



MACHINING CONDITIONS

RDMW 1204 M0 LT 30

M0001551

Material Group	SAPPHIRE CUTTING TOOLS Group	Material Example	Hardness	D.O.C		Feed		Vc		Advised D.O.C [mm]	Advised Feed [mm/t]	Advised Vc [m/min]
				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	0.3	4	0.27	0.7	190	350	1.5	0.6
				190 HB	0.3	4	0.27	0.65	190	300	1.5	0.6
				250 HB	0.3	3	0.27	0.5	190	260	1.5	0.5
	Low Alloyed	2	42CrMo4, St50, Cr60, 4140, 4340, 100Cr6	230 HB	0.3	3	0.25	0.57	150	210	1.5	0.55
				280 HB	0.3	2	0.23	0.52	130	190	1.5	0.5
				180 HB	0.3	4	0.25	0.65	150	240	1.5	0.6
				350 HB	0.3	1.5	0.23	0.5	130	170	1	0.5
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.3	2	0.2	0.57	90	150	1	0.55
				280 HB	0.3	2	0.2	0.52	90	130	1	0.5
				320 HB	0.3	1.5	0.2	0.5	60	110	1	0.5
				350 HB	0.3	1.5	0.2	0.47	60	90	1	0.45
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, N030B	150 HB	0.3	3	0.2	0.8	170	300	2	0.8
				200 HB	0.3	3	0.2	0.8	170	250	2	0.7
				250 HB	0.3	3	0.2	0.8	150	210	2	0.6
Cast Iron	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.3	2.5	0.2	0.6	120	210	1.5	0.5
				200 HB	0.3	2.5	0.2	0.6	120	170	1.5	0.55
				250 HB	0.3	2.5	0.2	0.6	120	150	1.5	0.6
Hardened Materials	Steel Chilled Cast Iron White Cast Iron	11	G-X300CrMo15 Ni-Hard 2 X100CrMo13, 440C, G-X260NiCr42	55 HRc	0.3	0.5	0.18	0.34	30	60	0.5	0.34
				400 HB	0.3	1	0.18	0.38	40	60	0.5	0.38
				45 HRc	0.3	1	0.18	0.38	40	80	0.5	0.38
				50 HRc	0.3	0.8	0.18	0.34	40	70	0.5	0.34
				55 HRc	0.3	0.5	0.18	0.3	40	60	0.5	0.3