


**MF ISO Metric Fine Threads DIN13**

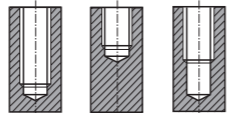
- M Metrisches ISO-Feingewinde DIN 13
- ISO MÉTRIQUE PAS FINS DIN13
- ISO Metrico passo fine DIN 13

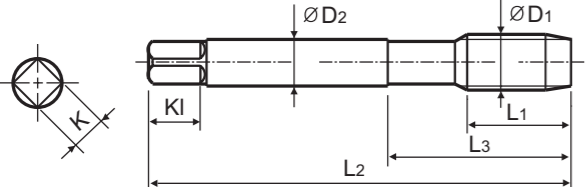
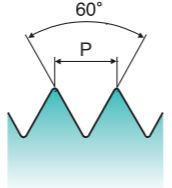
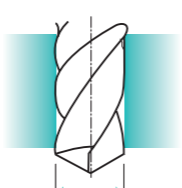
Machine taps  
Maschinengewindebohrer

- ▶ 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 große 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.B76**

**Recommended ToolHolder** **Plain Shank** **SYNCHRO TAPPING CHUCK** **D203-210** **TAPPING ER CHUCK** **D215-220** **TAPPING CHUCK** **D221-228** **ONE STEP TAPPING CHUCK** **D211-213**

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

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


**UNC Unified Coarse Threads**

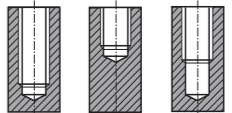
- Unified Grobgewinde
- UNC
- Unificato passo fine


Machine taps  
Maschinengewindebohrer

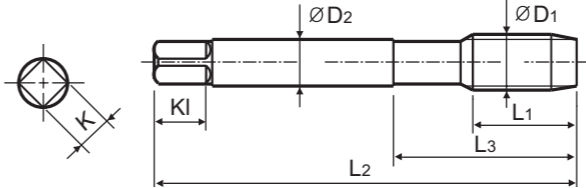
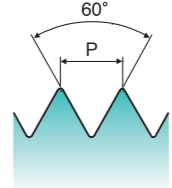
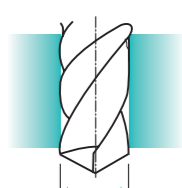
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**DIN 371** 

**Hole type** 2.5×D 

**DIN 376** 

**Material groups** **MU** **HSS PM** **DIN 371/376** **2BX** **60°** **C** **R45** **X Coating** **p.B76**

**Recommended ToolHolder** **Plain Shank** **SYNCHRO TAPPING CHUCK** **D203-210** **TAPPING ER CHUCK** **D215-220** **TAPPING CHUCK** **D221-228** **ONE STEP TAPPING CHUCK** **D211-213**

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

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