

# INSERTS CATALOG

GENERAL PURPOSE & HIGH-PERFORMANCE  
CARBIDE INSERTS AND TOOL HOLDERS

2021 EDITION



TABLE OF

# CONTENTS

|                                                                                     |                            |           |
|-------------------------------------------------------------------------------------|----------------------------|-----------|
|    | <b>TURNING INSERTS</b>     | <b>3</b>  |
|    | <b>MILLING INSERTS</b>     | <b>23</b> |
|   | <b>THREADING INSERTS</b>   | <b>27</b> |
|  | <b>ALUMINUM</b>            | <b>37</b> |
|  | <b>CERAMICS</b>            | <b>40</b> |
|  | <b>PCD</b>                 | <b>44</b> |
|  | <b>KING COBRA</b>          | <b>48</b> |
|  | <b>INSERT TOOL HOLDERS</b> | <b>57</b> |

# INSERTS CATALOG

2021 EDITION



# TURNING INSERTS

## UNCOATED GRADE

### C520 (C-2)

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)

Designed for heavy roughing to semi-finishing of all steels

## COATED GRADE

### CM02 (C-2)

Multi Layer coating TiC/Al<sub>2</sub>O<sub>3</sub>/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)

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

### X-Treme (C-5)

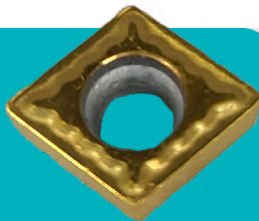
Layer coating TiAlN for turning and milling carbon alloy steels, steel and stainless steel. Provides longer tool life perfect for dry machining due to its good corrosion resistance, high hardness, high heat resistance (800 C-1475 F) and its self lubricating properties.

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| CCGT 21.50  | CCGT 06 02 02 | 1/4        | 3/32  | 0.008  | 0.110 | 40008          | 40010 | 40012        | 40014 | -       |
| CCGT 21.51  | CCGT 06 02 04 | 1/4        | 3/32  | 1/64   | 0.110 | 40016          | 40018 | 40020        | 40022 | -       |
| CCGT 21.52  | CCGT 06 02 08 | 1/4        | 3/32  | 1/32   | 0.110 | 40024          | 40026 | 40028        | 40030 | -       |
| CCGT 32.50  | CCGT 09 T3 02 | 3/8        | 5/32  | 0.008  | 0.173 | 40032          | 40034 | 40036        | 40038 | 40037   |
| CCGT 32.51  | CCGT 09 T3 04 | 3/8        | 5/32  | 1/64   | 0.173 | 40040          | 40042 | 40044        | 40046 | -       |
| CCGT 32.52  | CCGT 09 T3 08 | 3/8        | 5/32  | 1/32   | 0.173 | 40048          | 40050 | 40052        | 40054 | -       |
| CCGT 431    | CCGT 12 04 04 | 1/2        | 3/16  | 1/64   | 0.217 | 40056          | 40058 | 40060        | 40062 | -       |
| CCGT 432    | CCGT 12 04 08 | 1/2        | 3/16  | 1/32   | 0.217 | 40064          | 40066 | 40068        | 40070 | -       |



## Style CCGT

- Screw-On Style Insert.
- Used for semi-finishing and finishing on a wide range of materials.
- Chipbreaker for shallow depths of cuts and low feed rates



## Style CCMT

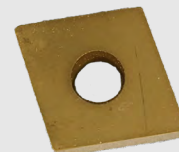
- Screw-On Style Insert.
- Used for semi-finishing and finishing on a wide range of materials.
- 80° Diamond Single Sided insert with molded chipbreaker.

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| CCMT 21.50  | CCMT 06 02 02 | 1/4        | 3/32  | 0.008  | 0.110 | 40088          | 40092 | 40094        | 40096 | 40095   |
| CCMT 21.51  | CCMT 06 02 04 | 1/4        | 3/32  | 1/64   | 0.110 | 40100          | 40104 | 40106        | 40108 | -       |
| CCMT 21.52  | CCMT 06 02 08 | 1/4        | 3/32  | 1/32   | 0.110 | 40112          | 40116 | 40118        | 40120 | 40119   |
| CCMT 32.50  | CCMT 09 T3 02 | 3/8        | 5/32  | 0.008  | 0.173 | 40121          | 40122 | 40123        | 40125 | -       |
| CCMT 32.51  | CCMT 09 T3 04 | 3/8        | 5/32  | 1/64   | 0.173 | 40124          | 40128 | 40130        | 40132 | 40131   |
| CCMT 32.52  | CCMT 09 T3 08 | 3/8        | 5/32  | 1/32   | 0.173 | 40136          | 40140 | 40142        | 40144 | 40143   |
| CCMT 431    | CCMT 12 04 04 | 1/2        | 3/16  | 1/64   | 0.217 | 40146          | 40148 | 40149        | 40150 | -       |
| CCMT 432    | CCMT 12 04 08 | 1/2        | 3/16  | 1/32   | 0.217 | 40152          | 40154 | 40155        | 40156 | 40153   |

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| CNMA 431    | CNMA 12 04 04 | 1/2        | 3/16  | 1/64   | 0.203 | 44100          | 44104 |              | 44108 |         |
| CNMA 432    | CNMA 12 04 08 | 1/2        | 3/16  | 1/32   | 0.203 | 44112          | 44116 |              | 44120 |         |
| CNMA 433    | CNMA 12 04 12 | 1/2        | 3/16  | 3/64   | 0.203 | 44124          | 44128 |              | 44132 |         |
| CNMA 542    | CNMA 16 06 08 | 5/8        | 1/4   | 1/32   | 0.250 | 44109          | 44110 |              | 44111 |         |
| CNMA 543    | CNMA 16 06 12 | 5/8        | 1/4   | 3/64   | 0.250 | 44121          | 44122 |              | 44123 |         |
| CNMA 544    | CNMA 16 06 16 | 5/8        | 1/4   | 1/16   | 0.250 | 44133          | 44134 |              | 44135 |         |
| CNMA 642    | CNMA 19 06 08 | 3/4        | 1/4   | 1/32   | 0.312 | 44136          | 44140 |              | 44144 |         |
| CNMA 643    | CNMA 19 06 12 | 3/4        | 1/4   | 3/64   | 0.312 | 44148          | 44152 |              | 44156 |         |
| CNMA 644    | CNMA 19 06 16 | 3/4        | 1/4   | 1/16   | 0.312 | 44157          | 44158 |              | 44159 |         |

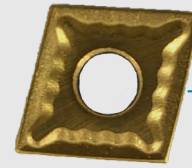
## Style CNMA

- 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



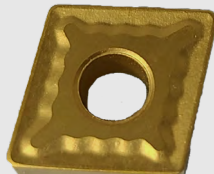


| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| CNMG 321    | CNMG 09 03 04 | 1/2        | 1/8   | 1/64   | 0.150 | ***            | 40197 | ***          | 40159 | -       |
| CNMG 431    | CNMG 12 04 04 | 1/2        | 3/16  | 1/64   | 0.203 | 40160          | 40164 | 40166        | 40168 | 40169   |
| CNMG 432    | CNMG 12 04 08 | 1/2        | 3/16  | 1/32   | 0.203 | 40172          | 40176 | 40178        | 40180 | 40179   |
| CNMG 433    | CNMG 12 04 12 | 1/2        | 3/16  | 3/64   | 0.203 | 40184          | 40188 | 40190        | 40192 | -       |
| CNMG 434    | CNMG 12 04 16 | 1/2        | 3/16  | 1/16   | 0.203 | 40196          | 40200 | 40202        | 40204 | 40205   |
| CNMG 542    | CNMG 16 06 08 | 5/8        | 1/4   | 1/32   | 0.250 | 40208          | 40212 | 40214        | 40216 | -       |
| CNMG 543    | CNMG 16 06 12 | 5/8        | 1/4   | 3/64   | 0.250 | 40220          | 40224 | 40226        | 40228 | -       |
| CNMG 544    | CNMG 16 06 16 | 5/8        | 1/4   | 1/16   | 0.250 | 40229          | 40230 | 40231        | 40233 | -       |
| CNMG 642    | CNMG 19 06 08 | 3/4        | 1/4   | 1/32   | 0.312 | 40232          | 40236 | 40238        | 40240 | -       |
| CNMG 643    | CNMG 19 06 12 | 3/4        | 1/4   | 3/64   | 0.312 | 40244          | 40248 | 40250        | 40252 | -       |
| CNMG 644    | CNMG 19 06 16 | 3/4        | 1/4   | 1/16   | 0.312 | 40256          | 40260 | 40262        | 40264 | -       |



## Style CNMG

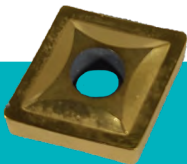
- Can be used for roughing, semi-finishing and finishing
- Proportionate to the size and the nose radius of the insert.
- Combo Pin and Clamp Insert. - 0° Relief Angle
- Double Sided used for medium to heavy cuts.
- 80° Diamond with Chipbreaker - Feed Range .007 to .028 IPR



## Style 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 Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| CNMM 432    | CNMM 12 04 08 | 1/2        | 3/16  | 1/32   | 0.203 | 44288          | 44292 | 44294        | 44296 |         |
| CNMM 433    | CNMM 12 04 12 | 1/2        | 3/16  | 3/64   | 0.203 | 44300          | 44304 | 44306        | 44308 |         |
| CNMM 642    | CNMM 19 06 08 | 3/4        | 1/4   | 1/32   | 0.312 | 44312          | 44316 | 44318        | 44320 |         |
| CNMM 643    | CNMM 19 06 12 | 3/4        | 1/4   | 3/64   | 0.312 | 44324          | 44328 | 44330        | 44332 |         |



## Style CNMP

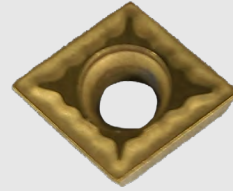
- 80° Diamond with Chipbreaker.
- Combo Pin and Clamp Insert.
- Extra Positive rake cutting edge when compared to CNMG.
- Can be used to machine materials like
- Stainless Steel and Low carbon steels

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| CNMP 431    | CNMP 12 04 04 | 1/2        | 3/16  | 1/64   | 0.203 | 44650          | 44652 | 44654        | 44656 | -       |
| CNMP 432    | CNMP 12 04 08 | 1/2        | 3/16  | 1/32   | 0.203 | 44658          | 44660 | 44662        | 44664 | 44661   |
| CNMP 433    | CNMP 12 04 12 | 1/2        | 3/16  | 3/64   | 0.203 | 44666          | 44668 | 44670        | 44672 | -       |
| CNMP 642    | CNMP 19 06 08 | 3/4        | 1/4   | 1/32   | 0.312 | 44674          | 44676 | 44678        | 44680 | -       |
| CNMP 643    | CNMP 19 06 12 | 3/4        | 1/4   | 3/64   | 0.312 | 44682          | 44684 | 44686        | 44688 | -       |



## Style CPGM

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

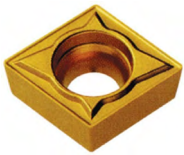


| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| CPGM 21.50  | CPGM 06 02 02 | 1/4        | 3/32  | 0.008  | 0.110 | 40316          | 40320 | 40322        | 40324 |         |
| CPGM 21.51  | CPGM 06 02 04 | 1/4        | 3/32  | 1/64   | 0.110 | 40328          | 40332 | 40334        | 40336 |         |
| CPGM 21.52  | CPGM 06 02 08 | 1/4        | 3/32  | 1/32   | 0.110 | 40340          | 40344 | 40346        | 40348 |         |
| CPGM 32.51  | CPGM 09 T3 04 | 3/8        | 3/8   | 1/64   | 0.173 | 40352          | 40356 | 40358        | 40360 |         |

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| CPGT 21.50  | CPGT 06 02 02 | 1/4        | 3/32  | 0.008  | 0.110 | 44336          | 44340 | 44342        | 44344 |         |
| CPGT 21.51  | CPGT 06 02 04 | 1/4        | 3/32  | 1/64   | 0.110 | 44348          | 44352 | 44354        | 44356 |         |
| CPGT 21.52  | CPGT 06 02 08 | 1/4        | 3/32  | 1/32   | 0.110 | 44360          | 44364 | 44366        | 44368 |         |
| CPGT 32.51  | CPGT 09 T3 04 | 3/8        | 3/8   | 1/64   | 0.173 | 44372          | 44376 | 44378        | 44380 |         |
| CPGT 32.52  | CPGT 09 T3 08 | 3/8        | 3/8   | 1/32   | 0.173 | 44384          | 44388 | 44390        | 44392 |         |

## Style CPGT

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



## Style CPMT

- ChipBreaker Type - CF-Finishing - 11° Relief Angle
- Screw-On Style Inserts - 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

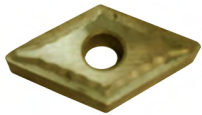
| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| CPMT 21.505 | CPMT 06 02 02 | 1/4        | 3/32  | 0.008  | 0.110 | 40376          | 40380 | 40382        | 40384 |         |
| CPMT 21.51  | CPMT 06 02 04 | 1/4        | 3/32  | 1/64   | 0.110 | 40388          | 40392 | 40394        | 40396 |         |
| CPMT 32.505 | CPMT 09 T3 02 | 3/8        | 5/32  | 0.008  | 0.173 | 40400          | 40404 | 40406        | 40408 |         |
| CPMT 32.51  | CPMT 09 T3 04 | 3/8        | 5/32  | 1/64   | 0.173 | 40412          | 40416 | 40418        | 40420 |         |
| CPMT 32.52  | CPMT 09 T3 08 | 3/8        | 5/32  | 1/32   | 0.173 | 40424          | 40428 | 40430        | 40432 |         |

## Style DCMT

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



| Insert Type |             | Dimensions |       |        |       | Uncoated Grade |       |       | Coated Grade |         |
|-------------|-------------|------------|-------|--------|-------|----------------|-------|-------|--------------|---------|
| Insert      | ISO         | Corner     | Thru  |        |       | C520           | C550  | CM02  | CM14         | X-Treme |
| Style       | Designation | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#  | EDP#         | EDP #   |
| DCMT 21.51  | DCMT 070204 | 1/4        | 3/32  | 1/64   | 0.110 | 40436          | 40440 | 40442 | 40444        | -       |
| DCMT 21.52  | DCMT 070208 | 1/4        | 3/32  | 1/32   | 0.110 | 40448          | 40452 | 40454 | 40456        | 40455   |
| DCMT 32.51  | DCMT 11T304 | 3/8        | 5/32  | 1/64   | 0.173 | 40460          | 40464 | 40466 | 40468        | -       |
| DCMT 32.52  | DCMT 11T308 | 3/8        | 5/32  | 1/32   | 0.173 | 40472          | 40476 | 40478 | 40480        | 40477   |
| DCMT 431    | DCMT 150404 | 1/2        | 3/16  | 1/64   | 0.203 | 40467          | 40469 | 40470 | 40471        | -       |
| DCMT 432    | DCMT 150408 | 1/2        | 3/16  | 1/32   | 0.203 | 40479          | 40481 | 40482 | 40483        | -       |



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

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       |       | Coated Grade |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|-------|--------------|---------|
| Insert      | ISO           | Corner     | Thru  |        |       | C520           | C550  | CM02  | CM14         | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#  | EDP#         | EDP #   |
| DNMG 331    | DNMG 16 04 04 | 3/8        | 3/16  | 1/64   | 0.150 | 40497          | -     | 40498 | -            | -       |
| DNMG 431    | DNMG 15 04 04 | 1/2        | 3/16  | 1/64   | 0.203 | 40484          | 40488 | 40490 | 40492        | 40495   |
| DNMG 432    | DNMG 15 04 08 | 1/2        | 3/16  | 1/32   | 0.203 | 40496          | 40500 | 40502 | 40504        | 40505   |
| DNMG 433    | DNMG 15 04 12 | 1/2        | 3/16  | 3/64   | 0.203 | 40508          | 40512 | 40510 | 40516        | 40517   |
| DNMG 441    | DNMG 15 06 04 | 1/2        | 1/4   | 1/64   | 0.203 | -              | -     | -     | 40518        | -       |
| DNMG 442    | DNMG 15 06 08 | 1/2        | 1/4   | 1/32   | 0.203 | -              | -     | -     | 40519        | -       |
| DNMG 542    | DNMG 19 06 08 | 5/8        | 1/4   | 1/32   | 0.250 | 40520          | 40524 | 40526 | 40528        | 40527   |
| DNMG 543    | DNMG 19 06 12 | 5/8        | 1/4   | 3/64   | 0.250 | 40532          | 40536 | 40538 | 40540        | -       |

## Style DNMG



## Style DNMP

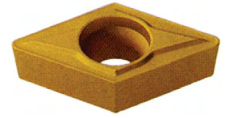
- Screw-On Style insert - 55° Relief Angle
- Diamond - 5° Positive cutting action double sided for semi-finishing and finishing
- Low cutting forces for machining soft materials, exotic alloys and stainless steel
- Feed Range 0.2-0.5mm/min.

