

## RCMT 0602 M0 LT 10 &amp; LT 1000

Material Group	Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [mm]		Feed [mm/rev]		Amax [mm²]	V <sub>c</sub> [m/min]		Optimal cutting conditions											
					min	max	min	max		min	max	D.O.C.	Feed	V <sub>c</sub>									
Steel	Non-alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	2.0	0.15	0.40	0.64	180	330	1.0	0.35	240									
		2		190 HB											2.0	0.40	0.64	280	0.35	220			
		3		250 HB											1.5	0.35	0.56	250	0.30	200			
	Low alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	2.0	0.15	0.35	0.56	120	280	1.0	0.30	200									
		4,6		230 HB											2.0	0.35	0.48	250	180				
		5,7		280 HB											2.0	0.35	0.40	210	150				
		8		350 HB											1.5	0.35	0.36	180	130				
	High alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	2.0	0.13	0.35	0.48	70	190	1.0	0.30	140									
		10		280 HB											2.0	0.30	0.40	150	120				
		11		320 HB											1.5	0.30	0.32	130	100				
		11		350 HB											1.5	0.30	0.26	110	90				
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	2.0	0.14	0.35	0.32	170	270	1.0	0.32	220									
		14		240 HB											2.0	0.32	0.32	160	220				
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	1.5	0.13	0.30	0.30	80	150	1.0	0.28	100									
		14		310 HB											1.5	0.30	0.30	70	140	90			
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	2.0	0.15	0.35	0.32	170	250	1.0	0.32	210									
		13		42 HRC											2.0	0.30	0.30	120	190	0.28	140		
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	2.0	0.11	0.45	0.70	170	250	1.0	0.35	200									
		15		200 HB											2.0	0.45	0.65	160	230	180			
		16		250 HB											2.0	0.45	0.60	150	210	160			
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	2.0	0.11	0.35	0.60	120	250	1.0	0.30	180									
		17,19		200 HB											2.0	0.35	0.50	230	160				
18,20	250 HB	2.0	0.35	0.45	190	140																	
High Temp. Alloys	Fe, Ni & Co based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.5	1.5	0.13	0.30	0.30	25	50	1.0	0.28	33									
		33		250 HB											1.5	0.30	0.30	25	50	30			
		34		350 HB											1.5	0.30	0.30	23	45	28			
	Ti based	10	TiAl6V4, T40	-	0.5	1.5	0.13	0.32	0.32	45	65	1.0	0.30	55									
		37		-											1.5	0.30	0.30	35	60	0.28	45		
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRC	0.5	1.2	0.05	0.22	0.20	50	100	0.9	0.18	80									
		38		50 HRC											0.5	1.0	0.18	0.17	40	90	0.7	0.16	70
		38		55 HRC											0.3	0.8	0.14	0.12	40	80	0.6	0.12	60
	Chilled Cast Iron White Cast Iron	40	Ni-Hard 2, G-X300CrMo15	400 HB	0.5	1.2	0.05	0.22	0.17	40	60	0.9	0.18	50									
		41		55 HRC											0.3	0.8	0.05	0.14	0.10	30	50	0.6	0.12
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	2.0	0.15	0.40	0.70	200	400	1.0	0.35	280								

