

Material Group	Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [inch]		Feed [inch/rev]		Amax [mm²]	V _c [sfm]		Suggested Starting Parameters		
					min	max	min	max		min	max	D.O.C.	Feed	V _c
Steel	Non-alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.029	0.236	0.015	0.037	0.0061	590	1080	0.158	0.026	780
				190 HB										720
				250 HB										650
	Low alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.029	0.236	0.015	0.034	0.0041	390	910	0.158	0.023	650
				230 HB										590
				280 HB										490
				350 HB										420
	High alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.029	0.189	0.012	0.030	0.0041	220	620	0.132	0.022	450
				280 HB										390
				320 HB										320
				350 HB										290
	Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.029	0.236	0.014	0.030	0.0041	550	880	0.158	0.023
240 HB					550									
Duplex		5	X2CrNiN23-4, S31500	290 HB	0.029	0.189	0.012	0.026	0.0027	260	490	0.132	0.018	320
				310 HB										290
Ferritic & Martensitic		6	410, X6Cr17, 17-4 PH, 430	200 HB	0.029	0.236	0.015	0.030	0.0034	550	820	0.158	0.022	620
				42 HRc										420
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.029	0.236	0.012	0.045	0.0061	520	750	0.158	0.026	590
				200 HB										520
				250 HB										490
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.029	0.236	0.012	0.037	0.0051	390	750	0.158	0.022	520
				200 HB										520
				250 HB										450
High Temp. Alloys	Fe, Ni & Co based	9	Incoloy 800	0.029	0.142	0.014	0.026	0.0024	80	140	0.106	0.021	100	
			Inconel 700										90	
			Stellite 21										90	
	Ti based	10	TiAl6V4	0.029	0.189	0.014	0.030	0.0027	140	210	0.106	0.023	180	
			T40										140	
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.029	0.118	0.008	0.019	0.0014	130	290	0.079	0.015	220
				50 HRc										220
				55 HRc										190
	Chilled Cast Iron White Cast Iron	40	Ni-Hard 2	400 HB	0.029	0.094	0.008	0.019	0.0014	130	190	0.079	0.013	160
				55 HRc										160
NF	Al (>8%Si)	12	AlSi12	130 HB	0.029	0.276	0.014	0.045	0.0067	650	1310	0.158	0.031	910

