



# MACHINING CONDITIONS

## RDMW 1204 M0 LT 3000

M0003408

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	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.3	4	0.27	0.7	190	350	1.5	0.6	300
			190 HB	0.3	4	0.27	0.65	190	300	1.5	0.6	250
			250 HB	0.3	3	0.27	0.5	190	260	1.5	0.5	220
	Low Alloyed	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	230 HB	0.3	3	0.25	0.57	150	210	1.5	0.55	190
			280 HB	0.3	2	0.23	0.52	130	190	1.5	0.5	150
			180 HB	0.3	4	0.25	0.65	150	240	1.5	0.6	210
			350 HB	0.3	1.5	0.23	0.5	130	170	1	0.5	130
	High Alloyed	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.3	2	0.2	0.57	90	150	1	0.55	130
			280 HB	0.3	2	0.2	0.52	90	130	1	0.5	120
			320 HB	0.3	1.5	0.2	0.5	60	110	1	0.5	100
			350 HB	0.3	1.5	0.2	0.47	60	90	1	0.45	90
Cast Iron	Grey	GG20, GG40, EN-GJL-250, N030B	150 HB	0.3	3	0.2	0.8	170	300	2	0.8	200
			200 HB	0.3	3	0.2	0.8	170	250	2	0.7	170
			250 HB	0.3	3	0.2	0.8	150	210	2	0.6	150
	Malleable & Nodular	GGG40, GGG70, 50005	150 HB	0.3	2.5	0.2	0.6	120	210	1.5	0.5	210
			200 HB	0.3	2.5	0.2	0.6	120	170	1.5	0.55	170
			250 HB	0.3	2.5	0.2	0.6	120	150	1.5	0.6	150
Hardened Materials	Steel Chilled Cast Iron White Cast Iron	G-X300CrMo15	55 HRc	0.3	0.5	0.18	0.34	30	60	0.5	0.34	30
			Ni-Hard 2	400 HB	0.3	1	0.18	0.38	40	60	0.5	0.38
		X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.3	1	0.18	0.38	40	80	0.5	0.38	60
			50 HRc	0.3	0.8	0.18	0.34	40	70	0.5	0.34	50
			55 HRc	0.3	0.5	0.18	0.3	40	60	0.5	0.3	40