SCMT 3(2.5)2 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	0.008	0.020	0.0025	590	1080	0.118	0.012	780
			2		190 HB		0.157		0.020	0.0025		910			720
			3		250 HB		0.157		0.018	0.0021		820			650
	Low alloyed	2	6	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.020	0.157	0.008	0.018	0.0017	390	910	0.118	0.011	650
			4,6		230 HB		0.126	0.008	0.018	0.0017		820			590
			5,7		280 HB		0.126	0.007	0.016	0.0017		680			490
			8		350 HB		0.110	0.007	0.016	0.0014		590			420
	High alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.020	0.126	0.007	0.016	0.0017	220	620	0.098	0.011	450
			10		280 HB		0.126		0.016	0.0017		490		0.011	390
			11		320 HB		0.094		0.014	0.0011		420		0.010	320
			11		350 HB		0.094		0.014	0.0011		360		0.010	290
Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.020	0.157	0.008	0.016	0.0017	550	880	0.118	0.012	650
			14		240 HB		0.157		0.016	0.0014	520	720		0.011	590
	Duplex	5	14	X2CrNiN23-4, S31500	290 HB	0.020	0.126	0.007	0.014	0.0011	260	490	0.098	0.010	320
			14		310 HB		0.126		0.014		220	450			290
	Ferritic & Martensitic	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.020	0.157	0.009	0.016	0.0014	550	820	0.118	0.011	620
			13		42 HRc		0.126		0.016		390	620	0.098		420
Cast Iron	Grey	7	15	GG20, GG40, EN-GJL-250, No30B	150 HB	0.020	0.157	0.006	0.024	0.0028	550	820	0.118	0.012	650
			15		200 HB		0.157		0.024	0.0025	520	750			590
			16		250 HB		0.157		0.022	0.0025	490	680			520
	Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.020	0.157	0.006	0.020	0.0021	390	820	0.118	0.011	590
			17,19		200 HB		0.157		0.020	0.0018		750			520
			18,20		250 HB		0.157		0.020	0.0017		620			450
High Temp.Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	240 HB	0.020	0.094	0.008	0.014	0.0010	80	140	0.079	0.010	100
			33	Inconel 700	250 HB		0.094		0.014		80	140			90
			34	Stellite 21	350 HB		0.094		0.014		70	130			90
	Ti based	10	36	TiAl6V4	-	0.020	0.126	0.008	0.016	0.0011	140	210	0.079	0.012	180
			37	T40	-		0.094		0.014	0.0010	110	180		0.011	140
Hardened Mat.	Steel	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.020	0.079	0.004	0.012	0.0008	160	320	0.079	0.009	260
			38		50 HRc		0.063		0.010	0.0006	130	290	0.059	0.007	220
			38		55 HRc		0.047		0.008	0.0004	130	260	0.039	0.006	190
	Chilled Cast Iron		40	Ni-Hard 2	400 HB	0.020	0.063	0.004	0.010	0.0006	130	190	0.059	0.006	160
	White Cast Iron		41	G-X300CrMo15	55 HRc	0.020	0.047	0.004	0.008	0.0004	90	160	0.039	0.005	130
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.020	0.189	0.008	0.024	0.0025	650	1310	0.118	0.014	910