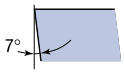
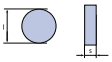
R C M T

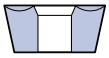
Shape
Round



Clearance Angle
7° Positive rake



Tolerance
l ± 0.05
s ± 0.13



Insert Type
Screw down clamping
Single sided

Insert designation	Grade	l	s	r	Catalog Nr.	Page
RCMT 0602 M0	LT 10	06	2,38	3	T0000090	51
RCMT 0803 M0	LT 10	08	3,18	4	T0000091	52
RCMT 10T3 M0	LT 10	10	3,97	5	T0000092	53
RCMT 1204 M0	LT 10	12	4,76	6	T0000093	54

NN All Purpose Chipbreaker

Application Guide	Super Finishing	Finishing	Semi Finishing	Roughing	Interrrupted Cut
RCMT 0602 M0					
RCMT 0803 M0					
RCMT 10T3 M0					
RCMT 1204 M0					
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

Round inserts with positive rake angle and excellent edge resistance. Suitable for Profiling operations of Mill rolls and Aerospace parts.

1 Not Recommended 2 Acceptable 3 Recommended 4 Excellent

Machining Recommendation Guide - Please see Pg. 8

Material Group	Group No	Material Examples*	Brinell hardness	d.o.c [mm]		feed [mm/rev]		A max [mm²]	V_C [m/min]		Optimal cutting conditions	
				min	max	min	max		min	max	d.o.c	feed
Low Carbon Steel	1	Ck15, Ck45 1020, 1045	150	0.50	2.0	0.15	0.35	0.64	180	350	1.0	0.35
			180		2.0		0.35	0.64		280		
			210		1.5		0.35	0.56		250		
Alloy Steel	2	42 CrMo 4 St 50-2 Ck60 1060 4140	180	0.50	2.0	0.15	0.30	0.56	120	280	1.0	0.30
			230		2.0		0.30	0.48		250		
			280		2.0	0.13	0.30	0.40		210		
			320		1.5		0.25	0.32		180		
High Alloy Steel	3	X40 CrMoV 5 1 H 13 40 NiCrMo 6 4340 S 2-10-1-8 HSS M42	220	0.50	2.0	0.13	0.30	0.48	70	190	1.0	0.28
			280		2.0		0.30	0.40		150		
			320		1.5		0.30	0.32		130		
			350		1.5		0.25	0.24		100		
			400	0.50	1.2	0.08	0.22	0.17	50	90	0.9	0.20
			480		1.0		0.18	0.12	40	80	0.7	0.16
			550		0.8		0.14	0.10	30	70	0.6	0.12
Austenitic Stainless Steel	4	X5 CrNi 18 9 304	210 to 250	0.50	2.0	0.14	0.25	0.32	170	270	1.0	0.35
	5	X2 CrNiMo 17 2 2 316	230 to 270		2.0	0.13	0.18	0.24	120	210	1.0	0.32
	6	X6 CrNiMoTi 17 12 2 316 Ti Duplex / Nitronic	-------		1.5	0.13	0.18	0.24	70	120	1.0	0.28
Ferritic Stainless Steel	7	X8 Cr 7 430	Annealed	0.50	2.0	0.15	0.20	0.32	170	250	1.0	0.32
Martensitic Stainless Steel	8	X15 Cr 13 410	Annealed	0.50	2.0	0.15	0.20	0.32	170	250	1.0	0.32
			Treated						120	210		
Grey Cast Iron	9	GG 20	140 to 230	0.50	2.0	0.11	0.45	0.80	170	280	1.0	0.35
		GG 25						0.72		250		
		GG 30						0.72		230		
Nodular Cast Iron	10	GGG 40	210	0.50	2.0	0.11	0.35	0.60	120	230	1.0	0.30
		GGG 50	260					0.52		190		
		GGG 70	310					0.48		150		
		G-X260NiCr42	450	0.20	1.0	0.04	0.10	0.08	30	50	0.6	0.07
Nickel Based Alloys	11	Inconel 625	--------	0.50	1.5	0.13	0.18	0.20	25	35	1.0	0.28
		Inconel 718						0.20	28	40		
		Hastelloy C						0.24	40	65		
Titanium Based Alloys	12	TiAl 6 V4	--------	0.50	1.5	0.13	0.18	0.24	35	60	1.0	0.30
		T40					0.15	0.24	28	40	1.0	0.28

Insert designation	Super Finishing	Finishing	Semi Finishing	Roughing	Interrrupted Cut
RCMT 0602 M0	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

