

# Metrisches Regengewinde M

## Toleranz ISO 2 (6H)

N° EH0100 / EH0101



N° EH10310 / EH10311 s-tap



N° EH0502 / EH0503 x-tap



N° EH0570 / EH0571 x-tap



N° EH0580 / EH0581 x-tap



N° EH0590 x-tap-R



N° EH0591 x-tap-R



N° EH0512 / EH0513



N° EH0595 / EH0596 h-tap



N° EH6900 / EH6901 durotap H



N° ET0400 / ET0401 Inotap



N° ET0570 / ET0571 x-tap



N° ET0580 / ET0581 x-tap



N° ET0590 x-tap-R



N° ET0591 x-tap-R



N° EH0600 / EH0601 c-tap



	HSS PM/F		Rm <850		143
	HSS-E Co5		Rm <850		145
	HSS PM/F		Rm 850-1100		147
	HSS PM/F		Rm 850-1100		149
	HSS PM/F		Rm 850-1100		153
	HSS PM/F		Rm 850-1100		155
	HSS PM/F		Rm 850-1100		157
	HSS PM/F		Rm 1100-1500		159
	HSS PM/F		Rm 1100-1500		161
	HM MG10		HRC 48- >60		163
	HSS PM/F		Inox Stainless		165
	HSS PM/F		Inox Stainless		167
	HSS PM/F		Inox Stainless		169
	HSS PM/F		Inox Stainless		171
	HSS PM/F		Inox Stainless		173
	HSS PM/F		GG(G) Cast iron		175

M

# Metrisches Regelgewinde M

## Toleranz ISO 2 (6H)



	HSS PM/F		<b>GG(G)</b> Cast iron		177
	HM MG10		<b>GG(G)</b> Cast iron		179
	HM MG10		<b>GG(G)</b> Cast iron		181
	HM MG10		<b>GG(G)</b> Cast iron		183
	HSS PM/F		<b>Al</b> Aluminium Alloy	<b>Cu</b> Copper	185
	HSS PM/F		<b>Al</b> Aluminium Alloy	<b>Cu</b> Copper	187
	HM MG10		<b>Al</b> Aluminium Cast		189
	HM MG10		<b>Al</b> Aluminium Cast		191
	HM MG10		<b>Al</b> Aluminium Cast		193
	HSS PM/F		<b>Ti</b> Titanium		195
	HSS PM/F		<b>Ti</b> Titanium		199
	HSS PM/F		<b>Ni</b> Nickel Alloy		201
	HSS PM/F		<b>Rm</b> <850-1100	<b>Inox</b> Stainless	203
	HSS PM/F		<b>Rm</b> <850-1100	<b>Inox</b> Stainless	205
	HSS PM/F		<b>Rm</b> <850-1100	<b>Inox</b> Stainless	207
	HSS PM/F		<b>Rm</b> <850-1100	<b>Inox</b> Stainless	209

# Metrisches Regengewinde M

## Toleranz ISO 2 (6H)

N° E10800 / E10801

u-tap



HSS-E  
Co5



Rm  
<850

211

N° E10820 / E10821

u-tap



HSS-E  
Co5



Rm  
<850

215

N° E10340

extra lang



HSS  
PM/F



Rm  
<850

219

N° E10350

extra lang



HSS  
PM/F



Rm  
<850

221

## Toleranz ISO 2 (6H) LH

N° E10122 / E10123



HSS-E  
Co5



Rm  
<850

223

N° E10222 / E10223



HSS-E  
Co5



Rm  
<850

225

## Toleranz ISO 2 +0.1

N° E10118 / E10119



HSS-E  
Co5



Rm  
<850

227

N° E10220 / E10221



HSS-E  
Co5



Rm  
<850

229

## Toleranz ISO 3 (6G)

N° EH0504 / EH0505

x-tap



HSS  
PM/F



Rm  
850-1100

231

N° EH0572 / EH0573

x-tap



HSS  
PM/F



Rm  
850-1100

233

## Toleranz ISO 1 (4H)

N° E10110



HSS-E  
Co5



Rm  
<850

235

N° E10214



HSS-E  
Co5



Rm  
<850

237

M



# Metrisches Regeltgewinde M / MJ

## Toleranz 7G

N° E10114 / E10115



	HSS-E Co5		<b>Rm</b> <850		239
	HSS-E Co5		<b>Rm</b> <850		241

N° E10218 / E10219



## MJ Toleranz 4H

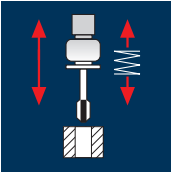
N° E0599



	HSS PM/F		<b>Ni</b> Nickel Alloy		243
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M

## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	v <sub>c</sub> 1.5 x d			v <sub>f</sub> [100%]			v <sub>c</sub> 2.0 x d			v <sub>f</sub> [100%]			v <sub>c</sub> 3.0 x d			v <sub>f</sub> [100%]		
			v <sub>c</sub>	n	v <sub>f</sub>	v <sub>c</sub>	n	v <sub>f</sub>	v <sub>c</sub>	n	v <sub>f</sub>	v <sub>c</sub>	n	v <sub>f</sub>	v <sub>c</sub>	n	v <sub>f</sub>			
M 2	2.0	0.40	28	4455	1782	23	3660	1464	18	2865	1146									
M 2.5	2.5	0.45	28	3565	1604	23	2930	1319	18	2290	1031									
M 3	3.0	0.50	28	2970	1485	23	2440	1220	18	1910	955									
M 4	4.0	0.70	28	2230	1561	23	1830	1281	18	1430	1001									
M 5	5.0	0.80	28	1785	1428	23	1465	1172	18	1145	916									
M 6	6.0	1.00	28	1485	1485	23	1220	1220	18	955	955									
M 8	8.0	1.25	28	1115	1394	23	915	1144	18	715	894									
M10	10.0	1.50	28	890	1335	23	730	1095	18	575	863									
M12	12.0	1.75	28	745	1304	23	610	1068	18	475	831									

Stahl  
< 500 N/mm<sup>2</sup>

M14	14.0	2.00	28	635	1270	23	525	1050	18	410	820
M16	16.0	2.00	28	555	1110	23	460	920	18	360	720
M18	18.0	2.50	28	495	1238	23	405	1013	18	320	800
M20	20.0	2.50	28	445	1113	23	365	913	18	285	713
M22	22.0	2.50	28	405	1013	23	335	838	18	260	650
M24	24.0	3.00	28	370	1110	23	305	915	18	240	720

Stahl  
500 - 850 N/mm<sup>2</sup>

M 2	2.0	0.40	25	3980	1592	20	3185	1274	15	2385	954
M 2.5	2.5	0.45	25	3185	1433	20	2545	1145	15	1910	860
M 3	3.0	0.50	25	2655	1328	20	2120	1060	15	1590	795
M 4	4.0	0.70	25	1990	1393	20	1590	1113	15	1195	837
M 5	5.0	0.80	25	1590	1272	20	1275	1020	15	955	764
M 6	6.0	1.00	25	1325	1325	20	1060	1060	15	795	795
M 8	8.0	1.25	25	995	1244	20	795	994	15	595	744
M10	10.0	1.50	25	795	1193	20	635	953	15	475	713
M12	12.0	1.75	25	665	1164	20	530	928	15	400	700

Stahl  
500 - 850 N/mm<sup>2</sup>

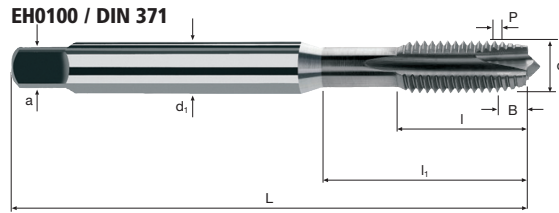
M14	14.0	2.00	25	570	1140	20	455	910	15	340	680
M16	16.0	2.00	25	495	990	20	400	800	15	300	600
M18	18.0	2.50	25	440	1100	20	355	888	15	265	663
M20	20.0	2.50	25	400	1000	20	320	800	15	240	600
M22	22.0	2.50	25	360	900	20	290	725	15	215	538
M24	24.0	3.00	25	330	990	20	265	795	15	200	600

**M** ISO 2  
(6H)

**HSS**  
**PM/F**

**DIN**  
371/376

**X-P**  
Form B



**EH101 / DIN 376**



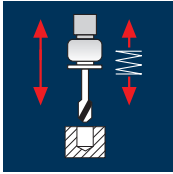
**M**

**Rm** < 850      **Rm** 850-1100

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code							TiCN
		<b>EH0100</b>		<b>.034</b>							<b>EH0100</b>
ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a				
<b>.034</b>	<b>M 2</b>	<b>0.40</b>	45	8	—	2.8	2.1	2	1.60		●
<b>.040</b>	<b>M 2.5</b>	<b>0.45</b>	50	9	—	2.8	2.1	2	2.05		●
<b>.044</b>	<b>M 3</b>	<b>0.50</b>	56	12	18.0	3.5	2.7	3	2.50		●
<b>.058</b>	<b>M 4</b>	<b>0.70</b>	63	13	21.0	4.5	3.4	3	3.30		●
<b>.084</b>	<b>M 5</b>	<b>0.80</b>	70	15	25.0	6.0	4.9	3	4.20		●
<b>.088</b>	<b>M 6</b>	<b>1.00</b>	80	17	30.0	6.0	4.9	3	5.00		●
<b>.160</b>	<b>M 8</b>	<b>1.25</b>	90	20	35.0	8.0	6.2	3	6.80		●
<b>.174</b>	<b>M10</b>	<b>1.50</b>	100	22	39.0	10.0	8.0	3	8.50		●

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code							TiCN
		<b>EH0101</b>		<b>.240</b>							<b>EH0101</b>
ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a				
<b>.240</b>	<b>M12</b>	<b>1.75</b>	110	24	40.0	9.0	7.0	3	10.20		●
<b>.244</b>	<b>M14</b>	<b>2.00</b>	110	26	40.0	11.0	9.0	3	12.00		●
<b>.246</b>	<b>M16</b>	<b>2.00</b>	110	27	40.0	12.0	9.0	3	14.00		●
<b>.312</b>	<b>M18</b>	<b>2.50</b>	125	30	45.0	14.0	11.0	4	15.50		●
<b>.314</b>	<b>M20</b>	<b>2.50</b>	140	32	50.0	16.0	12.0	4	17.50		●
<b>.316</b>	<b>M22</b>	<b>2.50</b>	140	32	50.0	18.0	14.5	4	19.50		●
<b>.320</b>	<b>M24</b>	<b>3.00</b>	160	34	60.0	18.0	14.5	4	21.00		●

## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	V <sub>c</sub> 1.0 x d			V <sub>c</sub> 1.5 x d			V <sub>c</sub> 2.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]			
M 2	2.0	0.40	25	3980	1592	20	3185	1274	18	2865	1146
M 2.5	2.5	0.45	25	3185	1433	20	2545	1145	18	2290	1031
M 3	3.0	0.50	25	2655	1328	20	2120	1060	18	1910	955
M 4	4.0	0.70	25	1990	1393	20	1590	1113	18	1430	1001
M 5	5.0	0.80	25	1590	1272	20	1275	1020	18	1145	916
M 6	6.0	1.00	25	1325	1325	20	1060	1060	18	955	955
M 8	8.0	1.25	25	995	1244	20	795	994	18	715	894
M10	10.0	1.50	25	795	1193	20	635	953	18	575	863
M12	12.0	1.75	25	665	1164	20	530	928	18	475	831

Stahl  
< 500 N/mm<sup>2</sup>

M14	14.0	2.00	25	570	1140	20	455	910	18	410	820
M16	16.0	2.00	25	495	990	20	400	800	18	360	720
M18	18.0	2.50	25	440	1100	20	355	888	18	320	800
M20	20.0	2.50	25	400	1000	20	320	800	18	285	713
M22	22.0	2.50	25	360	900	20	290	725	18	260	650
M24	24.0	3.00	25	330	990	20	265	795	18	240	720

Stahl  
500 - 850 N/mm<sup>2</sup>

M 2	2.0	0.40	16	2545	1018	14	2230	892	12	1910	764
M 2.5	2.5	0.45	16	2035	916	14	1785	803	12	1530	689
M 3	3.0	0.50	16	1700	850	14	1485	743	12	1275	638
M 4	4.0	0.70	16	1275	893	14	1115	781	12	955	669
M 5	5.0	0.80	16	1020	816	14	890	712	12	765	612
M 6	6.0	1.00	16	850	850	14	745	745	12	635	635
M 8	8.0	1.25	16	635	794	14	555	694	12	475	594
M10	10.0	1.50	16	510	765	14	445	668	12	380	570
M12	12.0	1.75	16	425	744	14	370	648	12	320	560

Stahl  
500 - 850 N/mm<sup>2</sup>

M14	14.0	2.00	16	365	730	14	320	640	12	275	550
M16	16.0	2.00	16	320	640	14	280	560	12	240	480
M18	18.0	2.50	16	285	713	14	250	625	12	210	525
M20	20.0	2.50	16	255	638	14	225	563	12	190	475
M22	22.0	2.50	16	230	575	14	205	513	12	175	438
M24	24.0	3.00	16	210	630	14	185	555	12	160	480

## Werkstoff

Gusseisen  
GG(G)

M	ø [mm]	P [mm]	V <sub>c</sub> 1.0 x d			V <sub>c</sub> 1.5 x d			V <sub>c</sub> 2.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]			
M 2	2.0	0.40	14	2230	892	12	1910	764	10	1590	636
M 2.5	2.5	0.45	14	1785	803	12	1530	689	10	1275	574
M 3	3.0	0.50	14	1485	743	12	1275	638	10	1060	530
M 4	4.0	0.70	14	1115	781	12	955	669	10	795	557
M 5	5.0	0.80	14	890	712	12	765	612	10	635	508
M 6	6.0	1.00	14	745	745	12	635	635	10	530	530
M 8	8.0	1.25	14	555	694	12	475	594	10	400	500
M10	10.0	1.50	14	445	668	12	380	570	10	320	480
M12	12.0	1.75	14	370	648	12	320	560	10	265	464

Gusseisen  
GG(G)

M14	14.0	2.00	14	320	640	12	275	550	10	225	450
M16	16.0	2.00	14	280	560	12	240	480	10	200	400
M18	18.0	2.50	14	250	625	12	210	525	10	175	438
M20	20.0	2.50	14	225	563	12	190	475	10	160	400
M22	22.0	2.50	14	205	513	12	175	438	10	145	363
M24	24.0	3.00	14	185	555	12	160	480	10	135	405

Nichtrostender Stahl  
[Cr-Ni/1.4301]



M 2	2.0	0.40	3	475	190	2	320	128	2	320	128
M 2.5	2.5	0.45	3	380	171	2	255	115	2	255	115
M 3	3.0	0.50	3	320	160	2	210	105	2	210	105
M 4	4.0	0.70	3	240	168	2	160	112	2	160	112
M 5	5.0	0.80	3	190	152	2	125	100	2	125	100
M 6	6.0	1.00	3	160	160	2	105	105	2	105	105
M 8	8.0	1.25	3	120	150	2	80	100	2	80	100
M10	10.0	1.50	3	95	143	2	65	98	2	65	98
M12	12.0	1.75	3	80	140	2	55	96	2	55	96

Nichtrostender Stahl  
[Cr-Ni/1.4301]



M14	14.0	2.00	3	70	140	2	45	90	2	45	90
M16	16.0	2.00	3	60	120	2	40	80	2	40	80
M18	18.0	2.50	3	55	138	2	35	88	2	35	88
M20	20.0	2.50	3	50	125	2	30	75	2	30	75
M22	22.0	2.50	3	45	113	2	30	75	2	30	75
M24	24.0	3.00	3	40	120	2	25	75	2	25	75




# Gewindebohrer s-tap

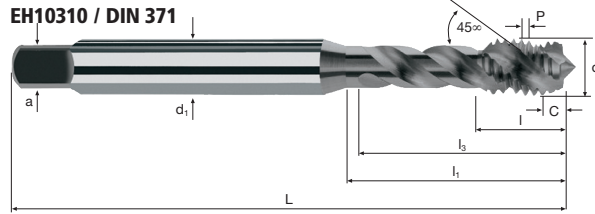


**M** ISO 2  
(6H)

 **HSS-E  
Co5**

 **DIN  
371/376** 

 **X-P**  
Form C







**EH10311 / DIN 376**



**M**

**Rm** < 850    **Rm** 850-1100    **Inox** Stainless    **GG(G)**

Beispiel: Bestell-Nr. <b>EH10310 .034</b>		Artikel-Nr. <b>EH10310</b> ø-Code <b>.034</b>										TiCN
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a				
.034	M 2	0.40	45	8.0	—	10.5	2.8	2.1	3	1.60	●	
.040	M 2.5	0.45	50	9.0	—	13.0	2.8	2.1	3	2.05	●	
.044	M 3	0.50	56	4.0	18.0	16.0	3.5	2.7	3	2.50	●	
.058	M 4	0.70	63	5.6	21.0	19.0	4.5	3.4	3	3.30	●	
.084	M 5	0.80	70	6.4	25.0	23.0	6.0	4.9	3	4.20	●	
.088	M 6	1.00	80	8.0	30.0	28.0	6.0	4.9	3	5.00	●	
.160	M 8	1.25	90	10.0	35.0	33.0	8.0	6.2	3	6.80	●	
.174	M10	1.50	100	12.0	39.0	37.0	10.0	8.0	3	8.50	●	

Beispiel: Bestell-Nr. <b>EH10311 .240</b>		Artikel-Nr. <b>EH10311</b> ø-Code <b>.240</b>										TiCN
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a				
.240	M12	1.75	110	14.0	50.0	48.0	9.0	7.0	3	10.20	●	
.244	M14	2.00	110	16.0	58.0	56.0	11.0	9.0	4	12.00	●	
.246	M16	2.00	110	16.0	58.0	56.0	12.0	9.0	4	14.00	●	
.312	M18	2.50	125	20.0	65.0	63.0	14.0	11.0	4	15.50	●	
.314	M20	2.50	140	20.0	72.0	70.0	16.0	12.0	4	17.50	●	
.316	M22	2.50	140	20.0	72.0	70.0	18.0	14.5	4	19.50	●	
.320	M24	3.00	160	24.0	74.0	72.0	18.0	14.5	4	21.00	●	



# Gewindebohrer x-tap

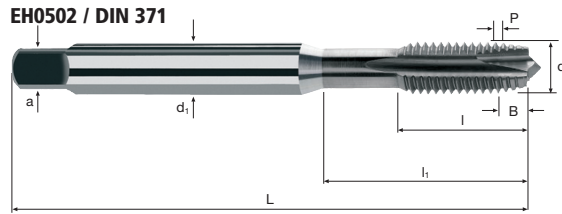


**M** ISO 2 (6H)

60° **HSS PM/F**

DIN 371/376

X-P **Form B**



**EH0503 / DIN 376**



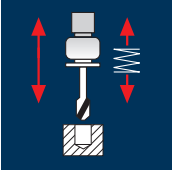
**M**

<b>Rm</b> < 850	<b>Rm</b> 850-1100	<b>Rm</b> 1100-1300									
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Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code							TiCN
		<b>EH0502</b>		<b>.034</b>							<b>EH0502</b>
ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a				
<b>.034</b>	<b>M 2</b>	<b>0.40</b>	45	8	—	2.8	2.1	2	1.60		●
<b>.040</b>	<b>M 2.5</b>	<b>0.45</b>	50	9	—	2.8	2.1	2	2.05		●
<b>.044</b>	<b>M 3</b>	<b>0.50</b>	56	12	18.0	3.5	2.7	3	2.50		●
<b>.058</b>	<b>M 4</b>	<b>0.70</b>	63	13	21.0	4.5	3.4	3	3.30		●
<b>.084</b>	<b>M 5</b>	<b>0.80</b>	70	15	25.0	6.0	4.9	3	4.20		●
<b>.088</b>	<b>M 6</b>	<b>1.00</b>	80	17	30.0	6.0	4.9	3	5.00		●
<b>.160</b>	<b>M 8</b>	<b>1.25</b>	90	20	35.0	8.0	6.2	3	6.80		●
<b>.174</b>	<b>M10</b>	<b>1.50</b>	100	22	39.0	10.0	8.0	3	8.50		●

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code							TiCN
		<b>EH0503</b>		<b>.240</b>							<b>EH0503</b>
ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a				
<b>.240</b>	<b>M12</b>	<b>1.75</b>	110	24	40.0	9.0	7.0	3	10.20		●
<b>.244</b>	<b>M14</b>	<b>2.00</b>	110	26	40.0	11.0	9.0	3	12.00		●
<b>.246</b>	<b>M16</b>	<b>2.00</b>	110	27	40.0	12.0	9.0	3	14.00		●
<b>.312</b>	<b>M18</b>	<b>2.50</b>	125	30	45.0	14.0	11.0	4	15.50		●
<b>.314</b>	<b>M20</b>	<b>2.50</b>	140	32	50.0	16.0	12.0	4	17.50		●
<b>.316</b>	<b>M22</b>	<b>2.50</b>	140	32	50.0	18.0	14.5	4	19.50		●
<b>.320</b>	<b>M24</b>	<b>3.00</b>	160	34	60.0	18.0	14.5	4	21.00		●

# Anwendung



# Werkstoff

Stahl  
500 - 850 N/mm<sup>2</sup>

Stahl  
850 - 1100 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	1.0 x d			1.5 x d			2.0 x d		
			v <sub>c</sub> [m/min]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	v <sub>c</sub> [m/min]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	v <sub>c</sub> [m/min]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]
M 2	2.0	0.40	32	5095	2038	28	4455	1782	22	3500	1400
M 2.5	2.5	0.45	32	4075	1834	28	3565	1604	22	2800	1260
M 3	3.0	0.50	32	3395	1698	28	2970	1485	22	2335	1168
M 4	4.0	0.70	32	2545	1782	28	2230	1561	22	1750	1225
M 5	5.0	0.80	32	2035	1628	28	1785	1428	22	1400	1120
M 6	6.0	1.00	32	1700	1700	28	1485	1485	22	1165	1165
M 8	8.0	1.25	32	1275	1594	28	1115	1394	22	875	1094
M10	10.0	1.50	32	1020	1530	28	890	1335	22	700	1050

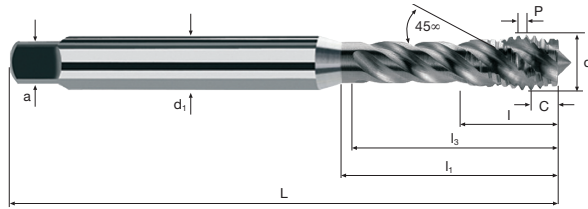
M 2	2.0	0.40	20	3185	1274	16	2545	1018	10	1590	636
M 2.5	2.5	0.45	20	2545	1145	16	2035	916	10	1275	574
M 3	3.0	0.50	20	2120	1060	16	1700	850	10	1060	530
M 4	4.0	0.70	20	1590	1113	16	1275	893	10	795	557
M 5	5.0	0.80	20	1275	1020	16	1020	816	10	635	508
M 6	6.0	1.00	20	1060	1060	16	850	850	10	530	530
M 8	8.0	1.25	20	795	994	16	635	794	10	400	500
M10	10.0	1.50	20	635	953	16	510	765	10	320	480



# Gewindebohrer x-tap



<b>M</b>	<b>ISO 2 (6H)</b>
	<b>HSS PM/F</b>
	<b>Form C</b>

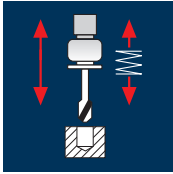


M

<b>Rm</b> < 850	<b>Rm</b> 850-1100										
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Beispiel: Bestell-Nr. <b>EH0570 .034</b>											TiCN
											<b>EH0570</b>
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a			
.034	M 2	0.40	45	8	–	10.5	2.8	2.1	3	1.60	●
.040	M 2.5	0.45	50	9	–	13.0	2.8	2.1	3	2.05	●
.044	M 3	0.50	56	5	–	16.0	3.5	2.7	3	2.50	●
.058	M 4	0.70	63	7	–	19.0	4.5	3.4	3	3.30	●
.084	M 5	0.80	70	8	–	23.0	6.0	4.9	3	4.20	●
.088	M 6	1.00	80	10	–	28.0	6.0	4.9	3	5.00	●
.160	M 8	1.25	90	13	35.0	33.0	8.0	6.2	3	6.80	●
.173	M10	1.50	100	15	39.0	37.0	10.0	8.0	3	8.50	●
.174	M10	1.50	100	15	39.0	37.0	10.0	8.0	4	8.50	●
Größere Abmessungen siehe Artikel-Nr. E0571, Seite 151											

## Anwendung



## Werkstoff

Stahl  
500 - 850 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	v <sub>c</sub> 1.0 x d			v <sub>c</sub> 1.5 x d			v <sub>c</sub> 2.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]			
M12	12.0	1.75	32	850	1488	28	745	1304	22	585	1024
M14	14.0	2.00	32	730	1460	28	635	1270	22	500	1000
M16	16.0	2.00	32	635	1270	28	555	1110	22	440	880
M18	18.0	2.50	32	565	1413	28	495	1238	22	390	975
M20	20.0	2.50	32	510	1275	28	445	1113	22	350	875
M22	22.0	2.50	32	465	1163	28	405	1013	22	320	800
M24	24.0	3.00	32	425	1275	28	370	1110	22	290	870
M27	27.0	3.00	32	375	1125	28	330	990	22	260	780
M30	30.0	3.50	32	340	1190	28	295	1033	22	235	823

Stahl  
500 - 850 N/mm<sup>2</sup>

M33	33.0	3.50	32	310	1085	28	270	945	22	210	735
M36	36.0	4.00	32	285	1140	28	250	1000	22	195	780
M39	39.0	4.00	32	260	1040	28	230	920	22	180	720
M42	42.0	4.50	32	245	1103	28	210	945	22	165	743

Stahl  
850 - 1100 N/mm<sup>2</sup>

M12	12.0	1.75	20	530	928	16	425	744	10	265	464
M14	14.0	2.00	20	455	910	16	365	730	10	225	450
M16	16.0	2.00	20	400	800	16	320	640	10	200	400
M18	18.0	2.50	20	355	888	16	285	713	10	175	438
M20	20.0	2.50	20	320	800	16	255	638	10	160	400
M22	22.0	2.50	20	290	725	16	230	575	10	145	363
M24	24.0	3.00	20	265	795	16	210	630	10	135	405
M27	27.0	3.00	20	235	705	16	190	570	10	120	360
M30	30.0	3.50	20	210	735	16	170	595	10	105	368

Stahl  
850 - 1100 N/mm<sup>2</sup>



M33	33.0	3.50	20	195	683	16	155	543	10	95	333
M36	36.0	4.00	20	175	700	16	140	560	10	90	360
M39	39.0	4.00	20	165	660	16	130	520	10	80	320
M42	42.0	4.50	20	150	675	16	120	540	10	75	338


# Gewindebohrer x-tap

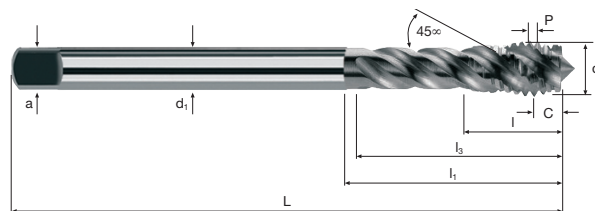


**M** ISO 2  
(6H)

 **HSS**  
**PM/F**



 **DIN**  
**376** 

 **X - F**  
**Form C**

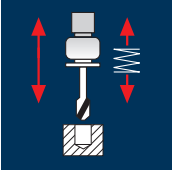


**M**

**Rm** < 850 **Rm** 850-1100

												TiCN	
												EH0571	
Beispiel: Bestell-Nr.		Artikel-Nr.		Ø-Code									
		EH0571		.240									
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a					
.240	M12	1.75	110	18	50	48	9.0	7.0	4	10.20			●
.244	M14	2.00	110	20	58	56	11.0	9.0	4	12.00			●
.246	M16	2.00	110	20	58	56	12.0	9.0	4	14.00			●
.312	M18	2.50	125	25	65	63	14.0	11.0	4	15.50			●
.314	M20	2.50	140	25	72	70	16.0	12.0	4	17.50			●
.316	M22	2.50	140	25	72	70	18.0	14.5	5	19.50			●
.320	M24	3.00	160	30	74	72	18.0	14.5	5	21.00			●
.322	M27	3.00	160	30	84	82	20.0	16.0	5	24.00			●
.374	M30	3.50	180	35	92	90	22.0	18.0	5	26.50			●
.376	M33	3.50	180	35	100	98	25.0	20.0	6	29.50			●
.378	M36	4.00	200	40	101	99	28.0	22.0	6	32.00			●
.380	M39	4.00	200	40	101	99	32.0	24.0	6	35.00			●
.382	M42	4.50	200	45	106	104	32.0	24.0	6	37.50			●

## Anwendung



## Werkstoff

Stahl  
500 - 850 N/mm<sup>2</sup>

Stahl  
500 - 850 N/mm<sup>2</sup>

Stahl  
850 - 1100 N/mm<sup>2</sup>

Stahl  
850 - 1100 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	v <sub>c</sub> 1.0 x d			v <sub>c</sub> 1.5 x d			v <sub>c</sub> 2.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	
M 4	4.0	0.70	32	2545	1782	28	2230	1561	22	1750	1225
M 5	5.0	0.80	32	2035	1628	28	1785	1428	22	1400	1120
M 6	6.0	1.00	32	1700	1700	28	1485	1485	22	1165	1165
M 8	8.0	1.25	32	1275	1594	28	1115	1394	22	875	1094
M10	10.0	1.50	32	1020	1530	28	890	1335	22	700	1050
M12	12.0	1.75	32	850	1488	28	745	1304	22	585	1024
M14	14.0	2.00	32	730	1460	28	635	1270	22	500	1000
M16	16.0	2.00	32	635	1270	28	555	1110	22	440	880
M18	18.0	2.50	32	565	1413	28	495	1238	22	390	975
M20	20.0	2.50	32	510	1275	28	445	1113	22	350	875
M22	22.0	2.50	32	465	1163	28	405	1013	22	320	800
M24	24.0	3.00	32	425	1275	28	370	1110	22	290	870
M 4	4.0	0.70	20	1590	1113	16	1275	893	10	795	557
M 5	5.0	0.80	20	1275	1020	16	1020	816	10	635	508
M 6	6.0	1.00	20	1060	1060	16	850	850	10	530	530
M 8	8.0	1.25	20	795	994	16	635	794	10	400	500
M10	10.0	1.50	20	635	953	16	510	765	10	320	480
M12	12.0	1.75	20	530	928	16	425	744	10	265	464
M14	14.0	2.00	20	455	910	16	365	730	10	225	450
M16	16.0	2.00	20	400	800	16	320	640	10	200	400
M18	18.0	2.50	20	355	888	16	285	713	10	175	438
M20	20.0	2.50	20	320	800	16	255	638	10	160	400
M22	22.0	2.50	20	290	725	16	230	575	10	145	363
M24	24.0	3.00	20	265	795	16	210	630	10	135	405

