

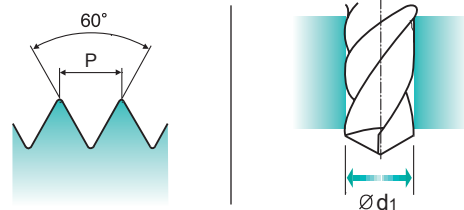
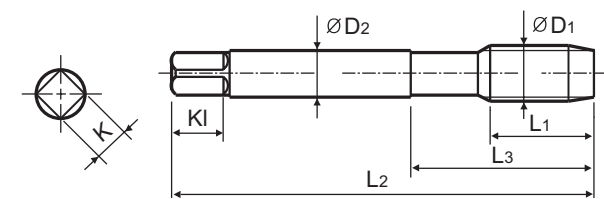
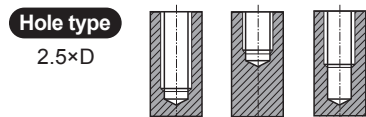
**M ISO metric coarse threads DIN 13**

- 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 chemical industries.

► Zum Gewindeschneiden von Nickellegierungen und hitzefesten Legierungsstählen, die in der Luftfahrtindustrie und chemischen Industrie verwendet werden.



Material groups: **Ni**, **HSS PM**, **DIN 371/376**, **6H**, **60°**, **C**, **R40**, **Bright**, **p.B276**

Plain Shank Page: TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

Recommended Cutting Page : P.268 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	KI	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		TM933316	10	80	30	6	4.9	8	3	5
M7 × 1		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		TM933546	20	110	44	11	9	12	3	12
M16 × 2		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		TM933786	30	160	60	18	14.5	17	4	21
M27 × 3		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	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										
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											◎	◎	◎	◎	◎			◎			

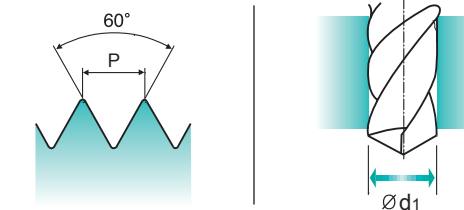
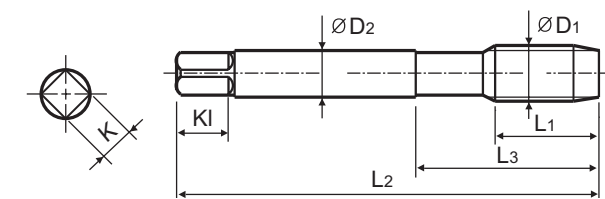
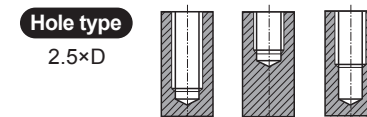
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Material groups: **Ni**, **HSS PM**, **DIN 371/376**, **6H**, **60°**, **C**, **R40**, **TiAlN**, **p.B276**

Plain Shank Page: TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

Recommended Cutting Page : P.268 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	KI	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
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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
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M20 × 2.5		TZ933706	25	140	54	16	12	15	4	17.5
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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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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											◎	◎	◎	◎	◎			◎			