



MACHINING CONDITIONS

HNKX 0604-45 LT 3130

M0004473

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]
Steel	Non Alloyed	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	3.5	0.16	0.34	190	350	2.5	0.3	265
			190 HB	0.5	3.5	0.16	0.34	190	320	2.5	0.3	240
			250 HB	0.5	3.5	0.16	0.34	190	280	2.5	0.3	215
	Low Alloyed	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	230 HB	0.5	3.5	0.14	0.28	150	230	2.5	0.26	200
			280 HB	0.5	3.5	0.14	0.26	130	210	2.5	0.24	165
			180 HB	0.5	3.5	0.14	0.28	150	270	2.5	0.26	215
			350 HB	0.5	3.5	0.14	0.26	130	190	2.5	0.24	155
	High Alloyed	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	3.5	0.11	0.28	90	170	2.5	0.26	140
			280 HB	0.5	3.5	0.11	0.28	90	150	2.5	0.26	130
			320 HB	0.5	3.5	0.11	0.24	60	120	2.5	0.22	110
			350 HB	0.5	3.5	0.11	0.24	60	100	2.5	0.22	90
	Stainless Steel	Austenitic	304, 316, X5CrNi18-9	180 HB	0.5	3.5	0.14	0.3	190	260	2.5	0.26
240 HB				0.5	3.5	0.11	0.3	160	220	2.5	0.26	200
Duplex		X2CrNiN23-4, S31500	290 HB	0.5	3.5	0.11	0.25	70	140	2.5	0.22	110
			310 HB	0.5	3.5	0.11	0.25	70	130	2.5	0.22	100
Ferritic & Martensitic		410, X6Cr17, 17-4 PH, 430	200 HB	0.5	3.5	0.14	0.3	150	220	2.5	0.26	200
			42 HRC	0.5	3.5	0.14	0.25	90	160	2.5	0.22	140