

 MACHINING CONDITIONS													
SPKN 1504 EDTR LT 3000												M0004037	
Material Group		 SAPPHIRE CUTTING TOOLS Group	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	9	0.18	0.43	190	330	4	0.3	250
				190 HB	0.5	9	0.18	0.43	190	300	4	0.3	220
				250 HB	0.5	9	0.18	0.43	190	250	4	0.3	200
	Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	230 HB	0.5	9	0.15	0.34	150	210	4	0.26	180
				280 HB	0.5	9	0.15	0.3	130	190	4	0.23	150
				180 HB	0.5	9	0.15	0.34	150	240	4	0.26	200
				350 HB	0.5	9	0.15	0.3	130	170	4	0.23	140
	High Alloyed	3	X40CrM0V5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	6.5	0.12	0.3	90	150	3	0.23	130
				280 HB	0.5	6.5	0.12	0.3	90	130	3	0.23	120
				320 HB	0.5	6.5	0.12	0.24	60	110	3	0.21	100
				350 HB	0.5	6.5	0.12	0.24	60	90	3	0.21	80
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, N030B	150 HB	0.5	9	0.18	0.43	150	240	4	0.3	200
				200 HB	0.5	9	0.18	0.43	150	220	4	0.3	180
				250 HB	0.5	9	0.18	0.43	150	190	4	0.3	160
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	9	0.15	0.38	100	200	4	0.26	180
				200 HB	0.5	9	0.15	0.38	100	180	4	0.26	150
				250 HB	0.5	9	0.15	0.38	100	150	4	0.26	130
Hardened Materials	Steel Chilled Cast Iron White Cast Iron	11	G- X300CrMo15	55 HRc	0.5	1.9	0.1	0.19	30	60	1	0.16	40
			Ni-Hard 2	400 HB	0.5	2.6	0.1	0.24	40	80	1.5	0.18	50
			X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	3.2	0.1	0.24	40	80	2	0.18	60
				50 HRc	0.5	2.3	0.1	0.22	40	70	1.5	0.17	55
				55 HRc	0.5	1.9	0.1	0.19	40	60	1	0.16	50