

# DNUX 150608 R11 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	0.50	1.80	180	280	3.0	0.35	240						
			2	1045, 1060,	190 HB										220						
			3	28Mn6	250 HB										200						
	Low alloyed	2	6	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	5.0	0.21	0.45	1.20	120	280	3.0	0.32	200						
			4,6		230 HB										180						
			5,7		280 HB										150						
			8		350 HB										130						
	High alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	4.0	0.18	0.40	1.20	70	190	2.5	0.30	140						
			10		280 HB										120						
			11		320 HB										100						
			11		350 HB										90						
Stainless Steel	Austenitic	4	14	304, 316,	180 HB	0.5	5.0	0.20	0.40	1.20	170	270	3.0	0.35	190						
			14	X5CrNi18-9	240 HB										170						
	Duplex	5	14	X2CrNiN23-4, S31500	290 HB	0.5	4.0	0.18	0.35	0.80	80	150	2.5	0.28	100						
			14		310 HB										90						
	Ferritic & Martensitic	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	5.0	0.22	0.40	1.00	170	250	3.0	0.32	190						
			13		42 HRC										120	190	130				
Cast Iron	Grey	7	15	GG20, GG40,	150 HB	0.5	5.0	0.15	0.60	2.00	170	250	3.0	0.35	200						
			15	EN-GJL-250, No30B	200 HB										160	230	180				
			16	250 HB	150										210	160					
	Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.5	5.0	0.15	0.50	1.50	120	230	3.0	0.30	160						
			17,19 18,20		200 HB 250 HB										190	140					
High Temp. Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	240 HB	0.5	3.0	0.20	0.35	0.70	25	45	2.0	0.28	32						
			33	Inconel 700	250 HB										25	40	30				
			34	Stellite 21	350 HB										23	45	28				
	Ti based	10	36	TiAl6V4	-	0.5	4.0	0.20	0.40	0.80	45	65	2.0	0.33	55						
			37	T40	-										35	55	45				
Hardened Mat.	Steel	11	38	X100CrMo13, 440C,	45 HRC	0.5	2.5	0.11	0.30	0.60	50	100	2.0	0.25	80						
			38	G-X260NiCr42	50 HRC										2.0	0.25	40	90	1.5	0.20	70
			38	55 HRC	1.5										0.20	0.30	40	80	1.0	0.18	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						