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       |      | Coated Grade |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|------|--------------|---------|
| Insert      | ISO           | Corner     | Thru  |        |       | C520           | C550  | CM02 | CM14         | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP# | EDP#         | EDP #   |
| DNMP 431    | DNMP 15 04 04 | 1/2        | 3/16  | 1/64   | 0.203 | 44690          | 44692 | **** | 44696        |         |
| DNMP 432    | DNMP 15 04 08 | 1/2        | 3/16  | 1/32   | 0.203 | 44698          | 44700 | **** | 44704        |         |



Style

**DPMT**

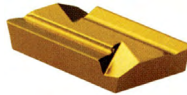


- Screw-On style insert - 55° Diamond with Chipbreaker
- 11 Relief Angle
- Single Sided insert with molded chipbreaker.
- For semi-finishing and finishing cuts
- Feed Range .003 to .012 IPR / 0.1-0.3 mm/rev

| Insert Type |               | Dimensions |       |        | Uncoated Grade |      |       | Coated Grade |       |       |
|-------------|---------------|------------|-------|--------|----------------|------|-------|--------------|-------|-------|
| Insert      | ISO           | Corner     | Thru  | C520   | C550           | CM02 | CM14  | X-Treme      |       |       |
| Style       | Designation   | I.C.       | Width | Radius | Hole           | EDP# | EDP#  | EDP#         | EDP#  | EDP # |
| DPMT 21.505 | DPMT 07 02 02 | 1/4        | 3/32  | 0.008  | 0.110          | ***  | ***   | 44710        | 44712 | -     |
| DPMT 21.51  | DPMT 07 02 04 | 1/4        | 3/32  | 1/64   | 0.110          | ***  | ***   | 44718        | 44720 | -     |
| DPMT 32.505 | DPMT 11 T3 02 | 3/8        | 5/32  | 0.008  | 0.173          | ***  | 44719 | 44726        | 44728 | -     |
| DPMT 32.51  | DPMT 11 T3 04 | 3/8        | 5/32  | 1/64   | 0.173          | ***  | 44735 | 44734        | 44736 | 44737 |
| DPMT 32.52  | DPMT 11 T3 08 | 3/8        | 5/32  | 1/32   | 0.173          | ***  | 44743 | 44742        | 44744 | -     |

Style

**KNUX**



- 55° Parallelogram - Clamp On Insert
- 0° Relief Angle
- 12° Positive cutting action

| Insert Type       |           | Dimensions |             |      | Uncoated Grade |       |       | Coated Grade |  |  |
|-------------------|-----------|------------|-------------|------|----------------|-------|-------|--------------|--|--|
| Insert            |           | Corner     | Chipbreaker | C520 | C550           | CM02  | CM14  | X-Treme      |  |  |
| Style             | Thickness | Radius     | Width       | EDP# | EDP#           | EDP#  | EDP#  | EDP #        |  |  |
| <b>Right Hand</b> |           |            |             |      |                |       |       |              |  |  |
| KNUX 160405 R11   | .188      | .020       | .086 X 12°  | ***  | 44418          | 70560 | 44420 |              |  |  |
| KNUX 160410 R11   | .188      | .040       | .086 X 12°  | ***  | ***            | 70576 | 44424 |              |  |  |
| <b>Left Hand</b>  |           |            |             |      |                |       |       |              |  |  |
| KNUX 160405 L11   | .188      | .020       | .086 X 12°  | ***  | 44427          | 70572 | 44428 |              |  |  |
| KNUX 160410 L11   | .188      | .040       | .086 X 12°  | ***  | 44423          | 70564 | 44432 |              |  |  |

Style

**RNG**

Round Clamp-On Insert



| Insert Type |               | Dimensions |       |        | Uncoated Grade |       |       | Coated Grade |       |       |
|-------------|---------------|------------|-------|--------|----------------|-------|-------|--------------|-------|-------|
| Insert      | ISO           | Corner     | Thru  | C520   | C550           | CM02  | CM14  | X-Treme      |       |       |
| Style       | Designation   | I.C.       | Width | Radius | Hole           | EDP#  | EDP#  | EDP#         | EDP#  | EDP # |
| RNG 32      | RNGN 09 03 00 | 3/8        | 1/8   | ***    | ***            | 44826 | 44828 | ***          | 44832 | -     |
| RNG 42      | RNGN 12 03 00 | 1/2        | 1/8   | ***    | ***            | 44834 | 44836 | ***          | 44840 | 44841 |
| RNG 43      | RNGN 12 04 00 | 1/2        | 3/16  | ***    | ***            | 44842 | 44844 | ***          | 44848 | -     |
| RNG 63      | RNGN 19 04 00 | 3/4        | 3/4   | ***    | ***            | 44850 | 44852 | ***          | 44856 | -     |

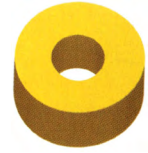
Style

**RCMT**



| Insert Type |             | Dimensions |       |        | Uncoated Grade |       |       | Coated Grade |       |       |
|-------------|-------------|------------|-------|--------|----------------|-------|-------|--------------|-------|-------|
| Insert      | ISO         | Corner     | Thru  | C520   | C550           | CM02  | CM14  | X-Treme      |       |       |
| Style       | Designation | I.C.       | Width | Radius | Hole           | EDP#  | EDP#  | EDP#         | EDP#  | EDP # |
| RCMT 325    | RCMT 32.50  | 3/8        | 5/32  | ***    | 0.173          | 44972 | 44976 | ***          | 44980 | 44981 |

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       |      | Coated Grade |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|------|--------------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02 | CM14         | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP# | EDP#         | EDP #   |
| RNMA 32     | RNMA 09 03 00 | 3/8        | 1/8   | ***    | 0.150 | 44794          | 44796 | ***  | 44800        |         |
| RNMA 43     | RNMA 12 04 00 | 1/2        | 3/16  | ***    | 0.203 | 44802          | 44804 | ***  | 44808        |         |
| RNMA 54     | RNMA 15 06 00 | 5/8        | 1/4   | ***    | 0.250 | 44810          | 44812 | ***  | 44816        |         |
| RNMA 64     | RNMA 19 06 00 | 3/4        | 3/16  | ***    | 0.313 | 44818          | 44820 | ***  | 44824        |         |
| RNMA 84     | RNMA 2506 00  | 1"         | 1/4   | ***    | 0.359 | 44821          | 44825 | ***  | 44822        |         |
| RNMA 86     | RNMA 2509 00  | 1"         | 3/8   | ***    | 0.359 | 44817          | 44819 | ***  | 44823        |         |



## Style RNMA

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



| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       |      | Coated Grade |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|------|--------------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02 | CM14         | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP# | EDP#         | EDP #   |
| RNMG 32     | RNMG 09 03 00 | 3/8        | 1/8   | ***    | 0.150 | 44858          | 44860 | ***  | 44864        | -       |
| RNMG 43     | RNMG 12 04 00 | 1/2        | 3/16  | ***    | 0.203 | 44866          | 44868 | ***  | 44872        | 44873   |
| RNMG 54     | RNMG 15 06 00 | 5/8        | 1/4   | ***    | 0.250 | 44874          | 44876 | ***  | 44880        | -       |
| RNMG 64     | RNMG 19 06 00 | 3/4        | 1/4   | ***    | 0.312 | 44882          | 44884 | ***  | 44888        | -       |
| RNMG 84     | RNMG 2506 00  | 1"         | 1/4   | ***    | 0.359 | 44881          | 44883 | ***  | 44885        | -       |
| RNMG 86     | RNMG 2509 00  | 1"         | 3/8   | ***    | 0.359 | 44886          | 44887 | ***  | 44889        | -       |

## Style RNMG

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

## Style RPG

- Round Clamp-On Insert - 11° Relief Angle
- Use for turning and facing on the outside of part

| Insert Type |               | Dimensions |       |        |      | Uncoated Grade |       |      | Coated Grade |         |
|-------------|---------------|------------|-------|--------|------|----------------|-------|------|--------------|---------|
| Insert      | ISO           | Corner     |       | Thru   |      | C520           | C550  | CM02 | CM14         | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole | EDP#           | EDP#  | EDP# | EDP#         | EDP #   |
| RPG 32      | RPGN 09 03 00 | 3/8        | 1/8   | ***    | ***  | 44890          | 44892 | ***  | 44896        |         |
| RPG 42      | RPGN 12 03 00 | 1/2        | 1/8   | ***    | ***  | 44898          | 44900 | ***  | 44904        |         |
| RPG 43      | RPGN 12 04 00 | 1/2        | 3/16  | ***    | ***  | 44906          | 44908 | ***  | 44912        |         |
| RPG 54      | RPGN 15 06 00 | 5/8        | 1/4   | ***    | ***  | 44899          | 44901 | ***  | 44905        |         |
| RPG 64      | RPGN 19 06 00 | 3/4        | 1/4   | ***    | ***  | 44907          | 44909 | ***  | 44910        |         |



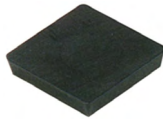
## Style SCMT



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

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       |       | Coated Grade |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|-------|--------------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02  | CM14         | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#  | EDP#         | EDP #   |
| SCMT 32.51  | SCMT 09 T3 04 | 3/8        | 5/32  | 1/64   | 0.173 | 40544          | 40548 | 40550 | 40552        |         |
| SCMT 32.52  | SCMT 09 T3 08 | 3/8        | 5/32  | 1/32   | 0.173 | 40556          | 40560 | 40562 | 40564        |         |
| SCMT 431    | SCMT 12 04 04 | 1/2        | 3/16  | 1/64   | 0.216 | 40568          | 40572 | 40574 | 40576        |         |
| SCMT 432    | SCMT 12 04 08 | 1/2        | 3/16  | 1/32   | 0.216 | 40580          | 40584 | 40586 | 40588        |         |





## Style SNG

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

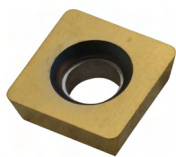
| Insert Type |               | Dimensions |       |        |      | Uncoated Grade |       | Coated Grade |       |       |
|-------------|---------------|------------|-------|--------|------|----------------|-------|--------------|-------|-------|
| Insert      | ISO           | Corner     | Thru  | C520   | C550 | CM02           | CM14  | X-Treme      |       |       |
| Style       | Designation   | I.C.       | Width | Radius | Hole | EDP#           | EDP#  | EDP#         | EDP#  | EDP # |
| SNG 322     | SNGN 09 03 08 | 3/8        | 1/8   | 1/32   | ***  | 44913          | ***   | ***          | ***   | -     |
| SNG 421     | SNGN 12 03 04 | 1/2        | 1/8   | 0.016  | ***  | 44914          | 44916 | ***          | 44920 | -     |
| SNG 422     | SNGN 12 03 08 | 1/2        | 1/8   | 0.031  | ***  | 44922          | 44924 | ***          | 44928 | -     |
| SNG 432     | SNGN 12 04 08 | 1/2        | 3/16  | 1/32   | ***  | ***            | 44927 | ***          | 44929 | -     |
| SNG 433     | SNGN 12 04 12 | 1/2        | 3/16  | 0.047  | ***  | 44930          | 44932 | ***          | 44936 | 44937 |
| SNG 434     | SNGN 12 04 16 | 1/2        | 3/16  | 0.063  | ***  | 44938          | 44940 | ***          | 44944 | -     |
| SNG 632     | SNGN 19 04 08 | 3/4        | 3/16  | 0.031  | ***  | 44946          | 44948 | ***          | 44952 | -     |
| SNG 633     | SNGN 19 04 12 | 3/4        | 3/16  | 0.047  | ***  | 44954          | 44956 | ***          | 44960 | -     |
| SNG 634     | SNGN 19 04 16 | 3/4        | 3/16  | 0.063  | ***  | 44962          | 44964 | ***          | 44968 | -     |



## 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
- - 0° Relief Angle
- Used on a wide range of materials and applications

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |       |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|-------|
| Insert      | ISO           | Corner     | Thru  | C520   | C550  | CM02           | CM14  | X-Treme      |       |       |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP # |
| SNMG 321    | SNMG 09 03 04 | 3/8        | 1/8   | 1/64   | 0.150 | 40589          | 40590 | ***          | 40591 | -     |
| SNMG 322    | SNMG 09 03 08 | 3/8        | 1/8   | 1/32   | 0.150 | 40592          | 40596 | ***          | 40600 | -     |
| SNMG 323    | SNMG 16 03 12 | 3/8        | 1/8   | 3/64   | 0.150 | 40601          | 40602 | ***          | ***   | -     |
| SNMG 333    | SNMG 09 04 12 | 3/8        | 3/16  | 3/64   | 0.150 | 40605          | 40606 | ***          | 40607 | -     |
| SNMG 431    | SNMG 12 04 04 | 1/2        | 3/16  | 1/64   | 0.203 | 40604          | 40608 | ***          | 40612 | -     |
| SNMG 432    | SNMG 12 04 08 | 1/2        | 3/16  | 1/32   | 0.203 | 40616          | 40620 | 40617        | 40624 | 40627 |
| SNMG 433    | SNMG 12 04 12 | 1/2        | 3/16  | 3/64   | 0.203 | 40628          | 40632 | ***          | 40636 | -     |
| SNMG 434    | SNMG 12 04 16 | 1/2        | 3/16  | 3/64   | 0.203 | 40640          | 40644 | ***          | 40648 | -     |
| SNMG 542    | SNMG 15 06 08 | 5/8        | 1/4   | 5/32   | 0.250 | 40652          | 40656 | ***          | 40660 | -     |
| SNMG 543    | SNMG 15 06 12 | 5/8        | 1/4   | 3/64   | 0.250 | 40664          | 40668 | ***          | 40672 | 40669 |
| SNMG 544    | SNMG 15 06 16 | 5/8        | 1/4   | 1/16   | 0.250 | 40641          | 40642 | ***          | 40643 | -     |
| SNMG 642    | SNMG 19 06 08 | 3/4        | 1/4   | 1/32   | 0.312 | 40653          | 40654 | ***          | 40655 | -     |
| SNMG 643    | SNMG 19 06 12 | 3/4        | 1/4   | 3/64   | 0.312 | 40657          | 40658 | ***          | 40659 | 40663 |
| SNMG 644    | SNMG 19 06 16 | 3/4        | 1/4   | 1/16   | 0.312 | 40673          | 40674 | 40671        | 40675 | -     |



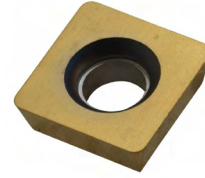
## Style SDEB

- Screw-On Style Insert
- 15° Relief Angle
- Single Sided for semi-finishing and finishing
- For Cast Iron and Non-ferrous materials

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |       |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|-------|
| Insert      | ISO           | Corner     | Thru  | C520   | C550  | CM02           | CM14  | X-Treme      |       |       |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP # |
| SDEB 21.51  | SDEB 06 02 04 | 1/4        | 1/8   | 1/64   | 0.143 | 46432          | 46434 | 46436        | 46438 |       |

## Style SDEH

- Screw-On Style Insert
- 15° Relief Angle
- Single Sided for semi-finishing and finishing
- For Cast Iron and Non-ferrous materials



| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       |       | Coated Grade |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|-------|--------------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02  | CM14         | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#  | EDP#         | EDP #   |
| SDEH 2.522  | SDEH 07 03 08 | 5/16       | 1/8   | 1/32   | 0.115 | 46441          | 46443 | 46445 | 46447        |         |

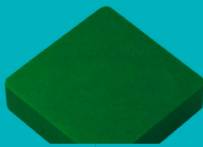
## Style SNMA



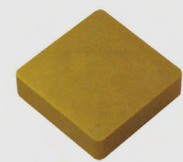
- Combo Pin and Clamp Insert
- Square without Chipbreaker
- Double sided for medium to heavy cuts
- Feed Range .007 to .028 I.P.R
- - Used on a wide range of materials and applications - 0° Relief Angle

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       |      | Coated Grade |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|------|--------------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02 | CM14         | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP# | EDP#         | EDP #   |
| SNMA 322    | SNMA 09 03 08 | 3/8        | 1/8   | 1/32   | 0.150 | ***            | 42498 | ***  | ***          |         |
| SNMA 432    | SNMA 12 04 08 | 1/2        | 3/16  | 1/32   | 0.203 | 42500          | 42502 | ***  | 42506        |         |
| SNMA 433    | SNMA 12 04 12 | 1/2        | 3/16  | 3/64   | 0.203 | 42508          | 42510 | ***  | 42514        |         |
| SNMA 434    | SNMA 12 04 16 | 1/2        | 3/16  | 3/64   | 0.203 | 42516          | 42518 | ***  | 42522        |         |
| SNMA 542    | SNMA 15 06 08 | 5/8        | 1/4   | 5/32   | 0.250 | 42524          | 42526 | ***  | 42530        |         |
| SNMA 543    | SNMA 15 06 12 | 5/8        | 1/4   | 3/64   | 0.250 | 42532          | 42534 | ***  | 42538        |         |
| SNMA 544    | SNMA 15 06 16 | 5/8        | 1/4   | 1/16   | 0.312 | 42540          | 42542 | ***  | 42546        |         |
| SNMA 643    | SNMA 19 06 12 | 3/4        | 1/4   | 3/64   | 0.312 | 42548          | 42550 | ***  | 42554        |         |
| SNMA 644    | SNMA 19 06 16 | 3/4        | 1/4   | 1/16   | 0.312 | 42556          | 42558 | ***  | 42562        |         |

## Style SNU



| Insert Type |               | Dimensions |       |        |      | Uncoated Grade |       |      | Coated Grade |         |
|-------------|---------------|------------|-------|--------|------|----------------|-------|------|--------------|---------|
| Insert      | ISO           | Corner     |       | Thru   |      | C520           | C550  | CM02 | CM14         | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole | EDP#           | EDP#  | EDP# | EDP#         | EDP #   |
| SNU 422     | SNUN 12 03 08 | 1/2        | 1/8   | 1/32   | ***  | 40677          | 40678 | ***  | 40679        |         |
| SNU 432     | SNUN 12 04 08 | 1/2        | 1/8   | 1/32   | ***  | 40681          | 40682 | ***  | 40683        |         |
| SNU 433     | SNUN 12 04 12 | 1/2        | 3/16  | 3/64   | ***  | 40676          | 40680 | ***  | 40684        |         |
| SNU 632     | SNUN 19 04 08 | 3/4        | 3/16  | 1/32   | ***  | 40685          | 40686 | ***  | 40687        |         |
| SNU 633     | SNUN 19 04 12 | 3/4        | 3/16  | 3/64   | ***  | 40688          | 40692 | ***  | 40696        |         |
| SNU 634     | SNUN 19 04 16 | 3/4        | 3/16  | 1/16   | ***  | 40697          | 40698 | ***  | 40699        |         |
| SNU 644     | SNUN 19 06 16 | 3/4        | 1/4   | 1/16   | ***  | ***            | 40701 | ***  | 40702        |         |



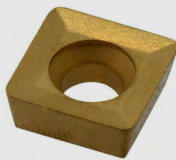
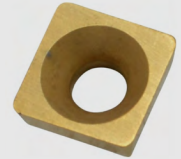
- Clamp Style Insert
- Square Ground top and bottom
- Double sided without chipbreaker - 0° Relief Angle
- Suited for problem free chip forming materials
- Feed Range .003 to .030 IPR



## Style SPEB

- Screw-On style insert - 11° Relief Angle
- Single sided for semi-finishing and finishing
- For Cast iron and non-ferrous materials

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |       |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|-------|
| Insert      | ISO           | Corner     | Thru  | C520   | C550  | CM02           | CM14  | X-Treme      |       |       |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP # |
| SPEB 222    | SPEB 06 03 08 | 1/4        | 1/8   | 1/32   | 0.115 | ***            | ***   | ***          | 46407 |       |
| SPEB 322    | SPEB 09 03 08 | 3/8        | 1/8   | 1/32   | 0.207 | 46410          | 46412 | 46414        | 46416 |       |
| SPEB 422    | SPEB 12 03 08 | 1/2        | 1/8   | 1/32   | 0.178 | ***            | 46420 | ***          | 46425 |       |



- Screw-On style insert - 11° Relief Angle
- Single sided for semi-finishing and finishing
- For Cast iron and non-ferrous materials

