



MACHINING CONDITIONS

ONKX 0806-45 LT 3130

M0004475

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	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	4	0.16	0.58	190	350	3	0.46	265
				190 HB	0.5	4	0.16	0.58	190	320	3	0.46	240
				250 HB	0.5	4	0.16	0.58	190	280	3	0.46	215
	Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	230 HB	0.5	4	0.14	0.5	150	230	3	0.4	200
				280 HB	0.5	4	0.14	0.44	130	210	3	0.36	165
				180 HB	0.5	4	0.14	0.5	150	270	3	0.4	215
				350 HB	0.5	4	0.14	0.44	130	190	3	0.36	155
	High Alloyed	3	X40CrMOV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	4	0.11	0.44	90	170	3	0.36	140
				280 HB	0.5	4	0.11	0.44	90	150	3	0.36	130
				320 HB	0.5	4	0.11	0.36	60	120	3	0.32	110
				350 HB	0.5	4	0.11	0.36	60	100	3	0.32	90
	Stainless Steel	Austentic	4	304, 316, X5CrNi18-9	180 HB	0.5	1.5	0.14	0.44	190	260	1.2	0.34
240 HB					0.5	1.5	0.11	0.4	160	220	1.2	0.34	200
Duplex		5	X2CrNiN23-4, S31500	290 HB	0.5	1.5	0.11	0.36	70	140	1.2	0.3	110
				310 HB	0.5	1.5	0.11	0.36	70	130	1.2	0.3	100
Ferritic & Martensitic		6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	1.5	0.14	0.44	150	220	1.2	0.34	200
				42 HRc	0.5	1.5	0.14	0.4	90	160	1.2	0.3	140