

COBRA



CARBIDE®

Power. Precision. Performance.



CARBIDE INSERTS

General Purpose



Turning



Milling



Threading



Grooving



Aluminum



Cut-Off

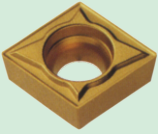
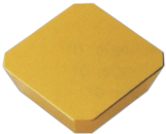
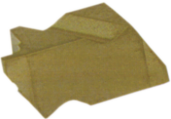
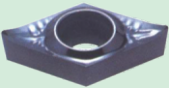


- Distributor Net Pricing

- Minimum Order \$100.00

Flyer # :
0611

LOOK INSIDE FOR MORE EXCITING OFFERS

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Carbide Grades

C520 (C-2) - Uncoated

- General purpose grade designed for cast iron and non-ferrous materials.
- Can also be used for machining 200 and 300 series stainless steel. Provides excellent wear resistance.

C550 (C-5) - Uncoated

- Designed for heavy roughing to semi-finishing of all steels

CM02 (C-2) - Coated

- Multi Layer coating TiC/Al₂O₃/TiN. Good toughness, high strength in use and versatility for roughing, medium roughing of steel, alloy steel and cast-iron, especially for high speed and quick cutting.
- Aluminum oxide coating for machining 200 and 300 series stainless steel.

CM-14 (C-5) - Coated

- Multi Layer coating TiN/TiC/TiCN/TiN for turning and milling carbon and alloy steels, tools steel and stainless steel. Provides longer tool life than uncoated grades.

CARBIDE INSERTS

TURNING INSERTS

Carbide Grades

C520 (C-2) Uncoated	General purpose grade designed for cast iron and non-ferrous materials. Can also be used for machining 200 and 300 series stainless steel. Provides excellent wear resistance.
C550 (C-5) Uncoated	Designed for heavy roughing to semi-finishing of all steels
CM02 (C-2) Coated	Multi Layer coating TiC/Al ₂ O ₃ /TiN. Good toughness, high strength in use and versatility for roughing, medium roughing of steel, alloy steel and cast-iron, especially for high speed and quick cutting. Aluminum oxide coating for machining 200 and 300 series stainless steel.
CM-14 (C-5) Coated	Multi Layer coating TiN/TiC/TiCN/TiN for turning and milling carbon and alloy steels, tools steel and stainless steel. Provides longer tool life than uncoated grades.

Style CCMT

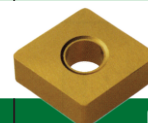
- Screw-On Style Insert.
- Used for semi-finishing and finishing on a wide range of materials.
- 80° Diamond Single Sided insert with molded chipbreaker.



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
CCMT 21.50	CCMT 06 02 02	1/4	3/32	0.008	0.110	40088	40092	\$ 3.85	\$ 1.27	40094	40096	\$ 5.00	\$ 1.65
CCMT 21.51	CCMT 06 02 04	1/4	3/32	1/64	0.110	40100	40104	3.85	1.27	40106	40108	5.00	1.65
CCMT 21.52	CCMT 06 02 08	1/4	3/32	1/32	0.110	40112	40116	3.85	1.27	40118	40120	5.00	1.65
CCMT 32.50	CCMT 09 T3 02	3/8	5/32	0.008	0.173	40121	40122	4.00	1.32	40123	40125	5.15	1.70
CCMT 32.51	CCMT 09 T3 04	3/8	5/32	1/64	0.173	40124	40128	4.00	1.32	40130	40132	5.15	1.70
CCMT 32.52	CCMT 09 T3 08	3/8	5/32	1/32	0.173	40136	40140	4.00	1.32	40142	40144	5.15	1.70
CCMT 431	CCMT 12 04 04	1/2	3/16	1/64	0.217	40146	40148	4.67	1.54	40149	40150	6.48	2.14
CCMT 432	CCMT 12 04 08	1/2	3/16	1/32	0.217	40152	40154	4.67	1.54	40155	40156	6.48	2.14

Style CNMA

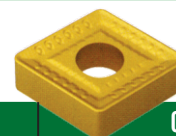
- 80° Diamond Double sided without chipbreaker - 0° Relief Angle
- Combo Pin and Clamp Insert - Used for turning facing and boring
- Feed Range .003 to .020 IPR



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide		
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM14 Order #	List Price	Sale Price
CNMA 431	CNMA 12 04 04	1/2	3/16	1/64	0.203	44100	44104	\$ 4.67	\$ 1.54	44108	\$ 6.48	\$ 2.14
CNMA 432	CNMA 12 04 08	1/2	3/16	1/32	0.203	44112	44116	4.67	1.54	44120	6.48	2.14
CNMA 433	CNMA 12 04 12	1/2	3/16	3/64	0.203	44124	44128	4.67	1.54	44132	6.48	2.14
CNMA 542	CNMA 16 06 08	5/8	1/4	1/32	0.250	44109	44110	8.33	2.75	44111	10.15	3.35
CNMA 543	CNMA 16 06 12	5/8	1/4	3/64	0.250	44121	44122	8.33	2.75	44123	10.15	3.35
CNMA 544	CNMA 16 06 16	5/8	1/4	1/16	0.250	44133	44134	8.33	2.75	44135	10.15	3.35
CNMA 642	CNMA 19 06 08	3/4	1/4	1/32	0.312	44136	44140	9.82	3.24	44144	13.15	4.34
CNMA 643	CNMA 19 06 12	3/4	1/4	3/64	0.312	44148	44152	9.82	3.24	44156	13.15	4.34
CNMA 644	CNMA 19 06 16	3/4	1/4	1/16	0.312	44157	44158	9.82	3.24	44159	13.15	4.34

Style CNMM

- Screw-On Style Insert
- Used for semi-finishing and finishing on a wide range of materials
- 80° Diamond Single Sided insert with molded chipbreaker.



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
CNMM 432	CNMM 12 04 08	1/2	3/16	1/32	0.203	44288	44292	\$ 4.66	\$ 1.54	44294	44296	\$ 6.50	\$ 2.15
CNMM 433	CNMM 12 04 12	1/2	3/16	3/64	0.203	44300	44304	4.66	1.54	44306	44308	6.50	2.15
CNMM 642	CNMM 19 06 08	3/4	1/4	1/32	0.312	44312	44316	9.83	3.24	44318	44320	13.16	4.34
CNMM 643	CNMM 19 06 12	3/4	1/4	3/64	0.312	44324	44328	9.83	3.24	44330	44332	13.16	4.34

CARBIDE INSERTS

TURNING INSERTS

- Can be used for roughing, semi-finishing and finishing proportionate to the size and the nose radius of the insert.
- Combo Pin and Clamp Insert. - 0° Relief Angle
- Double Sided used for medium to heavy cuts.
- 80° Diamond with Chipbreaker - Feed Range .007 to .028 IPR

Style CNMG



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
CNMG 431	CNMG 12 04 04	1/2	3/16	1/64	0.203	40160	40164	\$ 4.33	\$ 1.43	40166	40168	\$ 6.33	\$ 2.09
CNMG 432	CNMG 12 04 08	1/2	3/16	1/32	0.203	40172	40176	4.33	1.43	40178	40180	6.33	2.09
CNMG 433	CNMG 12 04 12	1/2	3/16	3/64	0.203	40184	40188	4.33	1.43	40190	40192	6.33	2.09
CNMG 434	CNMG 12 04 16	1/2	3/16	1/16	0.203	40196	40200	8.33	2.75	40202	40204	10.15	3.35
CNMG 542	CNMG 16 06 08	5/8	1/4	1/32	0.250	40208	40212	8.33	2.75	40214	40216	10.15	3.35
CNMG 543	CNMG 16 06 12	5/8	1/4	3/64	0.250	40220	40224	8.33	2.75	40226	40228	10.15	3.35
CNMG 544	CNMG 16 06 16	5/8	1/4	1/16	0.250	40229	40230	10.33	3.41	40231	40233	13.00	4.29
CNMG 642	CNMG 19 06 08	3/4	1/4	1/32	0.312	40232	40236	10.33	3.41	40238	40240	13.00	4.29
CNMG 643	CNMG 19 06 12	3/4	1/4	3/64	0.312	40244	40248	10.33	3.41	40250	40252	13.00	4.29
CNMG 644	CNMG 19 06 16	3/4	1/4	1/16	0.312	40256	40260	10.33	3.41	40262	40264	13.00	4.29

- 80° Diamond with Chipbreaker. - Combo Pin and Clamp Insert.
- Extra Positive rake cutting edge when compared to CNMG.
- Can be used to machine materials like
- Stainless Steel and Low carbon steels

Style CNMP



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
CNMP 431	CNMP 12 04 04	1/2	3/16	1/64	0.203	44650	44652	\$ 6.15	\$ 2.03	44654	44656	\$ 8.00	\$ 2.64
CNMP 432	CNMP 12 04 08	1/2	3/16	1/32	0.203	44658	44660	6.15	2.03	44662	44664	8.00	2.64
CNMP 433	CNMP 12 04 12	1/2	3/16	3/64	0.203	44666	44668	6.15	2.03	44670	44672	8.00	2.64
CNMP 642	CNMP 19 06 08	3/4	1/4	1/32	0.312	44674	44676	9.82	3.24	44678	44680	13.15	4.34
CNMP 643	CNMP 19 06 12	3/4	1/4	3/64	0.312	44682	44684	9.82	3.24	44686	44688	13.15	4.34

Style CPGM

- Screw on insert - Single sided with molded chip breaker
- For a wide range of materials, soft materials and exotic alloys- 11° Relief Angle
- 80° Diamond with Chip breaker - Feed range .005 to .015 per rev.



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
CPGM 21.50	CPGM 06 02 02	1/4	3/32	0.008	0.110	40316	40320	\$ 4.82	\$ 1.59	40322	40324	\$ 6.00	\$ 1.98
CPGM 21.51	CPGM 06 02 04	1/4	3/32	1/64	0.110	40328	40332	4.82	1.59	40334	40336	6.00	1.98
CPGM 21.52	CPGM 06 02 08	1/4	3/32	1/32	0.110	40340	40344	4.82	1.59	40346	40348	6.00	1.98
CPGM 32.51	CPGM 09 T3 04	3/8	3/8	1/64	0.173	40352	40356	5.00	1.65	40358	40360	6.15	2.03
CPGM 32.52	CPGM 09 T3 08	3/8	3/8	1/32	0.173	40364	40368	5.00	1.65	40370	40372	6.15	2.03

Also available Carbide EndMills, Drills, Reamers, Burrs & Specials

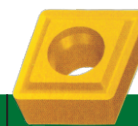


CARBIDE INSERTS

TURNING INSERTS

Style CPGT

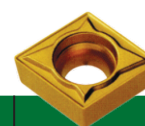
- Chip Breaker Type CF-Finishing - 80° Diamond with Chipbreaker
- 11° Relief Angle Ideal for Heavy Duty Finishing
- Single sided with chip breaker - Screw on insert



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
CPGT 21.50	CPGT 06 02 02	1/4	3/32	0.008	0.110	44336	44340	\$ 3.15	\$ 1.04	44342	44344	\$ 4.33	\$ 1.43
CPGT 21.51	CPGT 06 02 04	1/4	3/32	1/64	0.110	44348	44352	3.15	1.04	44354	44356	4.33	1.43
CPGT 21.52	CPGT 06 02 08	1/4	3/32	1/32	0.110	44360	44364	3.15	1.04	44366	44368	4.33	1.43
CPGT 32.51	CPGT 09 T3 04	3/8	3/8	1/64	0.173	44372	44376	3.82	1.26	44378	44380	5.00	1.65
CPGT 32.52	CPGT 09 T3 08	3/8	3/8	1/32	0.173	44384	44388	3.82	1.26	44390	44392	5.00	1.65

Style CPMT

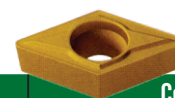
- Chip Breaker Type CF-Finishing - 11° Relief Angle
- Screw-On Style Insert - 80° Diamond with Chipbreaker
- Single Sided insert with molded chip breaker
- Used for turning and finishing on a wide range of materials
- Feed range .005 to .015 IPR / 0.1-0.4 mm/rev



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
CPMT 21.505	CPMT 06 02 02	1/4	3/32	0.008	0.110	40376	40380	\$ 4.82	\$ 1.59	40382	40384	\$ 5.67	\$ 1.87
CPMT 21.51	CPMT 06 02 04	1/4	3/32	1/64	0.110	40388	40392	4.82	1.59	40394	40396	5.67	1.87
CPMT 32.505	CPMT 09 T3 02	3/8	5/32	0.008	0.173	40400	40404	5.15	1.70	40406	40408	6.00	1.98
CPMT 32.51	CPMT 09 T3 04	3/8	5/32	1/64	0.173	40412	40416	5.15	1.70	40418	40420	6.00	1.98
CPMT 32.52	CPMT 09 T3 08	3/8	5/32	1/32	0.173	40424	40428	5.15	1.70	40430	40432	6.00	1.98

Style DCMT

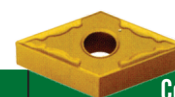
- Chip Breaker Type CM-Medium
- Screw-On style insert - 55° Diamond with Chipbreaker
- Single Sided insert with molded chip breaker. - 7° Relief Angle
- For semi-finishing and finishing cuts
- Feed range .003 to .012 IPR / 0.1-0.3 mm/rev



