1**



THREADING

Leading Through Innovation

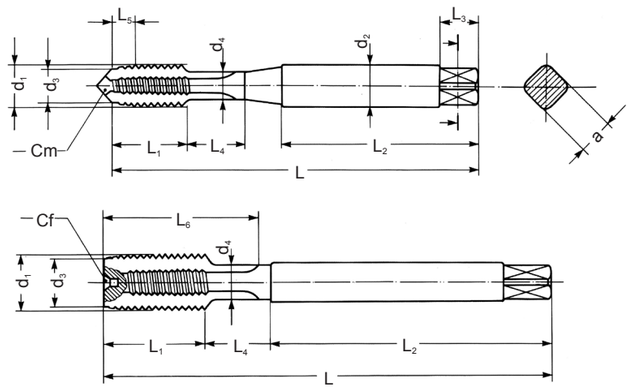


TAPS

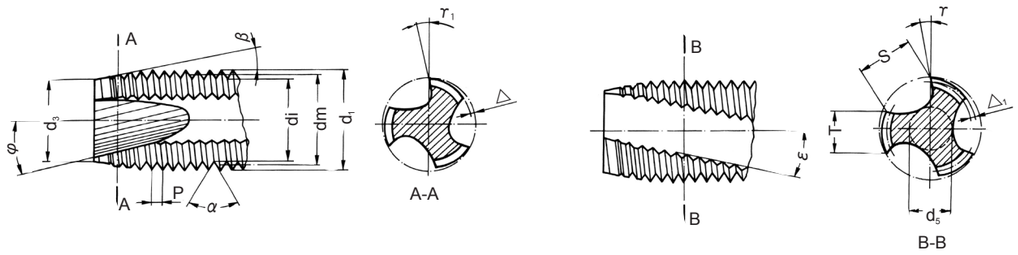
TECHNICAL DATA
TECHNISCHE DATEN

TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

1 TAPS TERMINOLOGY
FACHAUSDRÜCKE BEI GEWINDEBOHRERN (Terminologie)



d_1	Major diameter	d_1	Nenn Aussendurchmesser	d_1	Diamètre externe nominal
d_2	Shank diameter	d_2	Schaftdurchmesser	d_2	Diamètre de la queue
d_3	Chamfer diameter	d_3	Anschnittdurchmesser	d_3	Diamètre de l'entrée
d_4	Neck diameter	d_4	Bunddurchmesser	d_4	Diamètre de la collerette de dégagement
L	Total length	L	Gesamtlänge	L	Longueur totale
L_1	Thread length	L_1	Gewindelänge	L_1	Longueur de la patie filetée
L_2	Shank length	L_2	Schaftlänge	L_2	Longueur de la queue
L_3	Square length	L_3	Vierkantlänge	L_3	Longueur du carré
L_4	Neck length	L_4	Bundlänge	L_4	Longueur de la collerette de dégagement
L_5	Chamfer length	L_5	Anschnittlänge	L_5	Longueur de l'entrée
L_6	Flutes length	L_6	Nutenlänge	L_6	Longueur des goujures
a	Square	a	Vierkantma ß	a	Carré
Cm	Center male	Cm	Mittelpunkt des Aussengewindes	Cm	Centre mâle
Cf	Center female	Cf	Mittelpunkt des Innengewindes	Cf	Centre femelle



d_1	Major diameter	d_1	Nenn Aussendurchmesser	d_1	Diamètre externe nominal
dm	Flank diameter	dm	Flankendurchmesser	dm	Diamètre moyen
di	Minor diameter	di	Kerndurchmesser	di	Diamètre interne
d_3	Chamfer diameter	d_3	Anschnittdurchmesser	d_3	Diamètre de l'entrée
P	Pitch	P	Steigung	P	Pas
a	Flank angle	a	Flankenwinkel	α	Angle du filet
β	Chamfer angle	β	Anschnittwinkel	β	Demi-angle du cône d'entrée
φ	Gun nose angle	φ	Schälschnittwinkel	φ	Angle de l'entrée GUN
τ	Gun nose rake angle in front	τ_1	Schälschnitt-Spanwinkel	τ_1	Angle de coupe sur l'entrée GUN
△	Chamfer relief	△	Hinterschliff am Anschnitt	△	Détalonnage sur l'entrée
$△_1$	Pitch diameter relief on the land	$△_1$	Flankenhinterschliff auf Zahnbreite	$△_1$	Détalonnage sur le filet
τ	Rake angle	τ	Spanwinkel	τ	Angle de coupe frontale
T	Width of land	T	Zahnstollenbreite	T	Largeur des dents
S	Flute width	S	Nutenbreite	S	Largeur des goujoures
d_5	Web tickness	d_5	Seelendicke	d_5	Diamètre de l'âme
ε	Angle of spiral flute	ε	Spiralwinkel	ε	Angle d'hélice des goujures

TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

2 RECOMMENDED TAP DRILL SIZE
EMPFOHLENE KERNLOCHMASSE

Unit : mm

Metric-ISO threads coarse pitch				Metric-ISO threads fine pitch				Metric-ISO threads fine pitch			
M	Pitch	Maximum core dia.	Drill size	MF	Pitch	Maximum core dia.	Drill size	MF	Pitch	Maximum core dia.	Drill size
1	0.25	0.785	0.75	2.5	0.35	2.221	2.15	25	2.00	23.210	23.00
1.1	0.25	0.885	0.85	3	0.35	2.271	2.65	26	1.50	24.676	24.50
1.2	0.25	0.985	0.95	3.5	0.35	3.221	3.15	27	1.00	26.153	26.00
1.4	0.30	1.160	1.10	4	0.50	3.599	3.50	27	1.50	25.676	25.50
1.6	0.35	1.321	1.25	4.5	0.50	4.099	4.00	27	2.00	25.210	25.00
1.7	0.35	1.346	1.30	5	0.50	4.599	4.50	28	1.00	27.153	27.00
1.8	0.35	1.521	1.45	5.5	0.50	5.099	5.00	28	1.50	26.676	26.50
2	0.40	1.679	1.60	6	0.75	5.378	5.20	28	2.00	26.210	26.00
2.2	0.45	1.838	1.75	7	0.75	6.378	6.20	30	1.00	29.153	29.00
2.3	0.40	1.920	1.90	8	0.75	7.378	7.20	30	1.50	28.676	28.50
2.5	0.45	2.138	2.05	8	1.00	7.153	7.00	30	2.00	28.210	28.00
2.6	0.45	2.176	2.10	9	0.75	8.378	8.20	30	3.00	27.252	27.00
3	0.50	2.599	2.50	9	1.00	8.153	8.00	32	1.50	30.675	30.50
3.5	0.60	3.010	2.90	10	0.75	9.378	9.20	32	2.00	30.210	30.00
4	0.70	3.422	3.30	10	1.00	9.153	9.00	33	1.50	31.676	31.50
4.5	0.75	3.878	3.70	10	1.25	8.912	8.80	33	2.00	31.210	31.00
5	0.80	4.334	4.20	11	0.75	10.378	10.20	33	3.00	30.252	30.00
6	1.00	5.153	5.00	11	1.00	10.153	10.00	35	1.50	33.676	33.50
7	1.00	6.153	6.00	12	1.00	11.153	11.00	36	1.50	34.676	34.50
8	1.25	6.912	6.80	12	1.25	10.912	10.80	36	2.00	34.210	34.00
9	1.25	7.912	7.80	12	1.50	10.676	10.50	36	3.00	33.252	33.00
10	1.50	8.676	8.50	14	1.00	13.153	13.00	38	1.50	36.676	36.50
11	1.50	9.676	9.50	14	1.25	12.912	12.80	39	1.50	37.676	37.50
12	1.75	10.441	10.20	14	1.50	12.676	12.50	39	2.00	37.210	37.00
14	2.00	12.210	12.00	15	1.00	14.153	14.00	39	3.00	36.252	36.00
16	2.00	14.210	14.00	15	1.50	13.676	13.50	40	1.50	38.676	38.50
18	2.50	15.744	15.50	16	1.00	15.153	15.00	40	2.00	38.210	38.00
20	2.50	17.744	17.50	16	1.50	14.676	14.50	40	3.00	37.252	37.00
22	2.50	19.744	19.50	17	1.00	16.153	16.00	42	1.50	40.676	40.50
24	3.00	21.252	21.00	17	1.50	15.676	15.50	42	2.00	40.210	40.00
27	3.00	24.252	24.00	18	1.00	17.153	17.00	42	3.00	39.252	39.00
30	3.50	26.771	26.50	18	1.50	16.676	16.50	45	1.50	43.676	43.50
33	3.50	29.771	29.50	18	2.00	16.210	16.00	45	2.00	43.210	43.00
36	4.00	32.270	32.00	20	1.00	19.153	19.00	45	3.00	42.252	42.00
39	4.00	35.270	35.00	20	1.50	18.676	18.50	48	1.50	46.676	46.50
42	4.50	37.799	37.50	20	2.00	18.210	18.00	48	2.00	46.210	46.00
45	4.50	40.799	40.50	22	1.00	21.153	21.00	48	3.00	45.252	45.00
48	5.00	43.297	43.00	22	1.50	20.676	20.50	50	1.50	48.676	48.50
52	5.00	47.297	47.00	22	2.00	20.210	20.00	50	2.00	48.210	48.00
56	5.50	50.796	50.50	24	1.00	23.153	23.00	50	3.00	47.252	47.00
60	5.50	54.796	54.50	24	1.50	22.676	22.50	52	1.50	50.676	50.50
64	6.00	58.305	58.00	24	2.00	22.210	22.00	52	2.00	50.210	50.00
68	6.00	62.305	62.00	25	1.00	24.153	24.00	52	3.00	49.252	49.00
				25	1.50	23.676	23.50				

TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

Unit : mm

American Unified coarse threads			
UNC	TPI	Maximum core dia.	Drill size
#1	64	1.585	1.50
#2	56	1.872	1.80
#3	48	2.146	2.10
#4	40	2.385	2.30
#5	40	2.697	2.60
#6	32	2.896	2.85
#8	32	3.528	3.50
#10	24	3.950	3.90
#12	24	4.590	4.50
1/4"	20	5.250	5.20
5/16"	18	6.680	6.60
3/8"	16	8.082	8.00
7/16"	14	9.441	9.40
1/2"	13	10.881	10.75
9/16"	12	12.301	12.25
5/8"	11	13.693	13.50
3/4"	10	16.624	16.50
7/8"	9	19.520	19.50
1"	8	22.344	22.25
1*1/8"	7	25.082	25.00
1*1/4"	7	28.258	28.25
1*3/8"	6	30.851	30.75
1*1/2"	6	34.026	34.00
1*3/4"	5	39.560	39.50
2"	4.5	45.367	45.25

American Unified fine threads			
UNF	TPI	Maximum core dia.	Drill size
#0	80	1.306	1.30
#1	72	1.613	1.60
#2	64	1.913	1.90
#3	56	2.197	2.10
#4	48	2.459	2.40
#5	44	2.741	2.70
#6	40	3.012	3.00
#8	36	3.597	3.50
#10	32	4.168	4.10
#12	28	4.717	4.70
1/4"	28	5.563	5.50
5/16"	24	6.995	6.90
3/8"	24	8.565	8.50
7/16"	20	9.947	9.90
1/2"	20	11.524	11.50
9/16"	18	12.969	12.90
5/8"	18	14.554	14.50
3/4"	16	17.546	17.50
7/8"	14	20.493	20.50
1"	12	23.363	23.25
1*1/8"	12	26.538	26.50
1*1/4"	12	29.713	29.50
1*3/8"	12	32.888	32.70
1*1/2"	12	36.063	36.00

