

TNUX 160408 R&L LT 10 & LT 1000

Material Group	Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [mm]		Feed [mm/rev]		Amax [mm²]	V _c [m/min]		Optimal cutting conditions		
					min	max	min	max		min	max	D.O.C.	Feed	V _c
Steel	Non-alloyed	1	1 C35, Ck45, 1020, 2 1045, 1060, 3 28Mn6	125 HB 190 HB 250 HB	0.5	5.0	0.21	0.50 0.50 0.45	1.80 1.80 1.50	180	330 280 250	3.0	0.35	240 220 200
		Low alloyed	2 6 42CrMo4, St50, 4,6 Ck60, 4140, 4340, 5,7 100Cr6	180 HB 230 HB 280 HB 350 HB	0.5	5.0 4.0 4.0 3.5	0.21 0.21 0.18 0.18	0.45 0.45 0.40 0.40	1.20 1.20 1.20 1.00	120 120 120 180	280 250 210 180	3.0	0.32 0.32 0.30 0.30	200 180 150 130
		High alloyed	3 10 X40CrMoV5, 10 H13, M42, D3, 11 S6-5-2, 12Ni19	220 HB 280 HB 320 HB 350 HB	0.5	4.0 4.0 3.0 3.0	0.18 0.18 0.18 0.18	0.40 0.40 0.35 0.35	1.20 1.20 0.80 0.80	70 150 130 110	190 150 130 110	2.5	0.30 0.30 0.28 0.28	140 120 100 90
	Stainless Steel	Austenitic	4 14 304, 316, 14 X5CrNi18-9	180 HB 240 HB	0.5	5.0 5.0	0.20 0.20	0.40 0.40	1.20 1.00	170 160	270 220	3.0	0.35 0.32	190 170
		Duplex	5 14 X2CrNiN23-4, 14 S31500	290 HB 310 HB	0.5	4.0 4.0	0.18 0.18	0.35 0.35	0.80	80 70	150 140	2.5	0.28 0.28	100 90
		Ferritic & Martensitic	6 12 410, X6Cr17, 13 17-4 PH, 430	200 HB 42 HRC	0.5	5.0 4.0	0.22 0.22	0.40 0.40	1.00	170 120	250 190	3.0 2.5	0.32 0.32	190 130
	Cast Iron	Grey	7 15 GG20, GG40, 15 EN-GJL-250, 16 No30B	150 HB 200 HB 250 HB	0.5	5.0 5.0 5.0	0.15 0.15 0.15	0.60 0.60 0.55	2.00 1.80 1.80	170 160 150	250 230 210	3.0	0.35	200 180 160
		Malleable & Nodular	8 17,19 GGG40, GGG70, 17,19 50005 18,20	150 HB 200 HB 250 HB	0.5	5.0 5.0 5.0	0.15 0.15 0.15	0.50 0.50 0.50	1.50 1.30 1.20	120	250 230 190	3.0	0.30	180 160 140
		Fe, Ni & Co based	9 31,32 Incoloy 800 33 Inconel 700 34 Stellite 21	240 HB 250 HB 350 HB	0.5	3.0 3.0 3.0	0.20 0.20 0.20	0.35 0.35 0.35	0.70 0.70 0.70	25 25 23	45 45 40	2.0	0.28	32 30 28
	High Temp. Alloys	Ti based	10 36 TiAl6V4 37 T40	- -	0.5	4.0 3.0	0.20 0.20	0.40 0.35	0.80 0.70	45 35	65 55	2.0	0.33 0.30	55 45
	Hardened Mat.	Steel	11 38 X100CrMo13, 38 440C, 38 G-X260NiCr42	45 HRC 50 HRC 55 HRC	0.5	2.5 2.0 1.5	0.11 0.11 0.11	0.30 0.25 0.20	0.60 0.40 0.30	50 40 40	100 90 80	2.0 1.5 1.0	0.25 0.20 0.18	80 70 60
		Chilled Cast Iron	40 Ni-Hard 2	400 HB	0.5	2.0	0.11	0.25	0.40	40	60	1.5	0.18	50
		White Cast Iron	41 G-X300CrMo15	55 HRC	0.5	1.5	0.11	0.20	0.30	30	50	1.0	0.15	40
NF	Al (>8%Si)	12	25 AISI12	130 HB	0.5	6.0	0.20	0.60	1.80	200	400	3.0	0.40	280