Used Symbols

d1	thread size
P	lead of screw thread
N	pitch thread it threads per inch
LH	left-hand thread
HSS	high speed steel
HSSE	super high speed steel
HSSE PM	povder high speed steel
TiN	titanium nitride coating
TiCN	titanium carbonitride coating
TiAIN	titanium aluminiumnitride coating
FNT	Balinit® Futura Nano Top coating
HL	Balinit® Hardlube coating
OX	oxidation
Vc	cutting speed
💧	cutting rubrikant
E	emulsion
O	cutting oil
IKZ	internal axial coolant supply
IKZN	internal axial coolant supply with hole outlets in the flutes
typ N	tap for steels up to 800 N/mm²
typ VA	tap for stainless steels
typ H	tap for alloyed steels
typ GG	tap for cast iron
typ Al	tap for unalloyed aluminium
typ UNI	tap for universal applications
M	metric ISO thread
MF	metric ISO fine thread
G	pipe thread
UNC	unified coarse thread
UNF	unified fine thread
TR	trapezthread

COLOUR RING SYSTEM

No ring
steels, structural steels and heat-treated steels up to 800N/mm²
- aluminium alloys
- copper alloys (short chipping)
- zinc and zinc alloys

Green ring
steels, structural steels and heat-treated steels up to 800 N/mm²
-heat-treated steels and tool steels up to 1100 N/mm²
- stainless steels and heat resisting steels
- grey cast iron
- aluminium alloys
- unalloyed copper and copper alloys (long chipping)

Blue ring
- stainless steels and heat resisting steels
- heat-treated steels and tool steels up to 1100 N/mm²
- unalloyed copper and copper alloys (long chipping)

Red ring
-heat-treated steels and tool steels up to 1100 N/mm²
- haluminium alloys (Si content > 10%)

Black ring
- high-alloyed steels and heat-treated steels up to 1400 N/mm²

White ring
- cast iron

Yellow ring
- unalloyed aluminium

● COMMENDED USE

○ POSSIBLE USE

CHAMFER

Cat. No.			
Catalogue page No.		M	X=0
		MF	X=0
		G	X=2
		UNC	X=4
		UNF	X=5
Chamfer			
Hole type			
1	Soft structural steels up to 500 N/mm²	1.1 Structural steels	
		1.2 Plain cast steels	
2	Free cutting steels and structural steels up to 800 N/mm²	2.1 Free cutting steels	
		2.2 Structural steels and heat-treated steels	
		2.3 Plain cast steels	
3	Heat-treated steels and tool steels up to 1100 N/mm²	3.1 Case hardened steels and nitriding steels	
		3.2 Heat-treated steels	
		3.3 Tool steels	
4	High-alloyed steels and heat-treated steels up to 1400 N/mm²	4.1 High-alloyed steels	
		4.2 Heat-treated steels	
5	Stainless steels and heat resisting steels	5.1 With strength 450 - 800 N/mm²	
		5.2 With strength 600 - 1000 N/mm²	
6	Cast iron	6.1 Grey cast iron	
		6.2 Spheroidal graphite cast iron and malleable cast iron	
7	Unalloyed aluminium	7.1 Unalloyed aluminium	
8	Aluminium alloys	8.1 Si content < 10%	
		8.2 S obsahem Si > 10 % / Si content > 10 %	
9	Unalloyed copper	9.1 Unalloyed copper	
10	Copper alloys	10.1 Short chipping	
		10.2 Long chipping	
11	Zinc	11.1 Zinc and zinc alloys	

MACHINE TAPS

	TiN		TiN		TiN	OX			TiN	OX		TiN	OX		TiN	OX
100X	**101X**	**300X**	**301X**	**150X**	**151X**	**154X**	**175X**	**350X**	**351X**	**354X**	**205X**	**206X**	**209X**	**405X**	**406X**	**409X**
30	**30**	**31**	**31**	**32**	**32**	**32**	**32**	**33**	**33**	**33**	**34**	**34**	**34**	**35**	**35**	**35**
		49	**49**					**49**	**49**	**49**				**51**	**51**	**51**
		59	**59**					**59**	**59**					**60**	**60**	
62	**62**	**63**	**63**	**62**	**62**			**63**	**63**		**64**	**64**		**64**	**64**	
		65	**65**					**65**	**65**					**66**	**66**	
C	C	C	C	B	B	B	B	B	B	B	C	C	C	C	C	C
○	○	○	○	○	●		○	○	●							
				●	●	●	○	●	●	●						
○	○	○	○	○	●		○	○	●							
				●	●	●	○	●	●	●	●	●	○	●	●	○
				○	●	○	○	○	●	○	●	●	○	●	●	○
○	○	○	○													
				○	●			○	●		○	○		○	○	
				●	●	●	○	●	●	●	●	●	○	●	●	○
○	●	○	●	○	○	○	○	○	○	○		○	○		○	○
●	●	●	●	○	○			○	○							
											○	○		○	○	
						●				●			●			●

MACHINE TAPS

		TiN		TiN	TiN	OX	TiN	OX	TiN	OX	HL	HL	TiN	OX	HL	HL	TiN
	240X	**241X**	**440X**	**441X**	**236X**	**239X**	**436X**	**439X**	**166X**	**169X**	**187X**	**187X IKZN**	**366X**	**369X**	**387X**	**387X IKZN**	**226X**
	36	**36**	**37**	**37**	**36**	**36**	**37**	**37**	**38**	**38**	**38**	**38**	**39**	**39**	**39**	**39**	**40**
													53	**53**			
													61	**61**			
	C	C	C	C	C	C	C	C	B	B	B	B	B	B	B	B	C
					●	○	●	○									
					●	●	●	●									
					●	○	●	○									
	○	●	○	●	○	○	○	○									
									●	○	●	●	●	○	●	●	●
											○	○			○	○	●
									●	○	●	●	●	○	●	●	●
									●	○	●	●	●	○	●	●	●
		○		○													●
					○	○	○	○									
					○		○		●		●	●	●		●	●	●
	●	●	●	●													
									●		●	●	●		●	●	●

MACHINE TAPS

	OX	HL	HL	TiN	OX	HL	HL	TiCN	OX	TiCN	OX	TiCN	OX	TiCN	OX	FNT	FNT
	229X	**232X**	**232X IKZ**	**426X**	**429X**	**432X**	**432X IKZ**	**158X**	**159X**	**358X**	**359X**	**268X**	**269X**	**468X**	**469X**	**192X**	**392X**
M	**40**	**40**	**40**	**41**	**41**	**41**	**41**	**42**	**42**	**43**	**43**	**42**	**42**	**43**	**43**	**44**	**44**
MF				**53**	**53**					**55**	**55**			**55**	**55**		
G				**61**	**61**												
UNC																	
UNF																	
	C	C	C	C	C	C	C	B	B	B	B	C	C	C	C	B	B
	○	●	●	●	○	●	●	●		●		○		○			
		○	○	○		○	○	●	○	●	○	●	○	●	○		
		●	●	●		●	●	●		●	●	○		○			
																○	○
																●	●
	○	●	●	●	○	●	●										
	○	●	●	●	○	●	●										
				●				○		○		○		○			
								●	○	●	○	●		●			
		●	●	●		●	●										
		●	●	●		●	●										

	FNT	FNT	FNT	FNT	TiN	TiN	TiN	TiN	TiCN	TiCN	TiCN	TiCN	TiCN	TiCN	TiCN	TiCN	TiN
	282X	287X	482X	487X	161X	361X	271X	471X	108X	108X IKZ	113X	113X IKZ	308X	308X IKZ	313X	313X IKZ	171X
	44	44	44	44	45	45	45	45	46	46	46	46	47	47	47	47	48
													57	57	57	57	
	D	C	D	C	B	B	C	C	C	C	E	E	C	C	E	E	B
																	○
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	○	●	○	●													
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					●	●	●	●									
																	●
									○	○	○	○	○	○	○	○	○
																	●

	MACHINE TAPS			SHORT MACHINE TAPS			FORMING TAPS		NUT TAPS	HAND TAPS		
	TiN	TiN	TiN				TiN	TiN				OX
	371X	**221X**	**421X**	**055X**	**060X**	**065X**	**291X**	**296X**	**500X**	**020X**	**030X**	**029X**
M	**48**	**48**	**48**	**67**	**67**	**67**	**68**	**68**	**69**	**70**		**71**
MF											**72**	
G											**74**	
UNC										**75**		
UNF											**76**	
	B	C	C	B	C	C	C	C		C	C	C
				○			○	●	●	●	●	
				●				○	●	●	●	
	○	○	○	○			○	○	●	●	●	
	●	●	●	●	●	○	○	●	●	●	●	
				○	●					●	●	
	●	●	●									
	●	●	●									
	○	●	○									
	○	○	○									●
	○	○	○									●
	○	○	○							●	●	○
	○	○	○	○	○					●	●	○
							○	●				
	●	●	●	●	●		○	●	○	●	●	
	○	○	○	○					○	○	○	
								●				
				○		●			○	●	●	
	●	●	●		○				○			
							●					

Material Groups

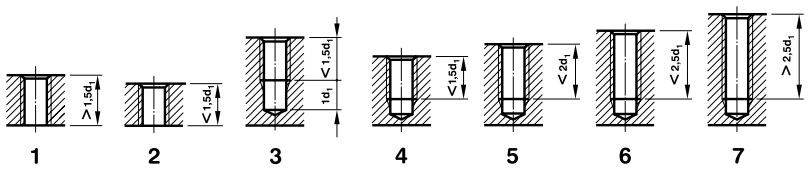
ČSN (Czech)	Wr.Nr.	DIN (Germany)	AISY (U.S.A.)	AFNOR (France)	Page
1 - Soft structural steels up to 500 N/mm²					**9**
1.1 Structural steels					
10004	1.0035	St 33		A33	
11320	1.0320	St 22		Fd1, Fd2	
11364	1.0345	H I			
11373	1.0037	St 37-2	A 283 Gr.C	E 24-2	
11378	1.0116	St 37-3	A 284 Gr.D	E 24-3	
11474	1.0445	H IV			
1.2 Plain cast steels					
422630	1.0416	GS 38			
2 - Free cutting steels and structural steels up to 800 N/mm²					**11**
2.1 Free cutting steels					
11109	1.0715	9SMn28	1213	S 250	
11110	1.0721	10S20	1108, 1109	10 F1	
2.2 Structural steels and heat-treated steels					
11500	1.0050	St 50-2	A 570 Gr.50	A 5D-2	
11523	1.0570	St 52-3	A 714 Gr.III	E 36-3	
11600	1.0060	St 60-2	A 572 Gr.65	A 60-2	
11700	1.0070	St 70-2		A 70-2	
12010	1.0305	C 10	1010		
12040	1.0501	C 35	1035	1 C 35	
12050	1.0503	C 45	1045	1 C 45	
12060	1.0535	C 55	1055	1 C 55	
2.3 Plain cast steels					
422640	1.0443	GS 45			
422660	1.0558	GS 60			
3 - Heat-treated steels and tool steels up to 1100 N/mm²					**14**
3.1 Case hardened steels and nitriding steels					
14220	1.7131	16MnCr5	5115	16 MC 4	
16420	1.5752	14NiCr14	A 646 Gr.1	13 NiCr14	
3.2 Heat-treated steels					
15142	1.7225	42CrMo4	4140, 4142	42 CD 4	
15260	1.8159	50CrV4	A 646 Gr.14	50 CD 4	
19552	1.2343	X38CrMoV5-1	H 11	Z 38 CDV 5	
19720	1.2567	X30WCrV5-3		Z 32 WCV 5	
19751	1.2622	X60WCrMoV9-4			
3.3 Tool steels					
19312	1.2842	90MnCrV8	2	90 MV 8	
19436	1.2080	X210Cr12	D3	Z 200 C 12	
19552	1.2343	X38CrMoV5-1	H 11	Z 38 CDV 5	
19751	1.2622	X60WCrMoV9-4			
19830	1.3343	S6-5-2	M 2	Z85WDCV.06.056.04.02	
4 - High-alloyed steels and heat-treated steels up to 1400 N/mm²					**16**
4.1 High-alloyed steels					
19852	1.3243	S6-5-2-5	M 35	Z85WDKCV.06.05.05.04.02	
15330	1.7707	30CrMoV9	G43406	30CrMoV9	
Inconel 718	2.4668	NiCr19Fe19Nb5Mo3	Unitemp 718		
HARDOX 400					
4.2 Heat-treated steels					
15142	1.7225	42CrMo4	4140, 4142	42 CD 4	
15260	1.8159	50CrV4	A 646 Gr.14	50 CD 4	
16523	1.5860	4NiCr18			
19452	1.2101	62SiMnCr4			
19552	1.2343	X38CrMoV5-1	H 11	Z 38 CDV 5	
19573	1.2379	X155CrVMo12-1	A 681 Type D2		
5 - Stainless steels and heat resisting steels					**17**
5.1 With strength 450 - 800 N/mm²					
17022	1.4021	X20Cr13	420	Z 20 C 13	
17040	1.4016	X6Cr17	430	Z 8 C 17	
17240	1.4301	X5CrNi18-10	304	Z 6 CN 18.09	
17241	1.4310	X10CrNi18-8	304 LN	Z 3 C 18.07Az	
17246	1.4878	X10CrNiTi18-10	A 479 Type 312 H	Z 6 CNT 18-12 B	
17350	1.4435	X2CrNiMo18-14-3	316 L	Z 3 CND 17.12.03	
17347	1.4571	X6CrNiMoTi17-12-2	A368 Type 316 Ti	Z6 CNDT 17-12	
422905	1.4006	X12Cr13	410	Z 10 C 13	

ČSN (Czech)	Wr.Nr.	DIN (Germany)	AISY (U.S.A.)	AFNOR (France)	Page
5.2 With strength 600 - 1000 N/mm²					
17241	1.4310	X10CrNi18-8	304 LN	Z 3 C 18.07Az	
17359	1.4406	X2CrNiMo17-11-2	316 LN	Z 3 CND 17.11.02	
17360	1.4429	X2CrNiMoN17-13-3	A 312 Gr.TP 316	Z 3 CND 17.12 Az	
17381	1.4462	X2CrNiMoN22-5-3	A 890 Gr.4 A	Z 3 CND 25-05 Az	
6 - Cast iron					**18**
6.1 Grey cast iron					
422410	0.6010	GG 10	A 48-20 B	Ft 10 D	
422415	0.6015	GG 15	A 48-25 B	Ft 20 D	
422420	0.6020	GG 25	A 48-30 B	Ft 25 D	
422425	0.6025	GG 25	A 48-40 B	Ft 30 D	
422430	0.6030	GG 30	A 48-45 B	Ft 30 D	
422435	0.6035	GG 35	A 48-50 B	Ft 35 D	
6.2 Spheroidal graphite cast iron and malleable cast iron					
422304	0.7040	GGG 40	60-40-18	FGS 400.12	
422305	0.7050	GGG 50	65-45-12	FGS 500.7	
422306	0.7060	GGG 60	80-55-06	FGS 600.3	
422540	0.8040	GTW 40			
422545	0.8145	GTS 45			
422555	0.8155	GTS 55			
7 - Aluminium					**21**
7.1 Unalloyed aluminium					
424002	3.0255	Al99,5			
424003	3.0275	Al99,7			
424005	3.0285	Al99,8			
424412	3.3315	AlMg1	5005 A	A-G0,6	
424413	3.3535	AlMg3	5754		
424432	3.0515	AlMn1	3103	A-G3M	
8 - Aluminium alloys					**22**
8.1 Si content < 10%					
424232	3.2371	G-AlSi7Mg		A7-S10G	
424338	3.2162	GD-AlSi8Cu3			
424381	3.2134	G-AlSi5Cu1Mg	355.1	A-S4 GV	
8.2 Si content > 10 %					
424331	3.2211	G-AlSi11			
424336	3.2581	G-AlSi12	A 413	A-513	
424384	3.2381	G-AlSi10Mg	A 360	A-S10G	
9 - Unalloyed copper					**25**
9.1 Unalloyed copper					
423003	2.0080	Cu99,85		Cu-FRTP	
423005	2.0120	Cu99.5		C-Cu	
423007	2.1203	CuAg0.1		CuAg 0.10	
10 - Copper alloys					**26**
10.1 Short chipping					
423220	2.0360	CuZn40	C 28000	CuZn 40	
423222	2.0380	CuZn39Pb1	C 28000	CuZn 40	
423223	2.0410	CuZn40Pb2			
10.2 Long chipping					
423203	2.0250	CuZn40	C 24000	CuZn 20	
423210	2.0265	CuZn30	C 26000	CuZn 30	
423213	2.0321	CuZn37	C 27400	CuZn 37	
11 - Zinc					**29**
11.1 Zinc and zinc alloys					
423560	2.2143	ZnAl4Cu1			
423562	2.2144	ZnAlCu3			

Tap Selection According To Material Groups

SKUPINA OBRÁBĚNÉHO MATERIÁLU
MATERIAL GROUP

Soft structural steels up to 500 N/mm²



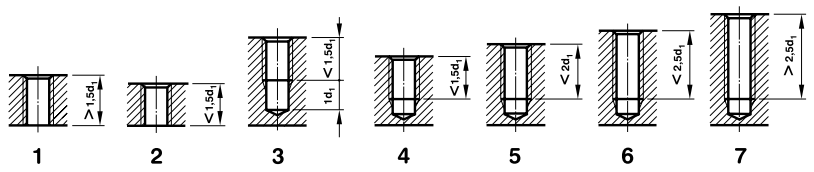
● recommended use ○ alternative use

Standard		Cat. No.	Thread	Ø-Range	Hole type	Application	V_c m/min		Page
DIN 371		1000	M	M3 ÷ M10	2; 3	1.1 ○	4 ÷ 6	O / E	30
DIN 371	TiN	1010	M	M3 ÷ M10	2; 3	1.1 ○	5 ÷ 8	O / E	30
DIN 376		3000	M	M3 ÷ M52	2; 3	1.1 ○	4 ÷ 6	O / E	31
DIN 376	TiN	3010	M	M3 ÷ M52	2; 3	1.1 ○	5 ÷ 8	O / E	31
DIN 371		1500	M	M2 ÷ M10	1; 2	1.1 ○ 1.2 ●	5 ÷ 8 6 ÷ 10	O / E	32
DIN 371	TiN	1510	M	M2 ÷ M10	1; 2	1.1 1.2 ●	6 ÷ 10 8 ÷ 12	O / E	32
DIN 371	OX	1540	M	M2 ÷ M10	1; 2	1.2 ●	6 ÷ 10	O / E	32
DIN 371		1750	M	M3 ÷ M10	1; 2	1.1; 1.2 ○	5 ÷ 8	O / E	32
DIN 376		3500	M	M3 ÷ M36	1; 2	1.1 ○ 1.2 ●	5 ÷ 8 6 ÷ 10	O / E	33
DIN 376	TiN	3510	M	M3 ÷ M36	1; 2	1.1 1.2 ●	6 ÷ 10 8 ÷ 12	O / E	33
DIN 376	OX	3540	M	M3 ÷ M36	1; 2	1.2 ●	6 ÷ 10	O / E	33
DIN 371	TiN	2360	M	M3 ÷ M10	3; 4; 5	1.1 1.2 ●	8 ÷ 12 10 ÷ 15	O / E	36
DIN 371	OX	2390	M	M3 ÷ M10	3; 4; 5	1.1 ○ 1.2 ●	5 ÷ 8 6 ÷ 10	O / E	36
DIN 376	TiN	4360	M	M3 ÷ M36	3; 4; 5	1.1 1.2 ●	8 ÷ 12 10 ÷ 15	O / E	37
DIN 376	OX	4390	M	M3 ÷ M36	3; 4; 5	1.1 ○ 1.2 ●	5 ÷ 8 6 ÷ 10	O / E	37
DIN 352		0550	M	M3 ÷ M12	1; 2	1.1 ○ 1.2 ●	5 ÷ 8 6 ÷ 10	O / E	67
DIN 2174	TiN	2910	M	M3 ÷ M12	1 ÷ 7	1.1 ○	12 ÷ 20	O / E	68
DIN 2174	TiN	2960	M	M3 ÷ M12	1 ÷ 7	1.1 ● 1.2 ○	15 ÷ 25 12 ÷ 20	O / E	68
DIN 374		3000	MF	M3 ÷ M52	2; 3	1.1 ○	4 ÷ 6	O / E	49
DIN 374	TiN	3010	MF	M3 ÷ M52	2; 3	1.1 ○	5 ÷ 8	O / E	49
DIN 374		3500	MF	M3 ÷ M36	1; 2	1.1 ○ 1.2 ●	5 ÷ 8 6 ÷ 10	O / E	49
DIN 374	TiN	3510	MF	M3 ÷ M36	1; 2	1.1 1.2 ●	6 ÷ 10 8 ÷ 12	O / E	49
DIN 374	OX	3540	MF	M3 ÷ M36	1; 2	1.2 ●	6 ÷ 10	O / E	49
DIN 5156		3002	G	G1/16" ÷ G2"	2; 3	1.1 ○	4 ÷ 6	O / E	59
DIN 5156	TiN	3012	G	G1/16" ÷ G2"	2; 3	1.1 ○	5 ÷ 8	O / E	59
DIN 5156		3502	G	G1/16" ÷ G2"	1; 2	1.1 ○ 1.2 ●	5 ÷ 8 6 ÷ 10	O / E	59
DIN 5156	TiN	3512	G	G1/16" ÷ G2"	1; 2	1.1 1.2 ●	6 ÷ 10 8 ÷ 12	O / E	59
~ DIN 371		1004	UNC	5-40 ÷ 3/8-16	2; 3	1.1 ○	4 ÷ 6	O / E	62

Tap Selection According To Material Groups

MATERIAL GROUP

Soft structural steels up to 500 N/mm²



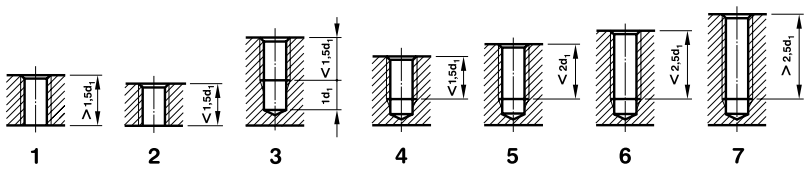
● recommended use ○ alternative use

Standard		Cat. No.	Thread	Ø-Range	Hole type	Application	V_c m/min		Page
~ DIN 371	TiN	1014	UNC	5-40 ÷ 3/8-16	2; 3	1.1 ○	5 ÷ 8	O / E	62
~ DIN 376		3004	UNC	7/16-14 ÷ 1 1/8-7	2; 3	1.1 ○	4 ÷ 6	O / E	63
~ DIN 376	TiN	3014	UNC	7/16-14 ÷ 1 1/8-7	2; 3	1.1 ○	5 ÷ 8	O / E	63
~ DIN 371		1504	UNC	5-40 ÷ 3/8-16	1; 2	1.1 ○ 1.2 ●	5 ÷ 8 6 ÷ 10	O / E	62
~ DIN 371	TiN	1514	UNC	5-40 ÷ 3/8-16	1; 2	1.1 1.2 ●	6 ÷ 10 8 ÷ 12	O / E	62
~ DIN 376		3504	UNC	7/16-14 ÷ 1 1/8-7	1; 2	1.1 ○ 1.2 ●	5 ÷ 8 6 ÷ 10	O / E	63
~ DIN 376	TiN	3514	UNC	7/16-14 ÷ 1 1/8-7	1; 2	1.1 1.2 ●	6 ÷ 10 8 ÷ 12	O / E	63
~ DIN 374		3005	UNF	5-44 ÷ 1 1/8-12	2; 3	1.1 ○	4 ÷ 6	O / E	65
~ DIN 374	TiN	3015	UNF	5-44 ÷ 1 1/8-12	2; 3	1.1 ○	5 ÷ 8	O / E	65
~ DIN 374		3505	UNF	5-44 ÷ 1 1/8-12	1; 2	1.1 ○ 1.2 ●	5 ÷ 8 6 ÷ 10	O / E	65
~ DIN 374	TiN	3515	UNF	5-44 ÷ 1 1/8-12	1; 2	1.1 1.2 ●	6 ÷ 10 8 ÷ 12	O / E	65

Tap Selection According To Material Groups

MATERIAL GROUP

Free cutting steels and structural steels
up to 800 N/mm²



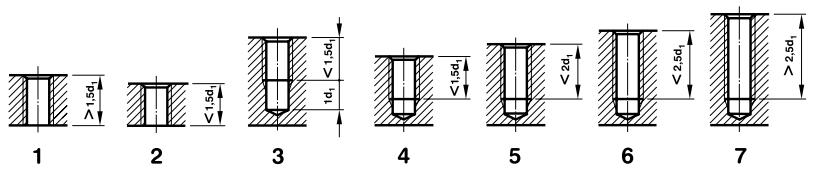
● recommended use ○ omezené použití / alternative use

Standard			Cat. No.	Thread	Ø-Range	Hole type	Application	V_c m/min		Page
DIN 371			1000	M	M3 ÷ M10	2; 3	2.1 ○	8 ÷ 10	O / E	30
DIN 371	TiN		1010	M	M3 ÷ M10	2; 3	2.1 ○	10 ÷ 14	O / E	30
DIN 376			3000	M	M3 ÷ M52	2; 3	2.1 ○	8 ÷ 10	O / E	31
DIN 376	TiN		3010	M	M3 ÷ M52	2; 3	2.1 ○	10 ÷ 14	O / E	31
DIN 371			1500	M	M2 ÷ M10	1; 2	2.1; 2.3; ○ 2.2 ●	10 ÷ 14	O / E	32
DIN 371	TiN		1510	M	M2 ÷ M10	1; 2	2.1 2.2; 2.3 ●	10 ÷ 14 12 ÷ 15	O / E	32
DIN 371	OX		1540	M	M2 ÷ M10	1; 2	2.2; ● 2.3 ○	10 ÷ 12 12 ÷ 15	O / E	32
DIN 371			1750	M	M3 ÷ M10	1; 2	2.1 2.2; 2.3 ○	8 ÷ 10 8 ÷ 12	O / E	32
DIN 376			3500	M	M3 ÷ M36	1; 2	2.1; 2.3 ○ 2.2 ●	10 ÷ 14	O / E	33
DIN 376	TiN		3510	M	M3 ÷ M36	1; 2	2.1 2.2; 2.3 ●	10 ÷ 14 12 ÷ 15	O / E	33
DIN 376	OX		3540	M	M3 ÷ M36	1; 2	2.2 ● 2.3 ○	10 ÷ 12 12 ÷ 15	O / E	33
DIN 371			2050	M	M2 ÷ M10	3; 4; 5	2.2; 2.3 ●	10 ÷ 14	O / E	34
DIN 371	TiN		2060	M	M2 ÷ M10	3; 4; 5	2.2; 2.3 ●	12 ÷ 15	O / E	34
DIN 371	OX		2090	M	M2 ÷ M10	3; 4; 5	2.2; 2.3 ○	10 ÷ 12	O / E	34
DIN 376			4050	M	M3 ÷ M36	3; 4; 5	2.2; 2.3 ●	10 ÷ 14	O / E	35
DIN 376	TiN		4060	M	M3 ÷ M36	3; 4; 5	2.2; 2.3 ●	12 ÷ 15	O / E	35
DIN 376	OX		4090	M	M3 ÷ M36	3; 4; 5	2.2; 2.3 ○	10 ÷ 12	O / E	35
DIN 371			2400	M	M3 ÷ M10	3; 4	2.2 ○	8 ÷ 10	O / E	36
DIN 371	TiN		2410	M	M3 ÷ M10	3; 4	2.2 ●	8 ÷ 12	O / E	36
DIN 376			4400	M	M3 ÷ M36	3; 4	2.2 ○	8 ÷ 10	O / E	37
DIN 376	TiN		4410	M	M3 ÷ M36	3; 4	2.2 ●	8 ÷ 12	O / E	37
DIN 371	TiN		2360	M	M3 ÷ M10	3; 4; 5	2.1 ● 2.2 ○	12 ÷ 15 10 ÷ 14	O / E	36
DIN 371	OX		2390	M	M3 ÷ M10	3; 4; 5	2.1; 2.2 ○	12 ÷ 15 10 ÷ 12	O / E	36
DIN 376	TiN		4360	M	M3 ÷ M36	3; 4; 5	2.1 ● 2.2 ○	12 ÷ 15 10 ÷ 14	O / E	37
DIN 376	OX		4390	M	M3 ÷ M36	3; 4; 5	2.1; 2.2 ○	12 ÷ 15 10 ÷ 12	O / E	37
DIN 371	TiN		1710	M	M3 ÷ M10	1; 2	2.1 ● 2.2 ○	10 ÷ 12	O / E	48
DIN 376	TiN		3710	M	M12 ÷ M20	1; 2	2.1 ● 2.2 ○	10 ÷ 12	O / E	48
DIN 371	TiN		2210	M	M3 ÷ M10	3; 4; 5	2.1 ● 2.2 ○	8 ÷ 10	O / E	48

Tap Selection According To Material Groups

MATERIAL GROUP

Free cutting steels and structural steels
up to 800 N/mm²



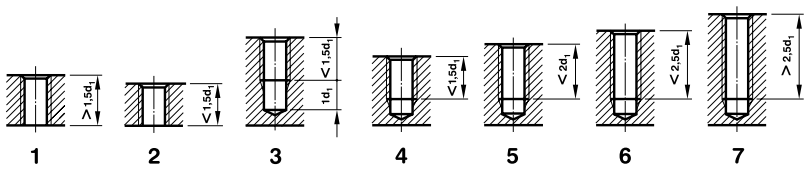
● recommended use ○ alternative use

Standard			Cat. No.	Thread	Ø-Range	Hole type	Application		V_c m/min	💧	Page
DIN 376	TiN		4210	M	M12 ÷ M20	3; 4; 5	2.1; 2.1	○ ●	8 ÷ 10	O / E	48
DIN 352			0550	M	M3 ÷ M12	1; 2	2.1; 2.3 2.2	○ ●	10 ÷ 14	O / E	67
DIN 352			0600	M	M3 ÷ M12	3; 4	2.2; 2.3	●	10 ÷ 14	O / E	67
DIN 352			0650	M	M3 ÷ M12	3; 4	2.2	○	8 ÷ 10	O / E	67
DIN 2174	TiN		2910	M	M3 ÷ M12	1 ÷ 7	2.1; 2.2	○	15÷20	O / E	68
DIN 2174	TiN		2960	M	M3 ÷ M12	1 ÷ 7	2.1 2.2	○ ●	20÷25	O / E	68
DIN 374			3000	MF	M3 ÷ M52	2; 3	2.1	○	8 ÷ 10	O / E	49
DIN 374	TiN		3010	MF	M3 ÷ M52	2; 3	2.1	○	10 ÷ 14	O / E	49
DIN 374			3500	MF	M3 ÷ M36	1; 2	2.1; 2.3 2.2	○ ●	10 ÷ 14	O / E	49
DIN 374	TiN		3510	MF	M3 ÷ M36	1; 2	2.1 2.2; 2.3	● ●	10 ÷ 14 12 ÷ 15	O / E	49
DIN 374	OX		3540	MF	M3 ÷ M36	1; 2	2.2 2.3	● ○	10 ÷ 12 12 ÷ 15	O / E	49
DIN 374			4050	MF	M3 ÷ M36	3; 4; 5	2.2; 2.3	●	10 ÷ 14	O / E	51
DIN 374	TiN		4060	MF	M3 ÷ M36	3; 4; 5	2.2; 2.3	●	12 ÷ 15	O / E	51
DIN 374	OX		4090	MF	M3 ÷ M36	3; 4; 5	2.2; 2.3	○	10 ÷ 12	O / E	51
DIN 5156			3002	G	G1/16" ÷ G2"	2; 3	2.1	○	8 ÷ 10	O / E	59
DIN 5156	TiN		3012	G	G1/16" ÷ G2"	2; 3	2.1	○	10 ÷ 14	O / E	59
DIN 5156			3502	G	G1/16" ÷ G2"	1; 2	2.1; 2.3 2.2	○ ●	10 ÷ 14	O / E	59
DIN 5156	TiN		3512	G	G1/16" ÷ G2"	1; 2	2.1 2.2; 2.3	● ●	10 ÷ 14 12 ÷ 15	O / E	59
DIN 5156			4052	G	G1/16" ÷ G 11/2"	3; 4; 5	2.2; 2.3	●	10 ÷ 14	O / E	60
DIN 5156	TiN		4062	G	G1/16“ ÷ G 11/2“	3; 4; 5	2.2; 2.3	●	12 ÷ 15	O / E	60
~ DIN 371			1004	UNC	5-40 ÷ 3/8-16	2; 3	2.1	○	8 ÷ 10	O / E	62
~ DIN 371	TiN		1014	UNC	5-40 ÷ 3/8-16	2; 3	2.1	○	10 ÷ 14	O / E	62
~ DIN 376			3004	UNC	7/16-14 ÷ 11/8-7	2; 3	2.1	○	8 ÷ 10	O / E	63
~ DIN 376	TiN		3014	UNC	7/16-14 ÷ 11/8-7	2; 3	2.1	○	10 ÷ 14	O / E	63
~ DIN 371			1504	UNC	5-40 ÷ 3/8-16	1; 2	2.1; 2.3 2.2	○ ●	10 ÷ 14	O / E	62
~ DIN 371	TiN		1514	UNC	5-40 ÷ 3/8-16	1; 2	2.1 2.2; 2.3	● ●	10 ÷ 14 12 ÷ 15	O / E	62
~ DIN 376			3504	UNC	7/16-14 ÷ 11/8-7	1; 2	2.1; 2.3 2.2	○ ●	10 ÷ 14	O / E	63
~ DIN 376	TiN		3514	UNC	7/16-14 ÷ 11/8-7	1; 2	2.1 2.2; 2.3	● ●	10 ÷ 14 12 ÷ 15	O / E	63

Tap Selection According To Material Groups

MATERIAL GROUP

Free cutting steels and structural steels
up to 800 N/mm²



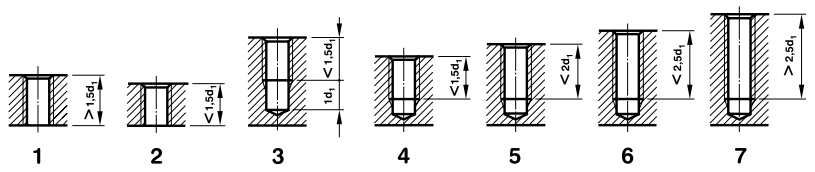
● recommended use ○ alternative use

Standard		Cat. No.	Thread	Ø-Range	Hole type	Application	V_c m/min		Page
~ DIN 371		2054	UNC	5-40 ÷ 3/8-16	3; 4; 5	2.2; 2.3 ●	10 ÷ 14	O / E	64
~ DIN 371	TiN	2064	UNC	5-40 ÷ 3/8-16	3; 4; 5	2.2; 2.3 ●	12 ÷ 15	O / E	64
~ DIN 376		4054	UNC	7/16-14 ÷ 1-8	3; 4; 5	2.2; 2.3 ●	10 ÷ 14	O / E	64
~ DIN 376	TiN	4064	UNC	7/16-14 ÷ 1-8	3; 4; 5	2.2; 2.3 ●	12 ÷ 15	O / E	64
~ DIN 374		3005	UNF	5-44 ÷ 11/8-12	2; 3	2.1 ○	8 ÷ 10	O / E	65
~ DIN 374	TiN	3015	UNF	5-44 ÷ 11/8-12	2; 3	2.1 ○	10 ÷ 14	O / E	65
~ DIN 374		3505	UNF	5-44 ÷ 11/8-12	1; 2	2.1; 2.3 ○ 2.2 ●	10 ÷ 14	O / E	65
~ DIN 374	TiN	3515	UNF	5-44 ÷ 11/8-12	1; 2	2.1 2.2; 2.3 ●	10 ÷ 14 12 ÷ 15	O / E	65
~ DIN 374		4055	UNF	5-44 ÷ 1-12	3; 4; 5	2.2; 2.3 ●	10 ÷ 14	O / E	66
~ DIN 374	TiN	4065	UNF	5-44 ÷ 1-12	3; 4; 5	2.2; 2.3 ●	12 ÷ 15	O / E	66

Tap Selection According To Material Groups

MATERIAL GROUP

Heat-treated steels and tool steels up to 1100 N/mm²



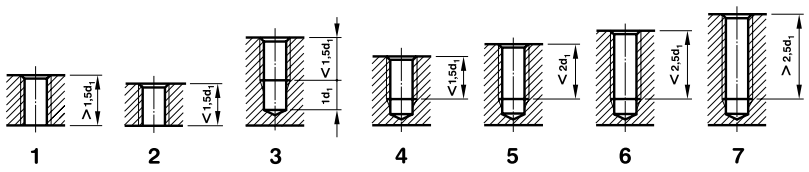
● recommended use ○ alternative use

Standard			Cat. No.	Thread	Ø-Range	Hole type	Application		V_c m/min	💧	Page
DIN 371	TiN		1660	M	M3 ÷ M10	1; 2	3.1	●	4 ÷ 8	O / E	38
DIN 371	OX		1690	M	M3 ÷ M10	1; 2	3.1	○	3 ÷ 5	O	38
DIN 371	HL		1870	M	M3 ÷ M10	1; 2	3.1 3.3	● ○	6 ÷ 8 4 ÷ 6	O / E	38
DIN 371	HL		1870 IKZN	M	M6 ÷ M10	1; 2	3.1 3.3	● ○	6 ÷ 8 4 ÷ 6	O / E	38
DIN 376	TiN		3660	M	M3 ÷ M36	1; 2	3.1	●	4 ÷ 8	O / E	39
DIN 376	OX		3690	M	M3 ÷ M36	1; 2	3.1	○	3 ÷ 5	O	39
DIN 376	HL		3870	M	M12	1; 2	3.1 3.3	● ○	6 ÷ 8 4 ÷ 6	O / E	39
DIN 376	HL		3870 IKZN	M	M12	1; 2	3.1 3.3	● ○	6 ÷ 8 4 ÷ 6	O / E	39
DIN 371	TiN		2260	M	M3 ÷ M10	3; 4; 5	3.1; 3.3	●	6 ÷ 8	O / E	40
DIN 371	OX		2290	M	M3 ÷ M10	3; 4; 5	3.1	○	3 ÷ 5	O	40
DIN 371	HL		2320	M	M3 ÷ M10	3; 4; 5	3.1; 3.3 3.2	● ○	6 ÷ 8 4 ÷ 6	O / E	40
DIN 371	HL		2320 IKZN	M	M5 ÷ M10	3; 4; 5	3.1; 3.3 3.2	● ○	6 ÷ 8 4 ÷ 6	O / E	40
DIN 376	TiN		4260	M	M3 ÷ M36	3; 4; 5	3.1; 3.3 3.2	● ○	6 ÷ 8 4 ÷ 6	O / E	41
DIN 376	OX		4290	M	M3 ÷ M36	3; 4; 5	3.1	○	3 ÷ 5	O	41
DIN 376	HL		4320	M	M12	3; 4; 5	3.1; 3.3 3.2	● ○	6 ÷ 8 4 ÷ 6	O / E	41
DIN 376	HL		4320 IKZN	M	M12	3; 4; 5	3.1; 3.3 3.2	● ○	6 ÷ 8 4 ÷ 6	O / E	41
DIN 371	TiCN		1580	M	M3 ÷ M10	1; 2	3.1; 3.3 3.2; 3.3	●	4 ÷ 8	O / E	42
DIN 371	OX		1590	M	M3 ÷ M10	1; 2	3.2	○	4 ÷ 8	O	42
DIN 376	TiCN		3580	M	M3 ÷ M36	1; 2	3.1 3.2; 3.3	●	4 ÷ 8	O / E	43
DIN 376	OX		3590	M	M3 ÷ M36	1; 2	3.2	○	4 ÷ 8	O	43
DIN 371	TiCN		2680	M	M3 ÷ M10	3; 4; 5	3.1; 3.3 3.2	○ ●	3 ÷ 5 6 ÷ 8	O / E	42
DIN 371	OX		2690	M	M3 ÷ M10	3; 4; 5	3.2	○	3 ÷ 5	O	42
DIN 376	TiCN		4680	M	M3 ÷ M36	3; 4; 5	3.1; 3.3 3.2	○ ●	3 ÷ 5 6 ÷ 8	O / E	43
DIN 376	OX		4690	M	M3 ÷ M36	3; 4; 5	3.2	○	3 ÷ 5	O	43
DIN 371	TiN		1710	M	M3 ÷ M10	1; 2	3.1; 3.2 3.3	● ○	4 ÷ 6	O / E	48
DIN 376	TiN		3710	M	M12 ÷ M20	1; 2	3.1; 3.2 3.3	● ○	4 ÷ 6	O / E	48
DIN 371	TiN		2210	M	M3 ÷ M10	3; 4; 5	3.1; 3.2 3.3	● ○	4 ÷ 6	O / E	48
DIN 376	TiN		4210	M	M12 ÷ M20	3; 4; 5	3.1; 3.2 3.3	● ○	4 ÷ 6	O / E	48

Tap Selection According To Material Groups

MATERIAL GROUP

Heat-treated steels and tool steels up to 1100 N/mm²



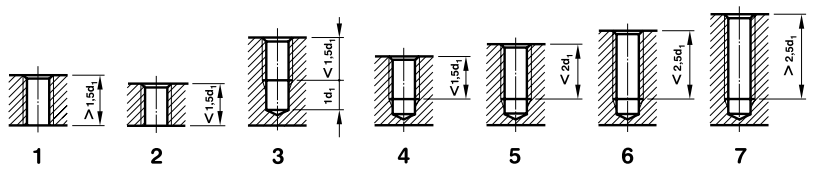
● recommended use ○ alternative use

Standard		Cat. No.	Thread	Ø-Range	Hole type	Application	V_c m/min		Page
DIN 374	TiN	3660	MF	M3 ÷ M36	1; 2	3.1 ●	4 ÷ 8	O / E	53
DIN 374	OX	3690	MF	M3 ÷ M36	1; 2	3.1 ○	3 ÷ 5	O	53
DIN 374	TiN	4260	MF	M3 ÷ M36	3; 4; 5	3.1; 3.3 ● 3.2 ○	6 ÷ 8 4 ÷ 6	O / E	53
DIN 374	OX	4290	MF	M3 ÷ M36	3; 4; 5	3.1 ○	3 ÷ 5	O	53
DIN 374	TiCN	3580	MF	M3 ÷ M36	1; 2	3.1 3.2; 3.3 ●	4 ÷ 8	O / E	55
DIN 374	OX	3590	MF	M3 ÷ M36	1; 2	3.2 ○	4 ÷ 8	O	55
DIN 374	TiCN	4680	MF	M3 ÷ M36	3; 4; 5	3.1; 3.3 ○ 3.2 ●	3 ÷ 5 6 ÷ 8	O / E	55
DIN 374	OX	4690	MF	M3 ÷ M36	3; 4; 5	3.2 ○	3 ÷ 5	O	55
DIN 5156	TiN	3662	G	G1/16" ÷ G1 1/2"	1; 2	3.1 ●	4 ÷ 8	O / E	61
DIN 5156	OX	3692	G	G1/16" ÷ G1 1/2"	1; 2	3.1 ○	3 ÷ 5	O	61
DIN 5156	TiN	4262	G	G1/16" ÷ G1 1/2"	3; 4; 5	3.1; 3.3 ● 3.2 ○	6 ÷ 8 4 ÷ 6	O / E	61
DIN 5156	OX	4292	G	G1/16" ÷ G1 1/2"	3; 4; 5	3.1 ○	3 ÷ 5	O	61

Tap Selection According To Material Groups

MATERIAL GROUP

High-alloyed steels and heat-treated steels up to 1400 N/mm²



● recommended use ○ alternative use

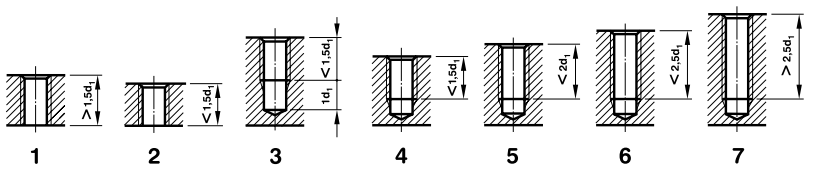
Standard		Cat. No.	Thread	Ø-Range	Hole type	Application	V_c m/min	💧	Page
DIN 371	FNT	1920	M	M3 ÷ M10	1; 2	4.1 ○ 4.2 ●	3 ÷ 6 4 ÷ 8	O[1)]	44
DIN 376	FNT	3920	M	M12	1; 2	4.1 ○ 4.2 ●	3 ÷ 6 4 ÷ 8	O[1)]	44
DIN 371	FNT	2820	M	M3 ÷ M10	3; 4	4.1 ○ 4.2 ●	3 ÷ 6 4 ÷ 8	O[1)]	44
DIN 371	FNT	2870	M	M3 ÷ M10	3; 4	4.1; 4.2 ●	5 ÷ 10	O[1)]	44
DIN 376	FNT	4820	M	M12	3; 4	4.1 ○ 4.2 ●	3 ÷ 6 4 ÷ 8	O[1)]	44
DIN 376	FNT	4870	M	M12	3; 4	4.1; 4.2 ●	5 ÷ 10	O[1)]	44

O[1)] Cutting oil intended for high resistance steels

Tap Selection According To Material Groups

SKUPINA OBRÁBĚNÉHO MATERIÁLU
MATERIAL GROUP

Stainless steels and heat resisting steels



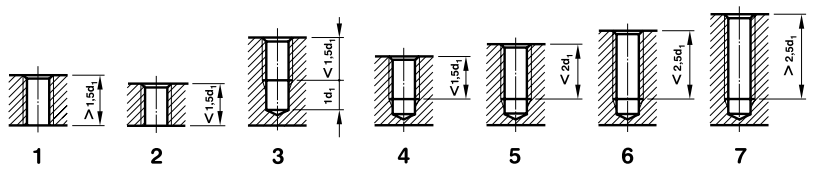
● recommended use ○ alternative use

Standard			Cat. No.	Thread	Ø-Range	Hole type	Application		V_c m/min		Page
DIN 371	TiN		1660	M	M3 ÷ M10	1; 2	5.1 5.2	●	8 ÷ 12 5 ÷ 8	O	38
DIN 371	OX		1690	M	M3 ÷ M10	1; 2	5.1 5.2	○	4 ÷ 7 3 ÷ 5	O	38
DIN 371	HL		1870	M	M3 ÷ M10	1; 2	5.1 5.2	●	8 ÷ 14 6 ÷ 10	O	38
DIN 371	HL		1870 IKZN	M	M6 ÷ M10	1; 2	5.1 5.2	●	8 ÷ 14 6 ÷ 10	O	38
DIN 376	TiN		3660	M	M3 ÷ M36	1; 2	5.1 5.2	●	8 ÷ 12 5 ÷ 8	O	39
DIN 376	OX		3690	M	M3 ÷ M36	1; 2	5.1 5.2	○	4 ÷ 7 3 ÷ 5	O	39
DIN 376	HL		3870	M	M12	1; 2	5.1 5.2	●	8 ÷ 14 6 ÷ 10	O	39
DIN 376	HL		3870 IKZN	M	M12	1; 2	5.1 5.2	●	8 ÷ 14 6 ÷ 10	O	39
DIN 371	TiN		2260	M	M3 ÷ M10	3; 4; 5	5.1 5.2	●	8 ÷ 14 6 ÷ 10	O	40
DIN 371	OX		2290	M	M3 ÷ M10	3; 4; 5	5.1 5.2	○	4 ÷ 7 3 ÷ 5	O	40
DIN 371	HL		2320	M	M3 ÷ M10	3; 4; 5	5.1 5.2	●	8 ÷ 14 6 ÷ 10	O	40
DIN 371	HL		2320 IKZ	M	M5 ÷ M10	3; 4; 5	5.1 5.2	●	8 ÷ 14 6 ÷ 10	O	40
DIN 376	TiN		4260	M	M3 ÷ M36	3; 4; 5	5.1 5.2	●	8 ÷ 14 6 ÷ 10	O	41
DIN 376	OX		4290	M	M3 ÷ M36	3; 4; 5	5.1 5.2	○	4 ÷ 7 3 ÷ 5	O	41
DIN 376	HL		4320	M	M12	3; 4; 5	5.1 5.2	●	8 ÷ 14 6 ÷ 10	O	41
DIN 376	HL		4320 IKZ	M	M12	3; 4; 5	5.1 5.2	●	8 ÷ 14 6 ÷ 10	O	41
DIN 371	TiN		1710	M	M3 ÷ M10	1; 2	5.1 5.2	○	6 ÷ 10 4 ÷ 7	O	48
DIN 376	TiN		3710	M	M12 ÷ M20	1; 2	5.1 5.2	○	6 ÷ 10 4 ÷ 7	O	48
DIN 371	TiN		2210	M	M3 ÷ M10	3; 4; 5	5.1 5.2	○	6 ÷ 10 4 ÷ 7	O	48
DIN 376	TiN		4210	M	M12 ÷ M20	3; 4; 5	5.1 5.2	○	6 ÷ 10 4 ÷ 7	O	48
DIN 374	TiN		3660	MF	M3 ÷ M36	1; 2	5.1 5.2	●	8 ÷ 12 5 ÷ 8	O	53
DIN 374	OX		3690	MF	M3 ÷ M36	1; 2	5.1 5.2	○	4 ÷ 7 3 ÷ 5	O	53
DIN 374	TiN		4260	MF	M3 ÷ M36	3; 4; 5	5.1 5.2	●	8 ÷ 14 6 ÷ 10	O	53
DIN 374	OX		4290	MF	M3 ÷ M36	3; 4; 5	5.1 5.2	○	4 ÷ 7 3 ÷ 5	O	53
DIN 5156	TiN		3662	G	G1/16" ÷ G1 1/2"	1; 2	5.1 5.2	●	8 ÷ 12 5 ÷ 8	O	61
DIN 5156	OX		3692	G	G1/16" ÷ G1 1/2"	1; 2	5.1 5.2	○	4 ÷ 7 3 ÷ 5	O	61
DIN 5156	TiN		4262	G	G1/16" ÷ G1 1/2"	3; 4; 5	5.1 5.2	●	8 ÷ 14 6 ÷ 10	O	61
DIN 5156	OX		4292	G	G1/16" ÷ G1 1/2"	3; 4; 5	5.1 5.2	○	4 ÷ 7 3 ÷ 5	O	61

