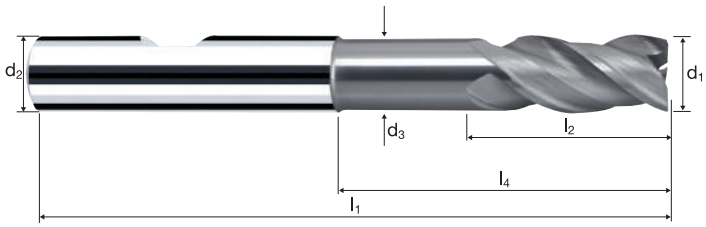
Cylindrical end mills

Smooth-edged, medium length version, neck

HM MG10	λ 40° γ 0°
45°	
Vario	



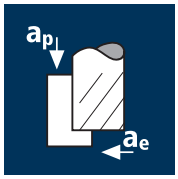
Roughing

Finishing

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless	Ti Titanium	GG(G) Tool Steel

Example: **Order-N°.** Coating **P** Article-N°. **15399** ø-Code **180**

Ø Code	d_1 e8	d_2 h6	d_3	l_1	l_2	l_3	l_4	45°	α	z	POLYCHROM P15399	POLYCHROM P15299
180	3.00	6.00	2.80	63	8.00	20.00	26.63	0.10	3.5°	3		●
220	4.00	6.00	3.70	63	11.00	22.00	26.95	0.10	2.5°	3		●
260	5.00	6.00	4.60	63	13.00	24.00	27.27	0.15	1.5°	3		●
300	6.00	6.00	5.50	63	13.00	25.34	26.00	0.15	0.0°	3		●
391	8.00	8.00	7.40	72	19.00	34.29	35.00	0.15	0.0°	3		●
450	10.00	10.00	9.20	84	22.00	42.20	43.00	0.20	0.0°	3		●
501	12.00	12.00	11.00	97	26.00	50.13	51.00	0.20	0.0°	3		●
610	16.00	16.00	15.00	108	32.00	58.13	59.00	0.20	0.0°	3		●

Application	Material	d1 [mm]	z	v_c [m/min]	f_z [mm]	a_p [mm]	a_e [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 850 N/mm²	3.00	3	190	0.015	4.500	1.200	20160	905	4.9
		4.00	3	190	0.015	6.000	1.600	15120	680	6.5
		5.00	3	190	0.020	7.500	2.000	12095	725	10.9
		6.00	3	190	0.040	9.000	2.400	10080	1210	26.1
		8.00	3	190	0.050	12.000	3.200	7560	1135	43.5
		10.00	3	190	0.065	15.000	4.000	6050	1180	70.8
		12.00	3	190	0.075	18.000	4.800	5040	1135	98.0
		16.00	3	190	0.085	24.000	6.400	3780	965	148.1
	Steel 850 - 1100 N/mm²	3.00	3	140	0.015	4.500	1.200	14855	670	3.6
		4.00	3	140	0.015	6.000	1.600	11140	500	4.8
		5.00	3	140	0.020	7.500	2.000	8915	535	8.0
		6.00	3	140	0.040	9.000	2.400	7425	890	19.3
		8.00	3	140	0.050	12.000	3.200	5570	835	32.1
		10.00	3	140	0.065	15.000	4.000	4455	870	52.1
		12.00	3	140	0.075	18.000	4.800	3715	835	72.2
		16.00	3	140	0.085	24.000	6.400	2785	710	109.1
	Cold work tool steel (12% Cr), high alloyed [1.2379]	3.00	3	70	0.010	4.500	1.200	7425	225	1.2
		4.00	3	70	0.015	6.000	1.600	5570	250	2.4
		5.00	3	70	0.015	7.500	2.000	4455	200	3.0
		6.00	3	70	0.035	9.000	2.400	3715	390	8.4
		8.00	3	70	0.045	12.000	3.200	2785	375	14.4
		10.00	3	70	0.055	15.000	4.000	2230	370	22.1
		12.00	3	70	0.065	18.000	4.800	1855	360	31.3
		16.00	3	70	0.075	24.000	6.400	1395	315	48.1
	Inox normal [Cr-Ni/1.4301] [Cr-Ni-Mo/1.4571]	3.00	3	90	0.010	4.500	1.200	9550	285	1.5
		4.00	3	90	0.010	6.000	1.600	7160	215	2.1
		5.00	3	90	0.010	7.500	2.000	5730	170	2.6
		6.00	3	90	0.030	9.000	2.400	4775	430	9.3
		8.00	3	90	0.035	12.000	3.200	3580	375	14.4
		10.00	3	90	0.045	15.000	4.000	2865	385	23.2
		12.00	3	90	0.050	18.000	4.800	2385	360	30.9
		16.00	3	90	0.060	24.000	6.400	1790	320	49.5
	Steel < 850 N/mm²	3.00	3	155	0.015	4.200	3.000	16445	740	9.3
		4.00	3	155	0.015	5.600	4.000	12335	555	12.4
		5.00	3	155	0.025	7.000	5.000	9870	740	25.9
		6.00	3	155	0.030	8.400	6.000	8225	740	37.3
		8.00	3	155	0.040	11.200	8.000	6165	740	66.3
		10.00	3	155	0.050	14.000	10.000	4935	740	103.6
		12.00	3	155	0.060	16.800	12.000	4110	740	149.2
		16.00	3	155	0.070	14.400	16.000	3085	650	149.2
	Steel 850 - 1100 N/mm²	3.00	3	105	0.015	4.200	3.000	11140	500	6.3
		4.00	3	105	0.015	5.600	4.000	8355	375	8.4
		5.00	3	105	0.025	7.000	5.000	6685	500	17.5
		6.00	3	105	0.030	8.400	6.000	5570	500	25.3
		8.00	3	105	0.040	11.200	8.000	4180	500	44.9
		10.00	3	105	0.050	14.000	10.000	3340	500	70.2
		12.00	3	105	0.060	16.800	12.000	2785	500	101.1
		16.00	3	105	0.070	14.400	16.000	2090	440	101.1
	Cold work tool steel (12% Cr), high alloyed [1.2379]	3.00	3	55	0.010	4.200	3.000	5835	175	2.2
		4.00	3	55	0.015	5.600	4.000	4375	195	4.4
		5.00	3	55	0.015	7.000	5.000	3500	160	5.5
		6.00	3	55	0.030	8.400	6.000	2920	265	13.2
		8.00	3	55	0.040	11.200	8.000	2190	265	23.5
		10.00	3	55	0.050	14.000	10.000	1750	265	36.8
		12.00	3	55	0.060	16.800	12.000	1460	265	52.9
		16.00	3	55	0.070	14.400	16.000	1095	230	52.9
	Inox normal [Cr-Ni/1.4301] [Cr-Ni-Mo/1.4571]	3.00	3	70	0.010	4.200	3.000	7425	225	2.8
		4.00	3	70	0.010	5.600	4.000	5570	165	3.7
		5.00	3	70	0.010	7.000	5.000	4455	135	4.7
		6.00	3	70	0.025	8.400	6.000	3715	280	14.0
		8.00	3	70	0.030	11.200	8.000	2785	250	22.5
		10.00	3	70	0.040	14.000	10.000	2230	265	37.4
		12.00	3	70	0.050	16.800	12.000	1855	280	56.1
		16.00	3	70	0.055	14.400	16.000	1395	230	52.9