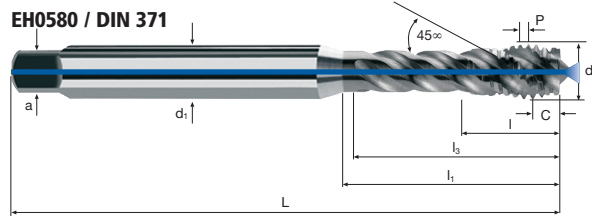


# Gewindebohrer x-tap

Incool



<b>M</b>	<b>ISO 2 (6H)</b>
	<b>HSS PM/F</b>
	<b>Form C</b>

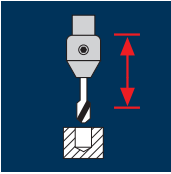


<b>Rm</b> < 850	<b>Rm</b> 850-1100										
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Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code								TiCN
		<b>EH0580</b>		<b>.058</b>								<b>EH0580</b>
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a				
<b>.058</b>	<b>M 4</b>	<b>0.70</b>	63	7	—	19	4.5	3.4	3	3.30		●
<b>.084</b>	<b>M 5</b>	<b>0.80</b>	70	8	—	23	6.0	4.9	3	4.20		●
<b>.088</b>	<b>M 6</b>	<b>1.00</b>	80	10	—	28	6.0	4.9	3	5.00		●
<b>.160</b>	<b>M 8</b>	<b>1.25</b>	90	13	35	33	8.0	6.2	3	6.80		●
<b>.174</b>	<b>M10</b>	<b>1.50</b>	100	15	39	37	10.0	8.0	4	8.50		●

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code								TiCN
		<b>EH0581</b>		<b>.240</b>								<b>EH0581</b>
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a				
<b>.240</b>	<b>M12</b>	<b>1.75</b>	110	18	50	48	9.0	7.0	4	10.20		●
<b>.244</b>	<b>M14</b>	<b>2.00</b>	110	20	58	56	11.0	9.0	4	12.00		●
<b>.246</b>	<b>M16</b>	<b>2.00</b>	110	20	58	56	12.0	9.0	4	14.00		●
<b>.312</b>	<b>M18</b>	<b>2.50</b>	125	25	65	63	14.0	11.0	4	15.50		●
<b>.314</b>	<b>M20</b>	<b>2.50</b>	140	25	72	70	16.0	12.0	4	17.50		●
<b>.316</b>	<b>M22</b>	<b>2.50</b>	140	25	72	70	18.0	14.5	5	19.50		●
<b>.320</b>	<b>M24</b>	<b>3.00</b>	160	30	74	72	18.0	14.5	5	21.00		●

## Anwendung



## Werkstoff

Stahl  
500 - 850 N/mm<sup>2</sup>

Stahl  
500 - 850 N/mm<sup>2</sup>

Stahl  
850 - 1100 N/mm<sup>2</sup>

Stahl  
850 - 1100 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	v <sub>c</sub> 1.0 x d		v <sub>c</sub> 1.5 x d		v <sub>c</sub> 2.0 x d	
			n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]		
M 3	3.0	0.50	34	3610	30	3185	24	2545
M 4	4.0	0.70	34	2705	30	2385	24	1910
M 5	5.0	0.80	34	2165	30	1910	24	1530
M 6	6.0	1.00	34	1805	30	1590	24	1275
M 8	8.0	1.25	34	1355	30	1195	24	955
M10	10.0	1.50	34	1080	30	955	24	765
M12	12.0	1.75	34	900	30	795	24	635
M14	14.0	2.00	34	775	30	680	24	545
M16	16.0	2.00	34	675	30	595	24	475
M18	18.0	2.50	34	600	30	530	24	425
M20	20.0	2.50	34	540	30	475	24	380
M22	22.0	2.50	34	490	30	435	24	345
M24	24.0	3.00	34	450	30	400	24	320
M 3	3.0	0.50	22	2335	18	1910	12	1275
M 4	4.0	0.70	22	1750	18	1430	12	955
M 5	5.0	0.80	22	1400	18	1145	12	765
M 6	6.0	1.00	22	1165	18	955	12	635
M 8	8.0	1.25	22	875	18	715	12	475
M10	10.0	1.50	22	700	18	575	12	380
M12	12.0	1.75	22	585	18	475	12	320
M14	14.0	2.00	22	500	18	410	12	275
M16	16.0	2.00	22	440	18	360	12	240
M18	18.0	2.50	22	390	18	320	12	210
M20	20.0	2.50	22	350	18	285	12	190
M22	22.0	2.50	22	320	18	260	12	175
M24	24.0	3.00	22	290	18	240	12	160



# Gewindebohrer x-tap-R

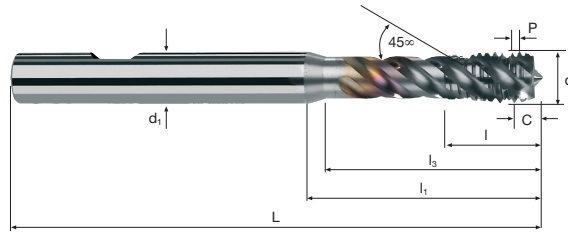


**M** ISO 2 (6H)

 **HSS PM/F**



 

  Form C

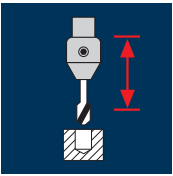


**M**

**Rm** < 850      **Rm** 850-1100

Beispiel: Bestell-Nr. <b>EH0590 .044</b>										TiCN
										<b>EH0590</b>
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> h <sub>6</sub>			
.044	M 3	0.50	63	5	–	16	6	3	2.50	●
.058	M 4	0.70	66	7	–	19	6	3	3.30	●
.084	M 5	0.80	70	8	–	23	6	3	4.20	●
.088	M 6	1.00	80	10	–	28	6	3	5.00	●
.160	M 8	1.25	90	13	35	33	8	3	6.80	●
.174	M10	1.50	100	15	39	37	10	4	8.50	●
.240	M12	1.75	110	18	45	43	12	4	10.20	●
.244	M14	2.00	110	20	46	44	16	4	12.00	●
.246	M16	2.00	110	20	50	48	16	4	14.00	●
.312	M18	2.50	125	25	60	58	16	4	15.50	●
.314	M20	2.50	140	25	64	62	16	4	17.50	●
.316	M22	2.50	140	25	64	62	20	5	19.50	●
.320	M24	3.00	160	30	74	72	20	5	21.00	●

## Anwendung



## Werkstoff

Stahl  
500 - 850 N/mm<sup>2</sup>

Stahl  
500 - 850 N/mm<sup>2</sup>

Stahl  
850 - 1100 N/mm<sup>2</sup>

Stahl  
850 - 1100 N/mm<sup>2</sup>

M	ø	P	$v_c$	n	$v_c$	n	$v_c$	n
	[mm]	[mm]	$1.0 \times d$	[min <sup>-1</sup> ]	$1.5 \times d$	[min <sup>-1</sup> ]	$2.0 \times d$	[min <sup>-1</sup> ]
M 4	4.0	0.70	28	2230	24	1910	18	1430
M 5	5.0	0.80	28	1785	24	1530	18	1145
M 6	6.0	1.00	28	1485	24	1275	18	955
M 8	8.0	1.25	28	1115	24	955	18	715
M10	10.0	1.50	28	890	24	765	18	575
M12	12.0	1.75	28	745	24	635	18	475
M14	14.0	2.00	28	635	24	545	18	410
M16	16.0	2.00	28	555	24	475	18	360
M18	18.0	2.50	28	495	24	425	18	320
M20	20.0	2.50	28	445	24	380	18	285
M22	22.0	2.50	28	405	24	345	18	260
M24	24.0	3.00	28	370	24	320	18	240
M 4	4.0	0.70	22	1750	18	1430	12	955
M 5	5.0	0.80	22	1400	18	1145	12	765
M 6	6.0	1.00	22	1165	18	955	12	635
M 8	8.0	1.25	22	875	18	715	12	475
M10	10.0	1.50	22	700	18	575	12	380
M12	12.0	1.75	22	585	18	475	12	320
M14	14.0	2.00	22	500	18	410	12	275
M16	16.0	2.00	22	440	18	360	12	240
M18	18.0	2.50	22	390	18	320	12	210
M20	20.0	2.50	22	350	18	285	12	190
M22	22.0	2.50	22	320	18	260	12	175
M24	24.0	3.00	22	290	18	240	12	160

# Gewindebohrer x-tap-R



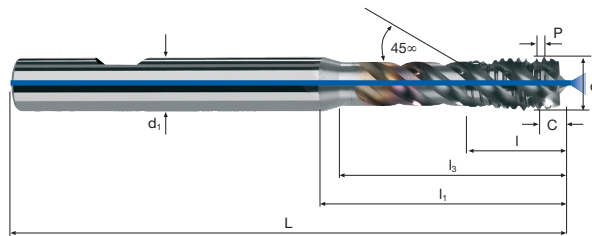
Incool

**M** ISO 2  
(6H)

**HSS**  
PM/F

DIN 1835B  
ISO 3338

X-P  
Form C

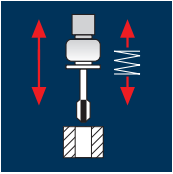


M

**Rm** < 850      **Rm** 850-1100

Beispiel: Bestell-Nr. <b>EH0591 .058</b>										TiCN
										<b>EH0591</b>
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> h6			
.058	M 4	0.70	66	7	–	19	6	3	3.30	●
.084	M 5	0.80	70	8	–	23	6	3	4.20	●
.088	M 6	1.00	80	10	–	28	6	3	5.00	●
.160	M 8	1.25	90	13	35	33	8	3	6.80	●
.174	M10	1.50	100	15	39	37	10	4	8.50	●
.240	M12	1.75	110	18	45	43	12	4	10.20	●
.244	M14	2.00	110	20	46	44	16	4	12.00	●
.246	M16	2.00	110	20	50	48	16	4	14.00	●
.312	M18	2.50	125	25	60	58	16	4	15.50	●
.314	M20	2.50	140	25	64	62	16	4	17.50	●
.316	M22	2.50	140	25	64	62	20	5	19.50	●
.320	M24	3.00	160	30	74	72	20	5	21.00	●

## Anwendung



## Werkstoff

Stahl  
1100 - 1300 N/mm<sup>2</sup>



Stahl  
1100 - 1300 N/mm<sup>2</sup>



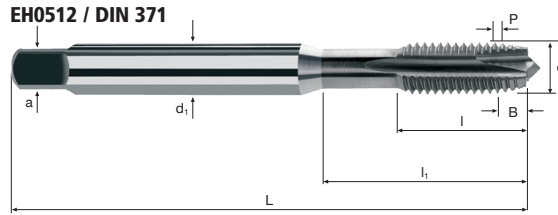
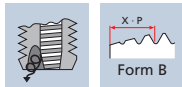
Stahl  
1300 - 1500 N/mm<sup>2</sup>



Stahl  
1300 - 1500 N/mm<sup>2</sup>



M	ø [mm]	P [mm]	v <sub>c</sub> 1.0 x d			v <sub>c</sub> 1.5 x d			v <sub>c</sub> 2.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]			
M 2	2.0	0.40	10	1590	636	8	1275	510	5	795	318
M 2.5	2.5	0.45	10	1275	574	8	1020	459	5	635	286
M 3	3.0	0.50	10	1060	530	8	850	425	5	530	265
M 4	4.0	0.70	10	795	557	8	635	445	5	400	280
M 5	5.0	0.80	10	635	508	8	510	408	5	320	256
M 6	6.0	1.00	10	530	530	8	425	425	5	265	265
M 8	8.0	1.25	10	400	500	8	320	400	5	200	250
M10	10.0	1.50	10	320	480	8	255	383	5	160	240
M12	12.0	1.75	10	265	464	8	210	368	5	135	236
M14	14.0	2.00	10	225	450	8	180	360	5	115	230
M16	16.0	2.00	10	200	400	8	160	320	5	100	200
M18	18.0	2.50	10	175	438	8	140	350	5	90	225
M20	20.0	2.50	10	160	400	8	125	313	5	80	200
M22	22.0	2.50	10	145	363	8	115	288	5	70	175
M24	24.0	3.00	10	135	405	8	105	315	5	65	195
M 2	2.0	0.40	6	955	382	4	635	254	3	475	190
M 2.5	2.5	0.45	6	765	344	4	510	230	3	380	171
M 3	3.0	0.50	6	635	318	4	425	213	3	320	160
M 4	4.0	0.70	6	475	333	4	320	224	3	240	168
M 5	5.0	0.80	6	380	304	4	255	204	3	190	152
M 6	6.0	1.00	6	320	320	4	210	210	3	160	160
M 8	8.0	1.25	6	240	300	4	160	200	3	120	150
M10	10.0	1.50	6	190	285	4	125	188	3	95	143
M12	12.0	1.75	6	160	280	4	105	184	3	80	140
M14	14.0	2.00	6	135	270	4	90	180	3	70	140
M16	16.0	2.00	6	120	240	4	80	160	3	60	120
M18	18.0	2.50	6	105	263	4	70	175	3	55	138
M20	20.0	2.50	6	95	238	4	65	163	3	50	125
M22	22.0	2.50	6	85	213	4	60	150	3	45	113
M24	24.0	3.00	6	80	240	4	55	165	3	40	120



**EH0513 / DIN 376**



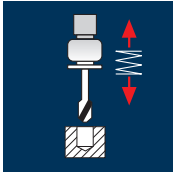
		<b>Rm</b> 1100-1300	<b>Rm</b> 1300-1500							
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Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code							TiCN
		<b>EH0512</b>		<b>.034</b>							<b>EH0512</b>
ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a				
<b>.034</b>	<b>M 2</b>	<b>0.40</b>	45	8	—	2.8	2.1	2	1.70 *		●
<b>.040</b>	<b>M 2.5</b>	<b>0.45</b>	50	9	—	2.8	2.1	2	2.10		●
<b>.044</b>	<b>M 3</b>	<b>0.50</b>	56	12	18.0	3.5	2.7	3	2.60 *		●
<b>.058</b>	<b>M 4</b>	<b>0.70</b>	63	13	21.0	4.5	3.4	3	3.40		●
<b>.084</b>	<b>M 5</b>	<b>0.80</b>	70	15	25.0	6.0	4.9	3	4.30		●
<b>.088</b>	<b>M 6</b>	<b>1.00</b>	80	17	30.0	6.0	4.9	3	5.10		●
<b>.160</b>	<b>M 8</b>	<b>1.25</b>	90	20	35.0	8.0	6.2	3	6.90		●
<b>.174</b>	<b>M10</b>	<b>1.50</b>	100	22	39.0	10.0	8.0	3	8.60		●

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code							TiCN
		<b>EH0513</b>		<b>.240</b>							<b>EH0513</b>
ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a				
<b>.240</b>	<b>M12</b>	<b>1.75</b>	110	24	40.0	9.0	7.0	3	10.40		●
<b>.244</b>	<b>M14</b>	<b>2.00</b>	110	26	40.0	11.0	9.0	3	12.20		●
<b>.246</b>	<b>M16</b>	<b>2.00</b>	110	27	40.0	12.0	9.0	3	14.20		●
<b>.312</b>	<b>M18</b>	<b>2.50</b>	125	30	45.0	14.0	11.0	4	15.70		●
<b>.314</b>	<b>M20</b>	<b>2.50</b>	140	32	50.0	16.0	12.0	4	17.70		●
<b>.316</b>	<b>M22</b>	<b>2.50</b>	140	32	50.0	18.0	14.5	4	19.70		●
<b>.320</b>	<b>M24</b>	<b>3.00</b>	160	34	60.0	18.0	14.5	4	21.20		●

\* angegebenes Mass liegt ausserhalb der Norm

## Anwendung



## Werkstoff

Stahl  
1100 - 1300 N/mm<sup>2</sup>



Stahl  
1100 - 1300 N/mm<sup>2</sup>



Stahl  
1300 - 1500 N/mm<sup>2</sup>



Stahl  
1300 - 1500 N/mm<sup>2</sup>



M	ø [mm]	P [mm]	v <sub>c</sub> 1.0 x d			v <sub>f</sub> [100%]			
			v <sub>c</sub> [m/min]	n [min <sup>-1</sup> ]	v <sub>f</sub> [mm/min]	v <sub>c</sub> 1.5 x d	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	
M 3	3.0	0.50	6	635	318	5	530	265	
M 4	4.0	0.70	6	475	333	5	400	280	
M 5	5.0	0.80	6	380	304	5	320	256	
M 6	6.0	1.00	6	320	320	5	265	265	
M 8	8.0	1.25	6	240	300	5	200	250	
M10	10.0	1.50	6	190	285	5	160	240	
M12	12.0	1.75	6	160	280	5	135	236	
M14	14.0	2.00	6	135	270	5	115	230	
M16	16.0	2.00	6	120	240	5	100	200	
M18	18.0	2.50	6	105	263	5	90	225	
M20	20.0	2.50	6	95	238	5	80	200	
M22	22.0	2.50	6	85	213	5	70	175	
M24	24.0	3.00	6	80	240	5	65	195	
M 3	3.0	0.50	5	530	265	4	425	213	
M 4	4.0	0.70	5	400	280	4	320	224	
M 5	5.0	0.80	5	320	256	4	255	204	
M 6	6.0	1.00	5	265	265	4	210	210	
M 8	8.0	1.25	5	200	250	4	160	200	
M10	10.0	1.50	5	160	240	4	125	188	
M12	12.0	1.75	5	135	236	4	105	184	
M14	14.0	2.00	5	115	230	4	90	180	
M16	16.0	2.00	5	100	200	4	80	160	
M18	18.0	2.50	5	90	225	4	70	175	
M20	20.0	2.50	5	80	200	4	65	163	
M22	22.0	2.50	5	70	175	4	60	150	
M24	24.0	3.00	5	65	195	4	55	165	



# Gewindebohrer h-tap

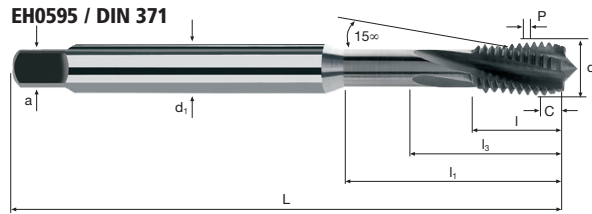


**M** ISO 2 (6H)

60° **HSS PM/F**

DIN 371/376

Form C



M

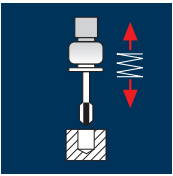
		<b>Rm</b> 1100-1300	<b>Rm</b> 1300-1500								
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Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code								TiCN
		<b>EH0595</b>		<b>.044</b>								<b>EH0595</b>
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a				
<b>.044</b>	<b>M 3</b>	<b>0.50</b>	56	5	18	16	3.5	2.7	3	2.60*		●
<b>.058</b>	<b>M 4</b>	<b>0.70</b>	63	7	21	19	4.5	3.4	3	3.40		●
<b>.084</b>	<b>M 5</b>	<b>0.80</b>	70	8	25	23	6.0	4.9	3	4.30		●
<b>.088</b>	<b>M 6</b>	<b>1.00</b>	80	10	30	28	6.0	4.9	3	5.10		●
<b>.160</b>	<b>M 8</b>	<b>1.25</b>	90	13	35	33	8.0	6.2	3	6.90		●
<b>.174</b>	<b>M10</b>	<b>1.50</b>	100	15	39	37	10.0	8.0	4	8.60		●

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code								TiCN
		<b>EH0596</b>		<b>.240</b>								<b>EH0596</b>
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a				
<b>.240</b>	<b>M12</b>	<b>1.75</b>	110	18	50	48	9.0	7.0	4	10.40		●
<b>.244</b>	<b>M14</b>	<b>2.00</b>	110	20	58	56	11.0	9.0	4	12.20		●
<b>.246</b>	<b>M16</b>	<b>2.00</b>	110	20	58	56	12.0	9.0	4	14.20		●
<b>.312</b>	<b>M18</b>	<b>2.50</b>	125	25	65	63	14.0	11.0	4	15.70		●
<b>.314</b>	<b>M20</b>	<b>2.50</b>	140	25	72	70	16.0	12.0	4	17.70		●
<b>.316</b>	<b>M22</b>	<b>2.50</b>	140	25	72	70	18.0	14.5	4	19.70		●
<b>.320</b>	<b>M24</b>	<b>3.00</b>	160	30	74	72	18.0	14.5	5	21.20		●

\* angegebenes Mass liegt ausserhalb der Norm

## Anwendung



## Werkstoff

Werkzeugstahl  
gehärtet  
48 - 52 HRC



Werkzeugstahl  
gehärtet  
52 - 56 HRC



Werkzeugstahl  
gehärtet  
56 - 60 HRC



Werkzeugstahl  
gehärtet  
> 60 HRC



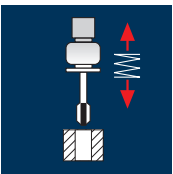
M	ø [mm]	P [mm]	$v_c$ 1.5 x d			$v_c$ 2.0 x d			$v_c$ 3.0 x d		
			n [min <sup>-1</sup> ]	$v_f$ [100%]	$v_c$ [min <sup>-1</sup> ]	n [100%]	$v_f$ [100%]	$v_c$ [min <sup>-1</sup> ]	n [100%]	$v_f$ [100%]	
M 4	4.0	0.70	8	635	445	6	475	333	4	320	224
M 5	5.0	0.80	8	510	408	6	380	304	4	255	204
M 6	6.0	1.00	8	425	425	6	320	320	4	210	210
M 8	8.0	1.25	8	320	400	6	240	300	4	160	200
M10	10.0	1.50	8	255	383	6	190	285	4	125	188
M12	12.0	1.75	8	210	368	6	160	280	4	105	184
M14	14.0	2.00	8	180	360	6	135	270	4	90	180
M16	16.0	2.00	8	160	320	6	120	240	4	80	160

M 4	4.0	0.70	6	475	333	4	320	224	3	240	168
M 5	5.0	0.80	6	380	304	4	255	204	3	190	152
M 6	6.0	1.00	6	320	320	4	210	210	3	160	160
M 8	8.0	1.25	6	240	300	4	160	200	3	120	150
M10	10.0	1.50	6	190	285	4	125	188	3	95	143
M12	12.0	1.75	6	160	280	4	105	184	3	80	140
M14	14.0	2.00	6	135	270	4	90	180	3	70	140
M16	16.0	2.00	6	120	240	4	80	160	3	60	120

M 4	4.0	0.70	4	320	224	2	160	112			
M 5	5.0	0.80	4	255	204	2	125	100			
M 6	6.0	1.00	4	210	210	2	105	105			
M 8	8.0	1.25	4	160	200	2	80	100			
M10	10.0	1.50	4	125	188	2	65	98			
M12	12.0	1.75	4	105	184	2	55	96			
M14	14.0	2.00	4	90	180	2	45	90			
M16	16.0	2.00	4	80	160	2	40	80			

M 4	4.0	0.70	2	160	112	1.5	120	84			
M 5	5.0	0.80	2	125	100	1.5	95	76			
M 6	6.0	1.00	2	105	105	1.5	80	80			
M 8	8.0	1.25	2	80	100	1.5	60	75			
M10	10.0	1.50	2	65	98	1.5	50	75			
M12	12.0	1.75	2	55	96	1.5	40	70			
M14	14.0	2.00	2	45	90	1.5	35	70			
M16	16.0	2.00	2	40	80	1.5	30	60			

## Anwendung



## Werkstoff

Werkzeugstahl  
gehärtet  
48 - 52 HRC



Werkzeugstahl  
gehärtet  
52 - 56 HRC



Werkzeugstahl  
gehärtet  
56 - 60 HRC



Werkzeugstahl  
gehärtet  
> 60 HRC



M	ø [mm]	P [mm]	$v_c$ 1.5 x d			$v_c$ 2.0 x d			$v_c$ 3.0 x d		
			n [min <sup>-1</sup> ]	$v_f$ [100%]	$v_c$ [min <sup>-1</sup> ]	n [100%]	$v_f$ [100%]	$v_c$ [min <sup>-1</sup> ]	n [100%]	$v_f$ [100%]	
M 4	4.0	0.70	8	635	445	6	475	333	4	320	224
M 5	5.0	0.80	8	510	408	6	380	304	4	255	204
M 6	6.0	1.00	8	425	425	6	320	320	4	210	210
M 8	8.0	1.25	8	320	400	6	240	300	4	160	200
M10	10.0	1.50	8	255	383	6	190	285	4	125	188
M12	12.0	1.75	8	210	368	6	160	280	4	105	184
M14	14.0	2.00	8	180	360	6	135	270	4	90	180
M16	16.0	2.00	8	160	320	6	120	240	4	80	160

M 4	4.0	0.70	6	475	333	4	320	224	3	240	168
M 5	5.0	0.80	6	380	304	4	255	204	3	190	152
M 6	6.0	1.00	6	320	320	4	210	210	3	160	160
M 8	8.0	1.25	6	240	300	4	160	200	3	120	150
M10	10.0	1.50	6	190	285	4	125	188	3	95	143
M12	12.0	1.75	6	160	280	4	105	184	3	80	140
M14	14.0	2.00	6	135	270	4	90	180	3	70	140
M16	16.0	2.00	6	120	240	4	80	160	3	60	120

M 4	4.0	0.70	4	320	224	2	160	112			
M 5	5.0	0.80	4	255	204	2	125	100			
M 6	6.0	1.00	4	210	210	2	105	105			
M 8	8.0	1.25	4	160	200	2	80	100			
M10	10.0	1.50	4	125	188	2	65	98			
M12	12.0	1.75	4	105	184	2	55	96			
M14	14.0	2.00	4	90	180	2	45	90			
M16	16.0	2.00	4	80	160	2	40	80			

M 4	4.0	0.70	2	160	112	1.5	120	84			
M 5	5.0	0.80	2	125	100	1.5	95	76			
M 6	6.0	1.00	2	105	105	1.5	80	80			
M 8	8.0	1.25	2	80	100	1.5	60	75			
M10	10.0	1.50	2	65	98	1.5	50	75			
M12	12.0	1.75	2	55	96	1.5	40	70			
M14	14.0	2.00	2	45	90	1.5	35	70			
M16	16.0	2.00	2	40	80	1.5	30	60			

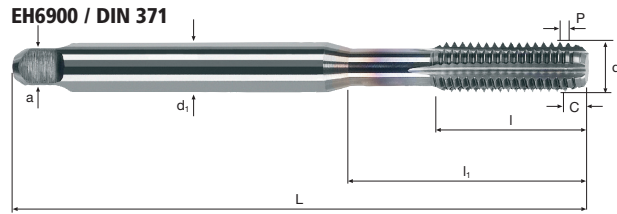
# Gewindebohrer durotap H



**M** ISO 2 (6H)

**HM MG10**

Form C



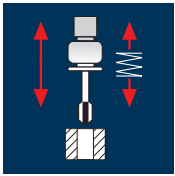
M

HRC 48-56    HRC 56-60    HRC > 60

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code						TiCN
Bestell-Nr.		EH6900		.058						EH6900
ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a			
.058	M 4	0.70	63	13	21	4.5	3.4	4	3.40	●
.084	M 5	0.80	70	15	25	6.0	4.9	4	4.30	●
.088	M 6	1.00	80	17	30	6.0	4.9	4	5.10	●
.160	M 8	1.25	90	20	35	8.0	6.2	5	6.90	●
.174	M10	1.50	100	22	39	10.0	8.0	5	8.60	●

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code						TiCN
Bestell-Nr.		EH6901		.240						EH6901
ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a			
.240	M12	1.75	110	24	40	9.0	7.0	5	10.40	●
.244	M14	2.00	110	26	40	11.0	9.0	5	12.20	●
.246	M16	2.00	110	27	40	12.0	9.0	5	14.20	●

## Anwendung



## Werkstoff

Nichtrostender Stahl  
ferritisch/martensitisch



Nichtrostender Stahl  
ferritisch/martensitisch



Nichtrostender Stahl  
[Cr-Ni/1.4301]



Nichtrostender Stahl  
[Cr-Ni/1.4301]



## Werkstoff

Nichtrostender Stahl  
[Cr-Ni-Mo-.../1.4571]



Nichtrostender Stahl  
[Cr-Ni-Mo-.../1.4571]



Hitzebeständiger Stahl  
[17-4 PH]



Hitzebeständiger Stahl  
[17-4 PH]