Tap Selection According To Material Groups

MATERIAL GROUP

Cast iron



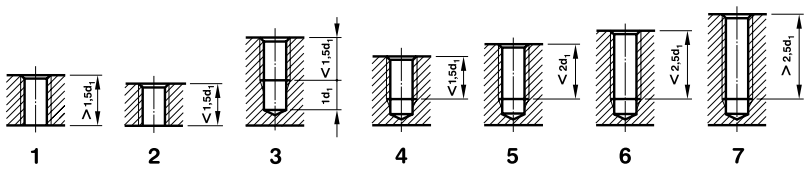
● recommended use ○ alternative use

Standard			Cat. No.	Thread	Ø-Range	Hole type	Application		V_c m/min		Page
DIN 371			1000	M	M3 ÷ M10	1 ÷ 6	6.1	○	7 ÷ 10	E	30
DIN 371	TiN		1010	M	M3 ÷ M10	1 ÷ 6	6.1	○	8 ÷ 12	E	30
DIN 376			3000	M	M3 ÷ M52	1 ÷ 6	6.1	○	7 ÷ 10	E	31
DIN 376	TiN		3010	M	M3 ÷ M52	1 ÷ 6	6.1	○	8 ÷ 12	E	31
DIN 371			1500	M	M3 ÷ M10	1; 2; 3	6.2	○	4 ÷ 7	E	32
DIN 371	TiN		1510	M	M3 ÷ M10	1; 2; 3	6.2	●	6 ÷ 8	E	32
DIN 376			3500	M	M3 ÷ M36	1; 2; 3	6.2	○	4 ÷ 7	E	33
DIN 376	TiN		3510	M	M3 ÷ M36	1; 2; 3	6.2	●	6 ÷ 8	E	33
DIN 371			2050	M	M3 ÷ M10	3; 4; 5; 6	6.2	○	4 ÷ 7	E	34
DIN 371	TiN		2060	M	M3 ÷ M10	3; 4; 5; 6	6.2	○	6 ÷ 8	E	34
DIN 376			4050	M	M3 ÷ M36	3; 4; 5; 6	6.2	○	4 ÷ 7	E	35
DIN 376	TiN		4060	M	M3 ÷ M36	3; 4; 5; 6	6.2	○	6 ÷ 8	E	35
DIN 371	TiN		2410	M	M3 ÷ M10	1 ÷ 6	6.2	○	4 ÷ 7	E	36
DIN 376	TiN		4410	M	M3 ÷ M36	1 ÷ 6	6.2	○	4 ÷ 7	E	37
DIN 371	TiN		2260	M	M3 ÷ M10	3; 4; 5; 6	6.2	●	7 ÷ 10	E	40
DIN 376	TiN		4260	M	M3 ÷ M36	3; 4; 5; 6	6.2	●	7 ÷ 10	E	41
DIN 371	TiCN		1580	M	M3 ÷ M10	1; 2; 3	6.2	○	7 ÷ 10	E	42
DIN 376	TiCN		3580	M	M3 ÷ M36	1; 2; 3	6.2	○	7 ÷ 10	E	43
DIN 371	TiCN		2680	M	M3 ÷ M10	3; 4; 5; 6	6.2	○	7 ÷ 10	E	42
DIN 376	TiCN		4680	M	M3 ÷ M36	3; 4; 5; 6	6.2	○	7 ÷ 10	E	43
DIN 371	TiCN		1080	M	M3 ÷ M10	1 ÷ 6	6.1	●	15 ÷ 20	E	46
DIN 371	TiCN		1080 IKZ	M	M5 ÷ M10	1 ÷ 6	6.1	●	15 ÷ 20	E	46
DIN 371	TiCN		1130	M	M3 ÷ M10	1 ÷ 6	6.1	●	15 ÷ 20	E	46
DIN 371	TiCN		1130 IKZ	M	M5 ÷ M10	1 ÷ 6	6.1	●	15 ÷ 20	E	46
DIN 376	TiCN		3080	M	M3 ÷ M52	1 ÷ 6	6.1	●	15 ÷ 20	E	47
DIN 376	TiCN		3080 IKZ	M	M5 ÷ M52	1 ÷ 6	6.1	●	15 ÷ 20	E	47
DIN 376	TiCN		3130	M	M3 ÷ M52	1 ÷ 6	6.1	●	15 ÷ 20	E	47
DIN 376	TiCN		3130 IKZ	M	M5 ÷ M52	1 ÷ 6	6.1	●	15 ÷ 20	E	47

Tap Selection According To Material Groups

MATERIAL GROUP

Cast iron



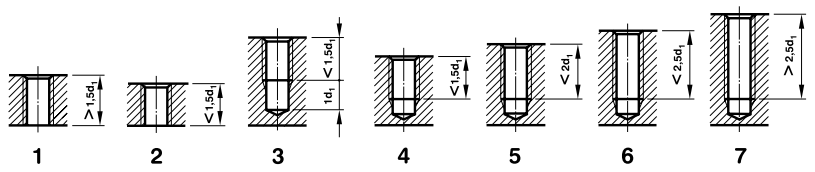
● recommended use ○ alternative use

Standard			Cat. No.	Thread	Ø-Range	Hole type	Application		V_c m/min		Page
DIN 371	TiN		1710	M	M3 ÷ M10	1; 2; 3	6.1 6.2	○	8 ÷ 12 7 ÷ 10	E	48
DIN 376	TiN		3710	M	M12 ÷ M20	1; 2; 3	6.1 6.2	○	8 ÷ 12 7 ÷ 10	E	48
DIN 371	TiN		2210	M	M3 ÷ M10	3; 4; 5; 6	6.1 6.2	○	8 ÷ 12 7 ÷ 10	E	48
DIN 376	TiN		4210	M	M12 ÷ M20	3; 4; 5; 6	6.1 6.2	○	8 ÷ 12 7 ÷ 10	E	48
DIN 352			0550	M	M3 ÷ M12	1; 2; 3	6.2	○	4 ÷ 7	E	67
DIN 352			0600	M	M3 ÷ M12	3; 4; 5; 6	6.2	○	4 ÷ 7	E	67
DIN 374			3000	MF	M3 ÷ M52	1 ÷ 6	6.1	○	7 ÷ 10	E	49
DIN 374	TiN		3010	MF	M3 ÷ M52	1 ÷ 6	6.1	○	8 ÷ 12	E	49
DIN 374			3500	MF	M3 ÷ M36	1; 2; 3	6.2	○	4 ÷ 7	E	49
DIN 374	TiN		3510	MF	M3 ÷ M36	1; 2; 3	6.2	●	6 ÷ 8	E	49
DIN 374			4050	MF	M3 ÷ M36	3; 4; 5; 6	6.2	○	4 ÷ 7	E	51
DIN 374	TiN		4060	MF	M3 ÷ M36	3; 4; 5; 6	6.2	○	6 ÷ 8	E	51
DIN 374	TiN		4260	MF	M3 ÷ M36	3; 4; 5;6	6.2	●	7 ÷ 10	E	53
DIN 374	TiCN		3580	MF	M3 ÷ M36	1; 2; 3	6.2	○	7 ÷ 10	E	55
DIN 374	TiCN		4680	MF	M3 ÷ M36	3; 4; 5; 6	6.2	○	7 ÷ 10	E	55
DIN 374	TiCN		3080	MF	M3 ÷ M52	1 ÷ 6	6.1	●	15 ÷ 20	E	57
DIN 374	TiCN		3080 IKZ	MF	M5 ÷ M52	1 ÷ 6	6.1	●	15 ÷ 20	E	57
DIN 374	TiCN		3130	MF	M3 ÷ M52	1 ÷ 6	6.1	●	15 ÷ 20	E	57
DIN 374	TiCN		3130 IKZ	MF	M5 ÷ M52	1 ÷ 6	6.1	●	15 ÷ 20	E	57
DIN 5156			3002	G	G1/16" ÷ G2"	1 ÷ 6	6.1	○	7 ÷ 10	E	59
DIN 5156	TiN		3012	G	G1/16" ÷ G2"	1 ÷ 6	6.1	○	8 ÷ 12	E	59
DIN 5156			3502	G	G1/16" ÷ G2"	1; 2; 3	6.2	○	4 ÷ 7	E	59
DIN 5156	TiN		3512	G	G1/16" ÷ G2"	1; 2; 3	6.2	●	6 ÷ 8	E	59
DIN 5156			4052	G	G1/16" ÷ G2"	3; 4; 5; 6	6.2	○	4 ÷ 7	E	60
DIN 5156	TiN		4062	G	G1/16" ÷ G2"	3; 4; 5; 6	6.2	○	6 ÷ 8	E	60
~ DIN 371			1004	UNC	5-40 ÷ 3/8-16	1 ÷ 6	6.1	○	7 ÷ 10	E	62
~ DIN 371	TiN		1014	UNC	5-40 ÷ 3/8-16	1 ÷ 6	6.1	○	8 ÷ 12	E	62
~ DIN 376			3004	UNC	7/16-14 ÷ 1 1/8-7	1 ÷ 6	6.1	○	7 ÷ 10	E	63

Tap Selection According To Material Groups

MATERIAL GROUP

Cast iron



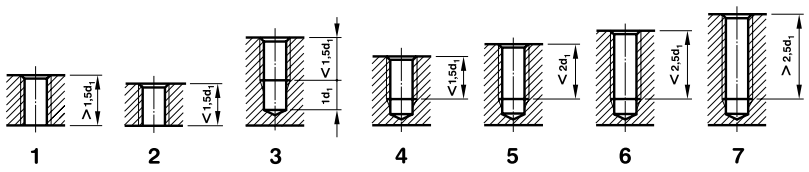
● recommended use ○ alternative use

Standard			Cat. No.	Thread	Ø-Range	Hole type	Application		V_c m/min		Page
~ DIN 376	TiN		3014	UNC	7/16-14 ÷ 1 1/8-7	1 ÷ 6	6.1	○	8 ÷ 12	E	63
~ DIN 371			1504	UNC	5-40 ÷ 3/8-16	1; 2; 3	6.2	○	4 ÷ 7	E	62
~ DIN 371	TiN		1514	UNC	5-40 ÷ 3/8-16	1; 2; 3	6.2	●	6 ÷ 8	E	62
~ DIN 376			3504	UNC	7/16-14 ÷ 1 1/8-7	1; 2; 3	6.2	○	4 ÷ 7	E	63
~ DIN 376	TiN		3514	UNC	7/16-14 ÷ 1 1/8-7	1; 2; 3	6.2	●	6 ÷ 8	E	63
~ DIN 371			2054	UNC	5-40 ÷ 3/8-16	3; 4; 5; 6	6.2	○	4 ÷ 7	E	64
~ DIN 371	TiN		2064	UNC	5-40 ÷ 3/8-16	3; 4; 5; 6	6.2	○	6 ÷ 8	E	64
~ DIN 376			4054	UNC	7/16-14 ÷ 1-7	3; 4; 5; 6	6.2	○	4 ÷ 7	E	64
~ DIN 376	TiN		4064	UNC	7/16-14 ÷ 1-7	3; 4; 5; 6	6.2	○	6 ÷ 8	E	64
~ DIN 374			3005	UNF	5-44 ÷ 1 1/8-12	1 ÷ 6	6.1	○	7 ÷ 10	E	65
~ DIN 374	TiN		3015	UNF	5-44 ÷ 1 1/8-12	1 ÷ 6	6.1	○	8 ÷ 12	E	65
~ DIN 374			3505	UNF	5-44 ÷ 1 1/8-12	1; 2; 3	6.2	○	4 ÷ 7	E	65
~ DIN 374	TiN		3515	UNF	5-44 ÷ 1 1/8-12	1; 2; 3	6.2	●	6 ÷ 8	E	65
~ DIN 374			4055	UNF	5-44 ÷ 1-12	3; 4; 5; 6	6.2	○	4 ÷ 7	E	66
~ DIN 374	TiN		4065	UNF	5-44 ÷ 1-12	3; 4; 5; 6	6.2	○	6 ÷ 8	E	66

Tap Selection According To Material Groups

MATERIAL GROUP

Unalloyed aluminium



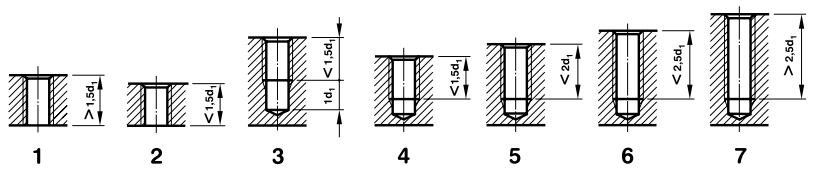
● recommended use ○ alternative use

Standard		Cat. No.	Thread	Ø-Range	Hole type	Application		V_c m/min		Page
DIN 371	TiN	1610	M	M3 ÷ M10	1; 2	7.1	●	15÷35	E	45
DIN 376	TiN	3610	M	M3 ÷ M36	1; 2	7.1	●	15÷35	E	45
DIN 371	TiN	2710	M	M3 ÷ M10	3; 4; 5	7.1	●	15÷35	E / O	45
DIN 376	TiN	4710	M	M3 ÷ M36	3; 4; 5	7.1	●	15÷35	E / O	45
DIN 2174	TiN	2910	M	M3 ÷ M12	1 ÷ 7	7.1	○	15÷35	O	68
DIN 2174	TiN	2960	M	M3 ÷ M12	1 ÷ 7	7.1	●	15÷35	O	68

Tap Selection According To Material Groups

MATERIAL GROUP

Aluminium alloys



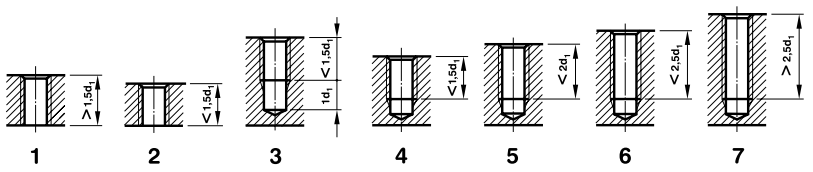
● recommended use ○ alternative use

Standard			Cat. No.	Thread	Ø-Range	Hole type	Application		V_c m/min		Page
DIN 371			1000	M	M3 ÷ M10	2	8.2	○	12 ÷ 15	E	30
DIN 371	TiN		1010	M	M3 ÷ M10	2	8.2	●	14 ÷ 20	E	30
DIN 376			3000	M	M3 ÷ M52	2	8.2	○	12 ÷ 15	E	31
DIN 376	TiN		3010	M	M3 ÷ M52	2	8.2	●	14 ÷ 20	E	31
DIN 371			1500	M	M3 ÷ M10	1; 2	8.1 8.2	● ○	14 ÷ 20 12 ÷ 15	E	32
DIN 371	TiN		1510	M	M3 ÷ M10	1; 2	8.1 8.2	● ○	15 ÷ 30 14 ÷ 20	E	32
DIN 371	OX		1540	M	M3 ÷ M10	1; 2	8.1 8.2	● ○	14 ÷ 20 12 ÷ 15	E	32
DIN 371			1750	M	M3 ÷ M10	2	8.1 8.2	○	14 ÷ 20 12 ÷ 15	E	32
DIN 376			3500	M	M3 ÷ M36	1; 2	8.1 8.2	● ○	14 ÷ 20 12 ÷ 15	E	33
DIN 376	TiN		3510	M	M3 ÷ M36	1; 2	8.1 8.2	● ○	15 ÷ 30 14 ÷ 20	E	33
DIN 376	OX		3540	M	M3 ÷ M36	1; 2	8.1 8.2	● ○	14 ÷ 20 12 ÷ 15	E	33
DIN 371			2050	M	M3 ÷ M10	3; 4; 5	8.1	●	14 ÷ 20	E	34
DIN 371	TiN		2060	M	M3 ÷ M10	3; 4; 5	8.1 8.2	● ○	15 ÷ 30 14 ÷ 20	E	34
DIN 371	OX		2090	M	M3 ÷ M10	3; 4; 5	8.1 8.2	○	14 ÷ 20 12 ÷ 15	E	34
DIN 376			4050	M	M3 ÷ M36	3; 4; 5	8.1	●	14 ÷ 20	E	35
DIN 376	TiN		4060	M	M3 ÷ M36	3; 4; 5	8.1 8.2	● ○	15 ÷ 30 14 ÷ 20	E	35
DIN 376	OX		4090	M	M3 ÷ M36	3; 4; 5	8.1 8.2	○	14 ÷ 20 12 ÷ 15	E	35
DIN 371	TiN		2360	M	M3 ÷ M10	3; 4; 5	8.1	○	14 ÷ 20	E	36
DIN 371	OX		2390	M	M3 ÷ M10	3; 4; 5	8.1	○	14 ÷ 20	E	36
DIN 376	TiN		4360	M	M3 ÷ M36	3; 4; 5	8.1	○	14 ÷ 20	E	37
DIN 376	OX		4390	M	M3 ÷ M36	3; 4; 5	8.1	○	14 ÷ 20	E	37
DIN 371	TiCN		1580	M	M3 ÷ M10	1; 2	8.2	●	15 ÷ 30	E	42
DIN 371	OX		1590	M	M3 ÷ M10	1; 2	8.2	○	12 ÷ 15	E	42
DIN 376	TiCN		3580	M	M3 ÷ M36	1; 2	8.2	●	15 ÷ 30	E	43
DIN 376	OX		3590	M	M3 ÷ M36	1; 2	8.2	○	12 ÷ 15	E	43
DIN 371	TiCN		2680	M	M3 ÷ M10	3; 4; 5; 6	8.2	●	12 ÷ 20	E	42
DIN 376	TiCN		4680	M	M3 ÷ M36	3; 4; 5; 6	8.2	●	12 ÷ 20	E	43
DIN 371	TiCN		1080	M	M3 ÷ M10	2; 3	8.2	○	12 ÷ 20	E	46

Tap Selection According To Material Groups

MATERIAL GROUP

Aluminium alloys



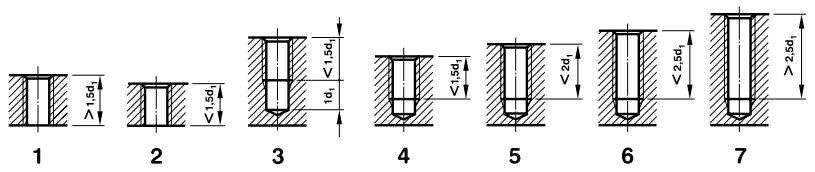
● recommended use ○ alternative use

Standard			Cat. No.	Thread	Ø-Range	Hole type	Application		V_c m/min		Page
DIN 371	TiCN		1080 IKZ	M	M5 ÷ M10	2; 3	8.2	○	12 ÷ 20	E	46
DIN 371	TiCN		1130	M	M3 ÷ M10	2; 3	8.2	○	12 ÷ 20	E	46
DIN 371	TiCN		1130 IKZ	M	M5 ÷ M10	2; 3	8.2	○	12 ÷ 20	E	46
DIN 376	TiCN		3080	M	M3 ÷ M52	2; 3	8.2	○	12 ÷ 20	E	47
DIN 376	TiCN		3080 IKZ	M	M5 ÷ M52	2; 3	8.2	○	12 ÷ 20	E	47
DIN 376	TiCN		3130	M	M3 ÷ M52	2; 3	8.2	○	12 ÷ 20	E	47
DIN 376	TiCN		3130 IKZ	M	M5 ÷ M52	2; 3	8.2	○	12 ÷ 20	E	47
DIN 371	TiN		1710	M	M3 ÷ M10	1; 2	8.1; 8.2	● ○	12 ÷ 20	E	48
DIN 376	TiN		3710	M	M12 ÷ M20	1; 2	8.1; 8.2	● ○	12 ÷ 20	E	48
DIN 371	TiN		2210	M	M3 ÷ M10	3; 4; 5	8.1; 8.2	● ○	12 ÷ 20	E	48
DIN 376	TiN		4210	M	M12 ÷ M20	3; 4; 5	8.1; 8.2	● ○	12 ÷ 20	E	48
DIN 352			0550	M	M3 ÷ M12	1; 2	8.1 8.2	● ○	14 ÷ 20 12 ÷ 15	E	67
DIN 352			0600	M	M3 ÷ M12	3; 4; 5	8.1	●	14 ÷ 20	E	67
DIN 2174	TiN		2910	M	M3 ÷ M12	1 ÷ 7	8.1	○	15 ÷ 30	E / O	68
DIN 2174	TiN		2960	M	M3 ÷ M12	1 ÷ 7	8.1	●	15 ÷ 30	E / O	68
DIN 374			3000	MF	M3 ÷ M52	2	8.2	○	12 ÷ 15	E	49
DIN 374	TiN		3010	MF	M3 ÷ M52	2	8.2	●	14 ÷ 20	E	49
DIN 374			3500	MF	M3 ÷ M36	1; 2	8.1 8.2	● ○	14 ÷ 20 12 ÷ 15	E	49
DIN 374	TiN		3510	MF	M3 ÷ M36	1; 2	8.1 8.2	● ○	15 ÷ 30 14 ÷ 20	E	49
DIN 374	OX		3540	MF	M3 ÷ M36	1; 2	8.1 8.2	● ○	14 ÷ 20 12 ÷ 15	E	49
DIN 374			4050	MF	M3 ÷ M36	3; 4; 5	8.1	●	14 ÷ 20	E	51
DIN 374	TiN		4060	MF	M3 ÷ M36	3; 4; 5	8.1 8.2	● ○	15 ÷ 30 14 ÷ 20	E	51
DIN 374	OX		4090	MF	M3 ÷ M36	3; 4; 5	8.1; 8.2	○	14 ÷ 20 12 ÷ 15	E	51
DIN 374	TiCN		3580	MF	M3 ÷ M36	1; 2	8.2	●	15 ÷ 30	E	55
DIN 374	OX		3590	MF	M3 ÷ M36	1; 2	8.2	○	12 ÷ 15	E	55
DIN 374	TiCN		4680	MF	M3 ÷ M36	3; 4; 5; 6	8.2	●	12 ÷ 20	E	55
DIN 374	TiCN		3080	MF	M3 ÷ M52	1; 2	8.2	○	12 ÷ 20	E	57
DIN 374	TiCN		3080 IKZ	MF	M5 ÷ M52	1; 2	8.2	○	12 ÷ 20	E	57

Tap Selection According To Material Groups

MATERIAL GROUP

Aluminium alloys



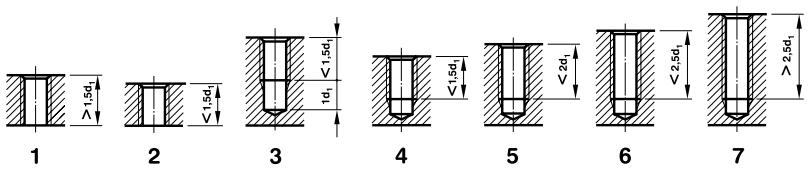
● recommended use ○ alternative use

Standard		Cat. No.	Thread	Ø-Range	Hole type	Application	V_c m/min		Page
DIN 374	TiCN	3130	MF	M3 ÷ M52	1; 2	8.2 ○	12 ÷ 20	E	57
DIN 374	TiCN	3130 IKZ	MF	M5 ÷ M52	1; 2	8.2 ○	12 ÷ 20	E	57
DIN 5156		3002	G	G1/16" ÷ G2"	2	8.2 ○	12 ÷ 15	E	59
DIN 5156	TiN	3012	G	G1/16" ÷ G2"	2	8.2 ●	14 ÷ 20	E	59
DIN 5156		3502	G	G1/16" ÷ G2"	1; 2	8.1 ● 8.2 ○	14 ÷ 20 12 ÷ 15	E	59
DIN 5156	TiN	3512	G	G1/16" ÷ G2"	1; 2	8.1 ● 8.2 ○	15 ÷ 30 14 ÷ 20	E	59
DIN 5156		4052	G	G1/16" ÷ G1 1/2"	3; 4; 5	8.1 ●	14 ÷ 20	E	60
DIN 5156	TiN	4062	G	G1/16" ÷ G1 1/2"	3; 4; 5	8.1 ● 8.2 ○	15 ÷ 30 14 ÷ 20	E	60
~ DIN 371		1004	UNC	5-40 ÷ 3/8-16	2	8.2 ○	12 ÷ 15	E	62
~ DIN 371	TiN	1014	UNC	5-40 ÷ 3/8-16	2	8.2 ●	14 ÷ 20	E	62
~ DIN 376		3004	UNC	7/16-14 ÷ 1 1/8-7	2	8.2 ○	12 ÷ 15	E	63
~ DIN 376	TiN	3014	UNC	7/16-14 ÷ 1 1/8-7	2	8.2 ●	14 ÷ 20	E	63
~ DIN 371		1504	UNC	5-40 ÷ 3/8-16	1; 2	8.1 ● 8.2 ○	14 ÷ 20 12 ÷ 15	E	62
~ DIN 371	TiN	1514	UNC	5-40 ÷ 3/8-16	1; 2	8.1 ● 8.2 ○	15 ÷ 30 14 ÷ 20	E	62
~ DIN 376		3504	UNC	7/16-14 ÷ 1 1/8-7	1; 2	8.1 ● 8.2 ○	14 ÷ 20 12 ÷ 15	E	63
~ DIN 376	TiN	3514	UNC	7/16-14 ÷ 1 1/8-7	1; 2	8.1 ● 8.2 ○	15 ÷ 30 14 ÷ 20	E	63
~ DIN 371		2054	UNC	5-40 ÷ 3/8-16	3; 4; 5	8.1 ●	14 ÷ 20	E	64
~ DIN 371	TiN	2064	UNC	5-40 ÷ 3/8-16	3; 4; 5	8.1 ● 8.2 ○	15 ÷ 30 14 ÷ 20	E	64
~ DIN 376		4054	UNC	7/16-14 ÷ 1-7	3; 4; 5	8.1 ●	14 ÷ 20	E	64
~ DIN 376	TiN	4064	UNC	7/16-14 ÷ 1-7	3; 4; 5	8.1 ● 8.2 ○	15 ÷ 30 14 ÷ 20	E	64
~ DIN 374		3005	UNF	5-44 ÷ 1 1/8-12	2	8.2 ○	12 ÷ 15	E	65
~ DIN 374	TiN	3015	UNF	5-44 ÷ 1 1/8-12	2	8.2 ●	14 ÷ 20	E	65
~ DIN 374		3505	UNF	5-44 ÷ 1 1/8-12	1; 2	8.1 ● 8.2 ○	14 ÷ 20 12 ÷ 15	E	65
~ DIN 374	TiN	3515	UNF	5-44 ÷ 1 1/8-12	1; 2	8.1 ● 8.2 ○	15 ÷ 30 14 ÷ 20	E	65
~ DIN 374		4055	UNF	5-44 ÷ 1-12	3; 4; 5	8.1 8.2 ●	14 ÷ 20	E	66
~ DIN 374	TiN	4065	UNF	5-44 ÷ 1-12	3; 4; 5	8.1 ● 8.2 ○	15 ÷ 30 14 ÷ 20	E	66

Tap Selection According To Material Groups

MATERIAL GROUP

Unalloyed copper



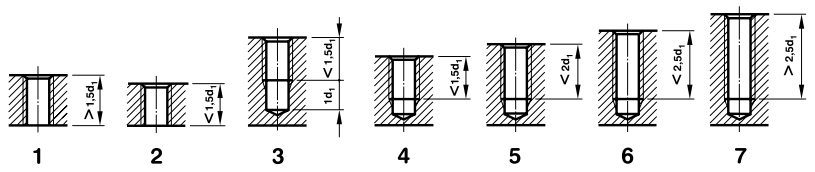
● recommended use ○ alternative use

Standard			Cat. No.	Thread	Ø-Range	Hole type	Application		V_c m/min		Page
DIN 371	TiN		2360	M	M3 ÷ M10	3; 4; 5	9.1	○	5 ÷ 8	O	36
DIN 376	TiN		4360	M	M3 ÷ M36	3; 4; 5	9.1	○	5 ÷ 8	O	37
DIN 371	TiN		1660	M	M3 ÷ M10	1; 2	9.1	●	8 ÷ 12	O	38
DIN 371	HL		1870	M	M3 ÷ M10	1; 2	9.1	●	10 ÷ 15	O	38
DIN 371	HL		1870 IKZN	M	M6 ÷ M10	1; 2	9.1	●	10 ÷ 15	O	38
DIN 376	TiN		3660	M	M3 ÷ M10	1; 2	9.1	●	8 ÷ 12	O	39
DIN 376	HL		3870	M	M12	1; 2	9.1	●	10 ÷ 15	O	39
DIN 376	HL		3870 IKZN	M	M12	1; 2	9.1	●	10 ÷ 15	O	39
DIN 371	TiN		2260	M	M3 ÷ M10	3; 4; 5	9.1	●	8 ÷ 12	O	40
DIN 371	HL		2320	M	M3 ÷ M10	3; 4; 5	9.1	●	10 ÷ 15	O	40
DIN 371	HL		2320 IKZN	M	M5 ÷ M10	3; 4; 5	9.1	●	10 ÷ 15	O	40
DIN 376	TiN		4260	M	M3 ÷ M36	3; 4; 5	9.1	●	8 ÷ 12	O	41
DIN 376	HL		4320	M	M12	3; 4; 5	9.1	●	10 ÷ 15	O	41
DIN 376	HL		4320 IKZ	M	M12	3; 4; 5	9.1	●	10 ÷ 15	O	41
DIN 2174	TiN		2960	M	M3 ÷ M12	1 ÷ 7	9.1	●	15 ÷ 30	O	68
DIN 374	TiN		3660	MF	M3 ÷ M36	1; 2	9.1	●	8 ÷ 12	O	53
DIN 374	TiN		4260	MF	M3 ÷ M36	3; 4; 5	9.1	●	8 ÷ 12	O	53
DIN 5156	TiN		3662	G	G1/16" ÷ G1 1/2"	1; 2	9.1	●	8 ÷ 12	O	61
DIN 5156	TiN		4262	G	G1/16" ÷ G1 1/2"	3; 4; 5	9.1	●	8 ÷ 12	O	61

Tap Selection According To Material Groups

MATERIAL GROUP

Copper alloys



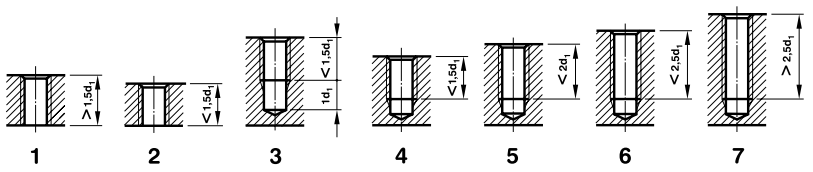
● recommended use ○ alternative use

Standard			Cat. No.	Thread	Ø-Range	Hole type	Application		V_c m/min	💧	Page
DIN 371			1000	M	M3 ÷ M10	2; 3	10.1	●	10 ÷ 15	O / E	30
DIN 371	TiN		1010	M	M3 ÷ M10	2; 3	10.1	●	15 ÷ 25	O / E	30
DIN 376			3000	M	M3 ÷ M52	2; 3	10.1	●	10 ÷ 15	O / E	31
DIN 376	TiN		3010	M	M3 ÷ M52	2; 3	10.1	●	15 ÷ 25	O / E	31
DIN 371			1500	M	M3 ÷ M10	1; 2	10.1	○	12 ÷ 20	O / E	32
DIN 371	TiN		1510	M	M3 ÷ M10	1; 2	10.1	○	15 ÷ 25	O / E	32
DIN 376			3500	M	M3 ÷ M36	1; 2	10.1	○	12 ÷ 20	O / E	33
DIN 376	TiN		3510	M	M3 ÷ M36	1; 2	10.1	○	15 ÷ 25	O / E	33
DIN 371			2050	M	M3 ÷ M10	3; 4; 5	10.2	○	6 ÷ 10	O	34
DIN 371	TiN		2060	M	M3 ÷ M10	3; 4; 5	10.2	○	10 ÷ 15	O	34
DIN 376			4050	M	M3 ÷ M36	3; 4; 5	10.2	○	6 ÷ 10	O	35
DIN 376	TiN		4060	M	M3 ÷ M36	3; 4; 5	10.2	○	10 ÷ 15	O	35
DIN 371			2400	M	M3 ÷ M10	3; 4; 5; 6	10.1	●	10 ÷ 15	O / E	36
DIN 371	TiN		2410	M	M3 ÷ M10	3; 4; 5; 6	10.1	●	12 ÷ 20	O / E	36
DIN 376			4400	M	M3 ÷ M36	3; 4; 5; 6	10.1	●	10 ÷ 15	O / E	37
DIN 376	TiN		4410	M	M3 ÷ M36	3; 4; 5; 6	10.1	●	12 ÷ 20	O / E	37
DIN 371	TiN		1660	M	M3 ÷ M10	1; 2	10.2	●	10 ÷ 15	O	38
DIN 371	HL		1870	M	M6 ÷ M10	1; 2	10.2	●	12 ÷ 20	O	38
DIN 371	HL		1870 IKZN	M	M6 ÷ M10	1; 2	10.2	●	12 ÷ 20	O	38
DIN 376	TiN		3660	M	M3 ÷ M36	1; 2	10.2	●	10 ÷ 15	O	39
DIN 376	HL		3870	M	M12	1; 2	10.2	●	12 ÷ 20	O	39
DIN 376	HL		3870 IKZN	M	M12	1; 2	10.2	●	12 ÷ 20	O	39
DIN 371	TiN		2260	M	M3 ÷ M10	3; 4; 5	10.2	●	10 ÷ 15	O	40
DIN 371	HL		2320	M	M3 ÷ M10	3; 4; 5	10.2	●	12 ÷ 20	O	40
DIN 371	HL		2320 IKZ	M	M5 ÷ M10	3; 4; 5	10.2	●	12 ÷ 20	O	40
DIN 376	TiN		4260	M	M3 ÷ M36	3; 4; 5	10.2	●	10 ÷ 15	O	41
DIN 376	HL		4320	M	M12	3; 4; 5	10.2	●	12 ÷ 20	O	41
DIN 376	HL		4320 IKZ	M	M12	3; 4; 5	10.2	●	12 ÷ 20	O	41

Tap Selection According To Material Groups

MATERIAL GROUP

Copper alloys



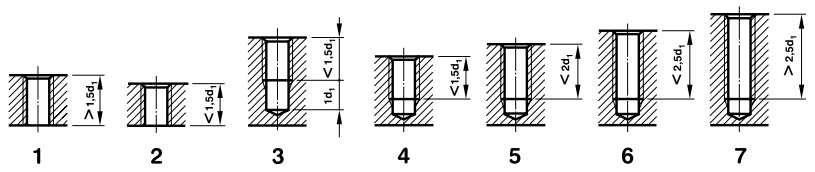
● recommended use ○ alternative use

Standard		Cat. No.	Thread	Ø-Range	Hole type	Application		V_c m/min		Page
DIN 371	TiN	1710	M	M3 ÷ M10	1; 2	10.2	●	12 ÷ 20	O	48
DIN 376	TiN	3710	M	M12 ÷ M20	1; 2	10.2	●	12 ÷ 20	O	48
DIN 371	TiN	2210	M	M3 ÷ M10	3; 4; 5	10.2	●	12 ÷ 20	O	48
DIN 376	TiN	4210	M	M12 ÷ M20	3; 4; 5	10.2	●	12 ÷ 20	O	48
DIN 352		0550	M	M3 ÷ M12	1; 2	10.1	○	12 ÷ 20	O / E	67
DIN 352		0600	M	M3 ÷ M12	3; 4; 5	10.2	○	6 ÷ 10	O	67
DIN 352		0650	M	M3 ÷ M12	3; 4; 5; 6	10.1	●	10 ÷ 15	O / E	67
DIN 374		3000	MF	M3 ÷ M52	2; 3	10.1	●	10 ÷ 15	O / E	49
DIN 374	TiN	3010	MF	M3 ÷ M52	2; 3	10.1	●	15 ÷ 25	O / E	49
DIN 374		3500	MF	M3 ÷ M36	1; 2	10.1	○	12 ÷ 20	O / E	49
DIN 374	TiN	3510	MF	M3 ÷ M36	1; 2	10.1	○	15 ÷ 25	O / E	49
DIN 374		4050	MF	M3 ÷ M36	3; 4; 5	10.2	○	6 ÷ 10	O	51
DIN 374	TiN	4060	MF	M3 ÷ M36	3; 4; 5	10.2	○	10 ÷ 15	O	51
DIN 374	TiN	3660	MF	M3 ÷ M36	1; 2	10.2	●	10 ÷ 15	O	53
DIN 374	TiN	4260	MF	M3 ÷ M36	3; 4; 5	10.2	●	10 ÷ 15	O	53
DIN 5156		3002	G	G1/16" ÷ G2"	2; 3	10.1	●	10 ÷ 15	O / E	59
DIN 5156	TiN	3012	G	G1/16" ÷ G2"	2; 3	10.1	●	15 ÷ 25	O / E	59
DIN 5156		3502	G	G1/16" ÷ G2"	1; 2	10.1	○	12 ÷ 20	O / E	59
DIN 5156	TiN	3512	G	G1/16" ÷ G2"	1; 2	10.1	○	15 ÷ 25	O / E	59
DIN 5156		4052	G	G1/16" ÷ G1 1/2""	3; 4; 5	10.2	○	6 ÷ 10	O	60
DIN 5156	TiN	4062	G	G1/16" ÷ G1 1/2"	3; 4; 5	10.2	○	10 ÷ 15	O	60
DIN 5156	TiN	3662	G	G1/16" ÷ G1 1/2"	1; 2	10.2	●	10 ÷ 15	O	61
DIN 5156	TiN	4262	G	G1/16" ÷ G1 1/2"	3; 4; 5	10.2	●	10 ÷ 15	O	61
~ DIN 371		1004	UNC	5-40 ÷ 3/8-16	2; 3	10.1	●	10 ÷ 15	O / E	62
~ DIN 371	TiN	1014	UNC	5÷40 ÷ 3/8÷16	2; 3	10.1	●	15 ÷25	O / E	62
~ DIN 376		3004	UNC	7/16-14 ÷ 1 1/8-7	2; 3	10.1	●	10 ÷ 15	O / E	63
~ DIN 376	TiN	3014	UNC	7/16-14 ÷ 1 1/8-7	2; 3	10.1	●	15 ÷ 25	O / E	63
~ DIN 371		1504	UNC	5-40 ÷ 3/8-16	1; 2	10.1	○	12 ÷ 20	O / E	62

Tap Selection According To Material Groups

MATERIAL GROUP

Copper alloys

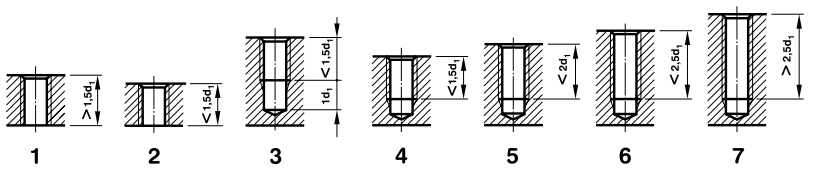


● recommended use ○ alternative use

Standard			Cat. No.	Thread	Ø-Range	Hole type	Application		V_c m/min	💧	Page
~ DIN 371	TiN		1514	UNC	5-40 ÷ 3/8-16	1; 2	10.1	○	15 ÷ 25	O / E	62
~ DIN 376			3504	UNC	7/16-14 ÷ 1 1/8-7	1; 2	10.1	○	12 ÷ 20	O / E	63
~ DIN 376	TiN		3514	UNC	7/16-14 ÷ 1 1/8-7	1; 2	10.1	○	15 ÷ 25	O / E	63
~ DIN 371			2054	UNC	5-40 ÷ 3/8-16	3; 4; 5	10.2	○	6 ÷ 10	O	64
~ DIN 371	TiN		2064	UNC	5-40 ÷ 3/8-16	3; 4; 5	10.2	○	10 ÷ 15	O	64
~ DIN 376			4054	UNC	7/16-14 ÷ 1-7	3; 4; 5	10.2	○	6 ÷ 10	O	64
~ DIN 376	TiN		4064	UNC	7/16-14 ÷ 1-7	3; 4; 5	10.2	○	10 ÷ 15	O	64
~ DIN 374			3005	UNF	5-44 ÷ 1 1/8-12	2; 3	10.1	●	10 ÷ 15	O / E	65
~ DIN 374	TiN		3015	UNF	5-44 ÷ 1 1/8-12	2; 3	10.1	●	15 ÷ 25	O / E	65
~ DIN 374			3505	UNF	5-44 ÷ 1 1/8-12	1; 2	10.1	○	12 ÷ 20	O / E	65
~ DIN 374	TiN		3515	UNF	5-44 ÷ 1 1/8-12	1; 2	10.1	○	15 ÷ 25	O / E	65
~ DIN 374			4055	UNF	5-44 ÷ 1-12	3; 4; 5	10.2	○	6 ÷ 10	O	66
~ DIN 374	TiN		4065	UNF	5-44 ÷ 1-12	3; 4; 5	10.2	○	10 ÷ 15	O	66

Tap Selection According To Material Groups

MATERIAL GROUP



● recommended use ○ alternative use

Standard		Cat. No.	Thread	Ø-Range	Hole type	Application		V_c m/min		Page
DIN 371	OX	1540	M	M3 ÷ M10	1; 2	11.1	●	10 ÷ 12	E	32
DIN 376	OX	3540	M	M3 ÷ M36	1; 2	11.1	●	10 ÷ 12	E	33
DIN 371	OX	2090	M	M3 ÷ M10	3; 4; 5	11.1	●	8 ÷ 10	E	34
DIN 376	OX	4090	M	M3 ÷ M36	3; 4; 5	11.1	●	8 ÷ 10	E	35
DIN 2174	TiN	2910	M	M3 ÷ M12	1 ÷ 7	11.1	●	15 ÷ 20	E	68
DIN 374	OX	3540	MF	M3 ÷ M36	1; 2	11.1	●	10 ÷ 12	E	49
DIN 374	OX	4090	MF	M3 ÷ M36	3; 4; 5	11.1	●	8 ÷ 10	E	51

M | 60° P | DIN 13 | typ N | HSSE | DIN 371 | ISO 2 6H | C 2 - 3 | <1,5d1 | <1,5d1 d1

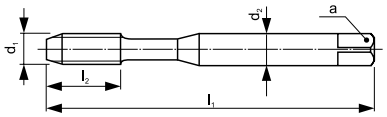
Material group
(**X.X** recommended use; X.X possible use)

10.1; 1.1; 2.1; 6.1; 8.2

1000

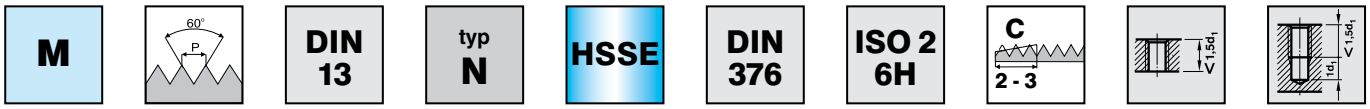
8.2; 10.1; 1.1; 2.1; 6.1

1010

Cat. No.								1000	1010
 z = number of flutes									TiN
d_1	P	l_1	l_2	d_2	a	z	Ø mm		
M 3	0,5	56	9	3,5	2,7	3	2,5	M3 /1000/	M3 /1010/
M 3,5	0,6	56	11	4	3	3	2,9	M3,5 /1000/	M3,5 /1010/
M 4	0,7	63	12	4,5	3,4	3	3,3	M4 /1000/	M4 /1010/
M 4,5	0,75	70	13	6	4,9	3	3,7	M4,5 /1000/*	M4,5 /1010/*
M 5	0,8	70	13	6	4,9	3	4,2	M5 /1000/	M5 /1010/
M 6	1	80	15	6	4,9	3	5	M6 /1000/	M6 /1010/
M 7	1	80	15	7	5,5	3	6	M7 /1000/*	M7 /1010/*
M 8	1,25	90	18	8	6,2	3	6,8	M8 /1000/	M8 /1010/
M 9	1,25	90	18	9	7	3	7,8	M9 /1000/*	M9 /1010/*
M 10	1,5	100	20	10	8	3	8,5	M10 /1000/	M10 /1010/

* nonstandard supplies

Machine Taps



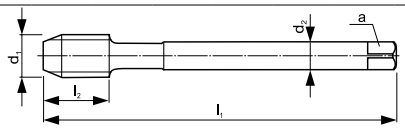
Material group
(**X.X** recommended use; X.X possible use)

10.1; 1.1; 2.1; 6.1; 8.2

3000

8.2; 10.1; 1.1; 2.1; 6.1

3010



z = number of flutes

Cat. No.								3000	3010
									TiN
d_1	P	l_1	l_2	d_2	a	z	Ø mm		
M 3	0,5	56	9	2,2	-	3	2,5	M3 /3000/	M3 /3010/
M 3,5	0,6	56	11	2,5	2,1	3	2,9	M3,5 /3000/*	M3,5 /3010/*
M 4	0,7	63	12	2,8	2,1	3	3,3	M4 /3000/	M4 /3010/
M 4,5	0,75	70	13	3,5	2,7	3	3,7	M4,5 /3000/*	M4,5 /3010/*
M 5	0,8	70	13	3,5	2,7	3	4,2	M5 /3000/	M5 /3010/
M 6	1	80	15	4,5	3,4	3	5	M6 /3000/	M6 /3010/
M 7	1	80	15	5,5	4,3	3	6	M7 /3000/	M7 /3010/
M 8	1,25	90	18	6	4,9	3	6,8	M8 /3000/	M8 /3010/
M 9	1,25	90	18	7	5,5	3	7,8	M9 /3000/*	M9 /3010/*
M 10	1,5	100	20	7	5,5	3	8,5	M10 /3000/	M10 /3010/
M 11	1,5	100	20	8	6,2	3	9,5	M11 /3000/*	M11 /3010/*
M 12	1,75	110	23	9	7	3	10,2	M12 /3000/	M12 /3010/
M 14	2	110	25	11	9	3	12	M14 /3000/	M14 /3010/
M 16	2	110	25	12	9	3	14	M16 /3000/	M16 /3010/
M 18	2,5	125	30	14	11	3	15,5	M18 /3000/	M18 /3010/
M 20	2,5	140	30	16	12	3	17,5	M20 /3000/	M20 /3010/
M 22	2,5	140	30	18	14,5	3	19,5	M22 /3000/	M22 /3010/
M 24	3	160	36	18	14,5	4	21	M24 /3000/	M24 /3010/
M 27	3	160	36	20	16	4	24	M27 /3000/	M27 /3010/
M 30	3,5	180	40	22	18	4	26,5	M30 /3000/	M30 /3010/
M 33	3,5	180	42	25	20	4	29,5	M33 /3000/	M33 /3010/
M 36	4	200	50	28	22	4	32	M36 /3000/	M36 /3010/
M 39	4	200	50	32	24	4	35	M39 /3000/	M39 /3010/
M 42	4,5	200	56	32	24	4	37,5	M42 /3000/	M42 /3010/
M 45	4,5	200	56	36	29	4	40,5	M45 /3000/	M45 /3010/
M 48	5	250	63	36	29	4	43	M48 /3000/	M48 /3010/
M 52	5	250	63	40	32	4	47	M52 /3000/	M52 /3010/

* nonstandard supplies

M | 60° P | **DIN 13** | typ **N** | **HSSE** | **DIN 371** | **ISO 2 6H** | B 3,5 - 6 | ≥1,5d₁

Material group
(**X.X** recommended use; X.X possible use)

1.2; 2.2; 8.1; 1.1; 2.1; 2.3; 6.2; 8.2; 10.1

1.1; 1.2; 2.1; 2.2; 2.3; 6.2; 8.1; 8.2; 10.1

1.2; 2.2; 8.1; 11.1; 2.3; 8.2

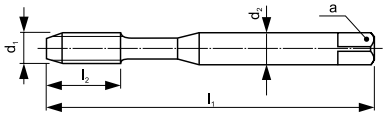
1.1; 1.2; 2.1; 2.2; 2.3;8.1; 8.2

1500

1510

1540

1750



z = number of flutes

Cat. No.								1500	1500	1510	1540	1750
									ISO 3 6G	TiN	OX	
d_1	P	l_1	l_2	d_2	a	z	Ø mm					
M 2	0,4	45	8	2,8	2,1	3	1,6	M2 /1500/	M2 /1500/*	M2 /1510/	M2 /1540/	M2 /1750/*
M 2,5	0,45	50	9	2,8	2,1	3	2,05	M2,5 /1500/	M2,5 /1500/*	M2,5 /1510/	M2,5 /1540/	M2,5 /1750/*
M 3	0,5	56	9	3,5	2,7	3	2,5	M3 /1500/	M3 /1500/	M3 /1510/	M3 /1540/	M3 /1750/
M 3,5	0,6	56	11	4	3	3	2,9	M3,5 /1500/	M3,5 /1500/	M3,5 /1510/	M3,5 /1540/	M3,5 /1750/*
M 4	0,7	63	12	4,5	3,4	3	3,3	M4 /1500/	M4 /1500/	M4 /1510/	M4 /1540/	M4 /1750/
M 4,5	0,75	70	13	6	4,9	3	3,7	M4,5 /1500/*	M4,5 /1500/*	M4,5 /1510/*	M4,5 /1540/*	M4,5 /1750/*
M 5	0,8	70	13	6	4,9	3	4,2	M5 /1500/	M5 /1500/	M5 /1510/	M5 /1540/	M5 /1750/
M 6	1	80	15	6	4,9	3	5	M6 /1500/	M6 /1500/	M6 /1510/	M6 /1540/	M6 /1750/
M 7	1	80	15	7	5,5	3	6	M7 /1500/	M7 /1500/*	M7 /1510/	M7 /1540/	M7 /1750/*
M 8	1,25	90	18	8	6,2	3	6,8	M8 /1500/	M8 /1500/	M8 /1510/	M8 /1540/	M8 /1750/
M 9	1,25	90	18	9	7	3	7,8	M9 /1500/*	M9 /1500/*	M9 /1510/*	M9 /1540/*	M9 /1750/*
M 10	1,5	100	20	10	8	3	8,5	M10 /1500/	M10 /1500/	M10 /1510/	M10 /1540/	M10 /1750/

* nonstandard supplies

Machine Taps

M | 60° P | DIN 13 | typ N | HSSE | DIN 376 | ISO 2 6H | B 3,5 - 6 | ≥ 1,5d1

Material group
(**X.X** recommended use; X.X possible use)

