

DCMT 11T304 NN LT 10 & LT 1000

Material Group	Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [mm]		Feed [mm/rev]		Amax [mm ²]	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	0.2	3.0	0.11	0.23	0.60	180	330	2.0	0.18	300	
		2		190 HB		2.5		0.22	0.52		280			260	
		3		250 HB		2.5		0.20	0.48		250			240	
	Low alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.2	2.5	0.10	0.20	0.50	120	280	2.0	0.15	260	
		4,6		230 HB		2.5		0.20	0.48		250			240	
		5,7		280 HB		2.0		0.18	0.40		210			200	
		8		350 HB		2.0		0.18	0.36		180			180	
	High alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.2	2.5	0.09	0.18	0.40	70	190	2.0	0.12	180	
		10		280 HB		2.5		0.16	0.40		150			140	
		11		320 HB		2.0		0.14	0.32		130			120	
		11		350 HB		2.0		0.14	0.26		110			110	
Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.2	2.5	0.10	0.18	0.32	170	270	2.0	0.12	260
		14	240 HB	2.5	0.18		0.26		160	220	210				
	Duplex	5	14	X2CrNiN23-4, S31500	290 HB	0.2	2.0	0.09	0.14	0.20	80	150	2.0	0.12	140
		14	310 HB	2.0	0.14		0.20		70	140	140				
	Ferritic & Martensitic	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.2	2.5	0.10	0.18	0.32	170	250	2.0	0.15	240
		13	42 HRC	2.0	0.16		0.26		120	190	180				
Cast Iron	Grey	7	15	GG20, GG40, EN-GJL-250, No30B	150 HB	0.2	3.0	0.08	0.20	0.64	170	250	2.0	0.18	240
		7	200 HB	3.0	0.20		0.60		160	230	220				
		16	250 HB	3.0	0.20		0.60		150	210	200				
	Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.2	2.5	0.08	0.18	0.48	120	230	2.0	0.15	240
		17,19	200 HB	2.5	0.18		0.40		120	230	220				
18,20	250 HB	2.5	0.18	0.40	190		180								
High Temp. Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	240 HB	0.2	2.0	0.09	0.15	0.26	25	50	2.0	0.12	40
		33	Inconel 700	290 HB	2.0		0.15		0.26	25	50	40			
		34	Stellite 21	350 HB	2.0		0.15		0.26	23	45	35			
	Ti based	10	36	TiAl6V4	-	0.2	2.0	0.09	0.16	0.32	45	65	2.0	0.15	60
		37	T40	-	2.0		0.14		0.26	35	60	50			
Hardened Mat.	Steel	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRC	0.2	1.8	0.05	0.12	0.20	50	100	1.5	0.11	90
		38	50 HRC	1.5	0.10		0.17		40	90	1.2	0.09			80
		38	55 HRC	1.4	0.09		0.13		40	80	1.0	0.07			70
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.2	1.6	0.05	0.12	0.17	40	60	1.2	0.11	50	
	White Cast Iron	41	G-X300CrMo15	55 HRC	0.2	1.4	0.05	0.09	0.13	30	50	1.0	0.07	40	
NF	Al (>8%Si)	12	25	AISI12	130 HB	0.2	4.0	0.10	0.30	0.70	200	400	2.0	0.20	350