

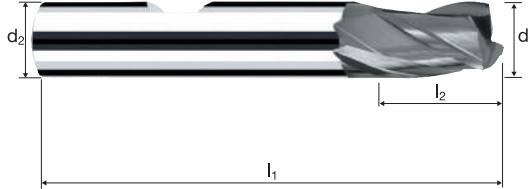
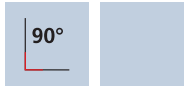
Cylindrical end mills

Smooth-edged, short version



HM
MG10

λ 30°
 γ 12°



Roughing

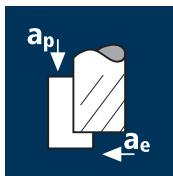
Finishing



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless	Ti Titanium	GG(G) Nickel-Alloys
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Example: Order-N°.									POLYCHROM	
									P5036	
\emptyset Code	d_1 e8	d_2 h6	l_1	l_2	l_4	α	z			
120	1.50	6.00	50	5.00	13.92	9.0°	3		●	
140	2.00	6.00	50	5.00	13.15	8.5°	3		●	
160	2.50	6.00	50	5.00	12.88	8.0°	3		●	
180	3.00	6.00	50	6.00	13.96	6.5°	3		●	
200	3.50	6.00	50	8.00	14.34	5.0°	3		●	
220	4.00	6.00	50	8.00	14.59	4.5°	3		●	
240	4.50	6.00	50	8.00	13.66	3.5°	3		●	
260	5.00	6.00	50	9.00	13.72	2.5°	3		●	
300	6.00	6.00	50	10.00	-	0.0°	3		●	
331	7.00	8.00	54	10.00	14.72	2.5°	3		●	
391	8.00	8.00	54	12.00	-	0.0°	3		●	
420	9.00	10.00	63	12.00	16.72	2.0°	3		●	
450	10.00	10.00	63	13.00	-	0.0°	3		●	

Application



Material

Steel
< 850 N/mm²

Steel
850 - 1100 N/mm²

Titanium alloys
> 300 HB
[Ti6Al4V]

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

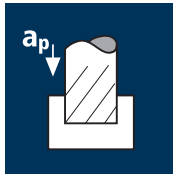
d1 [mm]	z	v _c [m/min]	f _s [mm]	a _p [mm]	a _e [mm]	n [min ⁻¹]	v _r [mm/min]
1.50	3	190	0.010	1.800	0.200	40320	1210
2.00	3	190	0.015	2.400	0.200	30240	1360
2.50	3	190	0.015	3.000	0.300	24190	1090
3.00	3	190	0.020	3.600	0.300	20160	1210
4.00	3	190	0.025	4.800	0.400	15120	1135
5.00	3	190	0.035	6.000	0.500	12095	1270
6.00	3	190	0.040	7.200	0.600	10080	1210
8.00	3	190	0.055	9.600	0.800	7560	1245
10.00	3	190	0.065	12.000	1.000	6050	1180

1.50	3	130	0.010	1.800	0.200	27585	830
2.00	3	130	0.015	2.400	0.200	20690	930
2.50	3	130	0.015	3.000	0.300	16550	745
3.00	3	130	0.020	3.600	0.300	13795	830
4.00	3	130	0.025	4.800	0.400	10345	775
5.00	3	130	0.035	6.000	0.500	8275	870
6.00	3	130	0.040	7.200	0.600	6895	830
8.00	3	130	0.050	9.600	0.800	5175	775
10.00	3	130	0.060	12.000	1.000	4140	745

1.50	3	50	0.005	1.800	0.200	10610	160
2.00	3	50	0.010	2.400	0.200	7960	240
2.50	3	50	0.010	3.000	0.300	6365	190
3.00	3	50	0.010	3.600	0.300	5305	160
4.00	3	50	0.015	4.800	0.400	3980	180
5.00	3	50	0.020	6.000	0.500	3185	190
6.00	3	50	0.020	7.200	0.600	2655	160
8.00	3	50	0.030	9.600	0.800	1990	180
10.00	3	50	0.035	12.000	1.000	1590	165

1.50	3	80	0.005	1.800	0.200	16975	255
2.00	3	80	0.010	2.400	0.200	12730	380
2.50	3	80	0.010	3.000	0.300	10185	305
3.00	3	80	0.015	3.600	0.300	8490	380
4.00	3	80	0.020	4.800	0.400	6365	380
5.00	3	80	0.025	6.000	0.500	5095	380
6.00	3	80	0.030	7.200	0.600	4245	380
8.00	3	80	0.040	9.600	0.800	3185	380
10.00	3	80	0.045	12.000	1.000	2545	345

Application



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[Cr-Ni-Mo/1.4571]

d1 [mm]	z	v _c [m/min]	f _s [mm]	a _p [mm]	a _e [mm]	n [min ⁻¹]	v _r [mm/min]	Q [cm ³ /min]
1.50	3	140	0.010	0.600	1.500	29710	890	0.8
2.00	3	140	0.010	0.800	2.000	22280	670	1.1
2.50	3	140	0.015	1.000	2.500	17825	800	2.0
3.00	3	140	0.015	1.200	3.000	14855	670	2.4
4.00	3	140	0.020	1.600	4.000	11140	670	4.3
5.00	3	140	0.030	2.000	5.000	8915	800	8.0
6.00	3	140	0.035	2.400	6.000	7425	780	11.2
8.00	3	140	0.045	3.200	8.000	5570	750	19.3
10.00	3	140	0.055	4.000	10.000	4455	735	29.4

1.50	3	85	0.010	0.600	1.500	18040	540	0.5
2.00	3	85	0.010	0.800	2.000	13530	405	0.6
2.50	3	85	0.015	1.000	2.500	10825	485	1.2
3.00	3	85	0.015	1.200	3.000	9020	405	1.5
4.00	3	85	0.020	1.600	4.000	6765	405	2.6
5.00	3	85	0.030	2.000	5.000	5410	485	4.9
6.00	3	85	0.035	2.400	6.000	4510	475	6.8
8.00	3	85	0.045	3.200	8.000	3380	455	11.7
10.00	3	85	0.050	4.000	10.000	2705	405	16.2

1.50	3	40	0.005	0.600	1.500	8490	125	0.1
2.00	3	40	0.005	0.800	2.000	6365	95	0.2
2.50	3	40	0.010	1.000	2.500	5095	155	0.4
3.00	3	40	0.010	1.200	3.000	4245	125	0.5
4.00	3	40	0.010	1.600	4.000	3185	95	0.6
5.00	3	40	0.015	2.000	5.000	2545	115	1.1
6.00	3	40	0.020	2.400	6.000	2120	125	1.8
8.00	3	40	0.025	3.200	8.000	1590	120	3.1
10.00	3	40	0.030	4.000	10.000	1275	115	4.6

1.50	3	55	0.005	0.600	1.500	11670	175	0.2
2.00	3	55	0.005	0.800	2.000	8755	130	0.2
2.50	3	55	0.010	1.000	2.500	7005	210	0.5
3.00	3	55	0.010	1.200	3.000	5835	175	0.6
4.00	3	55	0.015	1.600	4.000	4375	195	1.3
5.00	3	55	0.020	2.000	5.000	3500	210	2.1
6.00	3	55	0.025	2.400	6.000	2920	220	3.2
8.00	3	55	0.030	3.200	8.000	2190	195	5.0
10.00	3	55	0.040	4.000	10.000	1750	210	8.4