1.2; 2.2; 8.1; 1.1; 2.1; 2.3; 6.2; 8.2; 10.1

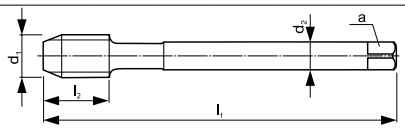
3500

1.1; 1.2; 2.1; 2.2; 2.3; 6.2; 8.1; 8.2; 10.1

3510

1.2; 2.2; 8.1; 11.1; 2.3; 8.2

3540



z = number of flutes

Cat. No.								3500	3500	3510	3540
									ISO 3 6G	TiN	OX
d_1	P	l_1	l_2	d_2	a	z	Ø mm				
M 3	0,5	56	9	2,2	-	3	2,5	M3 /3500/	M3 /3500/*	M3 /3510/	M3 /3540/
M 3,5	0,6	56	11	2,5	2,1	3	2,9	M3,5 /3500/*	M3,5 /3500/*	M3,5 /3510/*	M3,5 /3540/*
M 4	0,7	63	12	2,8	2,1	3	3,3	M4 /3500/	M4 /3500/*	M4 /3510/	M4 /3540/
M 4,5	0,75	70	13	3,5	2,7	3	3,7	M4,5 /3500/*	M4,5 /3500/*	M4,5 /3510/*	M4,5 /3540/*
M 5	0,8	70	13	3,5	2,7	3	4,2	M5 /3500/	M5 /3500/*	M5 /3510/	M5 /3540/
M 6	1	80	15	4,5	3,4	3	5	M6 /3500/	M6 /3500/*	M6 /3510/	M6 /3540/
M 7	1	80	15	5,5	4,3	3	6	M7 /3500/	M7 /3500/*	M7 /3510/	M7 /3540/
M 8	1,25	90	18	6	4,9	3	6,8	M8 /3500/	M8 /3500/*	M8 /3510/	M8 /3540/
M 9	1,25	90	18	7	5,5	3	7,8	M9 /3500/*	M9 /3500/*	M9 /3510/*	M9 /3540/*
M 10	1,5	100	20	7	5,5	3	8,5	M10 /3500/	M10 /3500/*	M10 /3510/	M10 /3540/
M 11	1,5	100	20	8	6,2	3	9,5	M11 /3500/*	M11 /3500/*	M11 /3510/*	M11 /3540/*
M 12	1,75	110	23	9	7	3	10,2	M12 /3500/	M12 /3500/	M12 /3510/	M12 /3540/
M 14	2	110	25	11	9	3	12	M14 /3500/	M14 /3500/	M14 /3510/	M14 /3540/
M 16	2	110	25	12	9	3	14	M16 /3500/	M16 /3500/	M16 /3510/	M16 /3540/
M 18	2,5	125	30	14	11	3	15,5	M18 /3500/	M18 /3500/*	M18 /3510/	M18 /3540/
M 20	2,5	140	30	16	12	3	17,5	M20 /3500/	M20 /3500/*	M20 /3510/	M20 /3540/
M 22	2,5	140	30	18	14,5	3	19,5	M22 /3500/	M22 /3500/*	M22 /3510/	M22 /3540/
M 24	3	160	36	18	14,5	4	21	M24 /3500/	M24 /3500/*	M24 /3510/	M24 /3540/
M 27	3	160	36	20	16	4	24	M27 /3500/	M27 /3500/*	M27 /3510/	M27 /3540/
M 30	3,5	180	40	22	18	4	26,5	M30 /3500/	M30 /3500/*	M30 /3510/	M30 /3540/
M 33	3,5	180	42	25	20	4	29,5	M33 /3500/	M33 /3500/*	M33 /3510/	M33 /3540/
M 36	4	200	50	28	22	4	32	M36 /3500/	M36 /3500/*	M36 /3510/	M36 /3540/

* nonstandard supplies

M | 60° P | **DIN 13** | typ **N** | **HSSE** | **DIN 371** | **ISO 2 6H** | C 2 - 3 | 35° | 2d1 V

Material group
(**X.X** recommended use; X.X possible use)

2.2; 2.3; 8.1; 6.2; 10.2

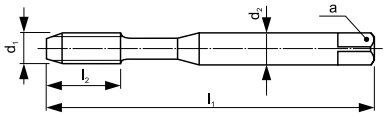
2050

2.2; 2.3; 8.1; 6.2; 8.2; 10.2

2060

11.1; 2.2; 2.3; 8.1; 8.2

2090

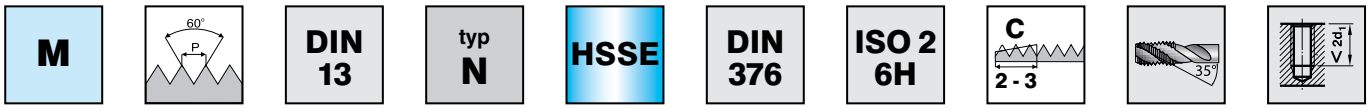


z = number of flutes

Cat. No.								2050	2050	2060	2090
									ISO 3 6G	TiN	OX
d_1	P	l_1	l_2	d_2	a	z	Ø mm				
M 2	0,4	45	6	2,8	2,1	3	1,6	M2 /2050/	M2 /2050/*	M2 /2060/	M2 /2090/
M 2,5	0,45	50	7,5	2,8	2,1	3	2,05	M2,5 /2050/	M2,5 /2050/*	M2,5 /2060/	M2,5 /2090/
M 3	0,5	56	5	3,5	2,7	3	2,5	M3 /2050/	M3 /2050/	M3 /2060/	M3 /2090/
M 3,5	0,6	56	6	4	3	3	2,9	M3,5 /2050/	M3,5 /2050/*	M3,5 /2060/	M3,5 /2090/
M 4	0,7	63	7	4,5	3,4	3	3,3	M4 /2050/	M4 /2050/	M4 /2060/	M4 /2090/
M 4,5	0,75	70	8	6	4,9	3	3,7	M4,5 /2050/*	M4,5 /2050/*	M4,5 /2060/*	M4,5 /2090/*
M 5	0,8	70	8	6	4,9	3	4,2	M5 /2050/	M5 /2050/	M5 /2060/	M5 /2090/
M 6	1	80	10	6	4,9	3	5	M6 /2050/	M6 /2050/	M6 /2060/	M6 /2090/
M 7	1	80	10	7	5,5	3	6	M7 /2050/*	M7 /2050/*	M7 /2060/*	M7 /2090/*
M 8	1,25	90	13	8	6,2	3	6,8	M8 /2050/	M8 /2050/	M8 /2060/	M8 /2090/
M 9	1,25	90	13	9	7	3	7,8	M9 /2050/*	M9 /2050/*	M9 /2060/*	M9 /2090/*
M 10	1,5	100	15	10	8	3	8,5	M10 /2050/	M10 /2050/	M10 /2060/	M10 /2090/

* nonstandard supplies

Machine Taps



Material group
(**X.X** recommended use; X.X possible use)

2.2; 2.3; 8.1; 6.2; 10.2

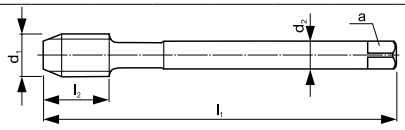
2.2; 2.3; 8.1; 6.2; 8.2; 10.2

11.1; 2.2; 2.3; 8.1; 8.2

4050

4060

4090



z = number of flutes

Cat. No.								4050	4050	4060	4090
									ISO 3 6G	TiN	OX
d_1	P	l_1	l_2	d_2	a	z	Ø mm				
M 3	0,5	56	5	2,2	-	3	2,5	M3 /4050/	M3 /4050/*	M3 /4060/	M3 /4090/
M 3,5	0,6	56	6	2,5	2,1	3	2,9	M3,5 /4050/*	M3,5 /4050/*	M3,5 /4060/*	M3,5 /4090/*
M 4	0,7	63	7	2,8	2,1	3	3,3	M4 /4050/	M4 /4050/*	M4 /4060/	M4 /4090/
M 4,5	0,75	70	8	3,5	2,7	3	3,7	M4,5 /4050/*	M4,5 /4050/*	M4,5 /4060/*	M4,5 /4090/*
M 5	0,8	70	8	3,5	2,7	3	4,2	M5 /4050/	M5 /4050/*	M5 /4060/	M5 /4090/
M 6	1	80	10	4,5	3,4	3	5	M6 /4050/	M6 /4050/*	M6 /4060/	M6 /4090/
M 7	1	80	10	5,5	4,3	3	6	M7 /4050/	M7 /4050/*	M7 /4060/	M7 /4090/
M 8	1,25	90	13	6	4,9	3	6,8	M8 /4050/	M8 /4050/*	M8 /4060/	M8 /4090/
M 9	1,25	90	13	7	5,5	3	7,8	M9 /4050/*	M9 /4050/*	M9 /4060/*	M9 /4090/*
M 10	1,5	100	15	7	5,5	3	8,5	M10 /4050/	M10 /4050/*	M10 /4060/	M10 /4090/
M 11	1,5	100	15	8	6,2	3	9,5	M11 /4050/*	M11 /4050/*	M11 /4060/*	M11 /4090/*
M 12	1,75	110	18	9	7	3	10,2	M12 /4050/	M12 /4050/	M12 /4060/	M12 /4090/
M 14	2	110	20	11	9	3	12	M14 /4050/	M14 /4050/	M14 /4060/	M14 /4090/
M 16	2	110	20	12	9	4	14	M16 /4050/	M16 /4050/	M16 /4060/	M16 /4090/
M 18	2,5	125	25	14	11	4	15,5	M18 /4050/	M18 /4050/*	M18 /4060/	M18 /4090/
M 20	2,5	140	25	16	12	4	17,5	M20 /4050/	M20 /4050/*	M20 /4060/	M20 /4090/
M 22	2,5	140	25	18	14,5	4	19,5	M22 /4050/	M22 /4050/*	M22 /4060/	M22 /4090/
M 24	3	160	30	18	14,5	4	21	M24 /4050/	M24 /4050/*	M24 /4060/	M24 /4090/
M 27	3	160	30	20	16	4	24	M27 /4050/	M27 /4050/*	M27 /4060/	M27 /4090/
M 30	3,5	180	35	22	18	4	26,5	M30 /4050/	M30 /4050/*	M30 /4060/	M30 /4090/
M 33	3,5	180	35	25	20	4	29,5	M33 /4050/	M33 /4050/*	M33 /4060/	M33 /4090/
M 36	4	200	40	28	22	4	32	M36 /4050/	M36 /4050/*	M36 /4060/	M36 /4090/

* nonstandard supplies

M | 60° P | **DIN 13** | typ **N** | **HSSE** | **DIN 371** | **ISO 2 6H** | C 2 - 3

Material group
(**X.X** recommended use; X.X possible use)

10.1; 2.2

2.2; 10.1; 6.2

1.1; 1.2; 2.1; 2.2; 8.1; 9.1

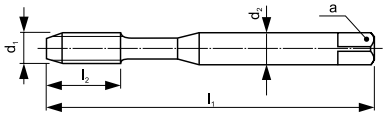
1.2; 1.1; 2.1; 2.2; 8.1

2400

2410

2360

2390



z = number of flutes

Cat. No.								2400	2410	2360	2390
									TiN	TiN	OX
d_1	P	l_1	l_2	d_2	a	z	Ø mm				
M 3	0,5	56	5	3,5	2,7	3	2,5	M3 /2400/	M3 /2410/	M3 /2360/	M3 /2390/
M 3,5	0,6	56	6	4	3	3	2,9	M3,5 /2400/*	M3,5 /2410/*	M3,5 /2360/*	M3,5 /2390/*
M 4	0,7	63	7	4,5	3,4	3	3,3	M4 /2400/	M4 /2410/	M4 /2360/	M4 /2390/
M 4,5	0,75	70	8	6	4,9	3	3,7	M4,5 /2400/*	M4,5 /2410/*	M4,5 /2360/*	M4,5 /2390/*
M 5	0,8	70	8	6	4,9	3	4,2	M5 /2400/	M5 /2410/	M5 /2360/	M5 /2390/
M 6	1	80	10	6	4,9	3	5	M6 /2400/	M6 /2410/	M6 /2360/	M6 /2390/
M 7	1	80	10	7	5,5	3	6	M7 /2400/*	M7 /2410/*	M7 /2360/*	M7 /2390/*
M 8	1,25	90	13	8	6,2	3	6,8	M8 /2400/	M8 /2410/	M8 /2360/	M8 /2390/
M 9	1,25	90	13	9	7	3	7,8	M9 /2400/*	M9 /2410/*	M9 /2360/*	M9 /2390/*
M 10	1,5	100	15	10	8	3	8,5	M10 /2400/	M10 /2410/	M10 /2360/	M10 /2390/

* nonstandard supplies

Machine Taps

M | 60° P | **DIN 13** | typ **N** | **HSSE** | **DIN 371** | **DIN 376** | C 2 - 3

Material group
(**X.X** recommended use; X.X possible use)

10.1; 2.2

4400

2.2; 10.1; 6.2

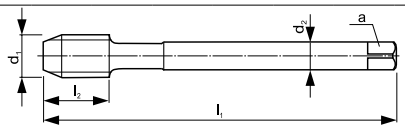
4410

1.1; 1.2; 2.1; 2.2; 8.1; 9.1

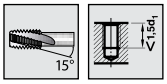
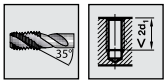
4360

1.2; 1.1; 2.1; 8.1

4390



z = number of flutes

Cat. No.								4400	4410	4360	4390
									TiN	TiN	OX
											
d_1	P	l_1	l_2	d_2	a	z	Ø mm				
M 3	0,5	56	5	2,2	-	3	2,5	M3 /4400/	M3 /4410/	M3 /4360/	M3 /4390/
M 3,5	0,6	56	6	2,5	2,1	3	2,9	M3,5 /4400/*	M3,5 /4410/*	M3,5 /4360/*	M3,5 /4390/*
M 4	0,7	63	7	2,8	2,1	3	3,3	M4 /4400/	M4 /4410/	M4 /4360/	M4 /4390/
M 4,5	0,75	70	8	3,5	2,7	3	3,7	M4,5 /4400/*	M4,5 /4410/*	M4,5 /4360/*	M4,5 /4390/*
M 5	0,8	70	8	3,5	2,7	3	4,2	M5 /4400/	M5 /4410/	M5 /4360/	M5 /4390/
M 6	1	80	10	4,5	3,4	3	5	M6 /4400/	M6 /4410/	M6 /4360/	M6 /4390/
M 7	1	80	10	5,5	4,3	3	6	M7 /4400/*	M7 /4410/*	M7 /4360/*	M7 /4390/*
M 8	1,25	90	13	6	4,9	3	6,8	M8 /4400/	M8 /4410/	M8 /4360/	M8 /4390/
M 9	1,25	90	13	7	5,5	3	7,8	M9 /4400/*	M9 /4410/*	M9 /4360/*	M9 /4390/*
M 10	1,5	100	15	7	5,5	3	8,5	M10 /4400/	M10 /4410/	M10 /4360/	M10 /4390/
M 11	1,5	100	15	8	6,2	3	9,5	M11 /4400/*	M11 /4410/*	M11 /4360/*	M11 /4390/*
M 12	1,75	110	18	9	7	3	10,2	M12 /4400/	M12 /4410/	M12 /4360/	M12 /4390/
M 14	2	110	20	11	9	3	12	M14 /4400/	M14 /4410/	M14 /4360/	M14 /4390/
M 16	2	110	20	12	9	4	14	M16 /4400/	M16 /4410/	M16 /4360/	M16 /4390/
M 18	2,5	125	25	14	11	4	15,5	M18 /4400/	M18 /4410/	M18 /4360/	M18 /4390/
M 20	2,5	140	25	16	12	4	17,5	M20 /4400/	M20 /4410/	M20 /4360/	M20 /4390/
M 22	2,5	140	25	18	14,5	4	19,5	M22 /4400/	M22 /4410/	M22 /4360/*	M22 /4390/*
M 24	3	160	30	18	14,5	4	21	M24 /4400/	M24 /4410/	M24 /4360/*	M24 /4390/*
M 27	3	160	30	20	16	4	24	M27 /4400/*	M27 /4410/*	M27 /4360/*	M27 /4390/*
M 30	3,5	180	35	22	18	4	26,5	M30 /4400/*	M30 /4410/*	M30 /4360/*	M30 /4390/*
M 33	3,5	180	35	25	20	4	29,5	M33 /4400/*	M33 /4410/*	M33 /4360/*	M33 /4390/*
M 36	4	200	40	28	22	4	32	M36 /4400/*	M36 /4410/*	M36 /4360/*	M36 /4390/*

* nonstandard supplies

M | 60° P | DIN 13 | typ VA | HSSE | DIN 371 | ISO 2 6H | B 3,5 - 6 | >1,5d₁

Material group
(**X.X** recommended use; X.X possible use)

3.1; 5.1; 5.2; 9.1; 10.2

1660

3.1; 5.1; 5.2

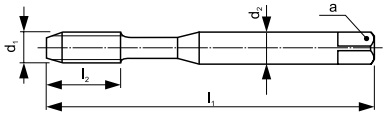
1690

3.1; 5.1; 5.2; 9.1; 10.2; 3.3

1870

3.1; 5.1; 5.2; 9.1; 10.2; 3.3

1870 IKZN



z = number of flutes

Cat. No.								1660	1690	1870	1870 IKZN
								TiN	OX	HL HSSE PM	HL HSSE PM / IKZN
d_1	P	l_1	l_2	d_2	a	z	Ø mm				
M 3	0,5	56	9	3,5	2,7	3	2,5	M3 /1660/	M3 /1690/	M3 /1870/	M3 /1870/*
M 3,5	0,6	56	11	4	3	3	2,9	M3,5 /1660/*	M3,5 /1690/*	M3,5 /1870/*	M3,5 /1870/*
M 4	0,7	63	12	4,5	3,4	3	3,3	M4 /1660/	M4 /1690/	M4 /1870/	M4 /1870/*
M 4,5	0,75	70	13	6	4,9	3	3,7	M4,5 /1660/*	M4,5 /1690/*	M4,5 /1870/*	M4,5 /1870/*
M 5	0,8	70	13	6	4,9	3	4,2	M5 /1660/	M5 /1690/	M5 /1870/	M5 /1870/*
M 6	1	80	15	6	4,9	3	5	M6 /1660/	M6 /1690/	M6 /1870/	M6 /1870/
M 7	1	80	15	7	5,5	3	6	M7 /1660/*	M7 /1690/*	M7 /1870/*	M7 /1870/*
M 8	1,25	90	18	8	6,2	3	6,8	M8 /1660/	M8 /1690/	M8 /1870/	M8 /1870/
M 9	1,25	90	18	9	7	3	7,8	M9 /1660/*	M9 /1690/*	M9 /1870/*	M9 /1870/*
M 10	1,5	100	20	10	8	3	8,5	M10 /1660/	M10 /1690/	M10 /1870/	M10 /1870/

* nonstandard supplies

Machine Taps

M | 60° P | DIN 13 | typ VA | HSSE | DIN 376 | ISO 2 6H | B 3,5 - 6 | ≥ 1,5d1

Material group
(**X.X** recommended use; X.X possible use)

3.1; 5.1; 5.2; 9.1; 10.2

3660

3.1; 5.1; 5.2

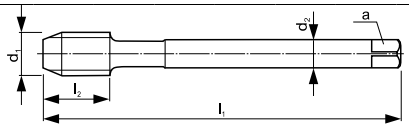
3690

3.1; 5.1; 5.2; 9.1; 10.2; 3.3

3870

3.1; 5.1; 5.2; 9.1; 10.2; 3.3

3870 IKZN



z = number of flutes

Cat. No.								3660	3690	3870	3870 IKZN
								TiN	OX	HL HSSE PM	HL HSSE PM / IKZN
d_1	P	l_1	l_2	d_2	a	z	Ø mm				
M 3	0,5	56	9	2,2	-	3	2,5	M3 /3660/	M3 /3690/	M3 /3870/*	M3 /3870/*
M 3,5	0,6	56	11	2,5	2,1	3	2,9	M3,5 /3660/*	M3,5 /3690/*	M3,5 /3870/*	M3,5 /3870/*
M 4	0,7	63	12	2,8	2,1	3	3,3	M4 /3660/	M4 /3690/	M4 /3870/*	M4 /3870/*
M 4,5	0,75	70	13	3,5	2,7	3	3,7	M4,5 /3660/*	M4,5 /3690/*	M4,5 /3870/*	M4,5 /3870/*
M 5	0,8	70	13	3,5	2,7	3	4,2	M5 /3660/	M5 /3690/	M5 /3870/*	M5 /3870/*
M 6	1	80	15	4,5	3,4	3	5	M6 /3660/	M6 /3690/	M6 /3870/*	M6 /3870/*
M 7	1	80	15	5,5	4,3	3	6	M7 /3660/*	M7 /3690/*	M7 /3870/*	M7 /3870/*
M 8	1,25	90	18	6	4,9	3	6,8	M8 /3660/	M8 /3690/	M8 /3870/*	M8 /3870/*
M 9	1,25	90	18	7	5,5	3	7,8	M9 /3660/	M9 /3690/	M9 /3870/*	M9 /3870/*
M 10	1,5	100	20	7	5,5	3	8,5	M10 /3660/	M10 /3690/	M10 /3870/*	M10 /3870/*
M 11	1,5	100	20	8	6,2	3	9,5	M11 /3660/*	M11 /3690/*	M11 /3870/*	M11 /3870/*
M 12	1,75	110	23	9	7	3	10,2	M12 /3660/	M12 /3690/	M12 /3870/	M12 /3870/
M 14	2	110	25	11	9	3	12	M14 /3660/	M14 /3690/	M14 /3870/*	M14 /3870/*
M 16	2	110	25	12	9	3	14	M16 /3660/	M16 /3690/	M16 /3870/*	M16 /3870/*
M 18	2,5	125	30	14	11	3	15,5	M18 /3660/	M18 /3690/	M18 /3870/*	M18 /3870/*
M 20	2,5	140	30	16	12	3	17,5	M20 /3660/	M20 /3690/	M20 /3870/*	M20 /3870/*
M 22	2,5	140	30	18	14,5	3	19,5	M22 /3660/	M22 /3690/	M22 /3870/*	M22 /3870/*
M 24	3	160	36	18	14,5	4	21	M24 /3660/	M24 /3690/	M24 /3870/*	M24 /3870/*
M 27	3	160	36	20	16	4	24	M27 /3660/	M27 /3690/	M27 /3870/*	M27 /3870/*
M 30	3,5	180	40	22	18	4	26,5	M30 /3660/	M30 /3690/	M30 /3870/*	M30 /3870/*
M 33	3,5	180	42	25	20	4	29,5	M33 /3660/*	M33 /3690/*	M33 /3870/*	M33 /3870/*
M 36	4	200	50	28	22	4	32	M36 /3660/*	M36 /3690/*	M36 /3870/*	M36 /3870/*

* nonstandard supplies

M | 60° P | DIN 13 | typ VA | HSSE | DIN 371 | ISO 2 6H | C 2 - 3 | 35° | 2d1 V

Material group
(**X.X** recommended use; X.X possible use)

3.1; 3.3; 5.1; 5.2; 6.2; 9.1; 10.1

2260

3.1; 5.1; 5.2

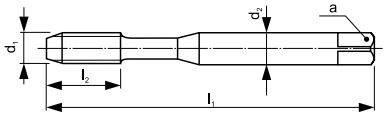
2290

3.1; 3.3; 5.1; 5.2; 6.2; 9.1; 10.1

2320

3.1; 5.1; 5.2

2320 IKZ



z = number of flutes

Cat. No.								2260	2290	2320	2320 IKZ
								TiN	OX	HL HSSE PM	HL HSSE PM IKZ
d_1	P	l_1	l_2	d_2	a	z	Ø mm				
M 3	0,5	56	5	3,5	2,7	3	2,5	M3 /2260/	M3 /2290/	M3 /2320/	M3 /2320/*
M 3,5	0,6	56	6	4	3	3	2,9	M3,5 /2260/*	M3,5 /2290/*	M3,5 /2320/*	M3,5 /2320/*
M 4	0,7	63	7	4,5	3,4	3	3,3	M4 /2260/	M4 /2290/	M4 /2320/	M4 /2320/*
M 4,5	0,75	70	8	6	4,9	3	3,7	M4,5 /2260/*	M4,5 /2290/*	M4,5 /2320/*	M4,5 /2320/*
M 5	0,8	70	8	6	4,9	3	4,2	M5 /2260/	M5 /2290/	M5 /2320/	M5 /2320/*
M 6	1	80	10	6	4,9	3	5	M6 /2260/	M6 /2290/	M6 /2320/	M6 /2320/
M 7	1	80	10	7	5,5	3	6	M7 /2260/*	M7 /2290/*	M7 /2320/*	M7 /2320/*
M 8	1,25	90	13	8	6,2	3	6,8	M8 /2260/	M8 /2290/	M8 /2320/	M8 /2320/
M 9	1,25	90	13	9	7	3	7,8	M9 /2260/*	M9 /2290/*	M9 /2320/*	M9 /2320/*
M 10	1,5	100	15	10	8	3	8,5	M10 /2260/	M10 /2290/	M10 /2320/	M10 /2320/

* nonstandard supplies

Machine Taps

M | 60° P | DIN 13 | typ VA | HSSE | DIN 376 | ISO 2 6H | C 2 - 3 | 35° | ≤ 2d

Material group
(**X.X** recommended use; X.X possible use)

3.1; 3.3; 5.1; 5.2; 6.2; 9.1; 10.1

4260

3.1; 5.1; 5.2

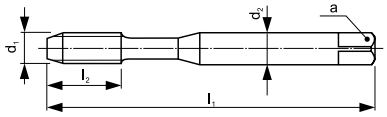
4290

3.1; 3.3; 5.1; 5.2; 6.2; 9.1; 10.1

4320

3.1; 3.3; 5.1; 5.2; 6.2; 9.1; 10.1

4320 IKZ



z = number of flutes

Cat. No.								4260	4290	4320	4320 IKZ
								TiN	OX	HL HSSE PM	HL HSSE PM / IKZ
d_1	P	l_1	l_2	d_2	a	z	Ø mm				
M 3	0,5	56	5	2,2	-	3	2,5	M3 /4260/	M3 /4290/	M3 /4320/*	M3 /4320/*
M 3,5	0,6	56	6	2,5	2,1	3	2,9	M3,5 /4260/*	M3,5 /4290/*	M3,5 /4320/*	M3,5 /4320/*
M 4	0,7	63	7	2,8	2,1	3	3,3	M4 /4260/	M4 /4290/	M4 /4320/*	M4 /4320/*
M 4,5	0,75	70	8	3,5	2,7	3	3,7	M4,5 /4260/*	M4,5 /4290/*	M4,5 /4320/*	M4,5 /4320/*
M 5	0,8	70	8	3,5	2,7	3	4,2	M5 /4260/	M5 /4290/	M5 /4320/*	M5 /4320/*
M 6	1	80	10	4,5	3,4	3	5	M6 /4260/	M6 /4290/	M6 /4320/*	M6 /4320/*
M 7	1	80	10	5,5	4,3	3	6	M7 /4260/*	M7 /4290/*	M7 /4320/*	M7 /4320/*
M 8	1,25	90	13	6	4,9	3	6,8	M8 /4260/	M8 /4290/	M8 /4320/*	M8 /4320/*
M 9	1,25	90	13	7	5,5	3	7,8	M9 /4260/*	M9 /4290/*	M9 /4320/*	M9 /4320/*
M 10	1,5	100	15	7	5,5	3	8,5	M10 /4260/	M10 /4290/	M10 /4320/*	M10 /4320/*
M 11	1,5	100	15	8	6,2	3	9,5	M11 /4260/*	M11 /4290/*	M11 /4320/*	M11 /4320/*
M 12	1,75	110	18	9	7	3	10,2	M12 /4260/	M12 /4290/	M12 /4320/	M12 /4320/
M 14	2	110	20	11	9	3	12	M14 /4260/	M14 /4290/	M14 /4320/*	M14 /4320/*
M 16	2	110	20	12	9	4	14	M16 /4260/	M16 /4290/	M16 /4320/*	M16 /4320/*
M 18	2,5	125	25	14	11	4	15,5	M18 /4260/	M18 /4290/	M18 /4320/*	M18 /4320/*
M 20	2,5	140	25	16	12	4	17,5	M20 /4260/	M20 /4290/	M20 /4320/*	M20 /4320/*
M 22	2,5	140	25	18	14,5	4	19,5	M22 /4260/	M22 /4290/	M22 /4320/*	M22 /4320/*
M 24	3	160	30	18	14,5	4	21	M24 /4260/	M24 /4290/	M24 /4320/*	M24 /4320/*
M 27	3	160	30	20	16	4	24	M27 /4260/	M27 /4290/	M27 /4320/*	M27 /4320/*
M 30	3,5	180	35	22	18	4	26,5	M30 /4260/	M30 /4290/	M30 /4320/*	M30 /4320/*
M 33	3,5	180	35	25	20	4	29,5	M33 /4260/*	M33 /4290/*	M33 /4320/*	M33 /4320/*
M 36	4	200	40	28	22	4	32	M36 /4260/*	M36 /4290/*	M36 /4320/*	M36 /4320/*

* nonstandard supplies

M | 60° P | **DIN 13** | typ **H** | **HSSE V3** | **DIN 371** | **ISO 2 6H**

Material group
(**X.X** recommended use; X.X possible use)

3.1; 3.2; 3.3; 8.1; 6.2

1580

3.2; 8.2

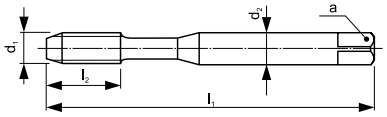
1590

3.2; 8.2; 3.1; 3.3; 6.2

2680

3.2

2690



z = number of flutes

Cat. No.									1580	1590	2680	2690
									TiCN	OX	TiCN	OX
									B 3,5 - 6		C 2 - 3	
d_1	P	l_1	l_2	l_2 R40°	d_2	a	z	Ø mm				
M 3	0,5	56	9	5	3,5	2,7	3	2,5	M3 /1580/	M3 /1590/	M3 /2680/	M3 /2690/
M 3,5	0,6	56	11	6	4	3	3	2,9	M3,5 /1580/*	M3,5 /1590/*	M3,5 /2680/*	M3,5 /2690/*
M 4	0,7	63	12	7	4,5	3,4	3	3,3	M4 /1580/	M4 /1590/	M4 /2680/	M4 /2690/
M 4,5	0,75	70	13	8	6	4,9	3	3,7	M4,5 /1580/*	M4,5 /1590/*	M4,5 /2680/*	M4,5 /2690/*
M 5	0,8	70	13	8	6	4,9	3	4,2	M5 /1580/	M5 /1590/	M5 /2680/	M5 /2690/
M 6	1	80	15	10	6	4,9	3	5	M6 /1580/	M6 /1590/	M6 /2680/	M6 /2690/
M 7	1	80	15	10	7	5,5	3	6	M7 /1580/*	M7 /1590/*	M7 /2680/*	M7 /2690/*
M 8	1,25	90	18	13	8	6,2	3	6,8	M8 /1580/	M8 /1590/	M8 /2680/	M8 /2690/
M 9	1,25	90	18	13	9	7	3	7,8	M9 /1580/*	M9 /1590/*	M9 /2680/*	M9 /2690/*
M 10	1,5	100	20	15	10	8	3	8,5	M10 /1580/	M10 /1590/	M10 /2680/	M10 /2690/

* nonstandard supplies

Machine Taps

M | 60° P | **DIN 13** | **typ H** | **HSSE V3** | **DIN 376** | **ISO 2 6H**

Material group
(**X.X** recommended use; X.X possible use)

3.1; 3.2; 3.3; 8.1; 6.2

3580

3.2; 8.2

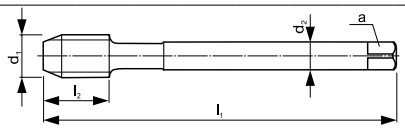
3590

3.2; 8.2; 3.1; 3.3; 6.2

4680

3.2

4690



z = number of flutes

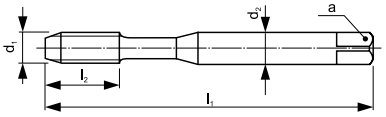
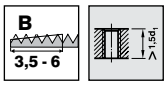
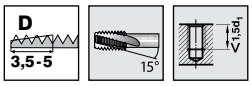
Cat. No.									3580	3590	4680	4690
									TiCN	OX	TiCN	OX
									B 3,5 - 6		C 2 - 3 40°	
d_1	P	l_1	l_2	$l_2^{R40°}$	d_2	a	z / $z^{R40°}$	Ø mm				
M 3	0,5	56	9	5	2,2	-	3/3	2,5	M3 /3580/	M3 /3590/	M3 /4680/	M3 /4690/
M 3,5	0,6	56	11	6	2,5	2,1	3/3	2,9	M3,5 /3580/*	M3,5 /3590/*	M3,5 /4680/*	M3,5 /4690/*
M 4	0,7	63	12	7	2,8	2,1	3/3	3,3	M4 /3580/	M4 /3590/	M4 /4680/	M4 /4690/
M 4,5	0,75	70	13	8	3,5	2,7	3/3	3,7	M4,5 /3580/*	M4,5 /3590/*	M4,5 /4680/*	M4,5 /4690/*
M 5	0,8	70	13	8	3,5	2,7	3/3	4,2	M5 /3580/	M5 /3590/	M5 /4680/	M5 /4690/
M 6	1	80	15	10	4,5	3,4	3/3	5	M6 /3580/	M6 /3590/	M6 /4680/	M6 /4690/
M 7	1	80	15	10	5,5	4,3	3/3	6	M7 /3580/*	M7 /3590/*	M7 /4680/*	M7 /4690/*
M 8	1,25	90	18	13	6	4,9	3/3	6,8	M8 /3580/	M8 /3590/	M8 /4680/	M8 /4690/
M 9	1,25	90	18	13	7	5,5	3/3	7,8	M9 /3580/*	M9 /3590/*	M9 /4680/*	M9 /4690/*
M 10	1,5	100	20	15	7	5,5	3/3	8,5	M10 /3580/	M10 /3590/	M10 /4680/	M10 /4690/
M 11	1,5	100	20	15	8	6,2	3/3	9,5	M11 /3580/*	M11 /3590/*	M11 /4680/*	M11 /4690/*
M 12	1,75	110	23	18	9	7	3/4	10,2	M12 /3580/	M12 /3590/	M12 /4680/	M12 /4690/
M 14	2	110	25	20	11	9	3/4	12	M14 /3580/	M14 /3590/	M14 /4680/	M14 /4690/
M 16	2	110	25	20	12	9	3/4	14	M16 /3580/	M16 /3590/	M16 /4680/	M16 /4690/
M 18	2,5	125	30	25	14	11	3/4	15,5	M18 /3580/	M18 /3590/	M18 /4680/	M18 /4690/
M 20	2,5	140	30	25	16	12	3/4	17,5	M20 /3580/	M20 /3590/	M20 /4680/	M20 /4690/
M 22	2,5	140	30	25	18	14,5	3/4	19,5	M22 /3580/	M22 /3590/	M22 /4680/	M22 /4690/
M 24	3	160	36	30	18	14,5	4/4	21	M24 /3580/	M24 /3590/	M24 /4680/	M24 /4690/
M 27	3	160	36	30	20	16	4/4	24	M27 /3580/	M27 /3590/	M27 /4680/	M27 /4690/
M 30	3,5	180	40	35	22	18	4/5	26,5	M30 /3580/	M30 /3590/	M30 /4680/	M30 /4690/
M 33	3,5	180	42	35	25	20	4/5	29,5	M33 /3580/*	M33 /3590/*	M33 /4680/*	M33 /4690/*
M 36	4	200	50	40	28	22	4/5	32	M36 /3580/*	M36 /3590/*	M36 /4680/*	M36 /4690/*

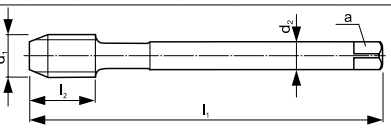
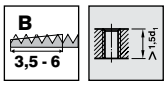
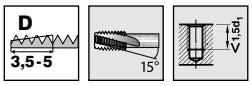
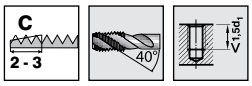
* nonstandard supplies

M | 60° P | **DIN 13** | typ **H** | **HSSE PM** | **DIN 371** | **DIN 376** | **ISO 2 6H**

Material group
(**X.X** recommended use; X.X possible use)

4.2; 4.1		**1920**
4.2; 4.1		**3920**
4.2; 4.1		**2820**
4.2; 4.1		**4820**
4.1; 4.2		**2870**
4.1; 4.2		**4870**

Cat. No.									1920	2820	2870
DIN 371  z = number of flutes									**FNT** 	**FNT** 	**FNT**
d_1	P	l_1	l_2	l_2 R40°	d_2	a	z	Ø mm			
M 3	0,5	56	9	5	3,5	2,7	3	2,5	M3 /1920/	M3 /2820/	M3 /2870/
M 3,5	0,6	56	11	6	4	3	3	2,9	M3,5 /1920/*	M3,5 /2820/*	M3,5 /2870/*
M 4	0,7	63	12	7	4,5	3,4	3	3,3	M4 /1920/	M4 /2820/	M4 /2870/
M 4,5	0,75	70	13	8	6	4,9	3	3,7	M4,5 /1920/*	M4,5 /2820/*	M4,5 /2870/*
M 5	0,8	70	13	8	6	4,9	3	4,2	M5 /1920/	M5 /2820/	M5 /2870/
M 6	1	80	15	10	6	4,9	3	5	M6 /1920/	M6 /2820/	M6 /2870/
M 7	1	80	15	10	7	5,5	3	6	M7 /1920/*	M7 /2820/*	M7 /2870/*
M 8	1,25	90	18	13	8	6,2	3	6,8	M8 /1920/	M8 /2820/	M8 /2870/
M 9	1,25	90	18	13	9	7	3	7,8	M9 /1920/*	M9 /2820/*	M9 /2870/*
M 10	1,5	100	20	15	10	8	3	8,5	M10 /1920/	M10 /2820/	M10 /2870/

Cat. No.									3920	4820	4870
DIN 376  z = number of flutes									**FNT** 	**FNT** 	**FNT** 
d_1	P	l_1	l_2	l_2 R40°	d_2	a	z	Ø mm			
M 12	1,75	110	23	18	9	7	3	10,2	M12 /3920/	M12 /4820/	M12 /4870/

* nonstandard supplies

Machine Taps

M | 60° P | **DIN 13** | **typ Al** | **HSSE** | **DIN 371** | **DIN 376** | **ISO 2 6H**

Material group
(**X.X** recommended use; X.X possible use)

7.1

1610

7.1

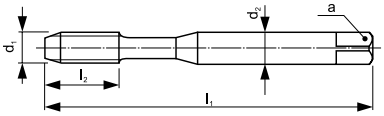
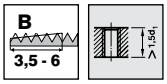
3610

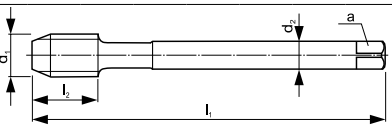
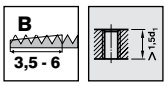
7.1

2710

7.1

4710

Cat. No.									1610	2710
DIN 371  z = number of flutes									**TiN** 	**TiN**
d_1	P	l_1	l_2	l_2 R45°	d_2	a	z / z R45°	Ø mm		
M 3	0,5	56	9	5	3,5	2,7	3/2	2,5	M3 /1610/	M3 /2710/
M 3,5	0,6	56	11	6	4	3	3/2	2,9	M3,5 /1610/*	M3,5 /2710/
M 4	0,7	63	12	7	4,5	3,4	3/2	3,3	M4 /1610/	M4 /2710/
M 4,5	0,75	70	13	8	6	4,9	3/2	3,7	M4,5 /1610/*	M4,5 /2710/*
M 5	0,8	70	13	8	6	4,9	3/2	4,2	M5 /1610/	M5 /2710/
M 6	1	80	15	10	6	4,9	3/2	5	M6 /1610/	M6 /2710/
M 7	1	80	15	10	7	5,5	3/2	6	M7 /1610/*	M7 /2710/*
M 8	1,25	90	18	13	8	6,2	3/2	6,8	M8 /1610/	M8 /2710/
M 9	1,25	90	18	13	9	7	3/2	7,8	M9 /1610/*	M9 /2710/*
M 10	1,5	100	20	15	10	8	3/2	8,5	M10 /1610/	M10 /2710/

Cat. No.									3610	4710
DIN 376  z = number of flutes									**TiN** 	**TiN**
d_1	P	l_1	l_2	l_2 R45°	d_2	a	z / z R45°	Ø mm		
M 3	0,5	56	9	5	2,2	-	3/2	2,5	M3 /3610/	M3 /4710/
M 3,5	0,6	56	11	6	2,5	2,1	3/2	2,9	M3,5 /3610/*	M3,5 /4710/*
M 4	0,7	63	12	7	2,8	2,1	3/2	3,3	M4 /3610/	M4 /4710/
M 4,5	0,75	70	13	8	3,5	2,7	3/2	3,7	M4,5 /3610/*	M4,5 /4710/*
M 5	0,8	70	13	8	3,5	2,7	3/2	4,2	M5 /3610/	M5 /4710/
M 6	1	80	15	10	4,5	3,4	3/2	5	M6 /3610/	M6 /4710/
M 7	1	80	15	10	5,5	4,3	3/2	6	M7 /3610/*	M7 /4710/*
M 8	1,25	90	18	13	6	4,9	3/2	6,8	M8 /3610/	M8 /4710/
M 9	1,25	90	18	13	7	5,5	3/2	7,8	M9 /3610/*	M9 /4710/*
M 10	1,5	100	20	15	7	5,5	3/2	8,5	M10 /3610/	M10 /4710/
M 11	1,5	100	20	15	8	6,2	3/2	9,5	M11 /3610/*	M11 /4710/*
M 12	1,75	110	23	18	9	7	3/2	10,2	M12 /3610/	M12 /4710/
M 14	2	110	25	20	11	9	3/2	12	M14 /3610/	M14 /4710/
M 16	2	110	25	20	12	9	3/2	14	M16 /3610/	M16 /4710/
M 18	2,5	125	30	25	14	11	3/3	15,5	M18 /3610/	M18 /4710/
M 20	2,5	140	30	25	16	12	3/3	17,5	M20 /3610/	M20 /4710/
M 22	2,5	140	30	25	18	14,5	3/3	19,5	M22 /3610/*	M22 /4710/*
M 24	3	160	36	30	18	14,5	4/3	21	M24 /3610/*	M24 /4710/*
M 27	3	160	36	30	20	16	4/3	24	M27 /3610/*	M27 /4710/*
M 30	3,5	180	40	35	22	18	4/3	26,5	M30 /3610/*	M30 /4710/*
M 33	3,5	180	42	35	25	20	4/3	29,5	M33 /3610/*	M33 /4710/*
M 36	4	200	50	40	28	22	4/3	32	M36 /3610/*	M36 /4710/*

* nonstandard supplies

M | 60° P | **DIN 13** | typ **GG** | **HSSE** | **DIN 371** | **ISO 2 6HX** | >1,5d1 | <2,5d1

Material group
(**X.X** recommended use; X.X possible use)

6.1; 8.2

1080

6.1; 8.2

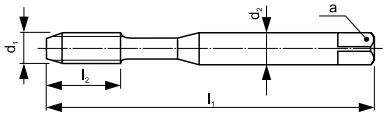
1080 IKZ

6.1; 8.2

1130

6.1; 8.2

1130 IKZ



z = počet drážek / z = number of flutes

Cat. No.								1080	1080 IKZ	1130	1130 IKZ
								TiCN	TiCN	TiCN	TiCN
								C 2 - 3	C 2 - 3 IKZ	E 1,5	E 1,5 IKZ
d_1	P	l_1	l_2	d_2	a	z	Ø mm				
M 3	0,5	56	9	3,5	2,7	3	2,5	M3 /1080/	M3 /1080/*	M3 /1130/	M3 /1130/*
M 3,5	0,6	56	11	4	3	3	2,9	M3,5 /1080/*	M3,5 /1080/*	M3,5 /1130/*	M3,5 /1130/*
M 4	0,7	63	12	4,5	3,4	3	3,3	M4 /1080/	M4 /1080/*	M4 /1130/	M4 /1130/*
M 4,5	0,75	70	13	6	4,9	3	3,7	M4,5 /1080/*	M4,5 /1080/*	M4,5 /1130/*	M4,5 /1130/*
M 5	0,8	70	13	6	4,9	3	4,2	M5 /1080/	M5 /1080/	M5 /1130/	M5 /1130/
M 6	1	80	15	6	4,9	3	5	M6 /1080/	M6 /1080/	M6 /1130/	M6 /1130/
M 7	1	80	15	7	5,5	3	6	M7 /1080/*	M7 /1080/*	M7 /1130/*	M7 /1130/*
M 8	1,25	90	18	8	6,2	4	6,8	M8 /1080/	M8 /1080/	M8 /1130/	M8 /1130/
M 9	1,25	90	18	9	7	4	7,8	M9 /1080/*	M9 /1080/*	M9 /1130/*	M9 /1130/*
M 10	1,5	100	20	10	8	4	8,5	M10 /1080/	M10 /1080/	M10 /1130/	M10 /1130/

* nonstandard supplies

Machine Taps

M | 60° P | DIN 13 | typ GG | HSSE | DIN 376 | ISO 2 6HX | 1,5d1 | 2,5d1

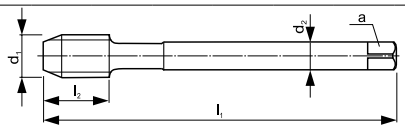
Material group
(**X.X** recommended use; X.X possible use)

6.1; 8.2 **3080**

6.1; 8.2 **3080 IKZ**

6.1; 8.2 **3130**

6.1; 8.2 **3130 IKZ**



z = number of flutes

Cat. No.								3080	3080 IKZ	3130	3130 IKZ
								TiCN	TiCN	TiCN	TiCN
								C 2 - 3	C 2 - 3 IKZ	E 1,5	E 1,5 IKZ
d_1	P	l_1	l_2	d_2	a	z	Ø mm				
M 3	0,5	56	9	2,2	-	3	2,5	M3 /3080/	M3 /3080/*	M3 /3130/	M3 /3130/*
M 3,5	0,6	56	11	2,5	2,1	3	2,9	M3,5 /3080/*	M3,5 /3080/*	M3,5 /3130/*	M3,5 /3130/*
M 4	0,7	63	12	2,8	2,1	3	3,3	M4 /3080/	M4 /3080/*	M4 /3130/	M4 /3130/*
M 4,5	0,75	70	13	3,5	2,7	3	3,7	M4,5 /3080/*	M4,5 /3080/*	M4,5 /3130/*	M4,5 /3130/*
M 5	0,8	70	13	3,5	2,7	3	4,2	M5 /3080/	M5 /3080/	M5 /3130/	M5 /3130/
M 6	1	80	15	4,5	3,4	3	5	M6 /3080/	M6 /3080/	M6 /3130/	M6 /3130/
M 7	1	80	15	5,5	4,3	3	6	M7 /3080/*	M7 /3080/*	M7 /3130/*	M7 /3130/*
M 8	1,25	90	18	6	4,9	4	6,8	M8 /3080/	M8 /3080/	M8 /3130/	M8 /3130/
M 9	1,25	90	18	7	5,5	4	7,8	M9 /3080/*	M9 /3080/*	M9 /3130/*	M9 /3130/*
M 10	1,5	100	20	7	5,5	4	8,5	M10 /3080/	M10 /3080/	M10 /3130/	M10 /3130/
M 11	1,5	100	20	8	6,2	4	9,5	M11 /3080/*	M11 /3080/*	M11 /3130/*	M11 /3130/*
M 12	1,75	110	23	9	7	4	10,2	M12 /3080/	M12 /3080/	M12 /3130/	M12 /3130/
M 14	2	110	25	11	9	4	12	M14 /3080/	M14 /3080/	M14 /3130/	M14 /3130/
M 16	2	110	25	12	9	4	14	M16 /3080/	M16 /3080/*	M16 /3130/	M16 /3130/*
M 18	2,5	125	30	14	11	4	15,5	M18 /3080/	M18 /3080/*	M18 /3130/	M18 /3130/*
M 20	2,5	140	30	16	12	4	17,5	M20 /3080/	M20 /3080/*	M20 /3130/	M20 /3130/*
M 22	2,5	140	30	18	14,5	4	19,5	M22 /3080/	M22 /3080/*	M22 /3130/	M22 /3130/*
M 24	3	160	36	18	14,5	4	21	M24 /3080/	M24 /3080/*	M24 /3130/	M24 /3130/*
M 27	3	160	36	20	16	4	24	M27 /3080/	M27 /3080/*	M27 /3130/	M27 /3130/*
M 30	3,5	180	40	22	18	4	26,5	M30 /3080/	M30 /3080/*	M30 /3130/	M30 /3130/*
M 33	3,5	180	42	25	20	5	29,5	M33 /3080/*	M33 /3080/*	M33 /3130/*	M33 /3130/*
M 36	4	200	50	28	22	5	32	M36 /3080/*	M36 /3080/*	M36 /3130/*	M36 /3130/*

* nonstandard supplies

M | 60° P | **DIN 13** | typ **UNI** | **HSSE V3** | **DIN 371** | **DIN 376** | **ISO 2 6H**

Material group
(**X.X** recommended use; X.X possible use)

2.2; 3.1; 3.2; 8.1; 10.2; 2.1; 3.3; 5.1; 5.2; 6.1; 6.2; 8.2

1710

2.2; 3.1; 3.2; 8.1; 10.2; 2.1; 3.3; 5.1; 5.2; 6.1; 6.2; 8.2

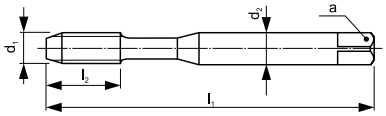
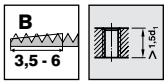
3710

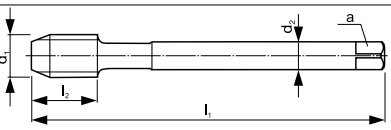
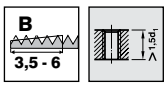
2.2; 3.1; 3.2; 8.1; 10.2; 2.1; 3.3; 5.1; 5.2; 6.1; 6.2; 8.2

2210

2.2; 3.1; 3.2; 8.1; 10.2; 2.1; 3.3; 5.1; 5.2; 6.1; 6.2; 8.2

4210

Cat. No.									1710	2210
DIN 371  z = number of flutes									TiN 	TiN
d_1	P	l_1	l_2	$l_2^{R35°}$	d_2	a	$z/z^{R35°}$	Ø mm		
M 3	0,5	56	9	5	3,5	2,7	3	2,5	M3 /1710/	M3 /2210/
M 3,5	0,6	56	11	6	4	3	3	2,9	M3,5 /1710/*	M3,5 /2210/*
M 4	0,7	63	12	7	4,5	3,4	3	3,3	M4 /1710/	M4 /2210/
M 4,5	0,75	70	13	8	6	4,9	3	3,7	M4,5 /1710/*	M4,5 /2210/*
M 5	0,8	70	13	8	6	4,9	3	4,2	M5 /1710/	M5 /2210/
M 6	1	80	15	10	6	4,9	3	5	M6 /1710/	M6 /2210/
M 7	1	80	15	10	7	5,5	3	6	M7 /1710/*	M7 /2210/*
M 8	1,25	90	18	13	8	6,2	3	6,8	M8 /1710/	M8 /2210/
M 9	1,25	90	18	13	9	7	3	7,8	M9 /1710/*	M9 /2210/*
M 10	1,5	100	20	15	10	8	3	8,5	M10 /1710/	M10 /2210/