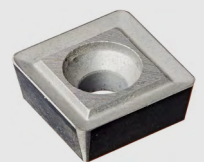
## Style SPEH

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |       |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|-------|
| Insert      | ISO           | Corner     | Thru  | C520   | C550  | CM02           | CM14  | X-Treme      |       |       |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP # |
| SPEH 222    | SPEH 06 03 08 | 1/4        | 1/8   | 1/32   | 0.115 | 46459          | 46461 | 46463        | 46465 |       |
| SPEH 2.522  | SPEH 07 03 08 | 5/16       | 1/8   | 1/32   | 0.115 | 46450          | 46452 | 46454        | 46456 |       |
| SPEH 322    | SPEH 09 03 08 | 3/8        | 1/8   | 1/32   | 0.156 | 46468          | 46470 | 46472        | 46474 |       |
| SPEH 332    | SPEH 09 04 08 | 3/8        | 3/16  | 1/32   | 0.150 | 46477          | 46479 | 46481        | 46483 |       |
| SPEH 422    | SPEH 12 03 08 | 1/2        | 1/8   | 1/32   | 0.178 | 46419          | 46421 | 46423        | 46427 |       |
| SPEH 432    | SPEH 12 04 08 | 1/2        | 3/16  | 1/32   | 0.215 | 46485          | 46487 | 46489        | 46491 |       |
| SPEH 433    | SPEH 12 04 12 | 1/2        | 3/16  | 3/64   | 0.215 | 46493          | 46495 | 46497        | 46498 |       |

## Style SPGH

- For difficult to machine material, long or thin wallet parts
- Screw-On style Insert
- Single sided with Chip Control - Square fully Ground
- 11° Relief Angle - Feed Range .003 to .030 IPR

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |       |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|-------|
| Insert      | ISO           | Corner     | Thru  | C520   | C550  | CM02           | CM14  | X-Treme      |       |       |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP # |
| SPGH 322    | SPGH 09 03 08 | 3/8        | 1/8   | 1/32   | 0.156 | 40853          | 40854 | ***          | 40855 |       |
| SPGH 432    | SPGH 12 04 08 | 1/2        | 3/16  | 1/32   | 0.215 | 40865          | 40866 | ***          | 40867 |       |
| SPGH 433    | SPGH 12 04 12 | 1/2        | 3/16  | 3/64   | 0.175 | 40856          | 40860 | ***          | 40864 |       |

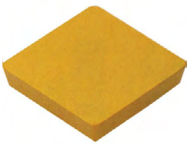


## Style SPG



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

| Insert Type |               | Dimensions |       |        |      | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |      | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| SPG 321     | SPGN 09 03 04 | 3/8        | 1/8   | 1/64   | ***  | 40700          | 40704 | ***          | 40708 | -       |
| SPG 322     | SPGN 09 03 08 | 3/8        | 1/8   | 1/32   | ***  | 40712          | 40716 | ***          | 40720 | -       |
| SPG 421     | SPGN 12 03 04 | 1/2        | 1/8   | 1/64   | ***  | 40724          | 40728 | ***          | 40732 | -       |
| SPG 422     | SPGN 12 03 08 | 1/2        | 1/8   | 1/32   | ***  | 40736          | 40740 | ***          | 40744 | -       |
| SPG 423     | SPGN 12 03 12 | 1/2        | 1/8   | 3/64   | ***  | 40748          | 40752 | ***          | 40756 | -       |
| SPG 424     | SPGN 12 03 16 | 1/2        | 1/8   | 1/16   | ***  | 40760          | 40764 | ***          | 40768 | -       |
| SPG 432     | SPGN 12 04 08 | 1/2        | 3/16  | 1/32   | ***  | 40772          | 40776 | ***          | 40780 | -       |
| SPG 433     | SPGN 12 04 12 | 1/2        | 3/16  | 3/64   | ***  | 40784          | 40788 | ***          | 40792 | -       |
| SPG 434     | SPGN 12 04 16 | 1/2        | 3/16  | 1/16   | ***  | 40796          | 40800 | ***          | 40804 | -       |
| SPG 533     | SPGN 15 04 12 | 5/8        | 3/16  | 3/64   | ***  | 40808          | 40812 | ***          | 40816 | -       |
| SPG 631     | SPGN 19 04 04 | 3/4        | 3/16  | 1/64   | ***  | -              | 40819 | ***          | 40818 | -       |
| SPG 632     | SPGN 19 04 08 | 3/4        | 3/16  | 1/32   | ***  | 40820          | 40824 | ***          | 40828 | -       |
| SPG 633     | SPGN 19 04 12 | 3/4        | 3/16  | 3/64   | ***  | 40832          | 40836 | ***          | 40840 | 40837   |
| SPG 634     | SPGN 19 04 16 | 3/4        | 3/16  | 1/16   | ***  | 40844          | 40848 | ***          | 40852 | -       |
| SPG 638     | SPGN 19 04 32 | 3/4        | 3/16  | 1/8    | ***  | -              | -     | -            | 40842 | -       |



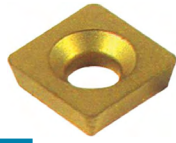
## Style SPMR



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

| Insert Type |               | Dimensions |       |        |      | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |      | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| SPMR 321    | SPMR 09 03 04 | 3/8        | 1/8   | 1/64   | ***  | 44436          | 44440 | ***          | 44444 |         |
| SPMR 322    | SPMR 09 03 08 | 3/8        | 1/8   | 1/32   | ***  | 44448          | 44452 | ***          | 44456 |         |
| SPMR 421    | SPMR 12 03 04 | 1/2        | 1/8   | 1/64   | ***  | 44460          | 44464 | ***          | 44468 |         |
| SPMR 422    | SPMR 12 03 08 | 1/2        | 1/8   | 1/32   | ***  | 44472          | 44476 | ***          | 44480 |         |
| SPMR 423    | SPMR 12 03 12 | 1/2        | 1/8   | 3/64   | ***  | ***            | 44482 | ***          | 44481 |         |

## Style SPMT



- Screw-On Style Insert
- Square Ground top and bottom
- Single Sided Without Chipbreaker
- 11° Relief Angle Single Sided
- Suited for problem free chip forming materials
- Feed Range .003 to .030 IPR

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       |       | Coated Grade |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|-------|--------------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02  | CM14         | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#  | EDP#         | EDP #   |
| SPMT 32.51  | SPMT 09 T3 04 | 3/8        | 5/32  | 1/64   | 0.173 | 42564          | 42566 | 42568 | 42570        |         |
| SPMT 32.52  | SPMT 09 T3 08 | 3/8        | 5/32  | 1/32   | 0.173 | 42572          | 42574 | 42576 | 42578        |         |
| SPMT 431    | SPMT 12 04 04 | 1/2        | 3/16  | 1/64   | 0.216 | 42580          | 42582 | 42584 | 42586        |         |
| SPMT 432    | SPMT 12 04 08 | 1/2        | 3/16  | 1/32   | 0.216 | 42588          | 42590 | 42592 | 42594        |         |

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

| Insert Type |               | Dimensions |       |        |      | Uncoated Grade |       |      | Coated Grade |         |
|-------------|---------------|------------|-------|--------|------|----------------|-------|------|--------------|---------|
| Insert      | ISO           | Corner     |       | Thru   |      | C520           | C550  | CM02 | CM14         | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole | EDP#           | EDP#  | EDP# | EDP#         | EDP #   |
| SPU 422     | SPUN 12 03 08 | 1/2        | 1/8   | 1/32   | ***  | 40868          | 40872 | ***  | 40876        | 40875   |
| SPU 423     | SPUN 12 03 12 | 1/2        | 1/8   | 3/64   | ***  | 40869          | 40870 | ***  | 40871        | -       |
| SPU 432     | SPUN 12 04 08 | 1/2        | 3/16  | 1/32   | ***  | 40877          | 40878 | ***  | 40879        | 40882   |
| SPU 433     | SPUN 12 04 12 | 1/2        | 3/16  | 3/64   | ***  | ***            | 40883 | ***  | 40881        | -       |
| SPU 533     | SPUN 15 04 12 | 5/8        | 3/16  | 3/64   | ***  | 40886          | 40887 | ***  | 40885        | -       |
| SPU 632     | SPUN 19 04 08 | 3/4        | 3/16  | 1/32   | ***  | 40880          | 40884 | ***  | 40888        | -       |
| SPU 633     | SPUN 19 04 12 | 3/4        | 3/16  | 3/64   | ***  | 40892          | 40896 | ***  | 40900        | 40897   |
| SPU 634     | SPUN 19 04 16 | 3/4        | 3/16  | 1/16   | ***  | 40901          | 40899 | ***  | 40902        | -       |

## Style SPU



## Style TCGT

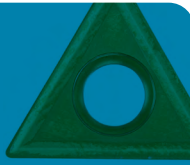


- Screw-On style Insert
- Single sided for semi-finishing and finishing
- 7° Relief Angle
- Used on a wide range of materials

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       |       | Coated Grade |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|-------|--------------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02  | CM14         | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#  | EDP#         | EDP #   |
| TCGT 21.51  | TCGT 11 02 04 | 1/4        | 3/32  | 1/64   | 0.110 | 42319          | 42321 | 42323 | 42325        | -       |
| TCGT 21.52  | TCGT 11 02 08 | 1/4        | 3/32  | 1/32   | 0.110 | 42327          | 42329 | 42331 | 42333        | 40937   |
| TCGT 321    | TCGT 16 03 04 | 3/8        | 1/8   | 1/64   | 0.173 | 42302          | 42304 | 42306 | 42308        | -       |
| TCGT 322    | TCGT 16 06 08 | 3/8        | 1/8   | 1/32   | 0.173 | 42311          | 42313 | 42315 | 42317        | -       |
| TCGT 32.51  | TCGT 16 T3 04 | 3/8        | 5/32  | 1/64   | 0.173 | 42335          | 42337 | 42339 | 42341        | -       |



## Style TCMT



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

| Insert Type |               |      | Dimensions |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------|------------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           |      | Corner     | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C. | Width      | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TCMT 21.505 | TCMT 11 02 02 | 1/4  | 3/32       | 0.008  | 0.110 | 40905          | 40906 | 40922        | 40924 | -       |
| TCMT 21.51  | TCMT 11 02 04 | 1/4  | 3/32       | 1/64   | 0.110 | 40927          | 40931 | 40933        | 40935 | 40929   |
| TCMT 21.52  | TCMT 11 02 08 | 1/4  | 3/32       | 1/32   | 0.110 | 40928          | 40932 | 40934        | 40936 | 40937   |
| TCMT 32.505 | TCMT 16 T3 02 | 3/8  | 5/32       | 0.008  | 0.173 | 40940          | 40944 | 40946        | 40948 | -       |
| TCMT 32.51  | TCMT 16 T3 04 | 3/8  | 5/32       | 1/64   | 0.173 | 40952          | 40956 | 40958        | 40960 | 40963   |
| TCMT 32.52  | TCMT 16 T3 08 | 3/8  | 5/32       | 1/32   | 0.173 | 40953          | 40957 | 40959        | 40961 | 40962   |
| TCMT 431    | TCMT 22 04 04 | 1/2  | 3/16       | 1/64   | 0.216 | 40965          | 40966 | 40967        | 40969 | -       |
| TCMT 432    | TCMT 22 04 08 | 1/2  | 3/16       | 1/32   | 0.216 | 40970          | 40971 | 40973        | 40974 | 40914   |

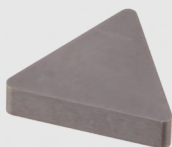


- Triangle with chipbreaker
- 0° Relief Angle
- Combo Pin and Clamp Insert

## Style TNMG

| Insert Type |               |      | Dimensions |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------|------------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           |      | Corner     | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C. | Width      | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TNMG 221    | TNMG 11 03 04 | 1/4  | 1/8        | 1/64   | 0.093 | 40964          | 40968 | ***          | 40972 | -       |
| TNMG 222    | TNMG 11 03 08 | 1/4  | 1/8        | 1/32   | 0.093 | 40976          | 40980 | ***          | 40984 | -       |
| TNMG 321    | TNMG 16 03 04 | 3/8  | 1/8        | 1/64   | 0.150 | 40988          | 40992 | ***          | 40996 | -       |
| TNMG 322    | TNMG 16 03 08 | 3/8  | 1/8        | 1/32   | 0.150 | 41000          | 41004 | 41007        | 41008 | 41006   |
| TNMG 323    | TNMG 16 03 12 | 3/8  | 1/8        | 3/64   | 0.150 | 41012          | 41016 | ***          | 41020 | -       |
| TNMG 324    | TNMG 16 03 16 | 3/8  | 1/8        | 1/16   | 0.150 | 41024          | 41028 | ***          | 41032 | -       |
| TNMG 331    | TNMG 16 04 04 | 3/8  | 3/16       | 1/64   | 0.150 | 41036          | 41040 | ***          | 41044 | 41037   |
| TNMG 332    | TNMG 16 04 08 | 3/8  | 3/16       | 1/32   | 0.150 | 41048          | 41052 | ***          | 41056 | 41057   |
| TNMG 333    | TNMG 16 04 12 | 3/8  | 3/16       | 3/64   | 0.150 | 41060          | 41064 | ***          | 41068 | -       |
| TNMG 431    | TNMG 22 04 04 | 1/2  | 3/16       | 1/64   | 0.203 | 41072          | 41076 | ***          | 41080 | 41083   |
| TNMG 432    | TNMG 22 04 08 | 1/2  | 3/16       | 1/32   | 0.203 | 41084          | 41088 | ***          | 41092 | 41094   |
| TNMG 433    | TNMG 22 04 12 | 1/2  | 3/16       | 3/64   | 0.203 | 41096          | 41100 | ***          | 41104 | -       |
| TNMG 434    | TNMG 22 04 16 | 1/2  | 3/16       | 1/16   | 0.203 | 41108          | 41112 | ***          | 41116 | -       |
| TNMG 542    | TNMG 27 06 08 | 5/8  | 1/4        | 1/32   | 0.250 | 41120          | 41124 | ***          | 41128 | 41129   |
| TNMG 543    | TNMG 27 06 12 | 5/8  | 1/4        | 3/64   | 0.250 | 41132          | 41136 | ***          | 41140 | -       |
| TNMG 544    | TNMG 27 06 16 | 5/8  | 1/4        | 1/16   | 0.250 | 41144          | 41148 | 41154        | 41152 | -       |
| TNMG 666    | TNMG 33 09 24 | 3/4  | 3/8        | 3/32   | 0.312 | 41156          | 41160 | ***          | 41164 | -       |

## Style TNG



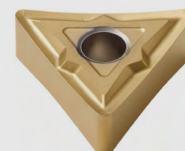
- Clamp Style Insert
- 0° Relief Angle
- Precision Ground all over

| Insert Type |             | Dimensions |       |        |      | Uncoated Grade |       |      | Coated Grade |         |
|-------------|-------------|------------|-------|--------|------|----------------|-------|------|--------------|---------|
| Insert      | ISO         | Corner     |       | Thru   |      | C520           | C550  | CM02 | CM14         | X-Treme |
| Style       | Designation | I.C.       | Width | Radius | Hole | EDP#           | EDP#  | EDP# | EDP#         | EDP #   |
| TNG 221     |             | 1/4        | 1/8   | 1/64   | ***  | 42104          | 42108 | ***  | ***          |         |
| TNG 222     |             | 1/4        | 1/8   | 1/32   | ***  | 42113          | 42114 | ***  | 42115        |         |
| TNG 322     |             | 3/8        | 1/8   | 1/32   | ***  | 42116          | 42120 | ***  | 42124        |         |
| TNG 544     |             | 5/8        | 1/4   | 1/16   | ***  | 42184          | 42188 | ***  | ***          |         |

## 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

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       |       | Coated Grade |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|-------|--------------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02  | CM14         | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#  | EDP#         | EDP #   |
| TNMP 321    | TNMP 16 03 04 | 3/8        | 1/8   | 1/64   | 0.150 | 42596          | 42598 | ***   | 42602        |         |
| TNMP 322    | TNMP 16 03 08 | 3/8        | 1/8   | 1/32   | 0.150 | 42604          | 42606 | 42605 | 42610        |         |
| TNMP 323    | TNMP 16 03 12 | 3/8        | 1/8   | 3/64   | 0.150 | 42612          | 42614 | ***   | 42618        |         |
| TNMP 324    | TNMP 16 03 16 | 3/8        | 1/8   | 1/16   | 0.150 | 42620          | 42622 | ***   | 42626        |         |
| TNMP 331    | TNMP 16 04 04 | 3/8        | 3/16  | 1/64   | 0.150 | 42628          | 42630 | ***   | 42634        |         |
| TNMP 332    | TNMP 16 04 08 | 3/8        | 3/16  | 1/32   | 0.150 | 42636          | 42638 | ***   | 42642        |         |
| TNMP 333    | TNMP 16 04 12 | 3/8        | 3/16  | 3/64   | 0.150 | 42644          | 42646 | ***   | 42650        |         |
| TNMP 431    | TNMP 22 04 04 | 1/2        | 3/16  | 1/64   | 0.203 | 42652          | 42654 | ***   | 42658        |         |
| TNMP 432    | TNMP 22 04 08 | 1/2        | 3/16  | 1/32   | 0.203 | 42660          | 42662 | ***   | 42666        |         |
| TNMP 433    | TNMP 22 04 12 | 1/2        | 3/16  | 3/64   | 0.203 | 42668          | 42670 | ***   | 42674        |         |
| TNMP 434    | TNMP 22 04 16 | 1/2        | 3/16  | 1/16   | 0.203 | 42676          | 42678 | ***   | 42682        |         |
| TNMP 542    | TNMP 27 06 08 | 5/8        | 1/4   | 1/32   | 0.250 | 42684          | 42686 | ***   | 42690        |         |
| TNMP 543    | TNMP 27 06 12 | 5/8        | 1/4   | 3/64   | 0.250 | 42692          | 42694 | ***   | 42698        |         |
| TNMP 544    | TNMP 27 06 16 | 5/8        | 1/4   | 1/16   | 0.250 | 42700          | 42702 | ***   | 42706        |         |



## Style TPEE



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



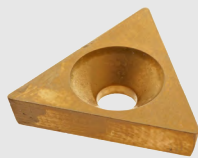
| Insert Type |               | Dimensions |       |        |      | Uncoated Grade |       |      | Coated Grade |         |
|-------------|---------------|------------|-------|--------|------|----------------|-------|------|--------------|---------|
| Insert      | ISO           | Corner     |       | Thru   |      | C520           | C550  | CM02 | CM14         | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole | EDP#           | EDP#  | EDP# | EDP#         | EDP #   |
| TPEE 730    | TPEE 09 02 02 | 7/32       | 3/32  | 0.008  | ***  | 41168          | 41172 | ***  | 41176        |         |
| TPEE 731    | TPEE 09 02 04 | 7/32       | 3/32  | 1/64   | ***  | 41180          | 41184 | ***  | 41188        |         |



