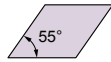
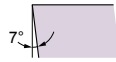




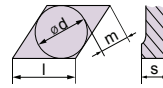
D C M T



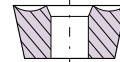
Shape



Clearance Angle



Tolerance
 $d \pm 0.05$
 $m \pm 0.08$
 $s \pm 0.13$



Fixing
Chip breaker

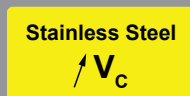
Insert Designation	Grade	l	s	r	Catalog Nr.
DCMT 070204 NN	LT 1000	7	2.38	0.4	T0001902
DCMT 11T304 NN	LT 1000	11	3.97	0.4	T0001903
DCMT 11T308 NN	LT 1000	11	3.97	0.8	T0001904

NN All purpose Chipbreaker

55° Diamond shape inserts, suitable for Internal Turning due to a unique chip removal geometry.
 Generates low cutting forces, most suitable for small work-pieces.

Application Guide

	Finishing	Medium	Roughing / Interrupted cut	
DCMT 070204 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
DCMT 11T304 NN	😊	😐	😞	
DCMT 11T308 NN	😐	😊	😐	



Machine Recommendations Guide
 Details on page 10

DCMT 070204 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	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.2	2.1	0.08	0.20	0.37	180	330	1.0	0.18	300			
		2		190 HB		1.8		0.19	0.32		280			260			
		3		250 HB		1.8		0.17	0.30		250			240			
	Low alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.2	1.8	0.08	0.17	0.31	120	280	1.0	0.15	260			
		4,6		230 HB		1.8		0.17	0.30		250			240			
		5,7		280 HB		1.4		0.15	0.25		210			200			
		8		350 HB		1.4		0.15	0.22		180			180			
	High alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.2	1.8	0.07	0.15	0.25	70	190	1.0	0.12	180			
		10		280 HB		1.8		0.14	0.25		150			140			
		11		320 HB		1.4		0.12	0.20		130			120			
		11		350 HB		1.4		0.12	0.16		110			110			
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.2	1.8	0.08	0.15	0.20	170	270	1.0	0.12	260			
		14		240 HB		1.8		0.15	0.16		160			220	210		
	Duplex	5	X2CrNi23-4, S31500	290 HB	0.2	1.4	0.07	0.12	0.12	80	150	1.0	0.12	140			
		14		310 HB		1.4		0.12	70		140			140			
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.2	1.8	0.08	0.15	0.20	170	250	1.0	0.15	240			
		13		42 HRc		1.4		0.14	0.16		120			190	180		
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.2	2.1	0.06	0.17	0.40	170	250	1.0	0.18	240			
		15		200 HB		2.1		0.17	0.37		160			230	220		
		16		250 HB		2.1		0.17	0.37		150			210	200		
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.2	1.8	0.06	0.15	0.30	120	250	1.0	0.15	240			
		17,19		200 HB		1.8		0.15	0.25		230			220			
18,20		250 HB		1.8		0.15		0.25	190		180						
High Temp. Alloys	Fe, Ni & Co based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.2	1.4	0.08	0.13	0.16	25	50	1.0	0.12	40			
		33		250 HB		1.4		0.13	0.16		25			50	40		
		34		350 HB		1.4		0.13	0.16		23			45	35		
	Ti based	10	TiAl6V4, T40	-	0.2	1.4	0.08	0.14	0.20	45	65	1.0	0.14	60			
		37		-		1.4		0.12	0.16		35			60	50		
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.2	1.3	0.04	0.10	0.12	50	100	0.8	0.11	90			
		38		50 HRc		1.1		0.09	0.11		40			90	0.6	0.09	80
		38		55 HRc		1.0		0.08	0.08		40			80	0.5	0.07	70
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.2	1.1	0.04	0.10	0.11	40	60	0.6	0.11	50			
	White Cast Iron	41	G-X300CrMo15	55 HRc	0.2	1.0	0.04	0.08	0.08	30	50	0.5	0.07	40			
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.2	2.8	0.08	0.26	0.43	200	400	1.0	0.20	350		