Cat. No.									3710	4210
DIN 376  z = number of flutes									TiN 	TiN
d_1	P	l_1	l_2	$l_2^{R35°}$	d_2	a	$z/z^{R35°}$	Ø mm		
M 3	0,5	56	9	5	2,2	-	3/3	2,5	M3 /3710/*	M3 /4210/*
M 3,5	0,6	56	11	6	2,5	2,1	3/3	2,9	M3,5 /3710/*	M3,5 /4210/*
M 4	0,7	63	12	7	2,8	2,1	3/3	3,3	M4 /3710/*	M4 /4210/*
M 4,5	0,75	70	13	8	3,5	2,7	3/3	3,7	M4,5 /3710/*	M4,5 /4210/*
M 5	0,8	70	13	8	3,5	2,7	3/3	4,2	M5 /3710/*	M5 /4210/*
M 6	1	80	15	10	4,5	3,4	3/3	5	M6 /3710/*	M6 /4210/*
M 7	1	80	15	10	5,5	4,3	3/3	6	M7 /3710/*	M7 /4210/*
M 8	1,25	90	18	13	6	4,9	3/3	6,8	M8 /3710/*	M8 /4210/*
M 9	1,25	90	18	13	7	5,5	3/3	7,8	M9 /3710/*	M9 /4210/*
M 10	1,5	100	20	15	7	5,5	3/3	8,5	M10 /3710/*	M10 /4210/*
M 11	1,5	100	20	15	8	6,2	3/3	9,5	M11 /3710/*	M11 /4210/*
M 12	1,75	110	23	18	9	7	3/3	10,2	M12 /3710/	M12 /4210/
M 14	2	110	25	20	11	9	3/3	12	M14 /3710/	M14 /4210/
M 16	2	110	25	20	12	9	3/4	14	M16 /3710/	M16 /4210/
M 18	2,5	125	30	25	14	11	3/4	15,5	M18 /3710/	M18 /4210/
M 20	2,5	140	30	25	16	12	3/4	17,5	M20 /3710/	M20 /4210/

* nonstandard supplies

Machine Taps

MF | 60° P | **DIN 13** | **typ N** | **HSSE** | **DIN 374** | **ISO 2 6H**

Material group
(**X.X** recommended use; X.X possible use)

10.1; 1.1; 2.1; 6.1; 8.2

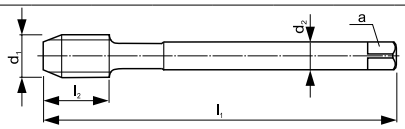
8.2; 10.1; 1.1; 2.1; 6.1

1.2; 2.2; 8.1; 1.1; 2.1; 2.3; 6.2; 8.2; 10.1

1.1; 1.2; 2.1; 2.2; 2.3; 6.2; 8.1; 8.2; 10.1

1.2; 2.2; 8.1; 11.1; 2.3; 8.2

3000
3010
3500
3510
3540



z = number of flutes

Cat. No.								3000	3010	3500	3510	3540
									TiN		TiN	OX
								C 2 - 3			B 3,5 - 6	
d_1	P	l_1	l_2	d_2	a	z	Ø mm					
M 3	0,35	56	8	2,2	-	3	2,65	M3x0,35 /3000/*	M3x0,35 /3010/*	M3x0,35 /3500/*	M3x0,35 /3510/*	M3x0,35 /3540/*
M 3,5	0,35	56	8	2,5	2,1	3	3,15	M3,5x0,35 /3000/*	M3,5x0,35 /3010/*	M3,5x0,35 /3500/*	M3,5x0,35 /3510/*	M3,5x0,35 /3540/*
M 4	0,5	63	12	2,8	2,1	3	3,5	M4x0,5 /3000/	M4x0,5 /3010/	M4x0,5 /3500/	M4x0,5 /3510/	M4x0,5 /3540/
M 4	0,35	63	12	2,8	2,1	3	3,65	M4x0,35 /3000/*	M4x0,35 /3010/*	M4x0,35 /3500/*	M4x0,35 /3510/*	M4x0,35 /3540/*
M 4,5	0,5	70	13	3,5	2,7	3	4	M4,5x0,5 /3000/	M4,5x0,5 /3010/	M4,5x0,5 /3500/	M4,5x0,5 /3510/	M4,5x0,5 /3540/
M 5	0,5	70	13	3,5	2,7	3	4,5	M5x0,5 /3000/	M5x0,5 /3010/	M5x0,5 /3500/	M5x0,5 /3510/	M5x0,5 /3540/
M 5,5	0,5	80	15	4	3	3	5	M5,5x0,5 /3000/*	M5,5x0,5 /3010/*	M5,5x0,5 /3500/*	M5,5x0,5 /3510/*	M5,5x0,5 /3540/*
M 6	0,75	80	15	4,5	3,4	3	5,2	M6x0,75 /3000/	M6x0,75 /3010/	M6x0,75 /3500/	M6x0,75 /3510/	M6x0,75 /3540/
M 6	0,5	80	15	4,5	3,4	3	5,5	M6x0,5 /3000/	M6x0,5 /3010/	M6x0,5 /3500/	M6x0,5 /3510/	M6x0,5 /3540/
M 7	0,75	80	15	5,5	4,3	3	6,2	M7x0,75 /3000/	M7x0,75 /3010/	M7x0,75 /3500/	M7x0,75 /3510/	M7x0,75 /3540/
M 8	1	90	18	6	4,9	3	7	M8x1 /3000/	M8x1 /3010/	M8x1 /3500/	M8x1 /3510/	M8x1 /3540/
M 8	0,75	80	15	6	4,9	3	7,2	M8x0,75 /3000/	M8x0,75 /3010/	M8x0,75 /3500/	M8x0,75 /3510/	M8x0,75 /3540/
M 8	0,5	80	15	6	4,9	3	7,5	M8x0,5 /3000/*	M8x0,5 /3010/*	M8x0,5 /3500/*	M8x0,5 /3510/*	M8x0,5 /3540/*
M 9	1	90	18	7	5,5	3	8	M9x1 /3000/	M9x1 /3010/	M9x1 /3500/*	M9x1 /3510/*	M9x1 /3540/*
M 9	0,75	80	18	7	5,5	3	8,2	M9x0,75 /3000/*	M9x0,75 /3010/*	M9x0,75 /3500/*	M9x0,75 /3510/*	M9x0,75 /3540/*
M 10	1,25	100	20	7	5,5	3	8,8	M10x1,25 /3000/	M10x1,25 /3010/	M10x1,25 /3500/	M10x1,25 /3510/	M10x1,25 /3540/
M 10	1	90	20	7	5,5	3	9	M10x1 /3000/	M10x1 /3010/	M10x1 /3500/	M10x1 /3510/	M10x1 /3540/
M 10	0,75	90	20	7	5,5	3	9,2	M10x0,75 /3000/	M10x0,75 /3010/	M10x0,75 /3500/	M10x0,75 /3510/	M10x0,75 /3540/
M 11	1	90	20	8	6,2	3	10	M11x1 /3000/	M11x1 /3010/	M11x1 /3500/*	M11x1 /3510/*	M11x1 /3540/*
M 11	0,75	90	20	8	6,2	3	10,2	M11x0,75 /3000/*	M11x0,75 /3010/*	M11x0,75 /3500/*	M11x0,75 /3510/*	M11x0,75 /3540/*
M 12	1,5	100	21	9	7	3	10,5	M12x1,5 /3000/	M12x1,5 /3010/	M12x1,5 /3500/	M12x1,5 /3510/	M12x1,5 /3540/
M 12	1,25	100	21	9	7	3	10,8	M12x1,25 /3000/	M12x1,25 /3010/	M12x1,25 /3500/	M12x1,25 /3510/	M12x1,25 /3540/
M 12	1	100	21	9	7	3	11	M12x1 /3000/	M12x1 /3010/	M12x1 /3500/	M12x1 /3510/	M12x1 /3540/
M 13	1	100	21	11	9	3	12	M13x1 /3000/*	M13x1 /3010/*	M13x1 /3500/*	M13x1 /3510/*	M13x1 /3540/*
M 14	1,5	100	21	11	9	3	12,5	M14x1,5 /3000/	M14x1,5 /3010/	M14x1,5 /3500/	M14x1,5 /3510/	M14x1,5 /3540/
M 14	1,25	100	21	11	9	3	12,8	M14x1,25 /3000/	M14x1,25 /3010/	M14x1,25 /3500/	M14x1,25 /3510/	M14x1,25 /3540/
M 14	1	100	21	11	9	3	13	M14x1 /3000/	M14x1 /3010/	M14x1 /3500/	M14x1 /3510/	M14x1 /3540/
M 15	1,5	100	21	12	9	3	13,5	M15x1,5 /3000/*	M15x1,5 /3010/*	M15x1,5 /3500/	M15x1,5 /3510/	M15x1,5 /3540/
M 15	1	100	21	12	9	3	14	M15x1 /3000/	M15x1 /3010/	M15x1 /3500/	M15x1 /3510/	M15x1 /3540/
M 16	1,5	100	21	12	9	3	14,5	M16x1,5 /3000/	M16x1,5 /3010/	M16x1,5 /3500/	M16x1,5 /3510/	M16x1,5 /3540/
M 16	1	100	21	12	9	3	15	M16x1 /3000/	M16x1 /3010/	M16x1 /3500/	M16x1 /3510/	M16x1 /3540/
M 17	1,5	100	21	12	9	3	15,5	M17x1,5 /3000/*	M17x1,5 /3010/*	M17x1,5 /3500/*	M17x1,5 /3510/*	M17x1,5 /3540/*
M 17	1	100	21	12	9	3	16	M17x1 /3000/	M17x1 /3010/	M17x1 /3500/*	M17x1 /3510/*	M17x1 /3540/*
M 18	2	125	24	14	11	3	16	M18x2 /3000/	M18x2 /3010/	M18x2 /3500/	M18x2 /3510/	M18x2 /3540/
M 18	1,5	110	24	14	11	3	16,5	M18x1,5 /3000/	M18x1,5 /3010/	M18x1,5 /3500/	M18x1,5 /3510/	M18x1,5 /3540/
M 18	1	110	24	14	11	3	17	M18x1 /3000/	M18x1 /3010/	M18x1 /3500/	M18x1 /3510/	M18x1 /3540/
M 20	2	140	30	16	12	3	18	M20x2 /3000/	M20x2 /3010/	M20x2 /3500/	M20x2 /3510/	M20x2 /3540/
M 20	1,5	125	24	16	12	3	18,5	M20x1,5 /3000/	M20x1,5 /3010/	M20x1,5 /3500/	M20x1,5 /3510/	M20x1,5 /3540/
M 20	1	125	24	16	12	3	19	M20x1 /3000/	M20x1 /3010/	M20x1 /3500/	M20x1 /3510/	M20x1 /3540/
M 22	2	140	30	18	14,5	3	20	M22x2 /3000/	M22x2 /3010/	M22x2 /3500/	M22x2 /3510/	M22x2 /3540/
M 22	1,5	125	24	18	14,5	3	20,5	M22x1,5 /3000/	M22x1,5 /3010/	M22x1,5 /3500/	M22x1,5 /3510/	M22x1,5 /3540/
M 22	1	125	24	18	14,5	3	21	M22x1 /3000/	M22x1 /3010/	M22x1 /3500/	M22x1 /3510/	M22x1 /3540/
M 24	2	140	26	18	14,5	4	22	M24x2 /3000/	M24x2 /3010/	M24x2 /3500/	M24x2 /3510/	M24x2 /3540/
M 24	1,5	140	26	18	14,5	4	22,5	M24x1,5 /3000/	M24x1,5 /3010/	M24x1,5 /3500/	M24x1,5 /3510/	M24x1,5 /3540/

* nonstandard supplies

MF | 60° P | DIN 13 | typ N | HSSE | DIN 374 | ISO 2 6H

Material group
(**X.X** recommended use; X.X possible use)

10.1; 1.1; 2.1; 6.1; 8.2

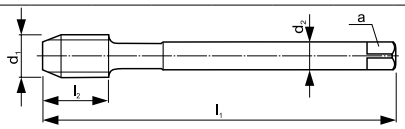
8.2; 10.1; 1.1; 2.1; 6.1

1.2; 2.2; 8.1; 1.1; 2.1; 2.3; 6.2; 8.2; 10.1

1.1; 1.2; 2.1; 2.2; 2.3; 6.2; 8.1; 8.2; 10.1

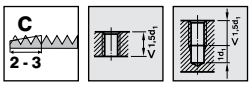
1.2; 2.2; 8.1; 11.1; 2.3; 8.2

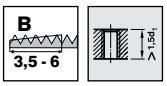
3000
3010
3500
3510
3540



z = number of flutes

3010: TiN — 3510: TiN — 3540: OX

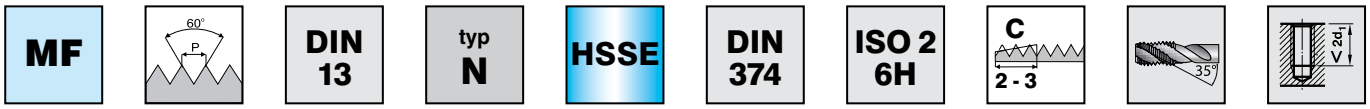




Cat. No.								3000	3010	3500	3510	3540
d_1	P	l_1	l_2	d_2	a	z	Ø mm					
M 24	1	140	26	18	14,5	4	23	M24x1 /3000/	M24x1 /3010/	M24x1 /3500/	M24x1 /3510/	M24x1 /3540/
M 25	2	140	26	18	14,5	4	23	M25x2 /3000/*	M25x2 /3010/*	M25x2 /3500/*	M25x2 /3510/*	M25x2 /3540/*
M 25	1,5	140	26	18	14,5	4	23,5	M25x1,5 /3000/	M25x1,5 /3010/	M25x1,5 /3500/	M25x1,5 /3510/	M25x1,5 /3540/
M 26	1,5	140	26	18	14,5	4	24,5	M26x1,5 /3000/	M26x1,5 /3010/	M26x1,5 /3500/	M26x1,5 /3510/	M26x1,5 /3540/
M 27	2	140	26	20	16	4	25	M27x2 /3000/	M27x2 /3010/	M27x2 /3500/	M27x2 /3510/	M27x2 /3540/
M 27	1,5	140	26	20	16	4	25,5	M27x1,5 /3000/	M27x1,5 /3010/	M27x1,5 /3500/	M27x1,5 /3510/	M27x1,5 /3540/
M 27	1	140	26	20	16	4	26	M27x1 /3000/	M27x1 /3010/	M27x1 /3500/	M27x1 /3510/	M27x1 /3540/
M 28	2	140	26	20	16	4	26	M28x2 /3000/	M28x2 /3010/	M28x2 /3500/	M28x2 /3510/	M28x2 /3540/
M 28	1,5	140	26	20	16	4	26,5	M28x1,5 /3000/	M28x1,5 /3010/	M28x1,5 /3500/	M28x1,5 /3510/	M28x1,5 /3540/
M 30	2	150	28	22	18	4	28	M30x2 /3000/	M30x2 /3010/	M30x2 /3500/	M30x2 /3510/	M30x2 /3540/
M 30	1,5	150	28	22	18	4	28,5	M30x1,5 /3000/	M30x1,5 /3010/	M30x1,5 /3500/	M30x1,5 /3510/	M30x1,5 /3540/
M 30	1	150	28	22	18	4	29	M30x1 /3000/	M30x1 /3010/	M30x1 /3500/	M30x1 /3510/	M30x1 /3540/
M 32	1,5	150	28	22	18	4	30,5	M32x1,5 /3000/	M32x1,5 /3010/	M32x1,5 /3500/	M32x1,5 /3510/	M32x1,5 /3540/
M 33	2	160	30	25	20	4	31	M33x2 /3000/	M33x2 /3010/	M33x2 /3500/	M33x2 /3510/	M33x2 /3540/
M 33	1,5	160	30	25	20	4	31,5	M33x1,5 /3000/	M33x1,5 /3010/	M33x1,5 /3500/	M33x1,5 /3510/	M33x1,5 /3540/
M 34	1,5	170	30	28	22	4	32,5	M34x1,5 /3000/	M34x1,5 /3010/	M34x1,5 /3500/*	M34x1,5 /3510/*	M34x1,5 /3540/*
M 35	1,5	170	30	28	22	4	33,5	M35x1,5 /3000/	M35x1,5 /3010/	M35x1,5 /3500/	M35x1,5 /3510/	M35x1,5 /3540/
M 36	3	200	42	28	22	4	33	M36x3 /3000/	M36x3 /3010/	M36x3 /3500/	M36x3 /3510/	M36x3 /3540/
M 36	2	170	30	28	22	4	34	M36x2 /3000/	M36x2 /3010/	M36x2 /3500/	M36x2 /3510/	M36x2 /3540/
M 36	1,5	170	30	28	22	4	34,5	M36x1,5 /3000/	M36x1,5 /3010/	M36x1,5 /3500/	M36x1,5 /3510/	M36x1,5 /3540/
M 38	1,5	170	30	28	22	4	36,5	M38x1,5 /3000/*	M38x1,5 /3010/*	M38x1,5 /3500/*	M38x1,5 /3510/*	M38x1,5 /3540/*
M 39	3	200	42	32	24	4	36	M39x3 /3000/*	M39x3 /3010/*	M39x3 /3500/*	M39x3 /3510/*	M39x3 /3540/*
M 39	2	170	30	32	24	4	37	M39x2 /3000/*	M39x2 /3010/*	M39x2 /3500/*	M39x2 /3510/*	M39x2 /3540/*
M 39	1,5	170	30	32	24	4	37,5	M39x1,5 /3000/*	M39x1,5 /3010/*	M39x1,5 /3500/*	M39x1,5 /3510/*	M39x1,5 /3540/*
M 40	3	200	42	32	24	4	37	M40x3 /3000/*	M40x3 /3010/*	M40x3 /3500/*	M40x3 /3510/*	M40x3 /3540/*
M 40	2	170	30	32	24	4	38	M40x2 /3000/*	M40x2 /3010/*	M40x2 /3500/*	M40x2 /3510/*	M40x2 /3540/*
M 40	1,5	170	30	32	24	4	38,5	M40x1,5 /3000/	M40x1,5 /3010/	M40x1,5 /3500/*	M40x1,5 /3510/*	M40x1,5 /3540/*
M 42	3	200	50	32	24	4	39	M42x3 /3000/	M42x3 /3010/	M42x3 /3500/*	M42x3 /3510/*	M42x3 /3540/*
M 42	2	170	30	32	24	4	40	M42x2 /3000/	M42x2 /3010/	M42x2 /3500/*	M42x2 /3510/*	M42x2 /3540/*
M 42	1,5	170	30	32	24	4	40,5	M42x1,5 /3000/	M42x1,5 /3010/	M42x1,5 /3500/*	M42x1,5 /3510/*	M42x1,5 /3540/*
M 45	3	200	50	36	29	4	42	M45x3 /3000/	M45x3 /3010/	M45x3 /3500/*	M45x3 /3510/*	M45x3 /3540/*
M 45	2	180	32	36	29	4	43	M45x2 /3000/	M45x2 /3010/	M45x2 /3500/*	M45x2 /3510/*	M45x2 /3540/*
M 45	1,5	180	32	36	29	4	43,5	M45x1,5 /3000/	M45x1,5 /3010/	M45x1,5 /3500/*	M45x1,5 /3510/*	M45x1,5 /3540/*
M 48	3	225	50	36	29	4	45	M48x3 /3000/	M48x3 /3010/	M48x3 /3500/*	M48x3 /3510/*	M48x3 /3540/*
M 48	2	190	32	36	29	4	46	M48x2 /3000/	M48x2 /3010/	M48x2 /3500/*	M48x2 /3510/*	M48x2 /3540/*
M 48	1,5	190	32	36	29	4	46,5	M48x1,5 /3000/	M48x1,5 /3010/	M48x1,5 /3500/*	M48x1,5 /3510/*	M48x1,5 /3540/*
M 50	3	225	50	36	29	4	47	M50x3 /3000/*	M50x3 /3010/*	M50x3 /3500/*	M50x3 /3510/*	M50x3 /3540/*
M 50	2	190	32	36	29	4	48	M50x2 /3000/*	M50x2 /3010/*	M50x2 /3500/*	M50x2 /3510/*	M50x2 /3540/*
M 50	1,5	190	32	36	29	4	48,5	M50x1,5 /3000/	M50x1,5 /3010/	M50x1,5 /3500/*	M50x1,5 /3510/*	M50x1,5 /3540/*
M 52	3	225	50	40	32	4	49	M52x3 /3000/*	M52x3 /3010/*	M52x3 /3500/*	M52x3 /3510/*	M52x3 /3540/*
M 52	2	190	32	40	32	4	50	M52x2 /3000/*	M52x2 /3010/*	M52x2 /3500/*	M52x2 /3510/*	M52x2 /3540/*
M 52	1,5	190	32	40	32	4	50,5	M52x1,5 /3000/	M52x1,5 /3010/	M52x1,5 /3500/*	M52x1,5 /3510/*	M52x1,5 /3540/*

* nonstandard supplies

Machine Taps



Material group
(**X.X** recommended use; X.X possible use)

2.2; 2.3; 8.1; 6.2; 10.2

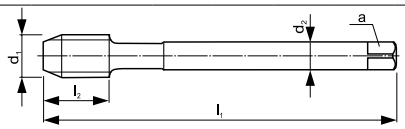
4050

2.2; 2.3; 8.1; 6.2; 8.2; 10.2

4060

11.1; 2.2; 2.3; 8.1; 8.2

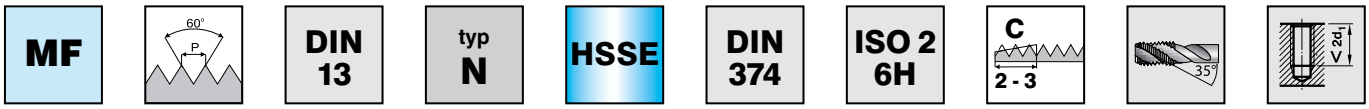
4090



z = number of flutes

Cat. No.								4050	4060	4090
									TiN	OX
d_1	P	l_1	l_2	d_2	a	z	Ø mm			
M 3	0,35	56	5	2,2	-	3	2,65	M3x0,35 /4050/*	M3x0,35 /4060/*	M3x0,35 /4090/*
M 3,5	0,35	56	6	2,5	2,1	3	3,15	M3,5x0,35 /4050/*	M3,5x0,35 /4060/*	M3,5x0,35 /4090/*
M 4	0,5	63	7	2,8	2,1	3	3,5	M4x0,5 /4050/	M4x0,5 /4060/	M4x0,5 /4090/
M 4	0,35	63	7	2,8	2,1	3	3,65	M4x0,35 /4050/*	M4x0,35 /4060/*	M4x0,35 /4090/*
M 4,5	0,5	70	8	3,5	2,7	3	4	M4,5x0,5 /4050/*	M4,5x0,5 /4060/*	M4,5x0,5 /4090/*
M 5	0,5	70	8	3,5	2,7	3	4,5	M5x0,5 /4050/	M5x0,5 /4060/	M5x0,5 /4090/
M 5,5	0,5	80	7	4	3	3	5	M5,5x0,5 /4050/*	M5,5x0,5 /4060/*	M5,5x0,5 /4090/*
M 6	0,75	80	10	4,5	3,4	3	5,2	M6x0,75 /4050/	M6x0,75 /4060/	M6x0,75 /4090/
M 6	0,5	80	10	4,5	3,4	3	5,5	M6x0,5 /4050/	M6x0,5 /4060/	M6x0,5 /4090/
M 7	0,75	80	10	5,5	4,3	3	6,2	M7x0,75 /4050/	M7x0,75 /4060/	M7x0,75 /4090/
M 8	1	90	13	6	4,9	3	7	M8x1 /4050/	M8x1 /4060/	M8x1 /4090/
M 8	0,75	80	10	6	4,9	3	7,2	M8x0,75 /4050/	M8x0,75 /4060/	M8x0,75 /4090/
M 8	0,5	80	10	6	4,9	3	7,5	M8x0,5 /4050/*	M8x0,5 /4060/*	M8x0,5 /4090/*
M 9	1	90	13	7	5,5	3	8	M9x1 /4050/	M9x1 /4060/	M9x1 /4090/
M 9	0,75	80	10	7	5,5	3	8,2	M9x0,75 /4050/*	M9x0,75 /4060/*	M9x0,75 /4090/*
M 10	1,25	100	15	7	5,5	3	8,8	M10x1,25 /4050/	M10x1,25 /4060/	M10x1,25 /4090/
M 10	1	90	12	7	5,5	3	9	M10x1 /4050/	M10x1 /4060/	M10x1 /4090/
M 10	0,75	90	12	7	5,5	3	9,2	M10x0,75 /4050/	M10x0,75 /4060/	M10x0,75 /4090/
M 11	1	90	12	8	6,2	3	10	M11x1 /4050/	M11x1 /4060/	M11x1 /4090/
M 11	0,75	90	12	8	6,2	3	10,2	M11x0,75 /4050/*	M11x0,75 /4060/*	M11x0,75 /4090/*
M 12	1,5	100	14	9	7	3	10,5	M12x1,5 /4050/	M12x1,5 /4060/	M12x1,5 /4090/
M 12	1,25	100	14	9	7	3	10,8	M12x1,25 /4050/	M12x1,25 /4060/	M12x1,25 /4090/
M 12	1	100	14	9	7	3	11	M12x1 /4050/	M12x1 /4060/	M12x1 /4090/
M 13	1	100	15	11	9	3	12	M13x1 /4050/*	M13x1 /4060/*	M13x1 /4090/*
M 14	1,5	100	16	11	9	3	12,5	M14x1,5 /4050/	M14x1,5 /4060/	M14x1,5 /4090/
M 14	1,25	100	16	11	9	3	12,8	M14x1,25 /4050/	M14x1,25 /4060/	M14x1,25 /4090/
M 14	1	100	16	11	9	3	13	M14x1 /4050/	M14x1 /4060/	M14x1 /4090/
M 15	1,5	100	17	12	9	3	13,5	M15x1,5 /4050/*	M15x1,5 /4060/*	M15x1,5 /4090/*
M 15	1	100	16	12	9	3	14	M15x1 /4050/	M15x1 /4060/	M15x1 /4090/
M 16	1,5	100	16	12	9	4	14,5	M16x1,5 /4050/	M16x1,5 /4060/	M16x1,5 /4090/
M 16	1	100	16	12	9	4	15	M16x1 /4050/	M16x1 /4060/	M16x1 /4090/
M 17	1,5	100	17	12	9	4	15,5	M17x1,5 /4050/*	M17x1,5 /4060/*	M17x1,5 /4090/*
M 17	1	100	16	12	9	4	16	M17x1 /4050/*	M17x1 /4060/*	M17x1 /4090/*
M 18	2	125	20	14	11	4	16	M18x2 /4050/	M18x2 /4060/	M18x2 /4090/
M 18	1,5	110	20	14	11	4	16,5	M18x1,5 /4050/	M18x1,5 /4060/	M18x1,5 /4090/
M 18	1	110	20	14	11	4	17	M18x1 /4050/	M18x1 /4060/	M18x1 /4090/
M 20	2	140	20	16	12	4	18	M20x2 /4050/	M20x2 /4060/	M20x2 /4090/
M 20	1,5	125	20	16	12	4	18,5	M20x1,5 /4050/	M20x1,5 /4060/	M20x1,5 /4090/
M 20	1	125	20	16	12	4	19	M20x1 /4050/	M20x1 /4060/	M20x1 /4090/
M 22	2	140	20	18	14,5	4	20	M22x2 /4050/	M22x2 /4060/	M22x2 /4090/
M 22	1,5	125	20	18	14,5	4	20,5	M22x1,5 /4050/	M22x1,5 /4060/	M22x1,5 /4090/
M 22	1	125	20	18	14,5	4	21	M22x1 /4050/	M22x1 /4060/	M22x1 /4090/
M 24	2	140	22	18	14,5	4	22	M24x2 /4050/	M24x2 /4060/	M24x2 /4090/
M 24	1,5	140	22	18	14,5	4	22,5	M24x1,5 /4050/	M24x1,5 /4060/	M24x1,5 /4090/

* nonstandard supplies

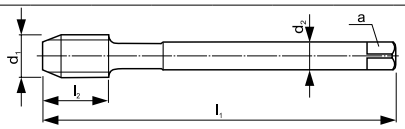


Material group
(**X.X** recommended use; X.X possible use)

2.2; 2.3; 8.1; 6.2; 10.2 — **4050**

2.2; 2.3; 8.1; 6.2; 8.2; 10.2 — **4060**

11.1; 2.2; 2.3; 8.1; 8.2 — **4090**



z = number of flutes

Cat. No.								4050	4060	4090
									TiN	OX
d_1	P	l_1	l_2	d_2	a	z	Ø mm			
M 24	1	140	22	18	14,5	4	23	M24x1 /4050/	M24x1 /4060/	M24x1 /4090/
M 25	2	140	22	18	14,5	4	23	M25x2 /4050/*	M25x2 /4060/*	M25x2 /4090/*
M 25	1,5	140	22	18	14,5	4	23,5	M25x1,5 /4050/	M25x1,5 /4060/	M25x1,5 /4090/
M 26	1,5	140	22	18	14,5	4	24,5	M26x1,5 /4050/	M26x1,5 /4060/	M26x1,5 /4090/
M 27	2	140	22	20	16	4	25	M27x2 /4050/	M27x2 /4060/	M27x2 /4090/
M 27	1,5	140	22	20	16	4	25,5	M27x1,5 /4050/	M27x1,5 /4060/	M27x1,5 /4090/
M 27	1	140	22	20	16	4	26	M27x1 /4050/	M27x1 /4060/	M27x1 /4090/
M 28	2	140	22	20	16	4	26	M28x2 /4050/	M28x2 /4060/	M28x2 /4090/
M 28	1,5	140	22	20	16	4	26,5	M28x1,5 /4050/	M28x1,5 /4060/	M28x1,5 /4090/
M 30	2	150	26	22	18	4	28	M30x2 /4050/	M30x2 /4060/	M30x2 /4090/
M 30	1,5	150	26	22	18	4	28,5	M30x1,5 /4050/	M30x1,5 /4060/	M30x1,5 /4090/
M 30	1	150	26	22	18	4	29	M30x1 /4050/	M30x1 /4060/	M30x1 /4090/
M 32	1,5	150	26	22	18	4	30,5	M32x1,5 /4050/	M32x1,5 /4060/	M32x1,5 /4090/
M 33	2	160	28	25	20	4	31	M33x2 /4050/	M33x2 /4060/	M33x2 /4090/
M 33	1,5	160	28	25	20	4	31,5	M33x1,5 /4050/	M33x1,5 /4060/	M33x1,5 /4090/
M 34	1,5	170	28	28	22	4	32,5	M34x1,5 /4050/*	M34x1,5 /4060/*	M34x1,5 /4090/*
M 35	1,5	170	28	28	22	4	33,5	M35x1,5 /4050/	M35x1,5 /4060/	M35x1,5 /4090/
M 36	3	200	36	28	22	4	33	M36x3 /4050/	M36x3 /4060/	M36x3 /4090/
M 36	2	170	28	28	22	4	34	M36x2 /4050/	M36x2 /4060/	M36x2 /4090/
M 36	1,5	170	28	28	22	4	34,5	M36x1,5 /4050/	M36x1,5 /4060/	M36x1,5 /4090/

* nonstandard supplies

Machine Taps

MF | 60° P | **DIN 13** | **typ VA** | **HSSE** | **DIN 374** | **ISO 2 6H**

Material group
(**X.X** recommended use; X.X possible use)

3.1; 5.1; 5.2; 9.1; 10.2

3660

3.1; 5.1; 5.2

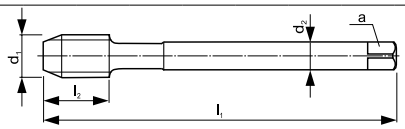
3690

3.1; 3.3; 5.1; 5.2; 6.2; 9.1; 10.1

4260

3.1; 5.1; 5.2

4290



z = number of flutes

Cat. No.									3660	3690	4260	4290
									TiN	OX	TiN	OX
									B 3,5 - 6		C 2 - 3	
d_1	P	l_1	l_2	$l_2^{R35°}$	d_2	a	z / $z^{R35°}$	Ø mm				
M 3	0,35	56	8	5	2,2	-	3/3	2,65	M3x0,35 /3660/*	M3x0,35 /3690/*	M3x0,35 /4260/*	M3x0,35 /4290/*
M 3,5	0,35	56	8	6	2,5	2,1	3/3	3,15	M3,5x0,35 /3660/*	M3,5x0,35 /3690/*	M3,5x0,35 /4260/*	M3,5x0,35 /4290/*
M 4	0,5	63	12	7	2,8	2,1	3/3	3,5	M4x0,5 /3660/*	M4x0,5 /3690/*	M4x0,5 /4260/*	M4x0,5 /4290/*
M 4	0,35	63	12	7	2,8	2,1	3/3	3,65	M4x0,35 /3660/*	M4x0,35 /3690/*	M4x0,35 /4260/*	M4x0,35 /4290/*
M 4,5	0,5	70	13	8	3,5	2,7	3/3	4	M4,5x0,5 /3660/*	M4,5x0,5 /3690/*	M4,5x0,5 /4260/*	M4,5x0,5 /4290/*
M 5	0,5	70	13	8	3,5	2,7	3/3	4,5	M5x0,5 /3660/*	M5x0,5 /3690/*	M5x0,5 /4260/*	M5x0,5 /4290/*
M 5,5	0,5	80	15	7	4	3	3/3	5	M5,5x0,5 /3660/*	M5,5x0,5 /3690/*	M5,5x0,5 /4260/*	M5,5x0,5 /4290/*
M 6	0,75	80	15	10	4,5	3,4	3/3	5,2	M6x0,75 /3660/	M6x0,75 /3690/	M6x0,75 /4260/	M6x0,75 /4290/
M 6	0,5	80	15	10	4,5	3,4	3/3	5,5	M6x0,5 /3660/*	M6x0,5 /3690/*	M6x0,5 /4260/*	M6x0,5 /4290/*
M 7	0,75	80	15	10	5,5	4,3	3/3	6,2	M7x0,75 /3660/*	M7x0,75 /3690/*	M7x0,75 /4260/*	M7x0,75 /4290/*
M 8	1	90	18	13	6	4,9	3/3	7	M8x1 /3660/	M8x1 /3690/	M8x1 /4260/	M8x1 /4290/
M 8	0,75	80	15	10	6	4,9	3/3	7,2	M8x0,75 /3660/	M8x0,75 /3690/	M8x0,75 /4260/	M8x0,75 /4290/
M 8	0,5	80	15	10	6	4,9	3/3	7,5	M8x0,5 /3660/*	M8x0,5 /3690/*	M8x0,5 /4260/*	M8x0,5 /4290/*
M 9	1	90	18	13	7	5,5	3/3	8	M9x1 /3660/*	M9x1 /3690/*	M9x1 /4260/*	M9x1 /4290/*
M 9	0,75	80	18	10	7	5,5	3/3	8,2	M9x0,75 /3660/*	M9x0,75 /3690/*	M9x0,75 /4260/*	M9x0,75 /4290/*
M 10	1,25	100	20	15	7	5,5	3/3	8,8	M10x1,25 /3660/*	M10x1,25 /3690/*	M10x1,25 /4260/*	M10x1,25 /4290/*
M 10	1	90	20	12	7	5,5	3/3	9	M10x1 /3660/	M10x1 /3690/	M10x1 /4260/	M10x1 /4290/
M 10	0,75	90	20	12	7	5,5	3/3	9,2	M10x0,75 /3660/*	M10x0,75 /3690/*	M10x0,75 /4260/*	M10x0,75 /4290/*
M 11	1	90	20	12	8	6,2	3/3	10	M11x1 /3660/*	M11x1 /3690/*	M11x1 /4260/*	M11x1 /4290/*
M 11	0,75	90	20	12	8	6,2	3/3	10,2	M11x0,75 /3660/*	M11x0,75 /3690/*	M11x0,75 /4260/*	M11x0,75 /4290/*
M 12	1,5	100	21	14	9	7	3/3	10,5	M12x1,5 /3660/	M12x1,5 /3690/	M12x1,5 /4260/	M12x1,5 /4290/
M 12	1,25	100	21	14	9	7	3/3	10,8	M12x1,25 /3660/*	M12x1,25 /3690/*	M12x1,25 /4260/*	M12x1,25 /4290/*
M 12	1	100	21	14	9	7	3/3	11	M12x1 /3660/	M12x1 /3690/	M12x1 /4260/	M12x1 /4290/
M 13	1	100	21	15	11	9	3/3	12	M13x1 /3660/*	M13x1 /3690/*	M13x1 /4260/*	M13x1 /4290/*
M 14	1,5	100	21	16	11	9	3/3	12,5	M14x1,5 /3660/	M14x1,5 /3690/	M14x1,5 /4260/	M14x1,5 /4290/
M 14	1,25	100	21	16	11	9	3/3	12,8	M14x1,25 /3660/*	M14x1,25 /3690/*	M14x1,25 /4260/*	M14x1,25 /4290/*
M 14	1	100	21	16	11	9	3/3	13	M14x1 /3660/*	M14x1 /3690/*	M14x1 /4260/*	M14x1 /4290/*
M 15	1,5	100	21	17	12	9	3/3	13,5	M15x1,5 /3660/*	M15x1,5 /3690/*	M15x1,5 /4260/*	M15x1,5 /4290/*
M 15	1	100	21	16	12	9	3/3	14	M15x1 /3660/*	M15x1 /3690/*	M15x1 /4260/*	M15x1 /4290/*
M 16	1,5	100	21	16	12	9	3/4	14,5	M16x1,5 /3660/	M16x1,5 /3690/	M16x1,5 /4260/	M16x1,5 /4290/
M 16	1	100	21	16	12	9	3/4	15	M16x1 /3660/*	M16x1 /3690/*	M16x1 /4260/*	M16x1 /4290/*
M 17	1,5	100	21	17	12	9	3/4	15,5	M17x1,5 /3660/*	M17x1,5 /3690/*	M17x1,5 /4260/*	M17x1,5 /4290/*
M 17	1	100	21	16	12	9	3/4	16	M17x1 /3660/*	M17x1 /3690/*	M17x1 /4260/*	M17x1 /4290/*
M 18	2	125	24	20	14	11	3/4	16	M18x2 /3660/*	M18x2 /3690/*	M18x2 /4260/*	M18x2 /4290/*
M 18	1,5	110	24	20	14	11	3/4	16,5	M18x1,5 /3660/	M18x1,5 /3690/	M18x1,5 /4260/	M18x1,5 /4290/
M 18	1	110	24	20	14	11	3/4	17	M18x1 /3660/*	M18x1 /3690/*	M18x1 /4260/*	M18x1 /4290/*
M 20	2	140	30	20	16	12	3/4	18	M20x2 /3660/*	M20x2 /3690/*	M20x2 /4260/*	M20x2 /4290/*
M 20	1,5	125	24	20	16	12	3/4	18,5	M20x1,5 /3660/	M20x1,5 /3690/	M20x1,5 /4260/	M20x1,5 /4290/
M 20	1	125	24	20	16	12	3/4	19	M20x1 /3660/*	M20x1 /3690/*	M20x1 /4260/*	M20x1 /4290/*
M 22	2	140	30	20	18	14,5	3/4	20	M22x2 /3660/*	M22x2 /3690/*	M22x2 /4260/*	M22x2 /4290/*
M 22	1,5	125	24	20	18	14,5	3/4	20,5	M22x1,5 /3660/*	M22x1,5 /3690/*	M22x1,5 /4260/*	M22x1,5 /4290/*
M 22	1	125	24	20	18	14,5	3/4	21	M22x1 /3660/*	M22x1 /3690/*	M22x1 /4260/*	M22x1 /4290/*
M 24	2	140	26	22	18	14,5	4/4	22	M24x2 /3660/*	M24x2 /3690/*	M24x2 /4260/*	M24x2 /4290/*
M 24	1,5	140	26	22	18	14,5	4/4	22,5	M24x1,5 /3660/*	M24x1,5 /3690/*	M24x1,5 /4260/*	M24x1,5 /4290/*
M 24	1	140	26	22	18	14,5	4/4	23	M24x1 /3660/*	M24x1 /3690/*	M24x1 /4260/*	M24x1 /4290/*
M 25	2	140	26	22	18	14,5	4/4	23	M25x2 /3660/*	M25x2 /3690/*	M25x2 /4260/*	M25x2 /4290/*
M 25	1,5	140	26	22	18	14,5	4/4	23,5	M25x1,5 /3660/*	M25x1,5 /3690/*	M25x1,5 /4260/*	M25x1,5 /4290/*
M 26	1,5	140	26	22	18	14,5	4/4	24,5	M26x1,5 /3660/*	M26x1,5 /3690/*	M26x1,5 /4260/*	M26x1,5 /4290/*

* nonstandard supplies

MF | 60° P | DIN 13 | typ VA | HSSE | DIN 374 | ISO 2 6H

Material group
(**X.X** recommended use; X.X possible use)

3.1; 5.1; 5.2; 9.1; 10.2

3660

3.1; 5.1; 5.2

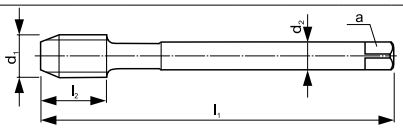
3690

3.1; 3.3; 5.1; 5.2; 6.2; 9.1; 10.1

4260

3.1; 5.1; 5.2

4290



z = number of flutes

Cat. No.									3660	3690	4260	4290
									TiN	OX	TiN	OX
									B 3,5 - 6		C 2 - 3	
d_1	P	l_1	l_2	$l_2^{R35°}$	d_2	a	z / $z^{R35°}$	Ø mm				
M 27	2	140	26	22	20	16	4 / 4	25	M27x2 /3660/*	M27x2 /3690/*	M27x2 /4260/*	M27x2 /4290/*
M 27	1,5	140	26	22	20	16	4 / 4	25,5	M27x1,5 /3660/*	M27x1,5 /3690/*	M27x1,5 /4260/*	M27x1,5 /4290/*
M 27	1	140	26	22	20	16	4 / 4	26	M27x1 /3660/*	M27x1 /3690/*	M27x1 /4260/*	M27x1 /4290/*
M 28	2	140	26	22	20	16	4 / 4	26	M28x2 /3660/*	M28x2 /3690/*	M28x2 /4260/*	M28x2 /4290/*
M 28	1,5	140	26	22	20	16	4 / 4	26,5	M28x1,5 /3660/*	M28x1,5 /3690/*	M28x1,5 /4260/*	M28x1,5 /4290/*
M 30	2	150	28	26	22	18	4 / 4	28	M30x2 /3660/*	M30x2 /3690/*	M30x2 /4260/*	M30x2 /4290/*
M 30	1,5	150	28	26	22	18	4 / 4	28,5	M30x1,5 /3660/*	M30x1,5 /3690/*	M30x1,5 /4260/*	M30x1,5 /4290/*
M 30	1	150	28	26	22	18	4 / 4	29	M30x1 /3660/*	M30x1 /3690/*	M30x1 /4260/*	M30x1 /4290/*
M 32	1,5	150	28	26	22	18	4 / 4	30,5	M32x1,5 /3660/*	M32x1,5 /3690/*	M32x1,5 /4260/*	M32x1,5 /4290/*
M 33	2	160	30	28	25	20	4 / 4	31	M33x2 /3660/*	M33x2 /3690/*	M33x2 /4260/*	M33x2 /4290/*
M 33	1,5	160	30	28	25	20	4 / 4	31,5	M33x1,5 /3660/*	M33x1,5 /3690/*	M33x1,5 /4260/*	M33x1,5 /4290/*
M 34	1,5	170	30	28	28	22	4 / 4	32,5	M34x1,5 /3660/*	M34x1,5 /3690/*	M34x1,5 /4260/*	M34x1,5 /4290/*
M 35	1,5	170	30	28	28	22	4 / 4	33,5	M35x1,5 /3660/*	M35x1,5 /3690/*	M35x1,5 /4260/*	M35x1,5 /4290/*
M 36	3	200	42	36	28	22	4 / 4	33	M36x3 /3660/*	M36x3 /3690/*	M36x3 /4260/*	M36x3 /4290/*
M 36	2	170	30	28	28	22	4 / 4	34	M36x2 /3660/*	M36x2 /3690/*	M36x2 /4260/*	M36x2 /4290/*
M 36	1,5	170	30	28	28	22	4 / 4	34,5	M36x1,5 /3660/*	M36x1,5 /3690/*	M36x1,5 /4260/*	M36x1,5 /4290/*

* nonstandard supplies

Machine Taps

MF | 60° P | **DIN 13** | **typ H** | **HSSE V3** | **DIN 374** | **ISO 2 6H**

Material group
(**X.X** recommended use; X.X possible use)

3.1; 3.2; 3.3; 8.1; 6.2

3580

3.2; 8.2

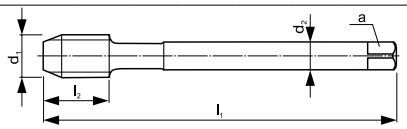
3590

3.2; 8.2; 3.1; 3.3; 6.2

4680

3.2

4690



z = number of flutes

Cat. No.									3580	3590	4680	4690
									TiCN	OX	TiCN	OX
									B 3,5 - 6		C 2 - 3 40°	
d_1	P	l_1	l_2	$l_2^{R40°}$	d_2	a	z / $z^{R40°}$	Ø mm				
M 3	0,35	56	8	5	2,2	-	3/3	2,65	M3x0,35 /3580/*	M3x0,35 /3590/*	M3x0,35 /4680/*	M3x0,35 /4690/*
M 3,5	0,35	56	8	6	2,5	2,1	3/3	3,15	M3,5x0,35 /3580/*	M3,5x0,35 /3590/*	M3,5x0,35 /4680/*	M3,5x0,35 /4690/*
M 4	0,5	63	12	7	2,8	2,1	3/3	3,5	M4x0,5 /3580/*	M4x0,5 /3590/*	M4x0,5 /4680/*	M4x0,5 /4690/*
M 4	0,35	63	12	7	2,8	2,1	3/3	3,65	M4x0,35 /3580/*	M4x0,35 /3590/*	M4x0,35 /4680/*	M4x0,35 /4690/*
M 4,5	0,5	70	13	8	3,5	2,7	3/3	4	M4,5x0,5 /3580/*	M4,5x0,5 /3590/*	M4,5x0,5 /4680/*	M4,5x0,5 /4690/*
M 5	0,5	70	13	8	3,5	2,7	3/3	4,5	M5x0,5 /3580/*	M5x0,5 /3590/*	M5x0,5 /4680/*	M5x0,5 /4690/*
M 5,5	0,5	80	15	7	4	3	3/3	5	M5,5x0,5 /3580/*	M5,5x0,5 /3590/*	M5,5x0,5 /4680/*	M5,5x0,5 /4690/*
M 6	0,75	80	15	10	4,5	3,4	3/3	5,2	M6x0,75 /3580/	M6x0,75 /3590/	M6x0,75 /4680/	M6x0,75 /4690/
M 6	0,5	80	15	10	4,5	3,4	3/3	5,5	M6x0,5 /3580/*	M6x0,5 /3590/*	M6x0,5 /4680/*	M6x0,5 /4690/*
M 7	0,75	80	15	10	5,5	4,3	3/3	6,2	M7x0,75 /3580/*	M7x0,75 /3590/*	M7x0,75 /4680/*	M7x0,75 /4690/*
M 8	1	90	18	13	6	4,9	3/3	7	M8x1 /3580/	M8x1 /3590/	M8x1 /4680/	M8x1 /4690/
M 8	0,75	80	15	10	6	4,9	3/3	7,2	M8x0,75 /3580/	M8x0,75 /3590/	M8x0,75 /4680/	M8x0,75 /4690/
M 8	0,5	80	15	10	6	4,9	3/3	7,5	M8x0,5 /3580/*	M8x0,5 /3590/*	M8x0,5 /4680/*	M8x0,5 /4690/*
M 9	1	90	18	13	7	5,5	3/3	8	M9x1 /3580/*	M9x1 /3590/*	M9x1 /4680/*	M9x1 /4690/*
M 9	0,75	80	18	10	7	5,5	3/3	8,2	M9x0,75 /3580/*	M9x0,75 /3590/*	M9x0,75 /4680/*	M9x0,75 /4690/*
M 10	1,25	100	20	15	7	5,5	3/4	8,8	M10x1,25 /3580/*	M10x1,25 /3590/*	M10x1,25 /4680/*	M10x1,25 /4690/*
M 10	1	90	20	12	7	5,5	3/4	9	M10x1 /3580/	M10x1 /3590/	M10x1 /4680/	M10x1 /4690/
M 10	0,75	90	20	12	7	5,5	3/4	9,2	M10x0,75 /3580/*	M10x0,75 /3590/*	M10x0,75 /4680/*	M10x0,75 /4690/*
M 11	1	90	20	12	8	6,2	3/4	10	M11x1 /3580/*	M11x1 /3590/*	M11x1 /4680/*	M11x1 /4690/*
M 11	0,75	90	20	12	8	6,2	3/4	10,2	M11x0,75 /3580/*	M11x0,75 /3590/*	M11x0,75 /4680/*	M11x0,75 /4690/*
M 12	1,5	100	21	14	9	7	3/4	10,5	M12x1,5 /3580/	M12x1,5 /3590/	M12x1,5 /4680/	M12x1,5 /4690/
M 12	1,25	100	21	14	9	7	3/4	10,8	M12x1,25 /3580/*	M12x1,25 /3590/*	M12x1,25 /4680/*	M12x1,25 /4690/*
M 12	1	100	21	14	9	7	3/4	11	M12x1 /3580/	M12x1 /3590/	M12x1 /4680/	M12x1 /4690/
M 13	1	100	21	15	11	9	3/4	12	M13x1 /3580/*	M13x1 /3590/*	M13x1 /4680/*	M13x1 /4690/*
M 14	1,5	100	21	16	11	9	3/4	12,5	M14x1,5 /3580/	M14x1,5 /3590/	M14x1,5 /4680/	M14x1,5 /4690/
M 14	1,25	100	21	16	11	9	3/4	12,8	M14x1,25 /3580/*	M14x1,25 /3590/*	M14x1,25 /4680/*	M14x1,25 /4690/*
M 14	1	100	21	16	11	9	3/4	13	M14x1 /3580/*	M14x1 /3590/*	M14x1 /4680/*	M14x1 /4690/*
M 15	1,5	100	21	17	12	9	3/4	13,5	M15x1,5 /3580/*	M15x1,5 /3590/*	M15x1,5 /4680/*	M15x1,5 /4690/*
M 15	1	100	21	16	12	9	3/4	14	M15x1 /3580/*	M15x1 /3590/*	M15x1 /4680/*	M15x1 /4690/*
M 16	1,5	100	21	16	12	9	3/5	14,5	M16x1,5 /3580/	M16x1,5 /3590/	M16x1,5 /4680/	M16x1,5 /4690/
M 16	1	100	21	16	12	9	3/5	15	M16x1 /3580/*	M16x1 /3590/*	M16x1 /4680/*	M16x1 /4690/*
M 17	1,5	100	21	17	12	9	3/5	15,5	M17x1,5 /3580/*	M17x1,5 /3590/*	M17x1,5 /4680/*	M17x1,5 /4690/*
M 17	1	100	21	16	12	9	3/5	16	M17x1 /3580/*	M17x1 /3590/*	M17x1 /4680/*	M17x1 /4690/*
M 18	2	125	24	20	14	11	3/5	16	M18x2 /3580/*	M18x2 /3590/*	M18x2 /4680/*	M18x2 /4690/*
M 18	1,5	110	24	20	14	11	3/5	16,5	M18x1,5 /3580/	M18x1,5 /3590/	M18x1,5 /4680/	M18x1,5 /4690/
M 18	1	110	24	20	14	11	3/5	17	M18x1 /3580/*	M18x1 /3590/*	M18x1 /4680/*	M18x1 /4690/*
M 20	2	140	30	20	16	12	3/5	18	M20x2 /3580/*	M20x2 /3590/*	M20x2 /4680/*	M20x2 /4690/*
M 20	1,5	125	24	20	16	12	3/5	18,5	M20x1,5 /3580/	M20x1,5 /3590/	M20x1,5 /4680/	M20x1,5 /4690/
M 20	1	125	24	20	16	12	3/5	19	M20x1 /3580/*	M20x1 /3590/*	M20x1 /4680/*	M20x1 /4690/*
M 22	2	140	30	20	18	14,5	3/5	20	M22x2 /3580/*	M22x2 /3590/*	M22x2 /4680/*	M22x2 /4690/*
M 22	1,5	125	24	20	18	14,5	3/5	20,5	M22x1,5 /3580/*	M22x1,5 /3590/*	M22x1,5 /4680/*	M22x1,5 /4690/*
M 22	1	125	24	20	18	14,5	3/5	21	M22x1 /3580/*	M22x1 /3590/*	M22x1 /4680/*	M22x1 /4690/*
M 24	2	140	26	22	18	14,5	4/5	22	M24x2 /3580/*	M24x2 /3590/*	M24x2 /4680/*	M24x2 /4690/*
M 24	1,5	140	26	22	18	14,5	4/5	22,5	M24x1,5 /3580/*	M24x1,5 /3590/*	M24x1,5 /4680/*	M24x1,5 /4690/*
M 24	1	140	26	22	18	14,5	4/5	23	M24x1 /3580/*	M24x1 /3590/*	M24x1 /4680/*	M24x1 /4690/*
M 25	2	140	26	22	18	14,5	4/5	23	M25x2 /3580/*	M25x2 /3590/*	M25x2 /4680/*	M25x2 /4690/*
M 25	1,5	140	26	22	18	14,5	4/5	23,5	M25x1,5 /3580/*	M25x1,5 /3590/*	M25x1,5 /4680/*	M25x1,5 /4690/*
M 26	1,5	140	26	22	18	14,5	4/5	24,5	M26x1,5 /3580/*	M26x1,5 /3590/*	M26x1,5 /4680/*	M26x1,5 /4690/*