Whitworth threads B.S.W.			
BSW	TPI	Maximum core dia.	Drill size
3/32"	48	1.910	1.80
1/8"	40	2.590	2.50
5/32"	32	3.211	3.10
3/16"	24	3.743	3.60
7/32"	24	4.538	4.40
1/4"	20	5.224	5.10
5/16"	18	6.661	6.50
3/8"	16	8.052	7.90
7/16"	14	9.379	9.30
1/2"	12	10.610	10.50
9/16"	12	12.176	12.00
5/8"	11	13.598	13.50
3/4"	10	16.538	16.50
7/8"	9	19.411	19.25
1"	8	22.185	22.00
1*1/8"	7	24.879	24.75
1*1/4"	7	28.054	27.75
1*3/8"	6	30.555	30.50
1*1/2"	6	33.730	33.50
1*5/8"	5	35.921	35.50
1*3/4"	5	39.096	39.00
1*7/8"	4.5	41.648	41.50
2"	4.5	44.823	44.50
2*1/4"	4	50.420	50.00
2*1/2"	4	56.770	56.50
2*3/4"	3.5	62.108	62.00
3"	3.5	68.459	68.50

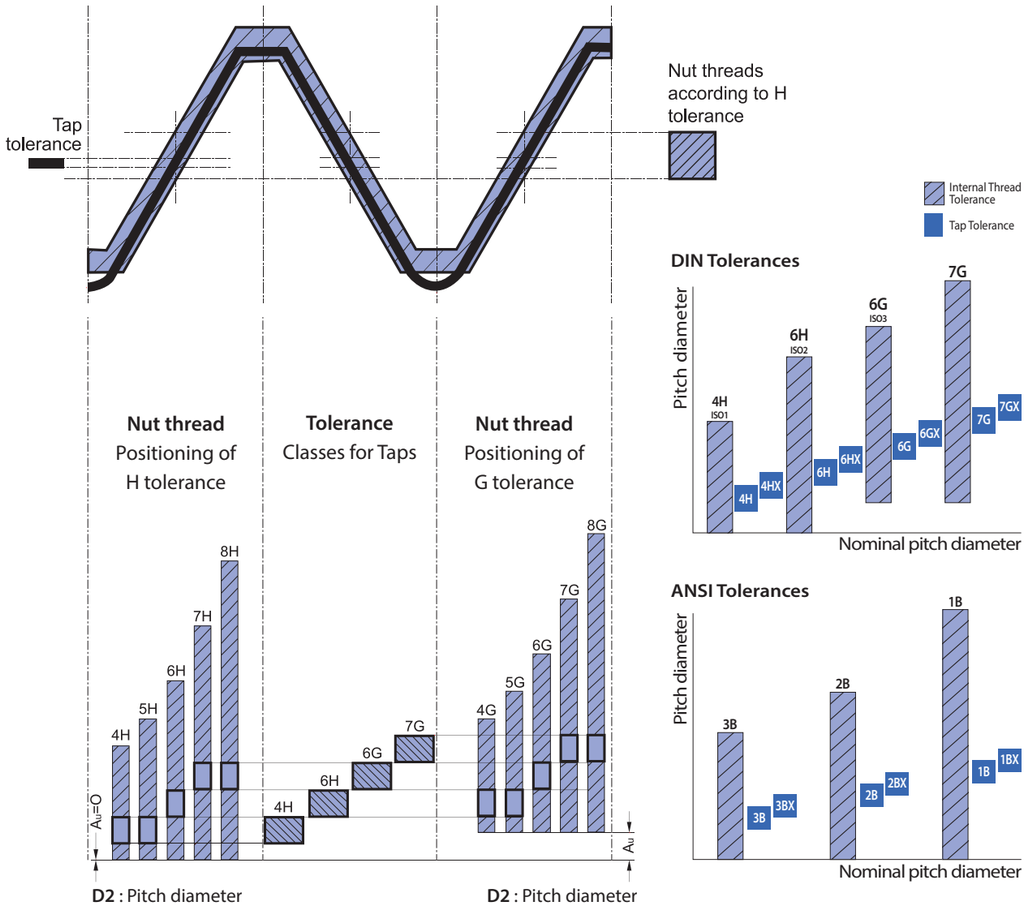
Whitworth pipe thread BSP.PI			
G(BSP)	TPI	Maximum core dia.	Drill size
1/8"	28	8.848	8.80
1/4"	19	11.890	11.80
3/8"	19	15.395	15.25
1/2"	14	19.172	19.00
5/8"	14	21.128	21.00
3/4"	14	24.658	24.50
7/8"	14	28.418	28.25
1"	11	30.931	30.75
1*1/8"	11	35.579	35.50
1*1/4"	11	39.592	39.50
1*3/8"	11	42.005	42.00
1*1/2"	11	45.485	45.20
1*5/8"	11	49.670	49.60
1*3/4"	11	51.428	51.40
2"	11	57.296	57.20
2*1/4"	11	63.392	63.30
2*3/8"	11	67.080	67.00
2*1/2"	11	72.866	72.80
2*3/4"	11	79.216	79.10
3"	11	85.566	85.50
3*1/4"	11	91.662	91.50
3*1/2"	11	98.012	98.00
3*3/4"	11	104.362	104.00
4"	11	110.712	110.50

CARBIDE
HSS
THREAD MILL
SYNCHRO TAP
PRIME TAP
COMBO TAP
YG TAP STEEL
YG TAP CHIP BREAKER
YG TAP INOX
YG TAP CAST IRON
YG TAP HARDENED STEEL
YG TAP Ti Ni
YG TAP ALU
YG TAP FORMING
YG TAP GENERAL
PIPE TAP
STI TAP
NUT TAP
TECHNICAL DATA

TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

3 TAP TOLERANCES
GEWINDEBOHRER TOLERANZEN

Tolerance classes of taps and tolerance positions for screw threads as per Metric ISO Standard.
Toleranzklassen und Toleranzfelder für Schraubengewinde entsprechen dem metrischen ISO-Standard



▶ Taps tolerances and recomanded classes

Tap tolerance ISO	Tap tolerance DIN	Correct class to obtain Nut thread with tolerance				
ISO 1	4H	4H	5H			
ISO 2	6H	4G	5G	6H		
ISO 3	6G			6G	7H	8H
	7G				7G	8G

TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

3-1 METRIC ISO COARSE THREADS
METRISCHES ISO-GEWINDE

Nominal dimensions UNI 4535-64
Production tolerances on tap pitch diameter for ISO 6H Nut threads
Limit dimensions-Nut threads ISO 6H

Dimensions in mm

$H = 0.86603P$

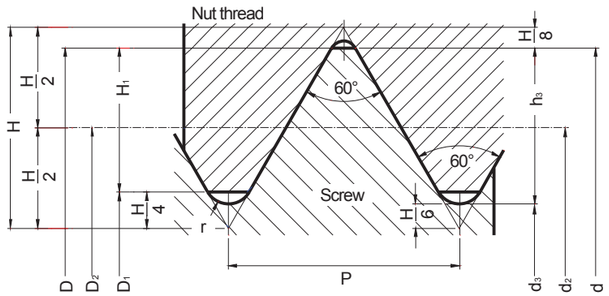
$H_1 = \frac{5}{8} H = 0.54127P$

$h_3 = \frac{17}{24} H = 0.61343P$

$d_2 = D_2 = d - \quad H = \frac{3}{4} d - 0.64952P$

$d_3 = d - 2h_3 = d - 1.22687P$

$r = \frac{H}{6} = 0.14434P$



Nominal diameter	Pitch	Pitch diameter	Minor diameter		Thread depth		Radius	Pitch diameter Tap tolerance 6H		Pitch diameter Nut tolerance 6H	
			Screw	Nut	Screw	Nut		min.	max.	min.	max.
d = D	P	d2 = D2	d3	D1	h3	H1	r	d2			
M 1.6	0.35	1.373	1.171	1.221	0.215	0.189	0.051	1.393	1.407	1.373	1.458
M 1.8	0.35	1.573	1.371	1.421	0.215	0.189	0.051	1.593	1.607	1.573	1.658
M 2	0.4	1.740	1.509	1.567	0.245	0.217	0.058	1.761	1.776	1.740	1.830
M 2.2	0.45	1.908	1.648	1.713	0.276	0.244	0.065	1.931	1.946	1.908	2.003
M 2.5	0.45	2.208	1.948	2.013	0.276	0.244	0.065	2.231	2.246	2.208	2.303
M 3	0.5	2.675	2.387	2.459	0.307	0.271	0.072	2.699	2.715	2.675	2.775
M 3.5	0.6	3.110	2.764	2.850	0.368	0.325	0.087	3.137	3.155	3.110	3.222
M 4	0.7	3.545	3.141	3.242	0.429	0.379	0.101	3.574	3.593	3.545	3.663
M 4.5	0.75	4.013	3.580	3.688	0.460	0.406	0.108	4.042	4.061	4.013	4.131
M 5	0.8	4.480	4.019	4.134	0.491	0.433	0.115	4.510	4.530	4.480	4.605
M 6	1	5.350	4.773	4.917	0.613	0.541	0.144	5.385	5.409	5.350	5.500
M 7	1	6.350	5.773	5.917	0.613	0.541	0.144	6.385	6.409	6.350	6.500
M 8	1.25	7.188	6.466	6.647	0.767	0.677	0.180	7.226	7.251	7.188	7.348
M 9	1.25	8.188	7.466	7.647	0.767	0.677	0.180	8.226	8.251	8.188	8.348
M 10	1.5	9.026	8.160	8.376	0.920	0.812	0.217	9.068	9.096	9.026	9.206
M 11	1.5	10.026	9.160	9.376	0.920	0.812	0.217	10.068	10.096	10.026	10.206
M 12	1.75	10.863	9.853	10.106	1.074	0.947	0.253	10.911	10.943	10.863	11.063
M 14	2	12.701	11.546	11.835	1.227	1.083	0.289	12.752	12.786	12.701	12.913
M 16	2	14.701	13.546	13.835	1.227	1.083	0.289	14.752	14.786	14.701	14.913
M 18	2.5	16.376	14.933	15.294	1.534	1.353	0.361	16.430	16.466	16.376	16.600
M 20	2.5	18.376	16.933	17.294	1.534	1.353	0.361	18.430	18.466	18.376	18.600
M 22	2.5	20.376	18.933	19.294	1.534	1.353	0.361	20.430	20.466	20.376	20.600
M 24	3	22.051	20.319	20.752	1.840	1.624	0.433	22.115	22.157	22.051	22.316
M 27	3	25.051	23.319	23.752	1.840	1.624	0.433	25.115	25.157	25.051	25.316
M 30	3.5	27.727	25.706	26.211	2.147	1.894	0.505	27.794	27.839	27.727	28.007
M 33	3.5	30.727	28.706	29.211	2.147	1.894	0.505	30.794	30.839	30.727	31.007
M 36	4	33.402	31.093	31.670	2.454	2.165	0.577	33.473	33.520	33.402	33.702
M 39	4	36.402	34.093	34.670	2.454	2.165	0.577	36.473	36.520	36.402	36.702
M 42	4.5	39.077	36.479	37.129	2.760	2.436	0.650	39.152	39.202	39.077	39.392
M 45	4.5	42.077	39.479	40.129	2.760	2.436	0.650	42.152	42.202	42.077	42.392
M 48	5	44.752	41.866	42.587	3.067	2.706	0.722	44.832	44.885	44.752	45.087
M 52	5	48.752	45.866	46.587	3.067	2.706	0.722	48.832	48.885	48.752	49.087
M 56	5.5	52.428	49.252	50.046	3.374	2.977	0.794	52.512	52.568	52.428	52.783
M 60	5.5	56.428	53.252	54.046	3.374	2.977	0.794	56.512	56.568	56.428	56.783
M 64	6	60.103	56.639	57.505	3.681	3.248	0.866	60.193	60.253	60.103	60.478
M 68	6	64.103	60.639	61.505	3.681	3.248	0.866	64.193	64.253	64.103	64.478
Metric thread MA(old UNI 159 Profile)										**Nut tolerance SH8**	
M 1.7	0.35	1.473	1.246	1.246	0.227	0.227	0.040	1.493	1.507	1.473	1.529
M 2.3	0.4	2.040	1.780	1.780	0.260	0.260	0.040	2.061	2.076	2.040	2.120
M 2.6	0.45	2.308	2.016	2.016	0.292	0.292	0.050	2.331	2.346	2.308	2.388

TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

3-2 METRIC ISO FINE THREADS
METRISCHES ISO-FEINGEWINDE

Nominal dimensions UNI 4535-64
Production tolerances on tap flank diameter for ISO 6H Nut threads
Limit dimensions-Nut threads ISO 6H

Dimensions in mm

$H = 0.86603P$

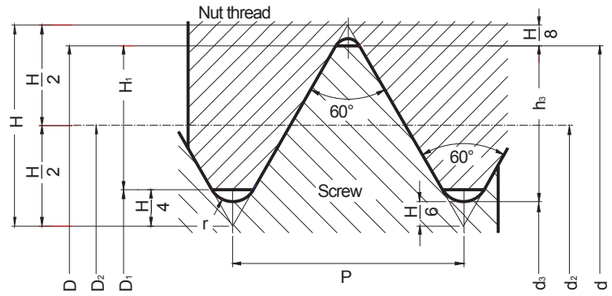
$H_1 = \frac{5}{8} H = 0.54127P$

$h_3 = \frac{17}{24} H = 0.61343P$

$d_2 = D_2 = d - \frac{3}{4} H = d - 0.64952P$

$d_3 = d - 2h_3 = d - 1.22687P$

$r = \frac{H}{6} = 0.14434P$



Nominal diameter	Pitch	Pitch diameter	Minor diameter		Thread depth		Radius	Pitch diameter Tap tolerance 6H		Pitch diameter Nut tolerance 6H	
			Screw	Nut	Screw	Nut		min.	max.	min.	max.
d = D	P	d2 = D2	d3	D1	h3	H1	r	d2			
M 2	0.25	1.838	1.693	1.729	0.153	0.135	0.036	1.844	1.856	1.838	1.886
M 2.5	0.35	2.273	2.701	2.121	0.215	0.189	0.051	2.293	2.307	2.273	2.358
M 3	0.35	2.773	2.571	2.621	0.215	0.189	0.051	2.794	2.809	2.773	2.863
M 3.5	0.35	3.273	3.071	3.121	0.215	0.189	0.051	3.294	3.309	3.273	3.363
M 4	0.5	3.675	3.387	3.459	0.307	0.271	0.072	3.699	3.715	3.675	3.775
M 4.5	0.5	4.175	3.887	3.959	0.307	0.271	0.072	4.199	4.215	4.175	4.275
M 5	0.5	4.675	4.387	4.459	0.307	0.271	0.072	4.699	4.715	4.675	4.775
M 5.5	0.5	5.175	4.887	4.959	0.307	0.271	0.072	5.199	5.215	5.175	5.275
M 6	0.5	5.675	5.387	5.459	0.307	0.271	0.072	5.702	5.720	5.675	5.787
M 6	0.75	5.513	5.080	5.188	0.460	0.406	0.108	5.545	5.566	5.513	5.645
M 7	0.75	6.513	6.080	6.188	0.460	0.406	0.108	6.545	6.566	6.513	6.645
M 8	0.5	7.675	7.387	7.459	0.307	0.271	0.072	7.702	7.720	7.675	7.787
M 8	0.75	7.513	7.080	7.188	0.460	0.406	0.108	7.545	7.566	7.513	7.645
M 8	1	7.350	6.773	6.917	0.613	0.541	0.144	7.835	7.409	7.350	7.500
M 9	0.75	8.513	8.080	8.188	0.460	0.406	0.108	8.545	8.566	8.513	8.645
M 9	1	8.350	7.773	7.917	0.613	0.541	0.144	8.385	8.409	8.350	8.500
M 10	0.5	9.675	9.387	9.459	0.307	0.271	0.072	9.702	9.720	9.675	9.787
M 10	0.75	9.513	9.080	9.188	0.460	0.406	0.108	9.545	9.566	9.513	9.645
M 10	1	9.350	8.773	8.917	0.613	0.541	0.144	9.385	9.409	9.350	9.500
M 10	1.25	9.188	8.466	8.647	0.767	0.677	0.180	9.226	9.251	9.188	9.348
M 11	0.75	10.513	10.080	10.188	0.460	0.406	0.108	10.545	10.566	10.513	10.645
M 11	1	10.350	9.773	9.917	0.613	0.541	0.144	10.385	10.409	10.350	10.500
M 12	0.75	11.513	11.080	11.188	0.460	0.406	0.108	11.547	11.569	11.513	11.653
M 12	1	11.350	10.773	10.917	0.613	0.541	0.144	11.388	11.413	11.350	11.510
M 12	1.25	11.188	10.466	10.647	0.767	0.677	0.180	11.230	11.258	11.188	11.368
M 12	1.5	11.026	10.160	10.376	0.920	0.812	0.217	11.071	11.101	11.026	11.216
M 13	1	12.350	11.773	11.917	0.613	0.541	0.144	12.388	12.413	12.350	12.510
M 14	1	13.350	12.773	12.917	0.613	0.541	0.144	13.388	13.413	13.350	13.510
M 14	1.25	13.188	12.466	12.647	0.767	0.677	0.180	13.230	13.258	13.188	13.368
M 14	1.5	13.026	12.160	12.376	0.920	0.812	0.217	13.071	13.101	13.026	13.216
M 15	1	14.350	13.773	13.917	0.613	0.541	0.144	14.388	14.413	14.350	14.510
M 15	1.5	14.026	13.160	13.376	0.920	0.812	0.217	14.071	14.101	14.026	14.216
M 16	1	15.350	14.773	14.917	0.613	0.541	0.144	15.388	15.413	15.350	15.510
M 16	1.25	15.188	14.466	14.647	0.767	0.677	0.180	15.230	15.258	15.188	15.368
M 16	1.5	15.026	14.160	14.376	0.920	0.812	0.217	15.071	15.101	15.026	15.216
M 17	1	16.350	15.773	15.917	0.613	0.541	0.144	16.388	16.413	16.350	16.510
M 17	1.5	16.026	15.160	15.376	0.920	0.812	0.217	16.071	16.101	16.026	16.216
M 18	1	17.350	16.773	16.917	0.613	0.541	0.144	17.388	17.413	17.350	17.510
M 18	1.5	17.026	16.160	16.376	0.920	0.812	0.217	17.071	17.101	17.026	17.216
M 18	2	16.701	15.546	15.835	1.227	1.083	0.289	16.752	16.786	16.701	16.913
M 20	1	19.350	18.773	18.917	0.613	0.541	0.144	19.388	19.413	19.350	19.510
M 20	1.5	19.026	18.160	18.376	0.920	0.812	0.217	19.071	19.101	19.026	19.216
M 20	2	18.701	17.546	17.835	1.227	1.083	0.289	18.752	18.786	18.701	18.913
M 22	1	21.350	20.773	20.917	0.613	0.541	0.144	21.388	21.413	21.350	21.510
M 22	1.5	21.026	20.160	20.376	0.920	0.812	0.217	21.071	21.101	21.026	21.216

TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

Nominal diameter	Pitch	Pitch diameter	Minor diameter		Thread depth		Radius	Pitch diameter Tap tolerance 6H		Pitch diameter Nut tolerance 6H	
			Screw	Nut	Screw	Nut		min.	max.	min.	max.
d = D	P	$d_2 = D_2$	d_3	D_1	h_3	H_1	r	d_2			
M 22	2	20.701	19.546	19.835	1.227	1.083	0.289	20.752	20.786	20.701	20.913
M 24	1	23.350	22.773	22.917	0.613	0.541	0.144	23.390	23.416	23.350	23.520
M 24	1.5	23.026	22.160	22.376	0.920	0.812	0.217	23.074	23.106	23.026	23.226
M 24	2	22.701	21.546	21.835	1.227	1.083	0.289	22.754	22.791	22.701	22.925
M 25	1	24.350	23.773	23.917	0.613	0.541	0.144	24.390	24.416	24.350	24.520
M 25	1.5	24.026	23.160	23.376	0.920	0.812	0.217	24.074	24.106	24.026	24.226
M 25	2	23.701	22.546	22.835	1.227	1.083	0.289	23.754	23.791	23.701	23.925
M 26	1	25.350	24.773	24.917	0.613	0.541	0.144	25.390	25.416	25.350	25.520
M 26	1.5	25.026	24.160	24.376	0.920	0.812	0.217	25.074	25.106	25.026	25.226
M 26	2	24.701	23.546	23.835	1.227	1.083	0.289	24.754	24.791	24.701	24.925
M 27	1	26.350	25.773	25.917	0.613	0.541	0.144	26.390	26.416	26.350	26.520
M 27	1.5	26.026	25.160	25.376	0.920	0.812	0.217	26.074	26.106	26.026	26.226
M 27	2	25.701	24.546	24.835	1.227	1.083	0.289	25.754	25.791	25.701	25.925
M 28	1	27.350	26.773	26.917	0.613	0.541	0.144	27.390	27.416	27.350	27.520
M 28	1.5	27.026	26.160	26.376	0.920	0.812	0.217	27.074	27.106	27.026	27.226
M 28	2	26.701	25.546	25.835	1.227	1.083	0.289	26.754	26.791	26.701	26.925
M 30	1	29.350	28.773	28.917	0.613	0.541	0.144	29.390	29.416	29.350	29.520
M 30	1.5	29.026	28.160	28.376	0.920	0.812	0.217	29.074	29.106	29.026	29.226
M 30	2	28.701	27.546	27.835	1.227	1.083	0.289	28.754	28.791	28.701	28.925
M 30	3	28.051	26.319	26.752	1.840	1.624	0.433	28.115	28.157	28.051	28.316
M 32	1.5	31.026	30.160	30.376	0.920	0.812	0.217	31.074	31.106	31.026	31.226
M 32	2	30.701	29.546	29.835	1.227	1.083	0.289	30.754	30.791	30.701	30.925
M 33	1.5	32.026	31.160	31.376	0.920	0.812	0.217	32.074	32.106	32.026	32.226
M 33	2	31.701	30.546	30.835	1.227	1.083	0.289	31.754	31.791	31.701	31.925
M 33	3	31.051	29.319	29.752	1.840	1.624	0.433	31.115	31.157	31.051	31.316
M 35	1.5	34.026	33.160	33.376	0.920	0.812	0.217	34.074	34.106	34.026	34.226
M 35	2	33.701	32.546	32.835	1.227	1.083	0.289	33.754	33.791	33.701	33.925
M 36	1.5	35.026	34.160	34.376	0.920	0.812	0.217	35.074	35.106	35.026	35.226
M 36	2	34.701	33.546	33.835	1.227	1.083	0.289	34.754	34.791	34.701	34.925
M 36	3	34.051	32.319	32.752	1.840	1.624	0.433	34.115	34.157	34.051	34.316
M 38	1.5	37.026	36.160	36.376	0.920	0.812	0.217	37.074	37.106	37.026	37.226
M 39	1.5	38.026	37.160	37.376	0.920	0.812	0.217	38.074	38.106	38.026	38.226
M 39	2	37.701	36.546	36.835	1.227	1.083	0.289	37.754	37.791	37.701	37.925
M 39	3	37.051	35.319	35.752	1.840	1.624	0.433	37.115	37.157	37.051	37.316
M 40	1.5	39.026	38.160	38.376	0.920	0.812	0.217	39.074	39.106	39.026	39.226
M 40	2	38.701	37.546	37.835	1.227	1.083	0.289	38.754	38.791	38.701	38.925
M 40	3	38.051	36.319	36.752	1.840	1.624	0.433	38.115	38.157	38.051	38.316
M 42	1.5	41.026	40.160	40.376	0.920	0.812	0.217	41.074	41.106	41.026	41.226
M 42	2	40.701	39.546	39.835	1.227	1.083	0.289	40.754	40.791	40.701	40.925
M 42	3	40.051	38.319	38.752	1.840	1.624	0.433	40.115	40.157	40.051	40.316
M 45	1.5	44.026	43.160	43.376	0.920	0.812	0.217	44.074	44.106	44.026	44.226
M 45	2	43.701	42.546	42.835	1.227	1.083	0.289	43.754	43.791	43.701	43.925
M 45	3	43.051	41.319	41.752	1.840	1.624	0.433	43.115	43.157	43.051	43.316
M 48	1.5	47.026	46.160	46.376	0.920	0.812	0.217	47.077	47.111	47.026	47.238
M 48	2	46.701	45.546	45.835	1.227	1.083	0.289	46.758	46.796	46.701	46.937
M 48	3	46.051	44.319	44.752	1.840	1.624	0.433	46.118	46.163	46.051	46.331
M 50	1.5	49.026	48.160	48.376	0.920	0.812	0.217	49.077	49.111	49.026	49.238
M 50	2	48.701	47.546	47.835	1.227	1.083	0.289	48.758	48.796	48.701	48.937
M 50	3	48.051	46.319	46.752	1.840	1.624	0.433	48.118	48.163	48.051	48.331
M 52	1.5	51.026	50.160	50.376	0.920	0.812	0.217	51.077	51.111	51.026	51.238
M 52	2	50.701	49.546	49.835	1.227	1.083	0.289	50.758	50.796	50.701	50.937
M 52	3	50.051	48.319	48.752	1.840	1.624	0.433	50.118	50.163	50.051	50.331
M 55	1.5	54.026	53.160	53.376	0.920	0.812	0.217	54.077	54.111	54.026	54.238
M 55	2	53.701	52.546	52.835	1.227	1.083	0.289	53.758	53.796	53.701	53.937
M 55	3	53.051	51.319	51.752	1.840	1.624	0.433	53.118	53.163	53.051	53.331
M 56	1.5	55.026	54.160	54.376	0.920	0.812	0.217	55.077	55.111	55.026	55.238
M 56	2	54.701	53.546	53.835	1.227	1.083	0.289	54.758	54.796	54.701	54.937
M 56	3	54.051	52.319	52.752	1.840	1.624	0.433	54.118	54.163	54.051	54.331
M 58	1.5	57.026	56.160	56.376	0.920	0.812	0.217	57.077	57.111	57.026	57.238
M 58	2	56.701	55.546	55.835	1.227	1.083	0.289	56.758	56.796	56.701	56.937
M 58	3	56.051	54.319	54.752	1.840	1.624	0.433	56.118	56.163	56.051	56.331
M 60	1.5	59.026	58.160	58.376	0.920	0.812	0.217	59.077	59.111	59.026	59.238
M 60	2	58.701	57.546	57.835	1.227	1.083	0.289	58.758	58.796	58.701	58.937
M 60	3	58.051	56.319	56.752	1.840	1.624	0.433	58.118	58.163	58.051	58.331
Metric thread MB(old UNI 160 Profile)										**Nut tolerance SH8**	
M 2,3	0.25	2.138	1.976	1.976	0.162	0.162	0.030	2.144	2.156	2.138	2.194
M 2,6	0.35	2.373	2.146	2.146	0.227	0.227	0.040	2.393	2.407	2.373	2.429

TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

UNIFIED COARSE THREADS
UNIFIED GROBGEWINDE

Nominal dimensions as per ANSI B1.1
Production tolerances on tap flank diameter for 2B class nut threads
Limit dimensions-Nut threads as per ANSI B1.1, 2B-3B tolerance classes

Dimensions in mm

H = 0.86603P

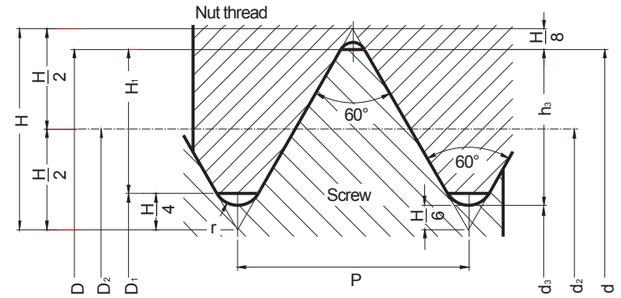
$H_1 = \frac{5}{8}H = 0.54127P$

$h_3 = \frac{17}{24}H = 0.61343P$

$d_2 = D_2 = d - \frac{3}{4}H = d - 0.64952P$

$d_3 = d - 2h_3 = d - 1.22687P$

$r = \frac{H}{6} = 0.14434P$



Nominal diameter	TPI	Pitch	External diameter	Flank diameter	Thread depth		Flank diameter Tap tolerance 2B		Flank diameter Nut tolerance		
					Nut	Screw	min.	max.	min. 2B/3B	max. 2B	max. 3B
		P	d = D	$d_2 = D_2$	D_1	d_3					
#1	- 64 UNC	0.397	1.854	1.598	1.425	1.367	1.610	1.623	1.598	1.664	1.646
#2	- 64 UNC	0.454	2.184	1.890	1.694	1.628	1.902	1.915	1.890	1.961	1.943
#3	- 48 UNC	0.529	2.515	2.172	1.941	1.864	2.184	2.197	2.172	2.248	2.228
#4	- 40 UNC	0.635	2.845	2.433	2.156	2.065	2.446	2.459	2.433	2.517	2.494
#5	- 40 UNC	0.635	3.175	2.764	2.487	2.395	2.776	2.789	2.764	2.847	2.827
#6	- 32 UNC	0.794	3.505	2.990	2.647	2.532	3.105	3.028	2.990	3.084	3.058
#8	- 32 UNC	0.794	4.166	3.650	3.307	3.193	3.675	3.688	3.650	3.746	3.721
#10	- 24 UNC	1.058	4.826	4.138	3.680	3.528	4.163	4.176	4.138	4.247	4.219
#12	- 24 UNC	1.058	5.486	4.798	4.341	4.188	4.823	4.836	4.798	4.910	4.882
1/4"	- 20 UNC	1.270	6.350	5.524	4.976	4.793	5.575	5.588	5.524	5.646	5.616
5/16"	- 18 UNC	1.411	7.938	7.021	6.411	6.205	7.071	7.084	7.021	7.155	7.120
3/8"	- 16 UNC	1.588	9.525	8.494	7.805	7.577	8.545	8.557	8.494	8.639	8.603
7/16"	- 14 UNC	1.814	11.112	9.934	9.149	8.887	9.985	9.997	9.934	10.089	10.051
1/2"	- 13 UNC	1.954	12.700	11.430	10.584	10.302	11.481	11.494	11.430	11.595	11.552
9/16"	- 12 UNC	2.117	14.288	12.913	11.996	11.692	12.964	12.977	12.913	13.086	13.043
5/8"	- 11 UNC	2.309	15.875	14.376	13.376	13.043	14.427	14.440	14.376	14.559	14.514
3/4"	- 10 UNC	2.540	19.050	17.399	16.229	15.933	17.450	17.463	17.399	17.595	17.544
7/8"	- 9 UNC	2.822	22.225	20.391	19.169	18.763	20.455	20.467	20.391	20.599	20.546
1"	- 8 UNC	3.175	25.400	23.338	21.963	21.504	23.401	23.414	23.338	23.561	23.505
1*1/8"	- 7 UNC	3.629	28.575	26.218	24.648	24.122	26.294	26.319	26.218	26.457	26.398
1*1/4"	- 7 UNC	3.629	31.750	29.393	27.823	27.297	29.469	29.494	29.393	29.637	29.576
1*3/8"	- 6 UNC	4.233	34.925	32.174	30.343	29.731	32.250	32.276	32.174	32.438	32.372
1*1/2"	- 6 UNC	4.233	38.100	35.349	33.518	32.906	35.425	35.451	35.349	35.616	35.550
1*3/4"	- 5 UNC	5.080	44.450	41.151	38.951	38.217	41.241	41.266	41.151	41.445	41.372
2"	- 4 1/2 UNC	5.644	50.800	47.135	44.689	43.876	47.235	47.260	47.135	47.450	47.371
2*1/4"	- 4 1/2 UNC	5.644	57.150	53.485	51.039	50.226			53.485	53.805	53.726
2*1/2"	- 4 UNC	6.350	63.500	59.375	56.627	55.710			59.375	59.718	59.632
2*3/4"	- 4 UNC	6.350	69.850	65.725	62.977	62.060			65.725	66.073	65.987
3"	- 4 UNC	6.350	76.200	72.075	69.327	68.410			72.075	72.428	72.339
3*1/4"	- 4 UNC	6.350	82.550	78.425	75.677	74.760			78.425	78.783	78.694
3*1/2"	- 4 UNC	6.350	88.900	84.775	82.027	81.110			84.775	85.183	85.049
3*3/4"	- 4 UNC	6.350	95.250	91.125	88.377	87.460			91.125	91.493	91.402
4"	- 4 UNC	6.350	101.600	97.475	94.727	93.810			97.475	97.848	97.757

TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

UNIFIED FINE THREADS
UNIFIED FEINGEWINDE

Nominal dimensions as per ANSI B1.1
Production tolerances on tap flank diameter for 2B class nut threads
Limit dimensions-Nut threads as per ANSI B1.1, 2B-3B tolerance classes

Dimensions in mm

$H = 0.86603P$

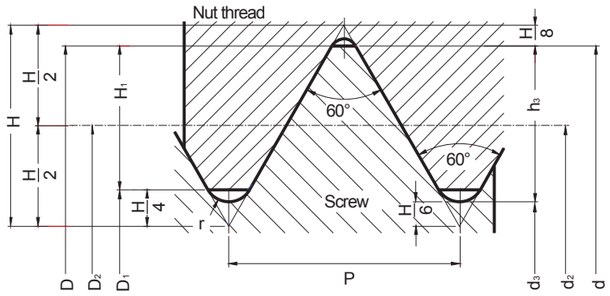
$H_1 = \frac{5}{8}H = 0.54127P$

$h_3 = \frac{17}{24}H = 0.61343P$

$d_2 = D_2 = d - \frac{3}{4}H = d - 0.64952P$

$d_3 = d - 2h_3 = d - 1.22687P$

$r = \frac{H}{6} = 0.14434P$



Nominal diameter	TPI	Pitch	External diameter	Flank diameter	Thread depth		Flank diameter Tap tolerance 2B		Flank diameter Nut tolerance		
					Nut	Screw	min.	max.	min. 2B/3B	max. 2B	max. 3B
		P	d = D	d2 = D2	D1	d3					
#0	- 80 UNF	0.318	1.524	1.318	1.181	1.135	1.331	1.344	1.318	1.377	1.361
#1	- 72 UNF	0.353	1.854	1.626	1.473	1.422	1.638	1.651	1.626	1.689	1.674
#2	- 64 UNF	0.397	2.184	1.928	1.755	1.697	1.941	1.953	1.928	1.996	1.979
#3	- 56 UNF	0.454	2.515	2.220	2.024	1.958	2.233	2.245	2.220	2.291	2.273
#4	- 48 UNF	0.529	2.845	2.502	2.271	2.195	2.515	2.527	2.502	2.581	2.560
#5	- 44 UNF	0.577	3.175	2.799	2.550	2.466	2.812	2.824	2.799	2.880	2.860
#6	- 40 UNF	0.635	3.505	3.094	2.817	2.725	3.108	3.119	3.094	3.180	3.157
#8	- 36 UNF	0.706	4.166	3.708	3.401	3.299	3.721	3.734	3.708	3.800	3.777
#10	- 32 UNF	0.794	4.826	4.310	3.967	3.853	4.336	4.348	4.310	4.409	4.384
#12	- 28 UNF	0.907	5.486	4.897	4.503	4.374	4.923	4.935	4.897	5.004	4.976
1/4"	- 28 UNF	0.907	6.350	5.761	5.367	5.237	5.799	5.812	5.761	5.870	5.842
5/16"	- 24 UNF	1.058	7.938	7.249	6.792	6.640	7.287	7.300	7.249	7.371	7.341
3/8"	- 24 UNF	1.058	9.525	8.837	8.379	8.227	8.875	8.887	8.837	8.961	8.931
7/16"	- 20 UNF	1.270	11.112	10.287	9.738	9.555	10.338	10.351	10.287	10.424	10.391
1/2"	- 20 UNF	1.270	12.700	11.874	11.326	11.143	11.925	11.938	11.874	12.017	11.981
9/16"	- 18 UNF	1.411	14.288	13.371	12.761	12.555	13.421	13.434	13.371	13.520	13.482
5/8"	- 18 UNF	1.411	15.875	14.958	14.348	14.143	15.009	15.022	14.958	15.110	15.072
3/4"	- 16 UNF	1.588	19.050	18.019	17.330	17.102	18.070	18.082	18.019	18.184	18.143
7/8"	- 14 UNF	1.814	22.225	21.046	20.262	20.000	21.110	21.123	21.046	21.224	21.181
1"	- 12 UNF	2.117	25.400	24.026	23.109	22.804	24.089	24.102	24.026	24.219	24.171
1*1/8"	- 12 UNF	2.117	28.575	27.201	26.284	25.979	27.252	27.277	27.201	27.339	27.351
1*1/4"	- 12 UNF	2.117	31.750	30.376	29.459	29.154	30.427	30.452	30.376	30.579	30.528
1*3/8"	- 12 UNF	2.117	34.925	33.551	32.634	32.329	33.602	33.627	33.551	33.759	33.706
1*1/2"	- 12 UNF	2.117	38.100	36.726	35.809	35.504	36.777	36.802	36.726	36.937	36.886