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
DCMT 21.51	DCMT 070204	1/4	3/32	1/64	0.110	40436	40440	\$ 4.00	\$ 1.32	40442	40444	\$ 5.15	\$ 1.70
DCMT 21.52	DCMT 070208	1/4	3/32	1/32	0.110	40448	40452	4.00	1.32	40454	40456	5.15	1.70
DCMT 32.51	DCMT 11T304	3/8	5/32	1/64	0.173	40460	40464	4.15	1.37	40466	40468	5.33	1.76
DCMT 32.52	DCMT 11T308	3/8	5/32	1/32	0.173	40472	40476	4.15	1.37	40478	40480	5.33	1.76
DCMT 431	DCMT 150404	1/2	3/16	1/64	0.203	40467	40469	5.67	1.87	40470	40471	7.24	2.40
DCMT 432	DCMT 150408	1/2	3/16	1/32	0.203	40479	40481	5.67	1.87	40482	40483	7.24	2.40

Style DNMG

- Combo Pin and Clamp Insert - 55° Diamond with Chipbreaker
- Double sided used for medium to heavy cuts
- Used in a wide range of materials and applications - 0° Relief Angle



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
DNMG 431	DNMG 15 04 04	1/2	3/16	1/64	0.203	40484	40488	\$ 6.48	\$ 2.14	40490	40492	\$ 8.33	\$ 2.75
DNMG 432	DNMG 15 04 08	1/2	3/16	1/32	0.203	40496	40500	6.48	2.14	40502	40504	8.33	2.75
DNMG 433	DNMG 15 04 12	1/2	3/16	3/64	0.203	40508	40512	6.48	2.14	40510	40516	8.33	2.75
DNMG 542	DNMG 19 06 08	5/8	1/4	1/32	0.250	40520	40524	9.82	3.24	40526	40528	11.67	3.85
DNMG 543	DNMG 19 06 12	5/8	1/4	3/64	0.250	40532	40536	9.82	3.24	40538	40540	11.67	3.85

CARBIDE INSERTS

TURNING INSERTS

0° Relief Angle - Diamond - 55° Relief Angle
 - 5° Positive cutting action double sided
 for semi-finishing and finishing - Low cutting forces for machining soft materials,
 exotic alloys and stainless steel. - Feed Range 0.2-0.5mm/min.

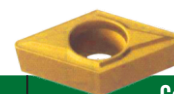
Style DNMP



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
DNMP 431	DNMP 15 04 04	1/2	3/16	1/64	0.203	44690	44692	\$ 6.48	\$ 2.14	****	44696	\$ 8.33	\$ 2.75
DNMP 432	DNMP 15 04 08	1/2	3/16	1/32	0.203	44698	44700	6.48	2.14	****	44704	8.33	2.75

- Screw-On style insert - 55° Diamond with Chipbreaker
 - Single Sided insert with molded chip breaker.
 - For semi-finishing and finishing cuts - 11° Relief Angle
 - Feed Range .003 to .012 IPR / 0.1-0.3 mm/rev

Style DPMT



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
DPMT 21.505	DPMT 07 02 02	1/4	3/32	0.008	0.110	***	***	***	***	44710	44712	\$ 5.67	\$ 1.87
DPMT 21.51	DPMT 07 02 04	1/4	3/32	1/64	0.110	***	***	***	***	44718	44720	5.67	1.87
DPMT 32.505	DPMT 11 T3 02	3/8	5/32	0.008	0.173	***	***	***	***	44726	44728	6.00	1.98
DPMT 32.51	DPMT 11 T3 04	3/8	5/32	1/64	0.173	***	***	***	***	44734	44736	6.00	1.98
DPMT 32.52	DPMT 11 T3 08	3/8	5/32	1/32	0.173	***	***	***	***	44742	44744	6.00	1.98

- Clamp On insert
 - Single sided with Chipbreaker
 - 12° Positive cutting action
 - 0° Relief Angle

Style KNUX 55° Parallelogram



Insert Type		Dimensions			Uncoated Carbide				Coated Carbide			
Insert Style		Thickness	Corner Radius	Chipbreaker Width	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
Right Hand												
KNUX 160405 R11		3/16	0.197	0.086 X 12°	***	***	***	***	***	44420	\$ 6.52	\$ 2.15
KNUX 160410 R11		3/16	0.394	0.086 X 12°	***	***	***	***	***	44424	6.52	2.15
Left Hand												
KNUX 160405 L11		3/16	0.197	0.086 X 12°	***	***	***	***	***	44428	\$ 6.52	\$ 2.15
KNUX 160410 L11		3/16	0.394	0.086 X 12°	***	***	***	***	***	44432	6.52	2.15

Style RNMA

- Use for turning and facing on the outside of part
 - 0° Relief Angle



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
RNMA 32	RNMA 09 03 00	3/8	1/8	***	0.150	44794	44796	\$ 4.82	\$ 1.59	***	44800	\$ 6.00	\$ 1.98
RNMA 43	RNMA 12 04 00	1/2	3/16	***	0.203	44802	44804	5.67	1.87	***	44808	7.48	2.47
RNMA 54	RNMA 15 06 00	5/8	1/4	***	0.250	44810	44812	8.33	2.75	***	44816	11.67	3.85
RNMA 64	RNMA 19 06 00	3/4	3/16	***	0.313	44818	44820	11.82	3.90	***	44824	15.15	5.00
RNMA 84	RNMA 2506 00	1"	1/4	***	0.359	44821	44825	21.82	7.20	***	44822	27.67	9.13
RNMA 86	RNMA 2509 00	1"	3/8	***	0.359	44817	44819	21.82	7.20	***	44823	27.67	9.13

CARBIDE INSERTS

TURNING INSERTS

Style RNG

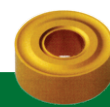
- Round Clamp-on Insert



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
RNG 32	RNGN 09 03 00	3/8	1/8	***	***	44826	44828	\$ 4.48	\$ 1.48	***	44832	\$ 5.67	\$ 1.87
RNG 42	RNGN 12 03 00	1/2	1/8	***	***	44834	44836	5.15	1.70	***	44840	7.00	2.31
RNG 43	RNGN 12 04 00	1/2	3/16	***	***	44842	44844	5.33	1.76	***	44848	7.15	2.36
RNG 63	RNGN 19 04 00	3/4	3/16	***	***	44850	44852	8.00	2.64	***	44856	11.33	3.74

Style RNMG

- Use for turning and facing on the outside of part
- 0° Relief Angle - Round Clamp-on Insert



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
RNMG 32	RNMG 09 03 00	3/8	1/8	***	0.150	44858	44860	\$ 4.82	\$ 1.59	***	44864	\$ 6.00	\$ 1.98
RNMG 43	RNMG 12 04 00	1/2	3/16	***	0.203	44866	44868	5.48	1.82	***	44872	7.33	2.42
RNMG 54	RNMG 15 06 00	5/8	1/4	***	0.250	44874	44876	8.15	2.69	***	44880	10.00	3.30
RNMG 64	RNMG 19 06 00	3/4	1/4	***	0.312	44882	44884	11.00	3.63	***	44888	14.33	4.73
RNMG 84	RNMG 2506 00	1"	1/4	***	0.359	44881	44883	16.15	5.33	***	44885	22.00	7.26
RNMG 66	RNMG 2509 00	1"	3/8	***	0.359	44886	44887	16.15	5.33	***	44889	22.00	7.26

Style RPG

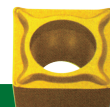
- 11° Relief Angle
- Round Clamp-on Insert



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
RPG 32	RPGN 09 03 00	3/8	1/8	***	***	44890	44892	\$ 4.48	\$ 1.48	***	44896	\$ 5.67	\$ 1.87
RPG 42	RPGN 12 03 00	1/2	1/8	***	***	44898	44900	5.15	1.70	***	44904	7.00	2.31
RPG 43	RPGN 12 04 00	1/2	3/16	***	***	44906	44908	5.15	1.70	***	44912	7.00	2.31

Style SCMT

- Screw-On Style Insert
- Single Sided insert with molded chip breaker.
- Used for turning and finishing on a wide range of materials - 7° Relief Angle



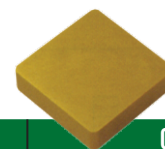
Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
SCMT 32.51	SCMT 09 T3 04	3/8	5/32	1/64	0.173	40544	40548	\$ 4.00	\$ 1.32	40550	40552	\$ 5.15	\$ 1.70
SCMT 32.52	SCMT 09 T3 08	3/8	5/32	1/32	0.173	40556	40560	4.00	1.32	40562	40564	5.15	1.71
SCMT 431	SCMT 12 04 04	1/2	3/16	1/64	0.216	40568	40572	4.33	1.43	40574	40576	6.15	2.03
SCMT 432	SCMT 12 04 08	1/2	3/16	1/32	0.216	40580	40584	4.33	1.43	40586	40588	6.15	2.03

CARBIDE INSERTS

TURNING INSERTS

Style SNG

- Clamp Style Insert - Square Negative ground on all sides - 0° Relief Angle
- Used for difficult to cut materials - Feed Range .003 to .020 I.P.R.



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
SNG 421	SNGN 12 03 04	1/2	1/8	0.016	***	44914	44916	\$ 3.00	\$ 0.99	***	44920	\$ 4.82	\$ 1.59
SNG 422	SNGN 12 03 08	1/2	1/8	0.031	***	44922	44924	3.00	0.99	***	44928	4.82	1.59
SNG 433	SNGN 12 04 12	1/2	3/16	0.047	***	44930	44932	3.48	1.15	***	44936	5.33	1.76
SNG 434	SNGN 12 04 16	1/2	3/16	0.063	***	44938	44940	3.48	1.15	***	44944	5.33	1.76
SNG 632	SNGN 19 04 08	3/4	3/16	0.031	***	44946	44948	9.82	3.24	***	44952	13.15	4.34
SNG 633	SNGN 19 04 12	3/4	3/16	0.047	***	44954	44956	9.82	3.24	***	44960	13.15	4.34
SNG 634	SNGN 19 04 16	3/4	3/16	0.063	***	44962	44964	9.82	3.24	***	44968	13.15	4.34

Style SNMA

- Combo Pin and Clamp Insert - Square without Chipbreaker
- Double sided for medium to heavy cuts - Feed Range .007 to .028 I.P.R.
- Used on a wide range of materials and applications - 0° Relief Angle



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
SNMA 432	SNMA 12 04 08	1/2	3/16	1/32	0.203	42500	42502	\$ 3.00	\$ 0.99	***	42506	\$ 6.48	\$ 2.14
SNMA 433	SNMA 12 04 12	1/2	3/16	3/64	0.203	42508	42510	3.00	0.99	***	42514	6.48	2.14
SNMA 434	SNMA 12 04 16	1/2	3/16	3/64	0.203	42516	42518	3.00	0.99	***	42522	6.48	2.14
SNMA 542	SNMA 15 06 08	5/8	1/4	5/32	0.250	42524	42526	5.67	1.87	***	42530	7.48	2.47
SNMA 543	SNMA 15 06 12	5/8	1/4	3/64	0.250	42532	42534	5.67	1.87	***	42538	7.48	2.47
SNMA 544	SNMA 15 06 16	5/8	1/4	1/16	0.312	42540	42542	5.67	1.87	***	42546	7.48	2.47
SNMA 643	SNMA 19 06 12	3/4	1/4	3/64	0.312	42548	42550	13.00	4.29	***	42554	16.33	5.39
SNMA 644	SNMA 19 06 16	3/4	1/4	1/16	0.312	42556	42558	13.00	4.29	***	42562	16.33	5.39

Style SNMG

- Combo Pin and Clamp Insert - Square with Chipbreaker
- Double sided for medium to heavy cuts - Feed Range .007 to .028 I.P.R.
- Used on a wide range of materials and applications - 0° Relief Angle



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
SNMG 321	SNMG 09 03 04	3/8	1/8	1/64	0.150	40589	40590	\$ 2.82	\$ 0.93	***	40591	\$ 4.00	\$ 1.32
SNMG 322	SNMG 09 03 08	3/8	1/8	1/32	0.150	40592	40596	2.82	0.93	***	40600	4.00	1.32
SNMG 333	SNMG 09 04 12	3/8	3/16	3/64	0.150	40605	40606	2.82	0.93	***	40607	4.00	1.32
SNMG 431	SNMG 12 04 04	1/2	3/16	1/64	0.203	40604	40608	4.82	1.59	***	40612	6.67	2.20
SNMG 432	SNMG 12 04 08	1/2	3/16	1/32	0.203	40616	40620	4.82	1.59	***	40624	6.67	2.20
SNMG 433	SNMG 12 04 12	1/2	3/16	3/64	0.203	40628	40632	4.82	1.59	***	40636	6.67	2.20
SNMG 434	SNMG 12 04 16	1/2	3/16	1/16	0.203	40640	40644	4.82	1.59	***	40648	6.67	2.20
SNMG 542	SNMG 15 06 08	5/8	1/4	1/32	0.250	40652	40656	6.82	2.25	***	40660	8.94	2.95
SNMG 543	SNMG 15 06 12	5/8	1/4	3/64	0.250	40664	40668	6.82	2.25	***	40672	8.94	2.95
SNMG 544	SNMG 15 06 16	5/8	1/4	1/16	0.250	40641	40642	6.82	2.25	***	40643	8.94	2.95
SNMG 642	SNMG 19 06 08	3/4	1/4	1/32	0.312	40653	40654	12.82	4.23	***	40655	16.15	5.33
SNMG 643	SNMG 19 06 12	3/4	1/4	3/64	0.312	40657	40658	12.82	4.23	***	40659	16.15	5.33
SNMG 644	SNMG 19 06 16	3/4	1/4	1/16	0.312	40673	40674	12.82	4.23	***	40675	16.15	5.33

