

RDMT 1003 M0 LT 30

Material Group	Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [mm]		Feed [mm/tooth]		V _c [m/min]		Optimal cutting conditions				
					min	max	min	max	min	max	D.O.C.	Feed	V _c		
Steel	Non-alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	2.5	0.18	0.64	190	330	1.0	0.35	250		
		2		190 HB		2.5		0.64		300			220		
		3		250 HB		2.5		0.64		250			200		
	Low alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	2.5	0.15	0.50	150	240	1.0	0.30	200		
				230 HB		2.5		0.50		150			210	180	
				280 HB		2.5		0.44		130			190	150	
				350 HB		2.5		0.44		130			170	140	
	High alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	1.8	0.12	0.44	90	150	0.8	0.27	130		
				280 HB		1.8		0.44		90			130	120	
				320 HB		1.8		0.36		60			110	100	
				350 HB		1.8		0.36		60			90	80	
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	2.5	0.15	0.50	190	250	1.0	0.30	220		
				240 HB		2.5		0.12		0.44			160	210	190
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	2.0	0.12	0.36	70	130	0.8	0.24	100		
				310 HB		2.0		0.36		120			90		
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	2.5	0.15	0.50	150	210	1.0	0.30	190		
				42 HRC		2.0		0.40		90			150	0.8	0.24
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	2.5	0.18	0.64	150	240	1.0	0.35	200		
				200 HB		2.5		0.64		220			180		
				250 HB		2.5		0.64		190			160		
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	2.5	0.15	0.56	100	200	1.0	0.30	180		
				200 HB		2.5		0.56		180			150		
				250 HB		2.5		0.56		150			130		
High Temp. Alloys	Fe, Ni & Co based	9	31,32 Incoloy 800	0.5	2.0	0.12	0.36	25	45	0.8	0.24	32			
			33 Inconel 700		250 HB		2.0		0.36			45	30		
			34 Stellite 21		350 HB		2.0		0.36			45	30		
	Ti based	10	36 TiAl6V4	0.5	2.0	0.12	0.40	40	65	0.8	0.27	55			
37 T40	-	2.0	0.36		30		55		0.24			40			
Hardened Mat.	Steel	11	38 X100CrMo13, 440C,	45 HRC	0.3	0.9	0.10	0.36	40	80	0.5	0.21	60		
			38 G-X260NiCr42	50 HRC		0.7		0.32		70			0.4	0.20	55
			38	55 HRC		0.6		0.28		60			0.3	0.18	50
	Chilled Cast Iron	40 Ni-Hard 2	400 HB	0.3	0.7	0.10	0.36	40	80	0.4	0.21	50			
	White Cast Iron	41 G-X300CrMo15	55 HRC	0.3	0.6	0.10	0.28	30	60	0.3	0.18	40			
NF	Al (>8%Si)	12	25 AlSi12	130 HB	0.5	2.5	0.18	0.64	200	400	1.0	0.38	280		