MACHINING CONDITIONS

RDMT 0602 M0 LT 30

M0000035 Metric

Material Group	Lamina Group	Material Example	Hardness	D.O.C.		Feed		Vc		Advised D.O.C.	Advised Feed	Advised Vc
				min [mm]	max [mm]	min [mm/t]	max [mm/t]	min [m/mm]	max [m/mm]	[mm]	[mm/t]	[m/mln]
Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.50	1.54	0.18	0.48	190	330	0.8	0.29	250
			190 HB	0.50	1.54	0.18	0.48	190	300	0.8	0.29	220
			250 HB	0.50	1.54	0.18	0.48	190	250	0.8	0.29	200
Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.50	1.54	0.15	0.38	150	240	0.8	0.25	200
			230 HB	0.50	1.54	0.15	0.38	150	210	0.8	0.25	180
			280 HB	0.50	1.54	0.15	0.33	130	190	0.8	0.22	150
			350 HB	0.50	1.54	0.15	0.33	130	170	0.8	0.22	140
High Alloyed	3	X40CrM0V5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.50	1.1	0.12	0.33	90	150	0.6	0.22	130
			280 HB	0.50	1.1	0.12	0.33	90	130	0.6	0.22	120
			320 HB	0.50	1.1	0.12	0.27	60	110	0.6	0.2	100
			350 HB	0.50	1.1	0.12	0.27	60	90	0.6	0.2	80
Austentic	4	304, 316, X5CrNi18-9	180 HB	0.50	1.54	0.15	0.38	190	250	0.8	0.25	220
			240 HB	0.50	1.54	0.12	0.33	160	210	0.8	0.25	190
Duplex	5	X2CrNiN23-4, S31500	290 HB	0.50	1.21	0.12	0.27	70	130	0.6	0.2	100
			310 HB	0.50	1.21	0.12	0.27	70	120	0.6	0.2	90
Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.50	1.54	0.15	0.38	150	210	0.8	0.25	190
			388 HB	0.50	1.21	0.15	0.3	90	150	0.6	0.2	130
Grey	7	GG20, GG40, EN-GJL-250, N030B	150 HB	0.50	1.54	0.18	0.48	150	240	0.8	0.29	200
			200 HB	0.50	1.54	0.18	0.48	150	220	0.8	0.29	180
			250 HB	0.50	1.54	0.18	0.48	150	190	0.8	0.29	160
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.50	1.54	0.15	0.42	100	200	0.8	0.25	180
			200 HB	0.50	1.54	0.15	0.42	100	180	0.8	0.25	150
			250 HB	0.50	1.54	0.15	0.42	100	150	0.8	0.25	130
Fe, Ni & Co Based	9	Incoloy 800	240 HB	0.50	1.21	0.12	0.27	25	45	0.6	0.2	32
			250 HB	0.50	1.21	0.12	0.27	25	45	0.6	0.2	30
			350 HB	0.50	1.21	0.12	0.27	25	45	0.6	0.2	30
Steel Chilled Cast Iron White Cast Iron	11	X100CrMo13, 440C, G-X260NiCr42	419 HB	0.30	0.55	0.1	0.27	40	80	0.4	0.17	60
			469 HB	0.30	0.44	0.1	0.24	40	70	0.3	0.16	55
			552 HB	0.30	0.4	0.1	0.21	40	60	0.3	0.15	50
			400 HB	0.30	0.4	0.1	0.27	40	80	0.3	0.18	50
			552 HB	0.30	0.4	0.1	0.21	30	60	0.3	0.15	40
Al (>8%Si)	12	AlSi12	130 HB	0.50	1.54	0.18	0.48	200	400	0.8	0.31	280

Steel | Stainless steel | Cast iron | High temp alloys | Hardened material | ALU