CARBIDE INSERTS

TURNING INSERTS

- Clamp Style Insert - Square Ground Top and Bottom
- Double sided without chipbreaker
- Suited for problem free chip forming materials - 0° Relief Angle
- Feed Range .003 to .030 IPR / 0.075-0.75 mm/rev

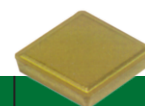
Style SNU



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
SNU 422	SNUN 12 03 08	1/2	1/8	1/32	***	40677	40678	\$ 2.82	\$ 0.93	***	40679	\$ 4.67	\$ 1.54
SNU 432	SNUN 12 04 08	1/2	1/8	1/32	***	40681	40682	2.82	0.93	***	40683	4.67	1.54
SNU 433	SNUN 12 04 12	1/2	3/16	3/64	***	40676	40680	2.82	0.93	***	40684	4.67	1.54
SNU 632	SNUN 19 04 08	3/4	3/16	1/32	***	40685	40686	9.82	3.24	***	40687	13.15	4.34
SNU 633	SNUN 19 04 12	3/4	3/16	3/64	***	40688	40692	9.82	3.24	***	40696	13.15	4.34
SNU 634	SNUN 19 04 16	3/4	3/16	1/16	***	40697	40698	9.82	3.24	***	40699	13.15	4.34

- Single sided with chip control
- Clamp on insert
- 11° Relief Angle

Style SPMR



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
SPMR 321	SPMR 09 03 04	3/8	1/8	1/64	***	44436	44440	\$ 3.67	\$ 1.21	***	44444	\$ 4.82	\$ 1.59
SPMR 322	SPMR 09 03 08	3/8	1/8	1/32	***	44448	44452	3.67	1.21	***	44456	4.82	1.59
SPMR 421	SPMR 12 03 04	1/2	1/8	1/64	***	44460	44464	3.67	1.21	***	44468	5.48	1.81
SPMR 422	SPMR 12 03 08	1/2	1/8	1/32	***	44472	44476	3.67	1.21	***	44480	5.48	1.81

- Clamp Style Insert - Square Ground Top and Bottom - 11° Relief Angle
- Double sided without chipbreaker
- Suited for problem free chip forming materials
- Feed Range .003 to .030 IPR / 0.075-0.75 mm/rev

Style SPG



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
SPG 321	SPGN 09 03 04	3/8	1/8	1/64	***	40700	40704	\$ 2.88	\$ 0.95	***	40708	\$ 4.09	\$ 1.35
SPG 322	SPGN 09 03 08	3/8	1/8	1/32	***	40712	40716	2.88	0.95	***	40720	4.09	1.35
SPG 421	SPGN 12 03 04	1/2	1/8	1/64	***	40724	40728	3.79	1.25	***	40732	5.30	1.75
SPG 422	SPGN 12 03 08	1/2	1/8	1/32	***	40736	40740	3.79	1.25	***	40744	5.30	1.75
SPG 423	SPGN 12 03 12	1/2	1/8	3/64	***	40748	40752	3.79	1.25	***	40756	5.30	1.75
SPG 424	SPGN 12 03 16	1/2	1/8	1/16	***	40760	40764	3.79	1.25	***	40768	5.30	1.75
SPG 432	SPGN 12 04 08	1/2	3/16	1/32	***	40772	40776	4.55	1.50	***	40780	5.91	1.95
SPG 433	SPGN 12 04 12	1/2	3/16	3/64	***	40784	40788	4.55	1.50	***	40792	5.91	1.95
SPG 434	SPGN 12 04 16	1/2	3/16	1/16	***	40796	40800	4.55	1.50	***	40804	5.91	1.95
SPG 533	SPGN 15 04 12	5/8	3/16	3/64	***	40808	40812	6.82	2.25	***	40816	8.33	2.75
SPG 632	SPGN 19 04 08	3/4	3/16	1/32	***	40820	40824	10.61	3.50	***	40828	13.64	4.50
SPG 633	SPGN 19 04 12	3/4	3/16	3/64	***	40832	40836	10.61	3.50	***	40840	13.64	4.50
SPG 634	SPGN 19 04 16	3/4	3/16	1/16	***	40844	40848	10.61	3.50	***	40852	13.64	4.50

for Customized Tooling Solution

Call: 1-800-872-0841

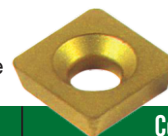


CARBIDE INSERTS

TURNING INSERTS

Style SPGH

- For difficult to machine materials, long or thin walled parts
- Single sided with Chip Control - Square fully Ground - 11° Relief Angle
- Feed Range .003 to .030 I.P.R. - Screw-On style insert



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
SPGH 322	SPGH 09 03 08	3/8	1/8	1/32	0.156	40853	40854	\$ 4.70	\$ 1.55	***	40855	\$ 6.06	\$ 2.00
SPGH 433	SPGH 12 04 12	1/2	3/16	3/64	0.175	40856	40860	5.91	1.95	***	40864	7.58	2.50

Style SPMT

Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
SPMT 32.51	SPMT 09 T3 04	3/8	5/32	1/64	0.173	42564	42566	\$ 4.00	\$ 1.32	42568	42570	\$ 5.85	\$ 1.93
SPMT 32.52	SPMT 09 T3 08	3/8	5/32	1/32	0.173	42572	42574	4.00	1.32	42576	42578	5.85	1.93
SPMT 431	SPMT 12 04 04	1/2	3/16	1/64	0.216	42580	42582	4.67	1.54	42584	42586	6.52	2.15
SPMT 432	SPMT 12 04 08	1/2	3/16	1/32	0.216	42588	42590	4.67	1.54	42592	42594	6.52	2.15

Style SPU

- Clamp Style Insert - Square Ground Top and Bottom
- Single sided without chipbreaker - Used for difficult to cut materials
- 11° Relief Angle



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
SPU 422	SPUN 12 03 08	1/2	1/8	1/32	***	40868	40872	\$ 2.67	\$ 0.88	***	40876	\$ 3.85	\$ 1.27
SPU 423	SPUN 12 03 12	1/2	1/8	3/64	***	40869	40870	2.67	0.88	***	40871	3.85	1.27
SPU 432	SPUN 12 04 08	1/2	3/16	1/32	***	40877	40878	2.67	0.88	***	40879	4.52	1.49
SPU 533	SPUN 15 04 12	5/8	3/16	3/64	***	40886	40887	6.67	2.20	***	40885	9.33	3.08
SPU 632	SPUN 19 04 08	3/4	3/16	1/32	***	40880	40884	9.18	3.03	***	40888	12.52	4.13
SPU 633	SPUN 19 04 12	3/4	3/16	3/64	***	40892	40896	9.18	3.03	***	40900	12.52	4.13
SPU 634	SPUN 19 04 16	3/4	3/16	1/16	***	40901	40899	9.18	3.03	***	40902	12.52	4.13

Style TCMT

- Screw-On style insert
- Single sided for semi-finishing and finishing - 7° Relief Angle
- Used on a wide range of materials - Triangle with Chipbreaker
- Used for turning and finishing on a wide range of materials

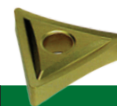


Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TCMT 21.505	TCMT 11 02 09	1/4	3/32	0.008	0.110	40905	40906	\$ 3.52	\$ 1.16	40922	40924	\$ 4.67	\$ 1.54
TCMT 21.51	TCMT 11 02 04	1/4	3/32	1/64	0.110	40927	40931	3.52	1.16	40933	40935	4.67	1.54
TCMT 21.52	TCMT 11 02 08	1/4	3/32	1/32	0.110	40928	40932	3.52	1.16	40934	40936	4.67	1.54
TCMT 32.505	TCMT 16 T3 02	3/8	5/32	0.008	0.173	40940	40944	3.85	1.27	40946	40948	5.00	1.65
TCMT 32.51	TCMT 16 T3 04	3/8	5/32	1/64	0.173	40952	40956	4.18	1.38	40958	40960	5.33	1.76
TCMT 32.52	TCMT 16 T3 08	3/8	5/32	1/32	0.173	40953	40957	4.18	1.38	40959	40961	5.33	1.76
TCMT 431	TCMT 22 04 04	1/2	3/16	1/64	0.216	40965	40966	4.67	1.54	40967	40969	6.52	2.15
TCMT 432	TCMT 22 04 08	1/2	3/16	1/32	0.216	40970	40971	4.67	1.54	40973	40974	6.52	2.15

CARBIDE INSERTS

Style TNMP

- Combo Pin and Clamp Insert
- 5° Positive Cutting Action double sided for semi-finishing and finishing.
- Low cutting forces for machining soft materials and exotic alloys
- Feed Range .003 to .020 IPR / 0.07-0.5 mm/rev



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TNMP 321	TNMP 16 03 04	3/8	1/8	1/64	0.150	42596	42598	\$ 2.85	\$ 0.94	***	42602	\$ 4.00	\$ 1.32
TNMP 322	TNMP 16 03 08	3/8	1/8	1/32	0.150	42604	42606	2.85	0.94	***	42610	4.00	1.32
TNMP 323	TNMP 16 03 12	3/8	1/8	3/64	0.150	42612	42614	2.85	0.94	***	42618	4.00	1.32
TNMP 324	TNMP 16 03 16	3/8	1/8	1/16	0.150	42620	42622	2.85	0.94	***	42626	4.00	1.32
TNMP 331	TNMP 16 04 04	3/8	3/16	1/64	0.150	42628	42630	4.18	1.38	***	42634	5.33	1.76
TNMP 332	TNMP 16 04 08	3/8	3/16	1/32	0.150	42636	42638	4.18	1.38	***	42642	5.33	1.76
TNMP 333	TNMP 16 04 12	3/8	3/16	3/64	0.150	42644	42646	4.18	1.38	***	42650	5.33	1.76
TNMP 431	TNMP 22 04 04	1/2	3/16	1/64	0.203	42652	42654	6.18	2.04	***	42658	8.00	2.64
TNMP 432	TNMP 22 04 08	1/2	3/16	1/32	0.203	42660	42662	6.18	2.04	***	42666	8.00	2.64
TNMP 433	TNMP 22 04 12	1/2	3/16	3/64	0.203	42668	42670	6.18	2.04	***	42674	8.00	2.64
TNMP 434	TNMP 22 04 16	1/2	3/16	1/16	0.203	42676	42678	6.18	2.04	***	42682	8.00	2.64
TNMP 542	TNMP 27 06 08	5/8	1/4	1/32	0.250	42684	42686	9.85	3.25	***	42690	11.67	3.85
TNMP 543	TNMP 27 06 12	5/8	1/4	3/64	0.250	42692	42694	9.85	3.25	***	42698	11.67	3.85
TNMP 544	TNMP 27 06 16	5/8	1/4	1/16	0.250	42700	42702	9.85	3.25	***	42706	11.67	3.85

Style TNMG

- Triangle with chipbreaker
- 0° Relief Angle
- Combo Pin and Clamp Insert



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TNMG 221	TNMG 11 03 04	1/4	1/8	1/64	0.093	40964	40968	\$ 2.85	\$ 0.94	***	40972	\$ 4.00	\$ 1.32
TNMG 222	TNMG 11 03 08	1/4	1/8	1/32	0.093	40976	40980	2.85	0.94	***	40984	4.00	1.32
TNMG 321	TNMG 16 03 04	3/8	1/8	1/64	0.150	40988	40992	3.18	1.05	***	40996	4.33	1.43
TNMG 322	TNMG 16 03 08	3/8	1/8	1/32	0.150	41000	41004	3.18	1.05	***	41008	4.33	1.43
TNMG 323	TNMG 16 03 12	3/8	1/8	3/64	0.150	41012	41016	3.18	1.05	***	41020	4.33	1.43
TNMG 324	TNMG 16 03 16	3/8	1/8	1/16	0.150	41024	41028	3.18	1.05	***	41032	4.33	1.43
TNMG 331	TNMG 16 04 04	3/8	3/16	1/64	0.150	41036	41040	3.85	1.27	***	41044	5.00	1.65
TNMG 332	TNMG 16 04 08	3/8	3/16	1/32	0.150	41048	41052	3.85	1.27	***	41056	5.00	1.65
TNMG 333	TNMG 16 04 12	3/8	3/16	3/64	0.150	41060	41064	3.85	1.27	***	41068	5.00	1.65
TNMG 431	TNMG 22 04 04	1/2	3/16	1/64	0.203	41072	41076	5.85	1.93	***	41080	7.67	2.53
TNMG 432	TNMG 22 04 08	1/2	3/16	1/32	0.203	41084	41088	5.85	1.93	***	41092	7.67	2.53
TNMG 433	TNMG 22 04 12	1/2	3/16	3/64	0.203	41096	41100	5.85	1.45	***	41104	7.67	2.00
TNMG 434	TNMG 22 04 16	1/2	3/16	1/16	0.203	41108	41112	5.85	1.45	***	41116	7.67	2.00
TNMG 542	TNMG 27 06 08	5/8	1/4	1/32	0.250	41120	41124	9.85	3.25	***	41128	11.67	3.85
TNMG 543	TNMG 27 06 12	5/8	1/4	3/64	0.250	41132	41136	9.85	3.25	***	41140	11.67	3.85
TNMG 544	TNMG 27 06 16	5/8	1/4	1/16	0.250	41144	41148	9.85	3.25	***	41152	11.67	3.85
TNMG 666	TNMG 33 09 24	3/4	3/8	3/32	0.312	41156	41160	18.33	6.05	***	41164	21.67	7.15