M	ø [mm]	P [mm]	V <sub>c</sub> 1.5 x d			V <sub>c</sub> 2.0 x d			V <sub>c</sub> 3.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]			
M 2	2.0	0.40	12	1910	764	10	1590	636	8	1275	510
M 2.5	2.5	0.45	12	1530	689	10	1275	574	8	1020	459
M 3	3.0	0.50	12	1275	638	10	1060	530	8	850	425
M 4	4.0	0.70	12	955	669	10	795	557	8	635	445
M 5	5.0	0.80	12	765	612	10	635	508	8	510	408
M 6	6.0	1.00	12	635	635	10	530	530	8	425	425
M 8	8.0	1.25	12	475	594	10	400	500	8	320	400
M10	10.0	1.50	12	380	570	10	320	480	8	255	383
M12	12.0	1.75	12	320	560	10	265	464	8	210	368
M14	14.0	2.00	12	275	550	10	225	450	8	180	360
M16	16.0	2.00	12	240	480	10	200	400	8	160	320
M18	18.0	2.50	12	210	525	10	175	438	8	140	350
M20	20.0	2.50	12	190	475	10	160	400	8	125	313
M22	22.0	2.50	12	175	438	10	145	363	8	115	288
M24	24.0	3.00	12	160	480	10	135	405	8	105	315
M 2	2.0	0.40	7	1115	446	5	795	318	4	635	254
M 2.5	2.5	0.45	7	890	401	5	635	286	4	510	230
M 3	3.0	0.50	7	745	373	5	530	265	4	425	213
M 4	4.0	0.70	7	555	389	5	400	280	4	320	224
M 5	5.0	0.80	7	445	356	5	320	256	4	255	204
M 6	6.0	1.00	7	370	370	5	265	265	4	210	210
M 8	8.0	1.25	7	280	350	5	200	250	4	160	200
M10	10.0	1.50	7	225	338	5	160	240	4	125	188
M12	12.0	1.75	7	185	324	5	135	236	4	105	184
M14	14.0	2.00	7	160	320	5	115	230	4	90	180
M16	16.0	2.00	7	140	280	5	100	200	4	80	160
M18	18.0	2.50	7	125	313	5	90	225	4	70	175
M20	20.0	2.50	7	110	275	5	80	200	4	65	163
M22	22.0	2.50	7	100	250	5	70	175	4	60	150
M24	24.0	3.00	7	95	285	5	65	195	4	55	165

M	ø [mm]	P [mm]	V <sub>c</sub> 1.5 x d			V <sub>c</sub> 2.0 x d			V <sub>c</sub> 3.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]			
M 2	2.0	0.40	8	1275	510	6	955	382	5	795	318
M 2.5	2.5	0.45	8	1020	459	6	765	344	5	635	286
M 3	3.0	0.50	8	850	425	6	635	318	5	530	265
M 4	4.0	0.70	8	635	445	6	475	333	5	400	280
M 5	5.0	0.80	8	510	408	6	380	304	5	320	256
M 6	6.0	1.00	8	425	425	6	320	320	5	265	265
M 8	8.0	1.25	8	320	400	6	240	300	5	200	250
M10	10.0	1.50	8	255	383	6	190	285	5	160	240
M12	12.0	1.75	8	210	368	6	160	280	5	135	236
M14	14.0	2.00	8	180	360	6	135	270	5	115	230
M16	16.0	2.00	8	160	320	6	120	240	5	100	200
M18	18.0	2.50	8	140	350	6	105	263	5	90	225
M20	20.0	2.50	8	125	313	6	95	238	5	80	200
M22	22.0	2.50	8	115	288	6	85	213	5	70	175
M24	24.0	3.00	8	105	315	6	80	240	5	65	195
M 2	2.0	0.40	5	795	318	4	635	254	3	475	190
M 2.5	2.5	0.45	5	635	286	4	510	230	3	380	171
M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
M10	10.0	1.50	5	160	240	4	125	188	3	95	143
M12	12.0	1.75	5	135	236	4	105	184	3	80	140
M14	14.0	2.00	5	115	230	4	90	180	3	70	140
M16	16.0	2.00	5	100	200	4	80	160	3	60	120
M18	18.0	2.50	5	90	225	4	70	175	3	55	138
M20	20.0	2.50	5	80	200	4	65	163	3	50	125
M22	22.0	2.50	5	70	175	4	60	150	3	45	113
M24	24.0	3.00	5	65	195	4	55	165	3	40	120

# Gewindebohrer Inotap

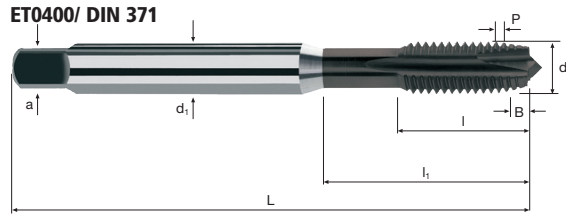


**M** **ISO 2 (6H)**

**60°** **HSS PM/F**

**DIN 371/376**

**X-P**  
**Form B**

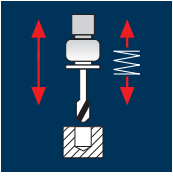


Beispiel: Bestell-Nr. <b>ET0400</b> <b>.034</b>										TRIBO
										<b>ET0400</b>
Ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a			
.034	M 2	0.40	45	8	—	2.8	2.1	2	1.70 *	●
.040	M 2.5	0.45	50	9	—	2.8	2.1	2	2.10	●
.044	M 3	0.50	56	12	18.0	3.5	2.7	3	2.60 *	●
.058	M 4	0.70	63	13	21.0	4.5	3.4	3	3.40	●
.084	M 5	0.80	70	15	25.0	6.0	4.9	3	4.30	●
.088	M 6	1.00	80	17	30.0	6.0	4.9	3	5.10	●
.160	M 8	1.25	90	20	35.0	8.0	6.2	3	6.90	●
.174	M10	1.50	100	22	39.0	10.0	8.0	3	8.60	●

Beispiel: Bestell-Nr. <b>ET0401</b> <b>.240</b>										TRIBO
										<b>ET0401</b>
Ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a			
.240	M12	1.75	110	24	40.0	9.0	7.0	3	10.40	●
.244	M14	2.00	110	26	40.0	11.0	9.0	3	12.20	●
.246	M16	2.00	110	27	40.0	12.0	9.0	3	14.20	●
.312	M18	2.50	125	30	45.0	14.0	11.0	4	15.70	●
.314	M20	2.50	140	32	50.0	16.0	12.0	4	17.70	●
.316	M22	2.50	140	32	50.0	18.0	14.5	4	19.70	●
.320	M24	3.00	160	34	60.0	18.0	14.5	4	21.20	●

\* angegebenes Mass liegt ausserhalb der Norm

## Anwendung



## Werkstoff

Nichtrostender Stahl  
ferritisch/martensitisch



Nichtrostender Stahl  
ferritisch/martensitisch



Nichtrostender Stahl  
[Cr-Ni/1.4301]



Nichtrostender Stahl  
[Cr-Ni/1.4301]



## Werkstoff

Nichtrostender Stahl  
[Cr-Ni-Mo-.../1.4571]



Nichtrostender Stahl  
[Cr-Ni-Mo-.../1.4571]



Hitzebeständiger Stahl  
[17-4 PH]



Hitzebeständiger Stahl  
[17-4 PH]



M	ø [mm]	P [mm]	$v_c$			$n$			$v_f$		
			$1.0 \times d$	[min <sup>-1</sup> ]	[100%]	$1.5 \times d$	[min <sup>-1</sup> ]	[100%]	$2.0 \times d$	[min <sup>-1</sup> ]	[100%]
M 2	2.0	0.40	10	1590	636	8	1275	510	6	955	382
M 2.5	2.5	0.45	10	1275	574	8	1020	459	6	765	344
M 3	3.0	0.50	10	1060	530	8	850	425	6	635	318
M 4	4.0	0.70	10	795	557	8	635	445	6	475	333
M 5	5.0	0.80	10	635	508	8	510	408	6	380	304
M 6	6.0	1.00	10	530	530	8	425	425	6	320	320
M 8	8.0	1.25	10	400	500	8	320	400	6	240	300
M10	10.0	1.50	10	320	480	8	255	383	6	190	285
M12	12.0	1.75	10	265	464	8	210	368	6	160	280
M14	14.0	2.00	10	225	450	8	180	360	6	135	270
M16	16.0	2.00	10	200	400	8	160	320	6	120	240
M18	18.0	2.50	10	175	438	8	140	350	6	105	263
M20	20.0	2.50	10	160	400	8	125	313	6	95	238
M22	22.0	2.50	10	145	363	8	115	288	6	85	213
M24	24.0	3.00	10	135	405	8	105	315	6	80	240
M 2	2.0	0.40	5	795	318	4	635	254	3	475	190
M 2.5	2.5	0.45	5	635	286	4	510	230	3	380	171
M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
M10	10.0	1.50	5	160	240	4	125	188	3	95	143
M12	12.0	1.75	5	135	236	4	105	184	3	80	140
M14	14.0	2.00	5	115	230	4	90	180	3	70	140
M16	16.0	2.00	5	100	200	4	80	160	3	60	120
M18	18.0	2.50	5	90	225	4	70	175	3	55	138
M20	20.0	2.50	5	80	200	4	65	163	3	50	125
M22	22.0	2.50	5	70	175	4	60	150	3	45	113
M24	24.0	3.00	5	65	195	4	55	165	3	40	120

M	ø [mm]	P [mm]	$v_c$			$n$			$v_f$		
			$1.0 \times d$	[min <sup>-1</sup> ]	[100%]	$1.5 \times d$	[min <sup>-1</sup> ]	[100%]	$2.0 \times d$	[min <sup>-1</sup> ]	[100%]
M 2	2.0	0.40	6	955	382	5	795	318	4	635	254
M 2.5	2.5	0.45	6	765	344	5	635	286	4	510	230
M 3	3.0	0.50	6	635	318	5	530	265	4	425	213
M 4	4.0	0.70	6	475	333	5	400	280	4	320	224
M 5	5.0	0.80	6	380	304	5	320	256	4	255	204
M 6	6.0	1.00	6	320	320	5	265	265	4	210	210
M 8	8.0	1.25	6	240	300	5	200	250	4	160	200
M10	10.0	1.50	6	190	285	5	160	240	4	125	188
M12	12.0	1.75	6	160	280	5	135	236	4	105	184
M14	14.0	2.00	6	135	270	5	115	230	4	90	180
M16	16.0	2.00	6	120	240	5	100	200	4	80	160
M18	18.0	2.50	6	105	263	5	90	225	4	70	175
M20	20.0	2.50	6	95	238	5	80	200	4	65	163
M22	22.0	2.50	6	85	213	5	70	175	4	60	150
M24	24.0	3.00	6	80	240	5	65	195	4	55	165
M 2	2.0	0.40	4	635	254	3	475	190			
M 2.5	2.5	0.45	4	510	230	3	380	171			
M 3	3.0	0.50	4	425	213	3	320	160			
M 4	4.0	0.70	4	320	224	3	240	168			
M 5	5.0	0.80	4	255	204	3	190	152			
M 6	6.0	1.00	4	210	210	3	160	160			
M 8	8.0	1.25	4	160	200	3	120	150			
M10	10.0	1.50	4	125	188	3	95	143			
M12	12.0	1.75	4	105	184	3	80	140			
M14	14.0	2.00	4	90	180	3	70	140			
M16	16.0	2.00	4	80	160	3	60	120			
M18	18.0	2.50	4	70	175	3	55	138			
M20	20.0	2.50	4	65	163	3	50	125			
M22	22.0	2.50	4	60	150	3	45	113			
M24	24.0	3.00	4	55	165	3	40	120			

# Gewindebohrer x-tap

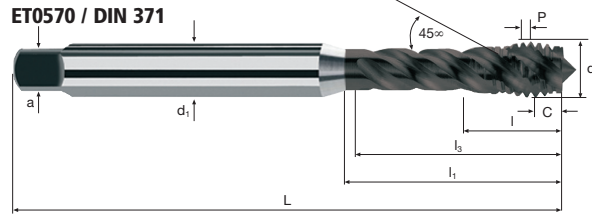


**M** ISO 2 (6H)

60° **HSS PM/F**

DIN 371/376

X-P Form C



ET0571 / DIN 376

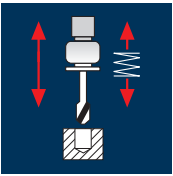


Beispiel: Bestell-Nr. <b>ET0570</b> .034											TRIBO
Artikel-Nr. <b>ET0570</b> ø-Code <b>.034</b>											ET0570
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a			
.034	M 2	0.40	45	8	—	10.5	2.8	2.1	3	1.70 *	●
.040	M 2.5	0.45	50	9	—	13.0	2.8	2.1	3	2.10	●
.044	M 3	0.50	56	5	—	16.0	3.5	2.7	3	2.60 *	●
.058	M 4	0.70	63	7	—	19.0	4.5	3.4	3	3.40	●
.084	M 5	0.80	70	8	—	23.0	6.0	4.9	3	4.30	●
.088	M 6	1.00	80	10	—	28.0	6.0	4.9	3	5.10	●
.160	M 8	1.25	90	13	35.0	33.0	8.0	6.2	3	6.90	●
.174	M10	1.50	100	15	39.0	37.0	10.0	8.0	4	8.60	●

Beispiel: Bestell-Nr. <b>ET0571</b> .240											TRIBO
Artikel-Nr. <b>ET0571</b> ø-Code <b>.240</b>											ET0571
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a			
.240	M12	1.75	110	18	50.0	48.0	9.0	7.0	4	10.40	●
.244	M14	2.00	110	20	58.0	56.0	11.0	9.0	4	12.20	●
.246	M16	2.00	110	20	58.0	56.0	12.0	9.0	4	14.20	●
.312	M18	2.50	125	25	65.0	63.0	14.0	11.0	4	15.70	●
.314	M20	2.50	140	25	72.0	70.0	16.0	12.0	4	17.70	●
.316	M22	2.50	140	25	72.0	70.0	18.0	14.5	5	19.70	●
.320	M24	3.00	160	30	74.0	72.0	18.0	14.5	5	21.20	●

\* angegebenes Mass liegt ausserhalb der Norm

## Anwendung



## Werkstoff

Nichtrostender Stahl  
ferritisch/martensitisch



Nichtrostender Stahl  
ferritisch/martensitisch



Nichtrostender Stahl  
[Cr-Ni/1.4301]



Nichtrostender Stahl  
[Cr-Ni/1.4301]



M	ø [mm]	P [mm]	v <sub>c</sub> 1.0 x d			v <sub>c</sub> 1.5 x d			v <sub>c</sub> 2.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]			
M 4	4.0	0.70	10	795	557	8	635	445	6	475	333
M 5	5.0	0.80	10	635	508	8	510	408	6	380	304
M 6	6.0	1.00	10	530	530	8	425	425	6	320	320
M 8	8.0	1.25	10	400	500	8	320	400	6	240	300
M10	10.0	1.50	10	320	480	8	255	383	6	190	285
M12	12.0	1.75	10	265	464	8	210	368	6	160	280
M14	14.0	2.00	10	225	450	8	180	360	6	135	270
M16	16.0	2.00	10	200	400	8	160	320	6	120	240
M18	18.0	2.50	10	175	438	8	140	350	6	105	263
M20	20.0	2.50	10	160	400	8	125	313	6	95	238
M22	22.0	2.50	10	145	363	8	115	288	6	85	213
M24	24.0	3.00	10	135	405	8	105	315	6	80	240
M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
M10	10.0	1.50	5	160	240	4	125	188	3	95	143
M12	12.0	1.75	5	135	236	4	105	184	3	80	140
M14	14.0	2.00	5	115	230	4	90	180	3	70	140
M16	16.0	2.00	5	100	200	4	80	160	3	60	120
M18	18.0	2.50	5	90	225	4	70	175	3	55	138
M20	20.0	2.50	5	80	200	4	65	163	3	50	125
M22	22.0	2.50	5	70	175	4	60	150	3	45	113
M24	24.0	3.00	5	65	195	4	55	165	3	40	120

## Werkstoff

Nichtrostender Stahl  
[Cr-Ni-Mo-.../1.4571]



Nichtrostender Stahl  
[Cr-Ni-Mo-.../1.4571]



Hitzebeständiger Stahl  
[17-4 PH]



Hitzebeständiger Stahl  
[17-4 PH]



M	ø [mm]	P [mm]	v <sub>c</sub> 1.0 x d			v <sub>c</sub> 1.5 x d			v <sub>c</sub> 2.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]			
M 4	4.0	0.70	6	475	333	5	400	280	4	320	224
M 5	5.0	0.80	6	380	304	5	320	256	4	255	204
M 6	6.0	1.00	6	320	320	5	265	265	4	210	210
M 8	8.0	1.25	6	240	300	5	200	250	4	160	200
M10	10.0	1.50	6	190	285	5	160	240	4	125	188
M12	12.0	1.75	6	160	280	5	135	236	4	105	184
M14	14.0	2.00	6	135	270	5	115	230	4	90	180
M16	16.0	2.00	6	120	240	5	100	200	4	80	160
M18	18.0	2.50	6	105	263	5	90	225	4	70	175
M20	20.0	2.50	6	95	238	5	80	200	4	65	163
M22	22.0	2.50	6	85	213	5	70	175	4	60	150
M24	24.0	3.00	6	80	240	5	65	195	4	55	165
M 4	4.0	0.70	4	320	224	3	240	168			
M 5	5.0	0.80	4	255	204	3	190	152			
M 6	6.0	1.00	4	210	210	3	160	160			
M 8	8.0	1.25	4	160	200	3	120	150			
M10	10.0	1.50	4	125	188	3	95	143			
M12	12.0	1.75	4	105	184	3	80	140			
M14	14.0	2.00	4	90	180	3	70	140			
M16	16.0	2.00	4	80	160	3	60	120			
M18	18.0	2.50	4	70	175	3	55	138			
M20	20.0	2.50	4	65	163	3	50	125			
M22	22.0	2.50	4	60	150	3	45	113			
M24	24.0	3.00	4	55	165	3	40	120			



# Gewindebohrer x-tap

Incool

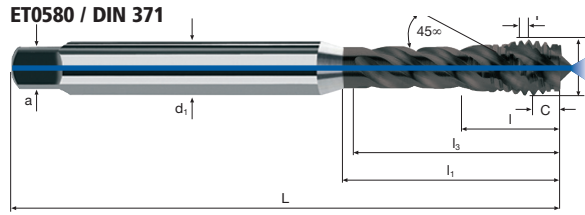


**M** **ISO 2 (6H)**

**60°** **HSS PM/F**

**DIN 371/376**

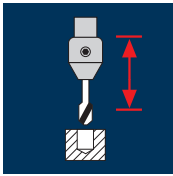
**X-P**  
Form C



Beispiel: Bestell-Nr. <b>ET0580</b> <b>.058</b>											TRIBO
											<b>ET0580</b>
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a			
<b>.058</b>	<b>M 4</b>	<b>0.70</b>	63	7	—	19	4.5	3.4	3	3.40	●
<b>.084</b>	<b>M 5</b>	<b>0.80</b>	70	8	—	23	6.0	4.9	3	4.30	●
<b>.088</b>	<b>M 6</b>	<b>1.00</b>	80	10	—	28	6.0	4.9	3	5.10	●
<b>.160</b>	<b>M 8</b>	<b>1.25</b>	90	13	35	33	8.0	6.2	3	6.90	●
<b>.174</b>	<b>M10</b>	<b>1.50</b>	100	15	39	37	10.0	8.0	4	8.60	●

Beispiel: Bestell-Nr. <b>ET0581</b> <b>.240</b>											TRIBO
											<b>ET0581</b>
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a			
<b>.240</b>	<b>M12</b>	<b>1.75</b>	110	18	50	48	9.0	7.0	4	10.40	●
<b>.244</b>	<b>M14</b>	<b>2.00</b>	110	20	58	56	11.0	9.0	4	12.20	●
<b>.246</b>	<b>M16</b>	<b>2.00</b>	110	20	58	56	12.0	9.0	4	14.20	●
<b>.312</b>	<b>M18</b>	<b>2.50</b>	125	25	65	63	14.0	11.0	4	15.70	●
<b>.314</b>	<b>M20</b>	<b>2.50</b>	140	25	72	70	16.0	12.0	4	17.70	●
<b>.316</b>	<b>M22</b>	<b>2.50</b>	140	25	72	70	18.0	14.5	5	19.70	●
<b>.320</b>	<b>M24</b>	<b>3.00</b>	160	30	74	72	18.0	14.5	5	21.20	●

## Anwendung



## Werkstoff

Nichtrostender Stahl  
ferritisch/martensitisch



Nichtrostender Stahl  
ferritisch/martensitisch



Nichtrostender Stahl  
[Cr-Ni/1.4301]



Nichtrostender Stahl  
[Cr-Ni/1.4301]



## Werkstoff

Nichtrostender Stahl  
[Cr-Ni-Mo-.../1.4571]



Nichtrostender Stahl  
[Cr-Ni-Mo-.../1.4571]



Hitzebeständiger Stahl  
[17-4 PH]



Hitzebeständiger Stahl  
[17-4 PH]



M	ø [mm]	P [mm]	V <sub>c</sub> 1.0 x d		V <sub>c</sub> 1.5 x d		V <sub>c</sub> 2.0 x d	
			n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]		
M 3	3.0	0.50	12	1275	10	1060	8	850
M 4	4.0	0.70	12	955	10	795	8	635
M 5	5.0	0.80	12	765	10	635	8	510
M 6	6.0	1.00	12	635	10	530	8	425
M 8	8.0	1.25	12	475	10	400	8	320
M10	10.0	1.50	12	380	10	320	8	255
M12	12.0	1.75	12	320	10	265	8	210
M14	14.0	2.00	12	275	10	225	8	180
M16	16.0	2.00	12	240	10	200	8	160
M18	18.0	2.50	12	210	10	175	8	140
M20	20.0	2.50	12	190	10	160	8	125
M22	22.0	2.50	12	175	10	145	8	115
M24	24.0	3.00	12	160	10	135	8	105
M 3	3.0	0.50	7	745	5	530	4	425
M 4	4.0	0.70	7	555	5	400	4	320
M 5	5.0	0.80	7	445	5	320	4	255
M 6	6.0	1.00	7	370	5	265	4	210
M 8	8.0	1.25	7	280	5	200	4	160
M10	10.0	1.50	7	225	5	160	4	125
M12	12.0	1.75	7	185	5	135	4	105
M14	14.0	2.00	7	160	5	115	4	90
M16	16.0	2.00	7	140	5	100	4	80
M18	18.0	2.50	7	125	5	90	4	70
M20	20.0	2.50	7	110	5	80	4	65
M22	22.0	2.50	7	100	5	70	4	60
M24	24.0	3.00	7	95	5	65	4	55

M	ø [mm]	P [mm]	V <sub>c</sub> 1.0 x d		V <sub>c</sub> 1.5 x d		V <sub>c</sub> 2.0 x d	
			n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]		
M 3	3.0	0.50	8	850	6	635	5	530
M 4	4.0	0.70	8	635	6	475	5	400
M 5	5.0	0.80	8	510	6	380	5	320
M 6	6.0	1.00	8	425	6	320	5	265
M 8	8.0	1.25	8	320	6	240	5	200
M10	10.0	1.50	8	255	6	190	5	160
M12	12.0	1.75	8	210	6	160	5	135
M14	14.0	2.00	8	180	6	135	5	115
M16	16.0	2.00	8	160	6	120	5	100
M18	18.0	2.50	8	140	6	105	5	90
M20	20.0	2.50	8	125	6	95	5	80
M22	22.0	2.50	8	115	6	85	5	70
M24	24.0	3.00	8	105	6	80	5	65
M 3	3.0	0.50	5	530	4	425		
M 4	4.0	0.70	5	400	4	320		
M 5	5.0	0.80	5	320	4	255		
M 6	6.0	1.00	5	265	4	210		
M 8	8.0	1.25	5	200	4	160		
M10	10.0	1.50	5	160	4	125		
M12	12.0	1.75	5	135	4	105		
M14	14.0	2.00	5	115	4	90		
M16	16.0	2.00	5	100	4	80		
M18	18.0	2.50	5	90	4	70		
M20	20.0	2.50	5	80	4	65		
M22	22.0	2.50	5	70	4	60		
M24	24.0	3.00	5	65	4	55		

# Gewindebohrer x-tap-R

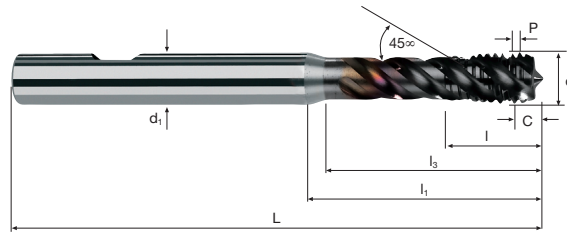


**M** ISO 2 (6H)

60° **HSS PM/F**

DIN 1835B ISO 3338

X-P  
Form C

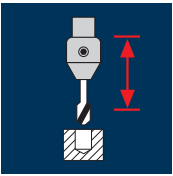


**M**



										TRIBO
										ET0590
Beispiel: Bestell-Nr. <b>ET0590</b> <b>.044</b>										
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> h6			
.044	M 3	0.50	63	5	–	16	6	3	2.60*	●
.058	M 4	0.70	66	7	–	19	6	3	3.40	●
.084	M 5	0.80	70	8	–	23	6	3	4.30	●
.088	M 6	1.00	80	10	–	28	6	3	5.10	●
.160	M 8	1.25	90	13	35	33	8	3	6.90	●
.174	M10	1.50	100	15	39	37	10	4	8.60	●
.240	M12	1.75	110	18	45	43	12	4	10.40	●
.244	M14	2.00	110	20	46	44	16	4	12.20	●
.246	M16	2.00	110	20	50	48	16	4	14.20	●
.312	M18	2.50	125	25	60	58	16	4	15.70	●
.314	M20	2.50	140	25	64	62	16	4	17.70	●
.316	M22	2.50	140	25	64	62	20	5	19.70	●
.320	M24	3.00	160	30	74	72	20	5	21.20	●
* angegebenes Mass liegt ausserhalb der Norm										

## Anwendung



## Werkstoff

Nichtrostender Stahl  
ferritisch/martensitisch



Nichtrostender Stahl  
ferritisch/martensitisch



Nichtrostender Stahl  
[Cr-Ni/1.4301]



Nichtrostender Stahl  
[Cr-Ni/1.4301]



M	ø [mm]	P [mm]	$v_c$ 1.0 x d	n [min <sup>-1</sup> ]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]
M 4	4.0	0.70	12	955	10	795	8	635
M 5	5.0	0.80	12	765	10	635	8	510
M 6	6.0	1.00	12	635	10	530	8	425
M 8	8.0	1.25	12	475	10	400	8	320
M10	10.0	1.50	12	380	10	320	8	255
M12	12.0	1.75	12	320	10	265	8	210
M14	14.0	2.00	12	275	10	225	8	180
M16	16.0	2.00	12	240	10	200	8	160
M18	18.0	2.50	12	210	10	175	8	140
M20	20.0	2.50	12	190	10	160	8	125
M22	22.0	2.50	12	175	10	145	8	115
M24	24.0	3.00	12	160	10	135	8	105
M 4	4.0	0.70	7	555	5	400	4	320
M 5	5.0	0.80	7	445	5	320	4	255
M 6	6.0	1.00	7	370	5	265	4	210
M 8	8.0	1.25	7	280	5	200	4	160
M10	10.0	1.50	7	225	5	160	4	125
M12	12.0	1.75	7	185	5	135	4	105
M14	14.0	2.00	7	160	5	115	4	90
M16	16.0	2.00	7	140	5	100	4	80
M18	18.0	2.50	7	125	5	90	4	70
M20	20.0	2.50	7	110	5	80	4	65
M22	22.0	2.50	7	100	5	70	4	60
M24	24.0	3.00	7	95	5	65	4	55

## Werkstoff

Nichtrostender Stahl  
[Cr-Ni-Mo-.../1.4571]



Nichtrostender Stahl  
[Cr-Ni-Mo-.../1.4571]



Hitzebeständiger Stahl  
[17-4 PH]



Hitzebeständiger Stahl  
[17-4 PH]



M	ø [mm]	P [mm]	$v_c$ 1.0 x d	n [min <sup>-1</sup> ]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]
M 4	4.0	0.70	8	635	6	475	5	400
M 5	5.0	0.80	8	510	6	380	5	320
M 6	6.0	1.00	8	425	6	320	5	265
M 8	8.0	1.25	8	320	6	240	5	200
M10	10.0	1.50	8	255	6	190	5	160
M12	12.0	1.75	8	210	6	160	5	135
M14	14.0	2.00	8	180	6	135	5	115
M16	16.0	2.00	8	160	6	120	5	100
M18	18.0	2.50	8	140	6	105	5	90
M20	20.0	2.50	8	125	6	95	5	80
M22	22.0	2.50	8	115	6	85	5	70
M24	24.0	3.00	8	105	6	80	5	65
M 4	4.0	0.70	5	400	4	320		
M 5	5.0	0.80	5	320	4	255		
M 6	6.0	1.00	5	265	4	210		
M 8	8.0	1.25	5	200	4	160		
M10	10.0	1.50	5	160	4	125		
M12	12.0	1.75	5	135	4	105		
M14	14.0	2.00	5	115	4	90		
M16	16.0	2.00	5	100	4	80		
M18	18.0	2.50	5	90	4	70		
M20	20.0	2.50	5	80	4	65		
M22	22.0	2.50	5	70	4	60		
M24	24.0	3.00	5	65	4	55		