Material Group	Group No	Material Examples*	Brinell hardness	d.o.c [mm]		feed [mm/rev]		A max [mm²]	V_C [m/min]		Optimal cutting conditions	
				min	max	min	max		min	max	d.o.c	feed
Low Carbon Steel	1	Ck15, Ck45 1020, 1045	150	0.50	2.0	0.15	0.42	0.80	180	350	1.0	0.35
			180		2.0		0.42	0.80		280		
			210		1.5		0.42	0.70		250		
Alloy Steel	2	42 CrMo 4 St 50-2 Ck60 1060 4140	180	0.50	2.0	0.15	0.36	0.70	120	280	1.0	0.30
			230		2.0		0.36	0.60		250		
			280		2.0	0.13	0.36	0.50		210		
			320		1.5		0.30	0.40		180		
High Alloy Steel	3	X40 CrMoV 5 1 H 13 40 NiCrMo 6 4340 S 2-10-1-8 HSS M42	220	0.50	2.0	0.13	0.36	0.60	70	190	1.0	0.28
			280		2.0		0.36	0.50		150		
			320		1.5		0.36	0.40		130		
			350		1.5		0.30	0.30		100		
			400	0.50	1.3	0.08	0.26	0.21	50	90	0.9	0.23
			480		1.0		0.21	0.15	40	80	0.7	0.19
			550		0.9		0.17	0.10	30	70	0.6	0.15
Austenitic Stainless Steel	4	X5 CrNi 18 9 304	210 to 250	0.50	2.0	0.14	0.30	0.40	170	270	1.0	0.35
	5	X2 CrNiMo 17 2 2 316	230 to 270		2.0	0.13	0.21	0.30	120	210	1.0	0.32
	6	X6 CrNiMoTi 17 12 2 316 Ti Duplex / Nitronic	-------		1.5	0.13	0.21	0.30	70	120	1.0	0.28
Ferritic Stainless Steel	7	X8 Cr 7 430	Annealed	0.50	2.0	0.15	0.24	0.40	170	250	1.0	0.32
Martensitic Stainless Steel	8	X15 Cr 13 410	Annealed	0.50	2.0	0.15	0.24	0.40	170	250	1.0	0.32
			Treated						120	210		
Grey Cast Iron	9	GG 20	140 to 230	0.50	2.0	0.11	0.54	1.00	170	280	1.0	0.35
		GG 25						0.90		250		
		GG 30						0.90		230		
Nodular Cast Iron	10	GGG 40	210	0.50	2.0	0.11	0.42	0.75	120	230	1.0	0.30
		GGG 50	260					0.65		190		
		GGG 70	310					0.60		150		
		G-X260NiCr42	450	0.50	1.0	0.08	0.21	0.15	30	50	0.7	0.19
Nickel Based Alloys	11	Inconel 625	--------	0.50	1.5	0.13	0.21	0.25	25	35	1.0	0.28
		Inconel 718						0.25	28	40		
		Hastelloy C						0.30	40	65		
Titanium Based Alloys	12	TiAl 6 V4	--------	0.50	1.5	0.13	0.21	0.30	35	60	1.0	0.30
		T40					0.18	0.30	28	40	1.0	0.28

Insert designation	Super Finishing	Finishing	Semi Finishing	Roughing	Interrrupted Cut
RCMT 0803 M0	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

Material Group	Group No	Material Examples*	Brinell hardness	d.o.c [mm]		feed [mm/rev]		A max [mm²]	V_C [m/min]		Optimal cutting conditions	
				min	max	min	max		min	max	d.o.c	feed
Low Carbon Steel	1	Ck15, Ck45 1020, 1045	150	0.50	3.0	0.20	0.50	1.1	180	350	1.0	0.35
			180		3.0		0.50	1.1		280		
			210		2.0		0.50	1.0		250		
Alloy Steel	2	42 CrMo 4 St 50-2 Ck60 1060 4140	180	0.50	3.0	0.20	0.45	1.0	120	280	1.0	0.30
			230		2.0		0.42	0.8		250		
			280		2.0	0.16	0.42	0.7		210		
			320		2.0		0.35	0.6		180		
High Alloy Steel	3	X40 CrMoV 5 1 H 13 40 NiCrMo 6 4340 S 2-10-1-8 HSS M42	220	0.50	2.0	0.16	0.45	0.8	70	190	1.0	0.28
			280		2.0		0.42	0.7		150		
			320		1.5		0.42	0.6		130		
			350		1.5		0.35	0.4		100		
			400	0.50	1.2	0.10	0.30	0.3	50	90	1.0	0.27
			480		1.0		0.25	0.2	40	80	0.8	0.22
			550		0.9		0.19	0.1	30	70	0.5	0.17
Austenitic Stainless Steel	4	X5 CrNi 18 9 304	210 to 250	0.50	2.0	0.18	0.35	0.4	170	270	1.0	0.35
	5	X2 CrNiMo 17 2 2 316	230 to 270		2.0	0.16	0.25	0.3	120	210	1.0	0.32
	6	X6 CrNiMoTi 17 12 2 316 Ti Duplex / Nitronic	-------		1.5	0.16	0.25	0.3	70	120	1.0	0.28
Ferritic Stainless Steel	7	X8 Cr 7 430	Annealed	0.50	2.0	0.20	0.28	0.4	170	250	1.0	0.32
Martensitic Stainless Steel	8	X15 Cr 13 410	Annealed	0.50	2.0	0.20	0.28	0.4	170	250	1.0	0.32
			Treated						120	210		
Grey Cast Iron	9	GG 20	140 to 230	0.50	2.0	0.14	0.63	1.4	170	280	1.0	0.35
		GG 25						1.3		250		
		GG 30						1.3		230		
Nodular Cast Iron	10	GGG 40	210	0.50	2.0	0.14	0.49	1.1	120	230	1.0	0.30
		GGG 50	260					0.9		190		
		GGG 70	310					0.8		150		
		G-X260NiCr42	450	0.50	1.0	0.10	0.25	0.2	30	50	0.8	0.22
Nickel Based Alloys	11	Inconel 625	--------	0.50	1.5	0.16	0.25	0.3	25	35	1.0	0.28
		Inconel 718						0.3	28	40		
		Hastelloy C						0.3	40	65		
Titanium Based Alloys	12	TiAl 6 V4	--------	0.50	1.5	0.16	0.25	0.3	35	60	1.0	0.30
		T40					0.21	0.3	28	40	1.0	0.28

