

ISO	VDI 3323	Material Description	HB	HRc	Vc (m/min.)	
					TC909 TC944	TC973 TC934 TC954
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


HSS-E

NUT TAP

MUTTERGEWINDEBOHRER

- Nut Tapping Machines
- Zum Gewindeschneiden von Muttern

SELECTION GUIDE



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		Ferritic	130				
20	Malleable cast iron	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 Cutting Alloys, PB>1%	110		○	25-35	
	27		Copper Alloys (CuZn, CuSnZn (Brass))	90		○	8-12	
	28		(Bronze / Brass)	CuSn, lead-free copper and electrolytic copper	100			
	29		Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic				
	30			Rubber, Wood, etc.				
S	31	Heat Resistant Super Alloys	Fe Based Annealed	200	15			
	32		Cured	280	30			
	33		Annealed	250	25			
	34		Cured	350	38			
	35	Titanium Alloys	Pure Titanium	400 Rm				
	36		Alpha + Beta Alloys Hardened	1050 Rm				
H	37	Hardened steel	Hardened	550	55			
	38		Hardened	630	60			
	39		Cast	400	42			
	40		Hardened Cast Iron	550	55			
41	Hardened Cast Iron	Hardened						



TC803 SERIES

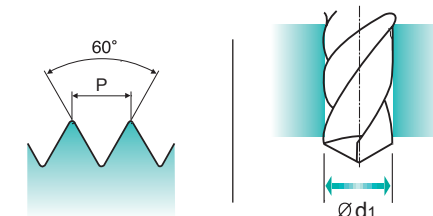
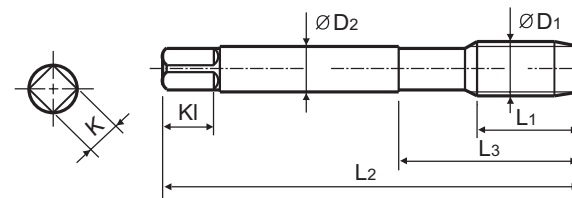
ISO metric coarse threads DIN 13

- 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.



Material groups: GS HSS-E DIN 357 6H 60° LONG Bright p.B328

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

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	KI	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

Unit : mm

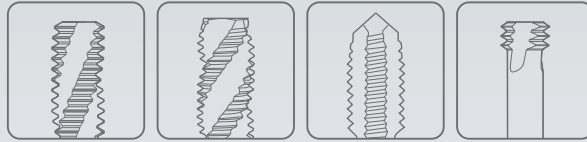
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18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

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

◎ : Excellent ○ : Good



Global Cutting Tool Leader **YG-1**



THREADING