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

## Style TPG

| Insert Type |               | Dimensions |       |        |      | Uncoated Grade |       |       | Coated Grade |         |
|-------------|---------------|------------|-------|--------|------|----------------|-------|-------|--------------|---------|
| Insert      | ISO           |            |       | Corner | Thru | C520           | C550  | CM02  | CM14         | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole | EDP#           | EDP#  | EDP#  | EDP#         | EDP #   |
| TPG 220     | TPGN 11 03 01 | 1/4        | 1/8   | 0.004  | ***  | 41192          | 41196 |       | 41200        | -       |
| TPG 221     | TPGN 11 03 04 | 1/4        | 1/8   | 1/64   | ***  | 41204          | 41208 | ***   | 41212        | 41213   |
| TPG 222     | TPGN 11 03 08 | 1/4        | 1/8   | 1/32   | ***  | 41216          | 41220 | ***   | 41224        | -       |
| TPG 320     | TPGN 16 03 01 | 3/8        | 1/8   | 0.004  | ***  | 41228          | 41232 | ***   | 41236        | -       |
| TPG 321     | TPGN 16 03 04 | 3/8        | 1/8   | 1/64   | ***  | 41240          | 41244 | 41245 | 41248        | 41249   |
| TPG 322     | TPGN 16 03 08 | 3/8        | 1/8   | 1/32   | ***  | 41252          | 41256 | 41261 | 41260        | 41262   |
| TPG 323     | TPGN 16 03 12 | 3/8        | 1/8   | 3/64   | ***  | 41264          | 41268 | 41265 | 41272        | -       |
| TPG 324     | TPGN 16 04 16 | 3/8        | 1/8   | 1/16   | ***  | 41276          | 41280 | 41277 | 41284        | -       |
| TPG 430     | TPGN 22 04 01 | 1/2        | 3/16  | 0.004  | ***  | 41285          | 41286 | ***   | 41287        | -       |
| TPG 431     | TPGN 22 04 04 | 1/2        | 3/16  | 1/64   | ***  | 41288          | 41292 | ***   | 41296        | 41299   |
| TPG 432     | TPGN 22 04 08 | 1/2        | 3/16  | 1/32   | ***  | 41300          | 41304 | ***   | 41308        | 41309   |
| TPG 433     | TPGN 22 04 12 | 1/2        | 3/16  | 3/32   | ***  | 41312          | 41316 | ***   | 41320        | -       |
| TPG 434     | TPGN 22 04 16 | 1/2        | 3/16  | 1/16   | ***  | 41324          | 41328 | ***   | 41332        | -       |
| TPG 436     | TPGN 22 04 24 | 1/2        | 3/16  | 3/32   | ***  | 41317          | 41318 | ***   | 41319        | -       |
| TPG 438     | TPGN 22 04 32 | 1/2        | 3/16  | 1/8    | ***  | 41321          | 41322 | ***   | 41323        | -       |
| TPG 542     | TPGN 27 06 08 | 5/8        | 1/4   | 1/32   | ***  | 41325          | 41326 | ***   | 41327        | -       |
| TPG 543     | TPGN 27 06 12 | 5/8        | 1/4   | 3/64   | ***  | 41329          | 41330 | 41337 | 41331        | -       |
| TPG 544     | TPGN 27 06 16 | 5/8        | 1/4   | 1/16   | ***  | 41333          | 41334 | ***   | 41335        | -       |



## Style TPGB

- Screw-On style insert
- 11° Relief Angle
- Single sided without 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

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       |      | Coated Grade |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|------|--------------|---------|
| Insert      | ISO           |            |       | Corner | Thru  | C520           | C550  | CM02 | CM14         | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP# | EDP#         | EDP #   |
| TPGB 221    | TPGB 11 03 04 | 1/4        | 1/8   | 1/64   | 0.118 | 41336          | 41340 | ***  | 41344        |         |
| TPGB 222    | TPGB 11 03 08 | 1/4        | 1/8   | 1/32   | 0.118 | 41348          | 41352 | ***  | 41356        |         |
| TPGB 321    | TPGB 16 03 04 | 3/8        | 1/8   | 1/64   | 0.125 | 41360          | 41364 | ***  | 41368        |         |
| TPGB 322    | TPGB 16 03 08 | 3/8        | 1/8   | 1/32   | 0.125 | 41372          | 41376 | ***  | 41380        |         |





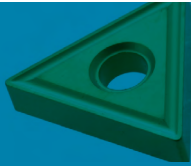
Style  
**TPGC**

- 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

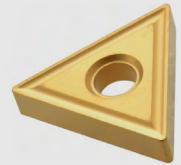


| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TPGC 221    | TPGC 11 03 04 | 1/4        | 3/32  | 1/64   | 0.118 | 41384          | 41388 | ***          | 41392 |         |
| TPGC 222    | TPGC 11 03 08 | 1/4        | 3/32  | 1/32   | 0.118 | 41396          | 41400 | ***          | 41404 |         |
| TPGC 321    | TPGC 16 03 04 | 3/8        | 1/8   | 1/64   | 0.125 | 41408          | 41412 | ***          | 41416 |         |
| TPGC 322    | TPGC 16 03 08 | 3/8        | 1/8   | 1/32   | 0.125 | 41420          | 41424 | ***          | 41428 |         |

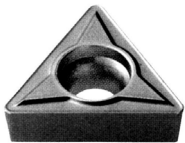
Style  
**TPGH**



| Insert Type  |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|--------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert       | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style        | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TPGH 21.50.5 | TPGH 11 02 02 | 1/4        | 3/32  | 1/64   | 0.110 | 41430          | 41432 | 41434        | 41436 |         |
| TPGH 21.51   | TPGH 11 02 04 | 1/4        | 3/32  | 1/64   | 0.110 | 41444          | 41448 | 41450        | 41452 |         |
| TPGH 21.52   | TPGH 11 02 08 | 1/4        | 3/32  | 1/32   | 0.110 | ***            | 41429 | ***          | 41449 |         |
| TPGH 320.5   | TPGH 16 03 02 | 3/8        | 1/8   | 0.008  | 0.173 | 41451          | 41453 | 41454        | 41455 |         |
| TPGH 321     | TPGH 16 03 04 | 3/8        | 1/8   | 1/64   | 0.173 | 41456          | 41460 | 41462        | 41464 |         |
| TPGH 322     | TPGH 16 03 08 | 3/8        | 1/8   | 1/32   | 0.173 | 41468          | 41472 | 41474        | 41476 |         |
| TPGH 431     | TPGH 22 04 04 | 1/2        | 3/16  | 1/64   | 0.217 | 41477          | 41478 | ***          | 41479 |         |
| TPGH 432     | TPGH 22 04 08 | 1/2        | 3/16  | 1/32   | 0.217 | 41475          | 41481 | ***          | 41482 |         |



- 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

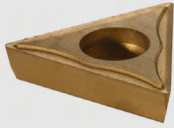


Style  
**TPGM**



- 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

| Insert Type  |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|--------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert       | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style        | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TPGM 21.50.5 | TPGM 11 02 02 | 1/4        | 3/32  | 0.008  | 0.110 | 41480          | 41484 | 41486        | 41488 |         |
| TPGM 21.51   | TPGM 11 02 04 | 1/4        | 3/32  | 1/64   | 0.110 | 41492          | 41496 | 41498        | 41500 |         |
| TPGM 21.52   | TPGM 11 02 08 | 1/4        | 3/32  | 1/32   | 0.110 | 41504          | 41508 | 41510        | 41512 |         |
| TPGM 32.51   | TPGM 16 T3 04 | 3/8        | 5/32  | 1/64   | 0.173 | 41516          | 41520 | 41422        | 41524 |         |
| TPGM 32.52   | TPGM 16 T3 08 | 3/8        | 5/32  | 1/32   | 0.173 | 41528          | 41532 | 41534        | 41536 |         |



- Screw-On Style Insert
- Single sided for semi-finishing and finishing
- 7° Relief Angle
- Used on a wide range of materials
- Aluminum Chipbreaker

## Style TPGT

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TPGT 21.51  | TPGT 11 02 04 | 1/4        | 3/32  | 1/64   | 0.110 | 42220          | 42222 | 42224        | 42226 |         |
| TPGT 21.52  | TPGT 11 02 08 | 1/4        | 3/32  | 1/32   | 0.110 | 42229          | 42231 | 42233        | 42235 |         |
| TPGT 32.51  | TPGT 16 T3 04 | 3/8        | 5/32  | 1/64   | 0.173 | 42242          | 42244 | 42246        | 42248 |         |
| TPGT 32.52  | TPGT 16 T3 08 | 3/8        | 5/32  | 1/32   | 0.173 | 42251          | 42253 | 42255        | 42257 |         |
| TPGT 321    | TPGT 16 T3 04 | 3/8        | 1/8   | 1/64   | 0.173 | 42260          | 42262 | 42264        | 42266 |         |
| TPGT 431    | TPGT 22 04 04 | 1/2        | 3/16  | 1/64   | 0.217 | 42272          | 42274 | 42276        | 42278 |         |
| TPGT 432    | TPGT 22 04 08 | 1/2        | 3/16  | 1/32   | 0.217 | 42281          | 42283 | 42285        | 42287 |         |



- Screw-On Style Insert
- 11° Relief Angle
- Single Sided for Semi-finishing and Finishing
- For Cast Iron and Non-Ferrous Materials



## Style TPGW

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TPGW 322    | TPGW 16 03 08 | 3/8        | 1/8   | 1/32   | 0.173 | 42293          | 42295 | 42297        | 42299 |         |



- Chipbreaker Type
- 11° Relief Angle
- Clamp Insert
- Single sided insert with chipbreaker
- Use for semi finish cuts where chip control is required

## Style TPMR

| Insert Type |               | Dimensions |       |        |      | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |      | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TPMR 730    | TPMR 09 02 02 | 7/32       | 3/32  | 0.008  | ***  | 41576          | 41580 | ***          | 41584 | -       |
| TPMR 731    | TPMR 09 02 04 | 7/32       | 3/32  | 1/64   | ***  | 41588          | 41592 | ***          | 41596 | -       |
| TPMR 221    | TPMR 11 03 04 | 1/4        | 1/8   | 1/64   | ***  | 41540          | 41544 | ***          | 41548 | -       |
| TPMR 222    | TPMR 11 03 08 | 1/4        | 1/8   | 1/32   | ***  | 41549          | 41551 | ***          | 41550 | -       |
| TPMR 321    | TPMR 16 03 04 | 3/8        | 1/8   | 1/64   | ***  | 41552          | 41556 | ***          | 41560 | 41562   |
| TPMR 322    | TPMR 16 03 08 | 3/8        | 1/8   | 1/32   | ***  | 41564          | 41568 | 41575        | 41572 | 41574   |
| TPMR 323    | TPMR 16 03 12 | 3/8        | 1/8   | 3/64   | ***  | ***            | 41573 | 41697        | 41577 | -       |

## Style TPU

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



| Insert Type |               | Dimensions |       |        |      | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |      | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TPU 221     | TPUN 11 03 04 | 1/4        | 1/8   | 1/64   | ***  | 41648          | 41652 | ***          | 41656 | -       |
| TPU 222     | TPUN 11 03 08 | 1/4        | 1/8   | 1/32   | ***  | 41660          | 41664 | ***          | 41668 | -       |
| TPU 321     | TPUN 16 03 04 | 3/8        | 1/8   | 1/64   | ***  | 41672          | 41676 | ***          | 41680 | -       |
| TPU 322     | TPUN 16 03 08 | 3/8        | 1/8   | 1/32   | ***  | 41684          | 41688 | ***          | 41692 | 41694   |
| TPU 323     | TPUN 16 03 12 | 3/8        | 1/8   | 3/64   | ***  | 41696          | 41700 | ***          | 41704 | -       |
| TPU 324     | TPUN 16 04 16 | 3/8        | 1/8   | 1/16   | ***  | 41708          | 41712 | ***          | 41716 | -       |
| TPU 431     | TPUN 22 04 04 | 1/2        | 3/16  | 1/64   | ***  | ***            | ***   | ***          | 41718 | -       |
| TPU 432     | TPUN 22 04 08 | 1/2        | 3/16  | 1/32   | ***  | 41732          | 41736 | 41738        | 41740 | 41741   |
| TPU 433     | TPUN 22 04 12 | 1/2        | 3/16  | 3/64   | ***  | 41744          | 41748 | ***          | 41752 | -       |
| TPU 434     | TPUN 22 04 16 | 1/2        | 3/16  | 1/16   | ***  | 41756          | 41760 | ***          | 41764 | -       |

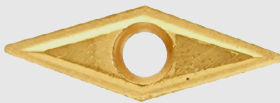
## Style TT



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

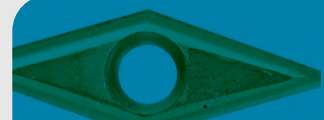
| Insert Type |             | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|-------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO         | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TT 221      | TT 11 03 04 | 1/4        | 1/8   | 1/64   | 0.090 | 41768          | 41772 | ***          | 41776 |         |
| TT 222      | TT 11 03 08 | 1/4        | 1/8   | 1/32   | 0.090 | 41780          | 41784 | ***          | 41788 |         |
| TT 321      | TT 16 03 04 | 3/8        | 1/8   | 1/64   | 0.150 | 41792          | 41796 | ***          | 41800 |         |
| TT 322      | TT 16 03 08 | 3/8        | 1/8   | 1/32   | 0.150 | 41804          | 41808 | ***          | 41812 |         |
| TT 323      | TT 16 03 12 | 3/8        | 1/8   | 3/64   | 0.150 | 41816          | 41820 | ***          | 41824 |         |
| TT 431      | TT 22 04 04 | 1/2        | 3/16  | 1/64   | 0.203 | 41828          | 41832 | ***          | 41836 |         |
| TT 432      | TT 22 04 08 | 1/2        | 3/16  | 1/32   | 0.203 | 41840          | 41844 | ***          | 41848 |         |
| TT 433      | TT 22 04 12 | 1/2        | 3/16  | 3/64   | 0.203 | 41852          | 41856 | ***          | 41860 |         |

## Style VBMT



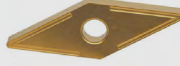
- Screw on insert - 5° Relief Angle
- Used for finishing and profile cuts
- Single sided with chipbreaker

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| VBMT 221CF  | VBMT 11 03 04 | 1/4        | 1/8   | 1/64   | 0.110 | ***            | ***   | 44570        | 44572 |         |
| VBMT 222CF  | VBMT 11 03 08 | 1/4        | 1/8   | 1/32   | 0.110 | ***            | ***   | 44574        | 44576 |         |
| VBMT 331CF  | VBMT 16 04 04 | 3/8        | 3/16  | 1/64   | 0.173 | 44577          | 44579 | 44578        | 44580 |         |
| VBMT 332CF  | VBMT 16 04 08 | 3/8        | 3/16  | 1/32   | 0.173 | 44581          | 44583 | 44582        | 44584 |         |



## Style

# VNMG



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

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           |            |       | Corner | Thru  | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| VNMG 331    | VNMG 16 04 04 | 3/8        | 3/16  | 1/64   | 0.150 | 41864          | 41868 | 41870        | 41872 | 41873   |
| VNMG 332    | VNMG 16 04 08 | 3/8        | 3/16  | 1/32   | 0.150 | 41876          | 41880 | 41882        | 41884 | 41885   |
| VNMG 431    | VNMG 22 04 04 | 1/2        | 3/16  | 1/64   | 0.203 | 41888          | 41892 | 41894        | 41896 | 41899   |
| VNMG 432    | VNMG 22 04 08 | 1/2        | 3/16  | 1/32   | 0.203 | 41900          | 41904 | 41906        | 41908 | 41911   |
| VNMG 433    | VNMG 22 04 12 | 1/2        | 3/16  | 3/64   | 0.203 | 41912          | 41916 | 41918        | 41920 | -       |

## Style

# VNMP

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           |            |       | Corner | Thru  | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| VNMP 331    | VNMP 16 04 04 | 3/8        | 3/16  | 1/64   | 0.150 | 42054          | 42058 | ***          | 42062 |         |
| VNMP 332    | VNMP 16 04 08 | 3/8        | 3/16  | 1/32   | 0.150 | 42066          | 42070 | ***          | 42074 |         |

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



## Style

# WCMT

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |      | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|------|--------------|-------|---------|
| Insert      | ISO           |            |       | Corner | Thru  | C520           | C550 | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP# | EDP#         | EDP#  | EDP #   |
| WCMT 21.51  | WCMT 04 02 04 | 1/4        | 3/32  | 1/64   | 0.110 | ***            | ***  | 44586        | 44588 |         |
| WCMT 32.52  | WCMT 06 T3 08 | 3/8        | 5/32  | 1/32   | 0.173 | ***            | ***  | 44590        | 44592 |         |



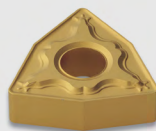
## Style

# WNMA

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |      | Coated Grade |      |         |
|-------------|---------------|------------|-------|--------|-------|----------------|------|--------------|------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550 | CM02         | CM14 | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP# | EDP#         | EDP# | EDP #   |
| WNMA 432    | WNMA 08 04 08 | 1/2        | 3/16  | 0.031  | 0.203 | ***            | ***  | 42050        | ***  |         |

## Style

# WNMG



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

| Insert Type |               | Dimensions |       |        |       | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Thru   |       | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| WNMG 331    | WNMG 06 04 04 | 3/8        | 3/16  | 1/64   | 0.150 | 41921          | 41922 | 41923        | 41931 | -       |
| WNMG 332    | WNMG 06 04 08 | 3/8        | 3/16  | 1/32   | 0.150 | 41925          | 41926 | 41927        | 41929 | -       |
| WNMG 431    | WNMG 08 04 04 | 1/2        | 3/16  | 1/64   | 0.203 | 41924          | 41928 | 41930        | 41932 | 41934   |
| WNMG 432    | WNMG 08 04 08 | 1/2        | 3/16  | 1/32   | 0.203 | 41936          | 41940 | 41942        | 41944 | 41946   |
| WNMG 433    | WNMG 22 04 12 | 1/2        | 3/16  | 3/64   | 0.203 | ***            | ***   | ***          | 41945 | -       |



HELITRONIC MINI AUTOMATION

# MILLING INSERTS

## UNCOATED GRADE

### C520 (C-2)

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)

Designed for heavy roughing to semi-finishing of all steels

## COATED GRADE

### CM02 (C-2)

Multi Layer coating TiC/Al<sub>2</sub>O<sub>3</sub>/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)

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

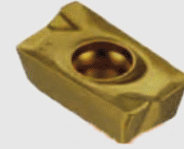
### X-Treme (C-5)

Layer coating TiAlN for turning and milling carbon alloy steels, steel and stainless steel. Provides longer tool life perfect for dry machining due to its good corrosion resistance, high hardness, high heat resistance (800 C-1475 F) and its self lubricating properties.