Style TPEE

- Triangle Positive Precision Ground
- Single sided without chipbreaker
- Feed Range .003 to .018 IPR / 0.07-0.45 mm/rev
- 11° Relief Angle



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TPEE 730	***	7/32	3/32	0.008	***	41168	41172	\$ 2.52	\$ 0.83	***	41176	\$ 5.85	\$ 1.93
TPEE 731	***	7/32	3/32	1/64	***	41180	41184	2.52	0.83	***	41188	5.85	1.93

CARBIDE INSERTS

TURNING INSERTS

- Clamp Style Insert - 11° Relief Angle
- Triangle Positive-Fully Ground
- Single sided without chipbreaker - Used for difficult to cut materials
- Feed Range .003 to .030 IPR / 0.075-0.75 mm/rev

Style TPG

Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TPG 221	TPGN 11 03 04	1/4	1/8	1/64	***	41204	41208	\$ 2.73	\$ 0.90	***	41212	\$ 3.79	\$ 1.25
TPG 222	TPGN 11 03 08	1/4	1/8	1/32	***	41216	41220	2.73	0.90	***	41224	3.79	1.25
TPG 320	TPGN 16 03 01	3/8	1/8	0.000	***	41228	41232	3.00	0.99	***	41236	4.39	1.45
TPG 321	TPGN 16 03 04	3/8	1/8	1/64	***	41240	41244	3.00	0.99	***	41248	4.39	1.45
TPG 322	TPGN 16 03 08	3/8	1/8	1/32	***	41252	41256	3.00	0.99	***	41260	4.39	1.45
TPG 323	TPGN 16 03 12	3/8	1/8	3/64	***	41264	41268	3.00	0.99	***	41272	4.39	1.45
TPG 324	TPGN 16 04 16	3/8	1/8	1/16	***	41276	41280	3.00	0.99	***	41284	4.39	1.45
TPG 430	TPGN 22 04 01	1/2	3/16	0.000	***	41285	41286	5.48	1.81	***	41287	7.33	2.42
TPG 431	TPGN 22 04 04	1/2	3/16	1/64	***	41288	41292	5.48	1.81	***	41296	7.33	2.42
TPG 432	TPGN 22 04 08	1/2	3/16	1/32	***	41300	41304	5.48	1.81	***	41308	7.33	2.42
TPG 433	TPGN 22 04 12	1/2	3/16	3/32	***	41312	41316	5.48	1.81	***	41320	7.33	2.42
TPG 434	TPGN 22 04 16	1/2	3/16	1/16	***	41324	41328	5.48	1.81	***	41332	7.33	2.42
TPG 436	TPGN 22 04 24	1/2	3/16	3/32	***	41317	41318	5.91	1.95	***	41319	7.73	2.55
TPG 438	TPGN 22 04 32	1/2	3/16	1/8	***	41321	41322	5.91	1.95	***	41323	7.73	2.55
TPG 542	TPGN 27 06 08	5/8	1/4	1/32	***	41325	41326	9.85	3.25	***	41327	11.97	3.95
TPG 543	TPGN 27 06 12	5/8	1/4	3/64	***	41329	41330	9.85	3.25	***	41331	11.97	3.95
TPG 544	TPGN 27 06 16	5/8	1/4	1/16	***	41333	41334	9.85	3.25	***	41335	11.97	3.95

- Screw-On style insert - Single sided without chipbreaker
- Suitable for materials that create a short chip - 11° Relief Angle
- Triangle Positive Fully Ground with Countersunk Hole
- Feed Range .003 to .012 IPR / 0.075-0.3 mm/rev

Style TPGB

Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TPGB 221	TPGB 11 03 04	1/4	1/8	1/64	0.118	41336	41340	\$ 2.85	\$ 0.94	***	41344	\$ 4.00	\$ 1.32
TPGB 222	TPGB 11 03 08	1/4	1/8	1/32	0.118	41348	41352	2.85	0.94	***	41356	4.00	1.32
TPGB 321	TPGB 16 03 04	3/8	1/8	1/64	0.125	41360	41364	2.85	0.94	***	41368	4.00	1.32
TPGB 322	TPGB 16 03 08	3/8	1/8	1/32	0.125	41372	41376	2.85	0.94	***	41380	4.00	1.32

- Screw-On style insert - 11° Relief Angle
- Single sided with chipbreaker
- Suitable for materials that create a short chip
- Triangle Positive Fully Ground with Countersunk Hole
- Feed Range .003 to .012 IPR / 0.075-0.3 mm/rev

Style TPGC

Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TPGC 221	TPG 11 03 04	1/4	3/32	1/64	0.118	41384	41388	\$ 3.33	\$ 1.10	***	41392	\$ 4.55	\$ 1.50
TPGC 222	TPG 11 03 08	1/4	3/32	1/32	0.118	41396	41400	3.33	1.10	***	41404	4.55	1.50
TPGC 321	TPGC 16 03 04	3/8	1/8	1/64	0.125	41408	41412	3.79	1.25	***	41416	5.30	1.75
TPGC 322	TPGC 16 03 08	3/8	1/8	1/32	0.125	41420	41424	3.79	1.25	***	41428	5.30	1.75

CARBIDE INSERTS

TURNING INSERTS

- Screw-On style insert - Triangle with Chipbreaker
- Single sided insert with chipbreaker - 11° Relief Angle
- Suitable for turning facing and boring
- Feed range .005 to .015 IPR / 0.1-0.4 mm/rev



Style TPGH

Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TPGH 21.50	TPGH 11 02 02	1/4	3/32	1/64	0.110	41430	41432	\$ 3.85	\$ 1.27	41434	41436	\$ 5.00	\$ 1.65
TPGH 21.51	TPGH 11 02 04	1/4	3/32	1/64	0.110	41444	41448	3.85	1.27	41450	41452	5.00	1.65
TPGH 320.5	TPGH 16 03 02	3/8	1/8	0.008	0.125	41451	41453	4.00	1.32	41454	41455	5.18	1.71
TPGH 321	TPGH 16 03 04	3/8	1/8	1/64	0.125	41456	41460	4.00	1.32	41462	41464	5.18	1.71
TPGH 322	TPGH 16 03 08	3/8	1/8	1/32	0.125	41468	41472	4.00	1.32	41474	41476	5.18	1.71

- Screw-On style insert - Triangle with Chipbreaker - 11° Relief Angle
- Single sided with Chipbreaker - For semi-finishing and finishing
- Feed range .005 to .015 IPR / 0.1-0.4 mm/rev



Style TPGM

Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TPGM 21.50	TPGM 00 02 02	1/4	3/32	0.008	0.110	41480	41484	\$ 4.00	\$ 1.32	41486	41488	\$ 5.18	\$ 1.71
TPGM 21.51	TPGM 11 02 04	1/4	3/32	1/64	0.110	41492	41496	4.00	1.32	41498	41500	5.18	1.71
TPGM 21.52	TPGM 11 02 08	1/4	3/32	1/32	0.110	41504	41508	4.00	1.32	41510	41512	5.18	1.71
TPGM 32.51	TPGM 16 T3 04	3/8	5/32	1/64	0.173	41516	41520	4.52	1.49	41422	41524	5.67	1.87
TPGM 32.52	TPGM 16 T3 08	3/8	5/32	1/32	0.173	41528	41532	4.52	1.49	41534	41536	5.67	1.87

- Chip Breaker Type CM-Medium - Clamp style insert
- Triangle with Chipbreaker - Single sided insert with chipbreaker
- 11° Relief Angle - Use for semi finish cuts where chip control is required



Style TPMR

Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TPMR 730	TPMR 09 02 02	7/32	3/32	0.008	***	41576	41580	\$ 3.85	\$ 1.27	***	41584	\$ 5.67	\$ 1.87
TPMR 731	TPMR 09 02 04	7/32	3/32	1/64	***	41588	41592	3.85	1.27	***	41596	5.67	1.87
TPMR 221	TPMR 11 03 04	1/4	1/8	1/64	***	41540	41544	3.85	1.27	***	41548	5.00	1.65
TPMR 321	TPMR 16 03 04	3/8	1/8	1/64	***	41552	41556	3.85	1.27	***	41560	5.00	1.65
TPMR 322	TPMR 16 03 08	3/8	1/8	1/32	***	41564	41568	3.85	1.27	***	41572	5.00	1.65

- Clamp Style Insert - Triangle Ground Top and Bottom
- Single sided without chipbreaker - Used for difficult to cut materials
- 11° Relief Angle



Style TPU

Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TPU 221	TPUN 11 03 04	1/4	1/8	1/64	***	41648	41652	\$ 2.33	\$ 0.77	***	41656	\$ 3.52	\$ 1.16
TPU 222	TPUN 11 03 08	1/4	1/8	1/32	***	41660	41664	2.33	0.77	***	41668	3.52	1.16
TPU 321	TPUN 16 03 04	3/8	1/8	1/64	***	41672	41676	2.33	0.77	***	41680	3.52	1.16
TPU 322	TPUN 16 03 08	3/8	1/8	1/32	***	41684	41688	2.33	0.77	***	41692	3.52	1.16
TPU 323	TPUN 16 03 12	3/8	1/8	3/64	***	41696	41700	2.33	0.77	***	41704	3.52	1.16
TPU 324	TPUN 16 04 16	3/8	1/8	1/16	***	41708	41712	2.33	0.77	***	41716	3.52	1.16
TPU 432	TPUN 22 04 08	1/2	3/16	1/32	***	41732	41736	5.00	1.65	***	41740	6.85	2.26
TPU 433	TPUN 22 04 12	1/2	3/16	3/64	***	41744	41748	5.00	1.65	***	41752	6.85	2.26
TPU 434	TPUN 22 04 16	1/2	3/16	1/16	***	41756	41760	5.00	1.65	***	41764	6.85	2.26

CARBIDE INSERTS

TURNING INSERTS

Style TT

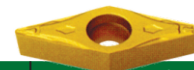
- Screw-On style insert
- Triangle with Chipbreaker
- Single sided insert with chipbreaker
- 11° Relief Angle
- Used for turning, facing, and boring.



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TT 221	TT 11 03 04	1/4	1/8	1/64	0.090	41768	41772	\$ 3.00	\$ 0.99	***	41776	\$ 4.18	\$ 1.38
TT 222	TT 11 03 08	1/4	1/8	1/32	0.090	41780	41784	3.00	0.99	***	41788	4.18	1.38
TT 321	TT 16 03 04	3/8	1/8	1/64	0.150	41792	41796	3.52	1.16	***	41800	4.67	1.54
TT 322	TT 16 03 08	3/8	1/8	1/32	0.150	41804	41808	3.52	1.16	***	41812	4.67	1.54
TT 323	TT 16 03 12	3/8	1/8	3/64	0.150	41816	41820	3.52	1.16	***	41824	4.67	1.54
TT 431	TT 22 04 04	1/2	3/16	1/64	0.203	41828	41832	4.55	1.50	***	41836	6.06	2.00
TT 432	TT 22 04 08	1/2	3/16	1/32	0.203	41840	41844	4.55	1.50	***	41848	6.06	2.00
TT 433	TT 22 04 12	1/2	3/16	3/64	0.203	41852	41856	4.55	1.50	***	41860	6.06	2.00

Style VBMT

- Screw on insert
- Used for finishing and profile cuts
- Single sided with chipbreaker



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
VBMT 221CF	VBMT 11 03 04	1/4	0.125	0.016	0.110	***	***	***	***	44570	44572	\$ 5.00	\$ 1.65
VBMT 222CF	VBMT 11 03 08	1/4	0.125	0.031	0.110	***	***	***	***	44574	44576	5.00	1.65
VBMT 331CF	VBMT 16 04 04	3/8	0.188	0.016	0.173	44577	44579	\$ 4.52	\$ 1.49	44578	44580	5.85	1.93
VBMT 332CF	VBMT 16 04 08	3/8	0.188	0.031	0.173	44581	44583	4.52	1.49	44582	44584	5.85	1.93

Style VNMG

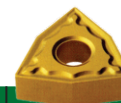
- 0° Relief Angle
- Combo Pin and Clamp Insert
- 35° Diamond with Chipbreaker
- Double sided insert with chipbreaker
- For medium to rough cuts
- Used for turning and finishing on a wide range of materials