# Gewindebohrer x-tap-R

Incool

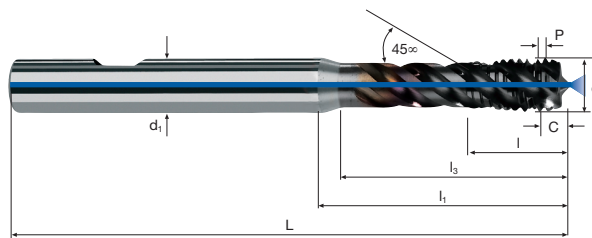


**M** ISO 2 (6H)

**60°** HSS PM/F

DIN 1835B ISO 3338

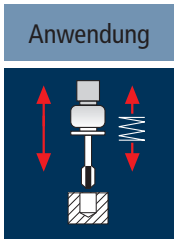
**X-P** Form C



**M**



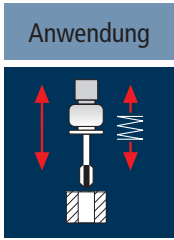
										TRIBO
Beispiel: Bestell-Nr. <b>ET0591</b> <span style="margin-left: 20px;">Artikel-Nr.</span> <b>ET0591</b> <span style="margin-left: 20px;">ø-Code</span> <b>.058</b>										<b>ET0591</b>
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> h6			
<b>.058</b>	<b>M 4</b>	<b>0.70</b>	66	7	–	19	6	3	3.40	●
<b>.084</b>	<b>M 5</b>	<b>0.80</b>	70	8	–	23	6	3	4.30	●
<b>.088</b>	<b>M 6</b>	<b>1.00</b>	80	10	–	28	6	3	5.10	●
<b>.160</b>	<b>M 8</b>	<b>1.25</b>	90	13	35	33	8	3	6.90	●
<b>.174</b>	<b>M10</b>	<b>1.50</b>	100	15	39	37	10	4	8.60	●
<b>.240</b>	<b>M12</b>	<b>1.75</b>	110	18	45	43	12	4	10.40	●
<b>.244</b>	<b>M14</b>	<b>2.00</b>	110	20	46	44	16	4	12.20	●
<b>.246</b>	<b>M16</b>	<b>2.00</b>	110	20	50	48	16	4	14.20	●
<b>.312</b>	<b>M18</b>	<b>2.50</b>	125	25	60	58	16	4	15.70	●
<b>.314</b>	<b>M20</b>	<b>2.50</b>	140	25	64	62	16	4	17.70	●
<b>.316</b>	<b>M22</b>	<b>2.50</b>	140	25	64	62	20	5	19.70	●
<b>.320</b>	<b>M24</b>	<b>3.00</b>	160	30	74	72	20	5	21.20	●



Werkstoff

Gusseisen GG
Gusseisen GG
Gusseisen GGG
Gusseisen GGG

M	ø [mm]	P [mm]	$v_c$ 1.0 x d	n [min <sup>-1</sup> ]	$v_f$ [100%]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_f$ [100%]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]	$v_f$ [100%]
M 2	2.0	0.40	28	4455	1782	24	3820	1528	20	3185	1274
M 2.5	2.5	0.45	28	3565	1604	24	3055	1375	20	2545	1145
M 3	3.0	0.50	28	2970	1485	24	2545	1273	20	2120	1060
M 4	4.0	0.70	28	2230	1561	24	1910	1337	20	1590	1113
M 5	5.0	0.80	28	1785	1428	24	1530	1224	20	1275	1020
M 6	6.0	1.00	28	1485	1485	24	1275	1275	20	1060	1060
M 8	8.0	1.25	28	1115	1394	24	955	1194	20	795	994
M10	10.0	1.50	28	890	1335	24	765	1148	20	635	953
M12	12.0	1.75	28	745	1304	24	635	1111	20	530	928
M14	14.0	2.00	28	635	1270	24	545	1090	20	455	910
M16	16.0	2.00	28	555	1110	24	475	950	20	400	800
M18	18.0	2.50	28	495	1238	24	425	1063	20	355	888
M20	20.0	2.50	28	445	1113	24	380	950	20	320	800
M22	22.0	2.50	28	405	1013	24	345	863	20	290	725
M24	24.0	3.00	28	370	1110	24	320	960	20	265	795
M 2	2.0	0.40	20	3185	1274	18	2865	1146	15	2385	954
M 2.5	2.5	0.45	20	2545	1145	18	2290	1031	15	1910	860
M 3	3.0	0.50	20	2120	1060	18	1910	955	15	1590	795
M 4	4.0	0.70	20	1590	1113	18	1430	1001	15	1195	837
M 5	5.0	0.80	20	1275	1020	18	1145	916	15	955	764
M 6	6.0	1.00	20	1060	1060	18	955	955	15	795	795
M 8	8.0	1.25	20	795	994	18	715	894	15	595	744
M10	10.0	1.50	20	635	953	18	575	863	15	475	713
M12	12.0	1.75	20	530	928	18	475	831	15	400	700
M14	14.0	2.00	20	455	910	18	410	820	15	340	680
M16	16.0	2.00	20	400	800	18	360	720	15	300	600
M18	18.0	2.50	20	355	888	18	320	800	15	265	663
M20	20.0	2.50	20	320	800	18	285	713	15	240	600
M22	22.0	2.50	20	290	725	18	260	650	15	215	538
M24	24.0	3.00	20	265	795	18	240	720	15	200	600



Werkstoff

Gusseisen GG
Gusseisen GG
Gusseisen GGG
Gusseisen GGG

M	ø [mm]	P [mm]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_f$ [100%]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]	$v_f$ [100%]	$v_c$ 3.0 x d	n [min <sup>-1</sup> ]	$v_f$ [100%]
M 2	2.0	0.40	30	4775	1910	28	4455	1782	25	3980	1592
M 2.5	2.5	0.45	30	3820	1719	28	3565	1604	25	3185	1433
M 3	3.0	0.50	30	3185	1593	28	2970	1485	25	2655	1328
M 4	4.0	0.70	30	2385	1670	28	2230	1561	25	1990	1393
M 5	5.0	0.80	30	1910	1528	28	1785	1428	25	1590	1272
M 6	6.0	1.00	30	1590	1590	28	1485	1485	25	1325	1325
M 8	8.0	1.25	30	1195	1494	28	1115	1394	25	995	1244
M10	10.0	1.50	30	955	1433	28	890	1335	25	795	1193
M12	12.0	1.75	30	795	1391	28	745	1304	25	665	1164
M14	14.0	2.00	30	680	1360	28	635	1270	25	570	1140
M16	16.0	2.00	30	595	1190	28	555	1110	25	495	990
M18	18.0	2.50	30	530	1325	28	495	1238	25	440	1100
M20	20.0	2.50	30	475	1188	28	445	1113	25	400	1000
M22	22.0	2.50	30	435	1088	28	405	1013	25	360	900
M24	24.0	3.00	30	400	1200	28	370	1110	25	330	990
M 2	2.0	0.40	25	3980	1592	22	3500	1400	20	3185	1274
M 2.5	2.5	0.45	25	3185	1433	22	2800	1260	20	2545	1145
M 3	3.0	0.50	25	2655	1328	22	2335	1168	20	2120	1060
M 4	4.0	0.70	25	1990	1393	22	1750	1225	20	1590	1113
M 5	5.0	0.80	25	1590	1272	22	1400	1120	20	1275	1020
M 6	6.0	1.00	25	1325	1325	22	1165	1165	20	1060	1060
M 8	8.0	1.25	25	995	1244	22	875	1094	20	795	994
M10	10.0	1.50	25	795	1193	22	700	1050	20	635	953
M12	12.0	1.75	25	665	1164	22	585	1024	20	530	928
M14	14.0	2.00	25	570	1140	22	500	1000	20	455	910
M16	16.0	2.00	25	495	990	22	440	880	20	400	800
M18	18.0	2.50	25	440	1100	22	390	975	20	355	888
M20	20.0	2.50	25	400	1000	22	350	875	20	320	800
M22	22.0	2.50	25	360	900	22	320	800	20	290	725
M24	24.0	3.00	25	330	990	22	290	870	20	265	795

# Gewindebohrer c-tap

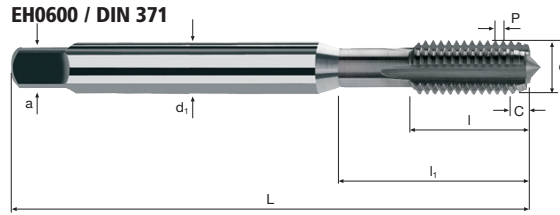


**M** ISO 2 (6H)

60° **HSS PM/F**

DIN 371/376

X-P Form C



**EH0601 / DIN 376**



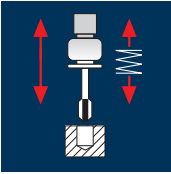
M



Beispiel: Bestell-Nr. <b>EH0600 .034</b>										TiCN
										<b>EH0600</b>
Ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a			
.034	M 2	0.40	45	8	—	2.8	2.1	3	1.60	●
.040	M 2.5	0.45	50	9	—	2.8	2.1	3	2.05	●
.044	M 3	0.50	56	12	18.0	3.5	2.7	3	2.50	●
.058	M 4	0.70	63	13	21.0	4.5	3.4	3	3.30	●
.084	M 5	0.80	70	15	25.0	6.0	4.9	3	4.20	●
.088	M 6	1.00	80	17	30.0	6.0	4.9	4	5.00	●
.160	M 8	1.25	90	20	35.0	8.0	6.2	4	6.80	●
.174	M10	1.50	100	22	39.0	10.0	8.0	4	8.50	●

Beispiel: Bestell-Nr. <b>EH0601 .240</b>										TiCN
										<b>EH0601</b>
Ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a			
.240	M12	1.75	110	24	40.0	9.0	7.0	4	10.20	●
.244	M14	2.00	110	26	40.0	11.0	9.0	4	12.00	●
.246	M16	2.00	110	27	40.0	12.0	9.0	4	14.00	●
.312	M18	2.50	125	30	45.0	14.0	11.0	4	15.50	●
.314	M20	2.50	140	32	50.0	16.0	12.0	4	17.50	●
.316	M22	2.50	140	32	50.0	18.0	14.5	5	19.50	●
.320	M24	3.00	160	34	60.0	18.0	14.5	5	21.00	●

## Anwendung



## Werkstoff

Gusseisen  
GG

M	ø [mm]	P [mm]	$v_c$			$n$			$v_f$		
			$1.0 \times d$	[min <sup>-1</sup> ]	[100%]	$1.5 \times d$	[min <sup>-1</sup> ]	[100%]	$2.0 \times d$	[min <sup>-1</sup> ]	[100%]
M 4	4.0	0.70	28	2230	1561	24	1910	1337	20	1590	1113
M 5	5.0	0.80	28	1785	1428	24	1530	1224	20	1275	1020
M 6	6.0	1.00	28	1485	1485	24	1275	1275	20	1060	1060
M 8	8.0	1.25	28	1115	1394	24	955	1194	20	795	994
M10	10.0	1.50	28	890	1335	24	765	1148	20	635	953
M12	12.0	1.75	28	745	1304	24	635	1111	20	530	928
M14	14.0	2.00	28	635	1270	24	545	1090	20	455	910
M16	16.0	2.00	28	555	1110	24	475	950	20	400	800
M18	18.0	2.50	28	495	1238	24	425	1063	20	355	888

Gusseisen  
GG

M20	20.0	2.50	28	445	1113	24	380	950	20	320	800
M22	22.0	2.50	28	405	1013	24	345	863	20	290	725
M24	24.0	3.00	28	370	1110	24	320	960	20	265	795

Gusseisen  
GGG

M 4	4.0	0.40	20	1590	636	18	1430	572	15	1195	478
M 5	5.0	0.45	20	1275	574	18	1145	515	15	955	430
M 6	6.0	0.50	20	1060	530	18	955	478	15	795	398
M 8	8.0	0.70	20	795	557	18	715	500	15	595	417
M10	10.0	0.80	20	635	508	18	575	460	15	475	380
M12	12.0	1.00	20	530	530	18	475	475	15	400	400
M14	14.0	1.25	20	455	569	18	410	513	15	340	425
M16	16.0	1.50	20	400	600	18	360	540	15	300	450
M18	18.0	1.75	20	355	621	18	320	560	15	265	464

Gusseisen  
GGG

M20	20.0	2.00	20	320	640	18	285	570	15	240	480
M22	22.0	2.00	20	290	580	18	260	520	15	215	430
M24	24.0	2.50	20	265	663	18	240	600	15	200	500



# Gewindebohrer c-tap

Incool

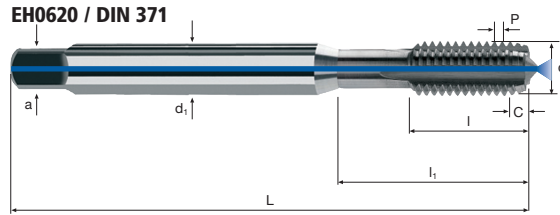


**M** ISO 2 (6H)

60° **HSS PM/F**

DIN 371/376

X-P Form C



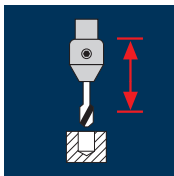
M



Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code						TiCN
Bestell-Nr.		EH0620		.058						EH0620
ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a			
.058	M 4	0.70	63	13	21	4.5	3.4	3	3.30	●
.084	M 5	0.80	70	15	25	6.0	4.9	3	4.20	●
.088	M 6	1.00	80	17	30	6.0	4.9	4	5.00	●
.160	M 8	1.25	90	20	35	8.0	6.2	4	6.80	●
.174	M10	1.50	100	22	39	10.0	8.0	4	8.50	●

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code						TiCN
Bestell-Nr.		EH0621		.240						EH0621
ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a			
.240	M12	1.75	110	24	40	9.0	7.0	4	10.20	●
.244	M14	2.00	110	26	40	11.0	9.0	4	12.00	●
.246	M16	2.00	110	27	40	12.0	9.0	4	14.00	●
.312	M18	2.50	125	30	45	14.0	11.0	4	15.50	●
.314	M20	2.50	140	32	50	16.0	12.0	4	17.50	●
.316	M22	2.50	140	32	50	18.0	14.5	5	19.50	●
.320	M24	3.00	160	34	60	18.0	14.5	5	21.00	●

### Anwendung



### Werkstoff

Gusseisen  
GG

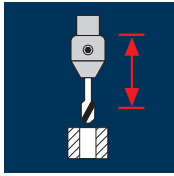
Gusseisen  
GGG

M	ø [mm]	P [mm]	$v_c$ 1.0 x d	n [min <sup>-1</sup> ]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]
M 3	3.0	0.50	80	8490	70	7425	50	5305
M 4	4.0	0.70	80	6365	70	5570	50	3980
M 5	5.0	0.80	80	5095	70	4455	50	3185
M 6	6.0	1.00	80	4245	70	3715	50	2655
M 8	8.0	1.25	80	3185	70	2785	50	1990
M10	10.0	1.50	80	2545	70	2230	50	1590
M12	12.0	1.75	80	2120	70	1855	50	1325

M 3	3.0	0.50	60	6365	40	4245	30	3185
M 4	4.0	0.70	60	4775	40	3185	30	2385
M 5	5.0	0.80	60	3820	40	2545	30	1910
M 6	6.0	1.00	60	3185	40	2120	30	1590
M 8	8.0	1.25	60	2385	40	1590	30	1195
M10	10.0	1.50	60	1910	40	1275	30	955
M12	12.0	1.75	60	1590	40	1060	30	795



### Anwendung



### Werkstoff

Gusseisen  
GG

Gusseisen  
GGG

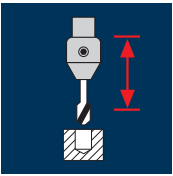
M	ø [mm]	P [mm]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]	$v_c$ 3.0 x d	n [min <sup>-1</sup> ]
M 3	3.0	0.50	80	8490	60	6365	50	5305
M 4	4.0	0.70	80	6365	60	4775	50	3980
M 5	5.0	0.80	80	5095	60	3820	50	3185
M 6	6.0	1.00	80	4245	60	3185	50	2655
M 8	8.0	1.25	80	3185	60	2385	50	1990
M10	10.0	1.50	80	2545	60	1910	50	1590
M12	12.0	1.75	80	2120	60	1590	50	1325

M 3	3.0	0.50	60	6365	50	5305	40	4245
M 4	4.0	0.70	60	4775	50	3980	40	3185
M 5	5.0	0.80	60	3820	50	3185	40	2545
M 6	6.0	1.00	60	3185	50	2655	40	2120
M 8	8.0	1.25	60	2385	50	1990	40	1590
M10	10.0	1.50	60	1910	50	1590	40	1275
M12	12.0	1.75	60	1590	50	1325	40	1060





## Anwendung



## Werkstoff

Gusseisen  
GG

M	ø [mm]	P [mm]	$v_c$ $1.0 \times d$	n [min <sup>-1</sup> ]	$v_c$ $1.5 \times d$	n [min <sup>-1</sup> ]	$v_c$ $2.0 \times d$	n [min <sup>-1</sup> ]
M 6	6.0	1.00	80	4245	70	3715	50	2655
M 8	8.0	1.25	80	3185	70	2785	50	1990
M10	10.0	1.50	80	2545	70	2230	50	1590
M12	12.0	1.75	80	2120	70	1855	50	1325

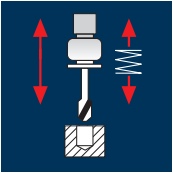
Gusseisen  
GGG

M 6	6.0	1.00	60	3185	40	2120	30	1590
M 8	8.0	1.25	60	2385	40	1590	30	1195
M10	10.0	1.50	60	1910	40	1275	30	955
M12	12.0	1.75	60	1590	40	1060	30	795





## Anwendung



## Werkstoff

Gusseisen  
GG

M	ø [mm]	P [mm]	$v_c$ 1.0 x d	n [min <sup>-1</sup> ]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]
M 3	3.0	0.50	80	8490	70	7425	50	5305
M 4	4.0	0.70	80	6365	70	5570	50	3980
M 5	5.0	0.80	80	5095	70	4455	50	3185
M 6	6.0	1.00	80	4245	70	3715	50	2655
M 8	8.0	1.25	80	3185	70	2785	50	1990
M10	10.0	1.50	80	2545	70	2230	50	1590
M12	12.0	1.75	80	2120	70	1855	50	1325

Gusseisen  
GGG

M 3	3.0	0.50	60	6365	40	4245	30	3185
M 4	4.0	0.70	60	4775	40	3185	30	2385
M 5	5.0	0.80	60	3820	40	2545	30	1910
M 6	6.0	1.00	60	3185	40	2120	30	1590
M 8	8.0	1.25	60	2385	40	1590	30	1195
M10	10.0	1.50	60	1910	40	1275	30	955
M12	12.0	1.75	60	1590	40	1060	30	795



# Gewindebohrer durotap GG

Incool

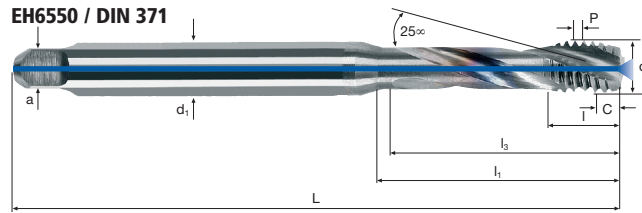


**M** ISO 2 (6H)

60° **HM MG10**

DIN 371/376

Form C



M

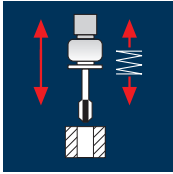


Beispiel: Bestell-Nr. <b>EH6550</b> .044											TiCN	
											<b>EH6550</b>	
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a				
.044 *	M 3	0.50	56	5	18	16	3.5	2.7	3	2.50		●
.058 *	M 4	0.70	63	7	21	19	4.5	3.4	3	3.30		●
.084 *	M 5	0.80	70	8	25	23	6.0	4.9	3	4.20		●
.088	M 6	1.00	80	10	30	28	6.0	4.9	3	5.00		●
.160	M 8	1.25	90	13	35	33	8.0	6.2	3	6.80		●
.174	M10	1.50	100	15	39	37	10.0	8.0	3	8.50		●

Beispiel: Bestell-Nr. <b>EH6551</b> .240											TiCN	
											<b>EH6551</b>	
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a				
.240	M12	1.75	110	18	50	48	9.0	7.0	3	10.20		●

\* ohne innere Kühlmittelzufuhr

## Anwendung



## Werkstoff

Reinaluminium

M	ø [mm]	P [mm]	v <sub>c</sub> 1.5 x d			v <sub>c</sub> 2.0 x d			v <sub>c</sub> 3.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]			
M 2	2.0	0.40	23	3660	1464	19	3025	1210	16	2545	1018
M 2.5	2.5	0.45	23	2930	1319	19	2420	1089	16	2035	916
M 3	3.0	0.50	23	2440	1220	19	2015	1008	16	1700	850
M 4	4.0	0.70	23	1830	1281	19	1510	1057	16	1275	893
M 5	5.0	0.80	23	1465	1172	19	1210	968	16	1020	816
M 6	6.0	1.00	23	1220	1220	19	1010	1010	16	850	850
M 8	8.0	1.25	23	915	1144	19	755	944	16	635	794
M10	10.0	1.50	23	730	1095	19	605	908	16	510	765
M12	12.0	1.75	23	610	1068	19	505	884	16	425	744

Reinaluminium

M14	14.0	2.00	23	525	1050	19	430	860	16	365	730
M16	16.0	2.00	23	460	920	19	380	760	16	320	640
M18	18.0	2.50	23	405	1013	19	335	838	16	285	713
M20	20.0	2.50	23	365	913	19	300	750	16	255	638
M22	22.0	2.50	23	335	838	19	275	688	16	230	575
M24	24.0	3.00	23	305	915	19	250	750	16	210	630

Al-Knetlegierung  
Si < 6%  
nicht ausgehärtet

M 2	2.0	0.40	35	5570	2228	30	4775	1910	25	3980	1592
M 2.5	2.5	0.45	35	4455	2005	30	3820	1719	25	3185	1433
M 3	3.0	0.50	35	3715	1858	30	3185	1593	25	2655	1328
M 4	4.0	0.70	35	2785	1949	30	2385	1670	25	1990	1393
M 5	5.0	0.80	35	2230	1784	30	1910	1528	25	1590	1272
M 6	6.0	1.00	35	1855	1855	30	1590	1590	25	1325	1325
M 8	8.0	1.25	35	1395	1744	30	1195	1494	25	995	1244
M10	10.0	1.50	35	1115	1673	30	955	1433	25	795	1193
M12	12.0	1.75	35	930	1628	30	795	1391	25	665	1164

Al-Knetlegierung  
Si < 6%  
nicht ausgehärtet

M14	14.0	2.00	35	795	1590	30	680	1360	25	570	1140
M16	16.0	2.00	35	695	1390	30	595	1190	25	495	990
M18	18.0	2.50	35	620	1550	30	530	1325	25	440	1100
M20	20.0	2.50	35	555	1388	30	475	1188	25	400	1000
M22	22.0	2.50	35	505	1263	30	435	1088	25	360	900
M24	24.0	3.00	35	465	1395	30	400	1200	25	330	990

## Werkstoff

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M	ø [mm]	P [mm]	v <sub>c</sub> 1.5 x d			v <sub>c</sub> 2.0 x d			v <sub>c</sub> 3.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]			
M 2	2.0	0.40	20	3185	1274	17	2705	1082	14	2230	892
M 2.5	2.5	0.45	20	2545	1145	17	2165	974	14	1785	803
M 3	3.0	0.50	20	2120	1060	17	1805	903	14	1485	743
M 4	4.0	0.70	20	1590	1113	17	1355	948	14	1115	781
M 5	5.0	0.80	20	1275	1020	17	1080	864	14	890	712
M 6	6.0	1.00	20	1060	1060	17	900	900	14	745	745
M 8	8.0	1.25	20	795	994	17	675	844	14	555	694
M10	10.0	1.50	20	635	953	17	540	810	14	445	668
M12	12.0	1.75	20	530	928	17	450	788	14	370	648

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M14	14.0	2.00	20	455	910	17	385	770	14	320	640
M16	16.0	2.00	20	400	800	17	340	680	14	280	560
M18	18.0	2.50	20	355	888	17	300	750	14	250	625
M20	20.0	2.50	20	320	800	17	270	675	14	225	563
M22	22.0	2.50	20	290	725	17	245	613	14	205	513
M24	24.0	3.00	20	265	795	17	225	675	14	185	555

Reinkupfer

M 2	2.0	0.40	21	3340	1336	18	2865	1146	15	2385	954
M 2.5	2.5	0.45	21	2675	1204	18	2290	1031	15	1910	860
M 3	3.0	0.50	21	2230	1115	18	1910	955	15	1590	795
M 4	4.0	0.70	21	1670	1169	18	1430	1001	15	1195	837
M 5	5.0	0.80	21	1335	1068	18	1145	916	15	955	764
M 6	6.0	1.00	21	1115	1115	18	955	955	15	795	795
M 8	8.0	1.25	21	835	1044	18	715	894	15	595	744
M10	10.0	1.50	21	670	1005	18	575	863	15	475	713
M12	12.0	1.75	21	555	971	18	475	831	15	400	700

Reinkupfer

M14	14.0	2.00	21	475	950	18	410	820	15	340	680
M16	16.0	2.00	21	420	840	18	360	720	15	300	600
M18	18.0	2.50	21	370	925	18	320	800	15	265	663
M20	20.0	2.50	21	335	838	18	285	713	15	240	600
M22	22.0	2.50	21	305	763	18	260	650	15	215	538
M24	24.0	3.00	21	280	840	18	240	720	15	200	600



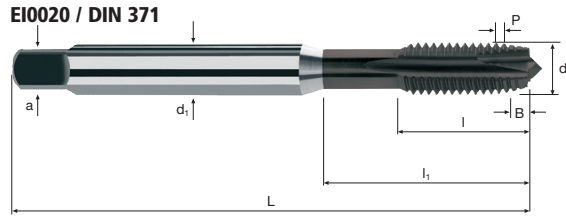
# Gewindebohrer



**M** **ISO 2 (6H)**

**HSS PM/F**

**Form B**



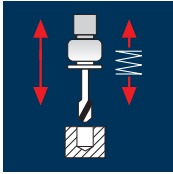
M

Al Aluminium > 99%
Al Aluminium Alloy
Al Aluminium Cast
Cu Copper
Plastic Thermoplast

Beispiel: Bestell-Nr. <b>E10020</b> <b>.034</b>											INTEGRAL
Artikel-Nr. <b>E10020</b> ø-Code <b>.034</b>											<b>E10020</b>
Ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a				
.034	M 2	0.40	45	8	—	2.8	2.1	2	1.60		●
.040	M 2.5	0.45	50	9	—	2.8	2.1	2	2.05		●
.044	M 3	0.50	56	12	18.0	3.5	2.7	2	2.50		●
.058	M 4	0.70	63	13	21.0	4.5	3.4	2	3.30		●
.084	M 5	0.80	70	15	25.0	6.0	4.9	2	4.20		●
.088	M 6	1.00	80	17	30.0	6.0	4.9	2	5.00		●
.160	M 8	1.25	90	20	35.0	8.0	6.2	2	6.80		●
.174	M10	1.50	100	22	39.0	10.0	8.0	2	8.50		●

Beispiel: Bestell-Nr. <b>E10021</b> <b>.240</b>											INTEGRAL
Artikel-Nr. <b>E10021</b> ø-Code <b>.240</b>											<b>E10021</b>
Ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a				
.240	M12	1.75	110	24	40.0	9.0	7.0	3	10.20		●
.244	M14	2.00	110	26	40.0	11.0	9.0	3	12.00		●
.246	M16	2.00	110	27	40.0	12.0	9.0	3	14.00		●
.312	M18	2.50	125	30	45.0	14.0	11.0	3	15.50		●
.314	M20	2.50	140	32	50.0	16.0	12.0	3	17.50		●
.316	M22	2.50	140	32	50.0	18.0	14.5	3	19.50		●
.320	M24	3.00	160	34	60.0	18.0	14.5	3	21.00		●

## Anwendung



## Werkstoff

Reinaluminium

M	ø [mm]	P [mm]	$v_c$			$n$			$v_f$		
			$1.0 \times d$	$n$ [min <sup>-1</sup> ]	$v_f$ [100%]	$1.5 \times d$	$n$ [min <sup>-1</sup> ]	$v_f$ [100%]	$2.0 \times d$	$n$ [min <sup>-1</sup> ]	$v_f$ [100%]
M 2	2.0	0.40	25	3980	1592	21	3340	1336	17	2705	1082
M 2.5	2.5	0.45	25	3185	1433	21	2675	1204	17	2165	974
M 3	3.0	0.50	25	2655	1328	21	2230	1115	17	1805	903
M 4	4.0	0.70	25	1990	1393	21	1670	1169	17	1355	948
M 5	5.0	0.80	25	1590	1272	21	1335	1068	17	1080	864
M 6	6.0	1.00	25	1325	1325	21	1115	1115	17	900	900
M 8	8.0	1.25	25	995	1244	21	835	1044	17	675	844
M10	10.0	1.50	25	795	1193	21	670	1005	17	540	810
M12	12.0	1.75	25	665	1164	21	555	971	17	450	788

Reinaluminium

M14	14.0	2.00	25	570	1140	21	475	950	17	385	770
M16	16.0	2.00	25	495	990	21	420	840	17	340	680
M18	18.0	2.50	25	440	1100	21	370	925	17	300	750
M20	20.0	2.50	25	400	1000	21	335	838	17	270	675
M22	22.0	2.50	25	360	900	21	305	763	17	245	613
M24	24.0	3.00	25	330	990	21	280	840	17	225	675

Al-Knetlegierung  
Si < 6%  
nicht ausgehärtet

M 2	2.0	0.40	27	4295	1718	24	3820	1528	18	2865	1146
M 2.5	2.5	0.45	27	3440	1548	24	3055	1375	18	2290	1031
M 3	3.0	0.50	27	2865	1433	24	2545	1273	18	1910	955
M 4	4.0	0.70	27	2150	1505	24	1910	1337	18	1430	1001
M 5	5.0	0.80	27	1720	1376	24	1530	1224	18	1145	916
M 6	6.0	1.00	27	1430	1430	24	1275	1275	18	955	955
M 8	8.0	1.25	27	1075	1344	24	955	1194	18	715	894
M10	10.0	1.50	27	860	1290	24	765	1148	18	575	863
M12	12.0	1.75	27	715	1251	24	635	1111	18	475	831

Al-Knetlegierung  
Si < 6%  
nicht ausgehärtet

M14	14.0	2.00	27	615	1230	24	545	1090	18	410	820
M16	16.0	2.00	27	535	1070	24	475	950	18	360	720
M18	18.0	2.50	27	475	1188	24	425	1063	18	320	800
M20	20.0	2.50	27	430	1075	24	380	950	18	285	713
M22	22.0	2.50	27	390	975	24	345	863	18	260	650
M24	24.0	3.00	27	360	1080	24	320	960	18	240	720

