

G N T X

G C T X

Shape
"Doge bone"

Clearance Angle

N = 0° No rake
C = 7° rake angle

Tolerance

l ± 0.05 m ± 0.16
s ± 0.13

Insert Type

Special

Insert designation	Grade	W	R	Catalog Nr.	Page
GNTX 2002 NN	LT 10	2.0mm	0.18mm	T0001468	126
GNTX 3003 NN	LT 10	3.0mm	0.18mm	T0001470	127
GCTX 2002 NN	LT 10	3.0mm	0.25mm	T0001469	128
GCTX 3003 NN	LT 10	3.0mm	0.25mm	T0001471	129
GCTX 2002 PP	LT 10	3.0mm	0.25mm	T0001880	130
GCTX 3003 PP	LT 10	3.0mm	0.25mm	T0001879	131

NN All Purpose Chipbreaker

Application Guide	Parting	Grooving	Side Turning	Chamfering
GNTX 2002 NN				
GNTX 3003 NN				
GCTX 2002 NN				
GCTX 3003 NN				
GCTX 2002 PP				
GCTX 3003 PP				

1 Not Recommended

2 Acceptable

3 Recommended

4 Excellent

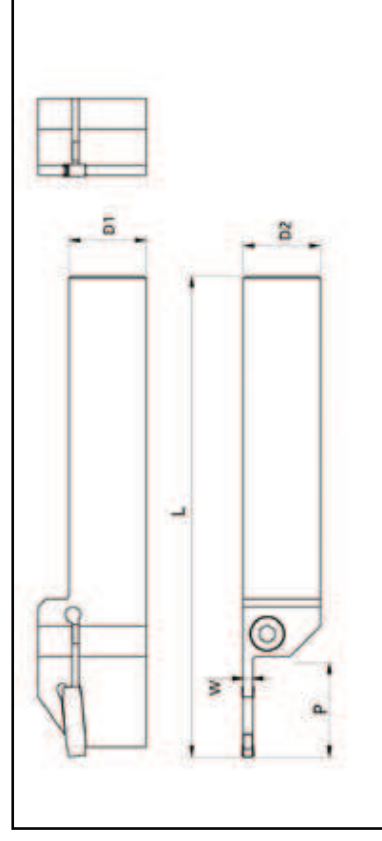
GNTX : 4 CUTTING EDGE - ForSteel and cast Iron.
GCTX : 2 CUTTING EDGE - ForStainless Steel.

Machining Recommendation Guide - Please see Pg. 8

GNTX / GCTX

Catalog Nr.	Description	D1	D2	L	W	P _{max}	Hand
T2001164	LT PNG-L 12-2.0	12	12	120	1.6	20	left
T2001165	LT PNG-R 12-2.0	12	12	120	1.6	20	right
T2001166	LT PNG-L 16-2.0	16	16	120	1.6	20	left
T2001167	LT PNG-R 16-2.0	16	16	120	1.6	20	right
T2001484	LT PNG-L 20-2.0	20	20	120	1.6	20	left
T2001485	LT PNG-R 20-2.0	20	20	120	1.6	20	right
T2001482	LT PNG-L 25-2.0	25	25	120	1.6	20	left
T2001483	LT PNG-R 25-2.0	25	25	120	1.6	20	right

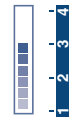
Catalog Nr.	Description	D1	D2	L	W	P _{max}	Hand
T2001168	LT PNG-L 16-3.0	16	16	120	2.4	20	left
T2001169	LT PNG-R 16-3.0	16	16	120	2.4	20	right
T2001170	LT PNG-L 20-3.0	20	20	125	2.4	25	left
T2001171	LT PNG-R 20-3.0	20	20	125	2.4	25	right
T2001197	LT PNG-L 25-3.0	25	25	125	2.4	25	left
T2001198	LT PNG-R 25-3.0	25	25	125	2.4	25	right



Material Group	Group No	Material Examples*	Brinell hardness	feed [mm/rev]		V _c [m/min]								
				min	max	min	max							
Low Carbon Steel	1	CK15, CK45 1020, 1045	150 180 210	0.04	0.17	130	220							
								Alloy Steel	42 CrMo 4 St 50-2 CK60 1060 4140	180 230 280 320	0.04	0.15	90	200
Austenitic Stainless Steel	5	X5 CrNi 18 9 304	210 to 250	0.03	0.07	50	80							
								6	X2 CrNiMo 17 2 2 316	230 to 270	0.03	0.14	60	110
Ferritic Stainless Steel	8	X8 Cr 7 430	Annealed	0.06	0.16	130	190							
								Martensitic Stainless Steel	9	X15 Cr 13 410	Annealed Treated	0.05	0.14	90
Grey Cast Iron	10	GG 20 GG 25 GG 30	140 to 230	0.05	0.14	90	150							
								Nodular Cast Iron	11	GGG 40 GGG 50 GGG 70 G-X260NiCr42	210 260 310 450	0.05	0.14	90
Nickel Based Alloys	13	Inconel 625 Inconel 718 Hastelloy C	-----	For Exotic material please use GCTX insert.										
								Titanium Based Alloys	14	TiAl 6 V4 T40	-----			

