

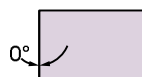


C N M G

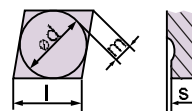
CNMG



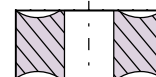
Shape



Clearance Angle



Tolerance
d $\pm$ 0.08
m $\pm$ 0.13
s $\pm$ 0.13



Fixing
Chip breaker

Insert Designation	Grade	l	s	r	Catalog Nr.
CNMG 120404 NN	LT 1000	12	4.76	0.4	T0001895
CNMG 120408 NN	LT 1000	12	4.76	0.8	T0001896
CNMG 120408 NM	LT 1000	12	4.76	0.8	T0001968
CNMG 120408 NX	LT 1000	12	4.76	0.8	T0002741
CNMG 120412 NN	LT 1000	12	4.76	1.2	T0001897

NN All purpose Chipbreaker

NX All purpose Chipbreaker

NM Steel and Cast Iron

The most popular Turning inserts. Use for Turning, Facing and Boring operations.

Application Guide

	Finishing	Medium	Roughing / Interrupted cut
CNMG 120404 NN	😊	😐	😞
CNMG 120408 NN	😐	😊	😊
CNMG 120408 NM	😞	😊	😊
CNMG 120408 NX	😊	😊	😐
CNMG 120412 NN	😞	😐	😊

😊 = Good
😐 = Acceptable
😞 = Not recommended

Finishing:
d.o.c. = 0.30 - 1.50 mm
fn = 0.08 - 0.20 mm/rev

Medium:
d.o.c. = 0.70 - 4.50 mm
fn = 0.15 - 0.45 mm/rev

Roughing
d.o.c. = 3.00 - 7.00 mm
fn = 0.35 - 0.70 mm/rev

Stainless Steel
↑ V_c

↑ $F \Rightarrow$
↑ Productivity

Machine Recommendations Guide
Details on page 10

CNMG 120408 NN 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,	125 HB	0.5	5.0	0.21	0.50	2.00	180	330	3.0	0.38	240
			2	1045, 1060,	190 HB		5.0		0.50	1.80		280		0.35	220
			3	28Mn6	250 HB		5.0		0.45	1.50		250		0.33	200
	Low alloyed	2	6	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	5.0	0.21	0.45	1.60	120	280	3.0	0.32	200
			4,6		230 HB		4.0		0.45	1.40		250		0.32	180
			5,7		280 HB		4.0		0.40	1.20		210		0.30	150
			8		350 HB		3.5		0.40	1.00		180		0.30	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		4.0		0.40	1.20		150		0.30	120
			11		320 HB		3.0		0.35	0.80		130		0.28	100
			11		350 HB		3.0		0.35	0.80		110		0.28	90
Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.5	5.0	0.20	0.40	1.00	170	270	3.0	0.25	190
			14		240 HB		5.0		0.40	0.90	160	220		0.22	170
	Duplex	5	14	X2CrNiN23-4, S31500	290 HB	0.5	4.0	0.18	0.35	0.70	80	150	2.5	0.28	100
			14		310 HB		4.0		0.35	0.70	70	140		0.28	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		4.0		0.40	1.00	120	190		0.32	130
Cast Iron	Grey	7	15	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	5.0	0.15	0.60	2.00	170	250	3.0	0.35	200
			15		200 HB		5.0		0.60	1.80	160	230		0.35	180
			16		250 HB		5.0		0.55	1.80	150	210		0.35	160
	Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.5	5.0	0.15	0.50	1.50	120	250	3.0	0.30	180
			17,19		200 HB		5.0		0.50	1.30	120	230		0.30	160
			18,20		250 HB		5.0		0.50	1.20	120	190		0.30	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	50	2.0	0.28	32
			33	Inconel 700	250 HB		3.0		0.35	0.70	25	50		0.28	30
			34	Stellite 21	350 HB		3.0		0.35	0.70	23	45		0.28	28
	Ti based	10	36	TiAl6V4	-	0.5	3.5	0.20	0.40	0.80	45	65	2.0	0.33	55
			37	T40	-		3.0		0.35	0.70	35	60		0.30	45
Hardened Mat.	Steel	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	2.5	0.11	0.30	0.60	50	100	2.0	0.25	80
			38		50 HRc		2.0		0.25	0.50	40	90	1.5	0.20	70
			38		55 HRc		1.6		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	0.50	40	60	1.5	0.18	50
	White Cast Iron		41	G-X300CrMo15	55 HRc	0.5	1.6	0.11	0.20	0.30	30	50	1.0	0.15	40
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	6.0	0.20	0.60	2.00	200	400	3.0	0.40	280