

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

90° 2 FLUTE | LT 40 - Ø 1 - 5

Material Group	Lamina Gr. N°	Material Examples	Hardness	Profiling		Slotting		fz [mm/tooth]				
				ap	ae	ap	Ø1.0	Ø2.0	Ø3.0	Ø4.0	Ø5.0	
P	Non-Alloyed	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	1.5xØ	0.5xØ	1.0xØ	0.008	0.010	0.014	0.019	0.024	
			190 HB									
			250 HB									
	Low Alloyed	42CrMo4, S50, Ck60, 4140, 4340, 100Cr6	180 HB	1.5xØ	0.5xØ	1.0xØ	0.008	0.009	0.013	0.020	0.024	
			230 HB									
			280 HB									
			350 HB									
	High Alloyed	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	1.5xØ	0.5xØ	1.0xØ	0.007	0.008	0.012	0.017	0.021	
			280 HB									
320 HB												
350 HB												
M	Austenitic	304, 316, X5CrNi18-9	180 HB	1.5xØ	0.5xØ	1.0xØ	0.006	0.007	0.010	0.014	0.017	
			240 HB									
M	Ferritic & Martensitic	410, X6Cr17, 17-4 PH, 430	200 HB	1.5xØ	0.5xØ	1.0xØ	0.004	0.005	0.007	0.011	0.013	
			42 HRc									
K	Grey	GG20, GG40, EN-GJL-250, No30B	150 HB	1.5xØ	0.5xØ	1.0xØ	0.010	0.011	0.016	0.023	0.029	
			200 HB									
	Malleable & Nodular	GGG40, GGG70, 50005	150 HB	1.5xØ	0.5xØ	1.0xØ	0.008	0.010	0.014	0.020	0.025	
			200 HB									
H	Steel	X100CrMo13, 440C, G-X260NiCr42	45 HRc	1.5xØ	0.3xØ	0.2xØ	0.003	0.004	0.005	0.009	0.011	
			50 HRc									
NF	Al (>8%Si)	AlSi12	130 HB	1.5xØ	0.5xØ	0.1xØ	0.009	0.010	0.015	0.021	0.026	

90° 2 FLUTE | LT 40 - Ø 6, 8, 10, 12, 16

Material Group	Lamina Gr. N°	Material Examples	Hardness	Profiling		Slotting		fz [mm/tooth]				
				ap	ae	ap	Ø6.0	Ø8.0	Ø10.0	Ø12.0	Ø16.0	
P	Non-Alloyed	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	1.5xØ	0.5xØ	1.0xØ	0.032	0.044	0.052	0.062	0.074	
			190 HB									
			250 HB									
	Low Alloyed	42CrMo4, S50, Ck60, 4140, 4340, 100Cr6	180 HB	1.5xØ	0.5xØ	1.0xØ	0.031	0.042	0.050	0.059	0.071	
			230 HB									
			280 HB									
			350 HB									
	High Alloyed	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	1.5xØ	0.5xØ	1.0xØ	0.027	0.037	0.044	0.051	0.061	
			280 HB									
320 HB												
350 HB												
M	Austenitic	304, 316, X5CrNi18-9	180 HB	1.5xØ	0.5xØ	1.0xØ	0.022	0.030	0.036	0.042	0.050	
			240 HB									
M	Ferritic & Martensitic	410, X6Cr17, 17-4 PH, 430	200 HB	1.5xØ	0.5xØ	1.0xØ	0.017	0.023	0.028	0.032	0.039	
			42 HRc									
K	Grey	GG20, GG40, EN-GJL-250, No30B	150 HB	1.5xØ	0.5xØ	1.0xØ	0.037	0.051	0.061	0.071	0.085	
			200 HB									
	Malleable & Nodular	GGG40, GGG70, 50005	150 HB	1.5xØ	0.5xØ	1.0xØ	0.032	0.044	0.052	0.062	0.074	
			200 HB									
H	Steel	X100CrMo13, 440C, G-X260NiCr42	45 HRc	1.5xØ	0.3xØ	0.2xØ	0.014	0.019	0.022	0.026	0.031	
			50 HRc									
NF	Al (>8%Si)	AlSi12	130 HB	1.5xØ	0.5xØ	0.1xØ	0.034	0.046	0.055	0.065	0.077	