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
VNMG 331	VNMG 16 04 04	3/8	3/16	1/64	0.150	41864	41868	\$ 4.52	\$ 1.49	41870	41872	\$ 5.67	\$ 1.87
VNMG 332	VNMG 16 04 08	3/8	3/16	1/32	0.150	41876	41880	4.52	1.49	41882	41884	5.67	1.87
VNMG 431	VNMG 22 04 04	1/2	3/16	1/64	0.203	41888	41892	8.00	2.64	41894	41896	9.85	3.25
VNMG 432	VNMG 22 04 08	1/2	3/16	1/32	0.203	41900	41904	8.00	2.64	41906	41908	9.85	3.25
VNMG 433	VNMG 22 04 12	1/2	3/16	3/64	0.203	41912	41916	8.00	2.64	41918	41920	9.85	3.25

Style WNMG

- 80° Trigon with Chipbreaker
- Combo Pin and Clamp Insert
- Style CM Chipbreaker: All Purpose chipbreaker: Medium machining
- Stainless, steel, Cast Iron, and High Temp Alloys
- 0° Relief Angle



Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
WNMG 331	WNMG 06 04 04	3/8	3/16	1/64	0.150	41921	41922	\$ 4.18	\$ 1.38	41923	41931	\$ 5.33	\$ 1.76
WNMG 332	WNMG 06 04 08	3/8	3/16	1/32	0.150	41925	41926	4.18	1.38	41927	41929	5.33	1.76
WNMG 431	WNMG 08 04 04	1/2	3/16	1/64	0.203	41924	41928	5.85	1.93	41930	41932	7.67	2.53
WNMG 432	WNMG 08 04 08	1/2	3/16	1/32	0.203	41936	41940	5.85	1.93	41942	41944	7.67	2.53

CARBIDE INSERTS

TURNING INSERTS

- CF Chipbreaker for Finishing - Single sided insert with chip control
- Use for turning and boring - Screw on insert CF Chipbreaker for Finishing
- Single sided insert with chip control
- Use for turning and boring - Screw on insert

Style WCMT - CF

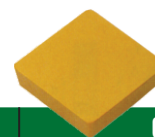


Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
WCMT 21.51	WCMT 04 02 04	1/4	3/32	1/64	0.110	***	***	***	***	44586	44588	\$ 4.00	\$ 1.32
WCMT 32.52	WCMT 06 T3 08	3/8	5/32	1/32	0.173	***	***	***	***	44590	44592	4.33	1.43

INDEXABLE MILLING INSERTS

Style CTA Milling Insert

- Use for Slotting, and Slab or Straddle Milling
- 87° Parallelogram- Fully Ground



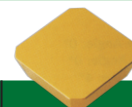
Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style		I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
CTA-2		0.355	5/32	1/64	***	42350	42352	\$ 3.79	1.25	***	42354	\$ 5.30	\$ 1.75
CTA-2		0.355	5/32	1/32	***	42356	42358	3.79	1.25	***	42360	5.30	1.75
CTA-2		0.355	5/32	3/32	***	42362	42364	3.79	1.25	***	42366	5.30	1.75
CTA-2		0.355	5/32	1/8	***	42368	42370	3.79	1.25	***	42372	5.30	1.75
CTA-4		0.460	3/16	1/32	***	42374	42376	5.91	1.95	***	42378	8.33	2.75
CTA-4		0.460	3/16	3/32	***	42380	42382	5.91	1.95	***	42384	8.33	2.75
CTA-4		0.460	3/16	1/8	***	42386	42388	5.91	1.95	***	42390	8.33	2.75
CTA-6		0.685	3/16	1/32	***	42392	42394	8.33	2.75	***	42396	10.61	3.50
CTA-6		0.685	3/16	3/32	***	42398	42400	8.33	2.75	***	42402	10.61	3.50
CTA-6		0.685	3/16	1/8	***	42404	42406	8.33	2.75	***	42408	10.61	3.50
CTA-8		0.750	3/16	1/32	***	42410	42412	13.64	4.50	***	42414	16.67	5.50
CTA-8		0.750	3/16	3/32	***	42416	42418	13.64	4.50	***	42420	16.67	5.50
CTA-8		0.750	3/16	1/8	***	42422	42424	13.64	4.50	***	42426	16.67	5.50

Style APKT

Insert Type		Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style		I.C.	Width	Corner Radius	Thru Hole	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	X-Treme Order #	List Price
APKT 1003 PDR-HM		0.264	0.441	0.138	0.020	42732	42734	\$ 4.52	\$ 1.49	42738	42736	42735	\$ 6.33
APKT 1505 PDR-HM		0.375	0.625	0.188	0.031	42740	42742	6.33	2.09	42744	42746	***	7.67
APKT 1604 PDR-HM		0.376	0.625	0.188	0.032	42748	42750	6.33	2.09	42752	42754	42753	7.85

Style SEAN Square 20° Positive

- Style SEAN Square 20° Positive Milling Insert
- Use for endmilling and face milling



Insert Type		Dimensions			Uncoated Carbide				Coated Carbide			
Insert Style		I.C.	Width	Corner Flat	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
SEAN-42 AFTN		1/2	0.125	1.097 X 45°	42446	42448	\$ 4.67	\$ 1.54	***	42450	\$ 6.48	\$ 2.14
SEAN-43 AFTN		1/2	0.187	0.097 X 45°	42451	42453	4.67	1.54	***	42455	6.48	2.14
SEAN-53 AFTN		5/8	0.187	0.097 X 45°	42452	42454	6.00	1.98	***	42456	7.82	2.58
SEAN-42 AFN		1/2	0.125	0.097 X 45°	42457	42757	4.67	1.54	***	42459	6.48	2.14
SEAN-43 AFN		1/2	0.187	0.097 X 45°	42756	42758	4.67	1.54	***	42762	6.48	2.14
SEAN-53 AFN		5/8	0.187	0.097 X 45°	42764	42766	6.00	1.98	***	42770	7.82	2.58

CARBIDE INSERTS

INDEXABLE MILLING INSERTS

Style SEKR

- Square 20° Positive Milling Inserts



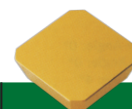
Insert Style	Dimensions			Uncoated Carbide				Coated Carbide			
	I.C.	Width	Corner Flat	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
SEKR-42 AFTN	1/2	0.125	0.097 X 45°	42772	42774	\$ 5.33	\$ 1.76	42776	42778	\$ 7.18	\$ 2.37
SEKR-43 AFTN	1/2	0.187	0.097 X 45°	42780	42782	5.85	1.93	42784	42786	7.67	2.53
SEKR-53 AFTN	5/8	0.187	0.097 X 45°	42788	42790	7.00	2.31	42792	42794	8.85	2.92

Style SEKN

Insert Type		Dimensions			Uncoated Carbide				Coated Carbide			
Insert Style	ISO Designation	I.C.	Width	Corner Flat	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
SEKN-42AFN	12 03 AFN	1/2	0.125	3/32 X 45°	46500	46501	\$ 5.33	\$ 1.76	***	46502	\$ 7.18	\$ 2.37
SEKN-42AFTN	12 03 AFTN	1/2	0.125	3/32 X 45°	46504	46505	5.85	1.93	***	46506	7.67	2.53
SEKN-42AFSN	12 03 AFSN	1/2	0.125	3/32 X 45°	46508	46509	7.00	2.31	***	46510	8.85	2.92
SEKN-43AFN	12 04 AFN	1/2	0.187	3/32 X 45°	46512	46513	7.00	2.31	***	46514	8.85	2.92
SEKN-43AFTN	12 04 AFTN	1/2	0.187	3/32 X 45°	46516	46517	7.00	2.31	***	46518	8.85	2.92
SEKN-53AFN	15 04 AFN	5/8	0.187	1/8 X 45°	46520	46521	7.33	2.42	***	46522	9.18	3.03
SEKN-53AFTN	16 04 AFTN	5/8	0.187	1/8 X 45°	46524	46525	7.33	2.42	***	46526	9.18	3.03

Style SEC Square 20° Positive

- Single sided for wide range of milling applications
- 20° Relief Angle - Clamp Style Insert



Insert Style	Dimensions			Uncoated Carbide				Coated Carbide		
	I.C.	Width	Corner Flat	C520 Order #	C550 Order #	List Price	Sale Price	CM14 Order #	List Price	Sale Price
SEC-422	1/2	1/8	1/32	42458	42460	\$ 4.85	\$ 1.60	42462	\$6.67	\$ 2.20
SEC 424	1/2	1/8	1/16	42464	42466	4.85	1.60	42468	6.67	2.20
SEC 533	5/8	3/16	3/64	42463	42465	6.52	2.15	42467	8.33	2.75
SEC 633	3/4	3/16	3/64	42469	42471	9.52	3.14	42473	12.85	4.24
SEC-634	3/4	3/16	1/16	42470	42472	9.52	3.14	42474	12.85	4.24

NOTCHED STYLE CARBIDE THREADING INSERTS

Style NT - Right Hand



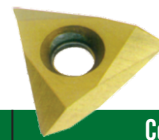
Insert Style	Dimensions	Threads Per Inch		Uncoated Carbide				Coated Carbide			
	Insert Size	External	Internal	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
NT-2R	2 RH	8-36	7-20	43480	43484	\$ 9.85	\$ 3.25	43486	43488	\$ 11.97	\$ 3.95
NT-3R	3 RH	6-20	5-12	43504	43508	9.85	3.25	43510	43512	11.97	3.95
NT-4R	4 RH	4-20	4-12	43528	43532	15.00	4.95	43534	43536	18.03	5.95

CARBIDE INSERTS

ON-EDGE CARBIDE THREADING INSERTS

Style TNMC

Is a neutral rake insert with a through hole countersunk on two sides.



Insert Style	Dimensions		Threads Per Inch		Uncoated Carbide				Coated Carbide			
	I.C.	Width	External	Internal	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TNMC 32NV	3/8	1/8	8-36	8-20	43648	43652	\$ 6.82	\$ 2.25	43654	43656	\$ 8.33	\$ 2.75
TNMC 43NV	1/2	3/16	6-20	6-12	43660	43664	8.94	2.95	43666	43668	11.36	3.75
TNMC 54NV	5/8	1/4	4-20	4-12	43672	43676	15.00	4.95	46378	43680	16.67	5.50

Style TPMA

Is a 10° Positive Rake insert with a straight through hole
Positive rake insert is ideal for internal threading



Insert Style	Dimensions		Threads Per Inch		Uncoated Carbide				Coated Carbide			
	I.C.	Width	External	Internal	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TPMA-32NV	3/8	1/8	8-36	8-20	43684	43688	\$ 6.82	\$ 2.25	43690	43692	\$ 8.33	\$ 2.75
TPMA-43NV	1/2	3/16	6-20	6-12	43696	43700	8.94	2.95	43702	43704	11.36	3.75
TPMA-54NV	5/8	1/4	4-20	4-12	43708	43712	15.00	4.95	43714	43716	16.67	5.50

Style TPMC

Is a 10° Positive Rake insert with a through hole countersunk on two sides.
Positive rake insert is ideal for internal threading



Insert Style	Dimensions		Threads Per Inch		Uncoated Carbide				Coated Carbide			
	I.C.	Width	External	Internal	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TPMC-32NV	3/8	1/8	8-36	8-20	43720	43724	\$ 6.82	\$ 2.25	43726	43728	\$ 8.33	\$ 2.75
TPMC-43NV	1/2	3/16	6-20	6-12	43732	43736	8.94	2.95	43738	43740	11.36	3.75
TPMC-54NV	5/8	1/4	4-20	4-12	43744	43748	15.00	4.95	43750	43752	16.67	5.50

ON-EDGE CARBIDE GROOVING INSERTS

Style TNMA - Left Hand

0° Precision Ground with a straight through hole



Insert Type Insert Style	Dimensions				Uncoated Carbide				Coated Carbide			
	I.C.	Width	Groove Width	Groove Depth	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TNMA 32NGL031	3/8	1/8	0.031	0.075	44007	44011	\$ 6.82	\$ 2.25	44013	44015	\$ 8.94	\$ 2.95
TNMA 32NGL062	3/8	1/8	0.062	0.150	44008	44012	6.82	2.25	44014	44016	8.94	2.95
TNMA 32NGL094	3/8	1/8	0.094	0.150	44020	44024	6.82	2.25	44026	44028	8.94	2.95
TNMA 43 NGL062	1/2	3/16	0.062	0.125	44029	44030	9.85	3.25	44031	44033	12.88	4.25
TNMA 43 NGL094	1/2	3/16	0.094	0.150	44034	44035	9.85	3.25	44037	44039	12.88	4.25
TNMA 43NGL125	1/2	3/16	0.125	0.210	44032	44036	9.85	3.25	44038	44040	12.88	4.25
TNMA 43NGL156	1/2	3/16	0.156	0.210	44044	44048	9.85	3.25	44050	44052	12.88	4.25
TNMA 43NGL187	1/2	3/16	0.187	0.210	44056	44058	9.85	3.25	44060	44062	12.88	4.25

