VNMG 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	0.157	0.007	0.016	0.0022	590	1080	0.106	0.012	780
			2		190 HB		0.157		0.016	0.0022		910			720
			3		250 HB		0.157		0.014	0.0019		820			650
	Low alloyed	2	6	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.020	0.157	0.007	0.014	0.0015	390	910	0.106	0.011	650
			4,6		230 HB		0.126	0.007	0.014	0.0015		820			590
			5,7		280 HB		0.126	0.006	0.013	0.0015		680			490
			8		350 HB		0.110	0.006	0.013	0.0012		590			420
	High alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.020	0.126	0.006	0.013	0.0015	220	620	0.089	0.011	450
			10		280 HB		0.126		0.013	0.0015		490		0.011	390
			11		320 HB		0.094		0.011	0.0010		420		0.010	320
			11		350 HB		0.094		0.011	0.0010		360		0.010	290
Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.020	0.157	0.007	0.013	0.0015	550	880	0.106	0.012	620
			14		240 HB		0.157		0.013	0.0012	520	720		0.011	550
	Duplex	5	14	X2CrNiN23-4, S31500	290 HB	0.020	0.126	0.006	0.011	0.0010	260	490	0.089	0.010	320
			14		310 HB		0.126		0.011		220	450			290
	Ferritic & Martensitic	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.020	0.157	0.008	0.013	0.0012	550	820	0.106	0.011	620
			13		42 HRc		0.126		0.013		390	620	0.098		420
Cast Iron	Grey	7	15	GG20, GG40, EN-GJL-250, No30B	150 HB	0.020	0.157	0.005	0.019	0.0025	550	820	0.106	0.012	650
			15		200 HB		0.157		0.019	0.0022	520	750			590
			16		250 HB		0.157		0.017	0.0022	490	680			520
	Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.020	0.157	0.005	0.016	0.0019	390	820	0.106	0.011	590
			17,19		200 HB		0.157		0.016	0.0016		750			520
			18,20		250 HB		0.157		0.016	0.0015		620			450
High Temp.Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	240 HB	0.020	0.094	0.007	0.011	0.0009	80	140	0.079	0.010	100
			33	Inconel 700	250 HB		0.094		0.011		80	140			90
			34	Stellite 21	350 HB		0.094		0.011		70	130			90
	Ti based	10	36	TiAl6V4	-	0.020	0.126	0.007	0.013	0.0010	140	210	0.079	0.012	180
			37	T40	-		0.094		0.011	0.0009	110	180		0.011	140
Hardened Mat.	Steel	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.020	0.079	0.004	0.009	0.0007	160	320	0.071	0.009	260
			38		50 HRc		0.063		0.008	0.0005	130	290	0.053	0.007	220
			38		55 HRc		0.047		0.006	0.0004	130	260	0.039	0.006	190
	Chilled Cast Iron		40	Ni-Hard 2	400 HB	0.020	0.063	0.004	0.008	0.0005	130	190	0.053	0.006	160
	White Cast Iron		41	G-X300CrMo15	55 HRc	0.020	0.047	0.004	0.006	0.0004	90	160	0.039	0.005	130
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.020	0.189	0.007	0.019	0.0022	650	1310	0.106	0.014	910