WHITWORTH PIPE THREADS
WHITWORTH ROHRGEWINDE

Nominal dimensions ISO 228/1-UNI 338-66
Production tolerances on tap flank diameter
Limit dimensions for internal threads

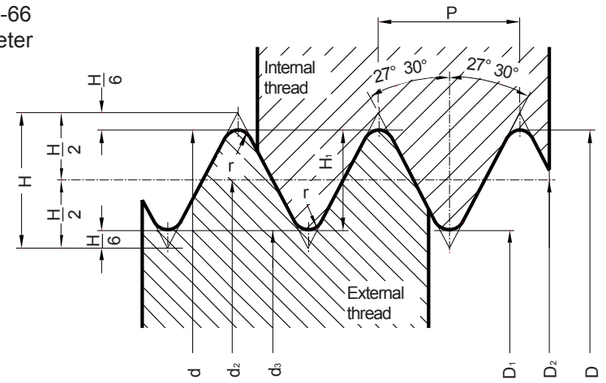
Dimensions in mm

$P = \frac{25.4}{z}$

$H = 0.960491\ P$

$H_1 = 0.640327\ P$

$r = 0.137329\ P$



Type	Thread diameter	Pitch	TPI	Flank diameter	Minor diameter	H1	r	Tap Flank diameter		Internal Thread Flank diameter	
								min.	max.	min.	max.
(1)	d = D	P	z	d2 = D2	d3 = d1			d2			
G 1/8"	9.728	0.907	28	9.147	8.566	0.581	0.125	9.177	9.194	9.147	9.254
G 1/4"	13.157	1.157	19	12.301	11.445	0.856	0.184	12.336	12.356	12.301	12.426
G 3/8"	16.662	1.337	19	15.806	14.950	0.856	0.184	15.841	15.861	15.806	15.933
G 1/2"	20.955	1.814	14	19.793	18.631	1.162	0.249	19.828	19.848	19.793	19.935
G 5/8"	22.911	1.814	14	21.749	20.587	1.162	0.249	21.784	21.804	21.749	21.891
G 3/4"	26.441	1.814	14	25.279	24.117	1.162	0.249	25.314	25.334	25.279	25.421
G 7/8"	32.201	1.814	14	29.039	27.877	1.162	0.249	29.074	29.094	29.039	29.181
G 1"	33.249	2.309	11	31.770	30.291	1.479	0.317	31.815	31.839	31.770	31.950
G 1*1/8"	37.897	2.309	11	36.418	34.939	1.479	0.317	36.463	36.487	36.418	36.598
G 1*1/4"	41.910	2.309	11	40.431	38.952	1.479	0.317	40.476	40.500	40.431	40.611
G 1*3/8"	44.323	2.309	11	42.844	41.365	1.479	0.317	42.889	42.913	42.844	43.024
G 1*1/2"	47.803	2.309	11	46.324	44.845	1.479	0.317	46.374	46.398	46.324	46.504
G 1*3/4"	53.746	2.309	11	52.267	50.788	1.479	0.317	52.327	52.354	52.267	52.447
G 2"	59.614	2.309	11	58.135	56.656	1.479	0.317	58.195	58.222	58.135	58.315
G 2*1/4"	65.710	2.309	11	64.231	62.752	1.479	0.317	64.291	64.318	64.231	64.448
G 2*3/8"	69.398	2.309	11	67.919	66.440	1.479	0.317	67.979	68.006	67.919	68.136
G 2*1/2"	75.184	2.309	11	73.705	72.226	1.479	0.317	73.765	73.792	73.705	73.922
G 2*3/4"	81.534	2.309	11	80.055	78.576	1.479	0.317	80.127	80.157	80.055	80.272
G 3"	87.884	2.309	11	86.405	84.926	1.479	0.317	86.477	86.507	86.405	86.622
G 3*1/4"	93.980	2.309	11	92.501	91.022	1.479	0.317	92.573	92.603	92.501	92.718
G 3*1/2"	100.330	2.309	11	98.851	97.372	1.479	0.317	98.923	98.953	98.851	99.068
G 3*3/4"	106.680	2.309	11	105.201	103.722	1.479	0.317	105.273	105.303	105.201	105.418
G 4"	113.030	2.309	11	111.551	110.072	1.479	0.317	111.623	111.653	111.551	111.768
G 4*1/2"	125.730	2.309	11	124.251	122.772	1.479	0.317				
G 5"	138.430	2.309	11	136.951	135.472	1.479	0.317				
G 5*1/2"	151.130	2.309	11	149.651	148.172	1.479	0.317				
G 6"	163.830	2.309	11	162.351	160.872	1.479	0.317				

(1) - This type is conventional:originally the value in inches was the internal pipe diameter.

TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

INTERESTING HINTS FOR TAPPING
HINWEISE ZUM GEWINDESCHNEIDEN

Selection of the most suitable tap
Auswahl des geeigneten Gewindebohrers

Which types of tap or whether or not a thread former can be used, depends on the type of material to be machined.
As a general guide, materials with an extension of at least 10% can be cold-formed.
To determine the most suitable tap, refer to the tap recommendation table on pages B4 to B23.
Welcher Typ Gewindebohrer oder ob ein Gewindeformer eingesetzt werden kann, hängt von dem zu bearbeitenden Werkstoff ab.
Als allgemeiner Leitwert gilt, daß Werkstoffe mit mindestens 10% Dehnung kaltgeformt werden können.
Zur Bestimmung des optimalen Gewindebohrers nutzen Sie die Empfehlungstabelle auf den Seiten B4 bis B23.

Core holes
Kernlöcher

- Core holes should be clean and swarf-free.
- Core holes should be of the prescribed size, see chart extract on page B317 and B378 of this catalogue, and dependent on the actual application, selected towards the upper diameter limit.
- Kernlöcher sollten sauber und spanfrei sein.
- Kernlöcher sollten die angegebenen Durchmesser haben, siehe Seiten B317 und B378, und abhängig vom aktuellen Einsatzfall, zur größtmöglichen Durchmesserangabe tendieren.

Lubricant in relation to machining centers
Schmiermitteleinsatz auf Bearbeitungszentren

Frequently the coolants used on machining centers are unsatisfactory for tapping because their percentage lubricant content is too low. If it is not possible to increase the percentage of lubricant in the emulsion, the lubrification problem can be solved in other ways, i.e.:
Meistens sind die gebräuchlichen Kühlmittel in Bearbeitungszentren zum Gewindeschneiden nicht geeignet, weil ihr Anteil an Schmierstoffen zu gering ist. Wenn es nicht möglich ist, den Anteil an Schmierstoffen in der Emulsion zu erhöhen, kann das Schmierproblem in anderer Weise gelöst werden, z. B.:

Lubricating with concentrated emulsion **Schmierung mit konzentrierter Emulsion**
A. A lubricating unit, connected to the machine control, delivers at the required instant a specific quantity of concentrated emulsion into the core hole or onto the tap.
B. A pump in a separate tank, controlled by the machine, delivers a specific amount of concentrate into the core hole.
A. Eine Schmiervorrichtung, die mit der Maschinensteuerung verbunden ist, gibt zum gewünschten Zeitpunkt eine bestimmte Menge konzentrierter Emulsion in das Kernloch oder auf den Gewindebohrer ab.
B. Eine Pumpe mit separatem Tank, mit der Maschinensteuerung verbunden, gibt eine bestimmte Menge des Konzentrats in das Kernloch

Tapping in separate operations **Gewindeschneiden als separater Bearbeitungsgang**
This procedure allows the use of the ideal tapping lubricant.
Dies erlaubt den Einsatz des idealen Gewindeschneid Schmiermittels.

Cutting speeds for taps
Schnittgeschwindigkeiten für Gewindebohrer

The cutting speed has a great influence on chip flow and the life of the tap.
It is worthwhile to establish the ideal cutting speed by tapping trials.
Guide values see on the recommendation table page B24. The cutting speed should be in relation to the characteristics of the material, the machine and its equipment.
Die Schnittgeschwindigkeit hat großen Einfluss auf den Spanabgang und die Lebensdauer des Gewindebohrers.
Bei Großserien ist es lohnend, die ideale Schnittgeschwindigkeit durch Versuche zu ermitteln.
Leitwerte finden Sie in der Empfehlungstabelle Seite B24. Die Schnittgeschwindigkeit sollte auf den Werkstoff, die Maschine und das Umfeld abgestimmt sein.

Effects of unsuitable cutting speed **Die Folgen falscher Schnittgeschwindigkeiten**
- forced tapping Zu hoher Kraftaufwand
- tap lead chipping caused by overloaded cutting tooth Beschädigte Steigung durch überlastete Schneide
- torn threads Verschnittenes Gewinde
- unsatisfactory tap-life Ungenügende Standzeit
- rejected threads Ausschuss

TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

Cold welding
Kaltaufschweißung

What are the causes of cold welding? Was sind die Gründe für eine Kaltaufschweißung?
- unsuitable tap selection Ungeeignete Gewindebohrer Auswahl
- tap with incorrect cutting geometry Gewindebohrer mit falscher Schneidengeometrie
- coolant unsuitable for material Kühlmittel ungeeignet für den Werkstoff
- insufficient coolant Unzureichende Kühlung
- axial pressure (pull or push) on the tap Axialer Druck (Zug oder Druck) auf den Gewindebohrer
- core hole too small Kernloch zu klein
- breaks in walls of core hole Risse in der Wand des Kernlochs
- speed too high or too low Schnittgeschwindigkeit zu hoch oder zu klein
- swarf trapped in the hole Verklemmter Span im Kernloch
- incorrect alignment of tap and core hole Achsversatz zwischen Gewindebohrer und Kernloch
- tap eccentricity Gewindebohrer läuft unrun

Effects of cold welding: Die Folgen von Kaltaufschweißungen
- torn threads verschnittene Gewinde
- short tap life kurze Standzeit
- rejected threads Ausschuss
- tap breakage Werkzeugbruch
- scrap workpieces schrottreife Werkstücke

Tap mounting
Gewindebohrer einspannen

- The tap must be mounted on the axis of the core hole.
- On non-synchronized machines (feed / speed) we recommend the use of a tapping spindle.
- Die Achsen von Gewindebohrer und Kernloch müssen genau fluchten.
- Auf nicht synchronisierten Maschinen (Vorschub / Schnittgeschwindigkeit) empfehlen wir den Einsatz einer Gewindeschneidspindel.