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
		190 HB		2.5		0.22		0.52			280			260
		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
		230 HB		2.5		0.20		0.48			250			240
		280 HB		2.0		0.18		0.40			210			200
		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
		280 HB		2.5		0.16		0.40			150			140
		320 HB		2.0		0.14		0.32			130			120
		350 HB		2.0		0.14		0.26			110			110
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.2	2.5	0.10	0.18	0.32	170	2.0	0.12	260	
		240 HB		2.5		0.18		0.26		160			210	
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.2	2.0	0.09	0.14	0.20	80	2.0	0.12	140	
		310 HB		2.0		0.14		70		140				
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.2	2.5	0.10	0.18	0.32	170	2.0	0.15	240	
		42 HRc		2.0		0.16		0.26		120			180	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.2	3.0	0.08	0.20	0.64	170	2.0	0.18	240	
		200 HB		3.0		0.20		0.60		160			230	
		250 HB		3.0		0.20		0.60		150			210	
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.2	2.5	0.08	0.18	0.48	120	2.0	0.15	240	
		200 HB		2.5		0.18		0.40		230			220	
250 HB	2.5	0.18	0.40	190	180									
High Temp. Alloys	Fe, Ni & Co based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.2	2.0	0.09	0.15	0.26	25	2.0	0.12	40	
		250 HB		2.0		0.15		25		50				
		350 HB		2.0		0.15		23		45				
	Ti based	10	TiAl6V4, T40	-	0.2	2.0	0.09	0.16	0.32	45	2.0	0.15	60	
-	2.0	0.14		0.26		35		60		50				
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.2	1.8	0.05	0.12	0.20	50	1.5	0.11	90	
		50 HRc		1.5		0.10		0.17		40			90	
		55 HRc		1.4		0.09		0.13		40			80	
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.2	1.6	0.05	0.17	0.17	40	60	1.2	0.11	70
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	AlSi12	130 HB	0.2	4.0	0.10	0.30	0.70	200	400	2.0	0.20	350

DCMT 11T308 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	0.5	4.0	0.21	0.50	1.62	180	330	3.0	0.32	240	
		190 HB		4.0		0.50		1.62	280		220				
		250 HB		4.0		0.45		1.35	250		200				
	Low alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	4.0	0.21	0.45	1.08	120	280	3.0	0.29	200	
		230 HB		3.2		0.21	0.45	1.08	250		180				
		280 HB		3.2		0.18	0.40	1.08	210		150				
		350 HB		2.8		0.18	0.40	0.90	180		130				
	High alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	3.2	0.18	0.40	1.08	70	190	2.5	0.27	140	
		280 HB		3.2		0.40		1.08	150		120				
		320 HB		2.4		0.35		0.72	130		100				
		350 HB		2.4		0.35		0.72	110		90				
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	4.0	0.20	0.40	1.08	170	270	3.0	0.32	190	
		240 HB		4.0		0.40		0.90	160	220	170				
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	3.2	0.18	0.35	0.72	80	150	2.5	0.25	100	
		310 HB		3.2		0.35		0.72	70	140	90				
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	4.0	0.22	0.40	0.90	170	250	3.0	0.29	190	
		42 HRc		3.2		0.40		0.90	120	190	130				
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	4.0	0.15	0.60	1.80	170	250	3.0	0.32	200	
		200 HB		4.0		0.60		1.62	160	230	180				
		250 HB		4.0		0.55		1.62	150	210	160				
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	4.0	0.15	0.50	1.35	250	3.0	0.27	180		
		200 HB		4.0		0.50		1.17	120	230			160		
250 HB	4.0	0.50	1.08	190	140										
High Temp. Alloys	Fe, Ni & Co based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.5	2.4	0.20	0.35	0.63	25	45	2.0	0.25	32	
		250 HB		2.4		0.35		0.63	25	45	30				
		350 HB		2.4		0.35		0.63	23	40	28				
	Ti based	10	TiAl6V4, T40	-	0.5	3.2	0.20	0.40	0.72	45	65	2.0	0.30	55	
		-		2.4		0.35		0.63	35	55	45				
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	2.0	0.11	0.30	0.54	50	100	2.0	0.23	80	
		50 HRc		1.6		0.25		0.36	40	90	1.5			0.18	70
		55 HRc		1.2		0.20		0.27	40	80	1.0			0.16	60
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.5	1.6	0.11	0.25	0.36	40	60	1.5	0.16	50	
	White Cast Iron	41	G-X300CrMo15	55 HRc	0.5	1.2	0.11	0.20	0.27	30	50	1.0	0.14	40	
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	4.8	0.20	0.60	1.60	200	400	3.0	0.36	280