MACHINING CONDITIONS

SPMT 060304 TN – **LT 3000**

Catalog N°: M0003416

	Material Group	Gr. N°	VDI Group	Material Examples	Hardness	DOC [mm]		Feed [mm/rev]		V_c [m/min]		Suggested Starting Parameters		
						min	max	min	max	min	max	DOC	Feed	V_c
P	Non Alloyed	1	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.3	6	0.06	0.12	190	330	2.4	0.1	250
			2		190 HB	0.3	6	0.06	0.1	190	300	2.4	0.08	220
			3		250 HB	0.3	6	0.06	0.1	190	250	2.4	0.08	200
	Low Alloyed	2	4, 6	42CrMo4, St50, Ck60, 4140, 4340, 100Cr06	180 HB	0.3	6	0.06	0.1	150	210	2.4	0.08	180
			5, 7		230 HB	0.3	6	0.05	0.1	130	190	2.4	0.08	150
			6		280 HB	0.3	6	0.06	0.12	150	240	2.4	0.1	200
			8		350 HB	0.3	6	0.05	0.1	130	170	2.4	0.08	140
	High Alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.3	6	0.06	0.08	90	150	1.8	0.07	130
			10		280 HB	0.3	6	0.05	0.1	90	130	1.8	0.08	120
			11		320 HB	0.3	6	0.05	0.08	60	110	1.8	0.06	100
			11		350 HB	0.3	6	0.05	0.08	60	90	1.8	0.06	80
M	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.3	6	0.06	0.08	190	250	2.4	0.07	220
			14		240 HB	0.3	6	0.05	0.08	160	210	2.4	0.07	190
	Duplex	5	14	X2CrNiN23-4, S31500	290 HB	0.3	6	0.05	0.08	70	130	1.8	0.07	100
			14		310 HB	0.3	6	0.05	0.07	70	120	1.8	0.06	90
	Ferritic & Martensitic	6	12	410, X6Cr17, 17-4PH, 430	200 HB	0.3	6	0.05	0.08	150	210	2.4	0.07	190
			13		42 HRc	0.3	6	0.05	0.07	90	150	1.8	0.06	130
K	Grey	7	15	GG20, GG40, EN-GJL-250	150 HB	0.3	6	0.05	0.14	150	240	2.4	0.12	200
			15		200 HB	0.3	6	0.05	0.12	150	220	2.4	0.1	180
			16		250 HB	0.3	6	0.05	0.12	150	190	2.4	0.1	160
	Malleable & Nodular	8	17, 19	GG20, GG70, 50005	150 HB	0.3	6	0.05	0.14	100	200	2.4	0.12	180
			17, 19		200 HB	0.3	6	0.05	0.12	100	180	2.4	0.1	150
			18, 20		250 HB	0.3	6	0.05	0.12	100	150	2.4	0.1	130
S	Fe, Ni & Co based	9	31, 32	Incoloy 800	240 HB	0.3	6	0.04	0.08	30	50	1.8	0.06	32
			33	Inconel 700	250 HB	0.3	6	0.04	0.08	30	50	1.8	0.06	30
			34	Stellite 21	350 HB	0.3	6	0.04	0.08	30	50	1.8	0.06	30
	Ti based	10	36	TiAl6V4	-	0.3	6	0.04	0.08	30	60	1.8	0.06	40
			37	T40	-	0.3	6	0.04	0.08	40	70	1.8	0.06	55
H	Steel	11	38	X100 CrMo13, 440C, G-X260NiCr42	45 HRc	0.3	6	0.04	0.1	40	80	1.2	0.08	60
			38		50 HRc	0.3	6	0.04	0.08	40	70	0.9	0.06	55
			38		55 HRc	0.3	6	0.04	0.06	40	60	0.6	0.05	50
	Chilled Cast Iron	12	40	Ni-Hard 2	400 HB	0.3	6	0.04	0.06	40	80	0.9	0.05	50
	White Cast Iron	13	41	G-X300CrMo15	55 HRc	0.3	6	0.04	0.06	30	60	0.6	0.05	40
NF	Aluminium	14	25	AlSi12	130 HB	0.3	6	0.08	0.14	200	400	2.4	0.12	280