

MACHINING CONDITIONS - MILLING - DEPTH OF CUT AND FEED

APKT 160416 PDTR

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	15.00	0.18	0.32	5.00	0.23
			190 HB						
			250 HB						
	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.50	15.00	0.15	0.25	5.00	0.20
			230 HB				0.22		0.18
			280 HB						
			350 HB						
	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.50	10.70	0.12	0.22	3.80	0.18
			280 HB				0.18		0.16
320 HB									
350 HB									
M Austenitic Duplex Ferritic & Martensitic	4	304, 316, X5CrNi18-9	180 HB	0.50	15.00	0.15	5.00	0.20	
			240 HB			0.12			
	5	X2CrNiN23-4, S31500	290 HB	0.50	10.70	0.12	0.18	3.80	0.16
			310 HB						
	6	410, X6Cr17, 17-4PH, 430	200 HB	0.50	15.00	0.15	0.25	5.00	0.20
			42 HRc		10.70		0.20		
K Grey Malleable & Nodular	7	GG20, GG40, EN-GJL-250, N030B	150 HB	0.50	15.00	0.18	0.32	5.00	0.23
			200 HB						
			250 HB						
	8	GGG40, GGG70, 50005	150 HB	0.50	15.00	0.15	0.28	5.00	0.20
			200 HB						
			250 HB						
S Fe, Ni & Co based Ti based	9	Incoloy 800	0.50	10.70	0.12	0.18	3.80	0.16	
		Inconel 700							
		Stellite 21							
	10	TiAl6V4	0.50	10.70	0.12	0.20	3.80	0.18	
		T40				0.18		0.16	
	H Steel Chilled Cast Iron White Cast Iron	11	X100 CrMo13, 440C, G-X260NiCr42	45 HRc	0.50	5.40	0.10	0.18	2.50
50 HRc				3.20		0.16		1.90	0.13
55 HRc				1.60		0.14		1.30	0.12
Ni-Hard 2			400 HB	4.30		0.18		1.90	0.14
			G-X300CrMo15	55 HRc		1.60		0.14	1.30
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.