

MF ISO Metric fine threads DIN 13
 **Metrisches ISO-Feingewinde DIN 13**
 **ISO MÉTRIQUE PAS FINS DIN13**
 **ISO Metrico passo fine DIN 13**

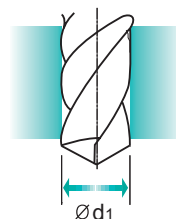
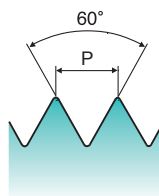
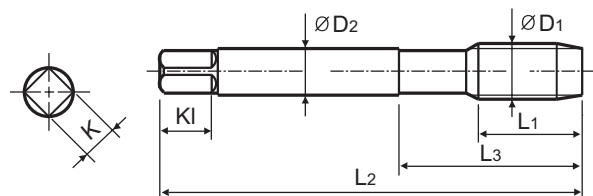
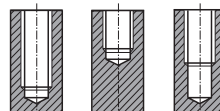
► For stainless steels and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

► Für rostfreie stähle, genaue Gewindeprofile und lange Standzeit dank einer besonderen Schneidengeometrie. Von YG-1 patentiert.

DIN 374

**Hole type**

2.5×D



Material groups

VA**HSS-PM****DIN 374****6H****60°****C****Vap****R45**Machine taps
Maschinen-
gewindebohrer

Recommended Cutting Page : P.116

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	KI	Z	Ød1
M4 × 0.5		TQ754256	5	63	21	2.8	2.1	5	3	3.5
M5 × 0.5		TQ754296	5	70	25	3.5	2.7	6	3	4.5
M6 × 0.75		TQ754326	8	80	30	4.5	3.4	6	3	5.2
M6 × 0.5		TQ754336	5	80	30	4.5	3.4	6	3	5.5
M7 × 0.75		TQ754356	10	80	30	5.5	4.3	7	3	6.2
M8 × 1		TQ754376	10	90	36	6	4.9	8	3	7
M8 × 0.75		TQ754386	8	80	30	6	4.9	8	3	7.2
M10 × 1.25		TQ754436	16	100	40	7	5.5	8	3	8.8
M10 × 1		TQ754446	10	90	36	7	5.5	8	3	9
M10 × 0.75		TQ754456	10	90	36	7	5.5	8	3	9.2
M12 × 1.5		TQ754516	15	100	40	9	7	10	3	10.5
M12 × 1.25		TQ754526	15	100	40	9	7	10	3	10.8
M12 × 1		TQ754536	11	100	40	9	7	10	3	11

* Coating (TiN, 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								○														



RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

THREAD MILLS					TB744 TB754 TQ744 TQ754	TC814 TC854 TC834 TC874	TD814 TD854 TD834 TD874	TB814 TB854 TB834 TB874	TCJ05 TCJ09 TCJ01 TCJ02	TDJ05 TDJ09 TDJ01 TDJ02	TBJ05	TCJ06	
SYNCHRO TAPS					Vc (m/min)								
COMBO TAPS	P	1	Non-alloy steel	125		15-20	20-25	15-20	15-20	20-25	15-20	15-20	
YG TAP GENERAL		2		190	13	15-20	15-20	20-25	15-20	15-20	20-25	15-20	15-20
		3		250	25		12-18	18-24	12-18	12-18	18-24	12-18	12-18
YG TAP STEEL		4		270	28	10-15	10-15	15-20	10-15	10-15	15-20	10-15	10-15
		5		300	32		6-10	10-14	6-10	6-10	10-14	6-10	6-10
YG TAP HARDENED		6	Low alloy steel	180	10	10-15	10-15	15-20	10-15	10-15	15-20	10-15	10-15
		7		275	29	10-15	10-15	15-20	10-15	10-15	15-20	10-15	10-15
		8		300	32		6-10	10-14	6-10	6-10	10-14	6-10	6-10
		9		350	38		3-5	5-7	3-5	3-5	5-7	3-5	3-5
YG TAP INOX		10	High alloyed steel, and tool steel	200	15		3-5	5-7	3-5	3-5	5-7	3-5	3-5
		11		325	35								
YG TAP CAST IRON	M	12	Stainless steel	200	15	7-10	7-10	10-15	7-10	7-10	10-15	7-10	
		13		240	23	5-8	5-8	8-11	5-8	5-8	8-11	5-8	5-8
		14		180	10	4-6	4-6	6-8	4-6	4-6	6-8	4-6	4-6
YG TAP ALU	K	15	Grey cast iron	180	10		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
YG TAP Ti Ni		17	Nodular cast iron	160	3		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
YG TAP FORMING		19	Malleable cast iron	130									
		20		230	21								
NUT TAPS	N	21	Aluminum-wrought alloy	60									
		22		100									
STI TAPS		23	Aluminum-cast, alloyed	75		15-20	20-25	15-20	15-20	20-25	15-20	15-20	
		24		90									
25		130											
PIPE TAPS		26	Copper and Copper Alloys (Bronze / Brass)	110		25-35	35-40	25-35	25-35	35-40	25-35	25-35	
		27		90		8-12	12-17	8-12	8-12	12-17	8-12	8-12	
		28		100	15-20	15-20	20-25	15-20	15-20	20-25	15-20	15-20	
TECHNICAL DATA		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								

