VCMT 332 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	0.020	0.138	0.007	0.016	0.0020	590	1080	0.097	0.012	780
			2		190 HB		0.138		0.016	0.0020		910			720
			3		250 HB		0.138		0.014	0.0016		820			650
	Low alloyed	2	6	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.020	0.138	0.007	0.014	0.0013	390	910	0.097	0.011	650
			4,6		230 HB		0.110	0.007	0.014	0.0013		820		0.011	590
			5,7		280 HB		0.110	0.006	0.013	0.0013		680		0.010	490
			8		350 HB		0.096	0.006	0.013	0.0011		590		0.010	420
	High alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.020	0.110	0.006	0.013	0.0013	220	620	0.081	0.010	450
			10		280 HB		0.110		0.013	0.0013		490		0.010	390
			11		320 HB		0.083		0.011	0.0009		420		0.009	320
			11		350 HB		0.083		0.011	0.0009		360		0.009	290
Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.020	0.138	0.007	0.013	0.0013	550	880	0.097	0.012	620
			14		240 HB		0.138		0.013	0.0011	520	720		0.011	550
	Duplex	5	14	X2CrNiN23-4, S31500	290 HB	0.020	0.110	0.006	0.011	0.0009	260	490	0.081	0.009	320
			14		310 HB		0.110		0.011	0.0000	220	450			290
	Ferritic & Martensitic	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.020	0.138	0.008	0.013	0.0011	550	820	0.097	0.011	620
			13		42 HRc		0.110		0.013	0.0000	390	620	0.000		420
Cast Iron	Grey	7	15	GG20, GG40, EN-GJL-250, No30B	150 HB	0.020	0.138	0.005	0.019	0.0022	550	820	0.097	0.012	650
			15		200 HB		0.138		0.019	0.0020	520	750			590
			16		250 HB		0.138		0.017	0.0020	490	680			520
	Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.020	0.138	0.005	0.016	0.0016	390	820	0.097	0.010	590
			17,19		200 HB		0.138		0.016	0.0014		750			520
			18,20		250 HB		0.138		0.016	0.0013		620			450
High Temp.Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	240 HB	0.020	0.083	0.007	0.011	0.0008	80	140	0.079	0.009	100
			33	Inconel 700	250 HB		0.083		0.011	0.0000	80	140			90
			34	Stellite 21	350 HB		0.083		0.011	0.0000	70	130			90
	Ti based	10	36	TiAl6V4	-	0.020	0.110	0.007	0.013	0.0009	140	210	0.079	0.011	180
			37	T40	-		0.083		0.011	0.0008	110	180		0.010	140
Hardened Mat.	Steel	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.020	0.069	0.004	0.009	0.0007	160	320	0.065	0.008	260
			38		50 HRc		0.055		0.008	0.0004	130	290	0.048	0.007	220
			38		55 HRc		0.041		0.006	0.0003	130	260	0.039	0.006	190
	Chilled Cast Iron		40	Ni-Hard 2	400 HB	0.020	0.055	0.004	0.008	0.0004	130	190	0.048	0.006	160
	White Cast Iron		41	G-X300CrMo15	55 HRc	0.020	0.041	0.004	0.006	0.0003	90	160	0.039	0.005	130
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.020	0.165	0.007	0.019	0.0022	650	1310	0.097	0.013	910