Style

# ADKT

- - Chipbreaker for Finishing
- - Single sided Insert with chip control
- - Use for Turning and boring
- - Screw on Insert

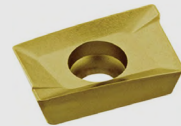


| Insert Type       |             | Dimensions |        |        |       | Uncoated Grade |       |      | Coated Grade |         |
|-------------------|-------------|------------|--------|--------|-------|----------------|-------|------|--------------|---------|
| Insert            | ISO         |            | Corner | Thru   |       | C520           | C550  | CM02 | CM14         | X-Treme |
| Style             | Designation | I.C.       | Width  | Radius | Hole  | EDP#           | EDP#  | EDP# | EDP#         | EDP #   |
| ADKT 1505 PDSR-MM |             | 3/8        | 3/16   | 1/32   | 0.173 | ***            | 42796 | ***  | 42798        |         |

Style

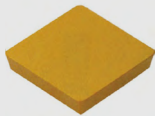
# APKT

- 85 Deg Parallelogram Milling Insert
- For Light Cutting of Steel and Cast Iron at Elevated Speeds



| Insert Type      |             |       | Dimensions |        |          | Uncoated Grade |       |       | Coated Grade |         |
|------------------|-------------|-------|------------|--------|----------|----------------|-------|-------|--------------|---------|
| Insert           | ISO         |       | Radius     | Hole   |          | C520           | C550  | CM02  | CM14         | X-Treme |
| Style            | Designation | I.C.  | I.W.       | ( r )  | Size (d) | EDP#           | EDP#  | EDP#  | EDP#         | EDP #   |
| APKT 1003 PDR-HM |             | 0.441 | 0.264      | 0.020  | 0.110    | 42732          | 42734 | 42738 | 42736        | 42735   |
| APKT 1505 PDR-HM |             | 0.625 | 0.375      | 0.0315 | 0.175    | 42740          | 42742 | 42744 | 42746        | 42747   |
| APKT 1604 PDR-HM |             | 0.625 | 0.375      | 0.0315 | 0.175    | 42748          | 42750 | 42752 | 42754        | 42753   |

Note: TiAlN Available at special request



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

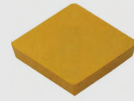
Style

# CTA

| Insert Type |             |       | Dimensions |       |          | Uncoated Grade |       |      | Coated Grade |         |
|-------------|-------------|-------|------------|-------|----------|----------------|-------|------|--------------|---------|
| Insert      | ISO         |       | Radius     | Hole  |          | C520           | C550  | CM02 | CM14         | X-Treme |
| Style       | Designation | I.C.  | I.W.       | ( r ) | Size (d) | EDP#           | EDP#  | EDP# | EDP#         | EDP #   |
| CTA-2       |             | 0.355 | 5/32       | 1/64  | ***      | 42350          | 42352 | ***  | 42354        |         |
| CTA-2       |             | 0.355 | 5/32       | 1/32  | ***      | 42356          | 42358 | ***  | 42360        |         |
| CTA-2       |             | 0.355 | 5/32       | 3/32  | ***      | 42362          | 42364 | ***  | 42366        |         |
| CTA-2       |             | 0.355 | 5/32       | 1/8   | ***      | 42368          | 42370 | ***  | 42372        |         |
| CTA-4       |             | 0.460 | 3/16       | 1/32  | ***      | 42374          | 42376 | ***  | 42378        |         |
| CTA-4       |             | 0.460 | 3/16       | 3/32  | ***      | 42380          | 42382 | ***  | 42384        |         |
| CTA-4       |             | 0.460 | 3/16       | 1/8   | ***      | 42386          | 42388 | ***  | 42390        |         |
| CTA-6       |             | 0.685 | 3/16       | 1/32  | ***      | 42392          | 42394 | ***  | 42396        |         |
| CTA-6       |             | 0.685 | 3/16       | 3/32  | ***      | 42398          | 42400 | ***  | 42402        |         |
| CTA-6       |             | 0.685 | 3/16       | 1/8   | ***      | 42404          | 42406 | ***  | 42408        |         |
| CTA-8       |             | 0.750 | 3/16       | 1/32  | ***      | 42410          | 42412 | ***  | 42414        |         |
| CTA-8       |             | 0.750 | 3/16       | 3/32  | ***      | 42416          | 42418 | ***  | 42420        |         |
| CTA-8       |             | 0.750 | 3/16       | 1/8   | ***      | 42422          | 42424 | ***  | 42426        |         |

Note: X-Treme coating available on request.

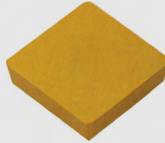
| Insert Type  |                 | Dimensions |       |             |          | Uncoated Grade |       | Coated Grade |       |         |
|--------------|-----------------|------------|-------|-------------|----------|----------------|-------|--------------|-------|---------|
| Insert       | ISO             | Corner     |       | Hole        |          | C520           | C550  | CM02         | CM14  | X-Treme |
| Style        | Designation     | I.C.       | Width | Flat        | Size (d) | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| SEAN-42 AFTN | SEAN 12 03 AFTN | 1/2        | 1/8   | 0.097 X 45° |          | 42446          | 42446 | ***          | 42450 |         |
| SEAN-43 AFTN | SEAN 12 04 AFTN | 1/2        | 3/16  | 0.097 X 45° |          | 42451          | 42451 | ***          | 42455 |         |
| SEAN-53 AFTN | SEAN 15 04 AFTN | 5/8        | 3/16  | 0.097 X 45° |          | 42452          | 42452 | ***          | 42456 |         |
| SEAN-42 AFN  | SEAN 12 03 AFN  | 1/2        | 1/8   | 0.097 X 45° |          | 42457          | 42457 | ***          | 42459 |         |
| SEAN-43 AFN  | SEAN 12 04 AFN  | 1/2        | 3/16  | 0.097 X 45° |          | 42756          | 42756 | ***          | 42762 |         |
| SEAN-53 AFN  | SEAN 15 04 AFN  | 5/8        | 3/16  | 0.097 X 45° |          | 42764          | 42764 | ***          | 42770 |         |



## Style SEAN

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

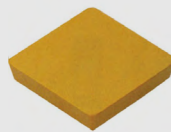
## Style SEC



- Square 20° Positive Milling Insert
- Clamp Style Insert
- Single sided for wide range of milling applications

| Insert Type |               | Dimensions |       |      |          | Uncoated Grade |       | Coated Grade |       |         |
|-------------|---------------|------------|-------|------|----------|----------------|-------|--------------|-------|---------|
| Insert      | ISO           | Corner     |       | Hole |          | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation   | I.C.       | Width | Flat | Size (d) | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| SEC 422     | SECN 12 03 08 | 1/2        | 1/8   | 1/32 |          | 42458          | 42460 | ***          | 42462 |         |
| SEC 424     | SECN 12 03 16 | 1/2        | 1/8   | 1/16 |          | 42464          | 42466 | ***          | 42468 |         |
| SEC 533     | SECN 15 04 12 | 5/8        | 3/16  | 3/64 |          | 42463          | 42465 | ***          | 42467 |         |
| SEC 633     | SECN 19 04 12 | 3/4        | 3/16  | 3/64 |          | 42469          | 42471 | ***          | 42473 |         |
| SEC 634     | SECN 19 04 16 | 3/4        | 3/16  | 1/16 |          | 42470          | 42472 | ***          | 42474 |         |

## Style SEKN



| Insert Type |                 | Dimensions |       |            |          | Uncoated Grade |       | Coated Grade |       |         |
|-------------|-----------------|------------|-------|------------|----------|----------------|-------|--------------|-------|---------|
| Insert      | ISO             | Corner     |       | Hole       |          | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Designation     | I.C.       | Width | Flat       | Size (d) | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| SEKN-42AFN  | SEKN 12 03 AFN  | 1/2        | 1/8   | 3/32 X 45° |          | 46500          | 46501 | ***          | 46502 |         |
| SEKN-42AFTN | SEKN 12 03 AFTN | 1/2        | 1/8   | 3/32 X 45° |          | 46504          | 46505 | ***          | 46506 |         |
| SEKN-42AFSN | SEKN 12 03 AFSN | 1/2        | 1/8   | 3/32 X 45° |          | 46508          | 46509 | ***          | 46510 |         |
| SEKN-43AFN  | SEKN 12 04 AFN  | 1/2        | 3/16  | 3/32 X 45° |          | 46512          | 46513 | ***          | 46514 |         |
| SEKN-43AFTN | SEKN 12 04 AFTN | 1/2        | 3/16  | 3/32 X 45° |          | 46516          | 46517 | ***          | 46518 |         |
| SEKN-53AFN  | SEKN 15 04 AFN  | 5/8        | 3/16  | 1/8 X 45°  |          | 46520          | 46521 | ***          | 46522 |         |
| SEKN-53AFTN | SEKN 16 04 AFTN | 5/8        | 3/16  | 1/8 X 45°  |          | 46524          | 46525 | ***          | 46526 |         |



Style

**SEKR**



| Insert Type  |                 | Dimensions |        |             |          | Uncoated Grade |       | Coated Grade |         |       |
|--------------|-----------------|------------|--------|-------------|----------|----------------|-------|--------------|---------|-------|
| Insert       | ISO             |            | Corner | Hole        | C520     | C550           | CM02  | CM14         | X-Treme |       |
| Style        | Designation     | I.C.       | Width  | Flat        | Size (d) | EDP#           | EDP#  | EDP#         | EDP#    | EDP # |
| SEKR-42 AFTN | SEKR 12 03 AFTN | 1/2        | 1/8    | 0.097 X 45° |          | 42772          | 42774 | 42776        | 42778   |       |
| SEKR-43 AFTN | SEKR 12 04 AFTN | 1/2        | 3/16   | 0.097 X 45° |          | 42780          | 42782 | 42784        | 42786   |       |
| SEKR-53 AFTN | SEKR 15 04 AFTN | 5/8        | 3/16   | 0.097 X 45° |          | 42788          | 42790 | 42792        | 42794   |       |

Style

**SPKN**

| Insert Type  |             | Dimensions |        |       |          | Uncoated Grade |       | Coated Grade |       |         |
|--------------|-------------|------------|--------|-------|----------|----------------|-------|--------------|-------|---------|
| Insert       | ISO         |            | Corner | Hole  |          | C520           | C550  | CM02         | CM14  | X-Treme |
| Style        | Designation | I.C.       | Width  | Flat  | Size (d) | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| SPKN-42 EDR  |             | 1/2        | 1/8    | 0.056 | ****     | 46580          | 46581 | ***          | 46582 |         |
| SPKN-42 EDTR |             | 1/2        | 1/8    | 0.056 | ****     | 46585          | 46584 | ***          | 46586 |         |
| SPKN-43 EDR  |             | 1/2        | 3/16   | 0.056 | ****     | 46588          | 46589 | ***          | 46590 |         |
| SPKN-53 EDR  |             | 5/8        | 3/16   | 0.056 | ****     | 46592          | 46593 | ***          | 46594 |         |
| SPKN-53 EDTR |             | 5/8        | 3/16   | 0.056 | ****     | 46596          | 46597 | ***          | 46598 |         |

 COBRACARBIDE®  
Power. Precision. Performance.

# THREADING INSERTS

## Notched Style Carbide Threading Inserts

### UNCOATED GRADE

#### C520 (C-2)

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)

Designed for heavy roughing to semi-finishing of all steels

### COATED GRADE

#### CM02 (C-2)

Multi Layer coating TiC/Al<sub>2</sub>O<sub>3</sub>/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.

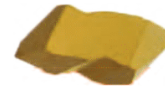
#### CM-14 (C-5)

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

#### X-Treme (C-5)

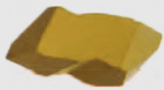
Layer coating TiAlN for turning and milling carbon alloy steels, steel and stainless steel. Provides longer tool life perfect for dry machining due to its good corrosion resistance, high hardness, high heat resistance (800 C-1475 F) and its self lubricating properties.

## Style NT - Left Hand



| Insert Type |        | Dimensions       |                  |      | Uncoated Grade |       |       | Coated Grade |         |
|-------------|--------|------------------|------------------|------|----------------|-------|-------|--------------|---------|
| Insert      | Insert | Threads Per Inch | Threads Per Inch | Thru | C520           | C550  | CM02  | CM14         | X-Treme |
| Style       | No.    | External         | Internal         | Hole | EDP#           | EDP#  | EDP#  | EDP#         | EDP #   |
| NT-2L       | 2 LH   | 8-36             | 7-20             |      | 43472          | 43474 | 43475 | 43476        |         |
| NT-3L       | 3 LH   | 6-20             | 5-12             |      | 43496          | 43498 | 43499 | 43500        |         |
| NT-4L       | 4 LH   | 4-20             | 4-12             |      | 43520          | 43522 | 43523 | 43524        |         |

## Style NT - Right Hand



| Insert Type |        | Dimensions       |                  |      | Uncoated Grade |       |       | Coated Grade |         |
|-------------|--------|------------------|------------------|------|----------------|-------|-------|--------------|---------|
| Insert      | Insert | Threads Per Inch | Threads Per Inch | Thru | C520           | C550  | CM02  | CM14         | X-Treme |
| Style       | No.    | External         | Internal         | Hole | EDP#           | EDP#  | EDP#  | EDP#         | EDP #   |
| NT-2R       | 2 RH   | 8-36             | 7-20             |      | 43480          | 43484 | 43486 | 43488        |         |
| NT-3R       | 3 RH   | 6-20             | 5-12             |      | 43504          | 43508 | 43510 | 43512        |         |
| NT-4R       | 4 RH   | 4-20             | 4-12             |      | 43528          | 43532 | 43534 | 43536        |         |

## Style NTP - Left Hand



| Insert Type |        | Dimensions       |                  |      | Uncoated Grade |       |       | Coated Grade |         |
|-------------|--------|------------------|------------------|------|----------------|-------|-------|--------------|---------|
| Insert      | Insert | Threads Per Inch | Threads Per Inch | Thru | C520           | C550  | CM02  | CM14         | X-Treme |
| Style       | No.    | External         | Internal         | Hole | EDP#           | EDP#  | EDP#  | EDP#         | EDP #   |
| NTP-2L      | 2 LH   | 8-36             | 7-20             |      | 43544          | 43546 | 43547 | 43548        |         |
| NTP-3L      | 3 LH   | 6-20             | 5-12             |      | 43564          | 43568 | 43570 | 43572        |         |
| NTP-4L      | 4 LH   | 4-20             | 4-12             |      | 43590          | 43592 | 43594 | 43596        |         |

## Style NTP - Right Hand



| Insert Type |        | Dimensions       |                  |      | Uncoated Grade |       |       | Coated Grade |         |
|-------------|--------|------------------|------------------|------|----------------|-------|-------|--------------|---------|
| Insert      | Insert | Threads Per Inch | Threads Per Inch | Thru | C520           | C550  | CM02  | CM14         | X-Treme |
| Style       | No.    | External         | Internal         | Hole | EDP#           | EDP#  | EDP#  | EDP#         | EDP #   |
| NTP-2R      | 2 RH   | 8-36             | 7-20             |      | 43556          | 43558 | 43559 | 43560        |         |
| NTP-3R      | 3 RH   | 6-20             | 5-12             |      | 43580          | 43582 | 43583 | 43584        |         |
| NTP-4R      | 4 RH   | 4-20             | 4-12             |      | 43604          | 43606 | 43607 | 43608        |         |





is a neutral rake insert with a through hole

## Style TNMA

| Insert Type |      |       | Dimensions       |                  |      | Uncoated Grade |       | Coated Grade |       |         |
|-------------|------|-------|------------------|------------------|------|----------------|-------|--------------|-------|---------|
| Insert      |      |       | Threads Per Inch | Threads Per Inch | Thru | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | I.C. | width | External         | Internal         | Hole | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TNMA 32NV   | 3/8  | 1/8   | 8-36             | 8-20             |      | 43612          | 43616 | 43618        | 43620 |         |
| TNMA 43NV   | 1/2  | 3/16  | 6-20             | 6-12             |      | 43624          | 43628 | 43630        | 43632 |         |
| TNMA 54NV   | 5/8  | 1/4   | 4-20             | 4-12             |      | 43636          | 43640 | 43642        | 43644 |         |
| TNMA 64NV   | 3/4  | 1/4   | 4-20             | ***              |      | 43637          | 43638 | 43641        | 43639 |         |
| TNMA 66NV   | 3/4  | 3/8   | 3-12             | ***              |      | 43643          | 43645 | 43646        | 43647 |         |

## Style TNMA RIGHT HAND

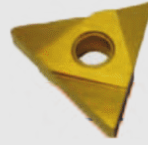


• 0° Precision Ground with a straight through hole

| Insert Type    |       |        | Dimensions       |                  |      | Uncoated Grade |       | Coated Grade |       |         |
|----------------|-------|--------|------------------|------------------|------|----------------|-------|--------------|-------|---------|
| Insert         |       | Insert | Threads Per Inch | Threads Per Inch | Thru | C520           | C550  | CM02         | CM14  | X-Treme |
| Style          | width | No.    | External         | Internal         | Hole | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TNMA 32NGR 031 | 3/8   | 1/8    | 1/32             | 0.075            |      | 43923          | 43927 | 43929        | 43931 |         |
| TNMA 32NGR 062 | 3/8   | 1/8    | 1/16             | 0.150            |      | 43924          | 43928 | 43930        | 43932 |         |
| TNMA 32NGR 094 | 3/8   | 1/8    | 3/32             | 0.150            |      | 43936          | 43940 | 43942        | 43944 |         |
| TNMA 32NGR 125 | 3/8   | 1/8    | 1/8              | 0.150            |      | 43948          | 43952 | 43954        | 43956 |         |
| TNMA 43NGR 062 | 1/2   | 3/16   | 1/16             | 0.125            |      | 43949          | 43953 | 43955        | 43957 |         |
| TNMA 43NGR 094 | 1/2   | 3/16   | 3/32             | 0.150            |      | 43958          | 43959 | 43961        | 43963 |         |
| TNMA 43NGR 125 | 1/2   | 3/16   | 1/8              | 0.210            |      | 43960          | 43964 | 43966        | 43968 |         |
| TNMA 43NGR 156 | 1/2   | 3/16   | 5/32             | 0.210            |      | 43972          | 43976 | 43978        | 43980 |         |
| TNMA 43NGR 187 | 1/2   | 3/16   | 3/16             | 0.210            |      | 43984          | 43988 | 43990        | 43992 |         |
| TNMA 54NGR 250 | 5/8   | 1/4    | 1/4              | 0.270            |      | 43996          | 44000 | 44002        | 44004 |         |