* nonstandard supplies

MF | 60° P | **DIN 13** | **typ H** | **HSSE V3** | **DIN 374** | **ISO 2 6H**

Material group
(**X.X** recommended use; X.X possible use)

3.1; 3.2; 3.3; 8.1; 6.2

3580

3.2; 8.2

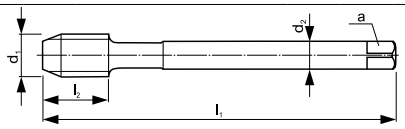
3590

3.2; 8.2; 3.1; 3.3; 6.2

4680

3.2

4690



z = number of flutes

Cat. No.									3580	3590	4680	4690
									TiCN	OX	TiCN	OX
									B 3,5 - 6		C 2 - 3	
d_1	P	l_1	l_2	$l_2^{R40°}$	d_2	a	z / $z^{R40°}$	Ø mm				
M 27	2	140	26	22	20	16	4 / 5	25	M27x2 /3580/*	M27x2 /3590/*	M27x2 /4680/*	M27x2 /4690/*
M 27	1,5	140	26	22	20	16	4 / 5	25,5	M27x1,5 /3580/*	M27x1,5 /3590/*	M27x1,5 /4680/*	M27x1,5 /4690/*
M 27	1	140	26	22	20	16	4 / 5	26	M27x1 /3580/*	M27x1 /3590/*	M27x1 /4680/*	M27x1 /4690/*
M 28	2	140	26	22	20	16	4 / 5	26	M28x2 /3580/*	M28x2 /3590/*	M28x2 /4680/*	M28x2 /4690/*
M 28	1,5	140	26	22	20	16	4 / 5	26,5	M28x1,5 /3580/*	M28x1,5 /3590/*	M28x1,5 /4680/*	M28x1,5 /4690/*
M 30	2	150	28	26	22	18	4 / 5	28	M30x2 /3580/*	M30x2 /3590/*	M30x2 /4680/*	M30x2 /4690/*
M 30	1,5	150	28	26	22	18	4 / 5	28,5	M30x1,5 /3580/*	M30x1,5 /3590/*	M30x1,5 /4680/*	M30x1,5 /4690/*
M 30	1	150	28	26	22	18	4 / 5	29	M30x1 /3580/*	M30x1 /3590/*	M30x1 /4680/*	M30x1 /4690/*
M 32	1,5	150	28	26	22	18	4 / 5	30,5	M32x1,5 /3580/*	M32x1,5 /3590/*	M32x1,5 /4680/*	M32x1,5 /4690/*
M 33	2	160	30	28	25	20	4 / 5	31	M33x2 /3580/*	M33x2 /3590/*	M33x2 /4680/*	M33x2 /4690/*
M 33	1,5	160	30	28	25	20	4 / 5	31,5	M33x1,5 /3580/*	M33x1,5 /3590/*	M33x1,5 /4680/*	M33x1,5 /4690/*
M 34	1,5	170	30	28	28	22	4 / 5	32,5	M34x1,5 /3580/*	M34x1,5 /3590/*	M34x1,5 /4680/*	M34x1,5 /4690/*
M 35	1,5	170	30	28	28	22	4 / 5	33,5	M35x1,5 /3580/*	M35x1,5 /3590/*	M35x1,5 /4680/*	M35x1,5 /4690/*
M 36	3	200	42	36	28	22	4 / 5	33	M36x3 /3580/*	M36x3 /3590/*	M36x3 /4680/*	M36x3 /4690/*
M 36	2	170	30	28	28	22	4 / 5	34	M36x2 /3580/*	M36x2 /3590/*	M36x2 /4680/*	M36x2 /4690/*
M 36	1,5	170	30	28	28	22	4 / 5	34,5	M36x1,5 /3580/*	M36x1,5 /3590/*	M36x1,5 /4680/*	M36x1,5 /4690/*

* nonstandard supplies

Machine Taps

MF | 60° P | DIN 13 | typ GG | HSSE | DIN 374 | ISO 2 6HX | $\geq 1{,}5d_1$ | $\leq 2{,}5d_1$

Material group
(**X.X** recommended use; X.X possible use)

6.1; 8.2

3080

6.1; 8.2

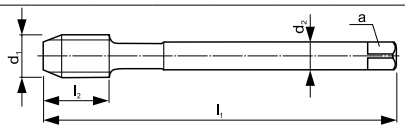
3080 IKZ

6.1; 8.2

3130

6.1; 8.2

3130 IKZ



z = number of flutes

Cat. No.								3080	3080 IKZ	3130	3130 IKZ
								TiCN	TiCN	TiCN	TiCN
								C 2 - 3	C 2 - 3 IKZ	E 1,5	E 1,5 IKZ
d_1	P	l_1	l_2	d_2	a	z	Ø mm				
M 3	0,35	56	8	2,2	-	3	2,65	M3x0,35 /3080/*	M3x0,35 /3080/*	M3x0,35 /3130/*	M3x0,35 /3130/*
M 3,5	0,35	56	8	2,5	2,1	3	3,15	M3,5x0,35 /3080/*	M3,5x0,35 /3080/*	M3,5x0,35 /3130/*	M3,5x0,35 /3130/*
M 4	0,5	63	12	2,8	2,1	3	3,5	M4x0,5 /3080/*	M4x0,5 /3080/*	M4x0,5 /3130/*	M4x0,5 /3130/*
M 4	0,35	63	12	2,8	2,1	3	3,65	M4x0,35 /3080/*	M4x0,35 /3080/*	M4x0,35 /3130/*	M4x0,35 /3130/*
M 4,5	0,5	70	13	3,5	2,7	3	4	M4,5x0,5 /3080/*	M4,5x0,5 /3080/*	M4,5x0,5 /3130/*	M4,5x0,5 /3130/*
M 5	0,5	70	13	3,5	2,7	3	4,5	M5x0,5 /3080/*	M5x0,5 /3080/*	M5x0,5 /3130/*	M5x0,5 /3130/*
M 5,5	0,5	80	15	4	3	3	5	M5,5x0,5 /3080/*	M5,5x0,5 /3080/*	M5,5x0,5 /3130/*	M5,5x0,5 /3130/*
M 6	0,75	80	15	4,5	3,4	3	5,2	M6x0,75 /3080/	M6x0,75 /3080/	M6x0,75 /3130/	M6x0,75 /3130/
M 6	0,5	80	15	4,5	3,4	3	5,5	M6x0,5 /3080/*	M6x0,5 /3080/*	M6x0,5 /3130/*	M6x0,5 /3130/*
M 7	0,75	80	15	5,5	4,3	3	6,2	M7x0,75 /3080/*	M7x0,75 /3080/*	M7x0,75 /3130/*	M7x0,75 /3130/*
M 8	1	90	18	6	4,9	4	7	M8x1 /3080/	M8x1 /3080/	M8x1 /3130/	M8x1 /3130/
M 8	0,75	80	15	6	4,9	4	7,2	M8x0,75 /3080/*	M8x0,75 /3080/*	M8x0,75 /3130/*	M8x0,75 /3130/*
M 8	0,5	80	15	6	4,9	4	7,5	M8x0,5 /3080/*	M8x0,5 /3080/*	M8x0,5 /3130/*	M8x0,5 /3130/*
M 9	1	90	18	7	5,5	4	8	M9x1 /3080/*	M9x1 /3080/*	M9x1 /3130/*	M9x1 /3130/*
M 9	0,75	80	18	7	5,5	4	8,2	M9x0,75 /3080/*	M9x0,75 /3080/*	M9x0,75 /3130/*	M9x0,75 /3130/*
M 10	1,25	100	20	7	5,5	4	8,8	M10x1,25 /3080/	M10x1,25 /3080/	M10x1,25 /3130/	M10x1,25 /3130/
M 10	1	90	20	7	5,5	4	9	M10x1 /3080/	M10x1 /3080/	M10x1 /3130/	M10x1 /3130/
M 10	0,75	90	20	7	5,5	4	9,2	M10x0,75 /3080/*	M10x0,75 /3080/*	M10x0,75 /3130/*	M10x0,75 /3130/*
M 11	1	90	20	8	6,2	4	10	M11x1 /3080/*	M11x1 /3080/*	M11x1 /3130/*	M11x1 /3130/*
M 11	0,75	90	20	8	6,2	4	10,2	M11x0,75 /3080/*	M11x0,75 /3080/*	M11x0,75 /3130/*	M11x0,75 /3130/*
M 12	1,5	100	21	9	7	4	10,5	M12x1,5 /3080/	M12x1,5 /3080/	M12x1,5 /3130/	M12x1,5 /3130/
M 12	1,25	100	21	9	7	4	10,8	M12x1,25 /3080/	M12x1,25 /3080/	M12x1,25 /3130/	M12x1,25 /3130/
M 12	1	100	21	9	7	4	11	M12x1 /3080/	M12x1 /3080/	M12x1 /3130/	M12x1 /3130/
M 13	1	100	21	11	9	4	12	M13x1 /3080/*	M13x1 /3080/*	M13x1 /3130/*	M13x1 /3130/*
M 14	1,5	100	21	11	9	4	12,5	M14x1,5 /3080/	M14x1,5 /3080/	M14x1,5 /3130/	M14x1,5 /3130/
M 14	1,25	100	21	11	9	4	12,8	M14x1,25 /3080/*	M14x1,25 /3080/*	M14x1,25 /3130/*	M14x1,25 /3130/*
M 14	1	100	21	11	9	4	13	M14x1 /3080/*	M14x1 /3080/*	M14x1 /3130/*	M14x1 /3130/*
M 15	1,5	100	21	12	9	4	13,5	M15x1,5 /3080/*	M15x1,5 /3080/*	M15x1,5 /3130/*	M15x1,5 /3130/*
M 15	1	100	21	12	9	4	14	M15x1 /3080/*	M15x1 /3080/*	M15x1 /3130/*	M15x1 /3130/*
M 16	1,5	100	21	12	9	4	14,5	M16x1,5 /3080/	M16x1,5 /3080/*	M16x1,5 /3130/	M16x1,5 /3130/*
M 16	1	100	21	12	9	4	15	M16x1 /3080/*	M16x1 /3080/*	M16x1 /3130/*	M16x1 /3130/*
M 17	1,5	100	21	12	9	4	15,5	M17x1,5 /3080/*	M17x1,5 /3080/*	M17x1,5 /3130/*	M17x1,5 /3130/*
M 17	1	100	21	12	9	4	16	M17x1 /3080/*	M17x1 /3080/*	M17x1 /3130/*	M17x1 /3130/*
M 18	2	125	24	14	11	4	16	M18x2 /3080/*	M18x2 /3080/*	M18x2 /3130/*	M18x2 /3130/*
M 18	1,5	110	24	14	11	4	16,5	M18x1,5 /3080/	M18x1,5 /3080/*	M18x1,5 /3130/	M18x1,5 /3130/*
M 18	1	110	24	14	11	4	17	M18x1 /3080/*	M18x1 /3080/*	M18x1 /3130/*	M18x1 /3130/*
M 20	2	140	30	16	12	4	18	M20x2 /3080/*	M20x2 /3080/*	M20x2 /3130/*	M20x2 /3130/*
M 20	1,5	125	24	16	12	4	18,5	M20x1,5 /3080/*	M20x1,5 /3080/*	M20x1,5 /3130/*	M20x1,5 /3130/*
M 20	1	125	24	16	12	4	19	M20x1 /3080/*	M20x1 /3080/*	M20x1 /3130/*	M20x1 /3130/*
M 22	2	140	30	18	14,5	4	20	M22x2 /3080/*	M22x2 /3080/*	M22x2 /3130/*	M22x2 /3130/*
M 22	1,5	125	24	18	14,5	4	20,5	M22x1,5 /3080/*	M22x1,5 /3080/*	M22x1,5 /3130/*	M22x1,5 /3130/*
M 22	1	125	24	18	14,5	4	21	M22x1 /3080/*	M22x1 /3080/*	M22x1 /3130/*	M22x1 /3130/*
M 24	2	140	26	18	14,5	4	22	M24x2 /3080/*	M24x2 /3080/*	M24x2 /3130/*	M24x2 /3130/*
M 24	1,5	140	26	18	14,5	4	22,5	M24x1,5 /3080/*	M24x1,5 /3080/*	M24x1,5 /3130/*	M24x1,5 /3130/*
M 24	1	140	26	18	14,5	4	23	M24x1 /3080/*	M24x1 /3080/*	M24x1 /3130/*	M24x1 /3130/*
M 25	2	140	26	18	14,5	4	23	M25x2 /3080/*	M25x2 /3080/*	M25x2 /3130/*	M25x2 /3130/*
M 25	1,5	140	26	18	14,5	4	23,5	M25x1,5 /3080/*	M25x1,5 /3080/*	M25x1,5 /3130/*	M25x1,5 /3130/*
M 26	1,5	140	26	18	14,5	4	24,5	M26x1,5 /3080/*	M26x1,5 /3080/*	M26x1,5 /3130/*	M26x1,5 /3130/*

* nonstandard supplies

MF | 60° P | DIN 13 | typ GG | HSSE | DIN 374 | ISO 2 6HX | >1,5d1 | <2,5d1

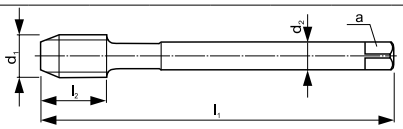
Material group
(**X.X** recommended use; X.X possible use)

6.1; 8.2 **3080**

6.1; 8.2 **3080 IKZ**

6.1; 8.2 **3130**

6.1; 8.2 **3130 IKZ**



z = number of flutes

Cat. No.								3080	3080 IKZ	3130	3130 IKZ
								TiCN	TiCN	TiCN	TiCN
								C 2 - 3	C 2 - 3 IKZ	E 1,5	E 1,5 IKZ
d_1	P	l_1	l_2	d_2	a	z	Ø mm				
M 27	2	140	26	20	16	4	25	M27x2 /3080/*	M27x2 /3080/*	M27x2 /3130/*	M27x2 /3130/*
M 27	1,5	140	26	20	16	4	25,5	M27x1,5 /3080/*	M27x1,5 /3080/*	M27x1,5 /3130/*	M27x1,5 /3130/*
M 27	1	140	26	20	16	4	26	M27x1 /3080/*	M27x1 /3080/*	M27x1 /3130/*	M27x1 /3130/*
M 28	2	140	26	20	16	4	26	M28x2 /3080/*	M28x2 /3080/*	M28x2 /3130/*	M28x2 /3130/*
M 28	1,5	140	26	20	16	4	26,5	M28x1,5 /3080/*	M28x1,5 /3080/*	M28x1,5 /3130/*	M28x1,5 /3130/*
M 30	2	150	28	22	18	4	28	M30x2 /3080/*	M30x2 /3080/*	M30x2 /3130/*	M30x2 /3130/*
M 30	1,5	150	28	22	18	4	28,5	M30x1,5 /3080/*	M30x1,5 /3080/*	M30x1,5 /3130/*	M30x1,5 /3130/*
M 30	1	150	28	22	18	4	29	M30x1 /3080/*	M30x1 /3080/*	M30x1 /3130/*	M30x1 /3130/*
M 32	1,5	150	28	22	18	5	30,5	M32x1,5 /3080/*	M32x1,5 /3080/*	M32x1,5 /3130/*	M32x1,5 /3130/*
M 33	2	160	30	25	20	5	31	M33x2 /3080/*	M33x2 /3080/*	M33x2 /3130/*	M33x2 /3130/*
M 33	1,5	160	30	25	20	5	31,5	M33x1,5 /3080/*	M33x1,5 /3080/*	M33x1,5 /3130/*	M33x1,5 /3130/*
M 34	1,5	170	30	28	22	5	32,5	M34x1,5 /3080/*	M34x1,5 /3080/*	M34x1,5 /3130/*	M34x1,5 /3130/*
M 35	1,5	170	30	28	22	5	33,5	M35x1,5 /3080/*	M35x1,5 /3080/*	M35x1,5 /3130/*	M35x1,5 /3130/*
M 36	3	200	42	28	22	5	33	M36x3 /3080/*	M36x3 /3080/*	M36x3 /3130/*	M36x3 /3130/*
M 36	2	170	30	28	22	5	34	M36x2 /3080/*	M36x2 /3080/*	M36x2 /3130/*	M36x2 /3130/*
M 36	1,5	170	30	28	22	5	34,5	M36x1,5 /3080/*	M36x1,5 /3080/*	M36x1,5 /3130/*	M36x1,5 /3130/*

* nonstandard supplies

Machine Taps

G | 55° P | DIN ISO 228 | typ N | HSSE | DIN 5156

Material group
(**X.X** recommended use; X.X possible use)

10.1; 1.1; 2.1; 6.1; 8.2

8.2; 10.1; 1.1; 2.1; 6.1

1.2; 2.2; 8.1; 1.1; 2.1; 2.3; 6.2; 8.2; 10.1

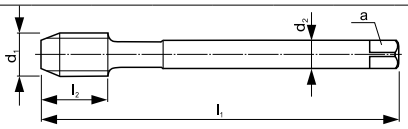
1.1; 1.2; 2.1; 2.2; 2.3; 6.2; 8.1; 8.2; 10.1

3002

3012

3502

3512



z = number of flutes

Cat. No.								3002	3012	3502	3512
									TiN		TiN
								C 2 - 3	C 2 - 3	B 3,5 - 6	B 3,5 - 6
d_1	N	l_1	l_2	d_2	a	z / z_B	Ø mm				
G 1/16"	28	90	18	6	4/4,9	3/3	6,8	G1/16 /3002/*	G1/16 /3012/*	G1/16 /3502/*	G1/16 /3512/*
G 1/8"	28	90	20	7	5,5	3/3	8,8	G1/8 /3002/	G1/8 /3012/	G1/8 /3502/	G1/8 /3512/
G 1/4"	19	100	21	11	9	3/3	11,8	G1/4 /3002/	G1/4 /3012/	G1/4 /3502/	G1/4 /3512/
G 3/8"	19	100	21	12	9	3/3	15,25	G3/8 /3002/	G3/8 /3012/	G3/8 /3502/	G3/8 /3512/
G 1/2"	14	125	24	16	12	3/3	19	G1/2 /3002/	G1/2 /3012/	G1/2 /3502/	G1/2 /3512/
G 5/8"	14	125	24	18	14,5	4/4	21	G5/8 /3002/	G5/8 /3012/	G5/8 /3502/	G5/8 /3512/
G 3/4"	14	140	26	20	16	4/4	24,5	G3/4 /3002/	G3/4 /3012/	G3/4 /3502/	G3/4 /3512/
G 7/8"	14	150	28	22	18	4/4	28,25	G7/8 /3002/	G7/8 /3012/	G7/8 /3502/	G7/8 /3512/
G 1"	11	160	30	25	20	4/4	30,75	G1 /3002/	G1 /3012/	G1 /3502/	G1 /3512/
G 1 1/8"	11	170	30	28	22	4/4	35,5	G1 1/8 /3002/	G1 1/8 /3012/	G1 1/8 /3502/	G1 1/8 /3512/
G 1 1/4"	11	170	30	32	24	4/4	39,5	G1 1/4 /3002/	G1 1/4 /3012/	G1 1/4 /3502/	G1 1/4 /3512/
G 1 3/8"	11	180	32	36	29	6/4	41,8	G1 3/8 /3002/	G1 3/8 /3012/	G1 3/8 /3502/	G1 3/8 /3512/
G 1 1/2"	11	190	32	36	29	6/6	45,25	G1 1/2 /3002/	G1 1/2 /3012/	G1 1/2 /3502/	G1 1/2 /3512/
G 1 3/4"	11	190	32	40	32	6/6	51,3	G1 3/4 /3002/	G1 3/4 /3012/	G1 3/4 /3502/	G1 3/4 /3512/
G 2"	11	220	40	45	35	6/6	57,2	G2 /3002/	G2 /3012/	G2 /3502/	G2 /3512/

* nonstandard supplies

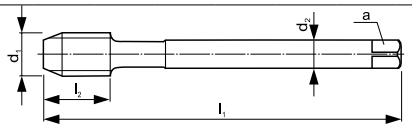
Material group
(**X.X** recommended use; X.X possible use)

2.2; 2.3; 8.1; 6.2; 10.2

4052

2.2; 2.3; 8.1; 6.2; 8.2; 10.2

4062

Cat. No.								4052	4062
 z = number of flutes									TiN
d_1	N	l_1	l_2	d_2	a	z	Ø mm		
G 1/16"	28	90	13	6	4,9	3	6,8	G1/16 /4052/*	G1/16 /4062/*
G 1/8"	28	90	12	7	5,5	3	8,8	G1/8 /4052/	G1/8 /4062/
G 1/4"	19	100	16	11	9	3	11,8	G1/4 /4052/	G1/4 /4062/
G 3/8"	19	100	16	12	9	3	15,25	G3/8 /4052/	G3/8 /4062/
G 1/2"	14	125	20	16	12	4	19	G1/2 /4052/	G1/2 /4062/
G 5/8"	14	125	20	18	14,5	4	21	G5/8 /4052/	G5/8 /4062/
G 3/4"	14	140	22	20	16	4	24,5	G3/4 /4052/	G3/4 /4062/
G 7/8"	14	150	26	22	18	4	28,25	G7/8 /4052/	G7/8 /4062/
G 1"	11	160	30	25	20	4	30,75	G1 /4052/	G1 /4062/
G 1 1/8"	11	170	30	28	22	5	35,5	G1 1/8 /4052/	G1 1/8 /4062/
G 1 1/4"	11	170	30	32	24	5	39,5	G1 1/4 /4052/	G1 1/4 /4062/
G 1 3/8"	11	180	32	36	29	5	41,8	G1 3/8 /4052/	G1 3/8 /4062/
G 1 1/2"	11	190	32	36	29	5	45,25	G1 1/2 /4052/	G1 1/2 /4062/
G 1 3/4"	11	190	32	40	32	5	51,3	G1 3/4 /4052/*	G1 3/4 /4062/*
G 2"	11	220	40	45	35	5	57,2	G2 /4052/*	G2 /4062/*

* nonstandard supplies

Machine Taps

G | 55° P | DIN ISO 228 | typ VA | HSSE | DIN 5156

Material group
(**X.X** recommended use; X.X possible use)

3.1; 5.1; 5.2; 9.1; 10.2

3662

3.1; 5.1; 5.2

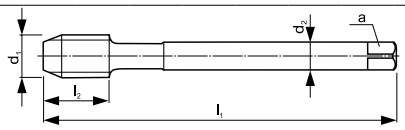
3692

3.1; 3.3; 5.1; 5.2; 6.2; 9.1; 10.1

4262

3.1; 5.1; 5.2

4292



z = number of flutes

Cat. No.									3662	3692	4262	4292
									TiN	OX	TiN	OX
									B 3,5 - 6		C 2 - 3	
d_1	N	l_1	l_2	$l_2^{R35°}$	d_2	a	$z/z^{R35°}$	Ø mm				
G 1/16"	28	90	18	13	6	4,9	3/3	6,8	G1/16 /3662/*	G1/16 /3692/*	G1/16 /4262/*	G1/16 /4292/*
G 1/8"	28	90	20	12	7	5,5	3/3	8,8	G1/8 /3662/	G1/8 /3692/	G1/8 /4262/	G1/8 /4292/
G 1/4"	19	100	21	16	11	9	3/3	11,8	G1/4 /3662/	G1/4 /3692/	G1/4 /4262/	G1/4 /4292/
G 3/8"	19	100	21	16	12	9	3/3	15,25	G3/8 /3662/	G3/8 /3692/	G3/8 /4262/	G3/8 /4292/
G 1/2"	14	125	24	20	16	12	3/4	19	G1/2 /3662/	G1/2 /3692/	G1/2 /4262/	G1/2 /4292/
G 5/8"	14	125	24	20	18	14,5	4/4	21	G5/8 /3662/	G5/8 /3692/	G5/8 /4262/	G5/8 /4292/
G 3/4"	14	140	26	22	20	16	4/4	24,5	G3/4 /3662/	G3/4 /3692/	G3/4 /4262/	G3/4 /4292/
G 7/8"	14	150	28	26	22	18	4/4	28,25	G7/8 /3662/	G7/8 /3692/	G7/8 /4262/	G7/8 /4292/
G 1"	11	160	30	30	25	20	4/4	30,75	G1 /3662/	G1 /3692/	G1 /4262/	G1 /4292/
G 1 1/8"	11	170	30	30	28	22	4/5	35,5	G1 1/8 /3662/	G1 1/8 /3692/	G1 1/8 /4262/	G1 1/8 /4292/
G 1 1/4"	11	170	30	30	32	24	4/5	39,5	G1 1/4 /3662/	G1 1/4 /3692/	G1 1/4 /4262/	G1 1/4 /4292/
G 1 3/8"	11	180	32	32	36	29	4/5	41,8	G1 3/8 /3662/	G1 3/8 /3692/	G1 3/8 /4262/	G1 3/8 /4292/
G 1 1/2"	11	190	32	32	36	29	6/5	45,25	G1 1/2 /3662/	G1 1/2 /3692/	G1 1/2 /4262/	G1 1/2 /4292/

* nonstandard supplies

UNC | 60° P | typ N | HSSE | ≈DIN 371 | 2B

Material group
(**X.X** recommended use; X.X possible use)

10.1; 1.1; 2.1; 6.1; 8.2

1004

8.2; 10.1; 1.1; 2.1; 6.1

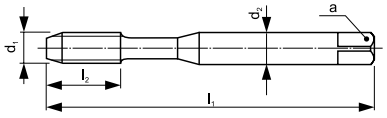
1014

1.2; 2.2; 8.1; 1.1; 2.1; 2.3; 6.2; 8.2; 10.1

1504

1.1; 1.2; 2.1; 2.2; 2.3; 6.2; 8.1; 8.2; 10.1

1514



z = number of flutes

Cat. No.								1004	1014	1504	1514
									TiN		TiN
								C 2 - 3		B 3,5 - 6	
d_1	N	l_1	l_2	d_2	a	z	Ø mm				
No. 5	40	56	9	3,5	2,7	3	2,6	UNC 5-40 /1004/	UNC 5-40 /1014/	UNC 5-40 /1504/	UNC 5-40 /1514/
No. 6	32	56	11	4	3	3	2,85	UNC 6-32 /1004/	UNC 6-32 /1014/	UNC 6-32 /1504/	UNC 6-32 /1514/
No. 8	32	63	12	4,5	3,4	3	3,5	UNC 8-32 /1004/	UNC 8-32 /1014/	UNC 8-32 /1504/	UNC 8-32 /1514/
No. 10	24	70	13	6	4,9	3	3,9	UNC 10-24 /1004/	UNC 10-24 /1014/	UNC 10-24 /1504/	UNC 10-24 /1514/
No. 12	24	80	15	6	4,9	3	4,5	UNC 12-24 /1004/	UNC 12-24 /1014/	UNC 12-24 /1504/	UNC 12-24 /1514/
1/4	20	80	15	7	5,2	3	5,2	UNC 1/4-20 /1004/	UNC 1/4-20 /1014/	UNC 1/4-20 /1504/	UNC 1/4-20 /1514/
5/16	18	90	18	8	6,2	3	6,6	UNC 5/16-18 /1004/	UNC 5/16-18 /1014/	UNC 5/16-18 /1504/	UNC 5/16-18 /1514/
3/8	16	90	20	9	7	3	8	UNC 3/8-16 /1004/	UNC 3/8-16 /1014/	UNC 3/8-16 /1504/	UNC 3/8-16 /1514/

* nonstandard supplies

Machine Taps

UNC | 60° P | typ N | HSSE | ≈DIN 376 | 2B

Material group
(**X.X** recommended use; X.X possible use)

10.1; 1.1; 2.1; 6.1; 8.2

8.2; 10.1; 1.1; 2.1; 6.1

1.2; 2.2; 8.1; 1.1; 2.1; 2.3; 6.2; 8.2; 10.1

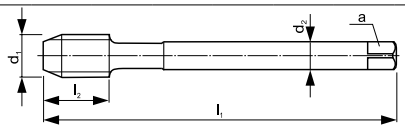
1.1; 1.2; 2.1; 2.2; 2.3; 6.2; 8.1; 8.2; 10.1

3004

3014

3504

3514



z = number of flutes

Cat. No.								3004	3014	3504	3514
									TiN		TiN
								C 2 - 3		B 3,5 - 6	
d_1	N	l_1	l_2	d_2	a	z	Ø mm				
7/16	14	100	20	8	6,2	3	9,4	UNC 7/16-14 /3004/	UNC 7/16-14 /3014/	UNC 7/16-14 /3504/	UNC 7/16-14 /3514/
1/2	13	110	23	9	7	3	10,75	UNC 1/2-13 /3004/	UNC 1/2-13 /3014/	UNC 1/2-13 /3504/	UNC 1/2-13 /3514/
9/16	12	110	25	11	9	3	12,25	UNC 9/16-12 /3004/	UNC 9/16-12 /3014/	UNC 9/16-12 /3504/	UNC 9/16-12 /3514/
5/8	11	110	25	12	9	3	13,5	UNC 5/8-11 /3004/	UNC 5/8-11 /3014/	UNC 5/8-11 /3504/	UNC 5/8-11 /3514/
3/4	10	125	30	14	11	3	16,5	UNC 3/4-10 /3004/	UNC 3/4-10 /3014/	UNC 3/4-10 /3504/	UNC 3/4-10 /3514/
7/8	9	140	30	18	14,5	3	19,5	UNC 7/8-9 /3004/	UNC 7/8-9 /3014/	UNC 7/8-9 /3504/	UNC 7/8-9 /3514/
1	8	160	36	18	14,5	3	22,25	UNC 1-8 /3004/	UNC 1-8 /3014/	UNC 1-8 /3504/	UNC 1-8 /3514/
1 1/8	7	180	40	22	18	4	25	UNC 1 1/8-7 /3004/	UNC 1 1/8-7 /3014/	UNC 1 1/8-7 /3504/	UNC 1 1/8-7 /3514/

* nonstandard supplies

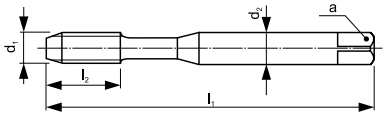
Material group
(**X.X** recommended use; X.X possible use)

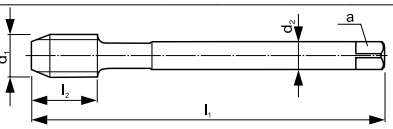
2.2; 2.3; 8.1; 6.2; 10.2 **2054**

2.2; 2.3; 8.1; 6.2; 10.2 **4054**

2.2; 2.3; 8.1; 6.2; 8.2; 10.2 **2064**

2.2; 2.3; 8.1; 6.2; 8.2; 10.2 **4064**

Cat. No.								2054	2064
≈DIN 371  z = number of flutes									TiN
d_1	N	l_1	l_2	d_2	a	z	Ø mm		
No. 5	40	56	5	3,5	2,7	3	2,6	UNC 5-40 /2054/	UNC 5-40 /2064/
No. 6	32	56	7	4	3	3	2,85	UNC 6-32 /2054/	UNC 6-32 /2064/
No. 8	32	63	7	4,5	3,4	3	3,5	UNC 8-32 /2054/	UNC 8-32 /2064/
No. 10	24	70	8	6	4,9	3	3,9	UNC 10-24 /2054/	UNC 10-24 /2064/
No. 12	24	80	10	6	4,9	3	4,5	UNC 12-24 /2054/	UNC 12-24 /2064/
1/4	20	80	10	7	5,2	3	5,2	UNC 1/4-20 /2054/	UNC 1/4-20 /2064/
5/16	18	90	13	8	6,2	3	6,6	UNC 5/16-18 /2054/	UNC 5/16-18 /2064/
3/8	16	90	15	9	7	3	8	UNC 3/8-16 /2054/	UNC 3/8-16 /2064/

Cat. No.								4054	4064
≈DIN 376  z = number of flutes									TiN
d_1	N	l_1	l_2	d_2	a	z	Ø mm		
7/16	14	100	18	8	6,2	3	9,4	UNC 7/16-14 /4054/	UNC 7/16-14 /4064/
1/2	13	110	20	9	7	3	10,75	UNC 1/2-13 /4054/	UNC 1/2-13 /4064/
9/16	12	110	20	11	9	3	12,25	UNC 9/16-12 /4054/	UNC 9/16-12 /4064/
5/8	11	110	20	12	9	3	13,5	UNC 5/8-11 /4054/	UNC 5/8-11 /4064/
3/4	10	125	25	14	11	4	16,5	UNC 3/4-10 /4054/	UNC 3/4-10 /4064/
7/8	9	140	25	18	14,5	4	19,5	UNC 7/8-9 /4054/	UNC 7/8-9 /4064/
1	8	160	30	18	14,5	4	22,25	UNC 1-8 /4054/	UNC 1-8 /4064/

* nonstandard supplies

Machine Taps

UNF | 60° P | typ **N** | **HSSE** | ≈ **DIN 374** | **2B**

Material group
(**X.X** recommended use; X.X possible use)

10.1; 1.1; 2.1; 6.1; 8.2

8.2; 10.1; 1.1; 2.1; 6.1

1.2; 2.2; 8.1; 1.1; 2.1; 2.3; 6.2; 8.2; 10.1

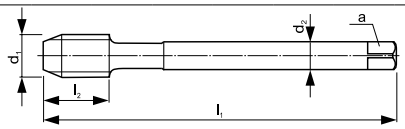
1.1; 1.2; 2.1; 2.2; 2.3; 6.2; 8.1; 8.2; 10.1

3005

3015

3505

3515



z = number of flutes

Cat. No.								3005	3015	3505	3515
									TiN		TiN
								C 2 - 3		B 3,5 - 6	
d_1	N	l_1	l_2	d_2	a	z	Ø mm				
No. 5	44	56	9	2,2	-	3	2,7	UNF 5-44 /3005/	UNF 5-44 /3015/	UNF 5-44 /3505/	UNF 5-44 /3515/
No. 6	40	56	11	2,5	2,1	3	3	UNF 6-40 /3005/	UNF 6-40 /3015/	UNF 6-40 /3505/	UNF 6-40 /3515/
No. 8	36	63	12	2,8	2,1	3	3,5	UNF 8-36 /3005/	UNF 8-36 /3015/	UNF 8-36 /3505/	UNF 8-36 /3515/
No. 10	32	70	13	3,5	2,7	3	4,1	UNF 10-32 /3005/	UNF 10-32 /3015/	UNF 10-32 /3505/	UNF 10-32 /3515/
No. 12	28	80	15	4	3	3	4,65	UNF 12-28 /3005/	UNF 12-28 /3015/	UNF 12-28 /3505/	UNF 12-28 /3515/
1/4	28	80	15	4,5	3,4	3	5,5	UNF 1/4-28 /3005/	UNF 1/4-28 /3015/	UNF 1/4-28 /3505/	UNF 1/4-28 /3515/
5/16	24	90	18	6	4,9	3	6,9	UNF 5/16-24 /3005/	UNF 5/16-24 /3015/	UNF 5/16-24 /3505/	UNF 5/16-24 /3515/
3/8	24	90	20	7	5,5	3	8,5	UNF 3/8-24 /3005/	UNF 3/8-24 /3015/	UNF 3/8-24 /3505/	UNF 3/8-24 /3515/
7/16	20	100	20	8	6,2	3	9,9	UNF 7/16-20 /3005/	UNF 7/16-20 /3015/	UNF 7/16-20 /3505/	UNF 7/16-20 /3515/
1/2	20	100	21	9	7	3	11,5	UNF 1/2-20 /3005/	UNF 1/2-20 /3015/	UNF 1/2-20 /3505/	UNF 1/2-20 /3515/
9/16	18	100	21	11	9	3	12,9	UNF 9/16-18 /3005/	UNF 9/16-18 /3015/	UNF 9/16-18 /3505/	UNF 9/16-18 /3515/
5/8	18	100	21	12	9	3	14,5	UNF 5/8-18 /3005/	UNF 5/8-18 /3015/	UNF 5/8-18 /3505/	UNF 5/8-18 /3515/
3/4	16	110	24	14	11	3	17,5	UNF 3/4-16 /3005/	UNF 3/4-16 /3015/	UNF 3/4-16 /3505/	UNF 3/4-16 /3515/
7/8	14	125	24	18	14,5	3	20,5	UNF 7/8-14 /3005/	UNF 7/8-14 /3015/	UNF 7/8-14 /3505/	UNF 7/8-14 /3515/
1	12	140	26	18	14,5	3	23,25	UNF 1-12 /3005/	UNF 1-12 /3015/	UNF 1-12 /3505/	UNF 1-12 /3515/
1 1/8	12	150	28	22	18	4	26,5	UNF 1 1/8-12 /3005/*	UNF 1 1/8-12 /3015/*	UNF 1 1/8-12 /3505/*	UNF 1 1/8-12 /3515/*

* nonstandard supplies

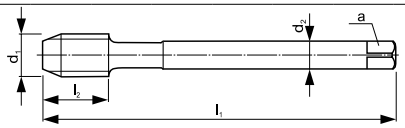
Material group
(**X.X** recommended use; X.X possible use)

2.2; 2.3; 8.1; 6.2; 10.2

4055

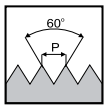
2.2; 2.3; 8.1; 6.2; 8.2; 10.2

4065

Cat. No.								4055	4065
 z = number of flutes									TiN
d_1	N	l_1	l_2	d_2	a	z	Ø mm		
No. 5	44	56	5	2,2	-	3	2,7	UNF 5-44 /4055/	UNF 5-44 /4065/
No. 6	40	56	7	2,5	2,1	3	3	UNF 6-40 /4055/	UNF 6-40 /4065/
No. 8	36	63	7	2,8	2,1	3	3,5	UNF 8-36 /4055/	UNF 8-36 /4065/
No. 10	32	70	8	3,5	2,7	3	4,1	UNF 10-32 /4055/	UNF 10-32 /4065/
No. 12	28	80	10	4	3	3	4,65	UNF 12-28 /4055/	UNF 12-28 /4065/
1/4	28	80	10	4,5	3,4	3	5,5	UNF 1/4-28 /4055/	UNF 1/4-28 /4065/
5/16	24	90	13	6	4,9	3	6,9	UNF 5/16-24 /4055/	UNF 5/16-24 /4065/
3/8	24	90	15	7	5,5	3	8,5	UNF 3/8-24 /4055/	UNF 3/8-24 /4065/
7/16	20	100	15	8	6,2	3	9,9	UNF 7/16-20 /4055/	UNF 7/16-20 /4065/
1/2	20	100	14	9	7	3	11,5	UNF 1/2-20 /4055/	UNF 1/2-20 /4065/
9/16	18	100	16	11	9	3	12,9	UNF 9/16-18 /4055/	UNF 9/16-18 /4065/
5/8	18	100	16	12	9	3	14,5	UNF 5/8-18 /4055/	UNF 5/8-18 /4065/
3/4	16	110	20	14	11	4	17,5	UNF 3/4-16 /4055/	UNF 3/4-16 /4065/
7/8	14	125	20	18	14,5	4	20,5	UNF 7/8-14 /4055/	UNF 7/8-14 /4065/
1	12	140	22	18	14,5	4	23,25	UNF 1-12 /4055/	UNF 1-12 /4065/

* nonstandard supplies

Short Machine Taps

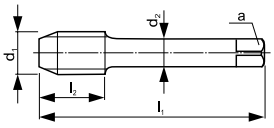
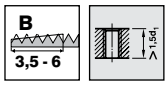
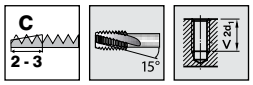
M |  | **DIN 13** | **typ N** | **HSSE** | **DIN 352** | **ISO 2 6H**

Material group
(**X.X** recommended use; X.X possible use)

1.2; 2.2; 8.1; 1.1; 2.1; 2.3; 6.2; 8.2; 10.1 **0550**

2.2; 2.3; 8.1; 6.2; 10.2 **0600**

10.1; 2.2 **0650**

Cat. No.									0550	0600	0650
 z = number of flutes											
d_1	N	l_1	l_2	l_2 R35°	d_2	a	z	Ø mm			
M 3	0,5	40	9	5	3,5	2,7	3	2,5	M3 /0550/	M3 /0600/	M3 /0650/
M 4	0,7	45	12	7	4,5	3,4	3	3,3	M4 /0550/	M4 /0600/	M4 /0650/
M 5	0,8	50	13	8	6	4,9	3	4,2	M5 /0550/	M5 /0600/	M5 /0650/
M 6	1	56	15	10	6	4,9	3	5	M6 /0550/	M6 /0600/	M6 /0650/
M 8	1,25	63	18	13	6	4,9	3	6,8	M8 /0550/	M8 /0600/	M8 /0650/
M 10	1,5	70	20	15	7	5,5	3	8,5	M10 /0550/	M10 /0600/	M10 /0650/
M 12	1,75	75	23	18	9	7	3	10,2	M12 /0550/	M12 /0600/	M12 /0650/

* nonstandard supplies

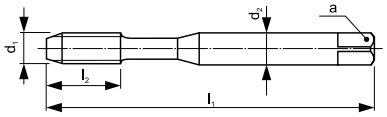
Material group
(**X.X** recommended use; X.X possible use)

11.1; 1.1; 2.1; 2.2; 7.1; 8.1

2910

1.1; 2.2; 7.1; 8.1; 9.1; 1.2; 2.1

2960

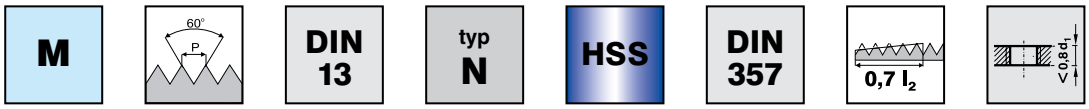


z = number of flutes

Cat. No.							2910	2910	2960	2960
							TiN	TiN	TiN	TiN
							ISO 2 6HX	ISO 3 6GX	ISO 2 6HX	ISO 3 6GX
d_1	P	l_1	l_2	d_2	a	Ø mm				
M 3	0,5	56	11	3,5	2,7	Viz str. 103 See page No. 103	M3 /2910/	M3 /2910/	M3 /2960/	M3 /2960/
M 3,5	0,6	56	12	4	3		M3,5 /2910/	M3,5 /2910/	M3,5 /2960/	M3,5 /2960/
M 4	0,7	63	13	4,5	3,4		M4 /2910/	M4 /2910/	M4 /2960/	M4 /2960/
M 5	0,8	70	16	6	4,9		M5 /2910/	M5 /2910/	M5 /2960/	M5 /2960/
M 6	1	80	19	6	4,9		M6 /2910/	M6 /2910/	M6 /2960/	M6 /2960/
M 8	1,25	90	22	8	6,2		M8 /2910/	M8 /2910/	M8 /2960/	M8 /2960/
M 10	1,5	100	24	10	8		M10 /2910/	M10 /2910/	M10 /2960/	M10 /2960/
M 12	1,75	110	28	9	7		M12 /2910/	M12 /2910/	M12 /2960/	M12 /2960/

* nonstandard supplies

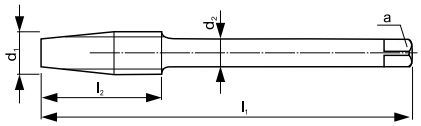
Nut Taps



Material group
(**X.X** recommended use; X.X possible use)

1.1; 1.2; 2.1; 2.2; 8.1; 8.2; 10.1; 10.2

5000

Cat. No.								5000
 z = number of flutes								
d_1	N	l_1	l_2	d_2	a	z	Ø mm	
M 3	0,5	70	22	2,2	-	3	2,5	M3 /5000/
M 4	0,7	90	25	2,8	2,1	3	3,3	M4 /5000/
M 5	0,8	100	28	3,5	2,7	3	4,2	M5 /5000/
M 6	1	110	32	4,5	3,5	3	5	M6 /5000/
M 7	1	110	36	5,5	4,3	3	6	M7 /5000/
M 8	1,25	125	40	6	4,9	3	6,8	M8 /5000/
M 10	1,5	140	45	7	5,5	3	8,5	M10 /5000/
M 11	1,5	160	45	8	6,2	3	9,5	M11 /5000/*
M 12	1,75	180	50	9	7	3	10,2	M12 /5000/
M 14	2	200	56	11	9	3	12	M14 /5000/
M 16	2	200	63	12	9	3	14	M16 /5000/
M 18	2,5	220	63	14	11	3	15,5	M18 /5000/
M 20	2,5	250	70	16	12	3	17,5	M20 /5000/

* nonstandard supplies

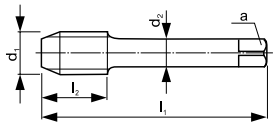
M | 60° P | DIN 13 | typ N | HSS | DIN 352 | ISO 2 6H | C 2 - 3 | >1,5d1 | V 2d1

Material group
(**X.X** recommended use; X.X possible use)

