

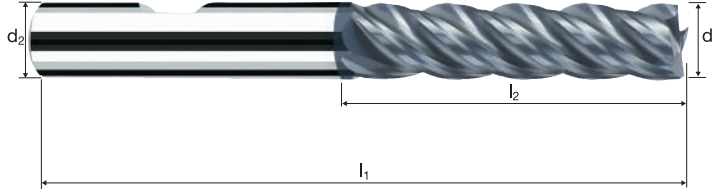
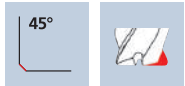
# Cylindrical end mills

Smooth-edged, long version



**HM**  
**MG10**

$\lambda$  40°  
 $\gamma$  6°



Roughing

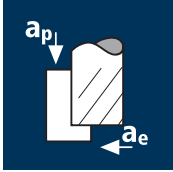
Finishing



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless	Ti Titanium	GG(G) Tool Steel
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Ø Code	d <sub>1</sub> e8	d <sub>2</sub> h6	l <sub>1</sub>	l <sub>2</sub>	45°	z	POLYCHROM	
Example: Order-N°: <b>P</b> <b>45323</b> <b>300</b>								
								<b>P45323</b>
								<b>P45223</b>
<b>300</b>	6.00	6.00	70	26.00	0.15	4		●
<b>391</b>	8.00	8.00	80	36.00	0.15	4		●
<b>450</b>	10.00	10.00	100	45.00	0.20	4		●
<b>501</b>	12.00	12.00	110	53.00	0.20	4		●
<b>610</b>	16.00	16.00	123	63.00	0.20	4		●
<b>682</b>	20.00	20.00	141	75.00	0.20	4		●

## Application



## Material

Steel  
< 850 N/mm<sup>2</sup>



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



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



Inox normal  
[Cr-Ni/1.4301]  
[Cr-Ni-Mo/1.4571]



Cast iron  
(lamellar / spheroidal)



Cold work tool steel  
(12% Cr),  
high alloyed  
[1.2379]



Titanium alloys  
> 300 HB  
[Ti6Al4V]



Inox difficult  
[Cr-Ni-Mo+/1.4529]  
Heat resistant steel  
[1.4841]



d1 [mm]	z	v <sub>c</sub> [m/min]	f <sub>s</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>r</sub> [mm/min]	Q [cm <sup>3</sup> /min]
6.00	4	130	0.045	15.000	0.600	6895	1240	11.2
8.00	4	130	0.060	20.000	0.800	5175	1240	19.9
10.00	4	130	0.075	25.000	1.000	4140	1240	31.0
12.00	4	130	0.090	30.000	1.200	3450	1240	44.7
16.00	4	130	0.115	40.000	1.600	2585	1190	76.1
20.00	4	130	0.145	50.000	2.000	2070	1200	120.0

6.00	4	120	0.040	15.000	0.600	6365	1020	9.2
8.00	4	120	0.050	20.000	0.800	4775	955	15.3
10.00	4	120	0.065	25.000	1.000	3820	995	24.8
12.00	4	120	0.080	30.000	1.200	3185	1020	36.7
16.00	4	120	0.100	40.000	1.600	2385	955	61.1
20.00	4	120	0.125	50.000	2.000	1910	955	95.5

6.00	4	100	0.035	15.000	0.600	5305	745	6.7
8.00	4	100	0.045	20.000	0.800	3980	715	11.5
10.00	4	100	0.060	25.000	1.000	3185	765	19.1
12.00	4	100	0.070	30.000	1.200	2655	745	26.7
16.00	4	100	0.090	40.000	1.600	1990	715	45.8
20.00	4	100	0.110	50.000	2.000	1590	700	70.0

6.00	4	80	0.025	15.000	0.450	4245	425	2.9
8.00	4	80	0.030	20.000	0.600	3185	380	4.6
10.00	4	80	0.040	25.000	0.750	2545	405	7.6
12.00	4	80	0.050	30.000	0.900	2120	425	11.5
16.00	4	80	0.060	40.000	1.200	1590	380	18.3
20.00	4	80	0.075	50.000	1.500	1275	380	28.6

6.00	4	120	0.045	15.000	0.600	6365	1145	10.3
8.00	4	120	0.060	20.000	0.800	4775	1145	18.3
10.00	4	120	0.070	25.000	1.000	3820	1070	26.7
12.00	4	120	0.085	30.000	1.200	3185	1080	39.0
16.00	4	120	0.110	40.000	1.600	2385	1050	67.2
20.00	4	120	0.135	50.000	2.000	1910	1030	103.1

6.00	4	76	0.045	15.000	0.450	4030	725	4.9
8.00	4	76	0.060	20.000	0.600	3025	725	8.7
10.00	4	76	0.075	25.000	0.750	2420	725	13.6
12.00	4	76	0.090	30.000	0.900	2015	725	19.6
16.00	4	76	0.115	40.000	1.200	1510	695	33.4
20.00	4	76	0.145	50.000	1.500	1210	700	52.6

6.00	4	50	0.030	15.000	0.600	2655	320	2.9
8.00	4	50	0.035	20.000	0.800	1990	280	4.5
10.00	4	50	0.045	25.000	1.000	1590	285	7.2
12.00	4	50	0.055	30.000	1.200	1325	290	10.5
16.00	4	50	0.065	40.000	1.600	995	260	16.6
20.00	4	50	0.085	50.000	2.000	795	270	27.1

6.00	4	40	0.025	15.000	0.450	2120	210	1.4
8.00	4	40	0.030	20.000	0.600	1590	190	2.3
10.00	4	40	0.040	25.000	0.750	1275	205	3.8
12.00	4	40	0.050	30.000	0.900	1060	210	5.7
16.00	4	40	0.060	40.000	1.200	795	190	9.2
20.00	4	40	0.075	50.000	1.500	635	190	14.3