CARBIDE INSERTS

ON-EDGE CARBIDE GROOVING INSERTS

Style TNMA - Right Hand

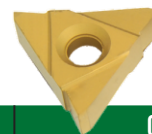
0° Precision Ground with a straight through hole



Insert Type	Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	I.C.	Width	Groove Width	Groove Depth	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TNMA 32NGR031	3/8	1/8	1/32	0.075	43923	43927	\$ 6.82	\$ 2.25	43929	43931	\$ 8.94	\$ 2.95
TNMA 32NGR062	3/8	1/8	1/16	0.150	43924	43928	6.82	2.25	43930	43932	8.94	2.95
TNMA 32NGR094	3/8	1/8	3/32	0.150	43936	43940	6.82	2.25	43942	43944	8.94	2.95
TNMA 32NGI25	3/8	1/8	1/8	0.150	43948	43952	6.82	2.25	43954	43956	8.94	2.95
TNMA 43NGR062	1/2	3/16	1/16	0.125	43949	43953	9.85	3.25	43955	43957	12.88	4.25
TNMA 43NGR094	1/2	3/16	3/32	0.150	43958	43959	9.85	3.25	43961	43963	12.88	4.25
TNMA 43NGR125	1/2	3/16	1/8	0.210	43960	43964	9.85	3.25	43966	43968	12.88	4.25
TNMA 43NGR156	1/2	3/16	5/32	0.210	43972	43976	9.85	3.25	43978	43980	12.88	4.25
TNMA 43NG187	1/2	3/16	3/16	0.210	43984	43988	9.85	3.25	43990	43992	12.88	4.25
TNMA 54 NG250	5/8	1/4	1/4	0.270	43996	44000	13.64	4.50	44002	44004	13.64	5.50

Style TNMC - Right Hand

A Neutral rake insert with a through hole countersunk on two sides Right Hand



Insert Type	Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	I.C.	Width	Groove Width	Groove Depth	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TNMC 32NGR031	3/8	1/8	0.031	0.075	43753	43754	\$ 6.82	\$ 2.25	43755	43757	\$ 8.94	\$ 2.95
TNMC 32NGR062	3/8	1/8	0.062	0.150	43756	43760	6.82	2.25	43762	43764	8.94	2.95
TNMC 32NGR094	3/8	1/8	0.094	0.150	43768	43772	6.82	2.25	43774	43776	8.94	2.95
TNMC 32NGI25	3/8	1/8	0.125	0.150	43780	43784	6.82	2.25	43786	43788	8.94	2.95
TNMC 43 NGR062	1/2	3/16	0.062	0.125	43789	43790	9.85	3.25	43791	43793	12.88	4.25
TNMC 43 NGR094	1/2	3/16	0.094	0.150	43794	43795	9.85	3.25	43797	43799	12.88	4.25
TNMC 43NGR125	1/2	3/16	0.125	0.210	43792	43796	9.85	3.25	43798	43800	12.88	4.25
TNMC 43NGR156	1/2	3/16	0.156	0.210	43804	43808	9.85	3.25	43810	43812	12.88	4.25
TNMC 43NG187	1/2	3/16	0.187	0.210	43816	43820	9.85	3.25	43822	43824	12.88	4.25
TNMC 54 NG250	1/2	1/4	0.250	0.270	43826	43828	13.64	4.50	43829	43830	16.67	5.50

Style TNMC - Left Hand

A Neutral rake insert with a through hole countersunk on two sides.



Insert Type	Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	I.C.	Width	Groove Width	Groove Depth	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TNMC 32NGL031	3/8	1/8	0.031	0.075	43837	43838	\$ 6.82	\$ 2.25	43839	43840	\$ 8.94	\$ 2.95
TNMC 32NGL062	3/8	1/8	0.062	0.150	43832	43834	6.82	2.25	43835	43836	8.94	2.95
TNMC 32NGL094	3/8	1/8	0.094	0.150	43844	43846	6.82	2.25	43847	43848	8.94	2.95
TNMC 43 NGL062	1/2	3/16	0.062	0.125	43849	43850	9.85	3.25	43851	43852	12.88	4.25
TNMC 43 NGL094	1/2	3/16	0.094	0.150	43853	43854	9.85	3.25	43855	43857	12.88	4.25
TNMC 43NGL125	1/2	3/16	0.125	0.210	43856	43858	9.85	3.25	43859	43860	12.88	4.25
TNMC 43NGL156	1/2	3/16	0.156	0.210	43868	43870	9.85	3.25	43871	43872	12.88	4.25

CARBIDE INSERTS

ON-EDGE CARBIDE GROOVING INSERTS

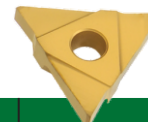
Style TPMA - Right Hand

10° Positive Rake Precision Ground with straight through hole



Insert Type	Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	I.C.	Width	Groove Width	Groove Depth	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TPMA-32NGR062	3/8	1/8	1/16	0.150	43874	43875	\$ 6.82	\$ 2.25	43876	43878	\$ 8.94	\$ 2.95
TPMA-32NG125	3/8	1/8	1/8	0.125	43880	43882	6.82	2.25	43883	43884	8.94	2.95
TPMA 43NGR125	1/2	3/16	1/8	0.210	43885	43886	9.85	3.25	43887	43888	12.88	4.25
TPMA-43NG187	1/2	3/16	3/16	0.187	43892	43894	9.85	3.25	43895	43896	12.88	4.25
TPMA-54NG250	5/8	1/4	1/4	0.254	43900	43902	13.64	4.95	43903	43904	16.67	5.50

Style TPMA - Left Hand



Insert Type	Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	I.C.	Width	Groove Width	Groove Depth	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TPMA 32NGL062	3/8	1/8	1/16	0.150	44064	44066	\$ 6.82	\$ 2.25	44068	44070	\$ 8.94	\$ 2.95
TPMA 43NGL125	1/2	3/16	1/8	0.210	44072	44074	\$ 9.85	3.25	44076	44078	\$ 12.88	4.25

Style TPMC - Right Hand

10° Positive Rake Precision Ground with Countersink hole



Insert Type	Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	I.C.	Width	Groove Width	Groove Depth	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TPMC 32NGR062	3/8	1/8	1/16	0.150	42980	42982	\$ 6.82	\$ 2.25	42984	42986	\$ 8.94	\$ 2.95
TPMC-32NG125	3/8	1/8	1/8	0.125	43906	43907	6.82	2.25	43909	43908	8.94	2.95
TPMC 43NGR125	1/2	3/16	1/8	0.210	42988	42990	9.85	3.25	42992	42994	12.88	4.25
TPMC-43NG187	1/2	3/16	3/16	0.187	43910	43912	9.85	3.25	43914	43920	12.88	4.25
TPMC 54 Ng250	5/8	1/4	1/4	0.254	43916	43918	15.00	4.95	43921	43922	16.66	5.50

Style TPMC - Left Hand



Insert Type	Dimensions				Uncoated Carbide				Coated Carbide			
Insert Style	I.C.	Width	Groove Width	Groove Depth	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
TPMC 32NGL062	3/8	1/8	1/16	0.150	44080	44082	\$ 6.82	\$ 2.25	44084	44086	\$ 8.94	\$ 2.95
TPMC 43NGL125	1/2	3/16	1/8	0.210	44088	44090	9.85	3.25	44092	44094	12.88	4.25

CARBIDE INSERTS

FULL RADIUS GROOVING INSERTS

Full Radius End form for Grooving and Profiling
Right Hand



Insert Type		Dimensions			Uncoated Carbide				Coated Carbide			
Insert Style	Insert Size	Groove Width	Depth of Cut	Insert Radius	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
NR3031R	3RH	0.062	0.031	0.094	43400	***	\$ 10.24	\$ 3.38	43402	43404	\$ 12.30	\$ 4.06
NR3047R	3RH	0.094	0.047	0.150	43406	***	10.24	3.38	43408	43410	12.30	4.06
NR3062R	3RH	0.125	0.062	0.150	43412	***	10.24	3.38	43414	43416	12.30	4.06
NR3078R	3RH	0.156	0.078	0.150	43418	***	10.24	3.38	43420	43422	12.30	4.06
NR3094R	3RH	0.188	0.094	0.150	43424	***	10.24	3.38	43426	43428	12.30	4.06
NR4062R	4RH	0.125	0.062	0.250	43430	***	16.67	5.50	43432	43434	20.45	6.75
NR4094R	4RH	0.188	0.094	0.250	43436	***	16.67	5.50	43438	43440	20.45	6.75
NR4125R	4RH	0.250	0.125	0.250	43442	***	16.67	5.50	43444	43446	20.45	6.75

NOTCHED STYLE CARBIDE GROOVING INSERTS

Notched Style Carbide Grooving Inserts
Right Hand



Insert Type		Dimensions			Uncoated Carbide				Coated Carbide			
Insert Style	Insert Size	Groove Depth	Depth of Cut	Insert Radius	C520 Order #	C550 Order #	List Price	Sale Price	CM02 Order #	CM14 Order #	List Price	Sale Price
NG2031R	2RH	0.031	0.050	0.005/.010	46700	46702	\$ 9.52	\$ 3.14	46704	46706	\$ 11.58	\$ 3.82
NG2041R	2RH	0.041	0.050	0.005/.010	46708	46710	9.52	3.14	46712	46714	11.58	3.82
NG2047R	2RH	0.047	0.050	0.005/.010	46716	46718	9.52	3.14	46720	46722	11.58	3.82
NG2056R	2RH	0.056	0.050	0.005/.010	46724	46726	9.52	3.14	46728	46730	11.58	3.82
NG2062R	2RH	0.062	0.050	0.005/.010	46732	46734	9.52	3.14	46736	46738	11.58	3.82
NG2094R	2RH	0.094	0.110	0.005/.010	46740	46742	9.52	3.14	46744	46746	11.58	3.82
NG2125R	2RH	0.125	0.110	0.005/.010	46748	46750	9.52	3.14	46752	46754	11.58	3.82
NG3031R	3RH	0.031	0.075	0.005/.010	46756	46758	10.24	3.38	46760	46762	12.30	4.06
NG3047R	3RH	0.047	0.075	0.005/.010	46764	46766	10.24	3.38	46768	46770	12.30	4.06
NG3062R	3RH	0.062	0.094	0.005/.010	46772	46774	10.24	3.38	46776	46778	12.30	4.06
NG3072R	3RH	0.072	0.094	0.005/.010	46780	46782	10.24	3.38	46784	46786	12.30	4.06
NG3088R	3RH	0.088	0.094	0.005/.010	46788	46790	10.24	3.38	46792	46794	12.30	4.06
NG3094R	3RH	0.094	0.150	0.005/.010	46796	46798	10.24	3.38	46800	46802	12.30	4.06
NG3097R	3RH	0.097	0.150	0.005/.010	46804	46806	10.24	3.38	46808	46810	12.30	4.06
NG3105R	3RH	0.105	0.150	0.005/.010	46812	46814	10.24	3.38	46816	46818	12.30	4.06
NG3125R	3RH	0.125	0.150	0.005/.010	46820	46822	10.24	3.38	46824	46826	12.30	4.06
NG3142R	3RH	0.142	0.150	0.005/.010	46828	46830	10.24	3.38	46832	46834	12.30	4.06
NG3156R	3RH	0.156	0.150	0.005/.010	46836	46838	10.24	3.38	46840	46842	12.30	4.06
NG3178R	3RH	0.178	0.150	0.005/.010	46844	46846	10.24	3.38	46848	46850	12.30	4.06
NG3189R	3RH	0.189	0.150	0.020/.025	46852	46854	10.24	3.38	46856	46858	12.30	4.06
NG4125R	4RH	0.125	0.250	0.020/.025	46860	46862	16.67	5.50	46864	46866	20.45	6.75
NG4189R	4RH	0.189	0.250	0.020/.025	46868	46870	16.67	5.50	46872	46874	20.45	6.75
NG4250R	4RH	0.250	0.250	0.020/.025	46876	46878	16.67	5.50	46880	46882	20.45	6.75

CARBIDE INSERTS

ALUMINUM INSERTS

Style CCGX

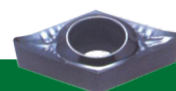
- High Polish Turning Inserts for Aluminum
- Screw-On Style Insert. 80° Diamond Single Sided Insert with molded chip breaker



Insert Type		Dimensions				Uncoated Carbide		
ANSI	ISO	I.C.	Width	Corner Radius	Hole Size	Order #	List Price	Sale Price
CCGX 21.50	06 02 02	1/4	3/32	0.008	0.110	71097	\$ 5.33	\$ 1.76
CCGX 21.51	06 02 04	1/4	3/32	1/64	0.110	72000	5.33	1.76
CCGX 32.50	09 T3 02	3/8	5/32	0.008	0.173	72003	5.33	1.76
CCGX 32.51	09 T3 04	3/8	5/32	1/64	0.173	72006	5.33	1.76
CCGX 32.52	09 T3 08	3/8	5/32	1/32	0.173	72012	5.33	1.76
CCGX 431	12 04 04	1/2	3/16	1/64	0.203	72018	6.00	1.98
CCGX 432	12 04 08	1/2	3/16	1/32	0.203	72024	6.00	1.98

