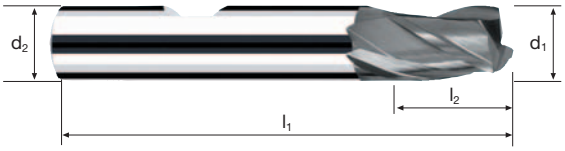
Zylindrische Fräser

Glattschneidig, kurze Ausführung

HM
MG10

λ **30°**
γ **12°**

90°



Schruppen

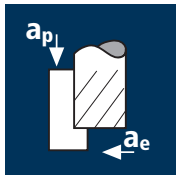
Schlichten

Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Inox** Stainless | **Ti** Titanium | **GG(G) Nickel-Alloys**

Beispiel: **Bestell-Nr.** — Beschichtung **P** | Artikel-Nr. **5036** | ø-Code **.120**

ø Code	d1 e8	d2 h6	l1	l2	α	z	POLYCHROM P5036	TRIBO T5036 / T5026
.120	1.5	6	50	5	9.0°	3	●	●
.140	2.0	6	50	5	8.5°	3	●	●
.160	2.5	6	50	5	8.0°	3	●	●
.180	3.0	6	50	6	6.5°	3	●	●
.200	3.5	6	50	8	5.0°	3	●	●
.220	4.0	6	50	8	4.5°	3	●	●
.240	4.5	6	50	8	3.5°	3	●	●
.260	5.0	6	50	9	2.5°	3	●	●
.300	6.0	6	50	10	0.0°	3	●	●
.331	7.0	8	54	10	2.5°	3	●	●
.391	8.0	8	54	12	0.0°	3	●	●
.420	9.0	10	63	12	2.0°	3	●	●
.450	10.0	10	63	13	0.0°	3	●	●

Anwendung



Werkstoff	d1 [mm]	z	vc [m/min]	fz [mm]	ap [mm]	ae [mm]	n [min⁻¹]	vf [mm/min]
Stahl < 850 N/mm²	1.5	3	190	0.010	1.8	0.2	40320	1210
	2.0	3	190	0.015	2.4	0.2	30240	1360
	2.5	3	190	0.015	3.0	0.3	24190	1090
	3.0	3	190	0.020	3.6	0.3	20160	1210
	4.0	3	190	0.025	4.8	0.4	15120	1135
	5.0	3	190	0.035	6.0	0.5	12095	1270
	6.0	3	190	0.040	7.2	0.6	10080	1210
	8.0	3	190	0.055	9.6	0.8	7560	1245
	10.0	3	190	0.065	12.0	1.0	6050	1180
Stahl 850 - 1100 N/mm²	1.5	3	130	0.010	1.8	0.2	27590	830
	2.0	3	130	0.015	2.4	0.2	20690	930
	2.5	3	130	0.015	3.0	0.3	16555	745
	3.0	3	130	0.020	3.6	0.3	13795	830
	4.0	3	130	0.025	4.8	0.4	10345	775
	5.0	3	130	0.035	6.0	0.5	8275	870
	6.0	3	130	0.040	7.2	0.6	6895	825
	8.0	3	130	0.050	9.6	0.8	5175	775
	10.0	3	130	0.060	12.0	1.0	4140	745
Titanlegierungen ausg. >300 HB [Ti6Al4V]	1.5	3	50	0.005	1.8	0.2	10610	160
	2.0	3	50	0.010	2.4	0.2	7960	240
	2.5	3	50	0.010	3.0	0.3	6365	190
	3.0	3	50	0.010	3.6	0.3	5305	160
	4.0	3	50	0.015	4.8	0.4	3980	180
	5.0	3	50	0.020	6.0	0.5	3185	190
	6.0	3	50	0.020	7.2	0.6	2655	160
	8.0	3	50	0.030	9.6	0.8	1990	180
	10.0	3	50	0.035	12.0	1.0	1590	165
Nichtrostender Stahl [Cr-Ni/1.4301]	1.5	3	80	0.005	1.8	0.2	16975	255
	2.0	3	80	0.010	2.4	0.2	12735	380
	2.5	3	80	0.010	3.0	0.3	10185	305
	3.0	3	80	0.015	3.6	0.3	8490	380
	4.0	3	80	0.020	4.8	0.4	6365	380
	5.0	3	80	0.025	6.0	0.5	5095	380
	6.0	3	80	0.030	7.2	0.6	4245	380
	8.0	3	80	0.040	9.6	0.8	3185	380
	10.0	3	80	0.045	12.0	1.0	2545	345

Anwendung

Werkstoff	d1 [mm]	z	vc [m/min]	fz [mm]	ap [mm]	ae [mm]	n [min⁻¹]	vf [mm/min]	Q [cm³/min]
Stahl < 850 N/mm²	1.5	3	140	0.010	0.6	1.5	29710	890	1.0
	2.0	3	140	0.010	0.8	2.0	22280	670	1.0
	2.5	3	140	0.015	1.0	2.5	17825	800	2.0
	3.0	3	140	0.015	1.2	3.0	14855	670	2.5
	4.0	3	140	0.020	1.6	4.0	11140	670	4.5
	5.0	3	140	0.030	2.0	5.0	8915	800	8.0
	6.0	3	140	0.035	2.4	6.0	7425	780	11.0
	8.0	3	140	0.045	3.2	8.0	5570	750	19.0
	10.0	3	140	0.055	4.0	10.0	4455	735	29.5
Stahl 850 - 1100 N/mm²	1.5	3	85	0.010	0.6	1.5	18040	540	0.5
	2.0	3	85	0.010	0.8	2.0	13530	405	0.5
	2.5	3	85	0.015	1.0	2.5	10825	485	1.0
	3.0	3	85	0.015	1.2	3.0	9020	405	1.5
	4.0	3	85	0.020	1.6	4.0	6765	405	2.5
	5.0	3	85	0.030	2.0	5.0	5410	485	5.0
	6.0	3	85	0.035	2.4	6.0	4510	475	7.0
	8.0	3	85	0.045	3.2	8.0	3380	455	11.5
	10.0	3	85	0.050	4.0	10.0	2705	405	16.0
Titanlegierungen ausg. >300 HB [Ti6Al4V]	1.5	3	40	0.005	0.6	1.5	8490	125	0.0
	2.0	3	40	0.005	0.8	2.0	6365	95	0.0
	2.5	3	40	0.010	1.0	2.5	5095	155	0.5
	3.0	3	40	0.010	1.2	3.0	4245	125	0.5
	4.0	3	40	0.010	1.6	4.0	3185	95	0.5
	5.0	3	40	0.015	2.0	5.0	2545	115	1.0
	6.0	3	40	0.020	2.4	6.0	2120	125	2.0
	8.0	3	40	0.025	3.2	8.0	1590	120	3.0
	10.0	3	40	0.030	4.0	10.0	1275	115	4.5
Nichtrostender Stahl [Cr-Ni/1.4301]	1.5	3	55	0.005	0.6	1.5	11670	175	0.0
	2.0	3	55	0.005	0.8	2.0	8755	130	0.0
	2.5	3	55	0.010	1.0	2.5	7005	210	0.5
	3.0	3	55	0.010	1.2	3.0	5835	175	0.5
	4.0	3	55	0.015	1.6	4.0	4375	195	1.0
	5.0	3	55	0.020	2.0	5.0	3500	210	2.0
	6.0	3	55	0.025	2.4	6.0	2920	220	3.0
	8.0	3	55	0.030	3.2	8.0	2190	195	5.0
	10.0	3	55	0.040	4.0	10.0	1750	210	8.5