# Style TNMA LEFT HAND



- 0° Precision Ground with a straight through hole

| Insert Type    |       |        | Dimensions       |                  |      | Uncoated Grade |       | Coated Grade |       |         |
|----------------|-------|--------|------------------|------------------|------|----------------|-------|--------------|-------|---------|
| Insert         |       | Insert | Threads Per Inch | Threads Per Inch | Thru | C520           | C550  | CM02         | CM14  | X-Treme |
| Style          | width | No.    | External         | Internal         | Hole | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TNMA 32NGL 031 | 3/8   | 1/8    | 0.031            | 0.075            |      | 44007          | 44011 | 44013        | 44015 |         |
| TNMA 32NGL 062 | 3/8   | 1/8    | 0.062            | 0.150            |      | 44008          | 44012 | 44014        | 44016 |         |
| TNMA 32NGL 094 | 3/8   | 1/8    | 0.094            | 0.150            |      | 44020          | 44024 | 44026        | 44028 |         |
| TNMA 43NGL 062 | 1/2   | 3/16   | 0.062            | 0.125            |      | 44029          | 44030 | 44031        | 44033 |         |
| TNMA 43NGL 094 | 1/2   | 3/16   | 0.094            | 0.150            |      | 44034          | 44035 | 44037        | 44039 |         |
| TNMA 43NGL 125 | 1/2   | 3/16   | 0.125            | 0.210            |      | 44032          | 44036 | 44038        | 44040 |         |
| TNMA 43NGL 156 | 1/2   | 3/16   | 0.156            | 0.210            |      | 44044          | 44048 | 44050        | 44052 |         |
| TNMA 43NGL 187 | 1/2   | 3/16   | 0.187            | 0.210            |      | 44056          | 44058 | 44060        | 44062 |         |

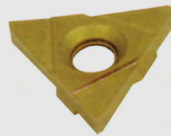


| Insert Type |       |        | Dimensions       |                  |      | Uncoated Grade |       | Coated Grade |       |         |
|-------------|-------|--------|------------------|------------------|------|----------------|-------|--------------|-------|---------|
| Insert      |       | Insert | Threads Per Inch | Threads Per Inch | Thru | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | width | No.    | External         | Internal         | Hole | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TNMC 32NV   | 3/8   | 1/8    | 8-36             | 8-20             |      | 43648          | 43652 | 43654        | 43656 |         |
| TNMC 43NV   | 1/2   | 3/16   | 6-20             | 6-12             |      | 43660          | 43664 | 43666        | 43668 |         |
| TNMC 54NV   | 5/8   | 1/4    | 4-20             | 4-12             |      | 43672          | 43676 | 43678        | 43680 |         |

# Style TNMC

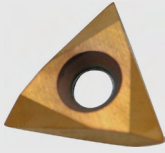
- Is a neutral rake insert with through hole
- Countersunk on two sides

# Style TNMC LEFT HAND



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

| Insert Type    |       |        | Dimensions       |                  |      | Uncoated Grade |       | Coated Grade |       |         |
|----------------|-------|--------|------------------|------------------|------|----------------|-------|--------------|-------|---------|
| Insert         |       | Insert | Threads Per Inch | Threads Per Inch | Thru | C520           | C550  | CM02         | CM14  | X-Treme |
| Style          | width | No.    | External         | Internal         | Hole | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TNMA 32NGL 031 | 3/8   | 1/8    | 0.031            | 0.075            |      | 44007          | 44011 | 44013        | 44015 |         |
| TNMA 32NGL 062 | 3/8   | 1/8    | 0.062            | 0.150            |      | 44008          | 44012 | 44014        | 44016 |         |
| TNMA 32NGL 094 | 3/8   | 1/8    | 0.094            | 0.150            |      | 44020          | 44024 | 44026        | 44028 |         |
| TNMA 43NGL 062 | 1/2   | 3/16   | 0.062            | 0.125            |      | 44029          | 44030 | 44031        | 44033 |         |
| TNMA 43NGL 094 | 1/2   | 3/16   | 0.094            | 0.150            |      | 44034          | 44035 | 44037        | 44039 |         |
| TNMA 43NGL 125 | 1/2   | 3/16   | 0.125            | 0.210            |      | 44032          | 44036 | 44038        | 44040 |         |
| TNMA 43NGL 156 | 1/2   | 3/16   | 0.156            | 0.210            |      | 44044          | 44048 | 44050        | 44052 |         |
| TNMA 43NGL 187 | 1/2   | 3/16   | 0.187            | 0.210            |      | 44056          | 44058 | 44060        | 44062 |         |



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

## Style **TNMC** RIGHT HAND

| Insert Type    |       |        | Dimensions       |                  |      | Uncoated Grade |       | Coated Grade |       |         |
|----------------|-------|--------|------------------|------------------|------|----------------|-------|--------------|-------|---------|
| Insert         |       | Insert | Threads Per Inch | Threads Per Inch | Thru | C520           | C550  | CM02         | CM14  | X-Treme |
| Style          | width | No.    | External         | Internal         | Hole | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TNMC 32NGR 031 | 3/8   | 1/8    | 0.031            | 0.075            |      | 43753          | 43754 | 43755        | 43757 |         |
| TNMC 32NGR 062 | 3/8   | 1/8    | 0.062            | 0.150            |      | 43756          | 43760 | 43762        | 43764 |         |
| TNMC 32NGR 094 | 3/8   | 1/8    | 0.094            | 0.150            |      | 43768          | 43772 | 43774        | 43776 |         |
| TNMC 32NGR 125 | 3/8   | 1/8    | 0.125            | 0.150            |      | 43780          | 43784 | 43786        | 43788 |         |
| TNMC 43NGR 062 | 1/2   | 3/16   | 0.062            | 0.125            |      | 43789          | 43790 | 43791        | 43793 |         |
| TNMC 43NGR 094 | 1/2   | 3/16   | 0.094            | 0.150            |      | 43794          | 43795 | 43797        | 43799 |         |
| TNMC 43NGR 125 | 1/2   | 3/16   | 0.125            | 0.210            |      | 43792          | 43796 | 43798        | 43800 |         |
| TNMC 43NGR 156 | 1/2   | 3/16   | 0.156            | 0.210            |      | 43804          | 43808 | 43810        | 43812 |         |
| TNMC 43NGR 187 | 1/2   | 3/16   | 0.187            | 0.210            |      | 43816          | 43820 | 43822        | 43824 |         |
| TNMC 54NGR 250 | 1/2   | 1/4    | 0.250            | 0.270            |      | 43826          | 43828 | 43829        | 43830 |         |

## Style **TPMA**



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

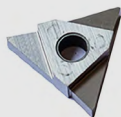
| Insert Type |     |          | Dimensions       |                  |      | Uncoated Grade |       | Coated Grade |       |         |
|-------------|-----|----------|------------------|------------------|------|----------------|-------|--------------|-------|---------|
| Insert      |     | Insert   | Threads Per Inch | Threads Per Inch | Thru | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | No. | External | Internal         | Hole             | EDP# | EDP#           | EDP#  | EDP#         | EDP # |         |
| TPMA-32NV   | 3/8 | 1/8      | 8-36             | 8-20             |      | 43684          | 43688 | 43690        | 43692 |         |
| TPMA-43NV   | 1/2 | 3/16     | 6-20             | 6-12             |      | 43696          | 43700 | 43702        | 43704 |         |
| TPMA-54NV   | 5/8 | 1/4      | 4-20             | 4-12             |      | 43708          | 43712 | 43714        | 43716 |         |



10° Positive Rake Precision Ground with straight through hole

## Style **TPMA** RIGHT HAND

| Insert Type    |       |        | Dimensions       |                  |      | Uncoated Grade |       | Coated Grade |       |         |
|----------------|-------|--------|------------------|------------------|------|----------------|-------|--------------|-------|---------|
| Insert         |       | Insert | Threads Per Inch | Threads Per Inch | Thru | C520           | C550  | CM02         | CM14  | X-Treme |
| Style          | width | No.    | External         | Internal         | Hole | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TPMA-32NGR 062 | 3/8   | 1/8    | 1/16             | 0.150            |      | 43874          | 43875 | 43876        | 43878 |         |
| TPMA-32NGR 125 | 3/8   | 1/8    | 1/8              | 0.125            |      | 43880          | 43882 | 43883        | 43884 |         |
| TPMA 43NGR 125 | 1/2   | 3/16   | 1/8              | 0.210            |      | 43885          | 43886 | 43887        | 43888 |         |
| TPMA-43NGR 187 | 1/2   | 3/16   | 3/16             | 0.187            |      | 43892          | 43894 | 43895        | 43896 |         |
| TPMA-54NGR 250 | 5/8   | 1/4    | 1/4              | 0.254            |      | 43900          | 43902 | 43903        | 43904 |         |



Style

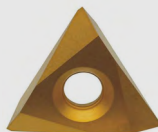
**TPMA LEFT HAND**

| Insert Type    |      | Dimensions |              |                | Uncoated Grade |       | Coated Grade |       |         |
|----------------|------|------------|--------------|----------------|----------------|-------|--------------|-------|---------|
| Insert         |      |            |              |                | C520           | C550  | CM02         | CM14  | X-Treme |
| Style          | I.C. | Thickness  | Groove Width | "Depth of Cut" | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TPMA 32NGL 062 | 3/8  | 1/8        | 1/16         | 0.150          | 44064          | 44066 | 44068        | 44070 |         |
| TPMA 43NGL 125 | 1/2  | 3/16       | 1/8          | 0.210          | 44072          | 44074 | 44076        | 44078 |         |

Style **TPMC**



| Insert Type |        |     | Dimensions       |                  |      | Uncoated Grade |       | Coated Grade |       |         |
|-------------|--------|-----|------------------|------------------|------|----------------|-------|--------------|-------|---------|
| Insert      | Insert |     | Threads Per Inch | Threads Per Inch | Thru | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | width  | No. | External         | Internal         | Hole | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TPMC-32NV   | 3/8    |     | 1/8              | 8-20             |      | 43720          | 43724 | 43726        | 43728 |         |
| TPMC-43NV   | 1/2    |     | 3/16             | 6-12             |      | 43732          | 43736 | 43738        | 43740 |         |
| TPMC-54NV   | 5/8    |     | 1/4              | 4-12             |      | 43744          | 43748 | 43750        | 43752 |         |



Style

**TPMC RIGHT HAND**

| Insert Type    |      | Dimensions |              |                | Uncoated Grade |       | Coated Grade |       |         |
|----------------|------|------------|--------------|----------------|----------------|-------|--------------|-------|---------|
| Insert         |      |            |              |                | C520           | C550  | CM02         | CM14  | X-Treme |
| Style          | I.C. | Thick-ness | Groove Width | "Depth of Cut" | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TPMC 32NGR 062 | 3/8  | 1/8        | 1/16         | 0.150          | 42980          | 42982 | 42984        | 42986 |         |
| TPMC 32NGR 125 | 3/8  | 1/8        | 1/8          | 0.125          | 43906          | 43907 | 43909        | 42987 |         |
| TPMC 43NGR 125 | 1/2  | 3/16       | 1/8          | 0.210          | 42988          | 42990 | 42992        | 42994 |         |
| TPMC 43NGR 187 | 1/2  | 3/16       | 3/16         | 0.187          | 43910          | 43912 | -            | 43920 |         |
| TPMC 54NGR 250 | 5/8  | 1/4        | 1/4          | 0.254          | 43916          | 43918 | 43921        | 43922 |         |



Style

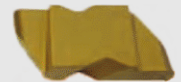
**TPMC LEFT HAND**

| Insert Type    |      | Dimensions |              |                | Uncoated Grade |       | Coated Grade |       |         |
|----------------|------|------------|--------------|----------------|----------------|-------|--------------|-------|---------|
| Insert         |      |            |              |                | C520           | C550  | CM02         | CM14  | X-Treme |
| Style          | I.C. | Thickness  | Groove Width | "Depth of Cut" | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| TPMC 32NGL 062 | 3/8  | 1/8        | 1/16         | 0.150          | 44080          | 44082 | 44084        | 44086 |         |
| TPMC 43NGL 125 | 1/2  | 3/16       | 1/8          | 0.210          | 44088          | 44090 | 44092        | 44094 |         |

| Insert Type |      | Dimensions   |                |                 | Uncoated Grade |       | Coated Grade |       |         |
|-------------|------|--------------|----------------|-----------------|----------------|-------|--------------|-------|---------|
| Insert      |      |              |                |                 | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | I.C. | Groove Width | "Depth of Cut" | "Insert Radius" | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| NR 3031L    | 3LH  | 0.062        | 0.094          | 0.031           | 43250          | 43251 | 43252        | 43254 |         |
| NR 3047L    | 3LH  | 0.094        | 0.150          | 0.047           | 43256          | 43257 | 43258        | 43260 |         |
| NR 3062L    | 3LH  | 0.125        | 0.150          | 0.062           | 43262          | 43263 | 43264        | 43266 |         |
| NR 3078L    | 3LH  | 0.156        | 0.150          | 0.078           | 43268          | 43269 | 43270        | 43272 |         |
| NR 3094L    | 3LH  | 0.188        | 0.150          | 0.094           | 43274          | 43275 | 43276        | 43278 |         |
| NR 4062L    | 4LH  | 0.125        | 0.250          | 0.062           | 43280          | 43281 | 43282        | 43284 |         |
| NR 4094L    | 4LH  | 0.188        | 0.250          | 0.094           | 43286          | 43287 | 43288        | 43290 |         |
| NR 4125L    | 4LH  | 0.250        | 0.250          | 0.125           | 43292          | 43293 | 43294        | 43296 |         |

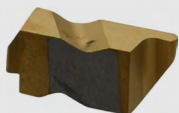
Style

**NR LEFT HAND**



Style

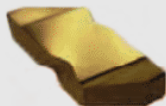
**NR RIGHT HAND**



| Insert Type |      | Dimensions   |                |                 | Uncoated Grade |       | Coated Grade |       |         |
|-------------|------|--------------|----------------|-----------------|----------------|-------|--------------|-------|---------|
| Insert      |      |              |                |                 | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | I.C. | Groove Width | "Depth of Cut" | "Insert Radius" | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| NR 3031R    | 3RH  | 0.062        | 0.094          | 0.031           | 43400          | 43401 | 43402        | 43404 |         |
| NR 3047R    | 3RH  | 0.094        | 0.150          | 0.047           | 43406          | 43407 | 43408        | 43410 |         |
| NR 3062R    | 3RH  | 0.125        | 0.150          | 0.062           | 43412          | 43413 | 43414        | 43416 |         |
| NR 3078R    | 3RH  | 0.156        | 0.150          | 0.078           | 43418          | 43419 | 43420        | 43422 |         |
| NR 3094R    | 3RH  | 0.188        | 0.150          | 0.094           | 43424          | 43425 | 43426        | 43428 |         |
| NR 4062R    | 4RH  | 0.125        | 0.250          | 0.062           | 43430          | 43431 | 43432        | 43434 |         |
| NR 4094R    | 4RH  | 0.188        | 0.250          | 0.094           | 43436          | 43437 | 43438        | 43440 |         |
| NR 4125R    | 4RH  | 0.250        | 0.250          | 0.125           | 43442          | 43443 | 43444        | 43446 |         |



Style  
**NG LEFT  
HAND**



| Insert Type |        | Dimensions |              |                | Uncoated Grade  |       | Coated Grade |       |         |
|-------------|--------|------------|--------------|----------------|-----------------|-------|--------------|-------|---------|
| Insert      | Insert |            |              |                | C520            | C550  | CM02         | CM14  | X-Treme |
| Style       | Size   | I.C.       | Groove Width | "Depth of Cut" | "Insert Radius" | EDP#  | EDP#         | EDP#  | EDP #   |
| NG2031L     | 2LH    |            | 0.031        | 0.050          |                 | 46884 | 46886        | 46888 | 46890   |
| NG2041L     | 2LH    |            | 0.041        | 0.050          |                 | 46892 | 46894        | 46896 | 46898   |
| NG2047L     | 2LH    |            | 0.047        | 0.050          |                 | 46900 | 46902        | 46904 | 46906   |
| NG2056L     | 2LH    |            | 0.056        | 0.050          |                 | 46908 | 46910        | 46912 | 46914   |
| NG2062L     | 2LH    |            | 0.062        | 0.050          |                 | 46916 | 46918        | 46920 | 46922   |
| NG2094L     | 2LH    |            | 0.094        | 0.110          |                 | 46924 | 46926        | 46928 | 46930   |
| NG2125L     | 2LH    |            | 0.125        | 0.110          |                 | 46932 | 46934        | 46936 | 46938   |
| NG3031L     | 3LH    |            | 0.031        | 0.075          |                 | 46940 | 46942        | 46944 | 46946   |
| NG3047L     | 3LH    |            | 0.047        | 0.075          |                 | 46948 | 46950        | 46952 | 46954   |
| NG3062L     | 3LH    |            | 0.062        | 0.094          |                 | 46956 | 46958        | 46960 | 46962   |
| NG3072L     | 3LH    |            | 0.072        | 0.094          |                 | 46964 | 46966        | 46968 | 46970   |
| NG3088L     | 3LH    |            | 0.088        | 0.094          |                 | 46972 | 46974        | 46976 | 46978   |
| NG3094L     | 3LH    |            | 0.094        | 0.150          |                 | 46980 | 46982        | 46984 | 46986   |
| NG3097L     | 3LH    |            | 0.097        | 0.150          |                 | 46988 | 46990        | 46992 | 46994   |
| NG3105L     | 3LH    |            | 0.105        | 0.150          |                 | 46996 | 46998        | 47000 | 47002   |
| NG3125L     | 3LH    |            | 0.125        | 0.150          |                 | 47004 | 47006        | 47008 | 47010   |
| NG3142L     | 3LH    |            | 0.142        | 0.150          |                 | 47012 | 47014        | 47016 | 47018   |
| NG3156L     | 3LH    |            | 0.156        | 0.150          |                 | 47020 | 47022        | 47024 | 47026   |
| NG3178L     | 3LH    |            | 0.178        | 0.150          |                 | 47028 | 47030        | 47032 | 47034   |
| NG3189L     | 3LH    |            | 0.189        | 0.150          |                 | 47036 | 47038        | 47040 | 47042   |
| NG4125L     | 4LH    |            | 0.125        | 0.250          |                 | 47044 | 47046        | 47048 | 47050   |
| NG4189L     | 4LH    |            | 0.189        | 0.250          |                 | 47052 | 47054        | 47056 | 47058   |
| NG4250L     | 4LH    |            | 0.250        | 0.250          |                 | 47060 | 47062        | 47064 | 47066   |