## Werkstoff

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M	ø [mm]	P [mm]	$v_c$			$n$			$v_f$		
			$1.0 \times d$	$n$ [min <sup>-1</sup> ]	$v_f$ [100%]	$1.5 \times d$	$n$ [min <sup>-1</sup> ]	$v_f$ [100%]	$2.0 \times d$	$n$ [min <sup>-1</sup> ]	$v_f$ [100%]
M 2	2.0	0.40	21	3340	1336	18	2865	1146	15	2385	954
M 2.5	2.5	0.45	21	2675	1204	18	2290	1031	15	1910	860
M 3	3.0	0.50	21	2230	1115	18	1910	955	15	1590	795
M 4	4.0	0.70	21	1670	1169	18	1430	1001	15	1195	837
M 5	5.0	0.80	21	1335	1068	18	1145	916	15	955	764
M 6	6.0	1.00	21	1115	1115	18	955	955	15	795	795
M 8	8.0	1.25	21	835	1044	18	715	894	15	595	744
M10	10.0	1.50	21	670	1005	18	575	863	15	475	713
M12	12.0	1.75	21	555	971	18	475	831	15	400	700

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M14	14.0	2.00	21	475	950	18	410	820	15	340	680
M16	16.0	2.00	21	420	840	18	360	720	15	300	600
M18	18.0	2.50	21	370	925	18	320	800	15	265	663
M20	20.0	2.50	21	335	838	18	285	713	15	240	600
M22	22.0	2.50	21	305	763	18	260	650	15	215	538
M24	24.0	3.00	21	280	840	18	240	720	15	200	600

Reinkupfer

M 2	2.0	0.40	20	3185	1274	18	2865	1146	16	2545	1018
M 2.5	2.5	0.45	20	2545	1145	18	2290	1031	16	2035	916
M 3	3.0	0.50	20	2120	1060	18	1910	955	16	1700	850
M 4	4.0	0.70	20	1590	1113	18	1430	1001	16	1275	893
M 5	5.0	0.80	20	1275	1020	18	1145	916	16	1020	816
M 6	6.0	1.00	20	1060	1060	18	955	955	16	850	850
M 8	8.0	1.25	20	795	994	18	715	894	16	635	794
M10	10.0	1.50	20	635	953	18	575	863	16	510	765
M12	12.0	1.75	20	530	928	18	475	831	16	425	744

Reinkupfer

M14	14.0	2.00	20	455	910	18	410	820	16	365	730
M16	16.0	2.00	20	400	800	18	360	720	16	320	640
M18	18.0	2.50	20	355	888	18	320	800	16	285	713
M20	20.0	2.50	20	320	800	18	285	713	16	255	638
M22	22.0	2.50	20	290	725	18	260	650	16	230	575
M24	24.0	3.00	20	265	795	18	240	720	16	210	630

# Gewindebohrer

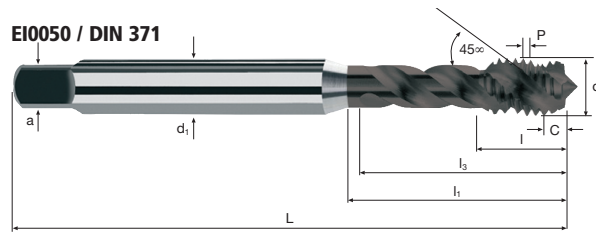


**M** ISO 2 (6H)

60° **HSS PM/F**

DIN 371/376

Form C



**E10051 / DIN 376**



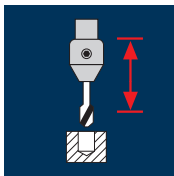
**M**

			<b>Al</b> Aluminium > 99%	<b>Al</b> Aluminium Alloy	<b>Al</b> Aluminium Cast		<b>Cu</b> Copper	<b>Plastic</b> Thermoplast	
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Beispiel: Bestell-Nr. <b>E10050</b> Artikel-Nr. <b>.034</b> ø-Code											INTEGRAL
											<b>E10050</b>
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	a			
<b>.034</b>	<b>M 2</b>	<b>0.40</b>	45	8	—	10.5	2.8	2.1	3	1.60	●
<b>.040</b>	<b>M 2.5</b>	<b>0.45</b>	50	9	—	13.0	2.8	2.1	3	2.05	●
<b>.044</b>	<b>M 3</b>	<b>0.50</b>	56	5	18.0	16.0	3.5	2.7	3	2.50	●
<b>.058</b>	<b>M 4</b>	<b>0.70</b>	63	7	21.0	19.0	4.5	3.4	3	3.30	●
<b>.084</b>	<b>M 5</b>	<b>0.80</b>	70	8	25.0	23.0	6.0	4.9	3	4.20	●
<b>.088</b>	<b>M 6</b>	<b>1.00</b>	80	10	30.0	28.0	6.0	4.9	3	5.00	●
<b>.160</b>	<b>M 8</b>	<b>1.25</b>	90	13	35.0	33.0	8.0	6.2	3	6.80	●
<b>.174</b>	<b>M10</b>	<b>1.50</b>	100	15	39.0	37.0	10.0	8.0	3	8.50	●

Beispiel: Bestell-Nr. <b>E10051</b> Artikel-Nr. <b>.240</b> ø-Code											INTEGRAL
											<b>E10051</b>
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	a			
<b>.240</b>	<b>M12</b>	<b>1.75</b>	110	18	50.0	48.0	9.0	7.0	3	10.20	●
<b>.244</b>	<b>M14</b>	<b>2.00</b>	110	20	58.0	56.0	11.0	9.0	4	12.00	●
<b>.246</b>	<b>M16</b>	<b>2.00</b>	110	20	58.0	56.0	12.0	9.0	4	14.00	●
<b>.312</b>	<b>M18</b>	<b>2.50</b>	125	25	65.0	63.0	14.0	11.0	4	15.50	●
<b>.314</b>	<b>M20</b>	<b>2.50</b>	140	25	72.0	70.0	16.0	12.0	4	17.50	●
<b>.316</b>	<b>M22</b>	<b>2.50</b>	140	25	72.0	70.0	18.0	14.5	4	19.50	●
<b>.320</b>	<b>M24</b>	<b>3.00</b>	160	30	74.0	72.0	18.0	14.5	4	21.00	●

### Anwendung



### Werkstoff

Aluminiumguss

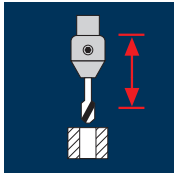
CuAlFe  
(Ampco)

M	ø [mm]	P [mm]	$v_c$ 1.0 x d	n [min <sup>-1</sup> ]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]
M 5	5.0	0.80	80	5095	60	3820	40	2545
M 6	6.0	1.00	80	4245	60	3185	40	2120
M 7	7.0	1.00	80	3640	60	2730	40	1820
M 8	8.0	1.25	80	3185	60	2385	40	1590
M10	10.0	1.50	80	2545	60	1910	40	1275

M 5	5.0	0.80	10	635	8	510	7	445
M 6	6.0	1.00	10	530	8	425	7	370
M 7	7.0	1.00	10	455	8	365	7	320
M 8	8.0	1.25	10	400	8	320	7	280
M10	10.0	1.50	10	320	8	255	7	225



### Anwendung



### Werkstoff

Aluminiumguss

CuAlFe  
(Ampco)

M	ø [mm]	P [mm]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]	$v_c$ 3.0 x d	n [min <sup>-1</sup> ]
M 5	5.0	0.80	100	6365	80	5095	60	3820
M 6	6.0	1.00	100	5305	80	4245	60	3185
M 7	7.0	1.00	100	4545	80	3640	60	2730
M 8	8.0	1.25	100	3980	80	3185	60	2385
M10	10.0	1.50	100	3185	80	2545	60	1910

M 5	5.0	0.80	12	765	10	635	9	575
M 6	6.0	1.00	12	635	10	530	9	475
M 7	7.0	1.00	12	545	10	455	9	410
M 8	8.0	1.25	12	475	10	400	9	360
M10	10.0	1.50	12	380	10	320	9	285



# Gewindebohrer durotap A-R

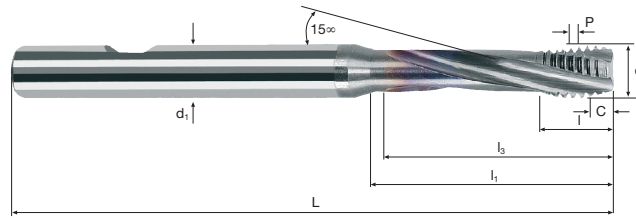


**M** ISO 2 (6H)

60° **HM MG10**

DIN 6535 HB

X-P  
Form C

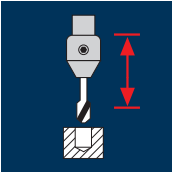


M

Al Aluminium Cast      Cu Copper      GG(G)

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code							TiCN
		EH6300		.084							EH6300
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> h6				
.084	M 5	0.80	70	4.0	25	23	6	3	4.20		●
.088	M 6	1.00	80	5.0	30	28	6	3	5.00		●
.089	M 7	1.00	80	5.0	30	28	8	3	6.00		●
.160	M 8	1.25	90	6.5	35	33	8	3	6.80		●
.174	M10	1.50	100	7.5	39	37	10	3	8.50		●

## Anwendung



## Werkstoff

Aluminiumguss

M	ø [mm]	P [mm]	$v_c$ 1.0 x d		$v_c$ 1.5 x d		$v_c$ 2.0 x d	
			n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]		
M 6	6.0	1.00	80	4245	60	3185	40	2120
M 7	7.0	1.00	80	3640	60	2730	40	1820
M 8	8.0	1.25	80	3185	60	2385	40	1590
M10	10.0	1.50	80	2545	60	1910	40	1275

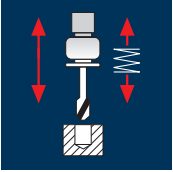
CuAlFe  
(Ampco)

M	ø [mm]	P [mm]	$v_c$ 1.0 x d		$v_c$ 1.5 x d		$v_c$ 2.0 x d	
			n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]		
M 6	6.0	1.00	10	530	8	425	7	370
M 7	7.0	1.00	10	455	8	365	7	320
M 8	8.0	1.25	10	400	8	320	7	280
M10	10.0	1.50	10	320	8	255	7	225





## Anwendung



## Werkstoff

Aluminiumguss

M	ø [mm]	P [mm]	$v_c$ 1.0 x d			$v_c$ 1.5 x d			$v_c$ 2.0 x d		
			$n$ [min <sup>-1</sup> ]	$v_f$ [100%]	$n$ [min <sup>-1</sup> ]	$v_f$ [100%]	$n$ [min <sup>-1</sup> ]	$v_f$ [100%]			
M 4	4.0	0.70	80	6365	4456	60	4775	3343	40	3185	2230
M 5	5.0	0.80	80	5095	4076	60	3820	3056	40	2545	2036
M 6	6.0	1.00	80	4245	4245	60	3185	3185	40	2120	2120
M 8	8.0	1.25	80	3185	3981	60	2385	2981	40	1590	1988
M10	10.0	1.50	80	2545	3818	60	1910	2865	40	1275	1913
M12	12.0	1.75	80	2120	3710	60	1590	2783	40	1060	1855
M14	14.0	2.00	80	1820	3640	60	1365	2730	40	910	1820
M16	16.0	2.00	80	1590	3180	60	1195	2390	40	795	1590

CuAlFe  
(Ampco)

M 4	4.0	0.70	10	795	557	8	635	445	7	555	389
M 5	5.0	0.80	10	635	508	8	510	408	7	445	356
M 6	6.0	1.00	10	530	530	8	425	425	7	370	370
M 8	8.0	1.25	10	400	500	8	320	400	7	280	350
M10	10.0	1.50	10	320	480	8	255	383	7	225	338
M12	12.0	1.75	10	265	464	8	210	368	7	185	324
M14	14.0	2.00	10	225	450	8	180	360	7	160	320
M16	16.0	2.00	10	200	400	8	160	320	7	140	280





# Gewindebohrer durotap A

Incool

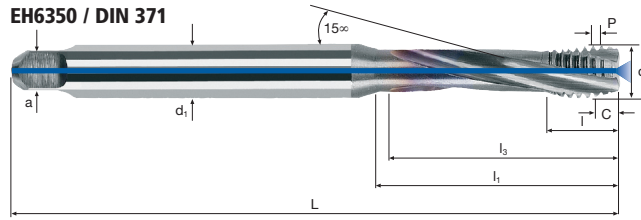


**M** ISO 2 (6H)

**HM MG10**

**DIN 371/376**

**Form C**



EH6351 / DIN 376



M

Aluminium Cast      Cu Copper      GG(G)

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code								TiCN
		EH6350		.058								EH6350
Ø Code	d	P	L	l	l1	l3	d1	a				
.058 *	M 4	0.70	63	7	21	19	4.5	3.4	3	3.30		●
.084 *	M 5	0.80	70	8	25	23	6.0	4.9	3	4.20		●
.088	M 6	1.00	80	10	30	28	6.0	4.9	3	5.00		●
.160	M 8	1.25	90	13	35	33	8.0	6.2	3	6.80		●
.174	M10	1.50	100	15	39	37	10.0	8.0	3	8.50		●

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code								TiCN
		EH6351		.240								EH6351
Ø Code	d	P	L	l	l1	l3	d1	a				
.240	M12	1.75	110	18	50	48	9.0	7.0	3	10.20		●
.244	M14	2.00	110	20	58	56	11.0	9.0	4	12.00		●
.246	M16	2.00	110	20	58	56	12.0	9.0	4	14.00		●

\* ohne innere Kühlmittelzufuhr



# Gewindebohrer titap

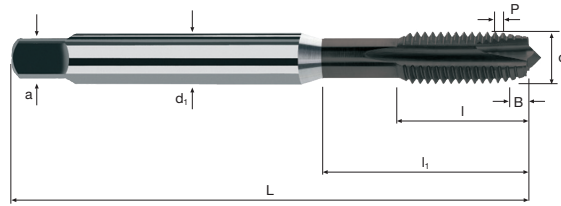


**M** ISO 2 (6H)

60° **HSS PM/F**

DIN 371

**Form B**



**M**

**Ti**  
Titanium

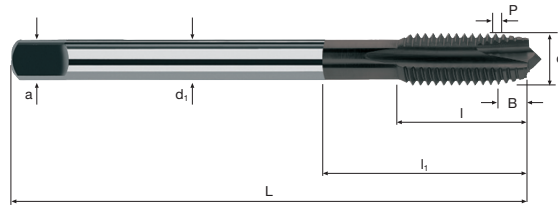
										TRIBO
										ET0705
Beispiel: Bestell-Nr. <span style="margin-left: 20px;">Artikel-Nr. <b>ET0705</b></span> <span style="margin-left: 20px;">ø-Code <b>.012</b></span>										
Ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a			
.012	M 1.2	0.25	40	5.5	–	2.5	2.1	2	1.00*	●
.020	M 1.4	0.30	40	7.0	–	2.5	2.1	2	1.15*	●
.022	M 1.6	0.35	40	8.0	–	2.5	2.1	2	1.30	●
.026	M 1.8	0.35	40	8.0	–	2.5	2.1	2	1.50	●
.034	M 2	0.40	45	8.0	–	2.8	2.1	2	1.70*	●
.040	M 2.5	0.45	50	9.0	–	2.8	2.1	2	2.10	●
.044	M 3	0.50	56	12.0	18.0	3.5	2.7	3	2.60*	●
.056	M 3.5	0.60	56	12.0	20.0	4.0	3.0	3	3.00	●
.058	M 4	0.70	63	13.0	21.0	4.5	3.4	3	3.40	●
.084	M 5	0.80	70	15.0	25.0	6.0	4.9	3	4.30	●
.088	M 6	1.00	80	17.0	30.0	6.0	4.9	3	5.10	●
.160	M 8	1.25	90	20.0	35.0	8.0	6.2	3	6.90	●
.174	M10	1.50	100	22.0	39.0	10.0	8.0	3	8.60	●
≤ M1.4 Toleranz ISO 1 (4H)										
* angegebenes Mass liegt ausserhalb der Norm										
Grössere Abmessungen siehe Artikel-Nr. ET0706, Seite 197										



# Gewindebohrer titap



<b>M</b>	<b>ISO 2 (6H)</b>
	<b>HSS PM/F</b>
	<b>Form B</b>



M

										<b>Ti Titanium</b>	
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										TRIBO
										ET0706
Beispiel: Bestell-Nr. <b>ET0706</b> <b>.240</b>										
Artikel-Nr. <b>ET0706</b> $\phi$ -Code <b>.240</b>										
$\emptyset$ Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a			
.240	M12	1.75	110	24	40	9	7.0	3	10.40	●
.244	M14	2.00	110	26	40	11	9.0	3	12.20	●
.246	M16	2.00	110	27	40	12	9.0	3	14.20	●
.312	M18	2.50	125	30	45	14	11.0	4	15.70	●
.314	M20	2.50	140	32	50	16	12.0	4	17.70	●
.316	M22	2.50	140	32	50	18	14.5	4	19.70	●
.320	M24	3.00	160	34	60	18	14.5	4	21.20	●



# Gewindebohrer titap

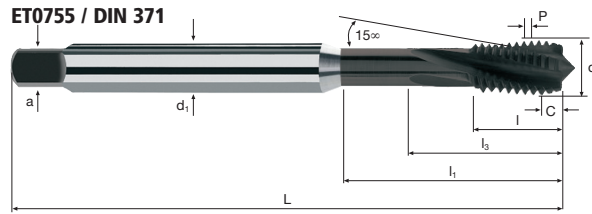


**M** ISO 2 (6H)

60° **HSS PM/F**

DIN 371/376

X-P Form C



ET0756 / DIN 376



M



Beispiel: Bestell-Nr. <b>ET0755</b> . <b>.034</b>											TRIBO
											<b>ET0755</b>
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a			
.034	M 2	0.40	45	8	—	10.5	2.8	2.1	3	1.70 *	●
.040	M 2.5	0.45	50	9	—	13.0	2.8	2.1	3	2.10	●
.044	M 3	0.50	56	5	18.0	16.0	3.5	2.7	3	2.60 *	●
.056	M 3.5	0.60	56	6	20.0	18.0	4.0	3.0	3	3.00	●
.058	M 4	0.70	63	7	21.0	19.0	4.5	3.4	3	3.40	●
.084	M 5	0.80	70	8	25.0	23.0	6.0	4.9	3	4.30	●
.088	M 6	1.00	80	10	30.0	28.0	6.0	4.9	3	5.10	●
.160	M 8	1.25	90	13	35.0	33.0	8.0	6.2	3	6.90	●
.174	M10	1.50	100	15	39.0	37.0	10.0	8.0	4	8.60	●

Beispiel: Bestell-Nr. <b>ET0756</b> . <b>.240</b>											TRIBO
											<b>ET0756</b>
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a			
.240	M12	1.75	110	18	50.0	48.0	9.0	7.0	4	10.40	●
.244	M14	2.00	110	20	58.0	56.0	11.0	9.0	4	12.20	●
.246	M16	2.00	110	20	58.0	56.0	12.0	9.0	4	14.20	●
.312	M18	2.50	125	25	65.0	63.0	14.0	11.0	5	15.70	●
.314	M20	2.50	140	25	72.0	70.0	16.0	12.0	5	17.70	●
.316	M22	2.50	140	25	72.0	70.0	18.0	14.5	5	19.70	●
.320	M24	3.00	160	30	74.0	72.0	18.0	14.5	5	21.20	●

\* angegebenes Mass liegt ausserhalb der Norm

**Anwendung**

**Werkstoff**

Nickelbasislegierungen  
nicht ausgehärtet

Nickelbasislegierungen  
nicht ausgehärtet

Nickelbasislegierungen  
ausgehärtet

Nickelbasislegierungen  
ausgehärtet

M	ø [mm]	P [mm]	$v_c$			$v_c$		
			$1.0 \times d$	n [min <sup>-1</sup> ]	$v_f$ [100%]	$1.5 \times d$	n [min <sup>-1</sup> ]	$v_f$ [100%]
M 2	2.0	0.40	3	475	190	2	320	128
M 2.5	2.5	0.45	3	380	171	2	255	115
M 3	3.0	0.50	3	320	160	2	210	105
M 4	4.0	0.70	3	240	168	2	160	112
M 5	5.0	0.80	3	190	152	2	125	100
M 6	6.0	1.00	3	160	160	2	105	105
M 8	8.0	1.25	3	120	150	2	80	100
M10	10.0	1.50	3	95	143	2	65	98
M12	12.0	1.75	3	80	140	2	55	96
M14	14.0	2.00	3	70	140	2	45	90
M16	16.0	2.00	3	60	120	2	40	80
M18	18.0	2.50	3	55	138	2	35	88
M20	20.0	2.50	3	50	125	2	30	75
M22	22.0	2.50	3	45	113	2	30	75
M24	24.0	3.00	3	40	120	2	25	75
M 2	2.0	0.40	2	320	128	2	320	128
M 2.5	2.5	0.45	2	255	115	2	255	115
M 3	3.0	0.50	2	210	105	2	210	105
M 4	4.0	0.70	2	160	112	2	160	112
M 5	5.0	0.80	2	125	100	2	125	100
M 6	6.0	1.00	2	105	105	2	105	105
M 8	8.0	1.25	2	80	100	2	80	100
M10	10.0	1.50	2	65	98	2	65	98
M12	12.0	1.75	2	55	96	2	55	96
M14	14.0	2.00	2	45	90	2	45	90
M16	16.0	2.00	2	40	80	2	40	80
M18	18.0	2.50	2	35	88	2	35	88
M20	20.0	2.50	2	30	75	2	30	75
M22	22.0	2.50	2	30	75	2	30	75
M24	24.0	3.00	2	25	75	2	25	75

**Anwendung**

**Werkstoff**

Nickelbasislegierungen  
nicht ausgehärtet

Nickelbasislegierungen  
nicht ausgehärtet

Nickelbasislegierungen  
ausgehärtet

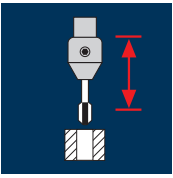
Nickelbasislegierungen  
ausgehärtet

M	ø [mm]	P [mm]	$v_c$			$v_c$		
			$1.0 \times d$	n [min <sup>-1</sup> ]	$v_f$ [100%]	$1.5 \times d$	n [min <sup>-1</sup> ]	$v_f$ [100%]
M 2	2.0	0.40	3	475	190	2	320	128
M 2.5	2.5	0.45	3	380	171	2	255	115
M 3	3.0	0.50	3	320	160	2	210	105
M 4	4.0	0.70	3	240	168	2	160	112
M 5	5.0	0.80	3	190	152	2	125	100
M 6	6.0	1.00	3	160	160	2	105	105
M 8	8.0	1.25	3	120	150	2	80	100
M10	10.0	1.50	3	95	143	2	65	98
M12	12.0	1.75	3	80	140	2	55	96
M14	14.0	2.00	3	70	140	2	45	90
M16	16.0	2.00	3	60	120	2	40	80
M18	18.0	2.50	3	55	138	2	35	88
M20	20.0	2.50	3	50	125	2	30	75
M22	22.0	2.50	3	45	113	2	30	75
M24	24.0	3.00	3	40	120	2	25	75
M 2	2.0	0.40	2	320	128	2	320	128
M 2.5	2.5	0.45	2	255	115	2	255	115
M 3	3.0	0.50	2	210	105	2	210	105
M 4	4.0	0.70	2	160	112	2	160	112
M 5	5.0	0.80	2	125	100	2	125	100
M 6	6.0	1.00	2	105	105	2	105	105
M 8	8.0	1.25	2	80	100	2	80	100
M 10	10.0	1.50	2	65	98	2	65	98
M 12	12.0	1.75	2	55	96	2	55	96
M14	14.0	2.00	2	45	90	2	45	90
M16	16.0	2.00	2	40	80	2	40	80
M18	18.0	2.50	2	35	88	2	35	88
M20	20.0	2.50	2	30	75	2	30	75
M22	22.0	2.50	2	30	75	2	30	75
M24	24.0	3.00	2	25	75	2	25	75





## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]	$v_c$ 3.0 x d	n [min <sup>-1</sup> ]
M 3	3.0	0.50	25	2655	20	2120	15	1590
M 4	4.0	0.70	25	1990	20	1590	15	1195
M 5	5.0	0.80	25	1590	20	1275	15	955
M 6	6.0	1.00	25	1325	20	1060	15	795
M 8	8.0	1.25	25	995	20	795	15	595
M10	10.0	1.50	25	795	20	635	15	475
M12	12.0	1.75	25	665	20	530	15	400
M16	16.0	2.00	25	495	20	400	15	300
M20	20.0	2.50	25	400	20	320	15	240

Stahl  
500 - 850 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]	$v_c$ 3.0 x d	n [min <sup>-1</sup> ]
M 3	3.0	0.50	22	2335	18	1910	12	1275
M 4	4.0	0.70	22	1750	18	1430	12	955
M 5	5.0	0.80	22	1400	18	1145	12	765
M 6	6.0	1.00	22	1165	18	955	12	635
M 8	8.0	1.25	22	875	18	715	12	475
M10	10.0	1.50	22	700	18	575	12	380
M12	12.0	1.75	22	585	18	475	12	320
M16	16.0	2.00	22	440	18	360	12	240
M20	20.0	2.50	22	350	18	285	12	190

Stahl  
850 - 1100 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]	$v_c$ 3.0 x d	n [min <sup>-1</sup> ]
M 3	3.0	0.50	18	1910	12	1275	10	1060
M 4	4.0	0.70	18	1430	12	955	10	795
M 5	5.0	0.80	18	1145	12	765	10	635
M 6	6.0	1.00	18	955	12	635	10	530
M 8	8.0	1.25	18	715	12	475	10	400
M10	10.0	1.50	18	575	12	380	10	320
M12	12.0	1.75	18	475	12	320	10	265
M16	16.0	2.00	18	360	12	240	10	200
M20	20.0	2.50	18	285	12	190	10	160

Gusseisen  
GG(G)

M	ø [mm]	P [mm]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]	$v_c$ 3.0 x d	n [min <sup>-1</sup> ]
M 3	3.0	0.50	22	2335	20	2120	18	1910
M 4	4.0	0.70	22	1750	20	1590	18	1430
M 5	5.0	0.80	22	1400	20	1275	18	1145
M 6	6.0	1.00	22	1165	20	1060	18	955
M 8	8.0	1.25	22	875	20	795	18	715
M10	10.0	1.50	22	700	20	635	18	575
M12	12.0	1.75	22	585	20	530	18	475
M16	16.0	2.00	22	440	20	400	18	360
M20	20.0	2.50	22	350	20	320	18	285

## Werkstoff

Nichtrostender Stahl  
[Cr-Ni/1.4301]



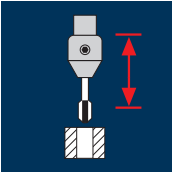
M	ø [mm]	P [mm]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]	$v_c$ 3.0 x d	n [min <sup>-1</sup> ]
M 3	3.0	0.50	6	635	4	425	3	320
M 4	4.0	0.70	6	475	4	320	3	240
M 5	5.0	0.80	6	380	4	255	3	190
M 6	6.0	1.00	6	320	4	210	3	160
M 8	8.0	1.25	6	240	4	160	3	120
M10	10.0	1.50	6	190	4	125	3	95
M12	12.0	1.75	6	160	4	105	3	80
M16	16.0	2.00	6	120	4	80	3	60
M20	20.0	2.50	6	95	4	65	3	50

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M	ø [mm]	P [mm]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]	$v_c$ 3.0 x d	n [min <sup>-1</sup> ]
M 3	3.0	0.50	25	2655	20	2120	15	1590
M 4	4.0	0.70	25	1990	20	1590	15	1195
M 5	5.0	0.80	25	1590	20	1275	15	955
M 6	6.0	1.00	25	1325	20	1060	15	795
M 8	8.0	1.25	25	995	20	795	15	595
M10	10.0	1.50	25	795	20	635	15	475
M12	12.0	1.75	25	665	20	530	15	400
M16	16.0	2.00	25	495	20	400	15	300
M20	20.0	2.50	25	400	20	320	15	240



## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	v <sub>c</sub> 1.5 x d		v <sub>c</sub> 2.0 x d		v <sub>c</sub> 3.0 x d	
			n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]		
M 6	6.0	1.00	25	1325	20	1060	15	795
M 8	8.0	1.25	25	995	20	795	15	595
M10	10.0	1.50	25	795	20	635	15	475
M12	12.0	1.75	25	665	20	530	15	400
M14	14.0	2.00	25	570	20	455	15	340
M16	16.0	2.00	25	495	20	400	15	300
M18	18.0	2.50	25	440	20	355	15	265
M20	20.0	2.50	25	400	20	320	15	240

Stahl  
500 - 850 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	v <sub>c</sub> 1.5 x d		v <sub>c</sub> 2.0 x d		v <sub>c</sub> 3.0 x d	
			n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]		
M 6	6.0	1.00	22	1165	18	955	12	635
M 8	8.0	1.25	22	875	18	715	12	475
M10	10.0	1.50	22	700	18	575	12	380
M12	12.0	1.75	22	585	18	475	12	320
M14	14.0	2.00	22	500	18	410	12	275
M16	16.0	2.00	22	440	18	360	12	240
M18	18.0	2.50	22	390	18	320	12	210
M20	20.0	2.50	22	350	18	285	12	190

Stahl  
850 - 1100 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	v <sub>c</sub> 1.5 x d		v <sub>c</sub> 2.0 x d		v <sub>c</sub> 3.0 x d	
			n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]		
M 6	6.0	1.00	18	955	12	635	10	530
M 8	8.0	1.25	18	715	12	475	10	400
M10	10.0	1.50	18	575	12	380	10	320
M12	12.0	1.75	18	475	12	320	10	265
M14	14.0	2.00	18	410	12	275	10	225
M16	16.0	2.00	18	360	12	240	10	200
M18	18.0	2.50	18	320	12	210	10	175
M20	20.0	2.50	18	285	12	190	10	160