1.1; 1.2; 2.1; 2.2; 2.3; 6.1; 6.2; 8.1; 10.1; 8.2

0200

3 pcs in set

Cat. No.								0200			0200		
 z = number of flutes								RH			LH		
d_1	P	l_1	l_2	d_2	a	z	Ø mm	serial number 1	serial number 2	serial number 3	serial number 1	serial number 2	serial number 3
M 3	0,5	40	9	3,5	2,7	3	2,5	M3 C.1 /0200/	M3 C.2 /0200/	M3 C.3 /0200/	M3 C.1 /0200/	M3 C.2 /0200/	M3 C.3 /0200/
M 3,5	0,6	45	11	4	3	3	2,9	M3,5 C.1 /0200/	M3,5 C.2 /0200/	M3,5 C.3 /0200/	M3,5 C.1 /0200/*	M3,5 C.2 /0200/*	M3,5 C.3 /0200/*
M 4	0,7	45	12	4,5	3,4	3	3,3	M4 C.1 /0200/	M4 C.2 /0200/	M4 C.3 /0200/	M4 C.1 /0200/	M4 C.2 /0200/	M4 C.3 /0200/
M 4,5	0,75	50	13	6	4,9	3	3,7	M4,5 C.1 /0200/	M4,5 C.2 /0200/	M4,5 C.3 /0200/	M4,5 C.1 /0200/*	M4,5 C.2 /0200/*	M4,5 C.3 /0200/*
M 5	0,8	50	13	6	4,9	3	4,2	M5 C.1 /0200/	M5 C.2 /0200/	M5 C.3 /0200/	M5 C.1 /0200/	M5 C.2 /0200/	M5 C.3 /0200/
M 6	1	56	15	6	4,9	3	5	M6 C.1 /0200/	M6 C.2 /0200/	M6 C.3 /0200/	M6 C.1 /0200/	M6 C.2 /0200/	M6 C.3 /0200/
M 7	1	56	15	6	4,9	3	6	M7 C.1 /0200/	M7 C.2 /0200/	M7 C.3 /0200/	M7 C.1 /0200/*	M7 C.2 /0200/*	M7 C.3 /0200/*
M 8	1,25	63	18	6	4,9	3	6,8	M8 C.1 /0200/	M8 C.2 /0200/	M8 C.3 /0200/	M8 C.1 /0200/	M8 C.2 /0200/	M8 C.3 /0200/
M 9	1,25	63	18	7	5,5	3	7,8	M9 C.1 /0200/	M9 C.2 /0200/	M9 C.3 /0200/	M9 C.1 /0200/*	M9 C.2 /0200/*	M9 C.3 /0200/*
M 10	1,5	70	20	7	5,5	3	8,5	M10 C.1 /0200/	M10 C.2 /0200/	M10 C.3 /0200/	M10 C.1 /0200/	M10 C.2 /0200/	M10 C.3 /0200/
M 11	1,5	70	20	8	6,2	3	9,5	M11 C.1 /0200/	M11 C.2 /0200/	M11 C.3 /0200/	M11 C.1 /0200/*	M11 C.2 /0200/*	M11 C.3 /0200/*
M 12	1,75	75	23	9	7	3	10,2	M12 C.1 /0200/	M12 C.2 /0200/	M12 C.3 /0200/	M12 C.1 /0200/	M12 C.2 /0200/	M12 C.3 /0200/
M 14	2	80	25	11	9	4	12	M14 C.1 /0200/	M14 C.2 /0200/	M14 C.3 /0200/	M14 C.1 /0200/	M14 C.2 /0200/	M14 C.3 /0200/
M 16	2	80	25	12	9	4	14	M16 C.1 /0200/	M16 C.2 /0200/	M16 C.3 /0200/	M16 C.1 /0200/	M16 C.2 /0200/	M16 C.3 /0200/
M 18	2,5	95	30	14	11	4	15,5	M18 C.1 /0200/	M18 C.2 /0200/	M18 C.3 /0200/	M18 C.1 /0200/	M18 C.2 /0200/	M18 C.3 /0200/
M 20	2,5	95	30	16	12	4	17,5	M20 C.1 /0200/	M20 C.2 /0200/	M20 C.3 /0200/	M20 C.1 /0200/	M20 C.2 /0200/	M20 C.3 /0200/
M 22	2,5	100	30	18	14,5	4	19,5	M22 C.1 /0200/	M22 C.2 /0200/	M22 C.3 /0200/	M22 C.1 /0200/*	M22 C.2 /0200/*	M22 C.3 /0200/*
M 24	3	110	34	18	14,5	4	21	M24 C.1 /0200/	M24 C.2 /0200/	M24 C.3 /0200/	M24 C.1 /0200/*	M24 C.2 /0200/*	M24 C.3 /0200/*
M 27	3	110	34	20	16	4	24	M27 C.1 /0200/	M27 C.2 /0200/	M27 C.3 /0200/	M27 C.1 /0200/*	M27 C.2 /0200/*	M27 C.3 /0200/*
M 30	3,5	125	40	22	18	4	26,5	M30 C.1 /0200/	M30 C.2 /0200/	M30 C.3 /0200/	M30 C.1 /0200/*	M30 C.2 /0200/*	M30 C.3 /0200/*
M 33	3,5	125	40	25	20	4	29,5	M33 C.1 /0200/	M33 C.2 /0200/	M33 C.3 /0200/	M33 C.1 /0200/*	M33 C.2 /0200/*	M33 C.3 /0200/*
M 36	4	150	50	28	22	4	32	M36 C.1 /0200/	M36 C.2 /0200/	M36 C.3 /0200/	M36 C.1 /0200/*	M36 C.2 /0200/*	M36 C.3 /0200/*
M 39	4	150	50	32	24	4	35	M39 C.1 /0200/	M39 C.2 /0200/	M39 C.3 /0200/	M39 C.1 /0200/*	M39 C.2 /0200/*	M39 C.3 /0200/*
M 42	4,5	150	56	32	24	4	37,5	M42 C.1 /0200/	M42 C.2 /0200/	M42 C.3 /0200/	M42 C.1 /0200/*	M42 C.2 /0200/*	M42 C.3 /0200/*
M 45	4,5	160	58	36	29	6	40,5	M45 C.1 /0200/	M45 C.2 /0200/	M45 C.3 /0200/	M45 C.1 /0200/*	M45 C.2 /0200/*	M45 C.3 /0200/*
M 48	5	180	65	36	29	6	43	M48 C.1 /0200/	M48 C.2 /0200/	M48 C.3 /0200/	M48 C.1 /0200/*	M48 C.2 /0200/*	M48 C.3 /0200/*
M 52	5	180	65	40	32	6	47	M52 C.1 /0200/	M52 C.2 /0200/	M52 C.3 /0200/	M52 C.1 /0200/*	M52 C.2 /0200/*	M52 C.3 /0200/*

* nonstandard supplies

Hand Taps

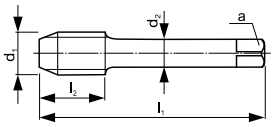
M | 60° P | DIN 13 | typ N | HSSE | DIN 352 | ISO 2 6H | C 2 - 3 | >1,5d1 | 2d1

Material group
(**X.X** recommended use; X.X possible use)

5.1; 5.2; 6.1; 6.2

0290

3 pcs in set

Cat. No.								0290		
 z = number of flutes								OX		
d_1	P	l_1	l_2	d_2	a	z	Ø mm	serial number 1	2	3
M 3	0,5	40	11	3,5	2,7	3	2,5	M3 C.1 /0290/	M3 C.2 /0290/	M3 C.3 /0290/
M 3,5	0,6	45	12	4	3	3	2,9	M3,5 C.1 /0290/*	M3,5 C.2 /0290/*	M3,5 C.3 /0290/*
M 4	0,7	45	13	4,5	3,4	3	3,3	M4 C.1 /0290/	M4 C.2 /0290/	M4 C.3 /0290/
M 4,5	0,75	50	16	6	4,9	3	3,7	M4,5 C.1 /0290/*	M4,5 C.2 /0290/*	M4,5 C.3 /0290/*
M 5	0,8	50	16	6	4,9	3	4,2	M5 C.1 /0290/	M5 C.2 /0290/	M5 C.3 /0290/
M 6	1	56	19	6	4,9	3	5	M6 C.1 /0290/	M6 C.2 /0290/	M6 C.3 /0290/
M 7	1	56	19	6	4,9	3	6	M7 C.1 /0290/*	M7 C.2 /0290/*	M7 C.3 /0290/*
M 8	1,25	63	22	6	4,9	3	6,8	M8 C.1 /0290/	M8 C.2 /0290/	M8 C.3 /0290/
M 9	1,25	63	22	7	5,5	3	7,8	M9 C.1 /0290/*	M9 C.2 /0290/*	M9 C.3 /0290/*
M 10	1,5	70	24	7	5,5	3	8,5	M10 C.1 /0290/	M10 C.2 /0290/	M10 C.3 /0290/
M 11	1,5	70	24	8	6,2	3	9,5	M11 C.1 /0290/*	M11 C.2 /0290/*	M11 C.3 /0290/*
M 12	1,75	75	29	9	7	3	10,2	M12 C.1 /0290/	M12 C.2 /0290/	M12 C.3 /0290/
M 14	2	80	30	11	9	4	12	M14 C.1 /0290/	M14 C.2 /0290/	M14 C.3 /0290/
M 16	2	80	32	12	9	4	14	M16 C.1 /0290/	M16 C.2 /0290/	M16 C.3 /0290/
M 18	2,5	95	40	14	11	4	15,5	M18 C.1 /0290/	M18 C.2 /0290/	M18 C.3 /0290/
M 20	2,5	95	40	16	12	4	17,5	M20 C.1 /0290/	M20 C.2 /0290/	M20 C.3 /0290/

* nonstandard supplies

MF | 60° P | DIN 13 | typ N | HSS | DIN 2181 | ISO 2 6H | C 2 - 3 | >1,5d1 | <2d1

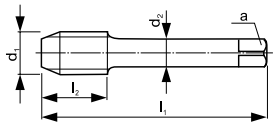
Material group
(**X.X** recommended use; X.X possible use)

1.1; 1.2; 2.1; 2.2; 2.3; 6.1; 6.2; 8.1; 10.1; 8.2

0300

2 pcs in set

Cat. No. **0300**



z = number of flutes

d_1	P	l_1	l_2	d_2	a	z	Ø mm	serial number 1	serial number 3
M 3	0,35	40	8	3,5	2,7	3	2,65	M3x0,35 C.1 /0300/*	M3x0,35 C.3 /0300/*
M 3,5	0,35	45	8	4	3	3	3,15	M3,5x0,35 C.1 /0300/*	M3,5x0,35 C.3 /0300/*
M 4	0,5	45	9	4,5	3,4	3	3,5	M4x0,5 C.1 /0300/*	M4x0,5 C.3 /0300/*
M 4	0,35	45	9	4,5	3,4	3	3,65	M4x0,35 C.1 /0300/*	M4x0,35 C.3 /0300/*
M 4,5	0,5	50	10	6	4,9	3	4	M4,5x0,5 C.1 /0300/	M4,5x0,5 C.3 /0300/
M 5	0,5	50	10	6	4,9	3	4,5	M5x0,5 C.1 /0300/	M5x0,5 C.3 /0300/
M 5,5	0,5	56	11	6	4,9	3	5	M5,5x0,5 C.1 /0300/	M5,5x0,5 C.3 /0300/
M 6	0,75	56	11	6	4,9	3	5,2	M6x0,75 C.1 /0300/	M6x0,75 C.3 /0300/
M 6	0,5	56	11	6	4,9	3	5,5	M6x0,5 C.1 /0300/	M6x0,5 C.3 /0300/
M 7	0,75	56	11	6	4,9	3	6,2	M7x0,75 C.1 /0300/	M7x0,75 C.3 /0300/
M 8	1	63	18	6	4,9	3	7	M8x1 C.1 /0300/	M8x1 C.3 /0300/
M 8	0,75	56	14	6	4,9	3	7,2	M8x0,75 C.1 /0300/	M8x0,75 C.3 /0300/
M 8	0,5	56	14	6	4,9	3	7,5	M8x0,5 C.1 /0300/	M8x0,5 C.3 /0300/
M 9	1	63	18	7	5,5	3	8	M9x1 C.1 /0300/	M9x1 C.3 /0300/
M 9	0,75	56	14	7	5,5	3	8,2	M9x0,75 C.1 /0300/	M9x0,75 C.3 /0300/
M 10	1,25	70	20	7	5,5	3	8,8	M10x1,25 C.1 /0300/	M10x1,25 C.3 /0300/
M 10	1	63	18	7	5,5	3	9	M10x1 C.1 /0300/	M10x1 C.3 /0300/
M 10	0,75	63	18	7	5,5	3	9,2	M10x0,75 C.1 /0300/	M10x0,75 C.3 /0300/
M 11	1	63	18	8	6,2	3	10	M11x1 C.1 /0300/	M11x1 C.3 /0300/
M 11	0,75	63	18	8	6,2	3	10,2	M11x0,75 C.1 /0300/*	M11x0,75 C.3 /0300/*
M 12	1,5	70	20	9	7	3	10,5	M12x1,5 C.1 /0300/	M12x1,5 C.3 /0300/
M 12	1,25	70	20	9	7	3	10,8	M12x1,25 C.1 /0300/	M12x1,25 C.3 /0300/
M 12	1	70	18	9	7	3	11	M12x1 C.1 /0300/	M12x1 C.3 /0300/
M 13	1	70	18	11	9	3	12	M13x1 C.1 /0300/	M13x1 C.3 /0300/
M 14	1,5	70	20	11	9	4	12,5	M14x1,5 C.1 /0300/	M14x1,5 C.3 /0300/
M 14	1,25	70	20	11	9	4	12,8	M14x1,25 C.1 /0300/	M14x1,25 C.3 /0300/
M 14	1	70	18	11	9	4	13	M14x1 C.1 /0300/	M14x1 C.3 /0300/
M 15	1,5	70	20	12	9	4	13,5	M15x1,5 C.1 /0300/	M15x1,5 C.3 /0300/
M 15	1	70	18	12	9	4	14	M15x1 C.1 /0300/	M15x1 C.3 /0300/
M 16	1,5	70	20	12	9	4	14,5	M16x1,5 C.1 /0300/	M16x1,5 C.3 /0300/
M 16	1	70	18	12	9	4	15	M16x1 C.1 /0300/	M16x1 C.3 /0300/
M 17	1,5	70	20	12	9	4	15,5	M17x1,5 C.1 /0300/*	M17x1,5 C.3 /0300/*
M 17	1	70	18	12	9	4	16	M17x1 C.1 /0300/	M17x1 C.3 /0300/
M 18	2	80	22	14	11	4	16	M18x2 C.1 /0300/	M18x2 C.3 /0300/
M 18	1,5	80	22	14	11	4	16,5	M18x1,5 C.1 /0300/	M18x1,5 C.3 /0300/
M 18	1	80	18	14	11	4	17	M18x1 C.1 /0300/	M18x1 C.3 /0300/
M 20	2	80	22	16	12	4	18	M20x2 C.1 /0300/	M20x2 C.3 /0300/
M 20	1,5	80	22	16	12	4	18,5	M20x1,5 C.1 /0300/	M20x1,5 C.3 /0300/
M 20	1	80	18	16	12	4	19	M20x1 C.1 /0300/	M20x1 C.3 /0300/
M 22	2	80	22	18	14,5	4	20	M22x2 C.1 /0300/	M22x2 C.3 /0300/
M 22	1,5	80	22	18	14,5	4	20,5	M22x1,5 C.1 /0300/	M22x1,5 C.3 /0300/
M 22	1	80	18	18	14,5	4	21	M22x1 C.1 /0300/	M22x1 C.3 /0300/
M 24	2	90	22	18	14,5	4	22	M24x2 C.1 /0300/	M24x2 C.3 /0300/
M 24	1,5	90	22	18	14,5	4	22,5	M24x1,5 C.1 /0300/	M24x1,5 C.3 /0300/
M 24	1	90	18	18	14,5	4	23	M24x1 C.1 /0300/	M24x1 C.3 /0300/
M 25	2	90	22	18	14,5	4	23	M25x2 C.1 /0300/*	M25x2 C.3 /0300/*
M 25	1,5	90	22	18	14,5	4	23,5	M25x1,5 C.1 /0300/	M25x1,5 C.3 /0300/
M 26	1,5	90	22	18	14,5	4	24,5	M26x1,5 C.1 /0300/	M26x1,5 C.3 /0300/
M 27	2	90	22	20	16	4	25	M27x2 C.1 /0300/	M27x2 C.3 /0300/
M 27	1,5	90	22	20	16	4	25,5	M27x1,5 C.1 /0300/	M27x1,5 C.3 /0300/
M 27	1	90	18	20	16	4	26	M27x1 C.1 /0300/	M27x1 C.3 /0300/
M 28	2	90	22	20	16	4	26	M28x2 C.1 /0300/	M28x2 C.3 /0300/

* nonstandard supplies

Hand Taps

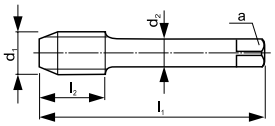
MF | 60° P | DIN 13 | typ N | HSS | DIN 2181 | ISO 2 6H | C 2 - 3 | >1,5d1 | <2d1

Material group
(**X.X** recommended use; X.X possible use)

1.1; 1.2; 2.1; 2.2; 2.3; 6.1; 6.2; 8.1; 10.1; 8.2

0300

2 pcs in set

Cat. No.								0300	
 z = number of flutes									
d_1	P	l_1	l_2	d_2	a	z	Ø mm	serial number 1	serial number 3
M 28	1,5	90	22	20	16	4	26,5	M28x1,5 C.1 /0300/	M28x1,5 C.3 /0300/
M 30	2	90	22	22	18	4	28	M30x2 C.1 /0300/	M30x2 C.3 /0300/
M 30	1,5	90	22	22	18	4	28,5	M30x1,5 C.1 /0300/	M30x1,5 C.3 /0300/
M 30	1	90	18	22	18	4	29	M30x1 C.1 /0300/	M30x1 C.3 /0300/
M 32	1,5	90	22	22	18	4	30,5	M32x1,5 C.1 /0300/	M32x1,5 C.3 /0300/
M 33	2	100	25	25	20	4	31	M33x2 C.1 /0300/	M33x2 C.3 /0300/
M 33	1,5	100	25	25	20	4	31,5	M33x1,5 C.1 /0300/	M33x1,5 C.3 /0300/
M 34	1,5	100	25	28	22	4	32,5	M34x1,5 C.1 /0300/	M34x1,5 C.3 /0300/
M 35	1,5	100	25	28	22	4	33,5	M35x1,5 C.1 /0300/	M35x1,5 C.3 /0300/
M 36	3	125	36	28	22	4	33	M36x3 C.1 /0300/	M36x3 C.3 /0300/
M 36	2	125	30	28	22	4	34	M36x2 C.1 /0300/	M36x2 C.3 /0300/
M 36	1,5	100	25	28	22	4	34,5	M36x1,5 C.1 /0300/	M36x1,5 C.3 /0300/
M 38	1,5	100	25	28	22	4	36,5	M38x1,5 C.1 /0300/	M38x1,5 C.3 /0300/
M 39	3	125	36	32	24	4	36	M39x3 C.1 /0300/	M39x3 C.3 /0300/
M 39	2	125	30	32	24	4	37	M39x2 C.1 /0300/	M39x2 C.3 /0300/
M 39	1,5	110	25	32	24	4	37,5	M39x1,5 C.1 /0300/	M39x1,5 C.3 /0300/
M 40	3	125	36	32	24	4	37	M40x3 C.1 /0300/	M40x3 C.3 /0300/
M 40	2	125	30	32	24	4	38	M40x2 C.1 /0300/	M40x2 C.3 /0300/
M 40	1,5	110	25	32	24	4	38,5	M40x1,5 C.1 /0300/	M40x1,5 C.3 /0300/
M 42	3	125	36	32	24	4	39	M42x3 C.1 /0300/	M42x3 C.3 /0300/
M 42	2	125	30	32	24	4	40	M42x2 C.1 /0300/	M42x2 C.3 /0300/
M 42	1,5	110	25	32	24	4	40,5	M42x1,5 C.1 /0300/	M42x1,5 C.3 /0300/
M 45	3	125	36	36	29	6	42	M45x3 C.1 /0300/	M45x3 C.3 /0300/
M 45	2	125	30	36	29	6	43	M45x2 C.1 /0300/	M45x2 C.3 /0300/
M 45	1,5	110	25	36	29	6	43,5	M45x1,5 C.1 /0300/	M45x1,5 C.3 /0300/
M 48	3	140	36	36	29	6	45	M48x3 C.1 /0300/	M48x3 C.3 /0300/
M 48	2	140	30	36	29	6	46	M48x2 C.1 /0300/	M48x2 C.3 /0300/
M 48	1,5	140	25	36	29	6	46,5	M48x1,5 C.1 /0300/	M48x1,5 C.3 /0300/
M 50	3	140	36	36	29	6	47	M50x3 C.1 /0300/	M50x3 C.3 /0300/
M 50	2	140	30	36	29	6	48	M50x2 C.1 /0300/	M50x2 C.3 /0300/
M 50	1,5	140	25	36	29	6	48,5	M50x1,5 C.1 /0300/	M50x1,5 C.3 /0300/
M 52	3	140	40	40	32	6	49	M52x3 C.1 /0300/	M52x3 C.3 /0300/
M 52	2	140	32	40	32	6	50	M52x2 C.1 /0300/	M52x2 C.3 /0300/
M 52	1,5	140	25	40	32	6	50,5	M52x1,5 C.1 /0300/	M52x1,5 C.3 /0300/

* nonstandard supplies

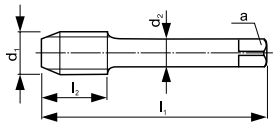
G | 55° P | DIN ISO 228 | typ N | HSS | DIN 5157 | C 2 - 3 | >1,5d1 | <2d1

Material group
(**X.X** recommended use; X.X possible use)

1.1; 1.2; 2.1; 2.2; 2.3; 6.1; 6.2; 8.1; 10.1; 8.2

0302

2 pcs in set

Cat. No.								0302	
 z = number of flutes									
d_1	N	l_1	l_2	d_2	a	z	Ø mm	serial number 1	serial number 3
G 1/16"	28	63	17	6	4,9	3	6,8	G1/16 C.1 /0302/*	G1/16 C.3 /0302/*
G 1/8"	28	63	18	7	5,5	4	8,8	G1/8 C.1 /0302/	G1/8 C.3 /0302/
G 1/4"	19	70	20	11	9	4	11,8	G1/4 C.1 /0302/	G1/4 C.3 /0302/
G 3/8"	19	70	20	12	9	4	15,25	G3/8 C.1 /0302/	G3/8 C.3 /0302/
G 1/2"	14	80	22	16	12	4	19	G1/2 C.1 /0302/	G1/2 C.3 /0302/
G 5/8"	14	80	22	18	14,5	4	21	G5/8 C.1 /0302/	G5/8 C.3 /0302/
G 3/4"	14	90	22	20	16	4	24,5	G3/4 C.1 /0302/	G3/4 C.3 /0302/
G 7/8"	14	90	22	22	18	4	28,25	G7/8 C.1 /0302/	G7/8 C.3 /0302/
G 1"	11	100	25	25	20	4	30,75	G1 C.1 /0302/	G1 C.3 /0302/
G 1 1/8"	11	125	30	28	22	4	35,5	G1 1/8 C.1 /0302/	G1 1/8 C.3 /0302/
G 1 1/4"	11	125	30	32	24	4	39,5	G1 1/4 C.1 /0302/	G1 1/4 C.3 /0302/
G 1 3/8"	11	125	30	36	29	6	41,8	G1 3/8 C.1 /0302/	G1 3/8 C.3 /0302/
G 1 1/2"	11	140	30	36	29	6	45,25	G1 1/2 C.1 /0302/	G1 1/2 C.3 /0302/
G 1 3/4"	11	140	32	40	32	6	51,3	G1 3/4 C.1 /0302/	G1 3/4 C.3 /0302/
G 2"	11	160	36	45	35	6	57,2	G2 C.1 /0302/	G2 C.3 /0302/

* nonstandard supplies

Hand Taps

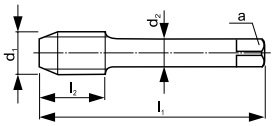
UNC | 60° P | typ N | HSS | ≈DIN 352 | 2B | C 2 - 3 | >1,5d1 | <2d1

Material group
(**X.X** recommended use; X.X possible use)

1.1; 1.2; 2.1; 2.2; 2.3; 6.1; 6.2; 8.1; 10.1; 8.2

0204

3 pcs in set

Cat. No.								0204		
 z = number of flutes										
d_1	N	l_1	l_2	d_2	a	z	Ø mm	serial number 1	2	3
No. 5	40	40	10	3,5	2,7	3	2,6	UNC 5-40 C.1 /0204/	UNC 5-40 C.2 /0204/	UNC 5-40 C.3 /0204/
No. 6	32	45	11	4	3	3	2,85	UNC 6-32 C.1 /0204/	UNC 6-32 C.2 /0204/	UNC 6-32 C.3 /0204/
No. 8	32	45	12	4,5	3,4	3	3,5	UNC 8-32 C.1 /0204/	UNC 8-32 C.2 /0204/	UNC 8-32 C.3 /0204/
No. 10	24	50	14	6	4,9	3	3,9	UNC 10-24 C.1 /0204/	UNC 10-24 C.2 /0204/	UNC 10-24 C.3 /0204/
No. 12	24	56	16	6	4,9	3	4,5	UNC 12-24 C.1 /0204/	UNC 12-24 C.2 /0204/	UNC 12-24 C.3 /0204/
1/4	20	56	16	6	4,9	3	5,2	UNC 1/4-20 C.1 /0204/	UNC 1/4-20 C.2 /0204/	UNC 1/4-20 C.3 /0204/
5/16	18	63	20	6	4,9	3	6,6	UNC 5/16-18 C.1 /0204/	UNC 5/16-18 C.2 /0204/	UNC 5/16-18 C.3 /0204/
3/8	16	70	22	7	5,5	3	8	UNC 3/8-16 C.1 /0204/	UNC 3/8-16 C.2 /0204/	UNC 3/8-16 C.3 /0204/
7/16	14	70	22	8	6,2	3	9,4	UNC 7/16-14 C.1 /0204/	UNC 7/16-14 C.2 /0204/	UNC 7/16-14 C.3 /0204/
1/2	13	75	25	9	7	3	10,75	UNC 1/2-13 C.1 /0204/	UNC 1/2-13 C.2 /0204/	UNC 1/2-13 C.3 /0204/
9/16	12	80	26	11	9	3	12,25	UNC 9/16-12 C.1 /0204/	UNC 9/16-12 C.2 /0204/	UNC 9/16-12 C.3 /0204/
5/8	11	80	27	12	9	3	13,5	UNC 5/8-11 C.1 /0204/	UNC 5/8-11 C.2 /0204/	UNC 5/8-11 C.3 /0204/
3/4	10	95	32	14	11	4	16,5	UNC 3/4-10 C.1 /0204/	UNC 3/4-10 C.2 /0204/	UNC 3/4-10 C.3 /0204/
7/8	9	100	32	18	14,5	4	19,5	UNC 7/8-9 C.1 /0204/	UNC 7/8-9 C.2 /0204/	UNC 7/8-9 C.3 /0204/
1	8	110	36	18	14,5	4	22,25	UNC 1-8 C.1 /0204/	UNC 1-8 C.2 /0204/	UNC 1-8 C.3 /0204/

* nonstandard supplies

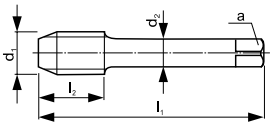
UNF | 60° P | typ N | HSS | ≈DIN 2181 | 2B | C 2 - 3 | >1,5d1 | <2d1

Material group
(**X.X** recommended use; X.X possible use)

1.1; 1.2; 2.1; 2.2; 2.3; 6.1; 6.2; 8.1; 10.1; 8.2

0305

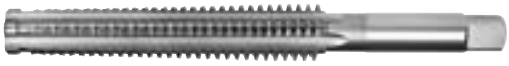
2 pcs in set

Cat. No.								0305	
 z = number of flutes									
d_1	N	l_1	l_2	d_2	a	z	Ø mm	serial number 1	serial number 3
No. 5	44	40	10	3,5	2,7	3	2,7	UNF 5-44 C.1 /0305/	UNF 5-44 C.3 /0305/
No. 6	40	45	11	4	3	3	3	UNF 6-40 C.1 /0305/	UNF 6-40 C.3 /0305/
No. 8	36	45	12	4,5	3,4	3	3,5	UNF 8-36 C.1 /0305/	UNF 8-36 C.3 /0305/
No. 10	32	50	14	6	4,9	3	4,1	UNF 10-32 C.1 /0305/	UNF 10-32 C.3 /0305/
No. 12	28	56	16	6	4,9	3	4,65	UNF 12-28 C.1 /0305/	UNF 12-28 C.3 /0305/
1/4	28	56	16	6	4,9	3	5,5	UNF 1/4-28 C.1 /0305/	UNF 1/4-28 C.3 /0305/
5/16	24	63	18	6	4,9	3	6,9	UNF 5/16-24 C.1 /0305/	UNF 5/16-24 C.3 /0305/
3/8	24	63	18	7	5,5	3	8,5	UNF 3/8-24 C.1 /0305/	UNF 3/8-24 C.3 /0305/
7/16	20	70	20	8	6,2	3	9,9	UNF 7/16-20 C.1 /0305/	UNF 7/16-20 C.3 /0305/
1/2	20	70	20	9	7	3	11,5	UNF 1/2-20 C.1 /0305/	UNF 1/2-20 C.3 /0305/
9/16	18	70	20	11	9	3	12,9	UNF 9/16-18 C.1 /0305/	UNF 9/16-18 C.3 /0305/
5/8	18	70	20	12	9	3	14,5	UNF 5/8-18 C.1 /0305/	UNF 5/8-18 C.3 /0305/
3/4	16	80	22	14	11	4	17,5	UNF 3/4-16 C.1 /0305/	UNF 3/4-16 C.3 /0305/
7/8	14	80	22	18	14,5	4	20,5	UNF 7/8-14 C.1 /0305/	UNF 7/8-14 C.3 /0305/
1	12	80	22	18	14,5	4	23,25	UNF 1-12 C.1 /0305/	UNF 1-12 C.3 /0305/

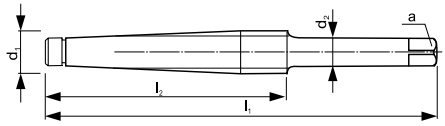
* nonstandard supplies

Single-finishing Trapezoidal Taps

Tr | P 30° | DIN 103 | typ N | HSS | NAREX Standard | ISO 7H | ≥ 1,5d1



Cat. No.



z = number of flutes

d_1	P	l_1	l_2	d_2	a	z	
Tr 10	3	140	84	6,3	5	3	TR 10x3
Tr 12	3	140	84	8	6,3	3	TR 12x3
Tr 14	3	140	84	10	8	3	TR 14x3
Tr 16	4	220	142	11,2	9	3	TR 16x4
Tr 18	4	220	142	12,5	10	3	TR 18x4
Tr 20	4	220	142	14	11,2	3	TR 20x4
Tr 22	5	260	163	16	12,5	3	TR 22x5
Tr 24	5	260	163	18	14	3	TR 24x5
Tr 25	5	260	163	18	14	3	TR 25x5
Tr 26	5	260	163	20	16	3	TR 26x5
Tr 28	5	260	163	22,4	18	3	TR 28x5
Tr 30	6	310	195	22,4	18	3	TR 30x6
Tr 32	6	310	195	25	20	3	TR 32x6
Tr 34	6	310	195	25	20	3	TR 34x6
Tr 36	6	310	195	28	22,4	5	TR 36x6
Tr 38	7	390	250	28	25	5	TR 38x7
Tr 40	6	360	227	31,5	25	5	TR 40x6
Tr 42	7	390	250	31,5	28	5	TR 42x7
Tr 44	7	390	250	35,5	28	5	TR 44x7
Tr 45	8	440	275	35,5	28	5	TR 45x8
Tr 46	8	440	275	35,5	28	5	TR 46x8
Tr 48	8	440	275	35,5	28	5	TR 48x8
Tr 50	8	440	275	40	31,5	5	TR 50x8
Tr 52	8	440	275	40	31,5	5	TR 52x8
Tr 56	8	460	282	45	35,5	5	TR 56x8

* nonstandard supplies

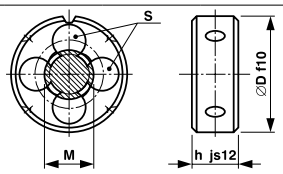
Circular Screwing Dies

M | MF | 60° P | DIN 13 | HSS | NO | DIN EN 22 568 | ISO 6g | 1,5

Material group
(**X.X** recommended use; X.X possible use)

HSS **1.1; 1.2; 2.1; 2.2; 2.3; 6.2;**
6.1; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2

NO 1.1; 1.2; 7.1; 8.1; 8.2; 9.1; 10.1;
10.2; 11.1



	P	D	h	S	NO / CS	HSS right hand thread	HSS LH thread	HSS with spiral point	HSS LH LH with spiral point
M 1	0,25	16	5	3	M1 /210 010/	M1 /240 010/	M1 /250 010/	M1 /270 010/	M1 /280 010/
M 1,1	0,25	16	5	3	M1,1 /210 011/	M1,1 /240 011/	M1,1 /250 011/	M1,1 /270 011/	M1,1 /280 011/
M 1,2	0,25	16	5	3	M1,2 /210 012/	M1,2 /240 012/	M1,2 /250 012/	M1,2 /270 012/	M1,2 /280 012/
M 1,4	0,3	16	5	3	M1,4 /210 014/	M1,4 /240 014/	M1,4 /250 014/	M1,4 /270 014/	M1,4 /280 014/
M 1,6	0,35	16	5	3	M1,6 /210 016/	M1,6 /240 016/	M1,6 /250 016/	M1,6 /270 016/	M1,6 /280 016/
M 1,8	0,35	16	5	3	M1,8 /210 018/	M1,8 /240 018/	M1,8 /250 018/	M1,8 /270 018/	M1,8 /280 018/
M 2	0,4	16	5	3	M2 /210 020/	M2 /240 020/	M2 /250 020/	M2 /270 020/	M2 /280 020/
M 2,2	0,45	16	5	3	M2,2 /210 022/	M2,2 /240 022/	M2,2 /250 022/	M2,2 /270 022/	M2,2 /280 022/
M 2,5	0,45	16	5	3	M2,5 /210 025/	M2,5 /240 025/	M2,5 /250 025/	M2,5 /270 025/	M2,5 /280 025/
M 2,5	0,35	16	5	3	M2,5 /210 026/	M2,5 /240 026/	M2,5 /250 026/	M2,5 /270 026/	M2,5 /280 026/
M 3	0,5	20	5	3	M3 /210 030/	M3 /240 030/	M3 /250 030/	M3 /270 030/	M3 /280 030/
M 3	0,35	20	5	3	M3 /210 031/	M3 /240 031/	M3 /250 031/	M3 /270 031/	M3 /280 031/
M 3,5	0,6	20	5	3	M3,5 /210 035/	M3,5 /240 035/	M3,5 /250 035/	M3,5 /270 035/	M3,5 /280 035/
M 3,5	0,35	20	5	3	M3,5 /210 036/	M3,5 /240 036/	M3,5 /250 036/	M3,5 /270 036/	M3,5 /280 036/
M 4	0,7	20	5	3	M4 /210 040/	M4 /240 040/	M4 /250 040/	M4 /270 040/	M4 /280 040/
M 4	0,5	20	5	3	M4 /210 041/	M4 /240 041/	M4 /250 041/	M4 /270 041/	M4 /280 041/
M 4,5	0,75	20	5	3	M4,5 /210 045/	M4,5 /240 045/	M4,5 /250 045/	M4,5 /270 045/	M4,5 /280 045/
M 4,5	0,5	20	5	3	M4,5 /210 046/	M4,5 /240 046/	M4,5 /250 046/	M4,5 /270 046/	M4,5 /280 046/
M 5	0,8	20	7	4	M5 /210 050/	M5 /240 050/	M5 /250 050/	M5 /270 050/	M5 /280 050/
M 5	0,5	20	5	4	M5 /210 051/	M5 /240 051/	M5 /250 051/	M5 /270 051/	M5 /280 051/
M 5,5	0,5	20	5	4	M5,5 /210 056/	M5,5 /240 056/	M5,5 /250 056/	M5,5 /270 056/	M5,5 /280 056/
M 6	1	20	7	4	M6 /210 060/	M6 /240 060/	M6 /250 060/	M6 /270 060/	M6 /280 060/
M 6	0,75	20	7	4	M6 /210 061/	M6 /240 061/	M6 /250 061/	M6 /270 061/	M6 /280 061/
M 7	1	25	9	4	M7 /210 070/	M7 /240 070/	M7 /250 070/	M7 /270 070/	M7 /280 070/
M 7	0,75	25	9	4	M7 /210 071/	M7 /240 071/	M7 /250 071/	M7 /270 071/	M7 /280 071/
M 8	1,25	25	9	4	M8 /210 080/	M8 /240 080/	M8 /250 080/	M8 /270 080/	M8 /280 080/
M 8	1	25	9	4	M8 /210 081/	M8 /240 081/	M8 /250 081/	M8 /270 081/	M8 /280 081/
M 8	0,75	25	9	4	M8 /210 082/	M8 /240 082/	M8 /250 082/	M8 /270 082/	M8 /280 082/
M 9	1,25	25	9	4	M9 /210 090/	M9 /240 090/	M9 /250 090/	M9 /270 090/	M9 /280 090/
M 9	1	25	9	4	M9 /210 091/	M9 /240 091/	M9 /250 091/	M9 /270 091/	M9 /280 091/
M 9	0,75	25	9	4	M9 /210 092/	M9 /240 092/	M9 /250 092/	M9 /270 092/	M9 /280 092/
M 10	1,5	30	11	4	M10 /210 100/	M10 /240 100/	M10 /250 100/	M10 /270 100/	M10 /280 100/
M 10	1,25	30	11	4	M10 /210 101/	M10 /240 101/	M10 /250 101/	M10 /270 101/	M10 /280 101/
M 10	1	30	11	4	M10 /210 102/	M10 /240 102/	M10 /250 102/	M10 /270 102/	M10 /280 102/
M 10	0,75	30	11	4	M10 /210 103/	M10 /240 103/	M10 /250 103/	M10 /270 103/	M10 /280 103/
M 11	1,5	30	11	5	M11 /210 110/	M11 /240 110/	M11 /250 110/	M11 /270 110/	M11 /280 110/
M 11	1	30	11	5	M11 /210 111/	M11 /240 111/	M11 /250 111/	M11 /270 111/	M11 /280 111/
M 11	0,75	30	11	5	M11 /210 112/	M11 /240 112/	M11 /250 112/	M11 /270 112/	M11 /280 112/
M 12	1,75	38	14	4	M12 /210 120/	M12 /240 120/	M12 /250 120/	M12 /270 120/	M12 /280 120/
M 12	1,5	38	10	4	M12 /210 121/	M12 /240 121/	M12 /250 121/	M12 /270 121/	M12 /280 121/
M 12	1,25	38	10	4	M12 /210 122/	M12 /240 122/	M12 /250 122/	M12 /270 122/	M12 /280 122/
M 12	1	38	10	4	M12 /210 123/	M12 /240 123/	M12 /250 123/	M12 /270 123/	M12 /280 123/
M 14	2	38	14	5	M14 /210 140/	M14 /240 140/	M14 /250 140/	M14 /270 140/	M14 /280 140/
M 14	1,5	38	10	5	M14 /210 141/	M14 /240 141/	M14 /250 141/	M14 /270 141/	M14 /280 141/
M 14	1,25	38	10	5	M14 /210 142/	M14 /240 142/	M14 /250 142/	M14 /270 142/	M14 /280 142/
M 14	1	38	10	5	M14 /210 143/	M14 /240 143/	M14 /250 143/	M14 /270 143/	M14 /280 143/
M 15	1,5	38	10	5	M15 /210 151/	M15 /240 151/	M15 /250 151/	M15 /270 151/	M15 /280 151/
M 15	1	38	10	5	M15 /210 152/	M15 /240 152/	M15 /250 152/	M15 /270 152/	M15 /280 152/

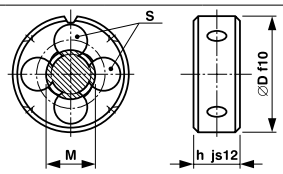
* nonstandard supplies

Circular Screwing Dies

Material group
(**X.X** recommended use; X.X possible use)

HSS **1.1; 1.2; 2.1; 2.2; 2.3; 6.2;**
6.1; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2

NO **1.1; 1.2; 7.1; 8.1; 8.2; 9.1; 10.1;**
10.2; 11.1



	P	D	h	S	NO / CS	HSS right hand thread	HSS LH thread	HSS with spiral point	HSS LH LH with spiral point
M 16	2	45	18	5	M16 /210 160/	M16 /240 160/	M16 /250 160/	M16 /270 160/	M16 /280 160/
M 16	1,5	45	14	5	M16 /210 161/	M16 /240 161/	M16 /250 161/	M16 /270 161/	M16 /280 161/
M 16	1	45	14	5	M16 /210 162/	M16 /240 162/	M16 /250 162/	M16 /270 162/	M16 /280 162/
M 17	1,5	45	14	5	M17 /210 171/	M17 /240 171/	M17 /250 171/	M17 /270 171/	M17 /280 171/
M 17	1	45	14	5	M17 /210 172/	M17 /240 172/	M17 /250 172/	M17 /270 172/	M17 /280 172/
M 18	2,5	45	18	5	M18 /210 180/	M18 /240 180/	M18 /250 180/	M18 /270 180/	M18 /280 180/
M 18	2	45	14	5	M18 /210 181/	M18 /240 181/	M18 /250 181/	M18 /270 181/	M18 /280 181/
M 18	1,5	45	14	5	M18 /210 182/	M18 /240 182/	M18 /250 182/	M18 /270 182/	M18 /280 182/
M 18	1	45	14	5	M18 /210 183/	M18 /240 183/	M18 /250 183/	M18 /270 183/	M18 /280 183/
M 20	2,5	45	18	6	M20 /210 200/	M20 /240 200/	M20 /250 200/	M20 /270 200/	M20 /280 200/
M 20	2	45	14	6	M20 /210 201/	M20 /240 201/	M20 /250 201/	M20 /270 201/	M20 /280 201/
M 20	1,5	45	14	6	M20 /210 202/	M20 /240 202/	M20 /250 202/	M20 /270 202/	M20 /280 202/
M 20	1	45	14	6	M20 /210 203/	M20 /240 203/	M20 /250 203/	M20 /270 203/	M20 /280 203/
M 22	2,5	55	22	5	M22 /210 220/	M22 /240 220/	M22 /250 220/	M22 /270 220/	M22 /280 220/
M 22	2	55	16	5	M22 /210 221/	M22 /240 221/	M22 /250 221/	M22 /270 221/	M22 /280 221/
M 22	1,5	55	16	5	M22 /210 222/	M22 /240 222/	M22 /250 222/	M22 /270 222/	M22 /280 222/
M 22	1	55	16	5	M22 /210 223/	M22 /240 223/	M22 /250 223/	M22 /270 223/	M22 /280 223/
M 24	3	55	22	6	M24 /210 240/	M24 /240 240/	M24 /250 240/	M24 /270 240/	M24 /280 240/
M 24	2	55	16	6	M24 /210 241/	M24 /240 241/	M24 /250 241/	M24 /270 241/	M24 /280 241/
M 24	1,5	55	16	6	M24 /210 242/	M24 /240 242/	M24 /250 242/	M24 /270 242/	M24 /280 242/
M 24	1	55	16	6	M24 /210 243/	M24 /240 243/	M24 /250 243/	M24 /270 243/	M24 /280 243/
M 25	1,5	55	16	6	M25 /210 251/	M25 /240 251/	M25 /250 251/	M25 /270 251/	M25 /280 251/
M 26	1,5	55	16	6	M26 /210 261/	M26 /240 261/	M26 /250 261/	M26 /270 261/	M26 /280 261/
M 27	3	65	25	6	M27 /210 270/	M27 /240 270/	M27 /250 270/	M27 /270 270/	M27 /280 270/
M 27	2	65	18	6	M27 /210 271/	M27 /240 271/	M27 /250 271/	M27 /270 271/	M27 /280 271/
M 27	1,5	65	18	6	M27 /210 272/	M27 /240 272/	M27 /250 272/	M27 /270 272/	M27 /280 272/
M 27	1	65	18	6	M27 /210 273/	M27 /240 273/	M27 /250 273/	M27 /270 273/	M27 /280 273/
M 28	2	65	18	6	M28 /210 281/	M28 /240 281/	M28 /250 281/	M28 /270 281/	M28 /280 281/
M 28	1,5	65	18	6	M28 /210 282/	M28 /240 282/	M28 /250 282/	M28 /270 282/	M28 /280 282/
M 30	3,5	65	25	7	M30 /210 300/	M30 /240 300/	M30 /250 300/	M30 /270 300/	M30 /280 300/
M 30	2	65	18	6	M30 /210 301/	M30 /240 301/	M30 /250 301/	M30 /270 301/	M30 /280 301/
M 30	1,5	65	18	6	M30 /210 302/	M30 /240 302/	M30 /250 302/	M30 /270 302/	M30 /280 302/
M 30	1	65	18	6	M30 /210 303/	M30 /240 303/	M30 /250 303/	M30 /270 303/	M30 /280 303/
M 32	1,5	65	18	7	M32 /210 321/	M32 /240 321/	M32 /250 321/	M32 /270 321/	M32 /280 321/
M 33	3,5	65	25	8	M33 /210 330/	M33 /240 330/	M33 /250 330/	M33 /270 330/	M33 /280 330/
M 33	2	65	18	8	M33 /210 331/	M33 /240 331/	M33 /250 331/	M33 /270 331/	M33 /280 331/
M 33	1,5	65	18	8	M33 /210 332/	M33 /240 332/	M33 /250 332/	M33 /270 332/	M33 /280 332/
M 35	1,5	65	18	9	M35 /210 351/	M35 /240 351/	M35 /250 351/	M35 /270 351/	M35 /280 351/
M 36	4	65	25	9	M36 /210 360/	M36 /240 360/	M36 /250 360/	M36 /270 360/	M36 /280 360/
M 36	3	65	25	9	M36 /210 361/	M36 /240 361/	M36 /250 361/	M36 /270 361/	M36 /280 361/
M 36	2	65	18	9	M36 /210 362/	M36 /240 362/	M36 /250 362/	M36 /270 362/	M36 /280 362/
M 39	4	75	30	8	M39 /210 390/	M39 /240 390/	M39 /250 390/	M39 /270 390/	M39 /280 390/
M 39	3	75	30	8	M39 /210 391/	M39 /240 391/	M39 /250 391/	M39 /270 391/	M39 /280 391/
M 39	2	75	20	8	M39 /210 392/	M39 /240 392/	M39 /250 392/	M39 /270 392/	M39 /280 392/
M 39	1,5	75	20	8	M39 /210 393/	M39 /240 393/	M39 /250 393/	M39 /270 393/	M39 /280 393/
M 40	1,5	75	20	8	M40 /210 401/	M40 /240 401/	M40 /250 401/	M40 /270 401/	M40 /280 401/
M 42	4,5	75	30	9	M42 /210 420/	M42 /240 420/	M42 /250 420/	M42 /270 420/	M42 /280 420/
M 42	3	75	30	9	M42 /210 421/	M42 /240 421/	M42 /250 421/	M42 /270 421/	M42 /280 421/

* nonstandard supplies

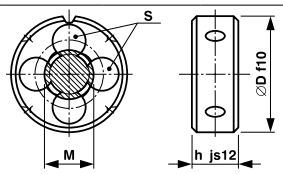
Circular Screwing Dies

M | MF | 60° P | DIN 13 | HSS | NO | DIN EN 22 568 | ISO 6g | 1,5

Material group
(**X.X** recommended use; X.X possible use)

HSS **1.1; 1.2; 2.1; 2.2; 2.3; 6.2;**
6.1; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2

NO 1.1; 1.2; 7.1; 8.1; 8.2; 9.1; 10.1;
10.2; 11.1



	P	D	h	S	NO / CS	HSS right hand thread	HSS LH thread	HSS with spiral point	HSS LH LH with spiral point
M 42	2	75	20	9	M42 /210 422/	M42 /240 422/	M42 /250 422/	M42 /270 422/	M42 /280 422/
M 42	1,5	75	20	9	M42 /210 423/	M42 /240 423/	M42 /250 423/	M42 /270 423/	M42 /280 423/
M 45	4,5	90	36	8	M45 /210 450/	M45 /240 450/	M45 /250 450/	M45 /270 450/	M45 /280 450/
M 45	3	90	36	8	M45 /210 451/	M45 /240 451/	M45 /250 451/	M45 /270 451/	M45 /280 451/
M 45	2	90	22	8	M45 /210 452/	M45 /240 452/	M45 /250 452/	M45 /270 452/	M45 /280 452/
M 45	1,5	90	22	8	M45 /210 453/	M45 /240 453/	M45 /250 453/	M45 /270 453/	M45 /280 453/
M 48	5	90	36	8	M48 /210 480/	M48 /240 480/	M48 /250 480/	M48 /270 480/	M48 /280 480/
M 48	3	90	36	8	M48 /210 481/	M48 /240 481/	M48 /250 481/	M48 /270 481/	M48 /280 481/
M 48	2	90	22	8	M48 /210 482/	M48 /240 482/	M48 /250 482/	M48 /270 482/	M48 /280 482/
M 48	1,5	90	22	8	M48 /210 483/	M48 /240 483/	M48 /250 483/	M48 /270 483/	M48 /280 483/
M 50	1,5	90	22	9	M50 /210 501/	M50 /240 501/	M50 /250 501/	M50 /270 501/	M50 /280 501/
M 52	5	90	36	9	M52 /210 520/	M52 /240 520/	M52 /250 520/	M52 /270 520/	M52 /280 520/
M 52	3	90	36	9	M52 /210 521/	M52 /240 521/	M52 /250 521/	M52 /270 521/	M52 /280 521/
M 52	2	90	22	9	M52 /210 522/	M52 /240 522/	M52 /250 522/	M52 /270 522/	M52 /280 522/
M 52	1,5	90	22	9	M52 /210 523/	M52 /240 523/	M52 /250 523/	M52 /270 523/	M52 /280 523/

* nonstandard supplies

Circular Screwing Dies

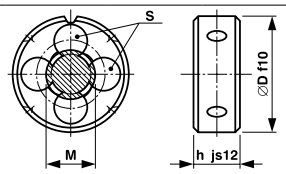
M | MF | 60° P | DIN 13 | HSSE | HSSE VA | HSSE VA-NT | DIN EN 22568 | ISO 6g | 1,5

Material group
(**X.X** recommended use; X.X possible use)

HSSE 2.1; 2.2; 2.3; 4.1; 4.2; 6.1; 6.2; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2; 11.1; 1.1; 1.2

HSSE VA 2.1; 2.2; 2.3; 3.1; 3.2; 3.3; 5.1; 5.2; 6.2; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2; 11.1; 1.1; 1.2; 6.1

HSSE VA-NT 2.1; 2.2; 2.3; 3.1; 3.2; 3.3; 5.1; 5.2; 6.2; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2; 11.1; 1.1; 1.2; 6.1