Style  
**NG RIGHT HAND**



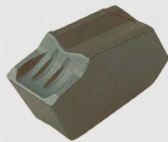
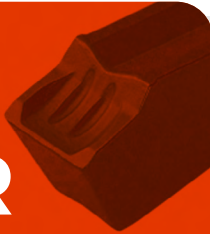
| Insert Type |        | Dimensions |              |                |                 | Uncoated Grade |       | Coated Grade |       |         |
|-------------|--------|------------|--------------|----------------|-----------------|----------------|-------|--------------|-------|---------|
| Insert      | Insert |            |              |                |                 | C520           | C550  | CM02         | CM14  | X-Treme |
| Style       | Size   | I.C.       | Groove Width | "Depth of Cut" | "Insert Radius" | EDP#           | EDP#  | EDP#         | EDP#  | EDP #   |
| NG 2031R    | 2RH    |            | 0.031        | 0.050          |                 | 46700          | 46702 | 46704        | 46706 |         |
| NG 2041R    | 2RH    |            | 0.041        | 0.050          |                 | 46708          | 46710 | 46712        | 46714 |         |
| NG 2047R    | 2RH    |            | 0.047        | 0.050          |                 | 46716          | 46718 | 46720        | 46722 |         |
| NG 2056R    | 2RH    |            | 0.056        | 0.050          |                 | 46724          | 46726 | 46728        | 46730 |         |
| NG 2062R    | 2RH    |            | 0.062        | 0.050          |                 | 46732          | 46734 | 46736        | 46738 |         |
| NG 2094R    | 2RH    |            | 0.094        | 0.110          |                 | 46740          | 46742 | 46744        | 46746 |         |
| NG 2125R    | 2RH    |            | 0.125        | 0.110          |                 | 46748          | 46750 | 46752        | 46754 |         |
| NG 3031R    | 3RH    |            | 0.031        | 0.075          |                 | 46756          | 46758 | 46760        | 46762 |         |
| NG 3047R    | 3RH    |            | 0.047        | 0.075          |                 | 46764          | 46766 | 46768        | 46770 |         |
| NG 3062R    | 3RH    |            | 0.062        | 0.094          |                 | 46772          | 46774 | 46776        | 46778 |         |
| NG 3072R    | 3RH    |            | 0.072        | 0.094          |                 | 46780          | 46782 | 46784        | 46786 |         |
| NG 3088R    | 3RH    |            | 0.088        | 0.094          |                 | 46788          | 46790 | 46792        | 46794 |         |
| NG 3094R    | 3RH    |            | 0.094        | 0.150          |                 | 46796          | 46798 | 46800        | 46802 |         |
| NG 3097R    | 3RH    |            | 0.097        | 0.150          |                 | 46804          | 46806 | 46808        | 46810 |         |
| NG 3105R    | 3RH    |            | 0.105        | 0.150          |                 | 46812          | 46814 | 46816        | 46818 |         |
| NG 3125R    | 3RH    |            | 0.125        | 0.150          |                 | 46820          | 46822 | 46824        | 46826 |         |
| NG 3142R    | 3RH    |            | 0.142        | 0.150          |                 | 46828          | 46830 | 46832        | 46834 |         |
| NG 3156R    | 3RH    |            | 0.156        | 0.150          |                 | 46836          | 46838 | 46840        | 46842 |         |
| NG 3178R    | 3RH    |            | 0.178        | 0.150          |                 | 46844          | 46846 | 46848        | 46850 |         |
| NG 3189R    | 3RH    |            | 0.189        | 0.150          |                 | 46852          | 46854 | 46856        | 46858 |         |
| NG 4125R    | 4RH    |            | 0.125        | 0.250          |                 | 46860          | 46862 | 46864        | 46866 |         |
| NG 4189R    | 4RH    |            | 0.189        | 0.250          |                 | 46868          | 46870 | 46872        | 46874 |         |
| NG 4250R    | 4RH    |            | 0.250        | 0.250          |                 | 46876          | 46878 | 46880        | 46882 |         |

Style  
**GTN**



| Insert  | Lead  | "w"   | C520  | C550  | CM02 | CM14  | X-Treme |
|---------|-------|-------|-------|-------|------|-------|---------|
| Style   | Angle | Width | EDP#  | EDP#  | EDP# | EDP#  | EDP #   |
| GTN-2   | 0°    | 0.087 | 43000 | 43004 | ***  | 43008 |         |
| GTN-2.4 | 0°    | 0.094 | 43012 | 43016 | ***  | 43020 |         |
| GTN-3   | 0°    | 0.120 | 43024 | 43028 | ***  | 43032 |         |
| GTN-4   | 0°    | 0.160 | 43036 | 43040 | ***  | 43044 |         |
| GTN-4.8 | 0°    | 0.187 | 43048 | 43052 | ***  | 43056 |         |
| GTN-5   | 0°    | 0.200 | 43060 | 43064 | ***  | 43068 |         |
| GTN-6   | 0°    | 0.250 | 43072 | 43076 | ***  | 43080 |         |

Style  
**GTR**



| Insert  | Lead  | "w"   | C520  | C550  | CM02 | CM14  | X-Treme |
|---------|-------|-------|-------|-------|------|-------|---------|
| Style   | Angle | Width | EDP#  | EDP#  | EDP# | EDP#  | EDP #   |
| GTR-2   | 8°    | 0.087 | 43096 | 43100 | ***  | 43104 |         |
| GTR-2.4 | 8°    | 0.094 | 43108 | 43112 | ***  | 43116 |         |
| GTR-3   | 8°    | 0.120 | 43120 | 43124 | ***  | 43128 |         |
| GTR-4   | 8°    | 0.160 | 43132 | 43136 | ***  | 43140 |         |
| GTR-4.8 | 8°    | 0.187 | 43144 | 43148 | ***  | 43152 |         |
| GTR-5   | 8°    | 0.200 | 43160 | 46162 | ***  | 43164 |         |
| GTR-6   | 8°    | 0.250 | 43170 | 43172 | ***  | 43174 |         |

Style  
**GTL**



| Insert | Lead  | "w"   | C520  | C550  | CM02 | CM14  | X-Treme |
|--------|-------|-------|-------|-------|------|-------|---------|
| Style  | Angle | Width | EDP#  | EDP#  | EDP# | EDP#  | EDP #   |
| GTL-2  | 8°    | 0.087 | 43178 | 43182 | ***  | 43186 |         |
| GTL-3  | 8°    | 0.120 | 42190 | 43194 | ***  | 43176 |         |
| GTL-4  | 8°    | 0.160 | 43202 | 43206 | ***  | 43210 |         |
| GTL-5  | 8°    | 0.200 | 43214 | 43218 | ***  | 43200 |         |
| GTL-6  | 8°    | 0.250 | 43226 | 43230 | ***  | 43234 |         |





# HI-POLISH ALUMINUM INSERTS

## UNCOATED GRADE

### C520 (C-2)

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)

Designed for heavy roughing to semi-finishing of all steels

## COATED GRADE

### CM02 (C-2)

Multi Layer coating TiC/Al<sub>2</sub>O<sub>3</sub>/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)

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

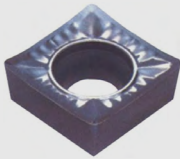
### X-Treme (C-5)

Layer coating TiAlN for turning and milling carbon alloy steels, steel and stainless steel. Provides longer tool life perfect for dry machining due to its good corrosion resistance, high hardness, high heat resistance (800 C-1475 F) and its self lubricating properties.



Style

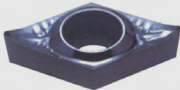
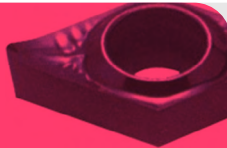
**CCGX**



| Insert Type |               | Dimensions |       |        |       | Aluminum Grade |
|-------------|---------------|------------|-------|--------|-------|----------------|
| Insert      | ISO           |            |       | Corner | Thru  | C2             |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           |
| CCGX 21.505 | CCGX 06 02 02 | 1/4        | 3/32  | 0.008  | 0.110 | 71097          |
| CCGX 21.51  | CCGX 06 02 04 | 1/4        | 3/32  | 1/64   | 0.110 | 72000          |
| CCGX 32.50  | CCGX 09 T3 02 | 3/8        | 5/32  | 0.008  | 0.173 | 72003          |
| CCGX 32.51  | CCGX 09 T3 04 | 3/8        | 5/32  | 1/64   | 0.173 | 72006          |
| CCGX 32.52  | CCGX 09 T3 08 | 3/8        | 5/32  | 1/32   | 0.173 | 72012          |
| CCGX 431    | CCGX 12 04 04 | 1/2        | 3/16  | 1/64   | 0.203 | 72018          |
| CCGX 432    | CCGX 12 04 08 | 1/2        | 3/16  | 1/32   | 0.203 | 72024          |

Style

**DCGX**



| Insert Type |               | Dimensions |       |        |       | Aluminum Grade |
|-------------|---------------|------------|-------|--------|-------|----------------|
| Insert      | ISO           |            |       | Corner | Thru  | C2             |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           |
| DCGX 21.505 | DCGX 07 02 02 | 1/4        | 3/32  | 0.008  | 0.110 | 72039          |
| DCGX 21.51  | DCGX 07 02 04 | 1/4        | 3/32  | 1/64   | 0.110 | 72042          |
| DCGX 32.50  | DCGX 11 T3 02 | 3/8        | 5/32  | 0.008  | 0.173 | 72045          |
| DCGX 32.51  | DCGX 11 T3 04 | 3/8        | 5/32  | 1/64   | 0.173 | 72048          |
| DCGX 32.52  | DCGX 11 T3 08 | 3/8        | 5/32  | 1/32   | 0.173 | 72054          |

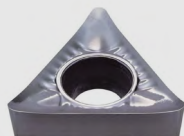
Style

**SCGX**



| Insert Type |               | Dimensions |       |        |       | Aluminum Grade |
|-------------|---------------|------------|-------|--------|-------|----------------|
| Insert      | ISO           |            |       | Corner | Thru  | C2             |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           |
| SCGX 32.51  | SCGX 09 T3 04 | 3/8        | 5/32  | 1/64   | 0.173 | 72080          |
| SCGX 32.52  | SCGX 09 T3 08 | 3/8        | 5/32  | 1/32   | 0.173 | 72086          |
| SCGX 432    | SCGX 12 04 08 | 1/2        | 3/16  | 1/32   | 0.216 | 72092          |

Style  
**TCGX**



| Insert Type |               | Dimensions |       |        |       | Aluminum Grade |
|-------------|---------------|------------|-------|--------|-------|----------------|
| Insert      | ISO           |            |       | Corner | Thru  | C2             |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           |
| TCGX 21.505 | TCGX 11 02 02 | 1/4        | 3/32  | 0.008  | 0.110 | 72057          |
| TCGX 21.51  | TCGX 11 02 04 | 1/4        | 3/32  | 1/64   | 0.110 | 72060          |
| TCGX 32.50  | TCGX 16 T3 02 | 3/8        | 5/32  | 0.008  | 0.173 | 72063          |
| TCGX 32.51  | TCGX 16 T3 04 | 3/8        | 5/32  | 1/64   | 0.173 | 72066          |
| TCGX 32.52  | TCGX 16 T3 08 | 3/8        | 5/32  | 1/32   | 0.173 | 72072          |

Style  
**VCGX**



| Insert Type |               | Dimensions |       |        |       | Aluminum Grade |
|-------------|---------------|------------|-------|--------|-------|----------------|
| Insert      | ISO           |            |       | Corner | Thru  | C2             |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           |
| VCGX 220    | VCGX 11 03 02 | 1/4        | 1/8   | 0.008  | 0.110 | 72100          |
| VCGX 221    | VCGX 11 03 04 | 1/4        | 1/8   | 1/64   | 0.110 | 72106          |
| VCGX 222    | VCGX 11 03 08 | 1/4        | 1/8   | 1/32   | 0.110 | 72112          |
| VCGX 331    | VCGX 16 04 04 | 3/8        | 3/16  | 1/64   | 0.173 | 72118          |
| VCGX 332    | VCGX 16 04 08 | 3/8        | 3/16  | 1/32   | 0.173 | 72124          |
| VCGX 333    | VCGX 16 04 12 | 3/8        | 3/16  | 3/64   | 0.173 | 72130          |



# CERAMIC INSERTS

## UNCOATED GRADE

### C520 (C-2)

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)

Designed for heavy roughing to semi-finishing of all steels

## COATED GRADE

### CM02 (C-2)

Multi Layer coating TiC/Al<sub>2</sub>O<sub>3</sub>/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)

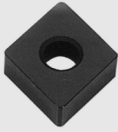
Multi Layer coating TiN/TiC/TiCN/TiN for turning and milling carbon and alloy steels and tools steel. Provides longer tool life than uncoated grades.

### X-Treme (C-5)

Layer coating TiAlN for turning and milling carbon alloy steels, steel and stainless steel. Provides longer tool life perfect for dry machining due to its good corrosion resistance, high hardness, high heat resistance (800 C-1475 F) and its self lubricating properties.

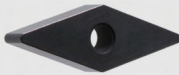


## Style CNGA



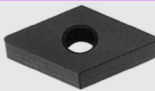
| Insert Type |               | Dimensions |       |        |       | Aluminum Grade |       |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|
| Insert      | ISO           |            |       | Corner | Thru  | CC20           | CC30  |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  |
| CNGA-431    | CNGA 12 04 04 | 1/2        | 3/16  | 1/64   | 0.203 | 49000          | 49003 |
| CNGA-432    | CNGA 12 04 08 | 1/2        | 3/16  | 1/32   | 0.203 | 49012          | 49015 |
| CNGA-433    | CNGA 12 04 12 | 1/2        | 3/16  | 3/64   | 0.203 | 49024          | 49027 |
| CNGA 434    | CNGA 12 04 16 | 1/2        | 3/16  | 1/16   | 0.203 | 49037          | 49038 |

## Style CNGN



| Insert Type |               | Dimensions |       |        |       | Aluminum Grade |      |
|-------------|---------------|------------|-------|--------|-------|----------------|------|
| Insert      | ISO           |            |       | Corner | Thru  | CC20           | CC30 |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP# |
| CNGN-431    | CNGN 12 04 04 | 1/2        | 3/16  | 1/64   | 0.203 | 49034          |      |
| CNGN-432    | CNGN 12 04 08 | 1/2        | 3/16  | 1/32   | 0.203 | ***            |      |
| CNGN-433    | CNGN 12 04 12 | 1/2        | 3/16  | 3/64   | 0.203 | 49036          |      |

## Style DNGA



| Insert Type |               | Dimensions |       |        |       | Aluminum Grade |       |
|-------------|---------------|------------|-------|--------|-------|----------------|-------|
| Insert      | ISO           |            |       | Corner | Thru  | CC20           | CC30  |
| Style       | Designation   | I.C.       | Width | Radius | Hole  | EDP#           | EDP#  |
| DNGA 431    | DNGA 15 04 04 | 1/2        | 3/16  | 1/64   | 0.203 | 49048          | ***   |
| DNGA 432    | DNGA 15 04 08 | 1/2        | 3/16  | 1/32   | 0.203 | 49060          | 49064 |
| DNGA 433    | DNGA 15 04 12 | 1/2        | 3/16  | 3/64   | 0.203 | 49061          | ***   |
| DNGA 434    | DNGA 15 04 16 | 1/2        | 3/16  | 1/16   | 0.203 | 49062          | ***   |

## Style RNG

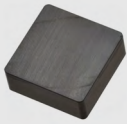


| Insert Type |              | Dimensions |       |        |      | Aluminum Grade |       |
|-------------|--------------|------------|-------|--------|------|----------------|-------|
| Insert      | ISO          |            |       | Corner | Thru | CC20           | CC30  |
| Style       | Designation  | I.C.       | Width | Radius | Hole | EDP#           | EDP#  |
| RNG 32      | RNG 09 03 00 | 3/8        | 1/8   | ***    | ***  | 49070          | 49073 |
| RNG 33      | RNG 09 04 00 | 3/8        | 3/16  | ***    | ***  | 49071          | 49074 |
| RNG 43      | RNG 12 04 00 | 1/2        | 3/16  | ***    | ***  | 49072          | 49075 |
| RNG 43      | RNG 12 07 00 | 1/2        | 5/16  | ***    | ***  | 49084          | 49087 |



Style

# SNGA



| Insert Type |               | Dimensions |       |        |      | Aluminum Grade |       |
|-------------|---------------|------------|-------|--------|------|----------------|-------|
| Insert      | ISO           |            |       | Corner | Thru | CC20           | CC30  |
| Style       | Designation   | I.C.       | Width | Radius | Hole | EDP#           | EDP#  |
| SNGA 432    | SNGA 12 04 08 | 1/2        | 3/16  | 1/32   | ***  | 49108          | 49112 |
| SNGA 433    | SNGA 12 04 12 | 1/2        | 3/16  | 3/64   | ***  | 49120          | 49124 |

Style

# SNGN



| Insert Type |               | Dimensions |       |        |      | Aluminum Grade |       |
|-------------|---------------|------------|-------|--------|------|----------------|-------|
| Insert      | ISO           |            |       | Corner | Thru | CC20           | CC30  |
| Style       | Designation   | I.C.       | Width | Radius | Hole | EDP#           | EDP#  |
| SNGN 321    | SNGN 09 03 04 | 3/8        | 1/8   | 1/64   | ***  | 49130          | 49131 |
| SNGN 322    | SNGN 09 03 08 | 3/8        | 1/8   | 1/32   | ***  | 49132          | 49135 |
| SNGN 431    | SNGN 12 04 04 | 1/2        | 3/16  | 1/64   | ***  | 49143          | 49146 |
| SNGN 432    | SNGN 12 04 08 | 1/2        | 3/16  | 1/32   | ***  | 49144          | 49147 |
| SNGN 433    | SNGN 12 04 12 | 1/2        | 3/16  | 3/64   | ***  | 49156          | 49159 |

Style

# TPGN



| Insert Type |               | Dimensions |       |        |      | Aluminum Grade |       |
|-------------|---------------|------------|-------|--------|------|----------------|-------|
| Insert      | ISO           |            |       | Corner | Thru | CC20           | CC30  |
| Style       | Designation   | I.C.       | Width | Radius | Hole | EDP#           | EDP#  |
| TPGN 321    | TPGN 16 03 04 | 3/8        | 1/8   | 1/64   | ***  | 49168          | 49171 |
| TPGN 322    | TPGN 16 03 08 | 3/8        | 1/8   | 1/32   | ***  | 49180          | 49183 |
| TPGN 431    | TPGN 22 04 04 | 1/2        | 3/16  | 1/64   | ***  | 49187          | 49189 |
| TPGN 432    | TPGN 22 04 08 | 1/2        | 3/16  | 1/32   | ***  | 49192          | 49195 |

## Style TNGA



| Insert Type  |                 | Dimensions |       |               |           | Aluminum Grade |           |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|-----------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Thru Hole | CC20 EDP#      | CC30 EDP# |
| TNGA 322     | TNGA 16 03 08   | 3/8        | 1/8   | 1/32          | 0.203     | ***            | 49197     |
| TNGA 332     | TNGA 16 04 08   | 3/8        | 3/16  | 1/32          | 0.203     | ***            | 49221     |
| TNGA 432     | TNGA 12 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | ***            | 49224     |
| TNGA 433     | TNGA 12 04 12   | 1/2        | 3/16  | 3/64          | 0.203     | 49220          | ***       |

## Style VNGA



| Insert Type  |                 | Dimensions |       |               |           | Aluminum Grade |           |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|-----------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Thru Hole | CC20 EDP#      | CC30 EDP# |
| VNGA 331     | VNGA 16 04 04   | 3/8        | 3/16  | 1/64          | 0.150     | 49203          | 49206     |
| VNGA 332     | VNGA 16 04 08   | 3/8        | 3/16  | 1/32          | 0.150     | 49204          | 49207     |
| VNGA 333     | VNGA 22 04 12   | 1/2        | 3/16  | 3/64          | 0.150     | 49216          | 49219     |
| VNGA 431     | VNGA 22 04 04   | 1/2        | 3/16  | 1/64          | 0.203     | 49208          | 49210     |
| VNGA 432     | VNGA 22 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | 49212          | 49214     |

## Style WNGA



| Insert Type  |                 | Dimensions |       |               |           | Aluminum Grade |           |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|-----------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Thru Hole | CC20 EDP#      | CC30 EDP# |
| WNGA 431     | WNGA 08 04 04   | 1/2        | 3/16  | 1/64          | 0.203     | 49250          | 49252     |
| WNGA 432     | WNGA 08 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | 49255          | 49257     |



# PCD INSERTS

## UNCOATED GRADE

### C520 (C-2)

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)

Designed for heavy roughing to semi-finishing of all steels

## COATED GRADE

### CM02 (C-2)

Multi Layer coating TiC/Al<sub>2</sub>O<sub>3</sub>/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.