Style DCGX

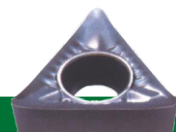
- Screw-On Style Insert. - 7° Relief Angle
- 55° Diamond with chipbreaker single sided insert with molded chip breaker



Insert Type		Dimensions				Uncoated Carbide		
ANSI	ISO	I.C.	Width	Corner Radius	Hole Size	Order #	List Price	Sale Price
DCGX 21.50	07 02 02	1/4	3/32	0.008	0.110	72039	\$ 5.70	\$ 1.88
DCGX 21.51	07 02 04	1/4	3/32	1/64	0.110	72042	5.70	1.88
DCGX 32.50	11 T3 02	3/8	5/32	0.008	0.173	72045	6.00	1.98
DCGX 32.51	11 T3 04	3/8	5/32	1/64	0.173	72048	6.00	1.98
DCGX 32.52	11 T3 08	3/8	5/32	1/32	0.173	72054	6.00	1.98

Style TCGX

- Screw-On Style Insert. - Triangle with Chipbreaker.
- 7° Relief Angle



Insert Type		Dimensions				Uncoated Carbide		
ANSI	ISO	I.C.	Width	Corner Radius	Hole Size	Order #	List Price	Sale Price
TCGX 21.50	11 02 02	1/4	3/32	0.008	0.110	72057	\$ 5.52	\$ 1.82
TCGX 21.51	11 02 04	1/4	3/32	1/64	0.110	72060	5.52	1.82
TCGX 32.50	16 T3 02	3/8	5/32	0.008	0.173	72063	6.00	1.98
TCGX 32.51	16 T3 04	3/8	5/32	1/64	0.173	72066	6.00	1.98
TCGX 32.52	16 T3 08	3/8	5/32	1/32	0.173	72072	6.00	1.98

Style SCGX

- Screw-On Style Insert. - 7° Relief Angle



Insert Type		Dimensions				Uncoated Carbide		
ANSI	ISO	I.C.	Width	Corner Radius	Hole Size	Order #	List Price	Sale Price
SCMT 32.51	09 T3 04	3/8	5/32	1/64	0.173	72080	\$ 5.82	\$ 1.92
SCMT 32.52	09 T3 08	3/8	5/32	1/32	0.173	72086	5.82	1.92
SCMT 432	12 04 08	1/2	3/16	1/32	0.216	72092	6.00	1.98

CARBIDE INSERTS

ALUMINUM INSERTS

Style VCGX

- Screw-On Style Insert.
- 35° Diamond Single Sided Insert with molded chip breaker

Insert Type		Dimensions				Uncoated Carbide		
ANSI	ISO	I.C.	Width	Corner Radius	Hole Size	Order #	List Price	Sale Price
VCGX 220	11 03 02	1/4	1/8	0.008	0.110	72100	\$ 5.70	\$ 1.88
VCGX 221	11 03 04	1/4	1/8	1/64	0.110	72106	5.70	1.88
VCGX 222	11 03 08	3/8	3/16	1/32	0.110	72112	5.70	1.88
VCGX 331	16 04 04	3/8	3/16	1/64	0.173	72118	6.67	2.20
VCGX 332	16 04 08	3/8	3/16	1/32	0.173	72124	6.67	2.20
VCGX 333	16 04 12	3/8	3/16	3/64	0.173	72130	6.67	2.20

CUT-OFF & GROOVING CARBIDE INSERTS

- Most Popular Cut-off Face Insert
- Unique Top-rake design minimizes machining forces and produces controlled Coil chips at optimum speeds and feeds
- Improved chip control - Greater productivity through better tool utilization - Higher metal removal rates.



Style GTN

Insert Type	Dimensions		Uncoated Carbide				Coated Carbide		
Insert Style	Lead Angle	Width	C520 Order #	C550 Order #	List Price	Sale Price	CM14 Order #	List Price	Sale Price
GTN-2	0°	0.087	43000	43004	\$ 7.03	\$ 2.32	43008	\$ 8.18	\$ 2.70
GTN-2.4	0°	0.094	43012	43016	7.52	2.48	43020	8.67	2.86
GTN-3	0°	0.120	43024	43028	7.52	2.48	43032	8.67	2.86
GTN-4	0°	0.160	43036	43040	8.48	2.80	43044	10.36	3.42
GTN-4.8	0°	0.187	43048	43052	9.70	3.20	43056	11.52	3.80
GTN-5	0°	0.200	43060	43064	9.70	3.20	43068	11.52	3.80
GTN-6	0°	0.250	43072	43076	11.52	3.80	43080	11.52	3.80

Style GTR

Insert Type	Dimensions		Uncoated Carbide				Coated Carbide		
Insert Style	Lead Angle	Width	C520 Order #	C550 Order #	List Price	Sale Price	CM14 Order #	List Price	Sale Price
GTR-2	8°	0.087	43096	43100	\$ 8.36	\$ 2.76	43104	\$ 8.18	\$ 2.70
GTR-2.4	8°	0.094	43108	43112	8.36	2.76	43116	8.67	2.86
GTR-3	8°	0.120	43120	43124	9.88	3.26	43128	8.67	2.86
GTR-4	8°	0.160	43132	43136	11.33	3.74	43140	10.36	3.42
GTR-4.8	8°	0.187	43144	43148	11.33	3.74	43152	11.52	3.80
GTR-5	8°	0.200	43160	43162	12.48	4.12	43164	11.52	3.80
GTR-6	8°	0.250	43170	43172	13.15	4.34	43174	11.52	3.80



Carbide Burrs

Available in all Shapes, Styles & Cuts
for more details call 1-800-872-0841



CARBIDE INSERTS

CLEARANCE SALE

Description	Qty	Sale Price
NG 3078L C5	62	\$ 2.95
TPMA-32NGR W=0.093 C2	46	1.95
TPMA-32NGR W=0.093 C5	52	1.95
NTF-4R C5	25	1.25
NG 3185R C5	49	2.95
TPMA-32NGL W=0.093 C2	40	1.95
TPMC-32NGL W=0.093 C6	50	1.95
TPMC-43NGL W=0.156 C6	49	2.95
NG 3185R C2	59	2.95
NG 3110R C5	20	2.95
TPGB 21.52 C5	711	0.99
TPGB 21.51 C5	1454	0.99
SNG-638 GR C5	66	2.95
1CX-24455-K	20	2.95
M20405	100	2.95
VDB 188 A 015 VC5	10	2.95
NTF-2L C5	69	1.95
NTF-3L C5	140	1.95
NG-3078L C5	30	2.95
NTF-3L TIN	90	2.95
NTF-4R TIN	15	2.95
TPMT-32.51 .032R TIN	39	1.95
TPGA-432 TIN	58	1.95
DNMG-532E-9721	10	2.95
NG-2125 GR TIN	30	1.95
TPMC-32NGL W+0.093 TIN	43	1.95
TPGA-432 TIN	58	1.95
TNMA 43 NGR 0.046W C2	11	2.95
TNMA 544E C2	10	2.95
TPEE-730 C5	3	0.99
CNMG-432EM C2 TIN	10	1.95
TAT-437 C6	20	0.99
TAT-437 TIN	40	1.25
TAT-437 C2	139	0.99
GTL-4.8D TIN	10	1.25
GTR5-4D C5 TIN	20	1.25
TNMG 333-TIN	275	1.25
TAT-375-C2	324	0.99
TAT-375 C6	99	0.99
NDC-322 CERMET	10	1.25
NG-3156L C5	90	2.95
TAT-250 C2	247	0.99
TAT-250 C6	232	0.99
TAT-312 C2	212	1.25
TAT-312 C6	100	1.25
SHC-63H12 C5	90	1.95
TPK-43PDR C5	10	1.95
TPMC-43NGR 156W C2	8	2.95

Description	Qty	Sale Price
SDKN 53Z TIN16	30	2.95
TNMA-433E TIN	10	1.95
TPMA-32NGL W=0.093 C6	30	1.25
TPMC-32 NG C6	30	1.25
FCM 10 C-5M	150	0.99
TNMA,54NGR .125W,C2	20	2.95
TFG,321,C2	20	0.99
TPMA,32 NGR,W=0.093 TIN	39	1.25
CCMT 432F 6P	2	1.25
TNG 432 C5	10	1.95
ICX-96425-D	100	0.99
ICX-96375-K	160	0.99
TPMC-43NGL W=0.156 TIN	14	2.95
TPMA-43NGL W=0.156 C2	47	2.95
SNMG-644 ALOX	20	2.95
TPMC-43NGR W=0.156 TIN	43	2.95
NG 2062L AG54,C5	10	1.25
TPMT32.51-2A 0.015R	6	0.99
TPMR-222 TIN	38	0.99
JET-TOOL S42E45C26R T25M	168	0.99
TPMC-43NGR W=0.156 C5	44	2.95
TPMT 431 TIN	10	1.95
TPMC-32NGR W=0.093 C6	46	1.25
ICX-96345-L	1030	0.99
ICX-96390-L	314	0.99
VDB188RA TIN	183	2.95
NG-3078L TIN	60	2.95
TPMT-431 0.032R C2	10	1.95
TNMG-438E C5	150	1.95
TPMT-32.51 0.032R C6	49	1.25
TPMT-32.51 0.032R C2	70	1.25
TPGB-21.52 C2	10	0.99
TPGB-21.52 C5	10	0.99
SNC-5501	90	0.99
RCMT 2F 46	200	0.99
TNMA 32 NGR 0.058W	61	1.25
TNMM-432 ER C5	40	1.95
TPGA-432 C2	100	1.95
NG 2097R C5	90	1.95
NG 3185R TIN	80	2.95
TNMM-322ER C5	30	0.99
TPGA-221 C2	45	0.99
CPGH-21.52 C2	60	0.99
NDC-322 C5	160	0.99
TDBP C5	49	0.99
DNMP-543V C2	90	2.95
SNMA-322 CQ2	8	1.25
TPEE-730 C2	17	0.99
RNG-63 C2 (3/4 X 3/16" THICK)	13000	1.25

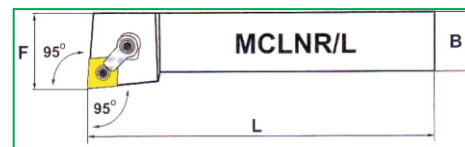
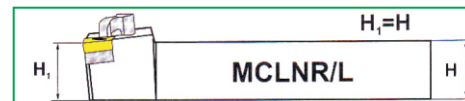
TOOLHOLDERS

MCLR R/L

MC Toolholder

for Negative 80° Diamond CNM_ Insert

5° End or Side Cutting Edge Angle



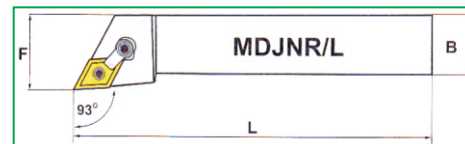
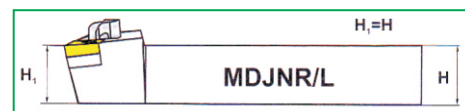
Insert Type		Dimensions		EDP #				Spare Parts						
Insert Style	Square Shank	Length (L)	Head (F)	RH	LH	List Price	Sale Price	CNM Insert	Shim	Shim Screw	Lock Pin	Clamp	Clamp Screw	Hex Key
MCLNR/L 12-4B	3/4	4-1/2	1.000	80000	80006	\$ 109.70	\$ 36.20							
MCLNR/L 16-4D	1	6	1.250	80012	80018	120.30	39.70							
MCLNR/L 20-4D	1-1/4	6	1.500	80024	80030	137.64	45.42	432	ICSN-433	***	NL-46	CL-20	XNS-48	***
MCLNR/L 24-4D	1-1/2	6	2.000	80036	80042	186.18	61.44							

MD Toolholder

for Negative 55° Diamond DNM_ Insert

3° Side Cutting Edge Angle

MDJN R/L



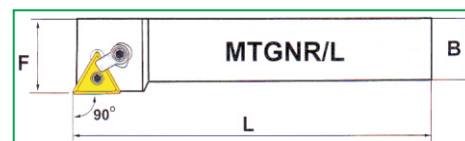
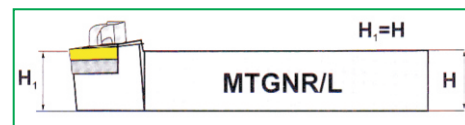
Insert Type		Dimensions		EDP #				Spare Parts						
Insert Style	Square Shank	Length (L)	Head (F)	RH	LH	List Price	Sale Price	DNM Insert	Shim	Shim Screw	Lock Pin	Clamp	Clamp Screw	Hex Key
MDJNR/L 12-4B	3/4	4-1/2	1.000	80048	80054	\$ 109.09	\$ 36.00							
MDJNR/L 16-4D	1	6	1.250	80060	80066	117.70	38.84							
MDJNR/L 20-4D	1-1/4	6	1.500	80072	80078	129.52	42.74	432	IDSN-433	***	NL-46	CL-12	XNS-510	***
MDJNR/L 24-4D	1-1/2	6	2.000	80084	80090	171.70	56.66							

