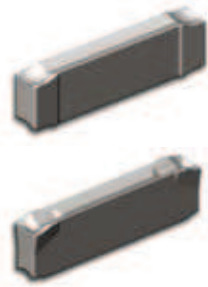


Parting



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.

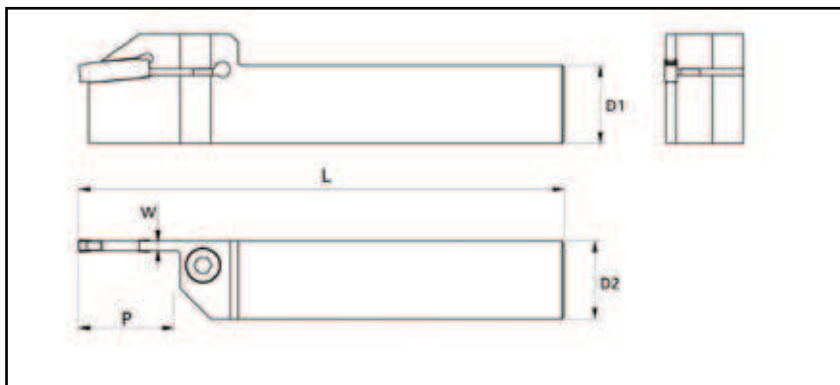
Machining Recommendation Guide - Please see Pg. 8



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	0.04	0.17	130	220
			180				
			210				
Alloy Steel	2	42 CrMo 4 St 50-2 Ck60 1060 4140	180	0.04	0.15	90	200
			230				
			280	0.03	0.15	90	180
			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	0.03	0.14	60	110
			350				
			400	0.03	0.07	50	80
			480				
550							
Austenitic Stainless Steel	4	X5 CrNi 18 9 304	210 to 250	For Stainless Steel please use GCTX insert.			
	5	X2 CrNiMo 17 2 2 316	230 to 270				
	6	X6 CrNiMoTi 17 12 2 316 Ti Duplex / Nitronic	-----				
Ferritic Stainless Steel	7	X8 Cr 7 430	Annealed				
Martensitic Stainless Steel	8	X15 Cr 13 410	Annealed Treated				
Grey Cast Iron	9	GG 20 GG 25 GG 30	140 to 230				
Nodular Cast Iron	10	GGG 40	210	0.05	0.14	90	150
		GGG 50	260				
		GGG 70	310	0.05	0.14	90	150
		G-X260NiCr42	450				
Nickel Based Alloys	11	Inconel 625	-----	For Exotic material please use GCTX insert.			
		Inconel 718					
		Hastelloy C					
Titanium Based Alloys	12	TiAl 6 V4	-----				
		T40					

Insert designation

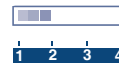
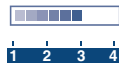
Parting

Grooving

Side Turning

Chamfering

GNTX 2002 NN



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	0.06	0.20	130	220
			180				
			210				
Alloy Steel	2	42 CrMo 4 St 50-2 Ck60 1060 4140	180	0.05	0.18	90	200
			230				
			280	0.05	0.18	90	180
			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	0.05	0.17	60	110
			350				
			400	0.03	0.07	50	80
			480				
550							
Austenitic Stainless Steel	4	X5 CrNi 18 9 304	210 to 250	For Stainless Steel please use GCTX insert.			
	5	X2 CrNiMo 17 2 2 316	230 to 270				
	6	X6 CrNiMoTi 17 12 2 316 Ti Duplex / Nitronic	-----				
Ferritic Stainless Steel	7	X8 Cr 7 430	Annealed				
Martensitic Stainless Steel	8	X15 Cr 13 410	Annealed Treated				
Grey Cast Iron	9	GG 20	140 to 230	0.08	0.18	130	190
		GG 25					
		GG 30					
Nodular Cast Iron	10	GGG 40	210	0.08	0.15	90	150
		GGG 50	260				
		GGG 70	310	0.06	0.08	30	70
		G-X260NiCr42	450				
Nickel Based Alloys	11	Inconel 625	-----	For Exotic material please use GCTX insert.			
		Inconel 718					
		Hastelloy C					
Titanium Based Alloys	12	TiAl 6 V4	-----				
		T40					

Insert designation

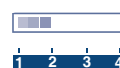
Parting

Grooving

Side Turning

Chamfering

GNTX 3003 NN

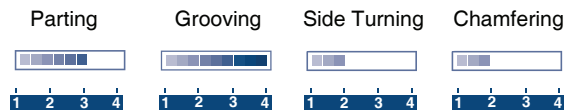


Parting



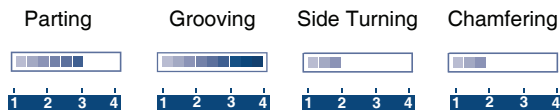
Material Group	Group No	Material Examples*	Brinell hardness	feed [mm/rev]		V _c [m/min]	
				min	max	min	max
Low Carbon Steel	1	Ck15, Ck45 1020, 1045	150	0.04	0.17	130	230
			180				
			210				
Alloy Steel	2	42 CrMo 4 St 50-2 Ck60 1060 4140	180	0.03	0.15	90	200
			230				
			280	0.03	0.15	90	180
			320				
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	0.03	0.14	70	130
			350				
			400	0.03	0.07	50	80
			480				
550							
Austenitic Stainless Steel	4	X5 CrNi 18 9 304	210 to 250	0.03	0.10	170	230
	5	X2 CrNiMo 17 2 2 316	230 to 270	0.03	0.08	160	210
	6	X6 CrNiMoTi 17 12 2 316 Ti Duplex / Nitronic	-----	0.03	0.08	90	120
Ferritic Stainless Steel	7	X8 Cr 7 430	Annealed	0.03	0.10	150	210
Martensitic Stainless Steel	8	X15 Cr 13 410	Annealed	0.03	0.10	60	210
			Treated	0.03	0.10	90	150
Grey Cast Iron	9	GG 20	140 to 230	0.06	0.16	130	190
		GG 25					
		GG 30					
Nodular Cast Iron	10	GGG 40	210	0.05	0.14	90	150
		GGG 50	260				
		GGG 70	310	0.03	0.06	30	70
		G-X260NiCr42	450				
Nickel Based Alloys	11	Inconel 625	-----	0.03	0.06	25	65
		Inconel 718					
		Hastelloy C					
Titanium Based Alloys	12	TiAl 6 V4	-----	0.03	0.06	28	60
		T40			0.06	28	40