Tapping heads
Gewindeschneidköpfe

With non-synchronized machine spindles (feed / speed) the feed rate should as a rule be programmed approx. 5-10% lower than the thread pitch. In these cases a tapping chuck must be used which will compensate the difference between the feed rate and the thread pitch.
It is important that the tension spring in the axial compensation is set to a light rate to avoid axially loading the tap.
The compression spring should be tensioned so that the tap starts to cut by compressing the spring at the most up to one half pitch.
Bei nicht synchronisierten Maschinenspindeln (Vorschub / Schnittgeschwindigkeit) sollte der Vorschub in der Regel 5 – 10% kleiner sein als die Gewindesteigung. In diesen Fällen muss ein
Gewindeschneidfutter verwendet werden, das die Differenz zwischen dem Vorschub und der Gewindesteigung ausgleicht.
Es ist wichtig, daß die Spannfeder im axialen Ausgleich locker eingestellt wird, um eine zu große axiale Belastung des Gewindebohrers zu vermeiden.
Die Druckfeder sollte so gespannt sein, daß der Gewindebohrer zu schneiden beginnt, wenn die Feder bei höchstens einer halben Steigung gespannt ist.

Important hints: **Wichtige Hinweise :**
Ensure that the correct speed is selected.
Ensure that ample lubricating coolant is used when tapping.
Good machine and equipment stability is essential for optimum quality and performance.
Sorgen Sie für die richtige Schnittgeschwindigkeit.
Sorgen Sie dafür, daß reichlich Kühlschmiermittel beim Gewindeschneiden verwendet wird.
Gute Stabilität von Maschine und Vorrichtungen ist die Grundlage für optimale Qualität und Leistung.

TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

APPLICATION AND USE OF THREADING TAPS
FEHLER UND ABHILFEN BEIM GEWINDESCHNEIDEN

Problem / FEHLER	Causes / URSACHEN	Solutions / LOSUNGEN
Tapped hole oversize **Gewinde zu groß**	Incorrect tap in use (cutting geometry unsuitable for application) Falscher Gewindebohrer im Einsatz (Schneidengeometrie ungeeignet)	Use tap selected from the relevant material group Einen fur den Werkstoff geeigneten Gewindebohrer auswahlen
	Faulty alignment Fehlerhafte Fluchtung	Ensure that the tap is correctly aligned with the core hole axis Dafur sorgen, daß Gewindebohrer und Kernloch axial genau fluchten
	Cold welding Kaltaufschweißung	Improve lubrication and direction of coolant Adjust cutting speed Schmierung und Ausrichtung des Kuhlstrahls verbessern Schnittgeschwindigkeit korrigieren
	Re-ground tap (lead-in is not concentric) Nachgescharfter Gewindebohrer (Anschnitt nicht konzentrisch)	Regrind tap lead correctly on a suitable tap grinding machine Anschnitt fehlerfrei auf geeigneter Schleifmaschine nachschleifen
Stripped threads **Gewinde verschnitten**	Incorrect tap in use (cutting geometry incorrect for application) Falscher Gewindebohrer im Einsatz (Schneidengeometrie ungeeignet)	Use a tap from the relevant material group. Einen fur den Werkstoff geeigneten Gewindebohrer auswahlen
	Spindle speed and feed rate not synchronized Spindelgeschwindigkeit und Vorschub sind nicht aufeinander abgestimmt	Check feed rate programming and / or pitch of leading spindle Use a tapping spindle with axial float Vorschub und / oder Steigung der Spindel uberprufen Gewindeschneidspindel mit axialem Ausgleich verwenden
	Insufficient start pressure exerted on tap with peel-cut Unzureichender Startdruck auf einen Gewindebohrer mit Schalanschnitt	Increase start pressure Startdruck erhohen
Bell mouthed tapped hole **Gewinde trichterformig**	Incorrect start pressure applied to tap Falscher Gewindebohrer im Einsatz	Use a tapping spindle with axial float Gewindeschneidspindel mit axialem Ausgleich verwenden
Unsatisfactory thread surface finish **Gewinde zu rau**	Incorrect tap in use (Cutting geometry unsuitable for application) Falscher Gewindebohrer im Einsatz (Schneidengeometrie ungeeignet)	Select tap from the relevant material group Einen fur den Werkstoff geeigneten Gewindebohrer auswahlen
	The tap is blunt Die Schneiden sind stumpf	Replace or re-grind tap Neuen oder nachgescharften Gewindebohrer einsetzen
	Tap badly re-ground Der Gewindebohrer ist schlecht nachgescharft	Re-grind tap again. Check that cutting geometry is suitable for material Gewindebohrer korrekt nachschleifen Prufen, ob die Schneidengeometrie fur den Werkstoff geeignet ist
	Coolant lacking in lubricating qualities and / or quantity Kuhlmittel mit unzureichendem Schmiermittelanteil	Ensure the use of a suitable coolant and an ample supply Fur qualitativ und quantitativ gute Kuhlung und Schmierung sorgen

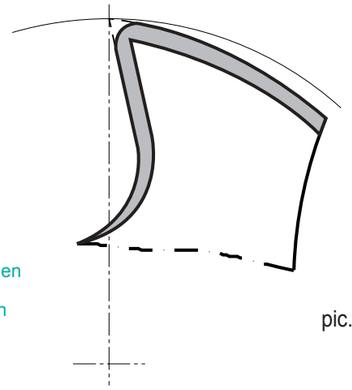
TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

Problem / FEHLER	Causes / URSACHEN	Solutions / LOSUNGEN
Partial chipping of tap **Gewinde ist unfertig**	Swarf jamming Spanestau	Check cutting speed Use alternative tap type Schnittgeschwindigkeit prufen Andere Gewindebohrertype wahlen
	Tap has jammed against bottom of core hole Gewindebohrer ist auf den Grund des Kernlochs gefahren	Check hole and thread depths Drill core hole deeper Kernlochtiefe und Gewindelange prufen Kernloch tiefer bohren
	Tap incorrectly re-ground (lead-in diameter too small therefore too few cutting teeth) Gewindebohrer ist schlecht nachgescharft (Anschnittdurchmesser zu klein, deshalb zu wenige schneidende Zahne)	Ensure that original values ore maintained when regrinding Beim Nachscharfen auf originale Geometrie achten
	Irregular workpiece material structure Materialfehler im Werkstuck	Adjust cutting speed Improve lubricating quality of coolant Schnittgeschwindigkeit anpassen Die Schmierfahigkeit des Kuhlmittels verbessern
Excessive tap wear **Übermaßiger Verschleiß des Gewindebohrers**	Incorrect cutting speed Falsche Schnittgeschwindigkeit	Adjust cutting speed to suit workpiece material Schnittgeschwindigkeit dem Werkstoff anpassen
	Coolant lacking in lubricating qualities and / or quantity Kuhlmittel mit unzureichender Schmierqualitat oder ?menge	Ensure the use of a suitable coolant and an ample supply Fur qualitative und quantitative gute Kuhlung und Schmierung sorgen Check that coolant is reaching the cutting zone Prufen, ob das Kuhlmittel den Schnittbereich erreicht
	Surface of the core hole is compacted Verfestigte Bohrungswand des Kernlochs	Check core hole drilling conditions (drill carefully to reduce risk of surface compacting) Einsatzwerte beim Kernlochbohren prufen (vorsichtig bohren um eine Aufhartung der Bohrungswand zu vermeiden) Check drill cutting edges Bohrerschneiden uberprufen
Tap breakage **Bruch des Gewindebohrers**	Incorrect tap in use (cutting geometry unsuitable for application) Falscher Gewindebohrer im Einsatz (Schneidengeometrie ungeeignet)	Use tap from the relevant material group Einen fur den Werkstoff geeigneten Gewindebohrer auswahlen
	Centering error Fehlerhafte Fluchtung	Ensure that axes of tap and core hole are aligned Dafur sorgen, daß Gewindebohrer und Kernloch axial genau fluchten
	Blunt tap Schneiden sind stumpf	Re-grind tap Neuen oder nachgescharften Gewindebohrer einsetzen Ensure that taps are stored carefully Auf sorgfaltige Lagerung der Gewindebohrer achten
	Tap has reached bottom of core hole Gewindebohrer ist auf den Grund des Kernlochs gefahren	Use tapping spindle with axial float and slipping clutch Gewindeschneidspindel mit axialem Ausgleich und Rutschkupplung verwenden
	Core hole too small Kernloch ist zu klein	Select core hole as per chart, pages B317 and B378 of this catalogue Kernloch Durchmesser auf der Tabelle Seite B317 und B378 auswahlen

RESHARPENING
NACHSCHARFEN

The resharpening on taps is done for regenerating the active hedges weared by the destructive action of cutting and of friction, it has high importance for an economical exploitation of the tool and so far has to be made rationally, keeping away from wrong operations which can heavily compromise the accuracy and the life.
In order to execute the tap resharpening quickly and accurately we recommend the use of proper resharpening machines having all necessary equipments for this operation.
The tap resharpening take place in two steps:
a) resharpening of (relieved) chamfer;
b) resharpening of flutes. (See picture 1)

Das Nachscharfen der Gewindebohrer dient der Erneuerung der verschlissenen Schneidkanten.
Es ist wichtig, um das Leistungsvermogen des Werkzeugs voll auszuschopfen und muss daher prazise durchgefuhrt werden, um Fehler zu vermeiden, die die Prazision des Gewindes und die Standzeit beeintrachtigen.
Um das Nachscharfen schnell und prazise durchzufuhren, empfehlen wir den Einsatz von geeigneten Schleifmaschinen mit dem notwendigen Zubehor.
Das Nachscharfen der Gewindebohrer erfolgt in zwei Stufen :
a) scharfen der Freiflachen im Anschnitt;
b) scharfen der Nuten (Spanflache) (siehe Abb. 1)

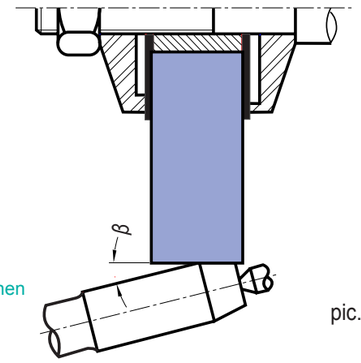


pic. 1

RESHARPENING OF (RELIEVED) CHAMFER
RESHARPENING OF (RELIEVED) CHAMFER

The chamfer resharpening must be executed both on specific for taps machines or on conventional resharpening machines equipped with an auxiliary system proper to generate the circular relief on back.
The picture 2 shows the resharpening made with the cylindrical surface of a grinding wheel.
Before resharpening, verify that the tap, fixed between points or on pincer, runs concentrical; verify also the angle β which has to be correct in order to keep the same number of threads on chamfer.