Gusseisen  
GG(G)

M	ø [mm]	P [mm]	v <sub>c</sub> 1.5 x d		v <sub>c</sub> 2.0 x d		v <sub>c</sub> 3.0 x d	
			n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]		
M 6	6.0	1.00	22	1165	20	1060	18	955
M 8	8.0	1.25	22	875	20	795	18	715
M10	10.0	1.50	22	700	20	635	18	575
M12	12.0	1.75	22	585	20	530	18	475
M14	14.0	2.00	22	500	20	455	18	410
M16	16.0	2.00	22	440	20	400	18	360
M18	18.0	2.50	22	390	20	355	18	320
M20	20.0	2.50	22	350	20	320	18	285

## Werkstoff

Nichtrostender Stahl  
[Cr-Ni/1.4301]



M	ø [mm]	P [mm]	v <sub>c</sub> 1.5 x d		v <sub>c</sub> 2.0 x d		v <sub>c</sub> 3.0 x d	
			n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]		
M 6	6.0	1.00	6	320	4	210	3	160
M 8	8.0	1.25	6	240	4	160	3	120
M10	10.0	1.50	6	190	4	125	3	95
M12	12.0	1.75	6	160	4	105	3	80
M14	14.0	2.00	6	135	4	90	3	70
M16	16.0	2.00	6	120	4	80	3	60
M18	18.0	2.50	6	105	4	70	3	55
M20	20.0	2.50	6	95	4	65	3	50

Al-Knetlegierung  
Si < 6%  
ausgehärtet

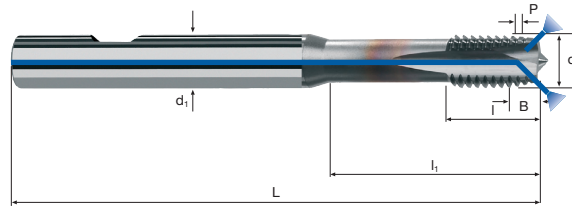
M	ø [mm]	P [mm]	v <sub>c</sub> 1.5 x d		v <sub>c</sub> 2.0 x d		v <sub>c</sub> 3.0 x d	
			n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]		
M 6	6.0	1.00	25	1325	20	1060	15	795
M 8	8.0	1.25	25	995	20	795	15	595
M10	10.0	1.50	25	795	20	635	15	475
M12	12.0	1.75	25	665	20	530	15	400
M14	14.0	2.00	25	570	20	455	15	340
M16	16.0	2.00	25	495	20	400	15	300
M18	18.0	2.50	25	440	20	355	15	265
M20	20.0	2.50	25	400	20	320	15	240

# Gewindebohrer polytap-R

Incool



<b>M</b>	<b>ISO 2 (6H)</b>
	<b>HSS PM/F</b>
	<b>X-P Form B</b>

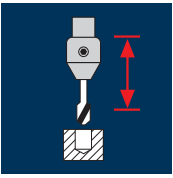


M

<b>Rm</b> < 850	<b>Rm</b> 850-1100					<b>Inox</b> Stainless		<b>GG(G)</b> Aluminium
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Beispiel: Bestell-Nr. <b>EH0110 .088</b>									TiCN
									<b>EH0110</b>
Ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub> h6			
.088	M 6	1.00	80	10	30	6	3	5.00	●
.160	M 8	1.25	90	13	35	8	3	6.80	●
.174	M10	1.50	100	15	39	10	3	8.50	●
.240	M12	1.75	110	18	45	12	3	10.20	●
.244	M14	2.00	110	20	46	16	3	12.00	●
.246	M16	2.00	110	20	50	16	3	14.00	●
.312	M18	2.50	125	25	60	16	4	15.50	●
.314	M20	2.50	140	25	64	16	4	17.50	●

## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	$v_c$ 1.0 x d	n [min <sup>-1</sup> ]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]
M 3	3.0	0.50	25	2655	22	2335	15	1590
M 4	4.0	0.70	25	1990	22	1750	15	1195
M 5	5.0	0.80	25	1590	22	1400	15	955
M 6	6.0	1.00	25	1325	22	1165	15	795
M 8	8.0	1.25	25	995	22	875	15	595
M10	10.0	1.50	25	795	22	700	15	475
M12	12.0	1.75	25	665	22	585	15	400
M16	16.0	2.00	25	495	22	440	15	300
M20	20.0	2.50	25	400	22	350	15	240

Stahl  
500 - 850 N/mm<sup>2</sup>

M 3	3.0	0.50	22	2335	20	2120	12	1275
M 4	4.0	0.70	22	1750	20	1590	12	955
M 5	5.0	0.80	22	1400	20	1275	12	765
M 6	6.0	1.00	22	1165	20	1060	12	635
M 8	8.0	1.25	22	875	20	795	12	475
M10	10.0	1.50	22	700	20	635	12	380
M12	12.0	1.75	22	585	20	530	12	320
M16	16.0	2.00	22	440	20	400	12	240
M20	20.0	2.50	22	350	20	320	12	190

Stahl  
850 - 1100 N/mm<sup>2</sup>

M 3	3.0	0.50	18	1910	12	1275	8	850
M 4	4.0	0.70	18	1430	12	955	8	635
M 5	5.0	0.80	18	1145	12	765	8	510
M 6	6.0	1.00	18	955	12	635	8	425
M 8	8.0	1.25	18	715	12	475	8	320
M10	10.0	1.50	18	575	12	380	8	255
M12	12.0	1.75	18	475	12	320	8	210
M16	16.0	2.00	18	360	12	240	8	160
M20	20.0	2.50	18	285	12	190	8	125

Gusseisen  
GG(G)

M 3	3.0	0.50	18	1910	15	1590	12	1275
M 4	4.0	0.70	18	1430	15	1195	12	955
M 5	5.0	0.80	18	1145	15	955	12	765
M 6	6.0	1.00	18	955	15	795	12	635
M 8	8.0	1.25	18	715	15	595	12	475
M10	10.0	1.50	18	575	15	475	12	380
M12	12.0	1.75	18	475	15	400	12	320
M16	16.0	2.00	18	360	15	300	12	240
M20	20.0	2.50	18	285	15	240	12	190

## Werkstoff

Nichtrostender Stahl  
[Cr-Ni/1.4301]



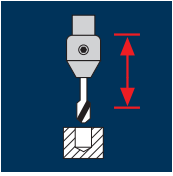
M	ø [mm]	P [mm]	$v_c$ 1.0 x d	n [min <sup>-1</sup> ]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]
M 3	3.0	0.50	4	425	3	320	2	210
M 4	4.0	0.70	4	320	3	240	2	160
M 5	5.0	0.80	4	255	3	190	2	125
M 6	6.0	1.00	4	210	3	160	2	105
M 8	8.0	1.25	4	160	3	120	2	80
M10	10.0	1.50	4	125	3	95	2	65
M12	12.0	1.75	4	105	3	80	2	55
M16	16.0	2.00	4	80	3	60	2	40
M20	20.0	2.50	4	65	3	50	2	30

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M 3	3.0	0.50	25	2655	22	2335	15	1590
M 4	4.0	0.70	25	1990	22	1750	15	1195
M 5	5.0	0.80	25	1590	22	1400	15	955
M 6	6.0	1.00	25	1325	22	1165	15	795
M 8	8.0	1.25	25	995	22	875	15	595
M10	10.0	1.50	25	795	22	700	15	475
M12	12.0	1.75	25	665	22	585	15	400
M16	16.0	2.00	25	495	22	440	15	300
M20	20.0	2.50	25	400	22	350	15	240



## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	$v_c$ 1.0 x d	n [min <sup>-1</sup> ]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]
M 4	4.0	0.70	25	1990	22	1750	15	1195
M 5	5.0	0.80	25	1590	22	1400	15	955
M 6	6.0	1.00	25	1325	22	1165	15	795
M 8	8.0	1.25	25	995	22	875	15	595
M10	10.0	1.50	25	795	22	700	15	475
M12	12.0	1.75	25	665	22	585	15	400
M14	14.0	2.00	25	570	22	500	15	340
M16	16.0	2.00	25	495	22	440	15	300
M20	20.0	2.50	25	400	22	350	15	240

Stahl  
500 - 850 N/mm<sup>2</sup>

M 4	4.0	0.70	22	1750	20	1590	12	955
M 5	5.0	0.80	22	1400	20	1275	12	765
M 6	6.0	1.00	22	1165	20	1060	12	635
M 8	8.0	1.25	22	875	20	795	12	475
M10	10.0	1.50	22	700	20	635	12	380
M12	12.0	1.75	22	585	20	530	12	320
M14	14.0	2.00	22	500	20	455	12	275
M16	16.0	2.00	22	440	20	400	12	240
M20	20.0	2.50	22	350	20	320	12	190

Stahl  
850 - 1100 N/mm<sup>2</sup>

M 4	4.0	0.70	18	1430	12	955	8	635
M 5	5.0	0.80	18	1145	12	765	8	510
M 6	6.0	1.00	18	955	12	635	8	425
M 8	8.0	1.25	18	715	12	475	8	320
M10	10.0	1.50	18	575	12	380	8	255
M12	12.0	1.75	18	475	12	320	8	210
M14	14.0	2.00	18	410	12	275	8	180
M16	16.0	2.00	18	360	12	240	8	160
M20	20.0	2.50	18	285	12	190	8	125

Gusseisen  
GG(G)

M 4	4.0	0.70	18	1430	15	1195	12	955
M 5	5.0	0.80	18	1145	15	955	12	765
M 6	6.0	1.00	18	955	15	795	12	635
M 8	8.0	1.25	18	715	15	595	12	475
M10	10.0	1.50	18	575	15	475	12	380
M12	12.0	1.75	18	475	15	400	12	320
M14	14.0	2.00	18	410	15	340	12	275
M16	16.0	2.00	18	360	15	300	12	240
M20	20.0	2.50	18	285	15	240	12	190

## Werkstoff

Nichtrostender Stahl  
[Cr-Ni/1.4301]



M	ø [mm]	P [mm]	$v_c$ 1.0 x d	n [min <sup>-1</sup> ]	$v_c$ 1.5 x d	n [min <sup>-1</sup> ]	$v_c$ 2.0 x d	n [min <sup>-1</sup> ]
M 4	4.0	0.70	4	320	3	240	2	160
M 5	5.0	0.80	4	255	3	190	2	125
M 6	6.0	1.00	4	210	3	160	2	105
M 8	8.0	1.25	4	160	3	120	2	80
M10	10.0	1.50	4	125	3	95	2	65
M12	12.0	1.75	4	105	3	80	2	55
M14	14.0	2.00	4	90	3	70	2	45
M16	16.0	2.00	4	80	3	60	2	40
M20	20.0	2.50	4	65	3	50	2	30

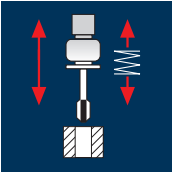
Al-Knetlegierung  
Si < 6%  
ausgehärtet

M 4	4.0	0.70	25	1990	22	1750	15	1195
M 5	5.0	0.80	25	1590	22	1400	15	955
M 6	6.0	1.00	25	1325	22	1165	15	795
M 8	8.0	1.25	25	995	22	875	15	595
M10	10.0	1.50	25	795	22	700	15	475
M12	12.0	1.75	25	665	22	585	15	400
M14	14.0	2.00	25	570	22	500	15	340
M16	16.0	2.00	25	495	22	440	15	300
M20	20.0	2.50	25	400	22	350	15	240





## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	V <sub>c</sub> 1.5 x d			V <sub>c</sub> 2.0 x d			V <sub>c</sub> 3.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	V <sub>c</sub>	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	V <sub>c</sub>	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	
M 1	1.0	0.25	14	4455	1114	12	3820	955	10	3185	796
M 1.2	1.2	0.25	14	3715	929	12	3185	796	10	2655	664
M 1.4	1.4	0.30	14	3185	956	12	2730	819	10	2275	683
M 1.6	1.6	0.35	14	2785	975	12	2385	835	10	1990	697
M 1.8	1.8	0.35	14	2475	866	12	2120	742	10	1770	620
M 2	2.0	0.40	14	2230	892	12	1910	764	10	1590	636
M 2.2	2.2	0.45	14	2025	911	12	1735	781	10	1445	650
M 2.3	2.3	0.40	14	1940	776	12	1660	664	10	1385	554
M 2.5	2.5	0.45	14	1785	803	12	1530	689	10	1275	574

Stahl  
< 500 N/mm<sup>2</sup>

M 2.6	2.6	0.45	18	2205	992	15	1835	826	12	1470	662
M 3	3.0	0.50	18	1910	955	15	1590	795	12	1275	638
M 3.5	3.5	0.60	18	1635	981	15	1365	819	12	1090	654
M 4	4.0	0.70	18	1430	1001	15	1195	837	12	955	669
M 4.5	4.5	0.75	18	1275	956	15	1060	795	12	850	638
M 5	5.0	0.80	18	1145	916	15	955	764	12	765	612
M 6	6.0	1.00	18	955	955	15	795	795	12	635	635
M 8	8.0	1.25	18	715	894	15	595	744	12	475	594
M10	10.0	1.50	18	575	863	15	475	713	12	380	570

Stahl  
500 - 850 N/mm<sup>2</sup>

M 1	1.0	0.25	12	3820	955	8	2545	636	6	1910	478
M 1.2	1.2	0.25	12	3185	796	8	2120	530	6	1590	398
M 1.4	1.4	0.30	12	2730	819	8	1820	546	6	1365	410
M 1.6	1.6	0.35	12	2385	835	8	1590	557	6	1195	418
M 1.8	1.8	0.35	12	2120	742	8	1415	495	6	1060	371
M 2	2.0	0.40	12	1910	764	8	1275	510	6	955	382
M 2.2	2.2	0.45	12	1735	781	8	1155	520	6	870	392
M 2.3	2.3	0.40	12	1660	664	8	1105	442	6	830	332
M 2.5	2.5	0.45	12	1530	689	8	1020	459	6	765	344

Stahl  
500 - 850 N/mm<sup>2</sup>

M 2.6	2.6	0.45	15	1835	826	10	1225	551	8	980	441
M 3	3.0	0.50	15	1590	795	10	1060	530	8	850	425
M 3.5	3.5	0.60	15	1365	819	10	910	546	8	730	438
M 4	4.0	0.70	15	1195	837	10	795	557	8	635	445
M 4.5	4.5	0.75	15	1060	795	10	705	529	8	565	424
M 5	5.0	0.80	15	955	764	10	635	508	8	510	408
M 6	6.0	1.00	15	795	795	10	530	530	8	425	425
M 8	8.0	1.25	15	595	744	10	400	500	8	320	400
M10	10.0	1.50	15	475	713	10	320	480	8	255	383

## Werkstoff

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M	ø [mm]	P [mm]	V <sub>c</sub> 1.5 x d			V <sub>c</sub> 2.0 x d			V <sub>c</sub> 3.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	V <sub>c</sub>	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	V <sub>c</sub>	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	
M 1	1.0	0.25	12	3820	955	10	3185	796	8	2545	636
M 1.2	1.2	0.25	12	3185	796	10	2655	664	8	2120	530
M 1.4	1.4	0.30	12	2730	819	10	2275	683	8	1820	546
M 1.6	1.6	0.35	12	2385	835	10	1990	697	8	1590	557
M 1.8	1.8	0.35	12	2120	742	10	1770	620	8	1415	495
M 2	2.0	0.40	12	1910	764	10	1590	636	8	1275	510
M 2.2	2.2	0.45	12	1735	781	10	1445	650	8	1155	520
M 2.3	2.3	0.40	12	1660	664	10	1385	554	8	1105	442
M 2.5	2.5	0.45	12	1530	689	10	1275	574	8	1020	459

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M 2.6	2.6	0.45	15	1835	826	12	1470	662	10	1225	551
M 3	3.0	0.50	15	1590	795	12	1275	638	10	1060	530
M 3.5	3.5	0.60	15	1365	819	12	1090	654	10	910	546
M 4	4.0	0.70	15	1195	837	12	955	669	10	795	557
M 4.5	4.5	0.75	15	1060	795	12	850	638	10	705	529
M 5	5.0	0.80	15	955	764	12	765	612	10	635	508
M 6	6.0	1.00	15	795	795	12	635	635	10	530	530
M 8	8.0	1.25	15	595	744	12	475	594	10	400	500
M10	10.0	1.50	15	475	713	12	380	570	10	320	480

Nichtrostender Stahl  
[Cr-Ni/1.4301]



M 1	1.0	0.25	4	1275	319	3	955	239	2	635	159
M 1.2	1.2	0.25	4	1060	265	3	795	199	2	530	133
M 1.4	1.4	0.30	4	910	273	3	680	204	2	455	137
M 1.6	1.6	0.35	4	795	278	3	595	208	2	400	140
M 1.8	1.8	0.35	4	705	247	3	530	186	2	355	124
M 2	2.0	0.40	4	635	254	3	475	190	2	320	128
M 2.2	2.2	0.45	4	580	261	3	435	196	2	290	131
M 2.3	2.3	0.40	4	555	222	3	415	166	2	275	110
M 2.5	2.5	0.45	4	510	230	3	380	171	2	255	115

Nichtrostender Stahl  
[Cr-Ni/1.4301]



M 2.6	2.6	0.45	5	610	275	4	490	221	3	365	164
M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
M 3.5	3.5	0.60	5	455	273	4	365	219	3	275	165
M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
M 4.5	4.5	0.75	5	355	266	4	285	214	3	210	158
M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
M10	10.0	1.50	5	160	240	4	125	188	3	95	143

# Gewindebohrer u-tap

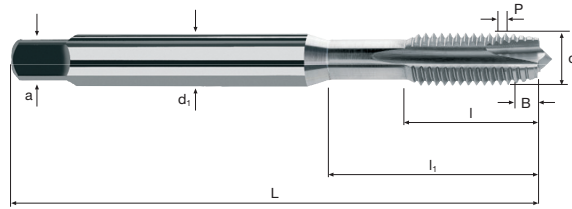


**M** ISO 2 (6H)

60° **HSS-E Co5**

DIN 371

X-P Form B

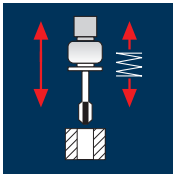


M

Rm < 850      Inox Stainless      GG(G) Aluminium Copper

										VAP	
										E10800	EV10800
Beispiel: Artikel-Nr. <b>E10800</b> ø-Code <b>.010</b> Bestell-Nr.											
Ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a				
.010	M 1	0.25	40	5.5	–	2.5	2.1	2	0.80*	●	●
.012	M 1.2	0.25	40	5.5	–	2.5	2.1	2	1.00	●	●
.020	M 1.4	0.30	40	7.0	–	2.5	2.1	2	1.15*	●	●
.022	M 1.6	0.35	40	8.0	–	2.5	2.1	2	1.30	●	●
.024	M 1.7	0.35	40	8.0	–	2.5	2.1	2	1.40	●	●
.026	M 1.8	0.35	40	8.0	–	2.5	2.1	2	1.50	●	●
.034	M 2	0.40	45	8.0	–	2.8	2.1	2	1.60	●	●
.036	M 2.2	0.45	45	9.0	–	2.8	2.1	2	1.75	●	●
.038	M 2.3	0.40	45	9.0	–	2.8	2.1	2	1.90	●	●
.040	M 2.5	0.45	50	9.0	–	2.8	2.1	2	2.05	●	●
.042	M 2.6	0.45	50	9.0	–	2.8	2.1	2	2.15	●	●
.044	M 3	0.50	56	12.0	18.0	3.5	2.7	3	2.50	●	●
.056	M 3.5	0.60	56	12.0	20.0	4.0	3.0	3	2.90	●	●
.058	M 4	0.70	63	13.0	21.0	4.5	3.4	3	3.30	●	●
.061	M 4.5	0.75	70	14.0	25.0	6.0	4.9	3	3.75	●	●
.084	M 5	0.80	70	15.0	25.0	6.0	4.9	3	4.20	●	●
.088	M 6	1.00	80	17.0	30.0	6.0	4.9	3	5.00	●	●
.089	M 7	1.00	80	17.0	30.0	7.0	6.2	3	6.00	●	●
.160	M 8	1.25	90	20.0	35.0	8.0	6.2	3	6.80	●	●
.174	M10	1.50	100	22.0	39.0	10.0	8.0	3	8.50	●	●
≤ M1.4 Toleranz ISO 1 (4H)											
* angegebenes Mass liegt ausserhalb der Norm											
Grössere Abmessungen siehe Artikel-Nr. E10801, Seite 213											

## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	v <sub>c</sub> 1.5 x d			v <sub>c</sub> 2.0 x d			v <sub>c</sub> 3.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]		n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]		n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	
M12	12.0	1.75	18	475	831	15	400	700	12	320	560
M14	14.0	2.00	18	410	820	15	340	680	12	275	550
M16	16.0	2.00	18	360	720	15	300	600	12	240	480
M18	18.0	2.50	18	320	800	15	265	663	12	210	525
M20	20.0	2.50	18	285	713	15	240	600	12	190	475
M22	22.0	2.50	18	260	650	15	215	538	12	175	438
M24	24.0	3.00	18	240	720	15	200	600	12	160	480

Stahl  
500 - 850 N/mm<sup>2</sup>

M12	12.0	1.75	15	400	700	10	265	464	8	210	368
M14	14.0	2.00	15	340	680	10	225	450	8	180	360
M16	16.0	2.00	15	300	600	10	200	400	8	160	320
M18	18.0	2.50	15	265	663	10	175	438	8	140	350
M20	20.0	2.50	15	240	600	10	160	400	8	125	313
M22	22.0	2.50	15	215	538	10	145	363	8	115	288
M24	24.0	3.00	15	200	600	10	135	405	8	105	315

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M12	12.0	1.75	15	400	700	12	320	560	10	265	464
M14	14.0	2.00	15	340	680	12	275	550	10	225	450
M16	16.0	2.00	15	300	600	12	240	480	10	200	400
M18	18.0	2.50	15	265	663	12	210	525	10	175	438
M20	20.0	2.50	15	240	600	12	190	475	10	160	400
M22	22.0	2.50	15	215	538	12	175	438	10	145	363
M24	24.0	3.00	15	200	600	12	160	480	10	135	405

Empfehlung:  
unbeschichtet

Nichtrostender Stahl  
[Cr-Ni/1.4301]

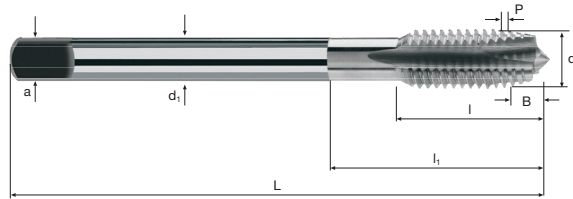


M12	2.6	0.45	5	610	275	4	490	221	3	365	164
M14	3.0	0.50	5	530	265	4	425	213	3	320	160
M16	3.5	0.60	5	455	273	4	365	219	3	275	165
M18	4.0	0.70	5	400	280	4	320	224	3	240	168
M20	4.5	0.75	5	355	266	4	285	214	3	210	158
M22	5.0	0.80	5	320	256	4	255	204	3	190	152
M24	6.0	1.00	5	265	265	4	210	210	3	160	160

# Gewindebohrer u-tap



<b>M</b>	<b>ISO 2 (6H)</b>
	<b>HSS-E Co5</b>
	<b>Form B</b>

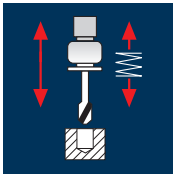


M

<b>Rm</b> < 850							<b>Inox</b> Stainless		<b>GG(G)</b> Aluminium Copper
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										VAP	
										E10801	EV10801
Beispiel: Bestell-Nr. <span style="margin-left: 100px;">Artikel-Nr. <b>E10801</b></span> <span style="margin-left: 20px;">Ø-Code <b>.240</b></span>											
Ø Code	d	P	L	l	li	d1	a				
.240	M12	1.75	110	24	40	9.0	7.0	3	10.20	●	●
.244	M14	2.00	110	26	40	11.0	9.0	3	12.00	●	●
.246	M16	2.00	110	27	40	12.0	9.0	3	14.00	●	●
.312	M18	2.50	125	30	45	14.0	11.0	4	15.50	●	●
.314	M20	2.50	140	32	50	16.0	12.0	4	17.50	●	●
.316	M22	2.50	140	32	50	18.0	14.5	4	19.50	●	●
.320	M24	3.00	160	34	60	18.0	14.5	4	21.00	●	●

## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	V <sub>c</sub> 1.0 x d	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	V <sub>c</sub> 1.5 x d	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	V <sub>c</sub> 2.0 x d	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]
M 1.6	1.6	0.35	11	2190	767	10	1990	697	8	1590	557
M 1.7	1.7	0.35	11	2060	721	10	1870	655	8	1500	525
M 1.8	1.8	0.35	11	1945	681	10	1770	620	8	1415	495
M 2	2.0	0.40	11	1750	700	10	1590	636	8	1275	510
M 2.2	2.2	0.45	11	1590	716	10	1445	650	8	1155	520
M 2.3	2.3	0.40	11	1520	608	10	1385	554	8	1105	442
M 2.5	2.5	0.45	11	1400	630	10	1275	574	8	1020	459
M 2.6	2.6	0.45	14	1715	772	12	1470	662	10	1225	551
M 3	3.0	0.50	14	1485	743	12	1275	638	10	1060	530

Stahl  
< 500 N/mm<sup>2</sup>

M 3.5	3.5	0.60	14	1275	765	12	1090	654	10	910	546
M 4	4.0	0.70	14	1115	781	12	955	669	10	795	557
M 4.5	4.5	0.75	14	990	743	12	850	638	10	705	529
M 5	5.0	0.80	14	890	712	12	765	612	10	635	508
M 6	6.0	1.00	14	745	745	12	635	635	10	530	530
M 7	7.0	1.00	14	635	635	12	545	545	10	455	455
M 8	8.0	1.25	14	555	694	12	475	594	10	400	500
M10	10.0	1.50	14	445	668	12	380	570	10	320	480

Stahl  
500 - 850 N/mm<sup>2</sup>

M 1.6	1.6	0.35	8	1590	557	7	1395	488	6	1195	418
M 1.7	1.7	0.35	8	1500	525	7	1310	458	6	1125	394
M 1.8	1.8	0.35	8	1415	495	7	1240	434	6	1060	371
M 2	2.0	0.40	8	1275	510	7	1115	446	6	955	382
M 2.2	2.2	0.45	8	1155	520	7	1015	457	6	870	392
M 2.3	2.3	0.40	8	1105	442	7	970	388	6	830	332
M 2.5	2.5	0.45	8	1020	459	7	890	401	6	765	344
M 2.6	2.6	0.45	9	1100	495	8	980	441	7	855	385
M 3	3.0	0.50	9	955	478	8	850	425	7	745	373

Stahl  
500 - 850 N/mm<sup>2</sup>

M 3.5	3.5	0.60	9	820	492	8	730	438	7	635	381
M 4	4.0	0.70	9	715	500	8	635	445	7	555	389
M 4.5	4.5	0.75	9	635	476	8	565	424	7	495	371
M 5	5.0	0.80	9	575	460	8	510	408	7	445	356
M 6	6.0	1.00	9	475	475	8	425	425	7	370	370
M 7	7.0	1.00	9	410	410	8	365	365	7	320	320
M 8	8.0	1.25	9	360	450	8	320	400	7	280	350
M10	10.0	1.50	9	285	428	8	255	383	7	225	338

## Werkstoff

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M	ø [mm]	P [mm]	V <sub>c</sub> 1.0 x d	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	V <sub>c</sub> 1.5 x d	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	V <sub>c</sub> 2.0 x d	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]
M 1.6	1.6	0.35	8	1590	557	6	1195	418	5	995	348
M 1.7	1.7	0.35	8	1500	525	6	1125	394	5	935	327
M 1.8	1.8	0.35	8	1415	495	6	1060	371	5	885	310
M 2	2.0	0.40	8	1275	510	6	955	382	5	795	318
M 2.2	2.2	0.45	8	1155	520	6	870	392	5	725	326
M 2.3	2.3	0.40	8	1105	442	6	830	332	5	690	276
M 2.5	2.5	0.45	8	1020	459	6	765	344	5	635	286
M 2.6	2.6	0.45	10	1225	551	8	980	441	6	735	331
M 3	3.0	0.50	10	1060	530	8	850	425	6	635	318

Empfehlung:  
unbeschichtet

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M 3.5	3.5	0.60	10	910	546	8	730	438	6	545	327
M 4	4.0	0.70	10	795	557	8	635	445	6	475	333
M 4.5	4.5	0.75	10	705	529	8	565	424	6	425	319
M 5	5.0	0.80	10	635	508	8	510	408	6	380	304
M 6	6.0	1.00	10	530	530	8	425	425	6	320	320
M 7	7.0	1.00	10	455	455	8	365	365	6	275	275
M 8	8.0	1.25	10	400	500	8	320	400	6	240	300
M10	10.0	1.50	10	320	480	8	255	383	6	190	285

Empfehlung:  
unbeschichtet

Nichtrostender Stahl  
[Cr-Ni/1.4301]



M 1.6	1.6	0.35	3	595	208	2	400	140	2	400	140
M 1.7	1.7	0.35	3	560	196	2	375	131	2	375	131
M 1.8	1.8	0.35	3	530	186	2	355	124	2	355	124
M 2	2.0	0.40	3	475	190	2	320	128	2	320	128
M 2.2	2.2	0.45	3	435	196	2	290	131	2	290	131
M 2.3	2.3	0.40	3	415	166	2	275	110	2	275	110
M 2.5	2.5	0.45	3	380	171	2	255	115	2	255	115
M 2.6	2.6	0.45	4	490	221	3	365	164	3	365	164
M 3	3.0	0.50	4	425	213	3	320	160	3	320	160

Nichtrostender Stahl  
[Cr-Ni/1.4301]



