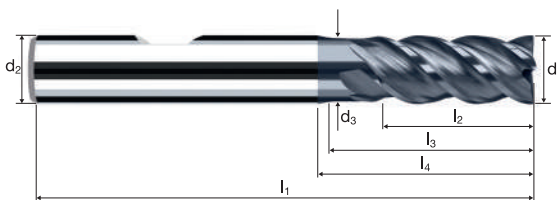
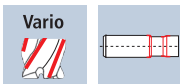


Cylindrical end mills

Smooth-edged, normal version, short neck



**HM
MG10** λ **43°**
 γ **6°**

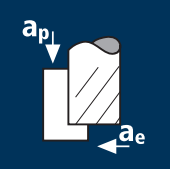

















new!



Rm < 850	Rm 850-1100	Rm 1100-1300						Inox Stainless	Ti Titanium	GG(G) Tool Steel Nickel-Alloys
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Ø Code	d ₁ e8	d ₂ h6	d ₃	l ₁	l ₂	l ₃	l ₄	r	α	z	POLYCHROM		
Example: Order-Nº. Coating: P Article-Nº: 46300 ø-Code: 100													
100	1.00	6.00	0.95	57	3.00	7.00	16.82	0.050	9.0°	4		●	
140	2.00	6.00	1.90	57	5.00	10.00	18.05	0.050	6.5°	4		●	
178*	3.00	3.00	-	45	8.00	-	-	0.050	0.0°	4		●	
180	3.00	6.00	2.80	57	8.00	14.00	20.37	0.050	4.5°	4		●	
218*	4.00	4.00	-	50	11.00	-	-	0.100	0.0°	4		●	
220	4.00	6.00	3.70	57	11.00	16.00	20.82	0.100	3.0°	4		●	
258*	5.00	5.00	-	50	13.00	-	-	0.100	0.0°	4		●	
260	5.00	6.00	4.60	57	13.00	18.00	21.27	0.100	1.5°	4		●	
300	6.00	6.00	5.50	57	13.00	18.15	20.00	0.150	0.0°	4		●	
391	8.00	8.00	7.40	63	19.00	23.63	26.00	0.150	0.0°	4		●	
450	10.00	10.00	9.20	72	23.00	27.99	31.00	0.200	0.0°	4		●	
501	12.00	12.00	11.00	83	27.00	33.29	37.00	0.200	0.0°	4		●	
570	14.00	14.00	13.00	83	28.00	32.97	37.00	0.200	0.0°	4		●	
610	16.00	16.00	15.00	92	32.00	38.73	43.00	0.200	0.0°	4		●	
682	20.00	20.00	19.00	104	40.00	48.23	53.00	0.250	0.0°	4		●	
* without clamping flat only, without short neck													

