RF100 diver

SLOTTING

Material	Hardness	Cutting depth. (a_p)	Cutting width (a_e)	Cutting speed (v_c)	fz (mm/z)							
					3	6	8	10	12	16	20	25
Struct./free-cutting steels, unall. heat-treat./case hard. steels	up to 850 N/mm²	1 x D	1 x D	270	0.013	0.025	0.034	0.050	0.060	0.080	0.100	0.125
Free-cutting steels, unalloyed case hard. steels, nitr. steels	850 - 1200 N/mm²	1 x D	1 x D	230	0.013	0.025	0.034	0.050	0.060	0.080	0.100	0.125
Alloyed heat-treatable, tool and high speed steels	850 - 1400 N/mm²	1 x D	1 x D	180	0.011	0.021	0.028	0.045	0.054	0.072	0.090	0.113
Stainless steel - easy to machine / sulphured	up to 750 N/mm²	1 x D	1 x D	120	0.011	0.021	0.028	0.045	0.054	0.072	0.090	0.113
Stainless steel - moderately difficult to machine	over 750 - 950 N/mm²	1 x D	1 x D	80	0.010	0.019	0.026	0.040	0.048	0.064	0.080	0.100
Titanium, Titanium alloys	up to 1400 N/mm²	1 x D	1 x D	60	0.010	0.019	0.026	0.04	0.048	0.064	0.08	0.100
Cast iron, grey cast iron, spher. graphite/malleable cast iron	over 240 HB 30	1 x D	1 x D	150	0.013	0.025	0.034	0.050	0.060	0.080	0.100	0.125
Aluminum, Al-wrought alloys, Al-alloys	up to 7% Si	1 x D	1 x D	500	0.017	0.033	0.044	0.065	0.078	0.104	0.130	0.163
Aluminum-cast alloys	over 7% Si	1 x D	1 x D	340	0.014	0.027	0.036	0.055	0.066	0.088	0.110	0.138

HIGH-VOLUME ROUGHING

Material	Hardness	Cutting depth. (a_p)	Cutting width (a_e)	Cutting speed (v_c)	fz (mm/z)							
					3	6	8	10	12	16	20	25
Struct./free-cutting steels, unall. heat-treat./case hard. steels	up to 850 N/mm²	1.5 x D	0.40 x D	350	0.016	0.032	0.042	0.063	0.075	0.100	0.125	0.156
Free-cutting steels, unalloyed case hard. steels, nitr. steels	850 - 1200 N/mm²	1.5 x D	0.40 x D	290	0.016	0.032	0.042	0.063	0.075	0.100	0.125	0.156
Alloyed heat-treatable, tool and high speed steels	850 - 1400 N/mm²	1.5 x D	0.33 x D	260	0.014	0.027	0.036	0.059	0.070	0.094	0.117	0.146
Stainless steel - easy to machine / sulphured	up to 750 N/mm²	1.5 x D	0.33 x D	160	0.014	0.027	0.036	0.059	0.070	0.094	0.117	0.146
Stainless steel - moderately difficult to machine	over 750 - 950 N/mm²	1.5 x D	0.25 x D	120	0.014	0.029	0.038	0.060	0.072	0.096	0.120	0.150
Titanium, Titanium alloys	up to 1400 N/mm²	1.5 x D	0.33 x D	110	0.012	0.025	0.033	0.052	0.062	0.083	0.104	0.130
Cast iron, grey cast iron, spher. graphite/malleable cast iron	over 240 HB 30	1.5 x D	0.40 x D	190	0.016	0.032	0.042	0.063	0.075	0.100	0.125	0.156
Aluminum, Al-wrought alloys, Al-alloys	up to 7% Si	1.5 x D	0.40 x D	600	0.021	0.041	0.055	0.081	0.098	0.130	0.163	0.203
Aluminum-cast alloys	over 7% Si	1.5 x D	0.40 x D	440	0.017	0.034	0.045	0.069	0.083	0.110	0.138	0.172

HIGH-SPEED FINISHING

Material	Hardness	Cutting depth. (a_p)	Cutting width (a_e)	Cutting speed (v_c)	fz (mm/z)							
					3	6	8	10	12	16	20	25
Struct./free-cutting steels, unall. heat-treat./case hard. steels	up to 850 N/mm²	2 x D	0.02 x D	540	0.014	0.028	0.037	0.055	0.066	0.088	0.110	0.138
Free-cutting steels, unalloyed case hard. steels, nitr. steels	850 - 1200 N/mm²	2 x D	0.02 x D	460	0.014	0.028	0.037	0.055	0.066	0.088	0.110	0.138
Alloyed heat-treatable, tool and high speed steels	850 - 1400 N/mm²	2 x D	0.02 x D	350	0.012	0.023	0.031	0.050	0.059	0.079	0.099	0.124
Stainless steel - easy to machine / sulphured	up to 750 N/mm²	2 x D	0.02 x D	220	0.012	0.023	0.031	0.050	0.059	0.079	0.099	0.124
Stainless steel - moderately difficult to machine	over 750 - 950 N/mm²	2 x D	0.02 x D	160	0.011	0.021	0.028	0.044	0.053	0.070	0.088	0.110
Titanium, Titanium alloys	up to 1400 N/mm²	2 x D	0.02 x D	130	0.011	0.021	0.028	0.044	0.053	0.07	0.088	0.110
Cast iron, grey cast iron, spher. graphite/malleable cast iron	over 240 HB 30	2 x D	0.02 x D	300	0.014	0.028	0.037	0.055	0.066	0.088	0.110	0.138
Aluminum, Al-wrought alloys, Al-alloys	up to 7% Si	2 x D	0.02 x D	1000	0.018	0.036	0.048	0.072	0.086	0.114	0.143	0.179
Aluminum-cast alloys	over 7% Si	2 x D	0.02 x D	680	0.015	0.030	0.040	0.061	0.073	0.097	0.121	0.151