	P	D	h	S	HSSE	HSSE VA stainless steel	HSSE VA-NT stainless steel - nitration
M 2	0,4	16	5	4	M2 /290 020/	M2 /300 020/	M2 /301 020/
M 2,2	0,45	16	5	4	M2,2 /290 022/	M2,2 /300 022/	M2,2 /301 022/
M 2,5	0,45	16	5	4	M2,5 /290 025/	M2,5 /300 025/	M2,5 /301 025/
M 2,5	0,35	16	5	4	M2,5 /290 026/	M2,5 /300 026/	M2,5 /301 026/
M 3	0,5	20	5	4	M3 /290 030/	M3 /300 030/	M3 /301 030/
M 3	0,35	20	5	4	M3 /290 031/	M3 /300 031/	M3 /301 031/
M 3,5	0,6	20	5	4	M3,5 /290 035/	M3,5 /300 035/	M3,5 /301 035/
M 3,5	0,35	20	5	4	M3,5 /290 036/	M3,5 /300 036/	M3,5 /301 036/
M 4	0,7	20	5	4	M4 /290 040/	M4 /300 040/	M4 /301 040/
M 4	0,5	20	5	4	M4 /290 041/	M4 /300 041/	M4 /301 041/
M 4,5	0,5	20	5	4	M4,5 /290 046/	M4,5 /300 046/	M4,5 /301 046/
M 5	0,8	20	7	4	M5 /290 050/	M5 /300 050/	M5 /301 050/
M 5	0,5	20	5	4	M5 /290 051/	M5 /300 051/	M5 /301 051/
M 5,5	0,5	20	5	4	M5,5 /290 056/	M5,5 /300 056/	M5,5 /301 056/
M 6	1	20	7	4	M6 /290 060/	M6 /300 060/	M6 /301 060/
M 6	0,75	20	7	4	M6 /290 061/	M6 /300 061/	M6 /301 061/
M 7	1	25	9	4	M7 /290 070/	M7 /300 070/	M7 /301 070/
M 7	0,75	25	9	4	M7 /290 071/	M7 /300 071/	M7 /301 071/
M 8	1,25	25	9	5	M8 /290 080/	M8 /300 080/	M8 /301 080/
M 8	1	25	9	5	M8 /290 081/	M8 /300 081/	M8 /301 081/
M 8	0,75	25	9	5	M8 /290 082/	M8 /300 082/	M8 /301 082/
M 9	1,25	25	9	5	M9 /290 090/	M9 /300 090/	M9 /301 090/
M 9	1	25	9	5	M9 /290 091/	M9 /300 091/	M9 /301 091/
M 9	0,75	25	9	5	M9 /290 092	M9 /300 092	M9 /301 092
M 10	1,5	30	11	5	M10 /290 100/	M10 /300 100/	M10 /301 100/
M 10	1,25	30	11	5	M10 /290 101/	M10 /300 101/	M10 /301 101/
M 10	1	30	11	5	M10 /290 102/	M10 /300 102/	M10 /301 102/
M 10	0,75	30	11	5	M10 /290 103/	M10 /300 103/	M10 /301 103/
M 11	1,5	30	11	5	M11 /290 110/	M11 /300 110/	M11 /301 110/
M 11	1	30	11	5	M11 /290 111/	M11 /300 111/	M11 /301 111/
M 11	0,75	30	11	5	M11 /290 112/	M11 /300 112/	M11 /301 112/
M 12	1,75	38	14	5	M12 /290 120/	M12 /300 120/	M12 /301 120/
M 12	1,5	38	10	5	M12 /290 121/	M12 /300 121/	M12 /301 121/
M 12	1,25	38	10	5	M12 /290 122/	M12 /300 122/	M12 /301 122/
M 12	1	38	10	5	M12 /290 123/	M12 /300 123/	M12 /301 123/
M 14	2	38	14	5	M14 /290 140/	M14 /300 140/	M14 /301 140/
M 14	1,5	38	10	5	M14 /290 141/	M14 /300 141/	M14 /301 141/
M 14	1,25	38	10	5	M14 /290 142/	M14 /300 142/	M14 /301 142/
M 14	1	38	10	5	M14 /290 143/	M14 /300 143/	M14 /301 143/
M 15	1,5	38	10	5	M15 /290 151/	M15 /300 151/	M15 /301 151/
M 15	1	38	10	5	M15 /290 152/	M15 /300 152/	M15 /301 152/
M 16	2	45	18	5	M16 /290 160/	M16 /300 160/	M16 /301 160/
M 16	1,5	45	14	5	M16 /290 161/	M16 /300 161/	M16 /301 161/
M 16	1	45	14	5	M16 /290 162/	M16 /300 162/	M16 /301 162/
M 17	1,5	45	14	5	M17 /290 171/	M17 /300 171/	M17 /301 171/
M 17	1	45	14	5	M17 /290 172/	M17 /300 172/	M17 /301 172/
M 18	2,5	45	18	5	M18 /290 180/	M18 /300 180/	M18 /301 180/
M 18	2	45	14	5	M18 /290 181/	M18 /300 181/	M18 /301 181/

* nonstandard supplies

Circular Screwing Dies

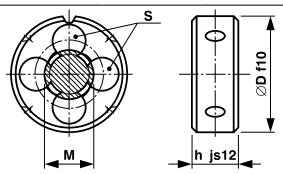
M | MF | 60° P | DIN 13 | HSSE | HSSE VA | HSSE VA-NT | DIN EN 22 568 | ISO 6g | 1,5

Material group
(**X.X** recommended use; X.X possible use)

HSSE 2.1; 2.2; 2.3; 4.1; 4.2; 6.1; 6.2; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2; 11.1; 1.1; 1.2

HSSE VA 2.1; 2.2; 2.3; 3.1; 3.2; 3.3; 5.1; 5.2; 6.2; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2; 11.1; 1.1; 1.2; 6.1

HSSE VA-NT 2.1; 2.2; 2.3; 3.1; 3.2; 3.3; 5.1; 5.2; 6.2; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2; 11.1; 1.1; 1.2; 6.1



	P	D	h	S	HSSE	HSSE VA stainless steel	HSSE VA-NT stainless steel - nitration
M 18	1,5	45	14	5	M18 /290 182/	M18 /300 182/	M18 /301 182/
M 18	1	45	14	5	M18 /290 183/	M18 /300 183/	M18 /301 183/
M 20	2,5	45	18	5	M20 /290 200/	M20 /300 200/	M20 /301 200/
M 20	2	45	14	5	M20 /290 201/	M20 /300 201/	M20 /301 201/
M 20	1,5	45	14	5	M20 /290 202/	M20 /300 202/	M20 /301 202/
M 20	1	45	14	5	M20 /290 203/	M20 /300 203/	M20 /301 203/

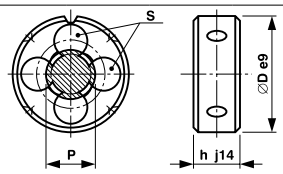
* nonstandard supplies

Circular Screwing Dies

Material group
(**X.X** recommended use; X.X possible use)

HSS **1.1; 1.2; 2.1; 2.2; 2.3; 6.2;**
6.1; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2

NO **1.1; 1.2; 7.1; 8.1; 8.2; 9.1; 10.1;**
10.2; 11.1



	P	z/1"	D	h	S	NO / CS	HSS
P 7	1,270	20	38	10	4	PZ 7 /213 070/	PZ 7 /243 070/
P 9	1,411	18	45	14	5	PZ 9 /213 090/	PZ 9 /243 090/
P 11	1,411	18	45	14	5	PZ 11 /213 110/	PZ 11 /243 110/
P 13,5	1,411	18	45	14	6	PZ 13,5 /213 135/	PZ 13,5 /243 135/
P 16	1,411	18	55	16	5	PZ 16 /213 160/	PZ 16 /243 160/
P 21	1,588	16	55	16	7	PZ 21 /213 210/	PZ 21 /243 210/
P 29	1,588	16	75	20	7	PZ 29 /213 290/	PZ 29 /243 290/
P 36	1,588	16	90	22	8	PZ 36 /213 360/	PZ 36 /243 360/
P 42	1,588	16	90	22	10	PZ 42 /213 420/	PZ 42 /243 420/
P 48	1,588	16	100	25	10	PZ 48 /213 480/	PZ 48 /243 480/

* nonstandard supplies

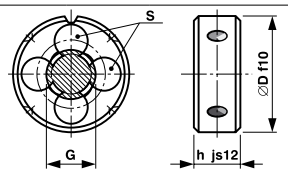
Circular Screwing Dies

G | 55° P | DIN ISO 228 | HSS | NO | DIN EN 22 568 | A | 1,5

Material group
(**X.X** recommended use; X.X possible use)

HSS **1.1; 1.2; 2.1; 2.2; 2.3; 6.2;**
6.1; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2

NO 1.1; 1.2; 7.1; 8.1; 8.2; 9.1; 10.1;
10.2; 11.1



	P	z/1"	D	h	S	NO / CS	HSS	HSS LH	HSS with spiral point
G 1/16"	0,907	28	25	9	4	G 1/16 /212 116/	G 1/16 /242 116/	G 1/16 /252 116/	G 1/16 /272 116/
G 1/8"	0,907	28	30	11	4	G 1/8 /212 180/	G 1/8 /242 180/	G 1/8 /252 180/	G 1/8 /272 180/
G 1/4"	1,337	19	38	10	5	G 1/4 /212 140/	G 1/4 /242 140/	G 1/4 /252 140/	G 1/4 /272 140/
G 3/8"	1,337	19	45	14	5	G 3/8 /212 380/	G 3/8 /242 380/	G 3/8 /252 380/	G 3/8 /272 380/
G 1/2"	1,814	14	45	14	6	G 1/2 /212 120/	G 1/2 /242 120/	G 1/2 /252 120/	G 1/2 /272 120/
G 5/8"	1,814	14	55	16	6	G 5/8 /212 580/	G 5/8 /242 580/	G 5/8 /252 580/	G 5/8 /272 580/
G 3/4"	1,814	14	55	16	6	G 3/4 /212 340/	G 3/4 /242 340/	G 3/4 /252 340/	G 3/4 /272 340/
G 7/8"	1,814	14	65	18	6	G 7/8 /212 780/	G 7/8 /242 780/	G 7/8 /252 780/	G 7/8 /272 780/
G 1"	2,309	11	65	18	8	G1 /212 100/	G1 /242 100/	G1 /252 100/	G1 /272 100/
G 1 1/8"	2,309	11	75	20	8	G1 1/8 /212 118/	G1 1/8 /242 118/	G1 1/8 /252 118/	G1 1/8 /272 118/
G 1 1/4"	2,309	11	75	20	9	G1 1/4 /212 114/	G1 1/4 /242 114/	G1 1/4 /252 114/	G1 1/4 /272 114/
G 1 3/8"	2,309	11	90	22	8	G1 3/8 /212 138/	G1 3/8 /242 138/	G1 3/8 /252 138/	G1 3/8 /272 138/
G 1 1/2"	2,309	11	90	22	8	G1 1/2 /212 112/	G1 1/2 /242 112/	G1 1/2 /252 112/	G1 1/2 /272 112/
G 1 3/4"	2,309	11	105	22	8	G1 3/4 /212 134/	G1 3/4 /242 134/	G1 3/4 /252 134/	G1 3/4 /272 134/
G 2"	2,309	11	105	22	8	G2 /212 200/	G2 /242 200/	G2 /252 200/	G2 /272 200/

* nonstandard supplies

Circular Screwing Dies

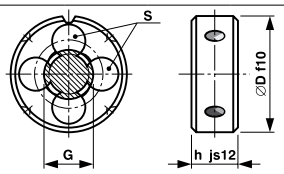
G | 55° P | DIN ISO 228 | HSSE | HSSE VA | HSSE VA-NT | DIN EN 22 568 | A | 1,5

Material group
(**X.X** recommended use; X.X possible use)

HSSE 2.1; 2.2; 2.3; 4.1; 4.2; 6.1; 6.2; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2; 11.1; 1.1; 1.2

HSSE VA 2.1; 2.2; 2.3; 3.1; 3.2; 3.3; 5.1; 5.2; 6.2; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2; 11.1; 1.1; 1.2; 6.1

HSSE VA-NT 2.1; 2.2; 2.3; 3.1; 3.2; 3.3; 5.1; 5.2; 6.2; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2; 11.1; 1.1; 1.2; 6.1



	P	z/1"	D	h	S	HSSE	HSSE VA stainless steel	HSSE VA-NT stainless steel - nitration
G 1/16"	0,907	28	25	9	4	G 1/16 /292 116/	G 1/16 /296 116/	G 1/16 /293 116/
G 1/8"	0,907	28	30	11	4	G 1/8 /292 180/	G 1/8 /296 180/	G 1/8 /293 180/
G 1/4"	1,337	19	38	10	5	G 1/4 /292 140/	G 1/4 /296 140/	G 1/4 /293 140/
G 3/8"	1,337	19	45	14	5	G 3/8 /292 380/	G 3/8 /296 380/	G 3/8 /293 380/
G 1/2"	1,814	14	45	14	6	G 1/2 /292 120/	G 1/2 /296 120/	G 1/2 /293 120/
G 5/8"	1,814	14	55	16	6	G 5/8 /292 580/	G 5/8 /296 580/	G 5/8 /293 580/
G 3/4"	1,814	14	55	16	6	G 3/4 /292 340/	G 3/4 /296 340/	G 3/4 /293 340/
G 7/8"	1,814	14	65	18	6	G 7/8 /292 780/	G 7/8 /296 780/	G 7/8 /293 780/
G 1"	2,309	11	65	18	8	G1 /292 100/	G1 /296 100/	G1 /293 100/

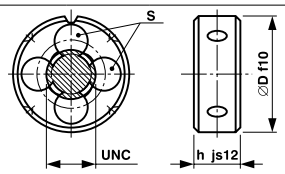
* nonstandard supplies

Circular Screwing Dies

Material group
(**X.X** recommended use; X.X possible use)

HSS **1.1; 1.2; 2.1; 2.2; 2.3; 6.2;**
6.1; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2

NO **1.1; 1.2; 7.1; 8.1; 8.2; 9.1; 10.1;**
10.2; 11.1



	P	z/1"	D	h	S	NO / CS	HSS	HSS with spiral point
4	0,635	40	20	5	3	4-40 /215 004/	4-40 /245 004/	4-40 /275 004/
5	0,635	40	20	5	3	5-40 /215 005/	5-40 /245 005/	5-40 /275 005/
6	0,794	32	20	7	3	6-32 /215 006/	6-32 /245 006/	6-32 /275 006/
8	0,794	32	20	7	3	8-32 /215 008/	8-32 /245 008/	8-32 /275 008/
10	1,058	24	20	7	3	10-24 /215 010/	10-24 /245 010/	10-24 /275 010/
12	1,058	24	20	7	4	12-24 /215 012/	12-24 /245 012/	12-24 /275 012/
1/4	1,270	20	20	7	4	1/4-20 /215 140/	1/4-20 /245 140/	1/4-20 /275 140/
5/16	1,411	18	25	9	4	5/16-18 /215 516/	5/16-18 /245 516/	5/16-18 /275 516/
3/8	1,588	16	30	11	4	3/8-16 /215 380/	3/8-16 /245 380/	3/8-16 /275 380/
7/16	1,814	14	30	11	5	7/16-14 /215 716/	7/16-14 /245 716/	7/16-14 /275 716/
1/2	1,954	13	38	14	5	1/2-13 /215 120/	1/2-13 /245 120/	1/2-13 /275 120/
9/16	2,117	12	38	14	5	9/16-12 /215 916/	9/16-12 /245 916/	9/16-12 /275 916/
5/8	2,309	11	45	18	5	5/8-11 /215 580/	5/8-11 /245 580/	5/8-11 /275 580/
3/4	2,540	10	45	18	6	3/4-10 /215 340/	3/4-10 /245 340/	3/4-10 /275 340/
7/8	2,822	9	55	22	5	7/8-9 /215 780/	7/8-9 /245 780/	7/8-9 /275 780/
1	3,175	8	55	22	6	1-8 /215 100/	1-8 /245 100/	1-8 /275 100/

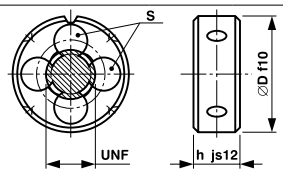
* nonstandard supplies

Circular Screwing Dies

Material group
(**X.X** recommended use; X.X possible use)

HSS **1.1; 1.2; 2.1; 2.2; 2.3; 6.2;**
6.1; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2

NO **1.1; 1.2; 7.1; 8.1; 8.2; 9.1; 10.1;**
10.2; 11.1



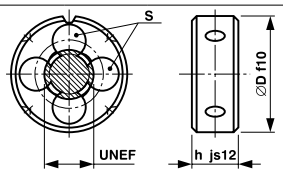
	P	z/1"	D	h	S	NO / CS	HSS	HSS with spiral point
4	0,577	48	16	5	3	4-48 /216 004/	4-48 /246 004/	4-48 /276 004/
5	0,577	44	20	5	3	5-44 /216 005/	5-44 /246 005/	5-44 /276 005/
6	0,635	40	20	7	3	6-40 /216 006/	6-40 /246 006/	6-40 /276 006/
8	0,706	36	20	7	3	8-36 /216 008/	8-36 /246 008/	8-36 /276 008/
10	0,794	32	20	7	4	10-32 /216 010/	10-32 /246 010/	10-32 /276 010/
12	0,907	28	20	7	4	12-28 /216 012/	12-28 /246 012/	12-28 /276 012/
1/4	0,907	28	20	7	4	1/4-28 /216 140/	1/4-28 /246 140/	1/4-28 /276 140/
5/16	1,058	24	25	9	4	5/16-24 /216 516/	5/16-24 /246 516/	5/16-24 /276 516/
3/8	1,058	24	30	11	4	3/8-24 /216 380/	3/8-24 /246 380/	3/8-24 /276 380/
7/16	12,70	20	30	11	5	7/16-20 /216 716/	7/16-20 /246 716/	7/16-20 /276 716/
1/2	1,270	20	38	14	5	1/2-20 /216 120/	1/2-20 /246 120/	1/2-20 /276 120/
9/16	1,411	18	38	14	5	9/16-18 /216 916/	9/16-18 /246 916/	9/16-18 /276 916/
5/8	1,411	18	45	18	5	5/8-18 /216 580/	5/8-18 /246 580/	5/8-18 /276 580/
3/4	1,588	16	45	18	6	3/4-16 /216 340/	3/4-16 /246 340/	3/4-16 /276 340/
7/8	1,814	14	55	22	5	7/8-14 /216 780/	7/8-14 /246 780/	7/8-14 /276 780/
1	2,117	12	55	22	6	1-12 /216 100/	1-12 /246 100/	1-12 /276 100/

* nonstandard supplies

UNEF | 60° P | HSS | DIN EN 22 568 | 2A | 1,5

Material group
(**X.X** recommended use; X.X possible use)

HSS **1.1; 1.2; 2.1; 2.2; 2.3; 6.2;**
6.1; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2



	P	z/1"	D	h	S	HSS	HSS with spiral point
12	0,794	32	20	7	4	12-32 /248 012/	12-32 /278 012/
1/4	0,794	32	20	7	4	1/4-32 /248 140/	1/4-32 /278 140/
5/16	0,794	32	25	9	4	5/16-32 /248 516/	5/16-32 /278 516/
3/8	0,794	32	30	11	4	3/8-32 /248 380/	3/8-32 /278 380/
7/16	0,907	28	30	11	5	7/16-28 /248 716/	7/16-28 /278 716/
1/2	0,907	28	38	10	5	1/2-28 /248 120/	1/2-28 /278 120/
9/16	1,058	24	38	10	5	9/16-24 /248 916/	9/16-24 /278 916/
5/8	1,058	24	45	14	5	5/8-24 /248 580/	5/8-24 /278 580/
11/16	1,270	24	45	14	5	11/16-24 /248 111/	11/16-24 /278 111/
3/4	1,270	20	45	14	6	3/4-20 /248 340/	3/4-20 /278 340/
13/16	1,270	20	45	14	6	13/16-20 /248 131/	13/16-20 /278 131/
7/8	1,270	20	55	16	5	7/8-20 /248 780/	7/8-20 /278 780/
15/16	1,270	20	55	16	6	15/16-20 /248 151/	15/16-20 /278 151/
1		20	55	16	6	1-20 /248 100/	1-20 /278 100/

* nonstandard supplies

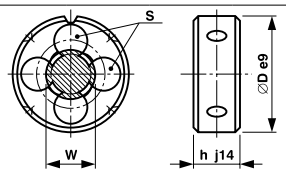
Circular Screwing Dies

W | 55° P | DIN 11 | HSS | NO | DIN EN 22 568 | 1,5

Material group
(**X.X** recommended use; X.X possible use)

HSS **1.1; 1.2; 2.1; 2.2; 2.3; 6.2;**
6.1; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2

NO 1.1; 1.2; 7.1; 8.1; 8.2; 9.1; 10.1;
10.2; 11.1



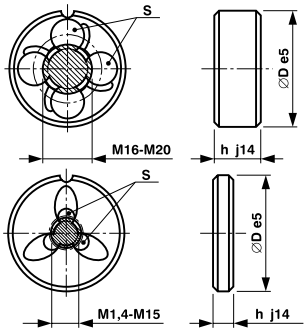
	P	z/1"	D	h	S	NO / CS	HSS	HSS with spiral point
W 1/16"	0,423	60	16	5	3	W1/16 /211 116/	W1/16 /241 116/	W1/16 /271 116/
W 3/32"	0,529	48	16	5	3	W3/32 /211 332/	W3/32 /241 332/	W3/32 /271 332/
W 1/8"	0,635	40	20	5	3	W1/8 /211 180/	W1/8 /241 180/	W1/8 /271 180/
W 5/32"	0,794	32	20	5	3	W5/32 /211 532/	W5/32 /241 532/	W5/32 /271 532/
W 3/16"	1,058	24	20	7	3	W3/16 /211 316/	W3/16 /241 316/	W3/16 /271 316/
W 7/32"	1,058	24	20	7	4	W7/32 /211 732/	W7/32 /241 732/	W7/32 /271 732/
W 1/4"	1,270	20	20	7	4	W1/4 /211 140/	W1/4 /241 140/	W1/4 /271 140/
W 5/16"	1,411	18	25	9	4	W5/16 /211 516/	W5/16 /241 516/	W5/16 /271 516/
W 3/8"	1,588	16	30	11	4	W3/8 /211 380/	W3/8 /241 380/	W3/8 /271 380/
W 7/16"	1,814	14	30	11	5	W7/16 /211 716/	W7/16 /241 716/	W7/16 /271 716/
W 1/2"	2,117	12	38	14	4	W1/2 /211 120/	W1/2 /241 120/	W1/2 /271 120/
W 9/16"	2,117	12	38	14	5	W9/16 /211 916/	W9/16 /241 916/	W9/16 /271 916/
W 5/8"	2,309	11	45	18	5	W5/8 /211 580/	W5/8 /241 580/	W5/8 /271 580/
W 3/4"	2,540	10	45	18	5	W3/4 /211 340/	W3/4 /241 340/	W3/4 /271 340/
W 7/8"	2,822	9	55	22	5	W7/8 /211 780/	W7/8 /241 780/	W7/8 /271 780/
W 1"	3,175	8	55	22	6	W1 /211 100/	W1 /241 100/	W1 /271 100/
W 1 1/8"	3,629	7	65	25	6	W1 1/8 /211 118/	W1 1/8 /241 118/	W1 1/8 /271 118/
W 1 1/4"	3,629	7	65	25	7	W1 1/4 /211 114/	W1 1/4 /241 114/	W1 1/4 /271 114/
W 1 3/8"	4,233	6	65	25	7	W1 3/8 /211 138/	W1 3/8 /241 138/	W1 3/8 /271 138/
W 1 1/2"	4,233	6	75	30	7	W1 1/2 /211 112/	W1 1/2 /241 112/	W1 1/2 /271 112/
W 1 5/8"	5,080	5	75	30	8	W1 5/8 /211 158/	W1 5/8 /241 158/	W1 5/8 /271 158/
W 1 3/4"	5,080	5	90	36	7	W1 3/4 /211 134/	W1 3/4 /241 134/	W1 3/4 /271 134/
W 1 7/8"	5,644	4,5	90	36	7	W1 7/8 /211 178/	W1 7/8 /241 178/	W1 7/8 /271 178/
W 2"	5,644	4,5	90	36	8	W2 /211 200/	W2 /241 200/	W2 /271 200/

* nonstandard supplies

Machine circular Screwing Dies

Material group
(**X.X** recommended use; X.X possible use)

HSS **2.1; 2.2; 2.3; 6.1; 6.2; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2; 11.1**
1.2; 7.1; 8.1; 8.2; 9.1; 10.1; 10.2; 11.1



	P	D	h	S	HSS	HSS LH
M 1,4	0,3	12	2,5	3	M1,4 /247 014/	M1,4 /257 014/
M 1,6	0,35	12	2,5	3	M1,6 /247 016/	M1,6 /257 016/
M 1,8	0,35	12	2,5	3	M1,8 /247 018/	M1,8 /257 018/
M 2	0,4	16	3,5	3	M2 /247 020/	M2 /257 020/
M 2,2	0,45	16	3,5	3	M2,2 /247 022/	M2,2 /257 022/
M 2,5	0,45	16	3,5	3	M2,5 /247 025/	M2,5 /257 025/
M 2,5	0,35	16	2,5	3	M2,5 /247 026/	M2,5 /257 026/
M 3	0,5	16	3,5	4	M3 /247 030/	M3 /257 030/
M 3	0,35	16	2,5	4	M3 /247 031/	M3 /257 031/
M 3,5	0,6	16	5	4	M3,5 /247 035/	M3,5 /257 035/
M 3,5	0,35	16	3,5	4	M3,5 /247 036/	M3,5 /257 036/
M 4	0,7	16	5	4	M4 /247 040/	M4 /257 040/
M 4	0,5	16	3,5	4	M4 /247 041/	M4 /257 041/
M 4,5	0,5	16	3,5	4	M4,5 /247 045/	M4,5 /257 045/
M 5	0,8	20	5,5	4	M5 /247 050/	M5 /257 050/
M 5	0,5	20	3,5	4	M5 /247 051/	M5 /257 051/
M 5,5	0,5	20	3,5	4	M5,5 /247 055/	M5,5 /257 055/
M 6	1	20	7	4	M6 /247 060/	M6 /257 060/
M 6	0,75	20	5,5	4	M6 /247 061/	M6 /257 061/
M 7	1	20	7	4	M7 /247 070/	M7 /257 070/
M 7	0,75	20	5,5	4	M7 /247 071/	M7 /257 071/
M 8	1,25	25	8	4	M8 /247 080/	M8 /257 080/
M 8	1	25	7	4	M8 /247 081/	M8 /257 081/
M 8	0,75	25	7	4	M8 /247 082/	M8 /257 082/
M 9	1,25	25	8	4	M9 /247 090/	M9 /257 090/
M 9	1	25	7	4	M9 /247 091/	M9 /257 091/
M 9	0,75	25	7	4	M9 /247 092/	M9 /257 092/
M 10	1,5	30	10	4	M10 /247 100/	M10 /257 100/
M 10	1	30	7	4	M10 /247 101/	M10 /257 101/
M 10	0,75	30	7	4	M10 /247 102/	M10 /257 102/
M 11	1,5	30	10	5	M11 /247 110/	M11 /257 110/
M 11	1	30	10	5	M11 /247 111/	M11 /257 111/
M 11	0,75	30	10	5	M11 /247 112/	M11 /257 112/
M 12	1,75	30	12	5	M12 /247 120/	M12 /257 120/
M 12	1,5	30	10	5	M12 /247 121/	M12 /257 121/
M 12	1,25	30	10	5	M12 /247 122/	M12 /257 122/
M 12	1	30	10	5	M12 /247 123/	M12 /257 123/
M 14	2	38	14	5	M14 /247 140/	M14 /257 140/
M 14	1,5	38	10	5	M14 /247 141/	M14 /257 141/
M 14	1,25	38	10	5	M14 /247 142/	M14 /257 142/
M 14	1	38	10	5	M14 /247 143/	M14 /257 143/
M 15	1,5	38	10	5	M15 /247 151/	M15 /257 151/
M 16	2	38	14	5	M16 /247 160/	M16 /257 160/
M 16	1,5	38	10	5	M16 /247 161/	M16 /257 161/
M 16	1	38	10	5	M16 /247 162/	M16 /257 162/
M 18	2,5	45	16	5	M18 /247 180/	M18 /257 180/
M 18	1,5	45	12	5	M18 /247 181/	M18 /257 181/
M 18	1	45	12	5	M18 /247 182	M18 /257 182
M 20	2,5	45	16	6	M20 /247 200/	M20 /257 200/
M 20	1,5	45	12	6	M20 /247 201/	M20 /257 201/
M 20	1	45	12	6	M20 /247 202/	M20 /257 202/

* nonstandard supplies

Taps & Die Sets

TAP & DIE SET M

	kg	axbxc mm		
Material: NO / CS HSS	0,65	255x140x22	M0-II NO	M0-II HSS

Standard		Standard	
ČSN 223010	M 2,5; 3; 3,5; 4; 5; 6; 7	ČSN 241521	∅ 20 / ∅ 16 mm
ČSN EN 22 568	M 2,5; 3; 3,5; 4; 5; 6; 7	ČSN 241126	2-4,5 mm
ČSN 241520	∅ 20 mm		

TAP & DIE SET M

	kg	axbxc mm		
Material: NO / CS HSS HSS LH	2,15	345x200x32	M1-II NO	M1-II HSS M1-II HSS LH

Standard		Standard	
ČSN 223010	M 3; 4; 5; 6; 8; 10; 12	ČSN 241521	∅ 25 / ∅ 20 mm ∅ 38 / ∅ 30 mm
ČSN EN 22 568	M 3; 4; 5; 6; 8; 10; 12	ČSN 241126	2,5 - 7,1 mm
ČSN 241520	∅ 25; 38 mm		

TAP & DIE SET M

	kg	axbxc mm		
Material: NO / CS HSS	2,50	355x270x35	M1-D NO	M1-D HSS

Standard		Standard	
ČSN 223010	M 3; 4; 5; 6; 8; 10; 12	ČSN 241521	∅ 25 / ∅ 20 mm ∅ 38 / ∅ 30 mm
ČSN EN 22 568	M 3; 4; 5; 6; 8; 10; 12	ČSN 241126	2,5 - 7,1 mm
ČSN 241520	∅ 25; 38 mm		

TAP & DIE SET M

		kg	axbxc mm		
Material: NO / CS HSS HSS LH		4,00	410x210x34	M2-II NO	M2-II HSS M2-II HSS LH
Standard		**Standard**			
ČSN 223010	M 12; 14; 16; 18; 20	ČSN 241521	∅ 45 / ∅ 38 mm		
ČSN EN 22 568	M 12; 14; 16; 18; 20	ČSN 241126	5,6-16 mm		
ČSN 241520	∅ 45 mm				

TAP & DIE SET M

		kg	axbxc mm		
Material: NO / CS HSS		1,20	240x200x60	M3 NO-HOBBY	M3 HSS-HOBBY
Standard		**Standard**			
ČSN 223010	M 3; 4; 5; 6; 8; 10; 12	ČSN 241121	∅ 2,5; 3,3; 4,2; 5; 6,8; 8,5; 10,2		
ČSN 8/3225	M 3; 4; 5; 6; 8; 10; 12	ČSN 230807			
ČSN 241520	∅ 25 mm	ON 22 6196			
ČSN 241126	2,5-7,1 mm	ČSN 254620			

TAP & DIE SET M

		kg	axbxc mm		
Material: NO / CS HSS		1,30	270x170x60	M1-QS NO	M1-QS HSS
Standard		**Standard**			
ČSN 223010	M 3; 4; 5; 6; 7; 8; 8x1; 10; 10x1; 12; 12x1; 12x1,5	ČSN 241520	∅ 25 mm		
PN 8/3225	M 3; 4; 5; 6; 7; 8; 8x1; 10; 10x1; 12; 12x1; 12x1,5	DIN 1814	2,5 - 8 mm		

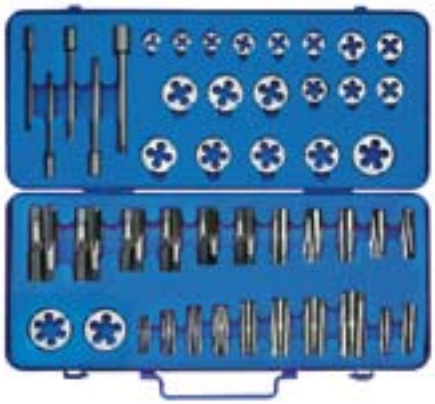
Taps & Die Sets

TAP & DIE SET M

		kg	axbxc mm		
Material: NO / CS HSS		5,20	440x185x60	AUTO-1 NO	AUTO-1 HSS
Standard		**Standard**			
ČSN 223010	M 7; 8x1; 10x1; 10x1,25; 11; 11x1; 12x1; 12x1,25; 12x1,5; 14x1; 14x1,25; 14x1,5; 16x1; 16x1 LH; 16x1,5; 18x1,5; 20x1,5; 22x1,5; 24x1,5	ČSN EN 22 568		M 7; 8x1; 10x1; 10x1,25; 11; 11x1; 12x1; 12x1,25; 12x1,5; 14x1; 14x1,25; 14x1,5; 16x1; 16x1 LH; 16x1,5; 18x1,5; 20x1,5; 22x1,5; 24x1,5	
		ČSN 241151		□ 5; 5,6; 6,3; 7,1; 9 mm	

TAP & DIE SET M

		kg	axbxc mm		
Material: NO / CS HSS		4,20	440x185x60	AUTO-2 NO	AUTO-2 HSS
Standard		**Standard**			
ČSN 223010	M 4; 5; 6; 7; 8; 10; 11; 12; 8x1; 10x1; 10x1,25; 11x1; 12x1; 12x1,25; 12x1,5; 14x1; 14x1,25; 14x1,5; 16x1; 18x1,5; 20x1,5	ČSN EN 22 568		M 4; 5; 6; 7; 8; 10; 11; 12; 8x1; 10x1; 10x1,25; 11x1; 12x1; 12x1,25; 12x1,5; 14x1; 14x1,25; 14x1,5; 16x1; 18x1,5; 20x1,5	
		ČSN 241151		□ 5; 5,6; 6,3; 7,1; 9 mm	

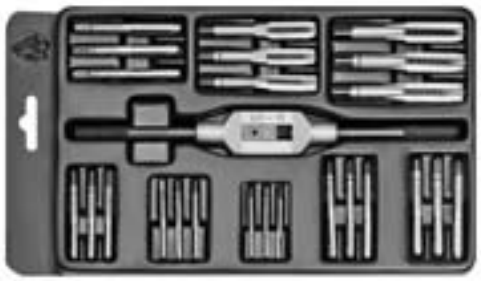


TAP & DIE SET M

		kg	axbxc mm		
Material: NO / CS HSS		0,40	260x100x15	MINI-1 NO	MINI-1 HSS
Standard		**Standard**			
PN 8/3225	M 3; 4; 5; 6; 7; 8; 10; 12	ČSN 241520		∅ 25 mm	

TAP & DIE SET

M



		kg	axbxc mm		
Material: NO / CS	HSS	4,00	250x150x15	MINI-2 NO	MINI-2 HSS

Standard		**Standard**	
ČSN 223010	M 3; 4; 5; 6; 7; 8; 10; 12	DIN 1814	2,5 -9 mm

TAP & DIE SET

M

		kg	axbxc mm		
Material: HSSE	HSSE VA	0,12	350x120x40	MINI-1D PROFI HSSE	MINI-1D PROFI HSSE-VA

Standard		**Standard**	
ČSN EN 22 568	M 3; 4; 5; 6; 8; 10; 12	ČSN 241520	∅ 25 mm ∅ 38 mm
ČSN 241521	∅ 25 / ∅ 20 mm ∅ 38 / ∅ 30 mm		

TAP & DIE SET

M

		kg	axbxc mm	
Material: HSSE		1,27	365x165x40	MINI-2D PROFI

Standard		**Standard**	
ČSN 223043 PN 8/3044	M 3; 4; 5; 6; 7; 8; 10; 12	DIN 1814	2,5 -8 mm

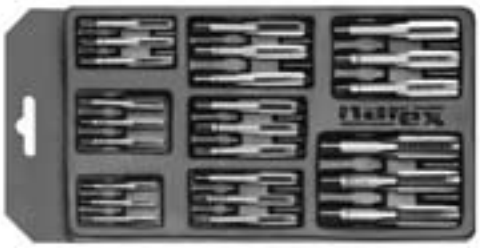
Taps & Die Sets

TAP & DIE SET M

	kg	axbxc mm		
Material: NO / CS HSS	0,30	240x120x15	MINI-2L NO	MINI-2L HSS

Standard

ČSN 223010 — M 3LH; 4LH; 5LH; 6LH; 7LH; 8LH; 10LH; 12LH



TAP & DIE SET M

	kg	axbxc mm		
Material: NO / CS HSS	0,20	230x100x15	MAT-1 NO	MAT-1 HSS

Standard

PN 8/3074 — M 2; 2,5
PN 8/3070 — M 3; 3,5; 4; 5; 6; 7; 8

Standard

DIN 1814 — 2-6 mm

TAP & DIE SET M

	kg	axbxc mm	
Material: NO / CS	8,60	495x315x60	N3-II NO

Standard

ČSN 223010 — M 4x0,5; 5x0,5; 6x0,75; 8x0,75; 8x1; 9x1; 10x0,75; 10x1; 11x1; 12x1; 12x1,5; 14x1; 14x1,25; 14x1,5

ČSN EN 22 568 — M 4x0,5; 5x0,5; 6x0,75; 8x0,75; 8x1; 9x1; 10x0,75; 10x1; 11x1; 12x1; 12x1,5; 14x1; 14x1,25; 14x1,5

ČSN 241121 — ∅ 2; 3; 3,5; 4,5; 5,2; 7; 7,2; 8; 9; 9,2; 10; 10,5; 11; 12,5; 12,8

ČSN 241151 — 3,15; 3,55; 4; 5; 5,6; 6,3; 7,1; 9 mm

Standard

ČSN 241520 — ∅ 20; 38 mm

ČSN 241126 — 2-4,5; 3,55-9mm

PN 241521 — ∅ 25 / ∅ 20 mm
∅ 38 / ∅ 30 mm

TAP & DIE SET G

		kg	axbxc mm		
Material: NO / CS HSS		12,60	670x330x90	G1-II NO	G1-II HSS
Standard		**Standard**			
ČSN 223012	G 1/8"; 1/4"; 3/8"; 1/2"; 5/8"; 3/4"; 7/8"; 1"	ČSN 241521		∅ 45 / ∅ 30 mm ∅ 45 / ∅ 38 mm ∅ 65 / ∅ 55 mm	
ČSN EN 24 231	G 1/8"; 1/4"; 3/8"; 1/2"; 5/8"; 3/4"; 7/8"; 1"	ČSN 241126		5,6-16 mm	
ČSN 241520	∅ 45; 65 mm				

TAP & DIE SET W

		kg	axbxc mm		
Material: NO / CS HSS		2,53	350x270x30	W1-II NO	W1-II HSS
Standard		**Standard**			
PN 8/3011	W 1/8"; 3/16"; 1/4"; 5/16"; 3/8"; 7/16"; 1/2"	ČSN 241521		∅ 25 / ∅ 20 mm ∅ 38 / ∅ 30 mm	
PN 8/3211	W 1/8"; 3/16"; 1/4"; 5/16"; 3/8"; 7/16"; 1/2"	ČSN 241126		2-4,5 mm 3,55-9 mm	
ČSN 241520	∅ 25; 38 mm				

TAP & DIE SET W

		kg	axbxc mm	
Material: NO / CS		7,40	535x275x70	W2-II
Standard		**Standard**		
PN 8/3011	W 1/2"; 9/16"; 5/8"; 3/4"; 7/8"; 1"	ČSN 241521		∅ 55 / ∅ 38 mm ∅ 55 / ∅ 45 mm
PN 8/3211	W 1/2"; 9/16"; 5/8"; 3/4"; 7/8"; 1"	ČSN 241126		5,6-16 mm
ČSN 241520	∅ 55 mm			

Taps & Die Sets

TAP & DIE SET UNC

	kg	axbxc mm		
Material: NO / CS HSS	1,70	355x270x35	UNC0 NO	UNC0 HSS

Standard

PN 8/3015 - NO — 5-40; 6-32; 8-32; 10-24; 12-24

DIN 352 - HSS

ČSN EN 22 568 — 5-40; 6-32; 8-32; 10-24; 12-24

Standard

ČSN 241126 — 2,5-7,1 mm

ČSN 241520 — ∅ 20 mm

TAP & DIE SET UNC

	kg	axbxc mm		
Material: NO / CS HSS	2,04	350x270x40	UNC1 NO	UNC1 HSS

Standard

PN 8/3015 - NO — 1/4 - 20; 5/16 - 18; 3/8 - 16; 7/16 - 14; 1/2 - 13

DIN 352 - HSS

ČSN EN 22 568 — 1/4 - 20; 5/16 - 18; 3/8 - 16; 7/16 - 14; 1/2 - 13

ČSN 241520 — ∅ 25; 38 mm

Standard

ČSN 241521 — ∅ 25 / ∅ 20 mm
∅ 38 / ∅ 30 mm

ČSN 241126 — 2,5-7,1 mm

TAP & DIE SET UNC

	kg	axbxc mm	
Material: NO / CS	6,54	510x350x40	UNC2

Standard

PN 8/3015 — 1/2 - 13; 5/8 - 11; 3/4 - 10; 7/8 - 9; 1 - 8

ČSN EN 22 568 — 1/2 - 13; 5/8 - 11; 3/4 - 10; 7/8 - 9; 1 - 8

ČSN 241520 — ∅ 55 mm

Standard

ČSN 241521 — ∅ 55 / ∅ 38 mm
∅ 55 / ∅ 45 mm

ČSN 241126 — 5,6-16 mm

TAP & DIE SET UNF

		kg	axbxc mm		
Material: NO / CS HSS		1,58	355x270x35	UNF0 NO	UNF0 HSS
Standard		**Standard**			
PN 8/3015 - NO	5-44; 6-40; 8-36; 10-32; 12-28	ČSN 241126		2,5-7,1 mm	
DIN 2181 - HSS					
ČSN EN 22 568	5-44; 6-40; 8-36; 10-32; 12-28	ČSN 241520		∅ 20 mm	

TAP & DIE SET UNF

		kg	axbxc mm		
Material: NO / CS HSS		2,38	350x270x40	UNF1 NO	UNF1 HSS
Standard		**Standard**			
PN 8/3015 - NO	1/4 - 28; 5/16 - 24; 3/8 - 24; 7/16 - 20; 1/2 - 20	ČSN 241521		∅ 25 / ∅ 20 mm ∅ 38 / ∅ 30 mm	
DIN 2181 - HSS					
ČSN EN 22 568	1/4 - 28; 5/16 - 24; 3/8 - 24; 7/16 - 20; 1/2 - 20	ČSN 241126		2,5-7,1 mm	
ČSN 241520	∅ 25; 38 mm				

TAP & DIE SET UNF

		kg	axbxc mm		
Material: NO / CS HSS		6,38	510x350x40	UNF 2-NO	UNF 2-HSS
Standard		**Standard**			
PN 8/3015	1/2 - 20; 5/8 - 18; 3/4 - 16; 7/8 - 14; 1 - 12	ČSN 241521		∅ 55 / ∅ 38 mm ∅ 55 / ∅ 45 mm	
ČSN EN 22 568	1/2 - 20; 5/8 - 18; 3/4 - 16; 7/8 - 14; 1 - 12	ČSN 241126		5,6-16 mm	
ČSN 241520	∅ 55 mm				

Screwdriver-Bits Sets

SCREWDRIVER-BITS SETS M

		kg	axbxc mm	
Material: HSS	BIT 1 M3-M8 BIT 1 M3-M10 BIT 1 M4-M12	0,05 0,05 0,07	155x90 155x90 155x90	M3-M8/948100 M3-M10/948110 M4-M12/948120

Standard

BIT 1 M3-M8 PN 8/3016	M 3; 4; 5; 6; 8
BIT 1 M3-M10 PN 8/3016	M 3; 4; 5; 6; 8; 10
BIT 1 M4-M12 PN 8/3016	M 4; 5; 6; 8; 10; 12

SCREWDRIVER-BITS SETS M

		kg	axbxc mm	
Material: HSS	BIT 2 M3-M8 BIT 2 M4-M10 BIT 2 M5-M12	0,08 0,09 0,10	155x90 155x90 155x90	M3-M8/948200 M4-M10/948210 M5-M12/948220

Standard		Standard
BIT 2 M3-M8 PN 8/3016	M 3; 4; 5; 6; 8	Hex-key spanner 1/4" // Magnetic holder
BIT 2 M4-M10 PN 8/3016	M 4; 5; 6; 8; 10	Hex-key spanner 1/4" // Magnetic holder
BIT 2 M5-M12 PN 8/3016	M 5; 6; 8; 10; 12	Hex-key spanner 1/4" // Magnetic holder

SCREWDRIVER-BITS SETS M

		kg	axbxc mm	
Material: HSS	BIT 3 M4-M12 BIT 3 M3-M10	0,17 0,16	155x90 155x90	M4-M12/948300 M3-M10/948310

Standard		Standard
BIT 3 M4-M12 PN 8/3016	M 4; 5; 6; 8; 10; 12	Screwdriver with „T“ holder
BIT 3 M3-M10 PN 8/3016	M 3; 4; 5; 6; 8; 10	Screwdriver with „T“ holder

SCREWDRIVER-BITS SETS M

		kg	axbxc mm	
Material: HSS	BIT 4 M4-M12 BIT 4 M3-M10	0,22 0,21	155x90 155x90	M4-M12/948400 M3-M10/948410

Standard		Standard
BIT 4 M4-M12 PN 8/3016	M 4; 5; 6; 8; 10; 12	tap wrench with ratchet
BIT 4 M3-M10 PN 8/3016	M 3; 4; 5; 6; 8; 10	tap wrench with ratchet

MACHINE TAPS SETS

M

		kg	axbxc mm	
Material: HSS	C - 1	0,10	73x17x133	C-1
	C - 2	0,14	73x17x133	C-2
	C - 3	0,19	73x17x133	C-3
	C - 4	018	73x17x133	C-4

Standard		Standard	
Typ C - 1	M 3; 4; 5; 6; 8	Typ C - 3	M 5; 6; 8; 10; 12
Typ C - 2	M 4; 5; 6; 8; 10	Typ C - 4	M 4; 6; 8; 10; 12

MACHINE TAPS SETS

M

		kg	axbxc mm	
Material: HSS	B - 1	0,10	73x17x133	B-1
	B - 2	0,14	73x17x133	B-2
	B - 3	0,19	73x17x133	B-3
	B - 4	018	73x17x133	B-4

Standard		Standard	
Typ B - 1	M 3; 4; 5; 6; 8	Typ B - 3	M 5; 6; 8; 10; 12
Typ B - 2	M 4; 5; 6; 8; 10	Typ B - 4	M 4; 6; 8; 10; 12

MACHINE TAPS SETS

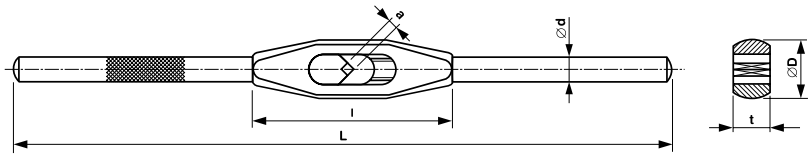
M

		kg	axbxc mm	
Material: HSS	C/35 - 1	0,10	73x17x133	C/35-1
	C/35 - 2	0,14	73x17x133	C/35-2
	C/35 - 3	0,19	73x17x133	C/35-3
	C/35 - 4	018	73x17x133	C/35-4

Standard		Standard	
Typ C/35 - 1	M 3; 4; 5; 6; 8	Typ C/35 - 3	M 5; 6; 8; 10; 12
Typ C/35 - 2	M 4; 5; 6; 8; 10	Typ C/35 - 4	M 4; 6; 8; 10; 12

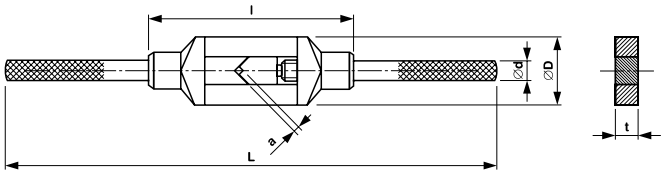
Accessories

ADJUSTABLE TAP WRENCHES



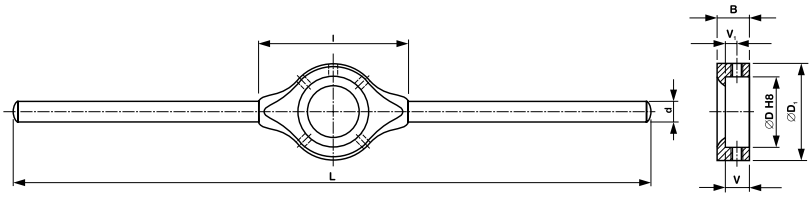
Size	a	t	∅D	∅d	l	L	
č. 1	2 - 4,5	7	12	5	49	125	2-4,5
č. 2	2,5 - 7,1	10	18	8	65	210	2,5-7,1
č. 3	3,5 - 9	14	27	11	96	310	3,5-9
č. 4	5,6 - 16	22	40	15	134	400	5,6-16

ADJUSTABLE TAP WRENCHES



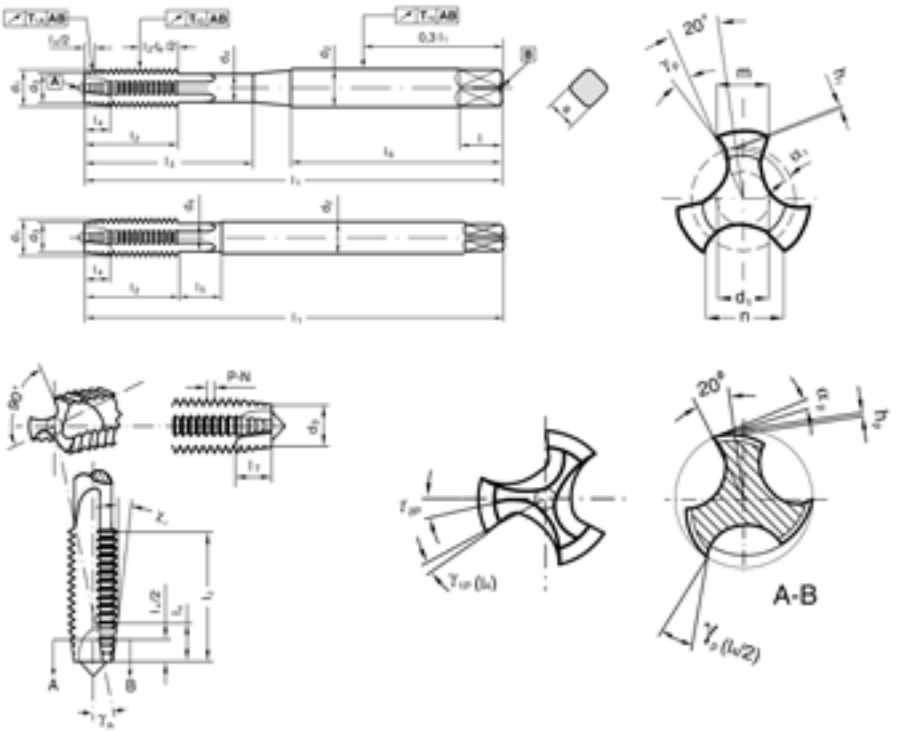
Size	a	t	∅D	∅d	l	L	
č. 1	2 - 6	8	24	7	73	175	2-6
č. 1,5	2,5 - 8	9	25	8	75	200	2,5-8
č. 3	4,9 - 12	16	45	14	132	370	4,9-12

CIRCULAR DIE STOCKS



∅DH8	$∅D_1$	B	V	V_1	∅d	L	l	
16	24	7,5	5	3,15	5	140	36,5	16
20	30	9	7	3,25	8	180	44	20
25	36	12	9	4	10	220	54	25
30	42	14	11	5	10	280	64	30
38	56	16	12	6,25	12	330	80	38
45	64	20	16	8,25	14	400	94	45
55	75,5	23	19	10,25	14	480	110	55
65	90	26	21,5	11,5	18	560	130	65
75	98	29	24	14	18	670	148	75
90	114	35	28	17	18	800	170	90

NOMENCLATURE



d_1	nominal tap thread diameter	l_6	shank length	α_p	lead chamfer relief angle
d_2	shank diameter	l_7	spiral point length	α_f	thread relief angle
d_3	lead chamfer diameter	l	square length	γ_f	spiral flute angle
d_4	neck diameter			γ_p	rake angle
d_5	core hole diameter	m	land thickness	γ_{fa}	spiral point angle
		n	flute width	χ_r	lead chamfer angle
l_1	overall length	a	square size		
l_2	thread length	P	pitch thread in mm	T_{1A}	limit for lead chamfer
l_3	cutting length	N	pitch thread it threads per inch	T_{rG}	limit for thread concentricity
l_4	lead chamfer length	h_p	chamfer relief in 20°	T_{rS}	limit for shank concentricity
l_5	neck length	h_f	thread relief in 20°		

SURFACE TREATMENTS AND COATINGS

Titanium nitride (gold colour)

TiN

In a PVD process (500 °C) a coating thickness of 2-4 µm can be realised. The hardness of approx. 2300 HV, the good sliding properties and the coating adhesion yield considerable tool life increase. This mono-layer coating will remain resistant up to approx. 600 °C.

