

Material Group	Gr. N°	VDI Group	Material Examples*	Hardness	Vc [m/min]		
					min	max	
Steel	Non-alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	80	130	
				190 HB	70	110	
				250 HB	60	100	
	Low alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	70	110	
				230 HB	70	110	
				280 HB	60	100	
				350 HB	50	80	
	High alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	70	110	
				280 HB	60	100	
				320 HB	50	80	
				350 HB	50	80	
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	70	110	
				240 HB	60	90	
	Duplex	5	X2CrNiN23-4, S31500	290 HB	60	80	
				310 HB	60	80	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	70	90	
				42 HRC	60	80	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	60	110	
				200 HB	70	110	
				250 HB	60	90	
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	60	110	
				200 HB	60	90	
				250 HB	60	90	
High Temp. Alloys	Fe, Ni & Co based	9	Incoloy 800	240 HB	40	60	
			Inconel 700	250 HB	30	50	
			Stellite 21	350 HB	20	40	
	Ti based	10	TiAl6V4	-	40	70	
			T40	-	25	50	
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRC	30	50	
			50 HRC	25	50		
			55 HRC	25	40		
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	25	40	
	White Cast Iron	41	G-X300CrMo15	55 HRC	25	40	
NF	Al (>8%Si)	12	25	AlSi12	130 HB	80	300

FEED (mm/Tooth) per Cutting Dia.				
1.5-3	3.0-5	5.0-7.0	7.0-9.0	9.0-11
0.030	0.040	0.060	0.070	0.090
0.020	0.030	0.050	0.060	0.070
0.020	0.030	0.050	0.060	0.070
0.020	0.030	0.050	0.060	0.070
0.020	0.030	0.050	0.060	0.070
0.020	0.030	0.050	0.050	0.050
0.020	0.030	0.050	0.060	0.070
0.020	0.030	0.050	0.060	0.060
0.020	0.030	0.050	0.060	0.060
0.020	0.030	0.050	0.050	0.050
0.020	0.020	0.030	0.040	0.050
0.020	0.020	0.020	0.030	0.040
0.020	0.020	0.020	0.030	0.040
0.020	0.020	0.020	0.030	0.040
0.020	0.030	0.060	0.070	0.080
0.020	0.030	0.050	0.060	0.070
0.020	0.030	0.050	0.060	0.070
0.020	0.030	0.050	0.060	0.070
0.020	0.020	0.020	0.030	0.040
0.015	0.015	0.015	0.020	0.020
0.010	0.010	0.010	0.015	0.015
0.020	0.020	0.020	0.020	0.025
0.020	0.020	0.020	0.020	0.020
0.010	0.010	0.020	0.020	0.020
0.010	0.010	0.020	0.020	0.020
0.010	0.010	0.020	0.020	0.020
0.010	0.010	0.020	0.020	0.020
0.030	0.030	0.040	0.080	0.120