

Metav Werkzeuge UG

(haftungsbeschränkt)

Material P	HB	Condition	Cutting speed m/min.						Specific cutting force Kc 0,4
			P25K	P40K	CK30	TIC15	TIC20	TIC30	
			0.3-0.6-1.2		0.1 - 0.3	0.1-0.4-0.8	0.1-0.4-0.8	0.2-0.5-1.2	
Unalloyed steel	125	C=0.15%	150 115 80		350 280	480 345 250	440 300 205	330 230 110	1900
	150	C=0.35%	145 105 70		270 230	440 315 230	400 275 190	300 210 150	2100
	200	C=0.60%	115 90 65		240 190	385 275 200	350 240 165	260 185 130	2250
Low alloyed steel	180	Annealed	90 70 45		300 260	380 265 195	320 220 170	200 140 100	2100
	275	Hardened	65 45 30		220 140	260 180 130	215 150 115	140 100 70	2600
	300	Hardened	60 40 25		230 180	240 165 120	200 135 105	125 90 60	2700
	350	Hardened	50 35 20		220 140	210 145 105	170 120 90	110 75 55	2850
High alloyed steel	200	Annealed	80 60 45		200 160	350 230 170	280 185 135	175 115 80	2600
	325	Hardened	40 25 20		200 160	170 110	120 80 60	85 55 40	3900
Stainless steel	200	Martensitic/Ferritic	110 95 75		270 130	295 240 190	275 210 165	225 180 145	2300
Steel castings	180	Unalloyed	60 50 35		300 260	260 185 145	230 160 120	135 105 75	2000
	200	Low alloyed	50 45 30		230 180	230 160 120	190 125 85	120 90 60	2500
	225	High alloyed	40 30 20		220 140	190 130 95	170 115 80	95 70 55	2700

Material M	HB	Condition	Cutting speed m/min.							Specific cutting force Kc 0,4	
			P25K	P40K	CK30	TIC15	TIC17	TIC20	TIC30		TIC35
			0.1-0.3		0.1-0.3	0.1-0.4-0.8	0.1-0.3		0.2-0.4-0.6		0.2-0.4-0.6
Stainless steel annealed		Austenitic Ni > 8%, Cr 12-25%	205 170		240 200	180 150 120	600 100		190 160 130	190 160 130	2450
		Austenitic/Ferritic			160 130	180 150 120	400 100		190 160 100	190 160 130	
	180	Austenitic/Ferritic, Low S			160 130	180 150 120	400 100		140 110	160 130 100	
Heat Heutresistant alloys	200	Annealed					50 20		40 20	40 20	3000
	280	Aged					50 20		35 15	35 15	3050
	250	Annealed					40 15		25 6	25 6	3500
	350	Aged					35 20		15 4	15 4	4150
320	Cast					25 10		15 4	15 4	4150	
Titanium alloys	400	Ti					140 80			80 130	1530
	950	Cast a, almost a and a+b					45 25			15 35	1675
	1050	Aged cast a+b					45 25			15 35	1690

Material K	HB	Condition	Cutting speed m/min.					Specific cutting force Kc 0,4	
			K15K	TIC17	CK30	TIC15	TIC20		Z10R
			0.2-0.5-1.0	0.2-0.5-1.0	0.2-0.5	0.2-0.5-1.0			0.2-0.5-1.0
Hardened steel	350	Hardened steel	27 16 10	180 150 110		175 145 100		4500	
	250	Manganese steel 12%	65 40 16	120 90 60		120 85 50		3600	
Malleable cast iron	130	Ferritic	105 75 45	250 180 100		225 150 90		1100	
	230	Pearlitic	80 60 30	160 100 60		155 95 55		1100	
Cast iron	180	Low tensile strenght	135 95 60	180 120 80	300 200	165 110 70		1100	
	260	High tensile strenght	95 65 40	140 105 60	250 180	120 9055		1500	
Nodular SG iron	160	Ferritic	115 80 45	220 180 100	250 180			1100	
	250	Pearlitic	80 50 30	150 100 50	180 120			1800	
Chilled cast iron	400		17 11	17 11				3000	
Aluminium alloys	60	Non heat treatable	1750 1280 800	1750 1280 800			1750 1280 800	500	
	100	Heat treatable	510 370 250	510 370 250			510 370 250	800	
Aluminium alloys (Cast)	75	Non heat treatable	460 285 175	460 285 175			460 285 175	750	
	90	Heat treatable	300 180 110	300 180 110			300 180 110	900	
Bronze-Brass alloys	110	Lead alloys, Pb> 1 %	610 430 295	610 430 295			610 430 295	700	
	90	Brass and bronze	310 250 195	310 250 195			310 250 195	750	
	100	Inc. electrolytic copper	225 160 115	225 160 115			225 160 115	1750	
Other materials		Hard plastics	380 240	380 240			380 240		
		Fibre	190 120	190 120			190 120		
		Hard rubber	225 160	225 160			225 160		