M 3.5	3.5	0.60	4	365	219	3	275	165	3	275	165
M 4	4.0	0.70	4	320	224	3	240	168	3	240	168
M 4.5	4.5	0.75	4	285	214	3	210	158	3	210	158
M 5	5.0	0.80	4	255	204	3	190	152	3	190	152
M 6	6.0	1.00	4	210	210	3	160	160	3	160	160
M 7	7.0	1.00	4	180	180	3	135	135	3	135	135
M 8	8.0	1.25	4	160	200	3	120	150	3	120	150
M10	10.0	1.50	4	125	188	3	95	143	3	95	143

# Gewindebohrer u-tap

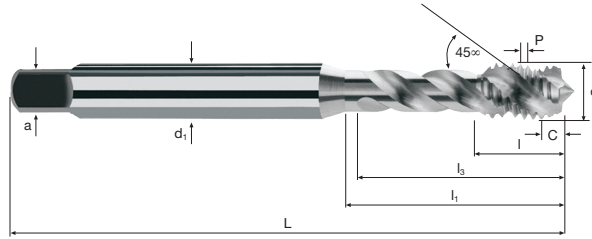


**M** **ISO 2 (6H)**

**60°** **HSS-E Co5**

**DIN 371**

**X-P**  
**Form C**



**M**

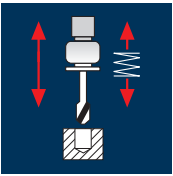
**Rm** < 850

**Inox** Stainless

**GG(G)** Aluminium Copper

											VAP	
											E10820	EV10820
Beispiel: <b>Bestell-Nr.</b> <b>E10820 .022</b> <small>Artikel-Nr.      ø-Code</small>												
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a				
.022	M 1.6	0.35	40	8.0	–	9.0	2.5	2.1	3	1.30	●	●
.024	M 1.7	0.35	40	8.0	–	9.0	2.5	2.1	3	1.40	●	●
.026	M 1.8	0.35	40	8.0	–	9.0	2.5	2.1	3	1.50	●	●
.034	M 2	0.40	45	8.0	–	10.5	2.8	2.1	3	1.60	●	●
.036	M 2.2	0.45	45	9.0	–	12.5	2.8	2.1	3	1.75	●	●
.038	M 2.3	0.40	45	9.0	–	12.5	2.8	2.1	3	1.90	●	●
.040	M 2.5	0.45	50	9.0	–	13.0	2.8	2.1	3	2.05	●	●
.042	M 2.6	0.45	50	9.0	–	13.0	2.8	2.1	3	2.15	●	●
.044	M 3	0.50	56	4.0	18.0	16.0	3.5	2.7	3	2.50	●	●
.056	M 3.5	0.60	56	4.8	20.0	18.0	4.0	3.0	3	2.90	●	●
.058	M 4	0.70	63	5.6	21.0	19.0	4.5	3.4	3	3.30	●	●
.061	M 4.5	0.75	70	6.0	25.0	23.0	6.0	4.9	3	3.75	●	●
.084	M 5	0.80	70	6.4	25.0	23.0	6.0	4.9	3	4.20	●	●
.088	M 6	1.00	80	8.0	30.0	28.0	6.0	4.9	3	5.00	●	●
.089	M 7	1.00	80	8.0	30.0	28.0	7.0	6.2	3	6.00	●	●
.160	M 8	1.25	90	10.0	35.0	33.0	8.0	6.2	3	6.80	●	●
.174	M10	1.50	100	12.0	39.0	37.0	10.0	8.0	3	8.50	●	●
Grössere Abmessungen siehe Artikel-Nr. E10821, Seite 217												

## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	V <sub>c</sub> 1.0 x d			V <sub>c</sub> 1.5 x d			V <sub>c</sub> 2.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]			
M12	12.0	1.75	14	370	648	12	320	560	10	265	464
M14	14.0	2.00	14	320	640	12	275	550	10	225	450
M16	16.0	2.00	14	280	560	12	240	480	10	200	400
M18	18.0	2.50	14	250	625	12	210	525	10	175	438
M20	20.0	2.50	14	225	563	12	190	475	10	160	400
M22	22.0	2.50	14	205	513	12	175	438	10	145	363
M24	24.0	3.00	14	185	555	12	160	480	10	135	405
M27	27.0	3.00	14	165	495	12	140	420	10	120	360
M30	30.0	3.50	14	150	525	12	125	438	10	105	368

Stahl  
< 500 N/mm<sup>2</sup>

M33	33.0	3.50	14	135	473	12	115	403	10	95	333
M36	36.0	4.00	14	125	500	12	105	420	10	90	360
M39	39.0	4.00	14	115	460	12	100	400	10	80	320
M42	42.0	4.50	14	105	473	12	90	405	10	75	338

Stahl  
500 - 850 N/mm<sup>2</sup>

M12	12.0	1.75	9	240	420	8	210	368	7	185	324
M14	14.0	2.00	9	205	410	8	180	360	7	160	320
M16	16.0	2.00	9	180	360	8	160	320	7	140	280
M18	18.0	2.50	9	160	400	8	140	350	7	125	313
M20	20.0	2.50	9	145	363	8	125	313	7	110	275
M22	22.0	2.50	9	130	325	8	115	288	7	100	250
M24	24.0	3.00	9	120	360	8	105	315	7	95	285
M27	27.0	3.00	9	105	315	8	95	285	7	85	255
M30	30.0	3.50	9	95	333	8	85	298	7	75	263

Stahl  
500 - 850 N/mm<sup>2</sup>

M33	33.0	3.50	9	85	298	8	75	263	7	70	245
M36	36.0	4.00	9	80	320	8	70	280	7	60	240
M39	39.0	4.00	9	75	300	8	65	260	7	55	220
M42	42.0	4.50	9	70	315	8	60	270	7	55	248

## Werkstoff

Al-Knetlegierung  
Si < 6%  
ausgehärtet

Empfehlung:  
unbeschichtet

M	ø [mm]	P [mm]	V <sub>c</sub> 1.0 x d			V <sub>c</sub> 1.5 x d			V <sub>c</sub> 2.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]			
M12	12.0	1.75	10	265	464	8	210	368	6	160	280
M14	14.0	2.00	10	225	450	8	180	360	6	135	270
M16	16.0	2.00	10	200	400	8	160	320	6	120	240
M18	18.0	2.50	10	175	438	8	140	350	6	105	263
M20	20.0	2.50	10	160	400	8	125	313	6	95	238
M22	22.0	2.50	10	145	363	8	115	288	6	85	213
M24	24.0	3.00	10	135	405	8	105	315	6	80	240
M27	27.0	3.00	10	120	360	8	95	285	6	70	210
M30	30.0	3.50	10	105	368	8	85	298	6	65	228

Al-Knetlegierung  
Si < 6%  
ausgehärtet

Empfehlung:  
unbeschichtet

M33	33.0	3.50	10	95	333	8	75	263	6	60	210
M36	36.0	4.00	10	90	360	8	70	280	6	55	220
M39	39.0	4.00	10	80	320	8	65	260	6	50	200
M42	42.0	4.50	10	75	338	8	60	270	6	45	203

Nichtrostender Stahl  
[Cr-Ni/1.4301]



M12	12.0	1.75	4	105	184	3	80	140	3	80	140
M14	14.0	2.00	4	90	180	3	70	140	3	70	140
M16	16.0	2.00	4	80	160	3	60	120	3	60	120
M18	18.0	2.50	4	70	175	3	55	138	3	55	138
M20	20.0	2.50	4	65	163	3	50	125	3	50	125
M22	22.0	2.50	4	60	150	3	45	113	3	45	113
M24	24.0	3.00	4	55	165	3	40	120	3	40	120
M27	27.0	3.00	4	45	135	3	35	105	3	35	105
M30	30.0	3.50	4	40	140	3	30	105	3	30	105

Nichtrostender Stahl  
[Cr-Ni/1.4301]



M33	33.0	3.50	4	40	140	3	30	105	3	30	105
M36	36.0	4.00	4	35	140	3	25	100	3	25	100
M39	39.0	4.00	4	35	140	3	25	100	3	25	100
M42	42.0	4.50	4	30	135	3	25	113	3	25	113



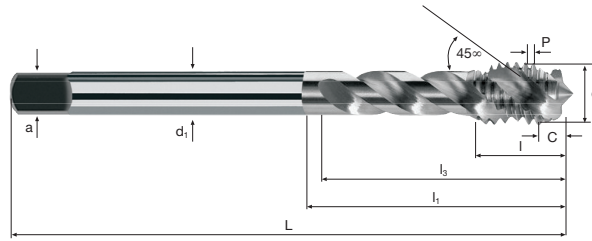
# Gewindebohrer u-tap



**M** **ISO 2 (6H)**

**HSS-E Co5**

**Form C**



M

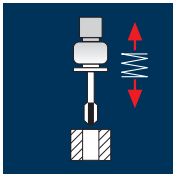
**Rm** < 850

**Inox** Stainless

**GG(G)** Aluminium Copper

											VAP	
											E10821	EV10821
Beispiel: Bestell-Nr. <b>E10821 .240</b> Artikel-Nr. <b>E10821</b> ø-Code <b>.240</b>												
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a				
.240	M12	1.75	110	14	50	48	9	7.0	3	10.20	●	●
.244	M14	2.00	110	16	58	56	11	9.0	4	12.00	●	●
.246	M16	2.00	110	16	58	56	12	9.0	4	14.00	●	●
.312	M18	2.50	125	20	65	63	14	11.0	4	15.50	●	●
.314	M20	2.50	140	20	72	70	16	12.0	4	17.50	●	●
.316	M22	2.50	140	20	72	70	18	14.5	4	19.50	●	●
.320	M24	3.00	160	24	74	72	18	14.5	4	21.00	●	●
.322	M27	3.00	160	30	84	82	20	16.0	4	24.00	●	●
.374	M30	3.50	180	35	92	90	22	18.0	4	26.50	●	●
.376	M33	3.50	180	35	100	98	25	20.0	4	29.50	●	●
.378	M36	4.00	200	40	101	99	28	22.0	4	32.00	●	●
.380	M39	4.00	200	40	101	99	32	24.0	4	35.00	●	●
.382	M42	4.50	200	45	106	104	32	24.0	4	37.50	●	●

## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	v <sub>c</sub> 1.5 x d			v <sub>c</sub> 2.0 x d			v <sub>c</sub> 3.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]			
M 3	3.0	0.50	8	850	425	6	635	318	4	425	213
M 4	4.0	0.70	8	635	445	6	475	333	4	320	224
M 5	5.0	0.80	8	510	408	6	380	304	4	255	204
M 6	6.0	1.00	8	425	425	6	320	320	4	210	210
M 8	8.0	1.25	8	320	400	6	240	300	4	160	200
M10	10.0	1.50	8	255	383	6	190	285	4	125	188

Stahl  
500 - 850 N/mm<sup>2</sup>

M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
M10	10.0	1.50	5	160	240	4	125	188	3	95	143

Al-Knetlegierung  
Si < 6%  
ausgehärtet

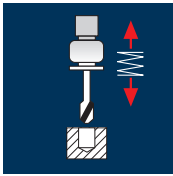
M 3	3.0	0.50	8	850	425	6	635	318	4	425	213
M 4	4.0	0.70	8	635	445	6	475	333	4	320	224
M 5	5.0	0.80	8	510	408	6	380	304	4	255	204
M 6	6.0	1.00	8	425	425	6	320	320	4	210	210
M 8	8.0	1.25	8	320	400	6	240	300	4	160	200
M10	10.0	1.50	8	255	383	6	190	285	4	125	188

Gusseisen  
GG(G)

M 3	3.0	0.50	12	1275	638	10	1060	530	8	850	425
M 4	4.0	0.70	12	955	669	10	795	557	8	635	445
M 5	5.0	0.80	12	765	612	10	635	508	8	510	408
M 6	6.0	1.00	12	635	635	10	530	530	8	425	425
M 8	8.0	1.25	12	475	594	10	400	500	8	320	400
M10	10.0	1.50	12	380	570	10	320	480	8	255	383



## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	v <sub>c</sub> 1.0 x d			v <sub>c</sub> 1.5 x d			v <sub>c</sub> 2.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]		n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]		n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	
M 3	3.0	0.50	8	850	425	6	635	318	4	425	213
M 4	4.0	0.70	8	635	445	6	475	333	4	320	224
M 5	5.0	0.80	8	510	408	6	380	304	4	255	204
M 6	6.0	1.00	8	425	425	6	320	320	4	210	210
M 8	8.0	1.25	8	320	400	6	240	300	4	160	200
M10	10.0	1.50	8	255	383	6	190	285	4	125	188

Stahl  
500 - 850 N/mm<sup>2</sup>

M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
M10	10.0	1.50	5	160	240	4	125	188	3	95	143

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M 3	3.0	0.50	8	850	425	6	635	318	4	425	213
M 4	4.0	0.70	8	635	445	6	475	333	4	320	224
M 5	5.0	0.80	8	510	408	6	380	304	4	255	204
M 6	6.0	1.00	8	425	425	6	320	320	4	210	210
M 8	8.0	1.25	8	320	400	6	240	300	4	160	200
M10	10.0	1.50	8	255	383	6	190	285	4	125	188

Gusseisen  
GG(G)

M 3	3.0	0.50	12	1275	638	10	1060	530	8	850	425
M 4	4.0	0.70	12	955	669	10	795	557	8	635	445
M 5	5.0	0.80	12	765	612	10	635	508	8	510	408
M 6	6.0	1.00	12	635	635	10	530	530	8	425	425
M 8	8.0	1.25	12	475	594	10	400	500	8	320	400
M10	10.0	1.50	12	380	570	10	320	480	8	255	383





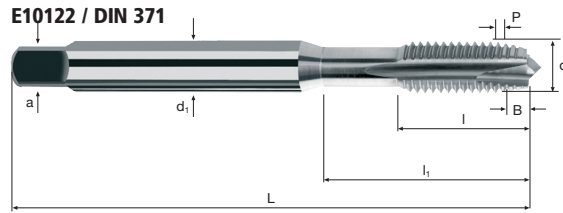


**M-LH** ISO 2 (6H)

60° **HSS-E Co5**

DIN 371/376

X-P Form B



**E10123 / DIN 376**



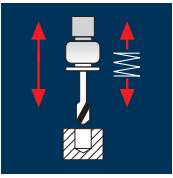
M

**Rm** < 850      **Inox** Stainless      **GG(G)** Aluminium Copper

Beispiel: Bestell-Nr. <b>E10122</b> Artikel-Nr. <b>.034</b> ø-Code											<b>E10122</b>	
Ø Code	d	P	LH	L	l	l <sub>1</sub>	d <sub>1</sub>	a				
.034	M 2	0.40	LH	45	8.0	—	2.8	2.1	2	1.60	●	
.040	M 2.5	0.45	LH	50	9.0	—	2.8	2.1	2	2.05	●	
.044	M 3	0.50	LH	56	12.0	18.0	3.5	2.7	3	2.50	●	
.058	M 4	0.70	LH	63	13.0	21.0	4.5	3.4	3	3.30	●	
.084	M 5	0.80	LH	70	15.0	25.0	6.0	4.9	3	4.20	●	
.088	M 6	1.00	LH	80	17.0	30.0	6.0	4.9	3	5.00	●	
.160	M 8	1.25	LH	90	20.0	35.0	8.0	6.2	3	6.80	●	
.174	M10	1.50	LH	100	22.0	39.0	10.0	8.0	3	8.50	●	

Beispiel: Bestell-Nr. <b>E10123</b> Artikel-Nr. <b>.240</b> ø-Code											<b>E10123</b>	
Ø Code	d	P	LH	L	l	l <sub>1</sub>	d <sub>1</sub>	a				
.240	M12	1.75	LH	110	24.0	40.0	9.0	7.0	3	10.20	●	
.246	M16	2.00	LH	110	27.0	40.0	12.0	9.0	3	14.00	●	
.314	M20	2.50	LH	140	32.0	50.0	16.0	12.0	4	17.50	●	
.320	M24	3.00	LH	160	34.0	60.0	18.0	14.5	4	21.00	●	

## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M-LH	ø [mm]	P [mm]	V <sub>c</sub> 1.0 x d [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	V <sub>c</sub> 1.5 x d [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	V <sub>c</sub> 2.0 x d [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]
M 2	2.0	0.40	11	1750	700	10	1590	636	8	1275	510
M 2.5	2.5	0.45	11	1400	630	10	1275	574	8	1020	459
M 3	3.0	0.50	14	1485	743	12	1275	638	10	1060	530
M 4	4.0	0.70	14	1115	781	12	955	669	10	795	557
M 5	5.0	0.80	14	890	712	12	765	612	10	635	508
M 6	6.0	1.00	14	745	745	12	635	635	10	530	530
M 8	8.0	1.25	14	555	694	12	475	594	10	400	500
M10	10.0	1.50	14	445	668	12	380	570	10	320	480
M12	12.0	1.75	14	370	648	12	320	560	10	265	464

Stahl  
< 500 N/mm<sup>2</sup>

M16	16.0	2.00	14	280	560	12	240	480	10	200	400
M20	20.0	2.50	14	225	563	12	190	475	10	160	400
M24	24.0	3.00	14	185	555	12	160	480	10	135	405

Stahl  
500 - 850 N/mm<sup>2</sup>

M 2	2.0	0.40	7	1115	446	6	955	382	5	795	318
M 2.5	2.5	0.45	7	890	401	6	765	344	5	635	286
M 3	3.0	0.50	9	955	478	8	850	425	7	745	373
M 4	4.0	0.70	9	715	500	8	635	445	7	555	389
M 5	5.0	0.80	9	575	460	8	510	408	7	445	356
M 6	6.0	1.00	9	475	475	8	425	425	7	370	370
M 8	8.0	1.25	9	360	450	8	320	400	7	280	350
M10	10.0	1.50	9	285	428	8	255	383	7	225	338
M12	12.0	1.75	9	240	420	8	210	368	7	185	324

Stahl  
500 - 850 N/mm<sup>2</sup>

M16	16.0	2.00	9	180	360	8	160	320	7	140	280
M20	20.0	2.50	9	145	363	8	125	313	7	110	275
M24	24.0	3.00	9	120	360	8	105	315	7	95	285

## Werkstoff

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M-LH	ø [mm]	P [mm]	V <sub>c</sub> 1.0 x d [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	V <sub>c</sub> 1.5 x d [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	V <sub>c</sub> 2.0 x d [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]
M 2	2.0	0.40	8	1275	510	6	955	382	5	795	318
M 2.5	2.5	0.45	8	1020	459	6	765	344	5	635	286
M 3	3.0	0.50	10	1060	530	8	850	425	6	635	318
M 4	4.0	0.70	10	795	557	8	635	445	6	475	333
M 5	5.0	0.80	10	635	508	8	510	408	6	380	304
M 6	6.0	1.00	10	530	530	8	425	425	6	320	320
M 8	8.0	1.25	10	400	500	8	320	400	6	240	300
M10	10.0	1.50	10	320	480	8	255	383	6	190	285
M12	12.0	1.75	10	265	464	8	210	368	6	160	280

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M16	16.0	2.00	10	200	400	8	160	320	6	120	240
M20	20.0	2.50	10	160	400	8	125	313	6	95	238
M24	24.0	3.00	10	135	405	8	105	315	6	80	240

Nichtrostender Stahl  
[Cr-Ni/1.4301]



M 2	2.0	0.40	3	475	190	2	320	128	2	320	128
M 2.5	2.5	0.45	3	380	171	2	255	115	2	255	115
M 3	3.0	0.50	4	425	213	3	320	160	3	320	160
M 4	4.0	0.70	4	320	224	3	240	168	3	240	168
M 5	5.0	0.80	4	255	204	3	190	152	3	190	152
M 6	6.0	1.00	4	210	210	3	160	160	3	160	160
M 8	8.0	1.25	4	160	200	3	120	150	3	120	150
M10	10.0	1.50	4	125	188	3	95	143	3	95	143
M12	12.0	1.75	4	105	184	3	80	140	3	80	140

Nichtrostender Stahl  
[Cr-Ni/1.4301]



M16	16.0	2.00	4	80	160	3	60	120	3	60	120
M20	20.0	2.50	4	65	163	3	50	125	3	50	125
M24	24.0	3.00	4	55	165	3	40	120	3	40	120



# Gewindebohrer

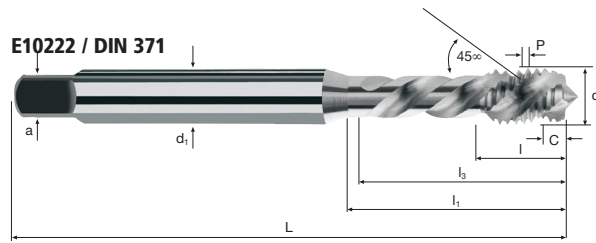


**M-LH** ISO 2 (6H)

60° **HSS-E Co5**

DIN 371/376

X-P Form C



**E10223 / DIN 376**



M

**Rm** < 850 **Inox** Stainless **GG(G)** Aluminium Copper

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code												E10222	
		<b>E10222</b>		<b>.034</b>													
ø Code	d	P	LH	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a								
.034	M 2	0.40	LH	45	8.0	—	10.5	2.8	2.1	3	1.60	●					
.040	M 2.5	0.45	LH	50	9.0	—	13.0	2.8	2.1	3	2.05	●					
.044	M 3	0.50	LH	56	4.0	18.0	16.0	3.5	2.7	3	2.50	●					
.058	M 4	0.70	LH	63	5.6	21.0	19.0	4.5	3.4	3	3.30	●					
.084	M 5	0.80	LH	70	6.4	25.0	23.0	6.0	4.9	3	4.20	●					
.088	M 6	1.00	LH	80	8.0	30.0	28.0	6.0	4.9	3	5.00	●					
.160	M 8	1.25	LH	90	10.0	35.0	33.0	8.0	6.2	3	6.80	●					
.174	M10	1.50	LH	100	12.0	39.0	37.0	10.0	8.0	3	8.50	●					

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code												E10223	
		<b>E10223</b>		<b>.240</b>													
ø Code	d	P	LH	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a								
.240	M12	1.75	LH	110	14.0	50.0	48.0	9.0	7.0	3	10.20	●					
.246	M16	2.00	LH	110	16.0	58.0	56.0	12.0	9.0	4	14.00	●					
.314	M20	2.50	LH	140	20.0	72.0	70.0	16.0	12.0	4	17.50	●					
.320	M24	3.00	LH	160	24.0	74.0	72.0	18.0	14.5	4	21.00	●					



# Gewindebohrer

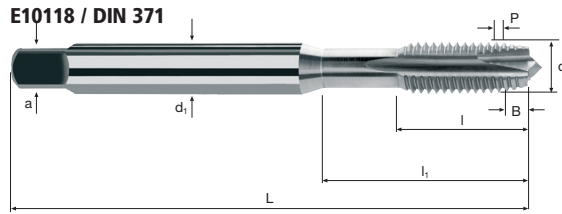


**M** ISO 2  
+0.1

60° **HSS-E**  
**Co5**

DIN 371/376

X-P  
Form B



**E10119 / DIN 376**



M

**Rm** < 850

**Inox** Stainless

**GG(G)** Aluminium  
Copper

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code						<b>E10118</b>			
		<b>E10118</b>	<b>.034</b>										
ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a		Δ				
.034	M 2	0.40	45	8	—	2.8	2.1	2	+0.100	●			
.040	M 2.5	0.45	50	9	—	2.8	2.1	2	+0.100	●			
.044	M 3	0.50	56	12	18.0	3.5	2.7	3	+0.100	●			
.058	M 4	0.70	63	13	21.0	4.5	3.4	3	+0.100	●			
.084	M 5	0.80	70	15	25.0	6.0	4.9	3	+0.100	●			
.088	M 6	1.00	80	17	30.0	6.0	4.9	3	+0.100	●			
.160	M 8	1.25	90	20	35.0	8.0	6.2	3	+0.100	●			
.174	M10	1.50	100	22	39.0	10.0	8.0	3	+0.100	●			

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code						<b>E10119</b>			
		<b>E10119</b>	<b>.240</b>										
ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a		Δ				
.240	M12	1.75	110	24	40.0	9.0	7.0	3	+0.100	●			
.246	M16	2.00	110	27	40.0	12.0	9.0	4	+0.100	●			
.314	M20	2.50	140	32	50.0	16.0	12.0	4	+0.100	●			
.320	M24	3.00	160	34	60.0	18.0	14.5	4	+0.100	●			




# Gewindebohrer

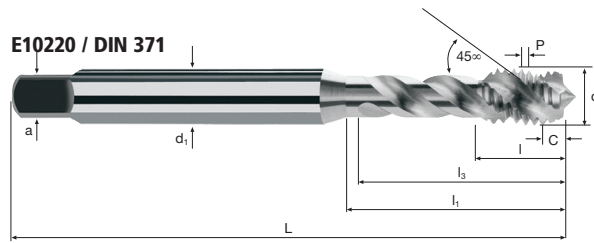


**M** ISO 2  
+0.1

 **HSS-E**  
**Co5**

 **DIN**  
371/376 

 **X-P**  
Form C





**E10221 / DIN 376**



**M**

**Rm** < 850 **Inox** Stainless **GG(G)** Aluminium Copper

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code								<b>E10220</b>	
		<b>E10220</b>		<b>.034</b>									
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a		Δ			
<b>.034</b>	<b>M 2</b>	<b>0.40</b>	45	8.0	–	10.5	2.8	2.1	3	<b>+0.100</b>	●		
<b>.040</b>	<b>M 2.5</b>	<b>0.45</b>	50	9.0	–	13.0	2.8	2.1	3	<b>+0.100</b>	●		
<b>.044</b>	<b>M 3</b>	<b>0.50</b>	56	4.0	18.0	16.0	3.5	2.7	3	<b>+0.100</b>	●		
<b>.058</b>	<b>M 4</b>	<b>0.70</b>	63	5.6	21.0	19.0	4.5	3.4	3	<b>+0.100</b>	●		
<b>.084</b>	<b>M 5</b>	<b>0.80</b>	70	6.4	25.0	23.0	6.0	4.9	3	<b>+0.100</b>	●		
<b>.088</b>	<b>M 6</b>	<b>1.00</b>	80	8.0	30.0	28.0	6.0	4.9	3	<b>+0.100</b>	●		
<b>.160</b>	<b>M 8</b>	<b>1.25</b>	90	10.0	35.0	33.0	8.0	6.2	3	<b>+0.100</b>	●		
<b>.174</b>	<b>M10</b>	<b>1.50</b>	100	12.0	39.0	37.0	10.0	8.0	3	<b>+0.100</b>	●		

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code								<b>E10221</b>	
		<b>E10221</b>		<b>.240</b>									
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a		Δ			
<b>.240</b>	<b>M12</b>	<b>1.75</b>	110	14.0	50.0	48.0	9.0	7.0	3	<b>+0.100</b>	●		
<b>.246</b>	<b>M16</b>	<b>2.00</b>	110	16.0	58.0	56.0	12.0	9.0	4	<b>+0.100</b>	●		
<b>.314</b>	<b>M20</b>	<b>2.50</b>	140	20.0	72.0	70.0	16.0	12.0	4	<b>+0.100</b>	●		
<b>.320</b>	<b>M24</b>	<b>3.00</b>	160	24.0	74.0	72.0	18.0	14.5	4	<b>+0.100</b>	●		



# Gewindebohrer x-tap

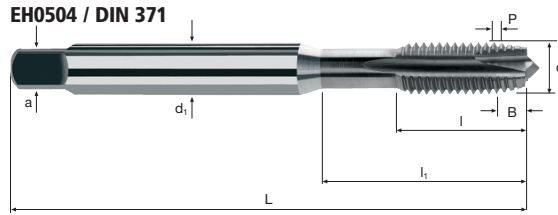


**M** **ISO 3 (6G)**

**HSS PM/F**

**DIN 371/376**

**Form B**

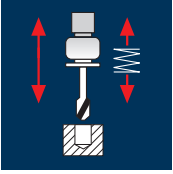


**Rm** < 850    **Rm** 850-1100    **Rm** 1100-1300

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code						TiCN
		<b>EH0504</b>		<b>.034</b>						<b>EH0504</b>
ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a		Δ	
.034	M 2	0.40	45	8	—	2.8	2.1	2	+0.015	●
.040	M 2.5	0.45	50	9	—	2.8	2.1	2	+0.015	●
.044	M 3	0.50	56	12	18.0	3.5	2.7	3	+0.016	●
.058	M 4	0.70	63	13	21.0	4.5	3.4	3	+0.019	●
.084	M 5	0.80	70	15	25.0	6.0	4.9	3	+0.020	●
.088	M 6	1.00	80	17	30.0	6.0	4.9	3	+0.024	●
.160	M 8	1.25	90	20	35.0	8.0	6.2	3	+0.025	●
.174	M10	1.50	100	22	39.0	10.0	8.0	3	+0.028	●

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code						TiCN
		<b>EH0505</b>		<b>.240</b>						<b>EH0505</b>
ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a		Δ	
.240	M 12	1.75	110	24	40.0	9.0	7.0	3	+0.032	●
.246	M 16	2.00	110	27	40.0	12.0	9.0	3	+0.034	●
.314	M 20	2.50	140	32	50.0	16.0	12.0	4	+0.036	●
.320	M 24	3.00	160	34	60.0	18.0	14.5	4	+0.042	●

