

# MACHINING CONDITIONS

SPMT 120408 TN – LT 3000

Catalog N°: M0003419

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	DOC [mm]		Feed [mm/rev]		V <sub>c</sub> [m/min]		Suggested Starting Parameters		
					min	max	min	max	min	max	DOC	Feed	V <sub>c</sub>
P Non Alloyed  Low Alloyed  High Alloyed	1	1	C35, Ck45,	125 HB	0.5	12	0.1	0.22	190	330	3.2	0.19	250
		2	1020, 1045,	190 HB	0.5	12	0.08	0.2	190	300	3.2	0.17	220
		3	1060, 28Mn6	250 HB	0.5	12	0.08	0.2	190	250	3.2	0.17	200
	2	4, 6	42CrMo4,	180 HB	0.5	12	0.08	0.2	150	210	3.2	0.17	180
		5, 7	St50, Ck60,	230 HB	0.5	12	0.07	0.18	130	190	3.2	0.15	150
		6	4140, 4340,	280 HB	0.5	12	0.1	0.22	150	240	3.2	0.19	200
		8	100Cr06	350 HB	0.5	12	0.07	0.18	130	170	3.2	0.15	140
	3	10	220 HB	220 HB	0.5	12	0.08	0.2	90	150	2.4	0.17	130
		10	X40CrMoV5,	280 HB	0.5	12	0.07	0.18	90	130	2.4	0.15	120
		11	H13, M42, D3,	320 HB	0.5	12	0.07	0.18	60	110	2.4	0.15	100
		11	S6-5-2, 12Ni19	350 HB	0.5	12	0.07	0.16	60	90	2.4	0.14	80
M Austenitic	4	14	304, 316,	180 HB	0.5	12	0.09	0.12	190	250	3.2	0.1	220
		14	X5CrNi18-9	240 HB	0.5	12	0.08	0.1	160	210	3.2	0.08	190
M Duplex	5	14	X2CrNiN23-4,	290 HB	0.5	12	0.08	0.1	70	130	2.4	0.08	100
		14	S31500	310 HB	0.5	12	0.06	0.1	70	120	2.4	0.08	90
M Ferritic & Martensitic	6	12	410, X6Cr17,	200 HB	0.5	12	0.08	0.12	150	210	3.2	0.1	190
		13	17-4PH, 430	42 HRc	0.5	12	0.06	0.1	90	150	2.4	0.08	130
K Grey  Malleable & Nodular	7	15	GG20, GG40,	150 HB	0.5	12	0.1	0.28	150	240	3.2	0.26	200
		15	EN-GJL-250	200 HB	0.5	12	0.1	0.26	150	220	3.2	0.24	180
		16		250 HB	0.5	12	0.1	0.24	150	190	3.2	0.22	160
	8	17, 19	GG20, GG70,	150 HB	0.5	12	0.1	0.26	100	200	3.2	0.24	180
		17, 19	50005	200 HB	0.5	12	0.1	0.24	100	180	3.2	0.22	150
		18, 20		250 HB	0.5	12	0.1	0.24	100	150	3.2	0.22	130
S Fe, Ni & Co based  Ti based	9	31, 32	Incoloy 800	240 HB	0.5	12	0.06	0.14	30	50	2.4	0.12	32
		33	Inconel 700	250 HB	0.5	12	0.06	0.14	30	50	2.4	0.12	30
		34	Stellite 21	350 HB	0.5	12	0.06	0.14	30	50	2.4	0.11	30
	10	36	TiAl6V4	-	0.5	12	0.06	0.14	30	60	2.4	0.12	40
37		T40	-	0.5	12	0.06	0.14	40	70	2.4	0.12	55	
H Steel  Chilled Cast Iron White Cast Iron	11	38	X100 CrMo13,	45 HRc	0.5	12	0.06	0.14	40	80	1.6	0.1	60
		38	440C,	50 HRc	0.5	12	0.06	0.12	40	70	1.2	0.08	55
		38	G-X260NiCr42	55 HRc	0.5	12	0.06	0.1	40	60	0.8	0.08	50
	12	40	Ni-Hard 2	400 HB	0.5	12	0.06	0.1	40	80	1.2	0.08	50
	13	41	G-X300CrMo15	55 HRc	0.5	12	0.06	0.1	30	60	0.8	0.08	40
NF Aluminium	14	25	AlSi12	130 HB	0.5	12	0.1	0.18	200	400	3.2	0.15	280