Insert designation
GCTX 3003 NN



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 St 50-2 Ck60 1060 4140	180	0.05	0.18	90	200
			230				
			280	0.05	0.18	90	180
			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	0.05	0.22	70	130
			350				
			400	0.03	0.07	50	80
			480				
550							
Austenitic Stainless Steel	4	X5 CrNi 18 9 304	210 to 250	0.04	0.12	170	230
	5	X2 CrNiMo 17 2 2 316	230 to 270	0.04	0.10	160	210
	6	X6 CrNiMoTi 17 12 2 316 Ti Duplex / Nitronic	-----	0.04	0.08	90	120
Ferritic Stainless Steel	7	X8 Cr 7 430	Annealed	0.04	0.12	150	210
Martensitic Stainless Steel	8	X15 Cr 13 410	Annealed	0.04	0.12	60	210
			Treated	0.04	0.12	90	150
Grey Cast Iron	9	GG 20	140 to 230	0.08	0.18	130	190
		GG 25					
		GG 30					
Nodular Cast Iron	10	GGG 40	210	0.08	0.15	90	150
		GGG 50	260				
		GGG 70	310				
		G-X260NiCr42	450	0.06	0.08	30	70
Nickel Based Alloys	11	Inconel 625	-----	0.04	0.18	25	65
		Inconel 718					
		Hastelloy C					
Titanium Based Alloys	12	TiAl 6 V4	-----	0.04	0.08	28	60
		T40			0.08	28	40

Insert designation
GCTX 3003 NN



Parting



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				
			210				
Alloy Steel	2	42 CrMo 4 St 50-2 Ck60 1060 4140	180	0.03	0.15	90	200
			230				
			280	0.03	0.15	90	180
			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	0.03	0.14	70	130
			350				
			400	0.03	0.07	50	80
			480				
550							
Austenitic Stainless Steel	4	X5 CrNi 18 9 304	210 to 250	0.03	0.10	170	230
	5	X2 CrNiMo 17 2 2 316	230 to 270	0.03	0.08	160	210
	6	X6 CrNiMoTi 17 12 2 316 Ti Duplex / Nitronic	-----	0.03	0.08	90	120
Ferritic Stainless Steel	7	X8 Cr 7 430	Annealed	0.03	0.10	150	210
Martensitic Stainless Steel	8	X15 Cr 13 410	Annealed	0.03	0.10	60	210
			Treated	0.03	0.10	90	150
Grey Cast Iron	9	GG 20	140 to 230	0.06	0.16	130	190
		GG 25					
		GG 30					
Nodular Cast Iron	10	GGG 40	210	0.05	0.14	90	150
		GGG 50	260				
		GGG 70	310	0.03	0.06	30	70
		G-X260NiCr42	450				
Nickel Based Alloys	11	Inconel 625	-----	0.03	0.06	25	65
		Inconel 718					
		Hastelloy C					
Titanium Based Alloys	12	TiAl 6 V4	-----	0.03	0.06	28	60
		T40			0.06	28	40

Insert designation

Parting

Grooving

Side Turning

Chamfering

GCTX 2002 PP



1 2 3 4

1 2 3 4

1 2 3 4

1 2 3 4

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 St 50-2 Ck60 1060 4140	180	0.05	0.18	90	200
			230				
			280	0.05	0.18	90	180
			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	0.05	0.22	70	130
			350				
			400	0.03	0.07	50	80
			480				
550							
Austenitic Stainless Steel	4	X5 CrNi 18 9 304	210 to 250	0.04	0.12	170	230
	5	X2 CrNiMo 17 2 2 316	230 to 270	0.04	0.10	160	210
	6	X6 CrNiMoTi 17 12 2 316 Ti Duplex / Nitronic	-----	0.04	0.08	90	120
Ferritic Stainless Steel	7	X8 Cr 7 430	Annealed	0.04	0.12	150	210
Martensitic Stainless Steel	8	X15 Cr 13 410	Annealed	0.04	0.12	60	210
			Treated	0.04	0.12	90	150
Grey Cast Iron	9	GG 20	140 to 230	0.08	0.18	130	190
		GG 25					
		GG 30					
Nodular Cast Iron	10	GGG 40	210	0.08	0.15	90	150
		GGG 50	260				
		GGG 70	310				
		G-X260NiCr42	450	0.06	0.08	30	70
Nickel Based Alloys	11	Inconel 625	-----	0.04	0.18	25	65
		Inconel 718					
		Hastelloy C					
Titanium Based Alloys	12	TiAl 6 V4	-----	0.04	0.08	28	60
		T40			0.08	28	40

Insert designation

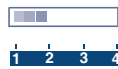
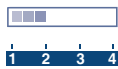
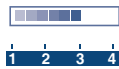
Parting

Grooving

Side Turning

Chamfering

GCTX 3003 PP



Parting