Das Scharfen des Anschnitts muss entweder auf besonderen Gewindeschleifmaschinen erfolgen, oder auf konventionellen Schleifmaschinen mit entsprechenden Vorrichtungen fur einen genauen Hinterschliff.
Abb. 2 zeigt das Nachscharfen mit einer zylindrischen Schleifscheibe.
Vor dem Schleifen uberprufen, ob der Gewindebohrer, zwischen Spitzen oder in einer Spannzange gehalten, rund lauft; prufen Sie auch den Winkel b, der korrekt sein muss, um die gleiche Anzahl Gange im Anschnitt zu haben

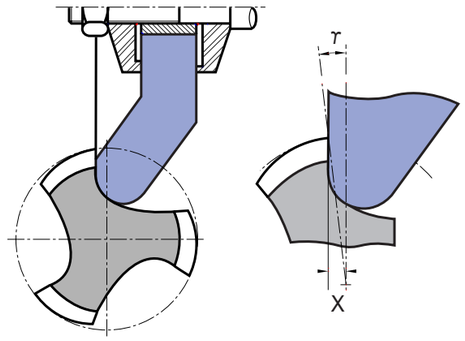


pic. 2

RESHARPENING OF FLUTES
NACHSCHARFEN DER NUTEN

This operation must be done on a specific resharpening machine for taps, equipped with: deviding head, lead screw of “barrasinus” for executing the helix and cooling equipment.
The rake angle τ is obtained moving the tap axis, in relation to the resharpening surface, of an amount X to be calculated with the formula: $X = \frac{1}{2} d_1 \sin \tau$ (see picture 3).
(d_1=tap major diameter)

Dieser Arbeitsgang muss auf einer speziellen Gewindebohrer ? Schleifmaschine erfolgen, die ausgerustet ist mit :
Teilkopf, Leitspindel zum Schleifen entlang gedrallter Nuten und Kuhlmittelversorgung. Den Spanwinkel g bei Gewindebohrern mit geraden Nuten erhalt man durch Verstellen der Bohrerachse im Verhaltnis zu der zu schleifenden Oberflache um den Einstellwert X, der nach folgender Formel errechnet wird :
X = ? d1 sin g (siehe Abb. 3).
(d1 = Gewindebohrerdurchmesser)



pic. 3

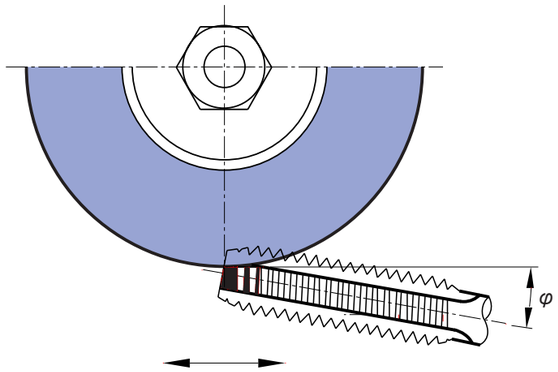
Example:
Tap 10 × 1,5 to cut on steel strength = 600 N/mm^2
d_1 = 10mm ; τ = 15° ; sin τ = 0,25882;

$$X = \frac{0{,}25882 \times 10}{2} \; ; X = 1{,}29\text{mm}$$

TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

On all taps having spiral-flutes, in addition to the trade mark and identification of the dimension and type, it is possible to find also the pitch of the spiral refered to the lead screw necessary for the resharpening.
In case of employment of taps equipped with deburring tool **Burr-Bit** it is necessary to extend the flutes following what suggested by the supplier.
Because the wear on a tap is mainly on the chamfer area, on taps having “gun nose”the resharpening of the flutes can be made on the front area only (see picture 4).

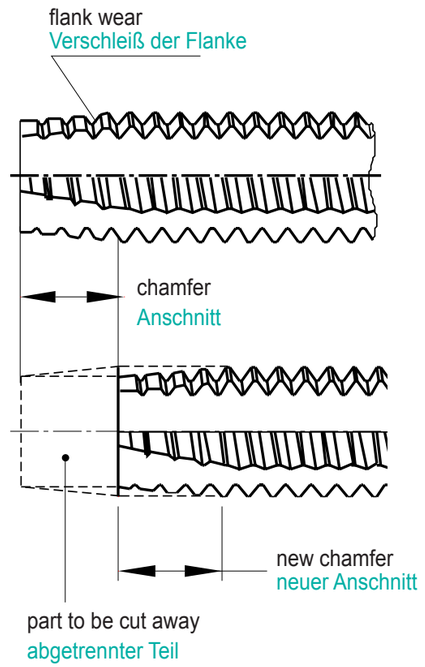
Bei allen Gewindebohrern mit gedrallten Nuten werden allgemein spezielle Schleifmaschinen eingesetzt, die die Drallsteigung messen und selbstandig einstellen konnen.
Beim Einsatz von Gewindebohrern mit dem Entgratwerkzeug Burr-Bit ist es notwenig, die Nuten entsprechend den Vorgaben des Herstellers zu verlangern.
Da der Verschleiß eines Gewindebohrers hauptsachlich im Anschnitt und dem erstenvollen Gewindezahn liegt, konnen Gewindebohrer mit Schalanschnitt und gerader Nute auch nur im vorderen Gewindeteil nachgeschliffen werden (siehe Abb. 4).



pic. 4

It is very important to pay attention that, when also the thread flanks are worn(in addition to the active heges) the resharpening as above described is practically useless.
In this case the “regeneration” is made, by means of cutting completely the chamfer away(this means a shorter tap) and reproducing then the chamfer with same angle and relief.
(see picture 5)
The regeneration is also advisable on taps with spiral flutes, because that way the flutes grinding is not necessary, in absence of special resharpening machines with lead screw with proper angle.

Es ist wichtig zu wissen, daß beim Verschleiß der Gewindezahnflanken (zusatzlich zur Hauptschneidenkante) das oben beschriebene Nachschleifen praktisch nutzlos ist !
In diesem Fall wird die ?Erneuerung“ dadurch erreicht, daß der Anschnitt komplett abgetrennt wird (das bedeutet eine Kurzung des Gewindebohrers und Verlust der entrierung) und neu angeschliffen wird, mit gleichen Winkeln und Hinterschliff (siehe Abb. 5).
Diese ?Erneuerung“ ist auch fur drallgenutete Gewindebohrer zu empfehlen, weil dann das Nutenschleifen entfallt, wenn keine geeignete Schleifmaschine mit Leitspindel vorhanden ist



pic. 5

TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

7 IMPORTANT RECOMMENDATIONS
WICHTIGE EMPFEHLUNGEN

RESHARPEN TIMELY
RECHTZEITIGES NACHSCHARFEN

It is important to resharpen timely the weared tap. In these conditions in fact defective threads can be produced, risking to brake the tool;in addition the wear is increasing quickly, damaging a wide area of the cutter and rapidly.

Es ist wichtig, den Gewindebohrer rechtzeitig nachzuscharfen. Stumpfe Gewindebohrer konnen defekte Gewinde schneiden, die Bruchgefahr ist erhoht; zudem nimmt der Verschleiß schnell zu und zerstort weite Bereiche der Schneiden

PROPER GRINDING WHEELS
RICHTIGE SCHLEIFSCHEIBEN

The structure and grain of grinding wheels must be the right one for the tap to be resharpened. Our technicians are at complete disposal to give the proper recommendations.

Bindung und Korn der Schleifscheiben mussen auf die Gewindebohrer abgestimmt sein.
Unsere Techniker sind bereit, Ihnen die geeignete Empfehlung zu geben

TAPS FOR CAST IRONS
GEWINDEBOHRER FUR GUSS

On these taps the resharpening is rarely possible because, due to cast iron is abrasive, the tap is wearing on flank of the thread and so far out of tolerance.

Bei diesen Gewindebohrern ist Nachscharfen kaum moglich. Der verschleißfordernde Guss greift die Schneidenflanken an, wodurch die Toleranz verloren geht.

TAPS FOR ALUMINIUM
GEWINDEBOHRER FUR ALUMINIUM

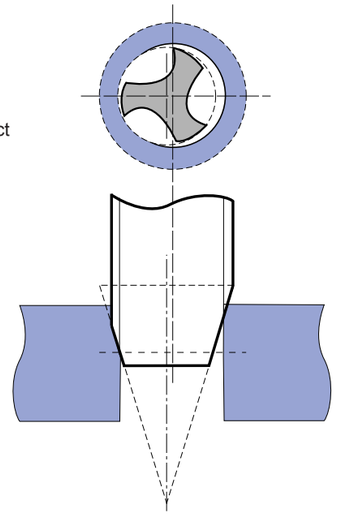
It is advisable, after resharpening as above described, to remove steel burrs from the grinding wheel action.
This operation, easy with iron brushes, avoid the danger of boring or over tolerance tapping instead of accurate tapping.

Es ist empfehlenswert nach dem oben beschriebenen Nachscharfen Schleifgrate vom Gewindebohrer mit Stahlbursten zu entfernen.
Dadurch wird die Gefahr vermieden, Gewinde zu groß zu schneiden.

CONTROLS (TESTS)
KONTROLLEN (TESTS)

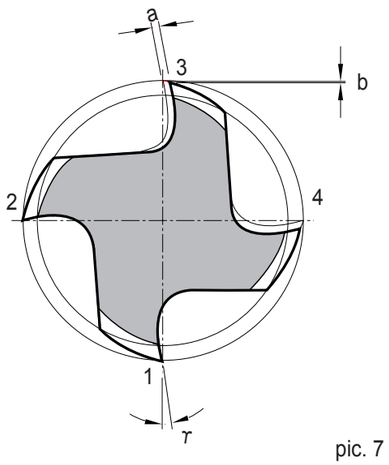
Once resharpened the tap, it is always better to make some tests to obtain correct threads same as when the tap was new.
- The chamfer must be perfectly on axis to avoid the effects of picture 6.
- The cutters must have correct divisions.
  The results of a resharpening with a wrong division is shown on picture 7.
- The length and number of threads on chamfer must be rigorously identical to those of the new tap.

Nach dem Nachscharfen sollte der Gewindebohrer genau kontrolliert werden um sicher zu stellen, daß er genauso gut schneidet, wie ein neuer Bohrer.
- Der Anschnitt muss genau axial sein, um den Effekt wie in Abb. 6 zu vermeiden.
- Die Schneiden mussen eine genaue Teilung haben.
  Das Ergebnis des Nachschleifens mit falscher Teilung ist in Abb. 7 zu sehen.
- Die Lange und Anzahl der Gewindegange im Anschnitt muss absolut genau so sein, wie bei einem neuen Gewindebohrer.



pic. 6

chamfer out of center
unrund geschliffener Anschnitt



pic. 7

incorrect division
Teilungsfehler
cutters not concentric
Schneiden nicht konzentrisch

TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

8 ORDERS / INQUIRIES SPECIAL TAPS
Bestellungen / Anfragen ; SONDERGEWINDEBOHRER

For photocopying

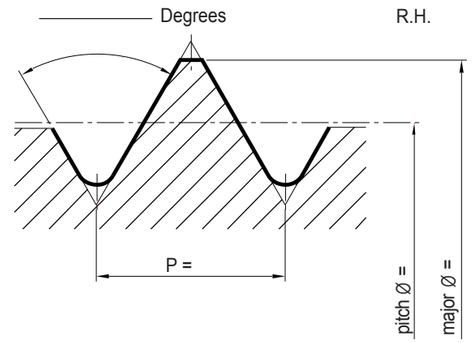
Orders / Inquiries

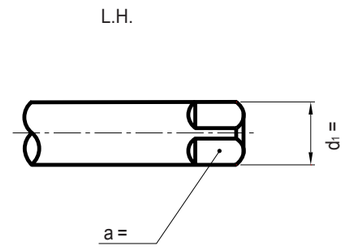
This form may be returned to your local YG-1 distributor or to YG-1.

Company _____
Address _____
_____
Department _____
Phone _____

Tool

Thread Ø and pitch _____

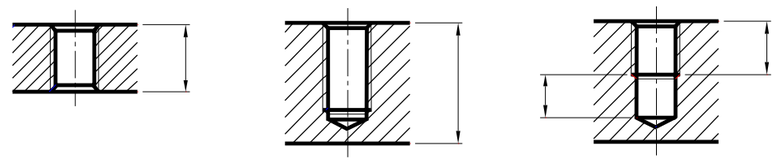




Tolerance class

Overall length _____ mm

Hole



Unusual characteristics of the threaded product or of the tapping method,
e.g. counterbore, tapping on an angle, etc. _____
_____

Material to be tapped

Material No. or designation _____
Tensile strength _____ N/mm² _____ HB _____ HRc
Chip form short long
Annealed steel Hardened steel Heat treated steel

Special requirements : _____
_____
_____
_____
_____

Person to be contacted within the company _____
Date _____ Signature _____

9 SEND US YOUR TAPPING PROBLEMS
SENDEN SIE UNS IHR GEWINDESCHNEIDPROBLEM

For photocopying

This form may be returned to your local YG-1 distributor or to YG-1.

