

MACHINING CONDITIONS - SOLID END MILLS - DEPTH OF CUT AND FEED

90° 3 FLUTE | LT 4000 - Ø 3 - 6, 8, 10, 12

Material Group	Lamina Gr. N°	Material Examples	Hardness	Profiling		Slotting		fz [mm/tooth]													
				ap	ae	ap	Ø 3	Ø 4	Ø 5	Ø 6	Ø 8	Ø 10	Ø 12								
P	Non Alloyed	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	1.5xØ	0.5xØ	1.0xØ	0.018	0.027	0.033	0.042	0.058	0.069	0.081								
			190 HB																		
			250 HB																		
	Low Alloyed	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	1.5xØ	0.5xØ	1.0xØ	0.017	0.025	0.031	0.040	0.054	0.065	0.076								
			230 HB																		
			280 HB			0.7xØ	0.015	0.021	0.026	0.034	0.046	0.055	0.065								
			350 HB																		
	High Alloyed	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	1.5xØ	0.5xØ	1.0xØ	0.015	0.021	0.026	0.033	0.046	0.055	0.064								
			280 HB																		
			320 HB			0.6xØ	0.011	0.016	0.020	0.025	0.035	0.041	0.049								
			350 HB																		
Austenitic	304, 316, X5CrNi18-9	180 HB	1.5xØ	0.5xØ	1.0xØ	0.012	0.017	0.022	0.028	0.038	0.045	0.053									
		240 HB																			
M	Duplex	X2CrNiN23-4, S31500	290 HB	1.5xØ	0.5xØ	1.0xØ	0.009	0.013	0.017	0.021	0.029	0.035	0.040								
			310 HB																		
	Ferritic & Martensitic	410, X6Cr17, 17-4PH, 430	200 HB	1.5xØ	0.5xØ	1.0xØ	0.009	0.013	0.016	0.020	0.028	0.033	0.039								
			42 HRc																		
K	Grey	GG20, GG40, EN-GJL-250, N030B	150 HB	1.5xØ	0.5xØ	1.0xØ	0.020	0.029	0.036	0.047	0.064	0.076	0.089								
			200 HB																		
			250 HB																		
	Malleable & Nodular	GGG40, GGG70, 50005	150 HB	1.5xØ	0.5xØ	1.0xØ	0.017	0.025	0.031	0.040	0.055	0.066	0.077								
			200 HB																		
			250 HB																		
S	Fe, Ni & Co based	Incoloy 800	240 HB	1.5xØ	0.3xØ	1.0xØ	0.010	0.014	0.018	0.023	0.031	0.037	0.044								
			Inconel 700											250 HB							
		Stellite 21	350 HB																		
	Ti based	T40	-	1.5xØ	0.5xØ	1.0xØ	0.007	0.011	0.013	0.017	0.023	0.028	0.032								
			TiAl6V4											-							
H	Steel	X100CrMo13, 440C, G-X260NiCr42	45 HRc	1.5xØ	0.3xØ	0.2xØ	0.006	0.009	0.012	0.015	0.020	0.024	0.028								
			50 HRc											0.2xØ	0.1xØ	0.006	0.008	0.010	0.013	0.017	0.021
			55 HRc																		
	Chilled Cast Iron	Ni-Hard 2	400 HB	1.5xØ	0.2xØ	0.1xØ	0.006	0.008	0.010	0.013	0.017	0.021	0.024								
White Cast Iron	G-X300CrMo15	55 HRc	1.5xØ	0.2xØ	0.1xØ	0.006	0.008	0.010	0.013	0.017	0.021	0.024									
NF	Aluminium	AlSi12	130 HB	1.5xØ	0.5xØ	1.0xØ	0.018	0.027	0.033	0.042	0.058	0.0696	0.081								