Titanium carbonitride (blue-grey colour)

TiCN

In a PVD process (500 °C) a coating thickness of 2-4 µm can be realised. The hardness is approx. 3000 HV. The TiCN coating will resist up to approx. 400 °C.

Balinit® Futura Nano Top (violet-grey colour)

FNT

In a PVD process (500 °C) a coating thickness of 3-5 µm can be realised. Optimised hardness/residual compressive stress ratio, outstanding fidelity of edge geometry, excellent coating adhesion, uniform wear behaviour, better sliding properties due to higher surface quality, greater thermal and chemical resistance, greater wear resistance. The hardness is approx. 3300 HV. The Balinit® Futura Nano Top coating will resist up to approx. 900 °C.

Balinit® Hardlube (dark grey colour)

HL

In a PVD process (500 °C) a coating thickness of 3-5 µm can be realised. Optimised hardness/residual compressive stress ratio, outstanding fidelity of edge geometry, excellent coating adhesion, uniform wear behaviour, better sliding properties due to higher surface quality, greater thermal and chemical resistance, greater wear resistance of the TiAlN layers. Excellent low friction coefficient of the WC/C coating assure uniform chip extraction. The hardness is approx. 3300 HV. The Balinit® Hardlube coating will resist up to approx. 800 °C.

Oxidation (dark grey colour)

OX

In a special installation, the tools are exposed to hot steam. This leads to the formation of a dark oxide layer on the tool surface. This oxide layer protects the surface, and acts as a good carrier of lubricants. Cold welding which occurs especially with low-carbon soft steels can be prevented in this way.

Conversion Chart

Thread forming of internal threads is one of the technologies of threads production. This technology could be used for thread production in materials with minimal ductility 10%.

Advantages of formed thread:
- no chips during threading process
- higher surface quality on thread flanks, very clean thread
- uniform calibration of thread
- higher strengh of screw connection
- higher mechanical resistance of forming taps – longer tool life
- higher speed = higher productivity

Operating conditions:
- optimal diameter of drilled hole
- sufficient cooling
- sufficient spindle/tap revolutions

RECOMMENDED HOLE DIAMETERS FOR FORMING OF THE THREADS

Metric ISO - coarse thread

Thread size		Hole diameter - ∅	
∅ mm	P mm	min mm	max mm
M 3	0,5	2,77	2,82
M 3,5	0,6	3,23	3,28
M 4	0,7	3,68	3,73
M 4,5	0,75	4,15	4,21
M 5	0,8	4,63	4,68
M 6	1	5,51	5,59
M 7	1	6,51	6,59
M 8	1,25	7,39	7,48
M 9	1,25	8,39	8,48
M 10	1,5	9,25	9,35
M 11	1,5	10,25	10,35
M 12	1,75	11,12	11,25
M 14	2	13,0	13,15
M 16	2	15,0	15,15
M 18	2,5	16,72	16,9
M 20	2,5	18,72	18,9

Whitworth pipe thread

Thread size		Hole diameter - ∅	
∅" mm	P/1" mm	min mm	max mm
G 1/8"	28	9,25	9,32
G 1/4"	19	12,43	12,53
G 3/8"	19	15,94	16,04
G 1/2"	14	19,96	20,1
G 5/8"	14	21,92	22,08
G 3/4"	14	25,45	25,60
G 7/8"	14	29,2	29,35
G 1"	11	31,97	32,15

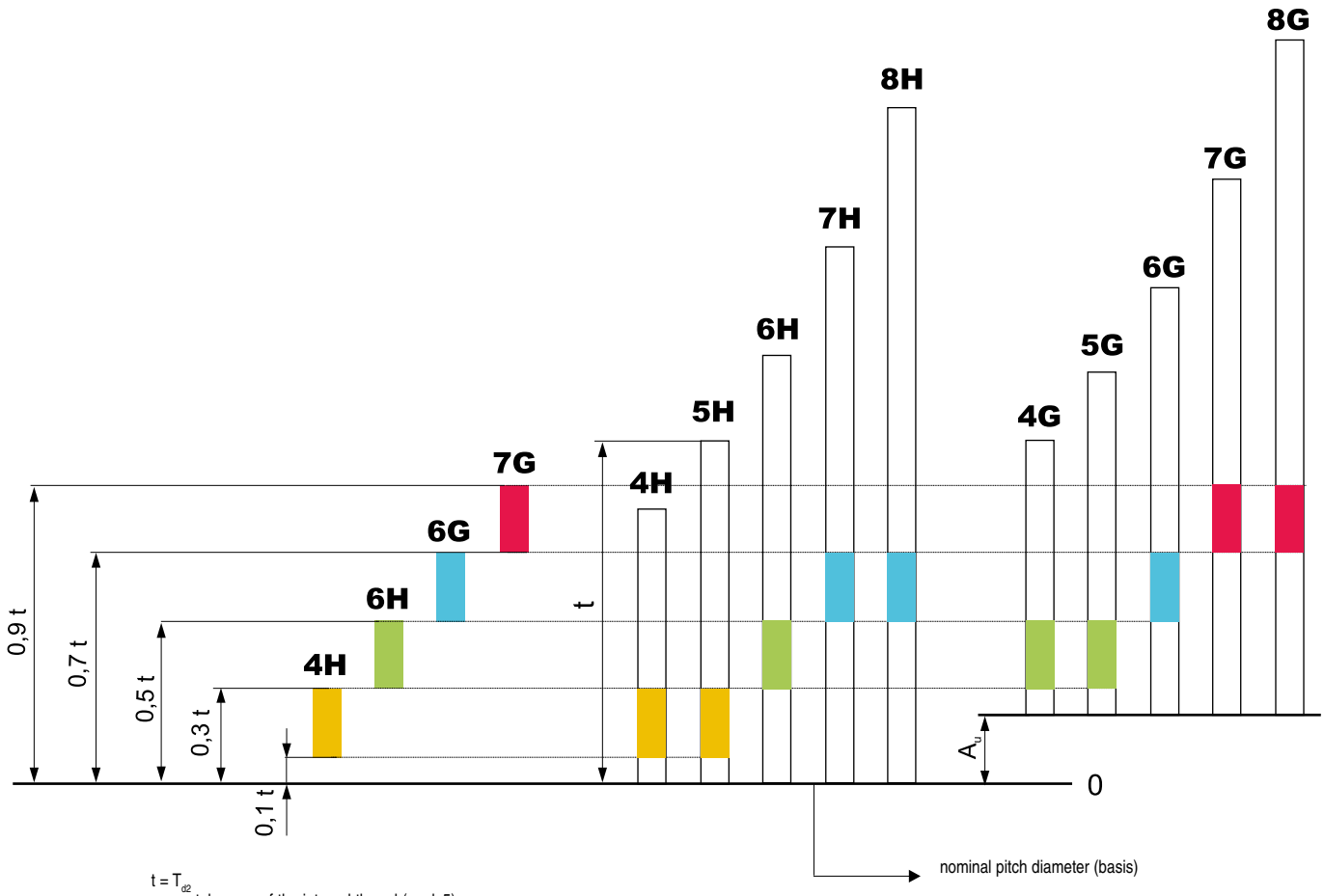
Check the value in consideration of roll formed material ductility.

Metric ISO - fine thread

Thread size	Hole diameter - ∅	
∅xP mm	min mm	max mm
M 3,5 x 0,5	3,27	3,32
M 4 x 0,5	3,77	3,82
M 4,5 x 0,5	4,27	4,32
M 5 x 0,5	4,77	4,82
M 5,5 x 0,5	5,27	5,32
M 6 x 0,5	5,78	5,83
M 6 x 0,75	5,65	5,71
M 7 x 0,75	6,65	6,71
M 8 x 0,75	7,65	7,71
M 9 x 0,75	8,65	8,71
M 10 x 0,75	9,65	9,71
M 11 x 0,75	10,65	10,71
M 8 x 1	7,51	7,59
M 9 x 1	8,51	8,59
M 10 x 1	9,51	9,59
M 11 x 1	10,51	10,59
M 12 x 1	11,52	11,60
M 14 x 1	13,52	13,60
M 15 x 1	14,52	14,60
M 16 x 1	15,52	15,60
M 18 x 1	17,52	17,60
M 20 x 1	19,52	19,60
M 10 x 1,25	9,39	9,48
M 12 x 1,25	11,40	11,49
M 14 x 1,25	13,40	13,49
M 12 x 1,5	11,26	11,36
M 14 x1,5	13,26	13,36
M 16 x 1,5	15,26	15,36
M 18 x 1,5	17,26	17,36
M 20 x 1,5	19,26	19,36
M 22 x 1,5	21,26	21,36
M 24 x 1,5	23,26	23,38
M 25 x 1,5	24,26	24,38
M 26 x 1,5	25,26	25,38
M 28 x 1,5	27,26	27,38
M 30 x 1,5	29,26	29,38
M 18 x 2	17,0	17,15
M 20 x 2	19,0	19,15
M 22 x 2	21,0	21,15
M 24 x 2	23,01	23,16
M 27 x 2	26,01	26,16
M 30 x 2	29,01	29,16

Thread Tolerance

Tolerance class of the taps of the metric threads			Tolerance fields for internal threads
Class 1	ISO 1	4H	4H 5H
Class 2	ISO 2	6H	6H 4G 5G
Class 3	ISO 3	6G	7H 8H 6G
		7G	7G 8G



$t = T_{d2}$ tolerance of the internal thread (qual. 5)

A_u fundamental deviation of tolerance fields G

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SAFETY THREAD-CUTTING HEADS TNÍ

Rychlá výměna závitníků, upnutých ve vyměnitelných pouzdrech RVK a NVH, u provedení hlav "A".

APPLICATION OF HEADS

These heads are applicable on lathes, drilling-, boring- and milling machines etc. - the backward running of the spindel is necessary for backing out of taps.

These heads are designed for chucking of taps for tapping of right- and left-hand threads in clear and blind holes.

The adjustable safety clutch protects the tap from the breakage by sudden increase of the torque.

The axial compensation compensates the difference between thread pitch and machine spindle feed.

The heads facilitate the rapid change of taps being chucked in exchangeable bushes RVK and NVH (for modifications "A" only).

TAPPING

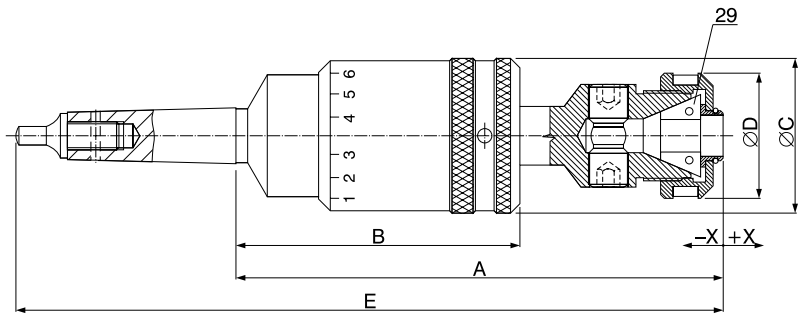
Type	M, MF	W	G	UNC, UNF
Zhb 21 **Zhb 21A**	M2 ÷ M8	W1/8" ÷ W5/16"	G1/16"	1/4" ÷ 5/16"
Zhb 31 **Zhb 31A**	M5 ÷ M16	W3/16" ÷ W5/8"	G1/16" ÷ G3/8"	1/4" ÷ 5/8"
Zhb 41 **Zhb 41A**	M16 ÷ M30	W5/8" ÷ W1"	G3/8" ÷ G7/8"	5/8" ÷ 1"
Zhb 51	M30 ÷ M52	W11/4" ÷ W2"	G7/8" ÷ G11/2"	13/16" ÷ 2"

EXTERNAL THREAD CUTTING

Type	Type of exchangeable bush mm	Thread diameter mm	L_{MAX} mm
Zhb 21A	NKC 12	M3 ÷ M8	35
Zhb 31A	NKC 12	M3 ÷ M12	33

Safety Thread-Cutting Heads

BASIC MODEL



Legend
29 - Collet
M_k - Torque
n - Speed
–X -Shift-in
+X - Shift out

Type	Shank	Collet	Dimensions (mm) A	B	C	D	E	X	M_k Nm	n_{max} min^{-1}	kg	
Zhb 21	W20 x 50						196	+7,5			1,03	21/W20x50-KOMPLET
Zhb 21	Mk2 DIN 228B	J 423, J 420	144	92	37	54	219	-7,5	7,5	600	1,09	21/MK2DIN228B-KOMPLET
Zhb 21	Mk3 x M12						238				1,29	21/MK3xM12-KOMPLET
Zhb 31	W25 x 65						251	+10			2,90	31/W25x65-KOMPLET
Zhb 31	Mk2 DIN 228B	J 443, J 440	195	118	50	66	275	-10	50	300	2,85	31/MK2DIN228B-KOMPLET
Zhb 31	Mk3 x M12 v.v.						294				3,05	31/MK3xM12-KOMPLET
Zhb 41	W25 x 65						307				5,40	41/W25x65-KOMPLET
Zhb 41	Mk3 x M12 v.v.	J 461, J 462	255	165	62	78	349	+12	175	200	5,56	41/MK3xM12-KOMPLET
Zhb 41	Mk4 x M16 v.v.						380	-12			6,00	41/MK4xM16-KOMPLET
Zhb 41	Mk5 x M20 v.v.						441				6,75	41/MK5xM20-KOMPLET

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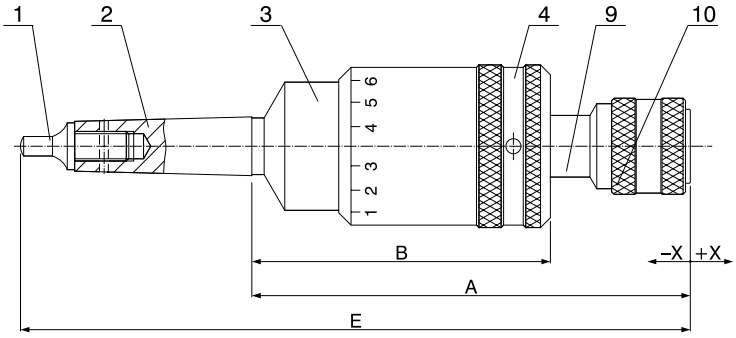
MODEL WITH THE EXCHANGEABLE BUSH



Legend
1 - Removable Tang
9 - Adapter
10 - Sleeve
M_k - Torque
n - Speed
–X - Shift-in
+X - Shift out

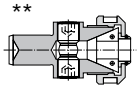
Type	Shank	Bush	Dimensions (mm) A	B	C	D	E	X	M_k Nm	n_{max} min^{-1}	kg	
Zhb 21A	W20 x 50						203	+7,5			1,26	21A/W20x50-KOMPLET
Zhb 21A	Mk2 DIN 228B	RVK 21, NVH 2, NKC 12	151	95	37	54	226	-7,5	7,5	600	1,32	21A/MK2DIN228B-KOMPLET
Zhb 21A	Mk3 x M12 v.v.						245				1,52	21A/MK3xM12-KOMPLET
Zhb 31A	W25 x 65	RVK 31, NVH 2, NKC 12	176	120	50	66	232	+10	50	300	3,33	31A/W25x65-KOMPLET
Zhb 31A	Mk3 x M12 v.v.						275	-10			3,48	31A/Mk3xM12-KOMPLET
Zhb 41A	W25 x 65						300	+12			6,32	41A/W25x65-KOMPLET
Zhb 41A	Mk3 x M12 v.v.	RVK 41, NVH 3	248	169	62	78	342	-12	175	200	6,48	41A/MK3xM12-KOMPLET
Zhb 41A	Mk4 x M16 v.v.						373				6,92	41A/MK4xM16-KOMPLET

Supplementary accessories of heads page 109, 110
Instruction of order see page 111

OFFER OF SHANKS

1. Straight shank - system WELDON according to DIN 1835; Marking: diameter x length [mm]
2. Taper shank MORSE - size 3, 4, 5 and 6 with removable tang; Marking: taper size x internal thread diameter [mm]
3. Taper shank MORSE - size 2 with fixed tang according to ČSN 22 0424 (DIN 228B); Marking: taper size

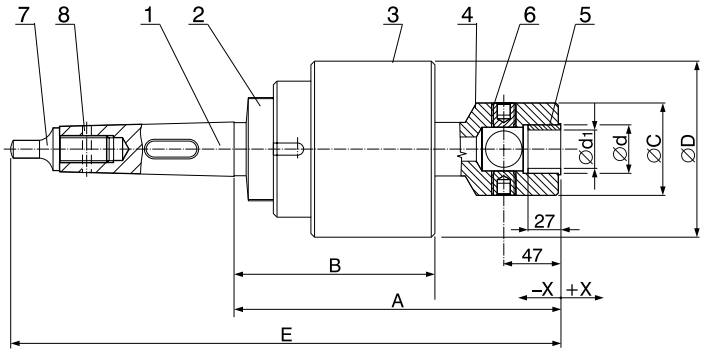
Ordering of the safety thread-cutting heads

Type	Zhb 21 Set		Zhb 31 Set		Zhb 41 Set		Zhb 51 Set		Zhb 21A RVK Set		Zhb 21A NVH Set		Zhb 31A RVK Set		Zhb 31A NVH Set		Zhb 41A RVK Set		Zhb 41A NVH Set	
	vel. size	ks pcs	vel. size	ks pcs	vel. size	ks pcs	vel. size	ks pcs	vel. size	ks pcs	vel. size	ks pcs	vel. size	ks pcs	vel. size	ks pcs	vel. size	ks pcs	vel. size	ks pcs
*	5	1	6	1	6 3	1 1	4 6	1 1	5	1	4	1	6	1	4	1	6 3	1 1	6 3	1 1
*	30-35 50-55	1 1	50-55 60-68	1 1	75-80 60-68	1 1	110-115	1	30-35 50-55	1 1	50-55	1	50-55 60-68	1 1	60-68	1	75-80 60-68	1 1	75-80	1
** 	--	-	--	-	--	-	--	-	RVK 21	2	NVH 2	2	RVK 31	2	NVH 2	2	RVK 41	2	NVH 3	2
**	J 420 J 423	1 1	J 440 J 443	1 1	J 461 J 462	1 1	-	-	J 420 J 423	2 2	P 10	2	J 440 J 443	2 2	P 10	2	J 461 J 462	2 2	P 20	2

* Basic accessories
** Supplementary accessories
Instruction of order see page 111

The supplementary accessories are delivered only, if they are specified as a separate item in the order entire set is ordered.

BASIC MODEL



Legend
1 - Taper Shank
2 - Body
3 - Sleeve
4 - Sleeve
5 - Reduction Sleeve
6 - Screw
7 - Removable Tang
8 - Locking Pin

Type	Shank	Dimensions (mm) A	B	C	D	d	E	X	M_k Nm	n_{max} min^{-1}	kg	
Zhb 51	Mk 5 x M20	277	172	76	145	40	427	+20	600	150	17,0	51/MK5xM20
Zhb 51	Mk 6 x M24						488	-20			20,9	51/MK6xM24

Reduction sleeves (basic equipment)

∅ d1 [mm]	Standard	20	22	22,4	25	28	31,5	32	36

Instruction of order see page 111

Reversible Thread-Cutting Heads

REVERSIBLE THREAD-CUTTING HEADS

APPLICATION OF HEADS

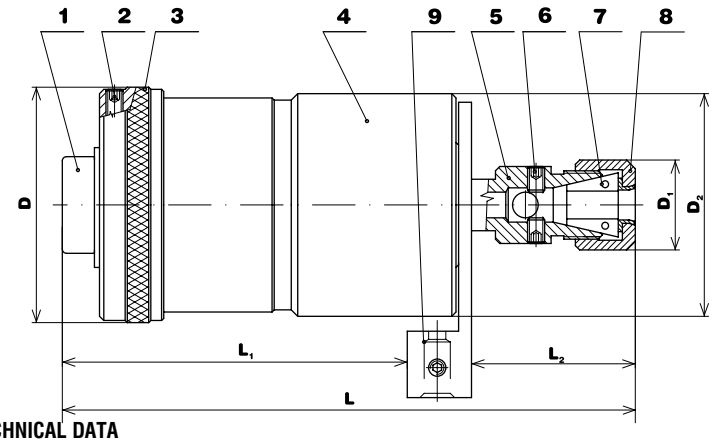
These heads are designed for usual tapping of right-handed threads on drilling machines without using of power feed. These heads may be adapted for left-handed threads on request.

ELEMENTARY PROPERTIES

- simple device with simple manipulation
- easy clamping of the head in the spindle of drilling machine
- easy fixation of the stopping bar
- simple manipulation
- simple change of working operations
- axial compensation

Legend

1 - Hollow taper
2 - Locking screw
3 - Nut of the clutch
4 - Body
5 - Sleeve
6 - Locking screw
7 - Spring collet
8 - Locking nut
9 - Holder of the stopping bar



MAIN TECHNICAL DATA

Type	d	Working range	Collet	Dimension (mm) D/D2	D1	L	L1	L2	max. min-1 rpm	Mk Nm	A/T mm	i	kg	
RTH 22 BJ	B16	M2 ÷ M7	BJ032, BJ034	55/52	23	130	80	35	1500	10	3,8/13	1,6	1,0	22BJB16
RTH 32 BJ	B16	M5 ÷ M12	BJ036, BJ038	75/74	28	156	93	44	1000	25	4,5/14,5	1,75	2,2	32BJB16
RTH 42 BJ	M20	M8 ÷ M20	BJ042, BJ044	91/91	38	199	112	62	600	80	6,0/18	1,7	5,1	42BJM20

i ratio of gear for reverse speed

NOTICE: The heads are delivered without collets and taper shanks. It is necessary to order these parts as separate items

SUPPLEMENTARY ACCESSORIES OF HEADS

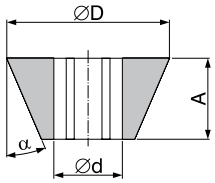
Heads Zhb, Zhb A - Collets RUBBER FLEX JACOBS - J

Type	Range d [mm]	Dimensions D	A	α°	
J 423	2,0 ÷ 4,5	23	13	20	J-423
J 420	4,5 ÷ 8,0				J-420
J 443	2,8 ÷ 7,0	32,5	16	22,5	J-443
J 440	7,0 ÷ 13,0				J-440
J 461	10,0 ÷ 16,0	47	20	25	J-461
J 462	16,0 ÷ 23,0				J-462

Spring Collet

Heads RTH - Collets RUBBER FLEX JACOBS - J

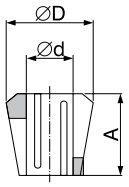
Type	Range d [mm]	Dimensions D	A	α°	
BJ032	2,0 ÷ 4,5	14	11	20	BJ-032
BJ034	4,5 ÷ 6,3				BJ-034
BJ036	3,0 ÷ 6,3	21	13	20	BJ-036
BJ038	5,0 ÷ 9,5				BJ-038
BJ042	5,0 ÷ 9,5	27	15	20	BJ-042
BJ044	9,5 ÷ 14,0				BJ-044



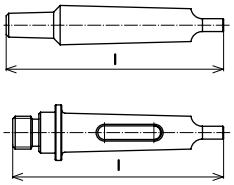
SUPPLEMENTARY ACCESSORIES OF HEADS

Heads Zhb A - Collets PLASTIC - P

Collet for centring

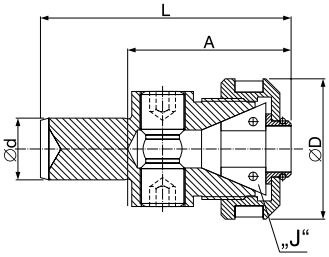


Type	Range d [mm]	Dimensions D	A	α°	
P10	SADA, SET				P10-SADA
P11	3,5 ÷ 4,0				P11/3,5-4,0
P12	4,5 ÷ 5,0				P12/4,5-5,0
P13	5,6 ÷ 6,3	19	18	10	P13/5,6-6,3
P14	7,1 ÷ 8,0				P14/7,1-8,0
P15	9,0 ÷ 10,0				P15/9,0-10,0
P16	11,2 ÷ 12,5				P16/11,2-12,5
P20	SADA, SET				P20-SADA
P21	9,0 ÷ 10,0				P21/9,0-10
P22	11,2 ÷ 12,5				P22/11,2-12,5
P23	14,0	32	31	10	P23/14,0
P24	16,0				P24/16,0
P25	18,0				P25/18,0
P26	20,0				P26/20,0



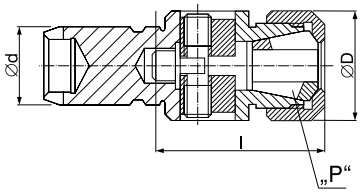
Heads RTH - Shanks

Type	l mm	kg	
B16 x Mk1	97	0,087	B16x1
B16 x Mk2	109	0,157	B16x2
B16 x Mk3	133	0,320	B16x3
M20 x Mk3	129	0,310	M20x3
M20 x Mk4	154	0,570	M20x4



Heads Zhb A - Exchangeable precise bush - collet RUBBER FLEX "J"

Type	Dimensions (mm) A	L	D	d	"J"	kg	
RVK 21	34	68	36	22	J423, J420	0,23	21
RVK 31	54	89,5	50	22	J443, J440	0,43	31
RVK 41	67	115	62	33	J461, J462	0,92	41



C Heads Zhb A - Exchangeable bush - plastic centring collet PLASTIC "P"

Type	Dimensions (mm) d	D	l	"P"	kg	
NVH 2	22	40	53	P11, P12, P13 P14, P15, P16	0,38	2
NVH 3	33	49	66	P21, P22, P23 P24, P25, P26	1,05	3

Thread-Cutting Heads

The tables with technical parameters are applied for determining of the code numbers.

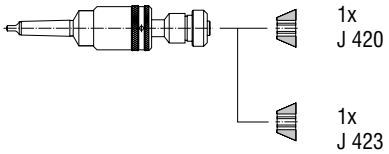
It is necessary to specify all ordered items by the code number and type.

If the head with complete basic and supplementary accessories are ordered, it is possible to use the description in the one line according to the graphic diagram of the order. The specification has to be completed with the code number determining the shank.

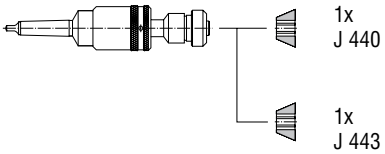
For the order of spare parts, it is necessary to specify the type of the head, the name of the part and the position number.

INSTRUCTION OF ORDER

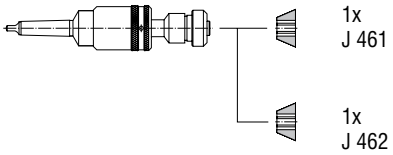
Zhb 21 - set



Zhb 31 - set

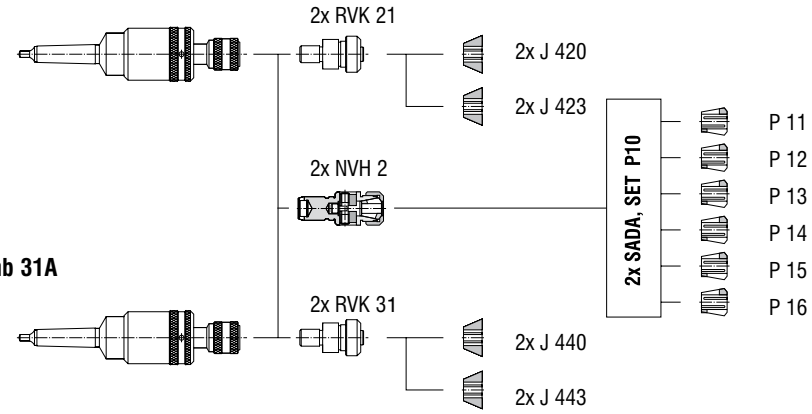


Zhb 41 - set



Zhb 21A

Zhb 31A



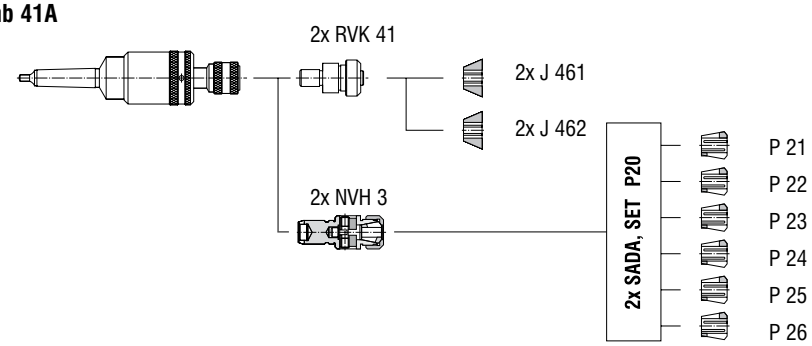
Zhb 21A / RVK / set

Zhb 21A / NVH / set

Zhb 31A / NVH / set

Zhb 31A / RVK / set

Zhb 41A



Zhb 41A / RVK / set

Zhb 41A / NVH / set

THREAD-ROLLING DIE HEADS

THREAD-ROLLING DIE HEADS

high effective tools intended for manufacturing of the outer threads through the cold rolling - axial method. (Double threads are possible to manufacture by special head only.)

ASSORTMENT OF THE ROLLING HEADS

Heads are designed as a stand type with mechanical winding up and with automatic mode of the head opening at the completion of the thread rolling. The rollers are carried in bearings on the eccentric pins. Opening is provided by a spring.

HEADS ARE MANUFACTURED IN TWO TYPES:

Zhv – stable design with the fix adjusted incline of the rollers for rolling of the right-hand threads.
Zhvu - general-purpose design with possibility of continuous change of the incline of the rollers within the range of +5° to -5° degrees according to the helix angle of the specific thread. Heads can be applied for rolling of all mentioned right-hand and left-hand threads, including trapezoidal threads.

APPLICATION OF HEADS

on the general-purpose lathes, turret lathes, drilling machines and automatic lathes

FITTING OF THE HEAD WITH ROLLERS

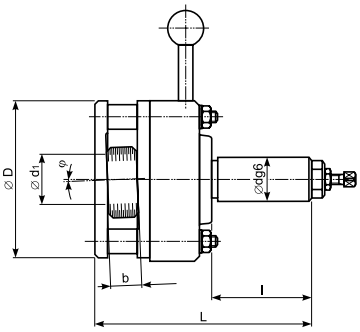
The head must be fitted with the set of appropriate rollers prior to rolling of a specific thread. The head must be also adjusted to a value of the pitch diameter.

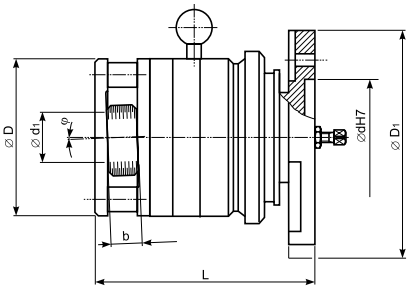
CLAMPING OF THE HEADS ON THE MACHINE-TOOL

- behind by the straight shank ∅dg6 into the turret head
- using the Dzh holder into the lathe tool post
- into a special holder - for heads Zhv 30–60

ORDERING

Heads are delivered with a set of bearing rollers without rollers. Size of the threads and head type must be specified in the purchase order. Holders Dzh are supplied only when ordered.





- incline of roller axis

Type	φ	∅D mm	L mm	∅dg6, ∅dH7 mm	∅d_1 mm	∅D_1 mm	l mm	b mm	kg	
Zhv 3-5	3°	55	98	25	8		50	6	0,27	3-5
Zhv 6-10	2°30’	65	98	20	18		40	14	0,85	6-10
Zhv 8-16	2°10’	88	125	25	22		50	18	2,7	8-16
Zhv 12-20	2°30’	117	136	32	38		60	22	5,4	12-20
Zhv 20-30	1°40’	145	197	40	48		70	24	8,1	20-30
Zhv 30-60	1°40’	245	220	110	86	170	–	40	51,0	30-60/1
	0°45’									30-60/2
Zhvu 12-20	-5° – +5°	120	190	32	34		55	22	5,9	12-20
Zhvu 20-30	-5° – +5°	146	237	40	48		70	24	8,55	20-30
Zhvu 30-60	-5° – +5°	245	250	110	86	170	–	40	54,0	30-60

Roller Assortment for Zhv a Zhvu

ROLLER ASSORTMENT FOR Zhv A Zhvu

Type of Head	Thread - Range
Zhv 3-5 (RK)	M 3 x 0,35
	M 3,5 x 0,35
	M 3 x 0,5
	M 4 x 0,5
	M 4,5 x 0,5
	M 5 x 0,5
	M 3,5 x 0,6
	M 4 x 0,7
	M 4,5 x 0,75
	M 5 x 0,8
Zhv 6-10 (RK)	M 6-8 x 0,5
	M 8-10 x 0,5
	M 6-8 x 0,75
	M 8-10 x 0,75
	M 6-7 x 1
	M 8-10 x 1
	M 8-9 x 1,25
	M 10 x 1,25
	M 10 x 1,5
	G 1/8 x 28
Zhv 8-16 (RK)	M 8-10 x 0,5
	M 11-13 x 0,5
	M 14-16 x 0,5
	M 8-10 x 0,75
	M 11-13 x 0,75
	M 14-16 x 0,75
	M 8-10 x 1
	M 11-13 x 1
	M 14-16 x 1
	M 8-9 x 1,25
	M 10-12 x 1,25
	M 14-16 x 1,25
	M 10-12 x 1,5
	M 14-16 x 1,5
	M 12 x 1,75
	M 14-16 x 2
	G 1/8 x 28
	G 3/8 x 19
	G 1/4 x 19
	G 1/2 x 14
Zhv 12-20	M 12-14 x 1
	M 15-17 x 1
	M 18-20 x 1
	M 12-14 x 1,5
	M 15-17 x 1,5
	M 18-20 x 1,5
	M 12 x 1,75
	M 14-16 x 2
	M 18-20 x 2,5

Type of Head	Thread - Range
Zhvu 12-20 (RK)	M 12-16 x 1
	M 16-20 x 1
	M 12-14 x 1,25
	M 12-16 x 1,5
	M 12 x 1,75
	M 14-16 x 2
	M 18-20 x 2
	M 18-20 x 2,5
	G 1/4 - 3/8 x 19
	G 1/2 x 14
	Rd 18-20 x 8
	M 12-16 x 0,5
	M 16-20 x 0,5
	M 12-16 x 0,75
	M 16-20 x 0,75
	Tr 12-16 x 3
	Tr 16-20 x 3
	Tr 14-16 x 4
	Tr 18-20 x 4

Every item of the table presents 1 complete set of rollers (1 set = 3 pcs).

Code
type of head / required thread

Example of order: ZHV8-16/ M10-12x1,5

Type of Head	Thread - Range
Zhv 20-30 (RK)	M 14-18 x 1,5
	M 18-22 x 1,5
	M 22-26 x 1,5
	M 14-16 x 2
	M 18-22 x 2
	M 22-26 x 2
	M 26- 30 x 2
	M 18-22 x 2,5
	M 24-27 x 3
	M 30 x 3
	M 30 x 3,5
	G 3/8 x 19
	G 1/2 - 5/8 x 14
	G 3/4 - 7/8 x 14
	Rd 20-22 x 8
	Rd 24-26 x 8
Zhvu 20-30 (RK)	M 14-18 x 0,5
	M 18-22 x 0,5
	M 14-18 x 0,75
	M 18-22 x 0,75
	M 22-26 x 0,75
	M 26-30 x 0,75
	M 14-18 x 1
	M 18-22 x 1
	M 22-26 x 1
	M 26-30 x 1
	Tr 16-20 x 3
	Tr 20-24 x 3
	Tr 26-30 x 3
	Tr 18-20 x 4
	Tr 22-24 x 4
	Tr 26-28 x 4
	Tr 22-24 x 5
	Tr 26-28 x 5

Type of Head	Thread - Range
Zhvu 30-60 (RK¨) 1°40'	M 30-36 x 3
	M 39-45 x 3
	M 48-52 x 3
	M 55-60 x 3
	M 30-33 x 3,5
	M 36-39 x 4
	M 42-45 x 4
	M 48-52 x 4
	M 55-60 x 4
	M 42-45 x 4,5
	M 48-52 x 5
	M 56-60 x 5,5
	M 40 x 5
	Rd 30 x 8
	Rd 32-34 x 8
	Rd 36-38 x 8
	Rd 40-42 x 6
	Rd 42-44 x 6
	Rd 46-48 x 6
	Rd 50-52 x 6
	Rd 52-55 x 6
	Rd 55-58 x 6
	Rd 58-60 x 6
Zhvu 30-60 (RK¨) 0°45'	M 30-33 x 0,75
	M 30-36 x 1,5
	M 39-45 x 1,5
	M 48-52 x 1,5
	M 55-60 x 1,5
	M 30-36 x 2
	M 39-45 x 2
	M 48-52 x 2
	M 55-60 x 2
	G 7/8 x 14
	G 1 - 1 1/8 x 11
	G 1 1/4 - 1 1/2 x 11
	G 1 5/8 - 1 3/4 x 11
	G 2 x 11
Zhvu 30-60 (RK¨)	Tr 30-34 x 3
	Tr 36-40 x 3
	Tr 42-46 x 3
	Tr 48-52 x 3
	Tr 55-60 x 3
	Tr 30-33 x 4
	Tr 33-36 x 4
	Tr 30-34 x 5
	Tr 40-45 x 5
	Tr 46-50 x 5
	Tr 50-55 x 5
	Tr 30-32 x 6
	Tr 34-36 x 6
	Tr 38-40 x 7
	Tr 42-44 x 7
	Tr 46-48 x 8
	Tr 50-52 x 8
	Tr 55x9
	Tr 58-60 x 9
	Tr 55 x 7

FOR AUTOMATIC THREADING DIE HEADS

Size of thread x lead	Dimension of die height	Dimension of die width	Size of dia head ČSN 241540	Size of dia head ČSN 241541	
M 8 x 1,25	7,915	19,03	III	-	M8x1,25A3
M 8 x 1				-	M8x1A3
M 8 x 0,75				-	M8x0,75A3
M 10 x 1,5				-	M10x1,5A3
M 10 x 1				-	M10x1A3
M 12 x 1,75				-	M12x1,75A3
M 12 x 1,5				-	M12x1,5A3
M 12 x 1				-	M12x1A3
M 14 x 2				III	M14x2A3
M 14 x 1,5					M14x1,5A3
M 14 x 1					M14x1A3
M 15 x 1,5					M15x1,5A3
M 16 x 2					M16x2A3
M 16 x 1,5					M16x1,5A3
M 18 x 2,5					M18x2,5A3
M 18 x 1,5					M18x1,5A3
M 18 x 1					M18x1A3
M 20 x 2,5					M20x2,5A3
M 20 x 1,5					M20x1,5A3
M 20 x 1					M20x1A3
M 22 x 1,5					M22x1,5A3
M 22 x 1					M22x1A3
M 24 x 3			-		M24x3A3
M 24 x 2			-		M24x2A3
M 24 x 1,5			-		M24x1,5A3
M 25 x 1,5			-		M25x1,5A3
M 26 x 1,5			-		M26x1,5A3
M 10 x 1,5	9,505	22,30	IV	-	M10x1,5A4
M 10 x 1					M10x1A4
M 12 x 1,75					M12x1,75A4
M 12 x 1,5					M12x1,5A4
M 14 x 2					M14x2A4
M 14 x 1,5					M14x1,5A4
M 16 x 2					M16x2A4
M 16 x 1,5					M16x1,5A4
M 18 x 2,5					M18x2,5A4
M 18 x 1,5					M18x1,5A4
M 20 x 2,5					M20x2,5A4
M 20 x 1,5					M20x1,5A4
M 22 x 2,5					M22x2,5A4
M 22 x 1,5					M22x1,5A4
M 22 x 1					M22x1A4
M 24 x 3					M24x3A4
M 24 x 2					M24x2A4
M 24 x 1,5					M24x1,5A4
M 25 x 1,5					M25x1,5A4
M 26 x 1,5					M26x1,5A4
M 27 x 2					M27x2A4
M 27 x 1,5					M27x1,5A4

Size of thread x lead	Dimension of die height	Dimension of die width	Size of dia head ČSN 241540	Size of dia head ČSN 241541	
M 12 x 1,75	11,095	25,38	V	-	M12x1,75A5
M 12 x 1,5					M12x1,5A5
M 14 x 2					M14x2A5
M 14 x 1,5					M14x1,5A5
M 16 x 2					M16x2A5
M 16 x 1,5					M16x1,5A5
M 18 x 2,5					M18x2,5A5
M 20 x 2,5					M20x2,5A5
M 20 x 1,5					M20x1,5A5
M 22 x 2,5					M22x2,5A5
M 22 x 1,5					M22x1,5A5
M 24 x 3					M24x3A5
M 24 x 2					M24x2A5
M 24 x 1,5					M24x1,5A5
M 27 x 3					M27x3A5
M 27 x 2					M27x2A5
M 27 x 1,5					M27x1,5A5
M 28 x 1,5					M28x1,5A5
M 30 x 3,5					M30x3,5A5
M 30 x 2					M30x2A5
M 30 x 1,5					M30x1,5A5
M 33 x 3,5					M33x3,5A5
M 33 x 2					M33x2A5
M 33 x 1,5					M33x1,5A5

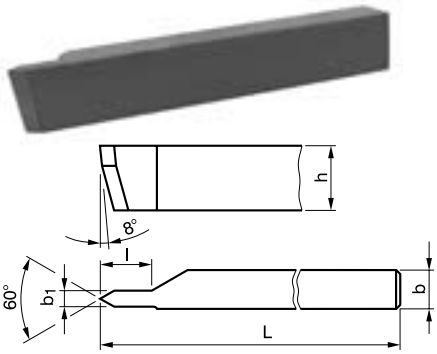
Note: threading dies for die heads I. and II. till selling-out of stock only.

Other Thread Cutting Tools

OUTSIDE THREADING TOOL

h mm	b mm	l mm	b_1 mm	L mm		
16	10	14	4	110	16×10×110	16×10×110
20	12	16	5	125	20×12×125	20×12×125
25	16	20	6	140	25×16×140	25×16×140
32	20	25	8	170	32×20×170	32×20×170

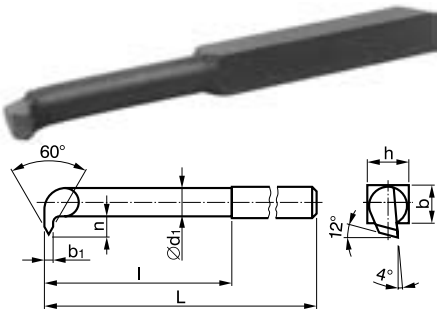
Pozn.: 223312 – right-hand execution
223313 – left-hand execution



INSIDE THREADING TOOL

h mm	b mm	∅d_1 mm	l mm	n mm	b_1 mm	L mm	
10	10	8	40	6	4	100	10×10×100
12	12	10	50	8	5	125	12×12×125
16	16	14	63	10	6	140	16×16×140
20	20	18	80	12	8	160	20×20×160
25	25	22	100	16	10	200	25×25×200
32	32	30	125	18	12	250	32×32×250

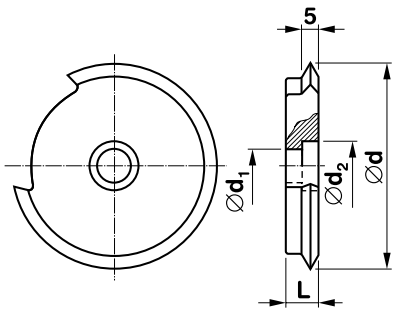
Pozn.: for metric threads



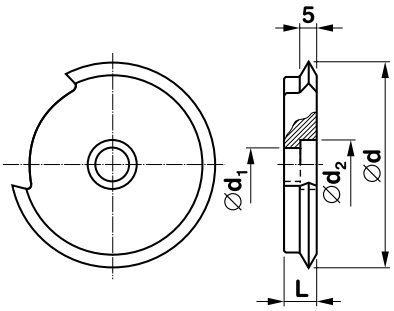
OUTSIDE CHASER (SHELL TYPE) FOR METRIC THREADS

s mm	L h16 mm	∅d H7 mm	∅d_1 H7 mm	∅d_2 H12 mm	l mm	kg	
0,75	10	63	20	30	3	0,30	M63×0,75
0,8	10	63	20	30	3	0,30	M63×0,8
0,9	10	63	20	30	5	0,30	M63×0,09
1,0	10	63	20	30	5	0,30	M63×1
1,25	10	63	20	30	6	0,34	M63×1,25
1,5	12	63	20	30	7	0,34	M63×1,5
1,75	14	63	20	30	8	0,34	M63×1,75
2,0	15	63	20	30	9	0,34	M63×2
2,5	17	63	20	30	10	0,54	M63×2,5
3,0	18	63	20	30	10	0,54	M63×3
3,5	19	63	20	30	10	0,54	M63×3,5
4,0	20	63	20	30	10	0,54	M63×4
4,5	21	63	20	30	11	0,54	M63×4,5
5,0	23	63	20	30	12	0,54	M63×5

These tools are made of high speed steel (HSS) or high efficient speed steel (HSSE). They are specified for chasing of right-hand threads. The chasers are clamped on holders ON 241582.



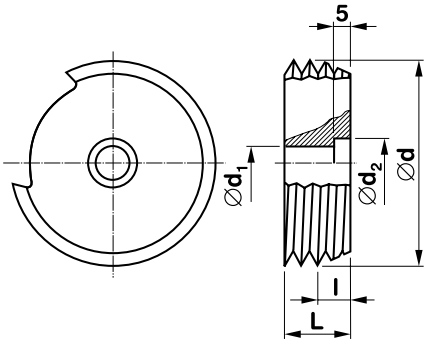
CIRCULAR THREADING TOOLS FOR METRIC THREADS



s mm	L h16 mm	∅d H7 mm	∅d_1 H7 mm	∅d_2 H12 mm	A mm	kg	
0,5	10	63	20	30	5,5	0,22	M63×0,5
0,6	10	63	20	30	5,5	0,22	M63×0,6
0,7	10	63	20	30	5,5	0,22	M63×0,7
0,75	10	63	20	30	5,5	0,22	M63×0,75
0,8	10	63	20	30	5,5	0,22	M63×0,8
0,9	10	63	20	30	5,5	0,22	M63×0,9
1,0	10	63	20	30	5,5	0,22	M63×1
1,25	10	63	20	30	5,5	0,22	M63×1,25
1,5	10	63	20	30	5,5	0,22	M63×1,5
1,75	10	63	20	30	5,5	0,22	M63×1,75
2,0	10	63	20	30	5,5	0,22	M63×2
2,5	10	63	20	30	5,5	0,22	M63×2,5
3,0	10	63	20	30	5,5	0,22	M63×3
3,5	10	63	20	30	5,5	0,22	M63×3,5
4,0	11	63	20	30	5,5	0,24	M63×4
4,5	11	63	20	30	5,5	0,24	M63×4,5
5,0	11	63	20	30	5,5	0,24	M63×5
5,5	11	63	20	30	5,5	0,24	M63×5,5
6,0	11	63	20	30	5,5	0,24	M63×6

These tools are made of high speed steel (HSS) or high efficient speed steel (HSSE). They are specified for cutting of external right-hand and left-hand threads. The chasers are clamped on holders ON 241582.

CIRCULAR THREADING TOOLS FOR WHITWORT AND PIPE THREADS



s inch	L h16 mm	∅d H7 mm	∅d_1 H7 mm	∅d_2 H12 mm	A mm	kg	
28	10	63	20	30	5,5	0,22	W63×28
20	10	63	20	30	5,5	0,22	W63×20
19	10	63	20	30	5,5	0,22	W63×29
18	10	63	20	30	5,5	0,22	W63×18
16	10	63	20	30	5,5	0,22	W63×16
14	10	63	20	30	5,5	0,22	W63×14
12	10	63	20	30	5,5	0,22	W63×12
11	10	63	20	30	5,5	0,22	W63×11
10	10	63	20	30	5,5	0,22	W63×10
9	10	63	20	30	5,5	0,22	W63×9
8	10	63	20	30	5,5	0,22	W63×8
7	11	63	20	30	5,5	0,24	W63×7
6	11	63	20	30	5,5	0,24	W63×6
5	11	63	20	30	5,5	0,24	W63×5
4 1/2	11	63	20	30	5,5	0,24	W63×4-1/2
4	11	63	20	30	5,5	0,24	W63×4

These tools are made of high speed steel (HSS) or high efficient speed steel (HSSE). They are specified for cutting of external right-hand and left-hand threads. The chasers are clamped on holders ON 241582 and ON 241583.