

# CNMG 120408 NM LT 10 & LT 1000

Material Group	Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [mm]		Feed [mm/rev]		Amax [mm <sup>2</sup> ]	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	1	C35, Ck45, 1020,	125 HB	0.5	5.0	0.21	0.65	2.7	180	330	4.0	0.50	210							
		2	2	1045, 1060,	190 HB											5.0	0.65	2.7	280	200		
		3	3	28Mn6	250 HB																5.0	0.59
	Low alloyed	2	6	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	5.0	0.21	0.59	1.8	120	280	4.0	0.44	160							
			4,6		230 HB											4.0	0.21	0.59	1.8	250	0.44	150
			5,7		280 HB																	
			8		350 HB											3.5	0.18	0.52	1.6	180	0.38	130
	High alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	4.0	0.18	0.52	1.8	70	190	3.3	0.38	120							
			10		280 HB											4.0	0.52	1.8	150	0.38	110	
			11		320 HB																	3.0
			11		350 HB											3.0	0.46	1.2	110	0.35	90	
Stainless Steel	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	5.0	0.22	0.52	1.6	170	250	4.0	0.38	190								
		13		42 HRc											4.0	0.52	1.6	120	190	3.5	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	5.0	0.15	0.78	3.0	170	250	4.0	0.44	180								
				200 HB											5.0	0.72	2.7	150	210	160	170	
				250 HB																		5.0
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	5.0	0.15	0.65	2.3	120	250	4.0	0.38	150								
				200 HB											5.0	0.65	2.0	120	230	140		
250 HB	5.0	0.65	1.8	190	130																	
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	2.5	0.11	0.39	0.9	50	100	2.7	0.31	80								
				50 HRc											2.0	0.33	0.6	40	90	2.0	0.25	70
				55 HRc																		
	Chilled Cast Iron White Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.0	0.11	0.33	0.6	40	60	2.0	0.23	50								
				41											G-X300CrMo15	55 HRc	0.5	1.5	0.11	0.26	0.5	30