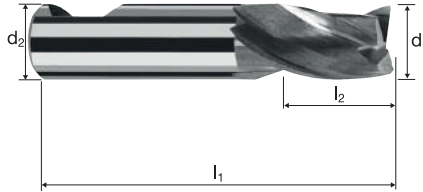
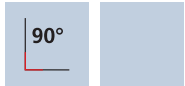


# Cylindrical end mills

Smooth-edged, short-shank version



HM MG10	$\lambda$ 30° $\gamma$ 12°
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Roughing

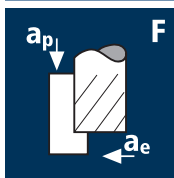
Finishing



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless	Ti Titanium	GG(G) Nickel-Alloys
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Example: Order-N°.									POLYCHROM	
Coating		Article-N°.		ø-Code					P5336	
P		5336		120					P5236	
Ø Code	d <sub>1</sub> e8	d <sub>2</sub> h6	l <sub>1</sub>	l <sub>2</sub>	l <sub>4</sub>	α	z			
120	1.50	6.00	38	3.00	11.92	11.5°	3		●	
140	2.00	6.00	38	3.00	11.15	11.0°	3		●	
160	2.50	6.00	38	3.00	10.88	10.0°	3		●	
180	3.00	6.00	38	4.00	11.96	8.0°	3		●	
200	3.50	6.00	38	4.00	11.02	7.0°	3		●	
220	4.00	6.00	38	5.00	11.59	5.5°	3		●	
240	4.50	6.00	38	5.00	10.66	4.5°	3		●	
260	5.00	6.00	38	6.00	10.72	3.0°	3		●	
300	6.00	6.00	38	7.00	-	0.0°	3		●	
331	7.00	8.00	41	8.00	12.72	2.5°	3		●	
391	8.00	8.00	41	9.00	-	0.0°	3		●	
420	9.00	10.00	48	10.00	14.72	2.5°	3		●	
450	10.00	10.00	48	11.00	-	0.0°	3		●	

## Application



## Material

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

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

Titanium alloys  
up to 300 HB  
[Ti5Al2.5Sn]

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

d1 [mm]	z	v <sub>c</sub> [m/min]	f <sub>f</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>r</sub> [mm/min]
2.00	3	115	0.005	2.000	0.200	18305	275
3.00	3	115	0.010	3.000	0.300	12200	365
4.00	3	115	0.015	4.000	0.400	9150	410
5.00	3	115	0.015	5.000	0.500	7320	330
6.00	3	115	0.020	6.000	0.600	6100	365
8.00	3	115	0.025	8.000	0.800	4575	345
10.00	3	115	0.035	10.000	1.000	3660	385

2.00	3	75	0.005	2.000	0.200	11935	180
3.00	3	75	0.010	3.000	0.300	7960	240
4.00	3	75	0.015	4.000	0.400	5970	270
5.00	3	75	0.015	5.000	0.500	4775	215
6.00	3	75	0.020	6.000	0.600	3980	240
8.00	3	75	0.025	8.000	0.800	2985	225
10.00	3	75	0.035	10.000	1.000	2385	250

2.00	3	40	0.005	2.000	0.200	6365	95
3.00	3	40	0.010	3.000	0.300	4245	125
4.00	3	40	0.015	4.000	0.400	3185	145
5.00	3	40	0.015	5.000	0.500	2545	115
6.00	3	40	0.020	6.000	0.600	2120	125
8.00	3	40	0.025	8.000	0.800	1590	120
10.00	3	40	0.035	10.000	1.000	1275	135

2.00	3	80	0.005	2.000	0.200	12730	190
3.00	3	80	0.010	3.000	0.300	8490	255
4.00	3	80	0.015	4.000	0.400	6365	285
5.00	3	80	0.015	5.000	0.500	5095	230
6.00	3	80	0.020	6.000	0.600	4245	255
8.00	3	80	0.025	8.000	0.800	3185	240
10.00	3	80	0.035	10.000	1.000	2545	265

## Application



## Material

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

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

Titanium alloys  
up to 300 HB  
[Ti5Al2.5Sn]

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

d1 [mm]	z	v <sub>c</sub> [m/min]	f <sub>f</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]
2.00	3	85	0.005	1.000	2.000	13530	205	0.4
3.00	3	85	0.010	1.500	3.000	9020	270	1.2
4.00	3	85	0.010	2.000	4.000	6765	205	1.6
5.00	3	85	0.015	2.500	5.000	5410	245	3.0
6.00	3	85	0.015	3.000	6.000	4510	205	3.7
8.00	3	85	0.020	4.000	8.000	3380	205	6.5
10.00	3	85	0.030	5.000	10.000	2705	245	12.2

2.00	3	60	0.005	1.000	2.000	9550	145	0.3
3.00	3	60	0.010	1.500	3.000	6365	190	0.9
4.00	3	60	0.010	2.000	4.000	4775	145	1.1
5.00	3	60	0.015	2.500	5.000	3820	170	2.1
6.00	3	60	0.015	3.000	6.000	3185	145	2.6
8.00	3	60	0.020	4.000	8.000	2385	145	4.6
10.00	3	60	0.025	5.000	10.000	1910	145	7.2

2.00	3	30	0.005	1.000	2.000	4775	70	0.1
3.00	3	30	0.010	1.500	3.000	3185	95	0.4
4.00	3	30	0.010	2.000	4.000	2385	70	0.6
5.00	3	30	0.015	2.500	5.000	1910	85	1.1
6.00	3	30	0.015	3.000	6.000	1590	70	1.3
8.00	3	30	0.020	4.000	8.000	1195	70	2.3
10.00	3	30	0.025	5.000	10.000	955	70	3.6

2.00	3	55	0.005	1.000	2.000	8755	130	0.3
3.00	3	55	0.010	1.500	3.000	5835	175	0.8
4.00	3	55	0.010	2.000	4.000	4375	130	1.1
5.00	3	55	0.015	2.500	5.000	3500	160	2.0
6.00	3	55	0.015	3.000	6.000	2920	130	2.4
8.00	3	55	0.020	4.000	8.000	2190	130	4.2
10.00	3	55	0.025	5.000	10.000	1750	130	6.6