Company _____
Address _____
_____
Department _____
Phone _____

Tool

Description of the tap being used at present Make Type _____ _____
Thread Ø and pitch _____ Class of tolerance _____
○ right-hand cutting ○ left-hand cutting
○ fluteless ○ right hand spiral flutes _____degrees
○ straight flutes ○ left hand spiral flutes _____degrees
○ spiral point ○ length of chamfer _____ thread chamfer
Additional information for special pitches or thread forms
pitch Ø _____ major Ø _____
minor Ø _____ flank angle _____degrees

Hole

Tap drill Ø _____ length of hole _____
depth of full thread _____
○ through hole ○ bottoming hole
Special requirements or unusual characteristics of the threaded product _____
_____

Tapping speed

_____ meters per minute
_____ revolutions per minute

Lubricant

○ without ○ emulsion _____% ○ cutting oil ○ other _____
Application ○ under pressure ○ vaporization ○ other _____

Machine

Type _____ ○ horizontal tapping ○ vertical tapping

Driving

○ tap revolves
○ work revolves
Number of spindles _____

Feed

○ without ○ power ○ CNC _____%

Tool holder

○ rigid ○ floating ○ with safety clutch
Make _____ Type _____

Material to be tapped

Material No. or designation _____
Composition, if possible _____
Tensile strength or hardness _____ N/mm² _____ HB _____ HRc
Chip form ○ short ○ long

Short description of problem : _____
_____
_____
_____
_____

Person to be contacted within the company _____
Date _____ Signature _____

TECHNICAL DATA
SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

10 MAIN THREAD SYMBOLS
HAUFIGE GEWINDEARTE

AMERICAN STANDARD

Cylindrical threads

UNC	Unified Coarse-Thread Series
UNF	Unified Fine-Thread Series
UNEF	Unified Extra-Fine-Thread Series
UN	Constant Pitch Series-Threads with constant pitch of TPI 4,6,8,12,16, 20,28,32
UNS	Selected combinations-Threads with special dia-pitch combinations
UNJ	Unified threads with constant pitch with radius on minor diameter from 0,15011 Pitch to 0,18042 Pitch
UNJC	Unified coarse thread with radius on minor diameter from 0,15011 Pitch to 0,18042 Pitch
UNJEF	Unified extra fine thread with radius on minor diameter from 0,15011 Pitch to 0,18042 Pitch
UNJF	Unified fine threads with radius on minor diameter from 0,15011 Pitch to 0,18042 Pitch

Pipe cylindrical threads

NPS	Cylindrical threads for pipe
NPSC	American Standard for pipe coupling
NPSF	American Standard for internal thread on pipe, dryseal
NPSH	American Standard for cylindrical threads for pipe, joints and nipples
NPSI	American Standard for internal cylindrical threads on pipe(dryseal)
NPSL	American Standard for cylindrical threads on pipe for nuts
NPSM	American Standard for cylindrical threads on pipe for mechanical joints
NGO	American National pipe threads for gas exhaust
NGS	American National pipe threads for gas

Taper pipe threads

ANPT	Taper pipe threads for Army, Navy and Airforce
F-PTE	Taper pipe fine threads(dryseal)
NPT	Taper pipe thread
NPTF	Taper pipe thread (dryseal)
NPTR	Taper pipe thread for railways equipments
PTF-SAE SHORT	Taper pipe short thread(dryseal)-SAE
PTF-SPL SHORT	Taper pipe special thread(dryseal)-SAE
PTF-SPL EXTRA SHORT	Extra short special thread(dryseal)-SAE
SPL-PTF	Special taper pipe dryseal thread
NGT	National American taper pipe thread
SGT	Special taper pipe thread
API	American petroleum Institute taper pipe thread

Trapezoidal and saw tooth threads

ACME-C	ACME selfcentering thread
ACME-G	ACME generical application
STUB-ACME	ACME flat thread with reduced thread depth
60。STUB-ACME	ACME flat thread with 60。flank angle
N BUTT	American National Saw tooth thread

BRITISH STANDARD

BSW	Whitworth British Standard coarse pitch
BSF	Whitworth British Standard fine pitch
WHIT	Whitworth Standard special pitch
R	British Standard external threading for taper pipe(dryseal)(already BSP-Tr)
Rc	British Standard internal threading taper thread for pipe(BSP-Tr)
Rp	British Standard cylindrical thread for pipe(already BSP.PI)
BA	British Standard Association thread
BSC	British Standard thread for bicycle
CEI	British Standard for bicycle

TECHNICAL DATA

SUPER CUTTING TAPS
HOCHLEISTUNGS GEWINDEBOHRER

COMPARISON CHART SCALE FOR HARDNESS
VERGLEICHSTABELLE FÜR HÄRTESKALEN

Rockwell Hardness C Scale 150kg Brale (HRc)	Diamond Pyramid Hardness Number. Vickers (HV)	Brinell Hardness Standard 10mm Ball 29.42kN (HB)	Rockwell Hardness A Scale 60kg Brale (HRA)	Shore Scleroscope Hardness Number (HS)	Approx. Tensile Strength N/mm^2
68	940	-	85.6	97	-
67	900	-	85.5	95	-
66	865	-	84.5	92	-
65	832	-	83.9	91	-
64	800	-	83.4	88	-
63	772	-	82.8	87	-
62	746	-	82.3	85	-
61	720	-	81.8	83	-
60	697	-	81.2	81	-
59	674	-	80.7	80	-
58	653	-	80.1	78	-
57	633	-	79.6	76	-
56	613	-	79.0	75	-
55	595	-	78.5	74	2079
54	577	-	78.0	72	2010
53	560	-	77.4	71	1952
52	544	500	76.8	69	1883
51	528	487	76.3	68	1824
50	513	475	75.9	67	1755
49	498	464	75.2	66	1687
48	484	451	74.7	64	1639
47	471	442	74.1	63	1578
46	458	432	73.6	62	1530
45	446	421	73.1	60	1481
44	434	409	72.5	58	1432
43	423	400	72.0	57	1383
42	412	390	71.5	56	1334
41	402	381	70.9	55	1294
40	392	371	70.4	54	1245
39	382	362	69.9	52	1216
38	372	353	69.4	51	1177
37	363	344	68.9	50	1157
36	354	336	68.4	49	1118
35	345	327	67.9	48	1079
34	336	319	67.4	47	1059
33	327	311	66.8	46	1030
32	318	301	66.3	44	1000
31	310	294	65.8	43	981
30	302	286	65.3	42	952
29	294	279	64.7	41	932
28	285	271	64.3	41	912
27	279	264	63.8	40	883
26	272	258	63.3	38	863
25	266	253	62.8	38	843
24	260	247	62.4	37	824
23	254	243	62.0	36	804
22	248	237	61.5	35	785
21	243	231	61.0	35	775
20	238	226	60.5	34	755
(18)	230	219	-	33	736
(16)	222	212	-	32	706
(14)	213	203	-	31	677
(12)	204	194	-	29	647
(10)	196	187	-	28	618
(8)	188	179	-	27	598
(6)	180	171	-	26	579
(4)	173	165	-	25	549
(2)	166	158	-	24	530
(0)	160	152	-	24	520

EDP No. INDEX

EDP No.	Page	EDP No.	Page	EDP No.	Page
L1211	B36	TC124	B279	TCE09	B103
L1212	B37	TC127	B283	TCH14	B182
L1213	B38	TC134	B280	TCH23	B186
L1214	B39	TC144	B278	TCJ01	B126
L12D1	B48	TC163	B238	TCJ02	B128
L12D3	B49	TC169	B241	TCJ05	B114
L19E1	B50	TC170	B242	TCJ06	B115
L19E3	B51	TC174	B144	TCJ07	B116
L41A1 / L42A1	B52	TC184	B146	TCJ08	B117
L4211	B40	TC211	B295	TCJ09	B121
L4212	B41	TC214	B290	TD127	B284
L4271	B43	TC222	B286	TD174	B145
L4272	B44	TC224	B292	TD222	B288
L4273	B45	TC227	B293	TD227	B294
L4274	B46	TC234	B291	TD244	B157
L4276	B47	TC244	B156	TD263	B155
L6215	B42	TC254	B158	TD312	B139
T0993	B197	TC263	B154	TD411	B276
T0997-TIC	B210	TC283	B215	TD413	B143
T0999-TIC	B211	TC312	B138	TD422	B151
T7109	B299	TC313	B212	TD703	B252
T7309	B301	TC353	B308	TD704	B263
T7343	B306	TC411	B274	TD711	B273
T7363	B303	TC413	B142	TD713	B256
T7509	B304	TC422	B150	TD723	B260
T7609	B305	TC424	B298	TD733	B261
T7709	B313	TC433	B245	TD804	B94
TB123	B190	TC445	B124	TD814	B112
TB183	B187	TC463	B296	TD821	B199
TB264	B191	TC473	B297	TD824	B108
TB274	B192	TC517	B281	TD834	B125
TB312	B140	TC612	B282	TD844	B100
TB313	B213	TC622	B243	TD854	B118
TB373	B307	TC633	B107	TD864	B110
TB514	B316	TC711	B272	TD874	B127
TB623	B185	TC727	B317	TDE01	B109
TB711	B174	TC728	B314	TDE02	B111
TB804	B94	TC729	B315	TDE05	B96
TB814	B112	TC803	B329	TDE06	B97
TB824	B108	TC804	B94	TDE07	B98
TB834	B125	TC804-IC	B105	TDE08	B99
TB844	B100	TC807	B106	TDE09	B103
TB854	B118	TC814	B112	TDE24	B163
TB864	B110	TC814-IC	B123	TDE25	B164
TB874	B127	TC824	B108	TDE26	B165
TB904	B188	TC834	B125	TDE27	B166
TB913	B147	TC844	B100	TDE28	B167
TB914	B177	TC854	B118	TDE29	B168
TB924	B189	TC864	B110	TDJ01	B126
TBE05	B96	TC874	B127	TDJ02	B128
TBE06	B97	TC909	B321	TDJ05	B114
TBE07	B98	TC934	B324	TDJ06	B115
TBE08	B99	TC944	B323	TDJ07	B116
TBE15	B178	TC954	B325	TDJ08	B117
TBE16	B179	TC963	B240	TDJ09	B121
TBE17	B180	TC973	B322	TE403	B202
TBE18	B181	TCE01	B109	TE422	B152
TBJ05	B114	TCE02	B111	TE434	B203
TBJ06	B115	TCE05	B96	TE443	B246
TBJ07	B116	TCE06	B97	TE454	B204
TBJ08	B117	TCE07	B98	TE703	B253
TC122	B285	TCE08	B99	TE704	B264

EDP No. INDEX

EDP No.	Page
TE713	B257
TE723	B259
TE733	B262
TE821	B198
TE943	B244
TE953	B239
TI821	B200
TI914	B177
TKS35	B64
TKS36	B65
TKS43-IC	B71
TKS44-RCP	B72
TM293	B224
TM903	B222
TM923	B228
TM933	B226
TQ703	B255
TQ723	B258
TQ813	B175
TQ823	B136
TQ833	B230
TQ853	B183
TQ863	B148
TQ873	B232
TR813	B176
TR823	B137
TR833	B231
TR853	B184
TR863	B149
TR873	B233
TRE30	B77
TRE31	B79
TRE32	B81
TRE33	B82
TRE34	B78
TRJ15	B83
TRJ16	B84
TRJ17	B86
TRJ18	B87
TTS31	B60
TTS32	B61
TTS33	B62
TTS34	B63
TTS37	B66
TTS38	B67
TTS39	B68
TTS41-IC	B69
TTS42-RCP	B70
TTS45-RCP	B73
TY283	B216
TY312	B141
TY313	B214
TY422	B153
TY433	B247
TY703	B254
TY821	B201
TZ293	B225
TZ903	B223
TZ923	B229
TZ933	B227