Insert designation

GNTX 2002 NN



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LAMINA
TECHNOLOGIES

Material Group	Group No	Material Examples*	Brinell hardness	feed [mm/rev]		V _c [m/min]								
				min	max	min	max							
Low Carbon Steel	1	CK15, CK45 1020, 1045	150 180 210	0.06	0.20	130	220							
								Alloy Steel	42 CrMo 4 St 50-2 CK60 1060 4140	180 230 280 320	0.05	0.18	90	200
Austenitic Stainless Steel	5	X5 CrNi 18 9 304	210 to 250	0.03	0.07	50	80							
								6	X2 CrNiMo 17 2 2 316	230 to 270	0.03	0.17	60	110
Ferritic Stainless Steel	8	X8 Cr 7 430	Annealed	0.08	0.18	130	190							
								Martensitic Stainless Steel	9	X15 Cr 13 410	Annealed Treated	0.08	0.15	90
Grey Cast Iron	10	GG 20 GG 25 GG 30	140 to 230	0.06	0.08	30	70							
								Nodular Cast Iron	11	GGG 40 GGG 50 GGG 70 G-X260NiCr42	210 260 310 450	0.06	0.08	30
Nickel Based Alloys	13	Inconel 625 Inconel 718 Hastelloy C	-----	For Exotic material please use GCTX insert.										
								Titanium Based Alloys	14	TiAl 6 V4 T40	-----			

Insert designation

GNTX 3003 NN



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LAMINA
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Material Group	Group No	Material Examples*	Brinell hardness	feed [mm/rev]		V _c [m/min]				
				min	max	min	max			
Low Carbon Steel	1	CK15, CK45 1020, 1045	150 180 210	0.04	0.17	130	230			
				Alloy Steel	42 CrMo 4 S1 50-2 CK60 1060 4140	180 230 280 320	0.03	0.15	90	200
							0.03	0.15	90	180
High Alloy Steel	3	X40 CrMoV 5 1 H 13 40 NiCrMo 6 4340 S 2-10-1-8 HSS M42	220 280 320 350 400 480 550	0.03	0.14	60	150			
				Austenitic Stainless Steel	X5 CrNi 18 9 304 X2 CrNiMo 17 2 2 316 X6 CrNiMoTi 17 12 2 316 Ti Duplex / Nitronic	210 to 250 230 to 270 -----	0.03	0.10	170	230
							0.03	0.08	160	210
							0.03	0.08	90	120
Ferritic Stainless Steel	X8 Cr 7 430	Annealed	0.03	0.10	150	210				
			Martensitic Stainless Steel	X15 Cr 13 410	Annealed Treated	0.03	0.10	60	210	
0.03	0.10	90				150				
Grey Cast Iron	10	GG 20 GG 25 GG 30	140 to 230	0.06	0.16	130	190			
				Nodular Cast Iron	GGG 40 GGG 50 GGG 70	210 260 310	0.05	0.14	90	150
							0.03	0.06	30	70
Nickel Based Alloys	13	Inconel 625 Inconel 718 Hastelloy C	-----	0.03	0.06	25	65			
				Titanium Based Alloys	TiAl 6 V4 T40	-----	0.03	0.06	28	60
							0.03	0.06	28	40

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				min	max	min	max			
Low Carbon Steel	1	CK15, CK45 1020, 1045	150 180 210	0.06	0.20	130	230			
				Alloy Steel	42 CrMo 4 S1 50-2 CK60 1060 4140	180 230 280 320	0.05	0.18	90	200
							0.05	0.18	90	180
High Alloy Steel	3	X40 CrMoV 5 1 H 13 40 NiCrMo 6 4340 S 2-10-1-8 HSS M42	220 280 320 350 400 480 550	0.05	0.17	60	150			
				Austenitic Stainless Steel	X5 CrNi 18 9 304 X2 CrNiMo 17 2 2 316 X6 CrNiMoTi 17 12 2 316 Ti Duplex / Nitronic	210 to 250 230 to 270 -----	0.04	0.12	170	230
							0.04	0.10	160	210
							0.04	0.08	90	120
Ferritic Stainless Steel	X8 Cr 7 430	Annealed	0.04	0.12	150	210				
			Martensitic Stainless Steel	X15 Cr 13 410	Annealed Treated	0.04	0.12	60	210	
0.04	0.12	90				150				
Grey Cast Iron	10	GG 20 GG 25 GG 30	140 to 230	0.08	0.18	130	190			
				Nodular Cast Iron	GGG 40 GGG 50 GGG 70	210 260 310	0.08	0.15	90	150
							0.06	0.08	30	70
Nickel Based Alloys	13	Inconel 625 Inconel 718 Hastelloy C	-----	0.04	0.18	25	65			
				Titanium Based Alloys	TiAl 6 V4 T40	-----	0.04	0.08	28	60
							0.04	0.08	28	40

