MACHINING CONDITIONS

RDMT 0702 M0 – **LT 3000**

Catalog N°: M0003404

	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	0.5	1.8	0.18	0.54	190	330	0.8	0.32	250
			2		190 HB	0.5	1.8	0.18	0.54	190	300	0.8	0.32	220
			3		250 HB	0.5	1.8	0.18	0.54	190	250	0.8	0.32	200
	Low Alloyed	2	4, 6	42CrMo4, St50, Ck60, 4140, 4340, 100Cr06	180 HB	0.5	1.8	0.15	0.43	150	210	0.8	0.28	180
			5, 7		230 HB	0.5	1.8	0.15	0.37	130	190	0.8	0.25	150
			6		280 HB	0.5	1.8	0.15	0.43	150	240	0.8	0.28	200
			8		350 HB	0.5	1.8	0.15	0.37	130	170	0.8	0.25	140
	High Alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	1.3	0.12	0.37	90	150	0.6	0.25	130
			10		280 HB	0.5	1.3	0.12	0.37	90	130	0.6	0.25	120
			11		320 HB	0.5	1.3	0.12	0.31	60	110	0.6	0.22	100
			11		350 HB	0.5	1.3	0.12	0.31	60	90	0.6	0.22	80
M	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.5	1.8	0.15	0.43	190	250	0.8	0.28	220
			14		240 HB	0.5	1.8	0.12	0.37	160	210	0.8	0.28	190
	Duplex	5	14	X2CrNiN23-4, S31500	290 HB	0.5	1.4	0.12	0.31	70	130	0.6	0.22	100
			14		310 HB	0.5	1.4	0.12	0.31	70	120	0.6	0.22	90
	Ferritic & Martensitic	6	12	410, X6Cr17, 17-4PH, 430	200 HB	0.5	1.8	0.15	0.43	150	210	0.8	0.28	190
			13		42 HRc	0.5	1.4	0.15	0.34	90	150	0.6	0.22	130
K	Grey	7	15	GG20, GG40, EN-GJL-250	150 HB	0.5	1.8	0.18	0.54	150	240	0.8	0.32	200
			15		200 HB	0.5	1.8	0.18	0.54	150	220	0.8	0.32	180
			16		250 HB	0.5	1.8	0.18	0.54	150	190	0.8	0.32	160
	Malleable & Nodular	8	17, 19	GG20, GG70, 50005	150 HB	0.5	1.8	0.15	0.48	100	200	0.8	0.28	180
			17, 19		200 HB	0.5	1.8	0.15	0.48	100	180	0.8	0.28	150
			18, 20		250 HB	0.5	1.8	0.15	0.48	100	150	0.8	0.28	130
S	Fe, Ni & Co based	9	31, 32	Incoloy 800	240 HB	0.5	1.4	0.12	0.31	30	50	0.6	0.22	32
			33	Inconel 700	250 HB	0.5	1.4	0.12	0.31	30	50	0.6	0.22	30
			34	Stellite 21	350 HB	0.5	1.4	0.12	0.31	30	50	0.6	0.22	30
	Ti based	10	36	TiAl6V4	-	0.5	1.4	0.12	0.31	30	60	0.6	0.22	40
			37	T40	-	0.5	1.4	0.12	0.34	40	70	0.6	0.25	55
H	Steel	11	38	X100 CrMo13, 440C, G-X260NiCr42	45 HRc	0.3	0.6	0.1	0.31	40	80	0.4	0.2	60
			38		50 HRc	0.3	0.5	0.1	0.27	40	70	0.3	0.18	55
			38		55 HRc	0.3	0.5	0.1	0.24	40	60	0.3	0.17	50
	Chilled Cast Iron	12	40	Ni-Hard 2	400 HB	0.3	0.5	0.1	0.31	40	80	0.3	0.2	50
	White Cast Iron	13	41	G-X300CrMo15	55 HRc	0.3	0.5	0.1	0.24	30	60	0.3	0.17	40
NF	Aluminium	14	25	AlSi12	130 HB	0.5	1.8	0.18	0.54	200	400	0.8	0.35	280