



MACHINING CONDITIONS

RCMT 1204 M0 LT 10

FT000093

Material Group	Lamina Group	Material Example	Hardness	D.O.C		Feed		Amax	Vc		Advised D.O.C	Advised Feed	Advised Vc	
				min[mm]	max[mm]	min[mm/t]	max[mm/t]	[mm^2]	min[m/min]	max [m/min]	[mm]	[mm/t]	[m/min]	
Steel	Non Alloyed	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	3.2	0.15	0.4	1.54	180	330	2	0.37	240	
			190 HB	0.5	3.2	0.15	0.4	1.54	180	280	2	0.37	220	
			250 HB	0.5	2.4	0.15	0.35	1.34	180	250	2	0.32	200	
	Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	230 HB	0.5	3.2	0.15	0.35	1.15	120	250	2	0.32	180
				280 HB	0.5	3.2	0.15	0.35	0.96	120	210	2	0.32	150
				180 HB	0.5	3.2	0.15	0.35	1.34	120	280	2	0.32	200
				350 HB	0.5	2.4	0.15	0.35	0.86	120	180	2	0.32	130
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	3.2	0.13	0.35	1.15	70	190	2	0.32	140
				280 HB	0.5	3.2	0.13	0.3	0.96	70	150	2	0.29	120
				320 HB	0.5	2.4	0.13	0.3	0.77	70	130	2	0.29	100
				350 HB	0.5	2.4	0.13	0.3	0.62	70	110	2	0.25	90
	Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	3.2	0.14	0.35	0.77	170	270	2	0.32
240 HB					0.5	3.2	0.14	0.32	0.77	160	220	2	0.3	190
Duplex		5	X2CrNiN23-4, S31500	290 HB	0.5	2.4	0.13	0.3	0.72	80	150	2	0.29	100
				310 HB	0.5	2.4	0.13	0.3	0.72	70	140	2	0.29	90
Ferritic & Martensitic		6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	3.2	0.15	0.35	0.77	170	250	2	0.26	210
				42 HRc	0.5	3.2	0.15	0.3	0.72	120	190	2	0.23	140
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, N030B	150 HB	0.5	3.2	0.11	0.45	1.68	170	250	2	0.37	200
				200 HB	0.5	3.2	0.11	0.45	1.56	160	230	2	0.37	180
				250 HB	0.5	3.2	0.11	0.45	1.44	150	210	2	0.37	160
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	3.2	0.11	0.35	1.44	120	250	2	0.32	180
				200 HB	0.5	3.2	0.11	0.35	1.2	120	230	2	0.32	160
				250 HB	0.5	3.2	0.11	0.35	1.08	120	190	2	0.32	140
NITTI Alloy	Fe, Ni & Co Based	9	Incoloy 800	240 HB	0.5	2.4	0.13	0.3	0.72	30	50	2	0.29	35
			Inconel 700	250 HB	0.5	2.4	0.13	0.3	0.72	30	50	2	0.29	30
			Stellite 21	350 HB	0.5	2.4	0.13	0.3	0.72	30	50	2	0.29	30
	Ti Based	10	T40	-	0.5	2.4	0.13	0.3	0.72	40	60	2	0.29	45
TiAl6V4			-	0.5	2.4	0.13	0.32	0.77	50	70	2	0.32	55	
Hardened Materials	Steel Chilled Cast Iron White Cast Iron	11	G-X300CrMo15	55 HRc	0.3	1.3	0.05	0.14	0.24	30	50	1.2	0.13	40
			Ni-Hard 2	400 HB	0.5	1.9	0.05	0.22	0.41	40	60	1.8	0.19	50
			45 HRc	0.5	1.9	0.05	0.22	0.48	50	100	1.8	0.19	80	
			X100CrMo13, 440C, G-X260NiCr42	50 HRc	0.5	1.6	0.05	0.18	0.41	40	90	1.4	0.17	70
			55 HRc	0.3	1.3	0.05	0.14	0.29	40	80	1.2	0.13	60	
Aluminium	Al (>8%Si)	12	AlSi12	130 HB	0.5	3.2	0.15	0.4	1.68	200	400	2	0.37	280