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Material Group	Group No	Material Examples*	Brinell hardness	feed [mm/rev]		V _c [m/min]	
				min	max	min	max
Low Carbon Steel	1	CK15, CK45 1020, 1045	150	0.04	0.17	130	230
			180	0.03	0.15	90	200
			210				
Alloy Steel	2	42 CrMo 4 S1 50-2 CK60 1060 4140	180	0.03	0.15	90	200
			230				
			280				
			320				
			320				
High Alloy Steel	3	X40 CrMoV 5 1 H 13 40 NiCrMo 6 4340 S 2-10-1-8 HSS M42	220	0.03	0.14	60	150
			280				
			320				
			350				
			400				
			480				
			480				
			550				
Austenitic Stainless Steel	5	X5 CrNi 18 9 304	210	0.03	0.10	170	230
			to 250				
			230				
Austenitic Stainless Steel	6	X2 CrNiMo 17 2 2 316	230	0.03	0.08	160	210
			to 270				
			270				
Austenitic Stainless Steel	7	X6 CrNiMoTi 17 12 2 316 Ti Duplex / Nitronic	-----	0.03	0.08	90	120

Ferritic Stainless Steel	8	X8 Cr 7 430	Annealed	0.03	0.10	150	210
			Annealed				
Martensitic Stainless Steel	9	X15 Cr 13 410	Annealed	0.03	0.10	60	210
			Treated				
			Treated				
Grey Cast Iron	10	GG 20 GG 25 GG 30	140	0.06	0.16	130	190
			to 230				
			230				
Nodular Cast Iron	11	GGG 40 GGG 50 GGG 70 G-X260NiCr42	210	0.05	0.14	90	150
			260				
			310				
			450				
			450				
Nickel Based Alloys	13	Inconel 625 Inconel 718 Hastelloy C	-----	0.03	0.06	25	65

Titanium Based Alloys	14	TiAl 6 V4 T40	-----	0.03	0.06	28	40

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Material Group	Group No	Material Examples*	Brinell hardness	feed [mm/rev]		V _c [m/min]	
				min	max	min	max
Low Carbon Steel	1	CK15, CK45 1020, 1045	150	0.06	0.20	130	230
			180				
			210				
Alloy Steel	2	42 CrMo 4 S1 50-2 CK60 1060 4140	180	0.05	0.18	90	200
			230				
			280				
			320				
			320				
High Alloy Steel	3	X40 CrMoV 5 1 H 13 40 NiCrMo 6 4340 S 2-10-1-8 HSS M42	220	0.05	0.17	60	150
			280				
			320				
			350				
			400				
			480				
			480				
			550				
Austenitic Stainless Steel	5	X5 CrNi 18 9 304	210	0.04	0.12	170	230
			to 250				
			230				
Austenitic Stainless Steel	6	X2 CrNiMo 17 2 2 316	230	0.04	0.10	160	210
			to 270				
			270				
Austenitic Stainless Steel	7	X6 CrNiMoTi 17 12 2 316 Ti Duplex / Nitronic	-----	0.04	0.08	90	120

Ferritic Stainless Steel	8	X8 Cr 7 430	Annealed	0.04	0.12	150	210
			Annealed				
Martensitic Stainless Steel	9	X15 Cr 13 410	Annealed	0.04	0.12	60	210
			Treated				
			Treated				
Grey Cast Iron	10	GG 20 GG 25 GG 30	140	0.08	0.18	130	190
			to 230				
			230				
Nodular Cast Iron	11	GGG 40 GGG 50 GGG 70 G-X260NiCr42	210	0.08	0.15	90	150
			260				
			310				
			450				
			450				
Nickel Based Alloys	13	Inconel 625 Inconel 718 Hastelloy C	-----	0.04	0.18	25	65

Titanium Based Alloys	14	TiAl 6 V4 T40	-----	0.04	0.08	28	40

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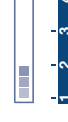
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