## Anwendung



## Werkstoff

Stahl  
500 - 850 N/mm<sup>2</sup>

Stahl  
500 - 850 N/mm<sup>2</sup>

Stahl  
850 - 1100 N/mm<sup>2</sup>

Stahl  
850 - 1100 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	v <sub>c</sub> 1.0 x d			v <sub>c</sub> 1.5 x d			v <sub>c</sub> 2.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]			
M 2	2.0	0.40	32	5095	2038	28	4455	1782	22	3500	1400
M 2.5	2.5	0.45	32	4075	1834	28	3565	1604	22	2800	1260
M 3	3.0	0.50	32	3395	1698	28	2970	1485	22	2335	1168
M 4	4.0	0.70	32	2545	1782	28	2230	1561	22	1750	1225
M 5	5.0	0.80	32	2035	1628	28	1785	1428	22	1400	1120
M 6	6.0	1.00	32	1700	1700	28	1485	1485	22	1165	1165
M 8	8.0	1.25	32	1275	1594	28	1115	1394	22	875	1094
M10	10.0	1.50	32	1020	1530	28	890	1335	22	700	1050
M12	12.0	1.75	32	850	1488	28	745	1304	22	585	1024
M16	16.0	2.00	32	635	1270	28	555	1110	22	440	880
M20	20.0	2.50	32	510	1275	28	445	1113	22	350	875
M24	24.0	3.00	32	425	1275	28	370	1110	22	290	870
M 2	2.0	0.40	20	3185	1274	16	2545	1018	10	1590	636
M 2.5	2.5	0.45	20	2545	1145	16	2035	916	10	1275	574
M 3	3.0	0.50	20	2120	1060	16	1700	850	10	1060	530
M 4	4.0	0.70	20	1590	1113	16	1275	893	10	795	557
M 5	5.0	0.80	20	1275	1020	16	1020	816	10	635	508
M 6	6.0	1.00	20	1060	1060	16	850	850	10	530	530
M 8	8.0	1.25	20	795	994	16	635	794	10	400	500
M10	10.0	1.50	20	635	953	16	510	765	10	320	480
M12	12.0	1.75	20	530	928	16	425	744	10	265	464
M16	16.0	2.00	20	400	800	16	320	640	10	200	400
M20	20.0	2.50	20	320	800	16	255	638	10	160	400
M24	24.0	3.00	20	265	795	16	210	630	10	135	405



# Gewindebohrer x-tap

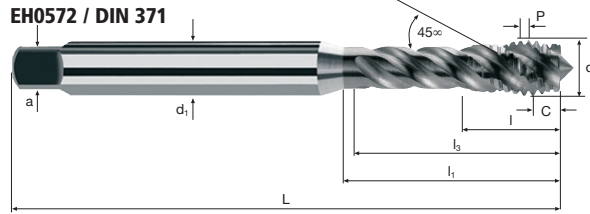


**M** ISO 3 (6G)

60° **HSS PM/F**

DIN 371/376

X-P Form C



**EH0573 / DIN 376**



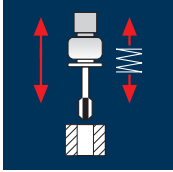
**M**

**Rm** < 850      **Rm** 850-1100

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code								TiCN
		<b>EH0572</b>		<b>.034</b>								<b>EH0572</b>
ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a		Δ		
<b>.034</b>	<b>M 2</b>	<b>0.40</b>	45	8	—	10.5	2.8	2.1	3	<b>+0.015</b>		●
<b>.040</b>	<b>M 2.5</b>	<b>0.45</b>	50	9	—	13.0	2.8	2.1	3	<b>+0.015</b>		●
<b>.044</b>	<b>M 3</b>	<b>0.50</b>	56	5	—	16.0	3.5	2.7	3	<b>+0.016</b>		●
<b>.058</b>	<b>M 4</b>	<b>0.70</b>	63	7	—	19.0	4.5	3.4	3	<b>+0.019</b>		●
<b>.084</b>	<b>M 5</b>	<b>0.80</b>	70	8	—	23.0	6.0	4.9	3	<b>+0.020</b>		●
<b>.088</b>	<b>M 6</b>	<b>1.00</b>	80	10	—	28.0	6.0	4.9	3	<b>+0.024</b>		●
<b>.160</b>	<b>M 8</b>	<b>1.25</b>	90	13	35.0	33.0	8.0	6.2	3	<b>+0.025</b>		●
<b>.174</b>	<b>M10</b>	<b>1.50</b>	100	15	39.0	37.0	10.0	8.0	4	<b>+0.028</b>		●

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code								TiCN
		<b>EH0573</b>		<b>.240</b>								<b>EH0573</b>
ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a		Δ		
<b>.240</b>	<b>M12</b>	<b>1.75</b>	110	18	50.0	48.0	9.0	7.0	4	<b>+0.032</b>		●
<b>.246</b>	<b>M16</b>	<b>2.00</b>	110	20	58.0	56.0	12.0	9.0	4	<b>+0.034</b>		●
<b>.314</b>	<b>M20</b>	<b>2.50</b>	140	25	72.0	70.0	16.0	12.0	4	<b>+0.036</b>		●
<b>.320</b>	<b>M24</b>	<b>3.00</b>	160	30	74.0	72.0	18.0	14.5	5	<b>+0.042</b>		●

## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	v <sub>c</sub> 1.5 x d			v <sub>c</sub> 2.0 x d			v <sub>c</sub> 3.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]			
M 2	2.0	0.40	14	2230	892	12	1910	764	10	1590	636
M 2.5	2.5	0.45	14	1785	803	12	1530	689	10	1275	574
M 3	3.0	0.50	18	1910	955	15	1590	795	12	1275	638
M 4	4.0	0.70	18	1430	1001	15	1195	837	12	955	669
M 5	5.0	0.80	18	1145	916	15	955	764	12	765	612
M 6	6.0	1.00	18	955	955	15	795	795	12	635	635
M 8	8.0	1.25	18	715	894	15	595	744	12	475	594
M10	10.0	1.50	18	575	863	15	475	713	12	380	570

Stahl  
500 - 850 N/mm<sup>2</sup>

M 2	2.0	0.40	12	1910	764	8	1275	510	6	955	382
M 2.5	2.5	0.45	12	1530	689	8	1020	459	6	765	344
M 3	3.0	0.50	15	1590	795	10	1060	530	8	850	425
M 4	4.0	0.70	15	1195	837	10	795	557	8	635	445
M 5	5.0	0.80	15	955	764	10	635	508	8	510	408
M 6	6.0	1.00	15	795	795	10	530	530	8	425	425
M 8	8.0	1.25	15	595	744	10	400	500	8	320	400
M10	10.0	1.50	15	475	713	10	320	480	8	255	383

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M 2	2.0	0.40	12	1910	764	10	1590	636	8	1275	510
M 2.5	2.5	0.45	12	1530	689	10	1275	574	8	1020	459
M 3	3.0	0.50	15	1590	795	12	1275	638	10	1060	530
M 4	4.0	0.70	15	1195	837	12	955	669	10	795	557
M 5	5.0	0.80	15	955	764	12	765	612	10	635	508
M 6	6.0	1.00	15	795	795	12	635	635	10	530	530
M 8	8.0	1.25	15	595	744	12	475	594	10	400	500
M10	10.0	1.50	15	475	713	12	380	570	10	320	480

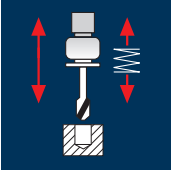
Nichtrostender Stahl  
[Cr-Ni/1.4301]



M 2	2.0	0.40	4	635	254	3	475	190	2	320	128
M 2.5	2.5	0.45	4	510	230	3	380	171	2	255	115
M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
M10	10.0	1.50	5	160	240	4	125	188	3	95	143



## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	v <sub>c</sub> 1.0 x d			v <sub>c</sub> 1.5 x d			v <sub>c</sub> 2.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]			
M 2	2.0	0.40	11	1750	700	10	1590	636	8	1275	510
M 2.5	2.5	0.45	11	1400	630	10	1275	574	8	1020	459
M 3	3.0	0.50	14	1485	743	12	1275	638	10	1060	530
M 4	4.0	0.70	14	1115	781	12	955	669	10	795	557
M 5	5.0	0.80	14	890	712	12	765	612	10	635	508
M 6	6.0	1.00	14	745	745	12	635	635	10	530	530
M 8	8.0	1.25	14	555	694	12	475	594	10	400	500
M10	10.0	1.50	14	445	668	12	380	570	10	320	480

Stahl  
500 - 850 N/mm<sup>2</sup>

M 2	2.0	0.40	7	1115	446	6	955	382	5	795	318
M 2.5	2.5	0.45	7	890	401	6	765	344	5	635	286
M 3	3.0	0.50	9	955	478	8	850	425	7	745	373
M 4	4.0	0.70	9	715	500	8	635	445	7	555	389
M 5	5.0	0.80	9	575	460	8	510	408	7	445	356
M 6	6.0	1.00	9	475	475	8	425	425	7	370	370
M 8	8.0	1.25	9	360	450	8	320	400	7	280	350
M10	10.0	1.50	9	285	428	8	255	383	7	225	338

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M 2	2.0	0.40	8	1275	510	6	955	382	5	795	318
M 2.5	2.5	0.45	8	1020	459	6	765	344	5	635	286
M 3	3.0	0.50	10	1060	530	8	850	425	6	635	318
M 4	4.0	0.70	10	795	557	8	635	445	6	475	333
M 5	5.0	0.80	10	635	508	8	510	408	6	380	304
M 6	6.0	1.00	10	530	530	8	425	425	6	320	320
M 8	8.0	1.25	10	400	500	8	320	400	6	240	300
M10	10.0	1.50	10	320	480	8	255	383	6	190	285

Nichtrostender Stahl  
[Cr-Ni/1.4301]

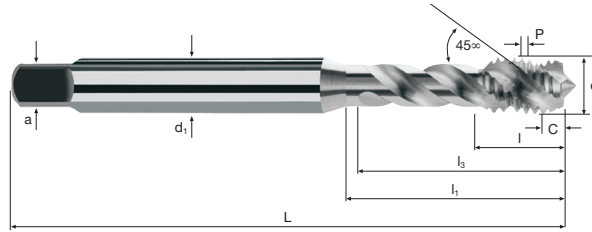


M 2	2.0	0.40	3	475	190	2	320	128	2	320	128
M 2.5	2.5	0.45	3	380	171	2	255	115	2	255	115
M 3	3.0	0.50	4	425	213	3	320	160	3	320	160
M 4	4.0	0.70	4	320	224	3	240	168	3	240	168
M 5	5.0	0.80	4	255	204	3	190	152	3	190	152
M 6	6.0	1.00	4	210	210	3	160	160	3	160	160
M 8	8.0	1.25	4	160	200	3	120	150	3	120	150
M10	10.0	1.50	4	125	188	3	95	143	3	95	143

# Gewindebohrer



<b>M</b>	<b>ISO 1 (4H)</b>
	<b>HSS-E Co5</b>
	<b>Form C</b>

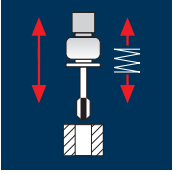


**M**

<b>Rm</b> < 850									<b>Inox</b> Stainless		<b>GG(G)</b> Aluminium Copper
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Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code								<b>E10214</b>	
		<b>E10214</b>		<b>.034</b>									
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a		Δ			
.034	M 2	0.40	45	8.0	–	10.5	2.8	2.1	3	-0.014	●		
.040	M 2.5	0.45	50	9.0	–	13.0	2.8	2.1	3	-0.015	●		
.044	M 3	0.50	56	4.0	18.0	16.0	3.5	2.7	3	-0.016	●		
.058	M 4	0.70	63	5.6	21.0	19.0	4.5	3.4	3	-0.019	●		
.084	M 5	0.80	70	6.4	25.0	23.0	6.0	4.9	3	-0.020	●		
.088	M 6	1.00	80	8.0	30.0	28.0	6.0	4.9	3	-0.024	●		
.160	M 8	1.25	90	10.0	35.0	33.0	8.0	6.2	3	-0.025	●		
.174	M10	1.50	100	12.0	39.0	37.0	10.0	8.0	3	-0.028	●		

## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	V <sub>c</sub> 1.5 x d			V <sub>c</sub> 2.0 x d			V <sub>c</sub> 3.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]		n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]		n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	
M 2	2.0	0.40	14	2230	892	12	1910	764	10	1590	636
M 2.5	2.5	0.45	14	1785	803	12	1530	689	10	1275	574
M 3	3.0	0.50	18	1910	955	15	1590	795	12	1275	638
M 4	4.0	0.70	18	1430	1001	15	1195	837	12	955	669
M 5	5.0	0.80	18	1145	916	15	955	764	12	765	612
M 6	6.0	1.00	18	955	955	15	795	795	12	635	635
M 8	8.0	1.25	18	715	894	15	595	744	12	475	594
M10	10.0	1.50	18	575	863	15	475	713	12	380	570
M12	12.0	1.75	18	475	831	15	400	700	12	320	560

Stahl  
< 500 N/mm<sup>2</sup>

M16	16.0	2.00	18	360	720	15	300	600	12	240	480
M20	20.0	2.50	18	285	713	15	240	600	12	190	475
M24	24.0	3.00	18	240	720	15	200	600	12	160	480

Stahl  
500 - 850 N/mm<sup>2</sup>

M 2	2.0	0.40	12	1910	764	8	1275	510	6	955	382
M 2.5	2.5	0.45	12	1530	689	8	1020	459	6	765	344
M 3	3.0	0.50	15	1590	795	10	1060	530	8	850	425
M 4	4.0	0.70	15	1195	837	10	795	557	8	635	445
M 5	5.0	0.80	15	955	764	10	635	508	8	510	408
M 6	6.0	1.00	15	795	795	10	530	530	8	425	425
M 8	8.0	1.25	15	595	744	10	400	500	8	320	400
M10	10.0	1.50	15	475	713	10	320	480	8	255	383
M12	12.0	1.75	15	400	700	10	265	464	8	210	368

Stahl  
500 - 850 N/mm<sup>2</sup>

M16	16.0	2.00	15	300	600	10	200	400	8	160	320
M20	20.0	2.50	15	240	600	10	160	400	8	125	313
M24	24.0	3.00	15	200	600	10	135	405	8	105	315

## Werkstoff

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M	ø [mm]	P [mm]	V <sub>c</sub> 1.5 x d			V <sub>c</sub> 2.0 x d			V <sub>c</sub> 3.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]		n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]		n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	
M 2	2.0	0.40	12	1910	764	10	1590	636	8	1275	510
M 2.5	2.5	0.45	12	1530	689	10	1275	574	8	1020	459
M 3	3.0	0.50	15	1590	795	12	1275	638	10	1060	530
M 4	4.0	0.70	15	1195	837	12	955	669	10	795	557
M 5	5.0	0.80	15	955	764	12	765	612	10	635	508
M 6	6.0	1.00	15	795	795	12	635	635	10	530	530
M 8	8.0	1.25	15	595	744	12	475	594	10	400	500
M10	10.0	1.50	15	475	713	12	380	570	10	320	480
M12	12.0	1.75	15	400	700	12	320	560	10	265	464

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M16	16.0	2.00	15	300	600	12	240	480	10	200	400
M20	20.0	2.50	15	240	600	12	190	475	10	160	400
M24	24.0	3.00	15	200	600	12	160	480	10	135	405

Nichtrostender Stahl  
[Cr-Ni/1.4301]



M 2	2.0	0.40	4	635	254	3	475	190	2	320	128
M 2.5	2.5	0.45	4	510	230	3	380	171	2	255	115
M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
M10	10.0	1.50	5	160	240	4	125	188	3	95	143
M12	12.0	1.75	5	135	236	4	105	184	3	80	140

Nichtrostender Stahl  
[Cr-Ni/1.4301]



M16	16.0	2.00	5	100	200	4	80	160	3	60	120
M20	20.0	2.50	5	80	200	4	65	163	3	50	125
M24	24.0	3.00	5	65	195	4	55	165	3	40	120


# Gewindebohrer

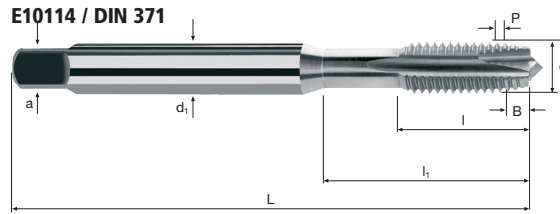


**M**      **7G**

 **HSS-E  
Co5**

 **DIN  
371/376**      

 **X-P**  
**Form B**





**E10115 / DIN 376**



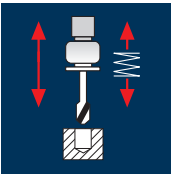
**M**

**Rm** < 850      **Inox** Stainless      **GG(G)** Aluminium Copper

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code						<b>E10114</b>			
		<b>E10114</b>	<b>.034</b>										
ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a		Δ				
.034	M 2	0.40	45	8	—	2.8	2.1	2	+0.030	●			
.040	M 2.5	0.45	50	9	—	2.8	2.1	2	+0.030	●			
.044	M 3	0.50	56	12	18.0	3.5	2.7	3	+0.032	●			
.058	M 4	0.70	63	13	21.0	4.5	3.4	3	+0.038	●			
.084	M 5	0.80	70	15	25.0	6.0	4.9	3	+0.040	●			
.088	M 6	1.00	80	17	30.0	6.0	4.9	3	+0.048	●			
.160	M 8	1.25	90	20	35.0	8.0	6.2	3	+0.050	●			
.174	M10	1.50	100	22	39.0	10.0	8.0	3	+0.056	●			

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code						<b>E10115</b>			
		<b>E10115</b>	<b>.240</b>										
ø Code	d	P	L	l	l <sub>1</sub>	d <sub>1</sub>	a		Δ				
.240	M12	1.75	110	24	40.0	9.0	7.0	3	+0.064	●			
.246	M16	2.00	110	27	40.0	12.0	9.0	3	+0.068	●			
.314	M20	2.50	140	32	50.0	16.0	12.0	4	+0.072	●			
.320	M24	3.00	160	34	60.0	18.0	14.5	4	+0.085	●			

## Anwendung



## Werkstoff

Stahl  
< 500 N/mm<sup>2</sup>

M	ø [mm]	P [mm]	V <sub>c</sub> 1.0 x d			V <sub>c</sub> 1.5 x d			V <sub>c</sub> 2.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	V <sub>c</sub>	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	V <sub>c</sub>	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	
M 2	2.0	0.40	11	1750	700	10	1590	636	8	1275	510
M 2.5	2.5	0.45	11	1400	630	10	1275	574	8	1020	459
M 3	3.0	0.50	14	1485	743	12	1275	638	10	1060	530
M 4	4.0	0.70	14	1115	781	12	955	669	10	795	557
M 5	5.0	0.80	14	890	712	12	765	612	10	635	508
M 6	6.0	1.00	14	745	745	12	635	635	10	530	530
M 8	8.0	1.25	14	555	694	12	475	594	10	400	500
M10	10.0	1.50	14	445	668	12	380	570	10	320	480
M12	12.0	1.75	14	370	648	12	320	560	10	265	464

Stahl  
< 500 N/mm<sup>2</sup>

M16	16.0	2.00	14	280	560	12	240	480	10	200	400
M20	20.0	2.50	14	225	563	12	190	475	10	160	400
M24	24.0	3.00	14	185	555	12	160	480	10	135	405

Stahl  
500 - 850 N/mm<sup>2</sup>

M 2	2.0	0.40	7	1115	446	6	955	382	5	795	318
M 2.5	2.5	0.45	7	890	401	6	765	344	5	635	286
M 3	3.0	0.50	9	955	478	8	850	425	7	745	373
M 4	4.0	0.70	9	715	500	8	635	445	7	555	389
M 5	5.0	0.80	9	575	460	8	510	408	7	445	356
M 6	6.0	1.00	9	475	475	8	425	425	7	370	370
M 8	8.0	1.25	9	360	450	8	320	400	7	280	350
M10	10.0	1.50	9	285	428	8	255	383	7	225	338
M12	12.0	1.75	9	240	420	8	210	368	7	185	324

Stahl  
500 - 850 N/mm<sup>2</sup>

M16	16.0	2.00	9	180	360	8	160	320	7	140	280
M20	20.0	2.50	9	145	363	8	125	313	7	110	275
M24	24.0	3.00	9	120	360	8	105	315	7	95	285

## Werkstoff

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M	ø [mm]	P [mm]	V <sub>c</sub> 1.0 x d			V <sub>c</sub> 1.5 x d			V <sub>c</sub> 2.0 x d		
			n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	V <sub>c</sub>	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	V <sub>c</sub>	n [min <sup>-1</sup> ]	v <sub>f</sub> [100%]	
M 2	2.0	0.40	8	1275	510	6	955	382	5	795	318
M 2.5	2.5	0.45	8	1020	459	6	765	344	5	635	286
M 3	3.0	0.50	10	1060	530	8	850	425	6	635	318
M 4	4.0	0.70	10	795	557	8	635	445	6	475	333
M 5	5.0	0.80	10	635	508	8	510	408	6	380	304
M 6	6.0	1.00	10	530	530	8	425	425	6	320	320
M 8	8.0	1.25	10	400	500	8	320	400	6	240	300
M10	10.0	1.50	10	320	480	8	255	383	6	190	285
M12	12.0	1.75	10	265	464	8	210	368	6	160	280

Al-Knetlegierung  
Si < 6%  
ausgehärtet

M16	16.0	2.00	10	200	400	8	160	320	6	120	240
M20	20.0	2.50	10	160	400	8	125	313	6	95	238
M24	24.0	3.00	10	135	405	8	105	315	6	80	240

Nichtrostender Stahl  
[Cr-Ni/1.4301]



M 2	2.0	0.40	3	475	190	2	320	128	2	320	128
M 2.5	2.5	0.45	3	380	171	2	255	115	2	255	115
M 3	3.0	0.50	4	425	213	3	320	160	3	320	160
M 4	4.0	0.70	4	320	224	3	240	168	3	240	168
M 5	5.0	0.80	4	255	204	3	190	152	3	190	152
M 6	6.0	1.00	4	210	210	3	160	160	3	160	160
M 8	8.0	1.25	4	160	200	3	120	150	3	120	150
M10	10.0	1.50	4	125	188	3	95	143	3	95	143
M12	12.0	1.75	4	105	184	3	80	140	3	80	140

Nichtrostender Stahl  
[Cr-Ni/1.4301]



M16	16.0	2.00	4	80	160	3	60	120	3	60	120
M20	20.0	2.50	4	65	163	3	50	125	3	50	125
M24	24.0	3.00	4	55	165	3	40	120	3	40	120




# Gewindebohrer

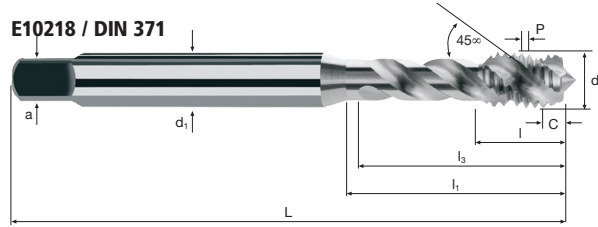


**M**      **7G**

 **HSS-E  
Co5**

 **DIN  
371/376** 

 **X-P**  
**Form C**





**E10219 / DIN 376**



**M**

**Rm** < 850      **Inox** Stainless      **GG(G)** Aluminium Copper

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code							<b>E10218</b>		
		<b>E10218</b>	<b>.034</b>										
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a		Δ			
<b>.034</b>	<b>M 2</b>	<b>0.40</b>	45	8.0	—	10.5	2.8	2.1	3	<b>+0.030</b>	●		
<b>.040</b>	<b>M 2.5</b>	<b>0.45</b>	50	9.0	—	13.0	2.8	2.1	3	<b>+0.030</b>	●		
<b>.044</b>	<b>M 3</b>	<b>0.50</b>	56	4.0	18.0	16.0	3.5	2.7	3	<b>+0.032</b>	●		
<b>.058</b>	<b>M 4</b>	<b>0.70</b>	63	5.6	21.0	19.0	4.5	3.4	3	<b>+0.038</b>	●		
<b>.084</b>	<b>M 5</b>	<b>0.80</b>	70	6.4	25.0	23.0	6.0	4.9	3	<b>+0.040</b>	●		
<b>.088</b>	<b>M 6</b>	<b>1.00</b>	80	8.0	30.0	28.0	6.0	4.9	3	<b>+0.048</b>	●		
<b>.160</b>	<b>M 8</b>	<b>1.25</b>	90	10.0	35.0	33.0	8.0	6.2	3	<b>+0.050</b>	●		
<b>.174</b>	<b>M10</b>	<b>1.50</b>	100	12.0	39.0	37.0	10.0	8.0	3	<b>+0.056</b>	●		

Beispiel: Bestell-Nr.		Artikel-Nr.		ø-Code							<b>E10219</b>		
		<b>E10219</b>	<b>.240</b>										
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a		Δ			
<b>.240</b>	<b>M12</b>	<b>1.75</b>	110	14.0	50.0	48.0	9.0	7.0	3	<b>+0.064</b>	●		
<b>.246</b>	<b>M16</b>	<b>2.00</b>	110	16.0	58.0	56.0	12.0	9.0	4	<b>+0.068</b>	●		
<b>.314</b>	<b>M20</b>	<b>2.50</b>	140	20.0	72.0	70.0	16.0	12.0	4	<b>+0.072</b>	●		
<b>.320</b>	<b>M24</b>	<b>3.00</b>	160	24.0	74.0	72.0	18.0	14.5	4	<b>+0.085</b>	●		

**Anwendung**

**Werkstoff**

Nickelbasislegierungen  
nicht ausgehärtet

MJ	ø [mm]	P [mm]	$v_c$ 1.0 x d [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	$v_f$ [100%]	$v_c$ 1.5 x d [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	$v_f$ [100%]
MJ 2	2.0	0.40	3	475	190	2	320	128
MJ 2.5	2.5	0.45	3	380	171	2	255	115
MJ 3	3.0	0.50	3	320	160	2	210	105
MJ 4	4.0	0.70	3	240	168	2	160	112
MJ 5	5.0	0.80	3	190	152	2	125	100
MJ 6	6.0	1.00	3	160	160	2	105	105
MJ 8	8.0	1.00	3	120	120	2	80	80
MJ 8	8.0	1.25	3	120	150	2	80	100
MJ 10	10.0	1.25	3	95	119	2	65	81

Nickelbasislegierungen  
nicht ausgehärtet

MJ 10	10.0	1.50	3	95	143	2	65	98

Nickelbasislegierungen  
ausgehärtet

MJ 2	2.0	0.40	2	320	128	2	320	128
MJ 2.5	2.5	0.45	2	255	115	2	255	115
MJ 3	3.0	0.50	2	210	105	2	210	105
MJ 4	4.0	0.70	2	160	112	2	160	112
MJ 5	5.0	0.80	2	125	100	2	125	100
MJ 6	6.0	1.00	2	105	105	2	105	105
MJ 8	8.0	1.00	2	80	80	2	80	80
MJ 8	8.0	1.25	2	80	100	2	80	100
MJ 10	10.0	1.25	2	65	81	2	65	81

Nickelbasislegierungen  
ausgehärtet

MJ 10	10.0	1.50	2	65	98	2	65	98

**Anwendung**

**Werkstoff**

Nickelbasislegierungen  
nicht ausgehärtet

MJ	ø [mm]	P [mm]	$v_c$ 1.0 x d [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	$v_f$ [100%]	$v_c$ 1.5 x d [min <sup>-1</sup> ]	n [min <sup>-1</sup> ]	$v_f$ [100%]
MJ 2	2.0	0.40	3	475	190	2	320	128
MJ 2.5	2.5	0.45	3	380	171	2	255	115
MJ 3	3.0	0.50	3	320	160	2	210	105
MJ 4	4.0	0.70	3	240	168	2	160	112
MJ 5	5.0	0.80	3	190	152	2	125	100
MJ 6	6.0	1.00	3	160	160	2	105	105
MJ 8	8.0	1.00	3	120	120	2	80	80
MJ 8	8.0	1.25	3	120	150	2	80	100
MJ 10	10.0	1.25	3	95	119	2	65	81

Nickelbasislegierungen  
nicht ausgehärtet

MJ 10	10.0	1.50	3	95	143	2	65	98

Nickelbasislegierungen  
ausgehärtet

MJ 2	2.0	0.40	2	320	128	2	320	128
MJ 2.5	2.5	0.45	2	255	115	2	255	115
MJ 3	3.0	0.50	2	210	105	2	210	105
MJ 4	4.0	0.70	2	160	112	2	160	112
MJ 5	5.0	0.80	2	125	100	2	125	100
MJ 6	6.0	1.00	2	105	105	2	105	105
MJ 8	8.0	1.00	2	80	80	2	80	80
MJ 8	8.0	1.25	2	80	100	2	80	100
MJ 10	10.0	1.25	2	65	81	2	65	81

Nickelbasislegierungen  
ausgehärtet

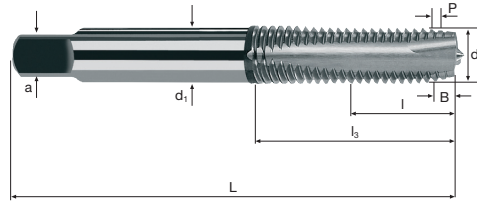
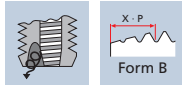
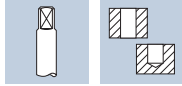
MJ 10	10.0	1.50	2	65	98	2	65	98

# Gewindebohrer





**MJ**      **4H**

 **HSS PM/F**



**M**

**Nickel-Alloys**

Beispiel: Bestell-Nr. <b>E0599</b> Artikel-Nr. <b>.034</b> ø-Code											<b>E0599</b>	
Ø Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a				
.034	MJ 2	0.40	41	8	–	11	2.8	2.1	3	1.70	●	
.040	MJ 2.5	0.45	44	9	–	13	2.8	2.1	3	2.20*	●	
.044	MJ 3	0.50	48	11	–	16	3.5	2.7	3	2.65	●	
.058	MJ 4	0.70	53	13	–	19	4.5	3.4	3	3.50*	●	
.084	MJ 5	0.80	58	15	–	22	6.0	4.9	3	4.40	●	
.088	MJ 6	1.00	66	17	–	28	6.0	4.9	3	5.20	●	
.090	MJ 8	1.00	72	20	–	34	8.0	6.2	3	7.20	●	
.160	MJ 8	1.25	72	20	–	34	8.0	6.2	3	7.00*	●	
.162	MJ10	1.25	80	22	–	37	10.0	8.0	3	9.00*	●	
.174	MJ10	1.50	80	22	–	37	10.0	8.0	3	8.70	●	
* angegebenes Mass liegt ausserhalb der Norm												