



# MACHINING CONDITIONS

APKT 160408 PDTR LT 3130

M0004471

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]	[mm]	[mm/t]	[m/min]
Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	15	0.18	0.32	190	350	4	0.23	265
			190 HB	0.5	15	0.18	0.32	190	320	4	0.23	240
			250 HB	0.5	15	0.18	0.32	190	280	4	0.23	215
Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	230 HB	0.5	15	0.15	0.25	150	230	4	0.2	200
			280 HB	0.5	15	0.15	0.22	130	210	4	0.18	165
			180 HB	0.5	15	0.15	0.25	150	270	4	0.2	215
			350 HB	0.5	15	0.15	0.22	130	190	4	0.18	155
High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	10.7	0.12	0.22	90	170	3	0.18	140
			280 HB	0.5	10.7	0.12	0.22	90	150	3	0.18	130
			320 HB	0.5	10.7	0.12	0.18	60	120	3	0.16	110
			350 HB	0.5	10.7	0.12	0.18	60	100	3	0.16	90
Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	15	0.15	0.25	190	260	4	0.2	230
			240 HB	0.5	15	0.12	0.22	160	220	4	0.2	200
Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	10.7	0.12	0.18	70	140	3	0.16	110
			310 HB	0.5	10.7	0.12	0.18	70	130	3	0.16	100
Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	15	0.15	0.25	150	220	4	0.2	200
			42 HRc	0.5	10.7	0.15	0.2	90	160	3	0.16	140