Insert designation	Super Finishing	Finishing	Semi Finishing	Roughing	Interrrupted Cut
RCMT 10T3 M0	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

Material Group	Group No	Material Examples*	Brinell hardness	d.o.c [mm]		feed [mm/rev]		A max [mm²]	V_C [m/min]		Optimal cutting conditions	
				min	max	min	max		min	max	d.o.c	feed
Low Carbon Steel	1	Ck15, Ck45 1020, 1045	150	0.50	4.0	0.22	0.70	1.6	180	350	2.0	0.45
			180		4.0		0.70	1.6		280		
			210		3.0		0.70	1.4		250		
Alloy Steel	2	42 CrMo 4 St 50-2 Ck60 1060 4140	180	0.50	4.0	0.22	0.60	1.4	120	280	2.0	0.40
			230		3.0		0.60	1.2		250		
			280		3.0	0.18	0.60	1.0		210		
			320		2.5		0.50	0.8		180		
High Alloy Steel	3	X40 CrMoV 5 1 H 13 40 NiCrMo 6 4340 S 2-10-1-8 HSS M42	220	0.50	3.0	0.18	0.60	1.2	70	190	2.0	0.38
			280		3.0		0.60	1.0		150		
			320		2.0		0.60	0.8		130		
			350		2.0		0.50	0.6		100		
			400	0.50	1.7	0.11	0.43	0.4	50	90	1.7	0.35
			480		1.4		0.35	0.3	40	80	1.4	0.32
			550		1.2		0.28	0.2	30	70	1.2	0.25
Austenitic Stainless Steel	4	X5 CrNi 18 9 304	210 to 250	0.50	3.0	0.20	0.50	0.8	170	270	2.0	0.35
	5	X2 CrNiMo 17 2 2 316	230 to 270		3.0	0.18	0.35	0.6	120	210	2.0	0.32
	6	X6 CrNiMoTi 17 12 2 316 Ti Duplex / Nitronic	-------		2.0	0.18	0.35	0.6	70	120	1.5	0.28
Ferritic Stainless Steel	7	X8 Cr 7 430	Annealed	0.50	3.0	0.22	0.40	0.8	170	250	2.0	0.32
Martensitic Stainless Steel	8	X15 Cr 13 410	Annealed	0.50	3.0	0.22	0.40	0.8	170	250	2.0	0.32
			Treated						120	210		
Grey Cast Iron	9	GG 20	140 to 230	0.50	3.0	0.15	0.90	1.8	170	280	2.0	0.35
		GG 25						1.6		250		
		GG 30						1.4		230		
Nodular Cast Iron	10	GGG 40	210	0.50	3.0	0.15	0.70	1.5	120	230	1.5	0.30
		GGG 50	260					1.3		190		
		GGG 70	310					1.2		150		
		G-X260NiCr42	450	0.50	1.2	0.11	0.28	0.2	30	50	1.0	0.20
Nickel Based Alloys	11	Inconel 625	--------	0.50	2.0	0.18	0.35	0.5	25	35	1.5	0.28
		Inconel 718						0.5	28	40		
		Hastelloy C						0.6	40	65		
Titanium Based Alloys	12	TiAl 6 V4	--------	0.50	2.0	0.18	0.35	0.6	35	60	1.5	0.30
		T40					0.30	0.6	28	40	1.5	0.28

Insert designation	Super Finishing	Finishing	Semi Finishing	Roughing	Interrrupted Cut
RCMT 1204 M0	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4