Cylindrical end mills E-Cut

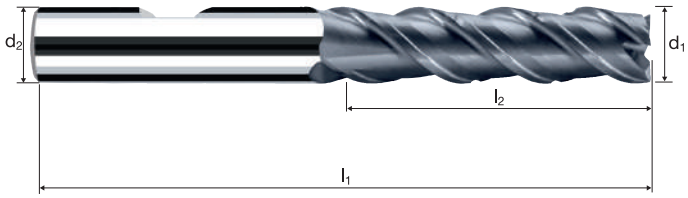
Smooth-edged, chip breaker, medium length version

HM MG10

λ 45°
γ 10°

r

Vario



Roughing HPC

Roughing HDC

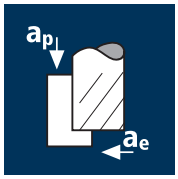
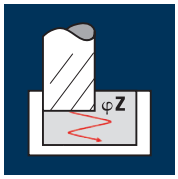
Finishing

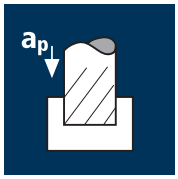
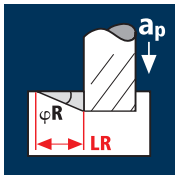
Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G) Tool Steel

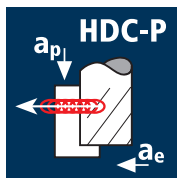
Example: **Order-N°.** Coating **P** Article-N°. **8413** ø-Code **140**

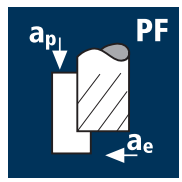
Ø Code	d_1 e8	d_2 h6	l_1	l_2	l_4	r	α	z	POLYCHROM P8413	POLYCHROM P8313
140*	2.00	6.00	63	7.00	17.12	0.050	7.0°	3		●
180*	3.00	6.00	63	11.00	20.26	0.050	4.5°	3		●
220*	4.00	6.00	63	13.00	21.39	0.100	3.0°	3		●
260*	5.00	6.00	63	16.00	23.52	0.100	1.5°	3		●
300	6.00	6.00	63	21.00	-	0.100	0.0°	3		●
391	8.00	8.00	72	31.00	-	0.150	0.0°	3		●
450	10.00	10.00	84	37.00	-	0.200	0.0°	3		●
501	12.00	12.00	97	44.00	-	0.200	0.0°	3		●
610	16.00	16.00	108	53.00	-	0.200	0.0°	3		●
682	20.00	20.00	122	62.00	-	0.250	0.0°	3		●

