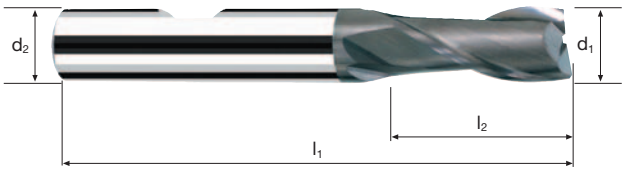
Zylindrische Fräser

Glattschneidig, normale Ausführung

HM
MG10

λ **30°**
γ **12°**

45°



Schruppen

Schlichten

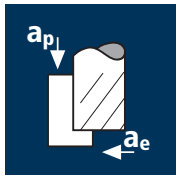
Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Inox** Stainless | **GG(G) Copper**

Beispiel: **Bestell-Nr.** — Beschichtung: **P** | Artikel-Nr.: **5300** | ø-Code: **.138**

ø Code	d_1 e8	d_2 h6	l_1	l_2	45°	α	z	POLYCHROM P5300	POLYCHROM P5200
.138*	2.0	2.0	42	6	0.10	0.0°	2		●
.140	2.0	6.0	54	6	0.10	8.0°	2		●
.158*	2.5	2.5	42	7	0.10	0.0°	2		●
.160	2.5	6.0	54	6	0.10	7.5°	2		●
.178*	3.0	3.0	45	7	0.10	0.0°	2		●
.180	3.0	6.0	57	7	0.10	6.0°	2		●
.200	3.5	6.0	57	7	0.10	5.5°	2		●
.218*	4.0	4.0	50	8	0.10	0.0°	2		●
.220	4.0	6.0	57	8	0.10	4.5°	2		●
.240	4.5	6.0	57	8	0.15	3.5°	2		●
.258*	5.0	5.0	50	10	0.15	0.0°	2		●
.260	5.0	6.0	57	10	0.15	2.5°	2		●
.280	5.5	6.0	57	10	0.15	1.5°	2		●
.300	6.0	6.0	57	10	0.15	0.0°	2		●
.331	7.0	8.0	63	13	0.15	2.0°	2		●
.391	8.0	8.0	63	16	0.15	0.0°	2		●
.420	9.0	10.0	72	16	0.20	1.5°	2		●
.450	10.0	10.0	72	19	0.20	0.0°	2		●
.501	12.0	12.0	83	22	0.20	0.0°	2		●
.610	16.0	16.0	92	26	0.20	0.0°	2		●
.682	20.0	20.0	104	32	0.20	0.0°	2		●

* nur ohne Seitenspannfläche

Anwendung



Werkstoff	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]
Stahl < 850 N/mm²	3	2	115	0.010	3	1.4	12200	245	1.0
	4	2	115	0.015	4	1.8	9150	275	2.0
	5	2	115	0.020	5	2.3	7320	295	3.5
	6	2	115	0.025	6	2.7	6100	305	5.0
	8	2	115	0.030	8	3.6	4575	275	8.0
	10	2	115	0.040	10	4.5	3660	295	13.5
	12	2	115	0.050	12	5.4	3050	305	20.0
	16	2	115	0.065	16	7.2	2290	300	34.5
	20	2	115	0.080	20	9.0	1830	295	53.0
Stahl 850 - 1100 N/mm²	3	2	75	0.010	3	1.4	7960	160	0.5
	4	2	75	0.015	4	1.8	5970	180	1.5
	5	2	75	0.020	5	2.3	4775	190	2.0
	6	2	75	0.020	6	2.7	3980	160	2.5
	8	2	75	0.030	8	3.6	2985	180	5.0
	10	2	75	0.035	10	4.5	2385	165	7.5
	12	2	75	0.045	12	5.4	1990	180	11.5
	16	2	75	0.060	16	7.2	1490	180	20.5
	20	2	75	0.070	20	9.0	1195	165	29.5
Nichtrostender Stahl [Cr-Ni/1.4301]	3	2	60	0.010	3	1.4	6365	125	0.5
	4	2	60	0.015	4	1.8	4775	145	1.0
	5	2	60	0.020	5	2.3	3820	155	1.5
	6	2	60	0.020	6	2.7	3185	125	2.0
	8	2	60	0.030	8	3.6	2385	145	4.0
	10	2	60	0.035	10	4.5	1910	135	6.0
	12	2	60	0.045	12	5.4	1590	145	9.5
	16	2	60	0.060	16	7.2	1195	145	16.5
	20	2	60	0.070	20	9.0	955	135	24.5
Gusseisen GG(G)	3	2	150	0.015	3	1.4	15915	475	2.0
	4	2	150	0.020	4	1.8	11935	475	3.5
	5	2	150	0.020	5	2.3	9550	380	4.5
	6	2	150	0.025	6	2.7	7960	400	6.5
	8	2	150	0.035	8	3.6	5970	420	12.0
	10	2	150	0.045	10	4.5	4775	430	19.5
	12	2	150	0.055	12	5.4	3980	440	28.5
	16	2	150	0.070	16	7.2	2985	420	48.5
	20	2	150	0.090	20	9.0	2385	430	77.5

Anwendung

Werkstoff	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]
Stahl < 850 N/mm²	3	2	85	0.010	1.5	3	9020	180	1.0
	4	2	85	0.010	2.0	4	6765	135	1.0
	5	2	85	0.015	2.5	5	5410	160	2.0
	6	2	85	0.015	3.0	6	4510	135	2.5
	8	2	85	0.020	4.0	8	3380	135	4.5
	10	2	85	0.030	5.0	10	2705	160	8.0
	12	2	85	0.035	6.0	12	2255	160	11.5
	16	2	85	0.045	8.0	16	1690	150	19.0
	20	2	85	0.055	10.0	20	1355	150	30.0
Stahl 850 - 1100 N/mm²	3	2	60	0.010	1.5	3	6365	125	0.5
	4	2	60	0.010	2.0	4	4775	95	1.0
	5	2	60	0.015	2.5	5	3820	115	1.5
	6	2	60	0.015	3.0	6	3185	95	1.5
	8	2	60	0.020	4.0	8	2385	95	3.0
	10	2	60	0.025	5.0	10	1910	95	5.0
	12	2	60	0.030	6.0	12	1590	95	7.0
	16	2	60	0.040	8.0	16	1195	95	12.0
	20	2	60	0.050	10.0	20	955	95	19.0
Nichtrostender Stahl [Cr-Ni/1.4301]	3	2	40	0.010	1.5	3	4245	85	0.5
	4	2	40	0.010	2.0	4	3185	65	0.5
	5	2	40	0.015	2.5	5	2545	75	1.0
	6	2	40	0.015	3.0	6	2120	65	1.0
	8	2	40	0.020	4.0	8	1590	65	2.0
	10	2	40	0.025	5.0	10	1275	65	3.5
	12	2	40	0.030	6.0	12	1060	65	4.5
	16	2	40	0.040	8.0	16	795	65	8.5
	20	2	40	0.050	10.0	20	635	65	13.0
Gusseisen GG(G)	3	2	105	0.010	1.5	3	11140	225	1.0
	4	2	105	0.010	2.0	4	8355	165	1.5
	5	2	105	0.015	2.5	5	6685	200	2.5
	6	2	105	0.020	3.0	6	5570	225	4.0
	8	2	105	0.025	4.0	8	4180	210	6.5
	10	2	105	0.030	5.0	10	3340	200	10.0
	12	2	105	0.035	6.0	12	2785	195	14.0
	16	2	105	0.050	8.0	16	2090	210	27.0
	20	2	105	0.060	10.0	20	1670	200	40.0