



# MACHINING CONDITIONS

APKT 0602-HF LT 3130

M0004469

Material Group	SAPPHIRE TOOLS	Material Example	Hardness	D.O.C		Feed		Vc		Advised D.O.C	Advised Feed	Advised Vc	
				min[mm]	max[mm]	min[mm/t]	max[mm/t]	min[m/min]	max [m/min]				
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.2	0.5	0.2	1.4	190	350	0.5	1	265
				190 HB	0.2	0.5	0.2	1.4	190	320	0.5	1	240
				250 HB	0.2	0.5	0.2	1.4	190	280	0.5	1	215
	Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	230 HB	0.2	0.5	0.2	1.3	150	230	0.4	0.8	200
				280 HB	0.2	0.5	0.2	1.3	130	210	0.4	0.7	165
				180 HB	0.2	0.5	0.2	1.3	150	270	0.4	0.8	215
				350 HB	0.2	0.5	0.2	1.3	130	190	0.4	0.7	155
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.2	0.4	0.2	1.1	90	170	0.4	0.7	140
				280 HB	0.2	0.4	0.2	1.1	90	150	0.4	0.7	130
				320 HB	0.2	0.4	0.2	1.1	60	120	0.4	0.6	110
				350 HB	0.2	0.4	0.2	1.1	60	100	0.4	0.6	90
Stainless Steel	Austentic	4	304, 316, X5CrNi18-9	180 HB	0.2	0.4	0.2	0.7	190	260	0.4	0.5	230
				240 HB	0.2	0.4	0.2	0.7	160	220	0.4	0.5	200
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.2	0.4	0.2	0.5	70	140	0.4	0.35	110
				310 HB	0.2	0.4	0.2	0.5	70	130	0.4	0.35	100
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.2	0.4	0.2	0.5	150	220	0.4	0.4	200
				42 HRc	0.2	0.4	0.2	0.5	90	160	0.4	0.3	140