Application	Material	d_1 [mm]	z	v_c [m/min]	f_z [mm]	a_p [mm]	a_e [mm]	n [min ⁻¹]	v_f [mm/min]	Q [mm ³ /min]		
	Steel 500 - 850 N/mm ² 	3.00	4	140	0.022	3.750	1.200	14855	1307	5.9		
		4.00	4	140	0.031	5.000	1.600	11140	1381	11.1		
		5.00	4	140	0.038	6.250	2.000	8915	1355	16.9		
		6.00	4	140	0.041	9.000	2.400	7425	1218	26.3		
		8.00	4	140	0.054	12.000	3.200	5475	1203	46.2		
		10.00	4	140	0.068	15.000	4.000	4455	1212	72.7		
		12.00	4	140	0.076	18.000	4.800	3715	1129	97.6		
		16.00	4	140	0.086	24.000	6.400	2785	958	147.1		
		20.00	4	140	0.099	30.000	8.000	2230	883	211.9		
			Steel 850 - 1100 N/mm ² 	3.00	4	120	0.020	3.750	1.200	12730	1018	4.6
				4.00	4	120	0.025	5.000	1.600	9550	955	7.6
5.00	4			120	0.033	6.250	2.000	7640	1009	12.6		
6.00	4			120	0.035	9.000	2.400	6365	891	19.2		
8.00	4			120	0.047	12.000	3.200	4775	898	34.5		
10.00	4			120	0.059	15.000	4.000	3820	902	54.1		
12.00	4			120	0.070	18.000	4.800	3185	892	77.1		
16.00	4			120	0.079	24.000	6.400	2385	754	115.8		
20.00	4			120	0.090	30.000	8.000	1910	688	165.0		
	Inox normal [Cr-Ni/1.4301] [Cr-Ni-Mo/1.4571] 			3.00	4	80	0.012	3.750	1.200	8490	408	1.8
				4.00	4	80	0.016	5.000	1.600	6365	407	3.3
		5.00	4	80	0.020	6.250	2.000	5095	408	5.1		
		6.00	4	80	0.024	9.000	2.400	4245	408	8.8		
		8.00	4	80	0.032	12.000	3.200	3185	408	15.7		
		10.00	4	80	0.041	15.000	4.000	2545	417	25.0		
		12.00	4	80	0.049	18.000	4.800	2120	416	35.9		
		16.00	4	80	0.050	24.000	6.400	1590	318	48.8		
		20.00	4	80	0.063	30.000	8.000	1275	321	77.1		
			Cast iron (lamellar / spheroidal) 	3.00	4	155	0.020	3.750	1.200	16445	1316	5.9
				4.00	4	155	0.029	5.000	1.600	12335	1431	11.4
5.00	4			155	0.034	6.250	2.000	9870	1342	16.8		
6.00	4			155	0.038	9.000	2.400	8225	1250	27.0		
8.00	4			155	0.050	12.000	3.200	6165	1233	47.3		
10.00	4			155	0.063	15.000	4.000	4935	1244	74.6		
12.00	4			155	0.076	18.000	4.800	4110	1249	107.9		
16.00	4			155	0.086	24.000	6.400	3085	1061	163.0		
20.00	4			155	0.099	30.000	8.000	2465	976	234.3		
	Steel 500 - 850 N/mm ² 			3.00	4	105	0.011	2.250	3.000	11140	490	3.3
				4.00	4	105	0.016	4.000	4.000	8355	535	8.6
		5.00	4	105	0.019	5.000	5.000	6685	508	12.7		
		6.00	4	105	0.027	7.500	6.000	5570	602	27.1		
		8.00	4	105	0.035	10.000	8.000	4180	585	46.8		
		10.00	4	105	0.044	12.500	10.000	3340	588	73.5		
		12.00	4	105	0.049	15.000	12.000	2785	546	98.3		
		16.00	4	105	0.056	20.000	16.000	2090	468	149.8		
		20.00	4	105	0.064	25.000	20.000	1670	428	213.8		
			Steel 850 - 1100 N/mm ² 	3.00	4	90	0.010	2.250	3.000	9550	382	2.6
				4.00	4	90	0.013	4.000	4.000	7160	372	6.0
5.00	4			90	0.017	5.000	5.000	5730	390	9.7		
6.00	4			90	0.023	7.500	6.000	4775	439	19.8		
8.00	4			90	0.031	10.000	8.000	3580	444	35.5		
10.00	4			90	0.038	12.500	10.000	2865	436	54.4		
12.00	4			90	0.046	15.000	12.000	2385	439	79.0		
16.00	4			90	0.051	20.000	16.000	1790	365	116.9		
20.00	4			90	0.058	25.000	20.000	1430	332	165.9		
	Inox normal [Cr-Ni/1.4301] [Cr-Ni-Mo/1.4571] 			3.00	4	60	0.006	2.250	3.000	6365	153	1.0
				4.00	4	60	0.008	4.000	4.000	4775	153	2.4
		5.00	4	60	0.010	5.000	5.000	3820	153	3.8		
		6.00	4	60	0.016	7.500	6.000	3185	204	9.2		
		8.00	4	60	0.021	10.000	8.000	2385	200	16.0		
		10.00	4	60	0.027	12.500	10.000	1910	206	25.8		
		12.00	4	60	0.032	15.000	12.000	1590	204	36.6		
		16.00	4	60	0.033	20.000	16.000	1195	158	50.5		
		20.00	4	60	0.041	25.000	20.000	955	157	78.3		
			Cast iron (lamellar / spheroidal) 	3.00	4	116	0.010	2.250	3.000	12310	492	3.3
				4.00	4	116	0.015	4.000	4.000	9230	554	8.9
5.00	4			116	0.017	5.000	5.000	7385	502	12.6		
6.00	4			116	0.025	7.500	6.000	6155	616	27.7		
8.00	4			116	0.033	10.000	8.000	4615	609	48.7		
10.00	4			116	0.041	12.500	10.000	3690	605	75.7		
12.00	4			116	0.049	15.000	12.000	3075	603	108.5		
16.00	4			116	0.056	20.000	16.000	2310	517	165.6		
20.00	4			116	0.064	25.000	20.000	1845	472	236.2		