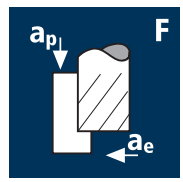
* without chip breaker only

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 [cm³/min]	φZ [°]
	Steel < 850 N/mm²	3.00	3	120	0.018	3.750	1.950	12730	690	5.0	2°
		4.00	3	120	0.027	5.000	2.600	9550	775	10.1	2°
		5.00	3	120	0.033	6.250	3.250	7640	755	15.4	2°
		6.00	3	120	0.035	9.000	3.900	6365	670	23.5	2°
		8.00	3	120	0.047	12.000	5.200	4775	675	42.0	2°
		10.00	3	120	0.059	15.000	6.500	3820	675	65.9	2°
		12.00	3	120	0.065	18.000	7.800	3185	620	87.1	2°
		16.00	3	120	0.079	24.000	10.400	2385	565	141.2	2°
		20.00	3	120	0.089	30.000	13.000	1910	510	198.9	2°
	Steel 850 - 1100 N/mm²	3.00	3	110	0.017	3.750	1.950	11670	595	4.4	3°
		4.00	3	110	0.025	5.000	2.600	8755	655	8.5	3°
		5.00	3	110	0.032	6.250	3.250	7005	670	13.7	3°
		6.00	3	110	0.030	9.000	3.900	5835	525	18.4	3°
		8.00	3	110	0.040	12.000	5.200	4375	525	32.8	3°
		10.00	3	110	0.050	15.000	6.500	3500	525	51.2	3°
		12.00	3	110	0.059	18.000	7.800	2920	515	72.5	3°
		16.00	3	110	0.072	24.000	10.400	2190	475	118.0	3°
		20.00	3	110	0.081	30.000	13.000	1750	425	165.9	3°
	Inox normal [Cr-Ni/1.4301] [Cr-Ni-Mo/1.4571]	3.00	3	70	0.013	3.750	1.950	7425	290	2.1	2°
		4.00	3	70	0.019	5.000	2.600	5570	320	4.1	2°
		5.00	3	70	0.024	6.250	3.250	4455	320	6.5	2°
		6.00	3	70	0.023	9.000	3.900	3715	255	9.0	2°
		8.00	3	70	0.030	12.000	5.200	2785	250	15.6	2°
		10.00	3	70	0.038	15.000	6.500	2230	255	24.8	2°
		12.00	3	70	0.046	18.000	7.800	1855	255	36.0	2°
		16.00	3	70	0.050	24.000	10.400	1395	210	52.1	2°
		20.00	3	70	0.063	30.000	13.000	1115	210	82.1	2°

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 [cm³/min]	φR [°]
	Steel < 850 N/mm²	3.00	3	105	0.013	3.000	3.000	11140	435	3.9	2°
		4.00	3	105	0.019	5.000	4.000	8355	475	9.5	2°
		5.00	3	105	0.023	6.250	5.000	6685	460	14.4	2°
		6.00	3	105	0.028	9.000	6.000	5570	470	25.3	2°
		8.00	3	105	0.038	12.000	8.000	4180	475	45.7	2°
		10.00	3	105	0.047	15.000	10.000	3340	470	70.7	2°
		12.00	3	105	0.052	18.000	12.000	2785	435	93.9	2°
		16.00	3	105	0.063	24.000	16.000	2090	395	151.6	2°
		20.00	3	105	0.071	30.000	20.000	1670	355	213.6	2°
	Steel 850 - 1100 N/mm²	3.00	3	95	0.012	3.000	3.000	10080	365	3.3	2°
		4.00	3	95	0.018	5.000	4.000	7560	410	8.2	2°
		5.00	3	95	0.022	6.250	5.000	6050	400	12.5	2°
		6.00	3	95	0.024	9.000	6.000	5040	365	19.6	2°
		8.00	3	95	0.032	12.000	8.000	3780	365	34.8	2°
		10.00	3	95	0.040	15.000	10.000	3025	365	54.4	2°
		12.00	3	95	0.047	18.000	12.000	2520	355	76.7	2°
		16.00	3	95	0.058	24.000	16.000	1890	330	126.3	2°
		20.00	3	95	0.065	30.000	20.000	1510	295	176.9	2°
	Inox normal [Cr-Ni/1.4301] [Cr-Ni-Mo/1.4571]	3.00	3	60	0.009	3.000	3.000	6365	170	1.5	2°
		4.00	3	60	0.013	5.000	4.000	4775	185	3.7	2°
		5.00	3	60	0.017	6.250	5.000	3820	195	6.1	2°
		6.00	3	60	0.018	9.000	6.000	3185	170	9.3	2°
		8.00	3	60	0.024	12.000	8.000	2385	170	16.5	2°
		10.00	3	60	0.030	15.000	10.000	1910	170	25.8	2°
		12.00	3	60	0.037	18.000	12.000	1590	175	38.2	2°
		16.00	3	60	0.040	24.000	16.000	1195	145	55.0	2°
		20.00	3	60	0.050	30.000	20.000	955	145	85.9	2°







Suitable cutting data for other applications and materials can be found in the cutting data software **ToolExpert E-Cut**