TNMG 333 NN LT 10 & LT 1000

Speeds & Feeds

Material Group		Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [inch]		Feed [inch/rev]		Amax	V_c [sfm]		Suggested Starting Parameters		
						min	max	min	max		min	max	D.O.C.	Feed	V_c
Steel	Non-alloyed	1	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.029	0.197	0.010	0.027	0.0047	590	1080	0.158	0.018	780
			2		190 HB		0.197		0.027	0.0047		910			720
			3		250 HB		0.197		0.024	0.0040		820			650
	Low alloyed	2	6	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.029	0.197	0.010	0.024	0.0032	390	910	0.158	0.017	650
			4,6		230 HB		0.157	0.010	0.024	0.0032		820		0.017	590
			5,7		280 HB		0.157	0.009	0.021	0.0032		680		0.016	490
			8		350 HB		0.138	0.009	0.021	0.0026		590		0.016	420
	High alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.029	0.157	0.009	0.021	0.0032	220	620	0.132	0.016	450
			10		280 HB		0.157		0.021	0.0032		490		0.016	390
			11		320 HB		0.118		0.019	0.0021		420		0.015	320
			11		350 HB		0.118		0.019	0.0021		360		0.015	290
Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.029	0.197	0.010	0.021	0.0032	550	880	0.158	0.016	620
			14		240 HB		0.197		0.021	0.0026	520	720		0.014	550
	Duplex	5	14	X2CrNiN23-4, S31500	290 HB	0.029	0.157	0.009	0.019	0.0021	260	490	0.132	0.013	320
			14		310 HB		0.157		0.019		220	450			290
	Ferritic & Martensitic	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.029	0.197	0.011	0.021	0.0026	550	820	0.158	0.016	620
			13		42 HRc		0.157		0.021		390	620	0.118	0.014	420
Cast Iron	Grey	7	15	GG20, GG40, EN-GJL-250, No30B	150 HB	0.029	0.197	0.008	0.032	0.0053	550	820	0.158	0.018	650
			15		200 HB		0.197		0.032	0.0047	520	750			590
			16		250 HB		0.197		0.029	0.0047	490	680			520
	Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.029	0.197	0.008	0.027	0.0040	390	820	0.158	0.016	590
			17,19		200 HB		0.197		0.027	0.0034		750			520
			18,20		250 HB		0.197		0.027	0.0032		620			450
High Temp.Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	240 HB	0.029	0.118	0.010	0.019	0.0018	80	140	0.106	0.015	100
			33	Inconel 700	250 HB		0.118		0.019		80	140			90
			34	Stellite 21	350 HB		0.118		0.019		70	130			90
	Ti based	10	36	TiAl6V4	-	0.029	0.157	0.010	0.021	0.0021	140	210	0.106	0.016	180
			37	T40	-		0.118		0.019	0.0018	110	180		0.015	140
Hardened Mat.	Steel	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.029	0.098	0.005	0.016	0.0016	160	320	0.087	0.013	260
			38		50 HRc		0.079		0.013	0.0011	130	290	0.079	0.010	220
			38		55 HRc		0.059		0.011	0.0008	130	260	0.053	0.009	190
	Chilled Cast Iron		40	Ni-Hard 2	400 HB	0.029	0.079	0.005	0.013	0.0011	130	190	0.079	0.009	160
	White Cast Iron		41	G-X300CrMo15	55 HRc	0.029	0.059	0.005	0.011	0.0008	90	160	0.053	0.008	130
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.029	0.236	0.010	0.032	0.0048	650	1310	0.158	0.020	910