

# MACHINING CONDITIONS - MILLING - DEPTH OF CUT AND FEED

SPMT 120408 TN

Material Group	Lamina Gr. N°	Material Examples	Hardness	DOC [mm]		Feed [mm/z]		Suggested Starting Parameters		
				min	max	min	max	DOC	Feed	
P Non Alloyed  Low Alloyed  High Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.50	12.00	0.10	0.22	3.20	0.19	
			190 HB						0.17	
			250 HB							
	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.50	12.00	0.10	0.22	3.20	0.19	
			230 HB						0.17	
			280 HB						0.15	
			350 HB							
	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.50	12.00	0.08	0.20	2.40	0.17	
			280 HB						0.15	
			320 HB						0.14	
			350 HB							
	M Austenitic  Duplex  Ferritic & Martensitic	4	304, 316, X5CrNi18-9	180 HB	0.50	12.00	0.09	0.12	3.20	0.10
240 HB				0.08						
5		X2CrNiN23-4, S31500	290 HB	0.50	12.00	0.08	0.10	2.40	0.08	
			310 HB						0.06	
6		410, X6Cr17, 17-4PH, 430	200 HB	0.50	12.00	0.08	0.12	3.20	0.10	
			42 HRc						0.06	
K Grey  Malleable & Nodular	7	GG20, GG40, EN-GJL-250, N030B	150 HB	0.50	12.00	0.10	0.28	3.20	0.26	
			200 HB				0.26		0.24	
			250 HB				0.24		0.22	
	8	GGG40, GGG70, 50005	150 HB	0.50	12.00	0.10	0.26	3.20	0.24	
			200 HB				0.24		0.22	
			250 HB							
S Fe, Ni & Co based  Ti based	9	Incoloy 800	240 HB	0.50	12.00	0.06	0.14	2.40	0.12	
		Inconel 700	250 HB						0.11	
		Stellite 21	350 HB							
H Steel  Chilled Cast Iron  White Cast Iron	11	X100 CrMo13, 440C, G-X260NiCr42	45 HRc	0.50	12.00	0.06	0.14	1.60	0.10	
			50 HRc				0.12			1.20
			55 HRc				0.10			0.80
		Chilled Cast Iron	Ni-Hard 2				400 HB	0.10	1.20	
			White Cast Iron				G-X300CrMo15	55 HRc	0.10	0.80
		NF Aluminium					12	AlSi12	130 HB	0.50

The depth of cut and feed rate tables are for the geometry and corner radius specified above the table. Refer to cutting speed tables on page 226 for recommended materials per grade.