SURFACE TREATMENT AND COATING

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.

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 $\geq 600\text{m/min}$. 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 HV and is temperature-resistant up to approx. 800°C.

Colour : Violet-Grey Coefficient of friction against steel : 0.2

SELECTION GUIDE



HSS-E & HSS-PM COMBO TAPS

For Multi Purpose Tapping
YG-1's Patent



Please visit
globalyg1.com/mat
for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : P.114

HOLE TYPE			Max. 2.5xD Blind Hole					
TOOL MATERIAL			HSS-E					
CHAMFER LEAD ACC. TO DIN2197			C	C	C	C	C	C
FLUTE TYPE			Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Flute
SPIRAL FLUTE ANGLE			R40	R40	R40	R40	R40	R40
SERIES	M	DIN371/376	TC804 (P.76)	TD804 (P.76)	TB804 (P.76)	TCE05 (P.77)	TDE05 (P.77)	TBE05 (P.77)
		DIN352						
		DIN357/LONG						
	MF	DIN374	TC844 (P.81)	TD844 (P.81)	TB844 (P.81)	TCE09 (P.83)	TDE09 (P.83)	
		DIN2181						
	UNC	DIN371/376	TC824 (P.91)	TD824 (P.91)	TB824 (P.91)	TCE01 (P.92)	TDE01 (P.92)	
		DIN351						
	UNF	DIN371/374	TC864 (P.93)	TD864 (P.93)	TB864 (P.93)	TCE02 (P.94)	TDE02 (P.94)	
		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
MODEL								
HB	HRC							
125		○	○	○	○	○	○	○
190	13	◎	◎	◎	◎	◎	◎	◎
250	25	◎	◎	◎	◎	◎	◎	◎
270	28	◎	◎	◎	◎	◎	◎	◎
300	32	◎	◎	◎	◎	◎	◎	◎
180	10	◎	◎	◎	◎	◎	◎	◎
275	29	◎	◎	◎	◎	◎	◎	◎
300	32	◎	◎	◎	◎	◎	◎	◎
350	38	◎	◎	◎	◎	◎	◎	◎
200	15	○	○	○	○	○	○	○
325	35							
200	15	◎	◎	◎	◎	◎	◎	◎
240	23	◎	◎	◎	◎	◎	◎	◎
180	10	◎	◎	◎	◎	◎	◎	◎
180	10	◎	◎	◎	◎	◎	◎	◎
260	26	◎	◎	◎	◎	◎	◎	◎
160	3	◎	◎	◎	◎	◎	◎	◎
250	25	◎	◎	◎	◎	◎	◎	◎
130								
230	21							
60								
100								
75		◎	◎	◎	◎	◎	◎	◎
90								
130								
110		◎	◎	◎	◎	◎	◎	◎
90		◎	◎	◎	◎	◎	◎	◎
100		◎	◎	◎	◎	◎	◎	◎
200	15							
280	30							
250	25							
350	38							
320	34							
400 Rm								
1050 Rm								
550	55							
630	60							
400	42							
550	55							



Max. 2.5xD
Blind Hole

[illegible]