MT Toolholder

for Negative 60° Triangular TN_ Insert

0° Side Cutting Edge Angle

MTGN R/L



Insert Type		Dimensions		EDP #				Spare Parts						
Insert Style	Square Shank	Length (L)	Head (F)	RH	LH	List Price	Sale Price	TNM Insert	Shim	Shim Screw	Lock Pin	Clamp	Clamp Screw	Hex Key
MTGNR/L 12-3B	3/4	4-1/2	1.000	80096	80102	\$ 113.15	\$ 37.34							
MTGNR/L 16-3D	1	6	1.250	80108	80114	117.45	38.76	332	ITSN-333	***	NL-34L	CL-6	XNS-37	***
MTGNR/L 16-4D	1	6	1.250	80120	80126	132.97	43.88							
MTGNR/L 20-4D	1-1/4	6	1.500	80132	80138	147.21	48.58	432	ITSN-433	***	NL-46	CL-20	XNS-48	***

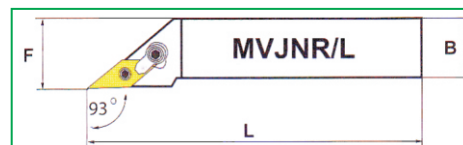
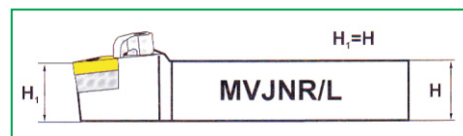
TOOLHOLDERS

MVJN R/L

MV Toolholder

for Negative 35° Diamond VNM_ Insert

0° End or Side Cutting Edge Angle



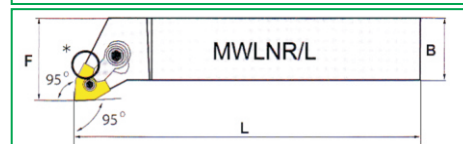
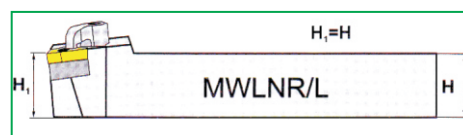
Insert Type	Dimensions			EDP #				Spare Parts						
Insert Style	Square Shank	Length (L)	Head (F)	RH	LH	List Price	Sale Price	VNM Insert	Shim	Shim Screw	Lock Pin	Clamp	Clamp Screw	Hex Key
MVJNR/L 12-3B	3/4	4 1/2	1.000	80144	80150	\$ 109.70	\$ 36.20							
MVJNR/L 16-3D	1	6	1.250	80156	80162	119.27	39.36	322	IVSN-322	***	NL-34L	CL-30	XNS-510	***
MVJNR/L 20-3D	1-1/4	6	1.500	80168	80174	130.91	43.20							

MWLN R/L

MW Toolholder

for Negative 80° Trigon WNM_ Insert

5° End or Side Cutting Edge Angle



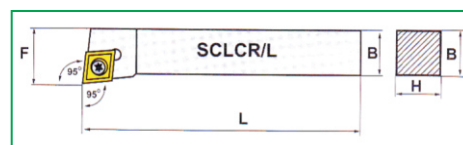
Insert Type	Dimensions			EDP #		Spare Parts							
Insert Style	Square Shank	Length (L)	Head (F)	RH	LH	List Price	Sale Price	WNM Insert	Shim	Lock Pin	Clamp	Clamp Screw	Hex Key
MWLNR/L 12-3B	3/4	4-1/2	1.000	80180	80186	\$ 139.45	\$ 46.02	332	IWSN-322	NL-34L	CL-6	XNS-37	***
MWLNR/L 12-4B	3/4	4-1/2	1.000	80192	80198	117.70	38.84						
MWLNR/L 16-4D	1	6	1.250	80204	80210	124.61	41.12	432	IWSN-433	NL-46	CL-20	XNS-48	***
MWLNR/L 20-4D	1-1/4	6	1.500	80216	80222	136.24	44.96						
MWLNR/L 24-4E	1-1/2	7	2.000	80228	80234	198.18	65.40						

SC Toolholder

SCLC R/L

for Positive 80° Diamond CCMT_ Insert

5° End or Side Cutting Edge Angle



Insert Type	Dimensions			EDP #				Spare Parts		
Insert Style	Square Shank	Length (L)	Head (F)	RH	LH	List Price	Sale Price	CC...T Insert	Insert Screw	Torx Key
SCLCR 04-2	0.315	2.36	0.394	80240	80246	\$ 65.27	\$ 21.54	21.51	***	***
SCLCR/L 06-2J	0.750	3.50	0.500	80252	80258	59.76	19.72			
SCLCR 08-03A	0.500	4.00	0.625	80264	80270	61.58	20.32	32.52	***	***
SCLCR 10-3B	0.650	4.50	0.750	80276	80282	65.45	21.60			
SCLCR 12-3B	0.750	4.50	1.00	80288	80294	73.21	24.16			

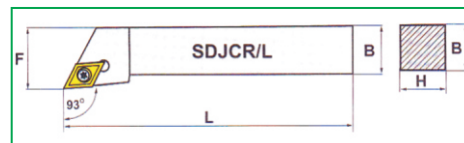
TOOLHOLDERS

SDJC R/L

SD Toolholder

for Negative 55° Diamond DCMT_ Insert

3° End or Side Cutting Edge Angle



Insert Type		Dimensions		EDP #				Spare Parts		
Insert Style	Square Shank	Length (L)	Head (F)	RH	LH	List Price	Sale Price	DC...T Insert	Insert Screw	Torx Key
SDJCR/L 04-2	0.315	2.36	0.394	80300	80306	\$ 64.61	\$ 21.32	21.51	***	***
SDJCR/L 06-2J	0.375	3.50	0.500	80312	80318	58.12	19.18			
SDJCR/L 08-02A	0.500	4.00	0.625	80324	80330	61.15	20.18			
SDJCR/L 08-03A	0.500	4.00	0.625	80336	80342	57.09	18.84	32.52	***	***
SDJCR/L 10-3B	0.625	4.50	0.750	80348	80354	62.00	20.46			
SDJCR/L 12-3B	0.750	4.50	0.875	80360	80366	68.30	22.54			

SSDCN

SS Toolholder

for Positive Square SCMT Inserts

45° Side Cutting Edge Angle



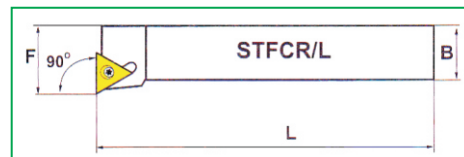
Insert Type		Dimensions						Spare Parts		
Insert Style	Square Shank	Length (L)	Head (F)	EDP #		List Price	Sale Price	SC...T Insert	Insert Screw	Torx Key
SSDCN 04-2	0.315	2.36		80372		\$ 64.61	\$ 21.32	21.5	***	***
SSDCN 08-03A	0.500	4.00		80384		73.03	24.10	32.5	***	***
SSDCN 10-3B	0.625	4.50		80396		78.73	25.98			
SSDCN 12-3B	0.750	4.50		80408		88.12	29.08			

STFC R/L

ST Toolholder

for Positive 60° Triangular TCMT or TCGT Insert

0° Side Cutting Edge Angle



Insert Type		Dimensions		EDP #				Spare Parts		
Insert Style	Square Shank	Length (L)	Head (F)	RH	LH	List Price	Sale Price	TC...T Insert	Insert Screw	Torx Key
STFCR/L 06-02	0.375	2.50	0.500	80420	80426	\$ 60.91	\$ 20.10	21.51	***	***
STFCR/L 08-02J	0.500	3.50	0.625	80432	80438	67.88	22.40			
STFCR/L 10-2A	0.625	4.00	0.750	80444	80450	76.06	25.10			
STFCR/L 10-3B	0.625	4.50	0.750	80456	80462	79.52	26.24	32.52	***	***
STFCR/L 12-3B	0.750	4.50	0.875	80468	80474	91.15	30.08			

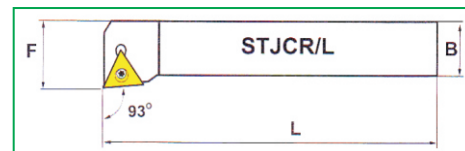
TOOLHOLDERS

STJC R/L

ST Toolholders

for Positive 60° Triangular TCMT or TCGT Insert

3° End or Side Cutting Edge Angle



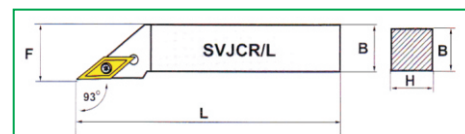
Insert Type		Dimensions		EDP #				Spare Parts		
Insert Style	Square Shank	Length (L)	Head (F)	RH	LH	List Price	Sale Price	TC...T Insert	Insert Screw	Torx Key
STJCR/L 08-2J	0.500	3.50	0.625	80480	80486	\$ 73.39	\$ 24.22	21.51	***	***
STJCR/L 12-3B	0.750	4.50	0.875	80492	80498	88.91	29.34	32.52	***	***

SVJC R/L

SV Toolholders

for Positive 35° Diamond VCMT or VCGT Insert

3° Side Cutting Edge Angle



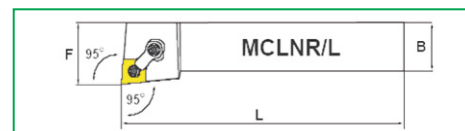
Insert Type		Dimensions		EDP #				Spare Parts		
Insert Style	Square Shank	Length (L)	Head (F)	RH	LH	List Price	Sale Price	TC...T Insert	Insert Screw	Torx Key
SVJCR/L 12-3B	.750	4.50	1.00	80504	80510	\$ 78.73	\$ 25.98			
SVJCR/L 16-3C	1.00	5.00	1.250	80516	80522	83.21	27.46	332	***	***
SVJCR/L 16-3D	1.00	6.00	1.250	80528	80534	82.61	27.26			

BORING BARS

SI-MCLN R/L

for Negative 80° Diamond CNM_ Insert

5° End or Side Cutting Edge Angle



Insert Type	Dimensions				EDP #				Spare Parts						
Insert Style	Shank Size	Min Bore	Oal L	Center Line "F"	RH	LH	List Price	Sale Price	CNM_ Insert	Shim	Shim Screw	Lock Pin	Clamp	Clamp Screw	Hex Key
SI-MCLNR/L 16-4	1	1.280	12	0.640	80540	80546	\$ 153.76	\$ 50.74							
SI-MCLNR/L 20-4	1-1/4	1.530	14	0.765	80552	80558	171.88	56.72	432	ICSN-433	***	NL-46	CL-20	XNS-48	***
SI-MCLNR/L 24-4	1-1/2	1.780	14	0.890	80564	80570	208.00	68.64							
SI-MCLNR/L 28-4	1-3/4	2.030	14	1.015	80576	80582	238.61	78.74							

A simpler way to ship

* Anywhere in USA * 2-3 Days * Flat Rate



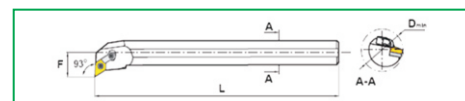
Small Flat Rate Box
Rate:
\$6⁹⁵

Medium Flat Rate Box
Rate:
\$12⁵⁰

Large Flat Rate Box
Rate:
\$15⁹⁹

SI-MDUN R/L (Without Coolant Hole) for Negative 55° Diamond DNM_ Insert

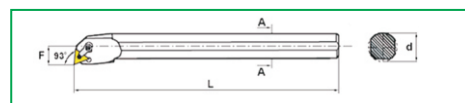
5° End or Side Cutting Edge Angle



Insert Type	Dimensions				EDP #				Spare Parts						
Insert Style	Shank Size	Min Bore	OAL (L)	Center Line (F)	RH	LH	List Price	Sale Price	DNM Insert	Shim	Shim Screw	Lock Pin	Clamp	Clamp Screw	Hex Key
SI-MDUNR/L 20-4	1-1/4	1.705	14	1.000	80588	80594	\$ 160.91	\$ 53.10							
SI-MDUNR/L 24-4	1-1/2	2.000	14	1.125	80600	80606	184.55	60.90	432	IDSN-433	***	NL-46	CL-12	XNS-510	***
SI-MDUNR/L 28-4	1-3/4	2.250	14	1.250	80612	80614	203.94	67.30							
SI-MDUNR/L 32-4	2"	2.500	16	1.375	80624	80630	245.76	81.10							

SI-MTUN R/L for Negative 60° Triangular TNM_ Insert

3° End Cutting Edge Angle



Insert Type	Dimensions				EDP #				Spare Parts						
Insert Style	Shank Size	Min Bore	OAL (L)	Center Line (F)	RH	LH	List Price	Sale Price	TNMG Insert	Shim	Shim Screw	Lock Pin	Clamp	Clamp Screw	Hex Key
SI-MTUNR/L 12-3	3/4	1	10	.500	80636	80642	\$ 150.00	\$ 49.50	332	-	-	***		***	
SI-MTUNR/L 16-3	1	1.280	12	.640	80648	80654	156.97	51.80	332	ITSN-333	***	NL-34L	CL-06	XNS-37	***
SI-MTUNR/L 20-3	1-1/4	1.530	14	.765	80660	80666	179.03	59.08							
SI-MTUNR/L 24-3	1-1/2	2.060	14	.890	80672	80678	203.33	67.10							



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