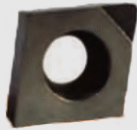
### CM-14 (C-5)

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

### X-Treme (C-5)

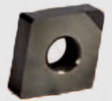
Layer coating TiAlN for turning and milling carbon alloy steels, steel and stainless steel. Provides longer tool life perfect for dry machining due to its good corrosion resistance, high hardness, high heat resistance (800 C-1475 F) and its self lubricating properties.

## Style CCMT



|            |          |      | Thickness | Radius | Hole     | PCD   |
|------------|----------|------|-----------|--------|----------|-------|
| ANSI       | ISO      | I.C. | (S)       | (r)    | Size (d) | EDP#  |
| CCMT 21.51 | 06 02 04 | 1/4  | 3/32      | 1/64   | 0.110    | 48002 |
| CCMT 21.52 | 06 02 08 | 1/4  | 3/32      | 1/32   | 0.110    | 48004 |
| CCMT 32.51 | 09 T3 04 | 3/8  | 5/32      | 1/64   | 0.173    | 48006 |
| CCMT 32.52 | 03 T3 08 | 3/8  | 5/32      | 1/32   | 0.173    | 48008 |
| CCMT 431   | 12 04 04 | 1/2  | 3/16      | 1/64   | 0.217    | 48010 |
| CCMT 432   | 12 04 08 | 1/2  | 3/16      | 1/32   | 0.217    | 48012 |

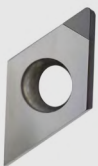
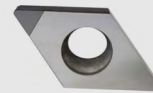
## Style CNMA



|          |          |      | Thickness | Radius | Hole     | PCD   |
|----------|----------|------|-----------|--------|----------|-------|
| ANSI     | ISO      | I.C. | (S)       | (r)    | Size (d) | EDP#  |
| CNMA 431 | 12 04 04 | 1/2  | 3/16      | 1/64   | 0.217    | 48014 |
| CNMA 432 | 12 04 08 | 1/2  | 3/16      | 1/32   | 0.217    | 48016 |

|            |          |      | Thickness | Radius | Hole     | PCD   |
|------------|----------|------|-----------|--------|----------|-------|
| ANSI       | ISO      | I.C. | (S)       | (r)    | Size (d) | EDP#  |
| CPMT 21.51 | 06 02 04 | 1/4  | 3/32      | 1/64   | 0.110    | 48018 |
| CPMT 21.52 | 06 02 08 | 1/4  | 3/32      | 1/32   | 0.110    | 48020 |
| CPMT 32.51 | 09 T3 04 | 3/8  | 5/32      | 1/64   | 0.173    | 48022 |
| CPMT 32.52 | 09 T3 08 | 3/8  | 5/32      | 1/32   | 0.173    | 48024 |

## Style CPMT



|            |          |      | Thickness | Radius | Hole     | PCD   |
|------------|----------|------|-----------|--------|----------|-------|
| ANSI       | ISO      | I.C. | (S)       | (r)    | Size (d) | EDP#  |
| DCMT 21.51 | 07 02 04 | 1/4  | 3/32      | 1/64   | 0.110    | 48026 |
| DCMT 21.52 | 07 02 08 | 1/4  | 3/32      | 1/32   | 0.110    | 48028 |
| DCMT 32.51 | 11 T3 04 | 3/8  | 5/32      | 1/64   | 0.173    | 48030 |
| DCMT 32.52 | 11 T3 08 | 3/8  | 5/32      | 1/32   | 0.173    | 48032 |

## Style DCMT

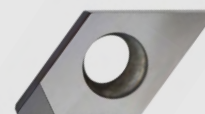




Style

# DNMA

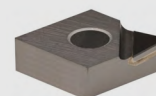
|          |          |      | Thickness | Radius | Hole     | PCD   |
|----------|----------|------|-----------|--------|----------|-------|
| ANSI     | ISO      | I.C. | (S)       | (r)    | Size (d) | EDP#  |
| DNMA 431 | 15 04 04 | 1/2  | 3/16      | 1/64   | 0.203    | 48034 |
| DNMA 432 | 15 04 08 | 1/2  | 3/16      | 1/32   | 0.203    | 48036 |
| DNMA 433 | 15 04 12 | 1/2  | 3/16      | 3/64   | 0.203    | 48038 |



Style

# SCMT

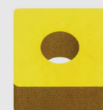
|            |          |      | Thickness | Radius | Hole     | PCD   |
|------------|----------|------|-----------|--------|----------|-------|
| ANSI       | ISO      | I.C. | (S)       | (r)    | Size (d) | EDP#  |
| SCMT 32.51 | 09 T3 04 | 3/8  | 5/32      | 1/64   | 0.173    | 48040 |
| SCMT 32.52 | 09 T3 08 | 3/8  | 5/32      | 1/32   | 0.173    | 48042 |
| SCMT 431   | 12 04 04 | 1/2  | 3/16      | 1/64   | 0.216    | 48044 |
| SCMT 432   | 12 04 08 | 1/2  | 3/16      | 1/32   | 0.216    | 48046 |



Style

# SNMA

|          |          |      | Thickness | Radius | Hole     | PCD   |
|----------|----------|------|-----------|--------|----------|-------|
| ANSI     | ISO      | I.C. | (S)       | (r)    | Size (d) | EDP#  |
| SNMA 431 | 12 04 04 | 1/2  | 3/16      | 1/64   | 0.203    | 48048 |
| SNMA 432 | 12 04 08 | 1/2  | 3/16      | 1/32   | 0.203    | 48050 |



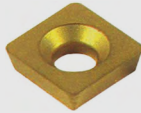
Style

# SPGN

|          |          |      | Thickness | Radius | Hole     | PCD   |
|----------|----------|------|-----------|--------|----------|-------|
| ANSI     | ISO      | I.C. | (S)       | (r)    | Size (d) | EDP#  |
| SPGN 321 | 09 03 04 | 3/8  | 1/8       | 1/64   | ***      | 48052 |
| SPGN 322 | 09 03 08 | 3/8  | 1/8       | 1/32   | ***      | 48054 |
| SPGN 431 | 12 04 04 | 1/2  | 3/16      | 1/64   | ***      | 48056 |
| SPGN 422 | 12 04 08 | 1/2  | 3/16      | 1/32   | ***      | 48058 |



## Style SPMT



|            |          |      | Thickness | Radius | Hole     | PCD   |
|------------|----------|------|-----------|--------|----------|-------|
| ANSI       | ISO      | I.C. | (S)       | (r)    | Size (d) | EDP#  |
| SPMT 32.51 | 09 T3 04 | 3/8  | 5/32      | 1/64   | 0.173    | 48060 |
| SPMT 32.52 | 09 T3 08 | 3/8  | 5/32      | 1/32   | 0.173    | 48062 |
| SPMT 431   | 12 04 04 | 1/2  | 3/16      | 1/64   | 0.216    | 48064 |
| SPMT 432   | 12 04 08 | 1/2  | 3/16      | 1/32   | 0.216    | 48066 |

## Style TPGA

|          |          |      | Thickness | Radius | Hole     | PCD   |
|----------|----------|------|-----------|--------|----------|-------|
| ANSI     | ISO      | I.C. | (S)       | (r)    | Size (d) | EDP#  |
| TPGA 221 | 11 03 04 | 1/4  | 1/8       | 1/64   | 0.134    | 48076 |
| TPGA 222 | 11 03 08 | 1/4  | 1/8       | 1/32   | 0.134    | 48078 |

## Style TPGN



|          |          |      | Thickness | Radius | Hole     | PCD   |
|----------|----------|------|-----------|--------|----------|-------|
| ANSI     | ISO      | I.C. | (S)       | (r)    | Size (d) | EDP#  |
| TPGN 221 | 11 03 04 | 1/4  | 1/8       | 1/64   | ***      | 48080 |
| TPGN 222 | 11 03 08 | 1/4  | 1/8       | 1/32   | ***      | 48082 |
| TPGN 321 | 16 03 04 | 3/8  | 1/8       | 1/64   | ***      | 48084 |
| TPGN 322 | 16 03 08 | 3/8  | 1/8       | 1/32   | ***      | 48086 |

## Style VBMT



|            |          |      | Thickness | Radius | Hole     | PCD   |
|------------|----------|------|-----------|--------|----------|-------|
| ANSI       | ISO      | I.C. | (S)       | (r)    | Size (d) | EDP#  |
| VBMT 21.51 | 11 03 04 | 1/4  | 1/8       | 1/64   | 0.110    | 48088 |
| VBMT 21.52 | 11 03 08 | 1/4  | 1/8       | 1/32   | 0.110    | 48090 |
| VBMT 331   | 16 04 04 | 3/8  | 3/16      | 1/64   | 0.173    | 48092 |
| VBMT 332   | 16 04 08 | 3/8  | 3/16      | 1/32   | 0.173    | 48094 |





# KING COBRA

## Selection of Chipbreaker & Grade

|                                 | Operation      | Chipbreaker | Grade  | Cutting Speed (m/min) | Feed (mm/rev) |
|---------------------------------|----------------|-------------|--------|-----------------------|---------------|
| <b>P Type (Steel)</b>           | Finishing      | <b>PF</b>   | CP4010 | 180-460               | 0.10 - 0.30   |
|                                 | Semi Finishing | <b>PM</b>   | CP4020 | 160-440               | 0.10 - 0.50   |
|                                 | Roughing       | <b>PR</b>   | CP4030 | 130-380               | 0.20 - 0.65   |
| <b>M Type (Stainless Steel)</b> | Finishing      | <b>MF</b>   | CM2010 |                       | 0.05 - 0.20   |
|                                 | Semi Finishing | <b>MM</b>   | CM2020 | 110-250               | 0.10 - 0.50   |
|                                 | Roughing       | <b>MR</b>   | CM2030 |                       | 0.15 - 0.60   |
| <b>K Type (Cast Iron)</b>       | Finishing      | <b>KM</b>   | CK3015 | 200-500               | 0.15 - 0.40   |
|                                 | Semi Finishing |             |        | 180-450               | 0.20 - 0.50   |
|                                 | Roughing       |             | CK3035 | 150-380               | 0.25 - 0.60   |

## Grade for P-Type Materials

| Grade         | Application Range | Recommended Applications                                                                                                                                                                                                                                                                     |
|---------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CP4010</b> | <b>P05 - P10</b>  | The combination of substrate with excellent wear resistance and coating composed of MT-TiCN, thick layer of Al <sub>2</sub> O <sub>3</sub> and TiN makes this <b>suitable for finishing steel</b>                                                                                            |
| <b>CP4020</b> | <b>P15 - P25</b>  | The substrate with good toughness and high security of cutting edge, in optimal combination with coating composed of MT-TiCN, thick layer of Al <sub>2</sub> O <sub>3</sub> and TiN makes this <b>suitable for steel semifinishing</b>                                                       |
| <b>CP4030</b> | <b>P30 - P40</b>  | Super fine MT-TiCN, thick Al <sub>2</sub> O <sub>3</sub> and TiN coating with smooth surface in combination with rich cobalt layer cemented carbide substrate with good anti tipping and toughness. It's <b>suitable for rough turning of steel</b> and alloy steel under unstable condition |



## Grade for M-Type Materials

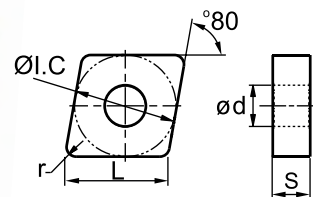
| Grade  | Application Range | Recommended Applications                                                                                                                                                                                                                                                            |
|--------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CM2010 | M05 - M10         | Substrate with special structure, in combination with coating composed of TiCN, thin Al <sub>2</sub> O <sub>3</sub> layer and TiN, with excellent resistance against diffusive wear and plastic deformation makes this <b>suitable for finishing of stainless steel</b>             |
| CM2020 | M15 - M25         | Combination of substrate with good toughness, strength, and coating composed of TiCN, thin Al <sub>2</sub> O <sub>3</sub> layer and TiN makes this <b>suitable for semi-finishing of stainless steel</b>                                                                            |
| CM2030 | M30 - M40         | With advanced ultra-fine grain nano coating technology, the grade uses gradient alloy substrate with high toughness. It demonstrates excellent capacity at cutting with high cutting depth, high feed rate, and high speed. This is <b>suitable for roughing of stainless steel</b> |

## Grade for K-Type Materials

| Grade  | Application Range | Recommended Applications                                                                                                                                                                                                                                                                                                                                     |
|--------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CK3015 | K10 - K20         | The combination of hard substrate and coating (medium thick Al <sub>2</sub> O <sub>3</sub> + thick TiCN) has good flaking resistance. It's <b>suitable for finishing &amp; semi-finishing of cast iron</b> at high speed. Light intermittent cutting can be supported even at moderate speed                                                                 |
| CK3035 | K30 - K40         | The combination of hard substrate and coating (medium thick Al <sub>2</sub> O <sub>3</sub> + thick TiCN) achieves the balance between wear resistance and toughness. It's suitable for wet milling of cast iron that requires toughness (such as nodular cast iron) at moderate or low speed. It's also <b>suitable for rough &amp; intermittent turning</b> |

# Style CNMG

## Finishing



| Insert Type  |                 | Dimensions |       |               |           | Coated Grades  |                |                |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|----------------|----------------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Hole Size | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| CNMG 431     | CNMG 12 04 04   | 1/2        | 3/16  | 1/64          | 0.203     | 73004          | 73304          | 73604          |
| CNMG 432     | CNMG 12 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | 73006          | 73306          | 73606          |

## Semi-Finishing

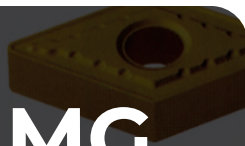
| Insert Type  |                 | Dimensions |       |               |           | Coated Grades  |                |                |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|----------------|----------------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Hole Size | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| CNMG 431     | CNMG 12 04 04   | 1/2        | 3/16  | 1/64          | 0.203     | 73104          | 73404          |                |
| CNMG 432     | CNMG 12 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | 73106          | 73406          |                |
| CNMG 433     | CNMG 12 04 12   | 1/2        | 3/16  | 3/64          | 0.203     | 73108          | 73408          | 73616          |
| CNMG 542     | CNMG 16 06 08   | 5/8        | 1/4   | 1/32          | 0.2500    | 73112          | 73412          | 73620          |
| CNMG 543     | CNMG 16 06 12   | 5/8        | 1/4   | 3/64          | 0.2500    | 73114          | 73414          | 73622          |
| CNMG 642     | CNMG 19 06 08   | 3/4        | 1/4   | 1/32          | 0.3130    | 73116          | 73416          | 73624          |
| CNMG 643     | CNMG 19 06 12   | 3/4        | 1/4   | 3/64          | 0.3130    | 73118          | 73418          | 73626          |
| CNMG 644     | CNMG 19 06 16   | 3/4        | 1/4   | 1/16          | 0.3130    | 73120          | 73420          | 73628          |

## Roughing

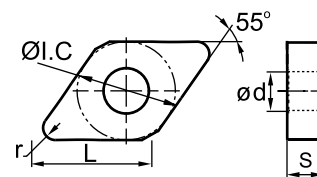
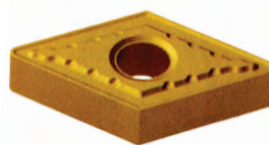
| Insert Type  |                 | Dimensions |       |               |           | Coated Grades  |                |                |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|----------------|----------------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Hole Size | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| CNMG 432     | CNMG 12 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | 73200          | 73500          |                |
| CNMG 433     | CNMG 12 04 12   | 1/2        | 3/16  | 3/64          | 0.203     | 73202          | 73502          | 73616          |
| CNMG 434     | CNMG 12 04 16   | 1/2        | 3/16  | 1/16          | 0.203     | 73204          | 73504          | 73620          |
| CNMG 542     | CNMG 16 06 08   | 5/8        | 1/4   | 1/32          | 0.2500    | 73206          | 73506          | 73622          |
| CNMG 543     | CNMG 16 06 12   | 5/8        | 1/4   | 3/64          | 0.2500    | 73208          | 73508          | 73624          |
| CNMG 643     | CNMG 19 06 12   | 3/4        | 1/4   | 3/64          | 0.3130    | 73210          | 73510          | 73626          |
| CNMG 644     | CNMG 19 06 16   | 3/4        | 1/4   | 1/16          | 0.3130    | 73212          | 73512          | 73628          |

Style

**DNMG**



**Finishing**



| Insert Type  |                 | Dimensions |       |               |           | Coated Grades  |                |                |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|----------------|----------------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Hole Size | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| DNMG 431     | DNMG 15 04 04   | 1/2        | 3/16  | 1/64          | 0.203     | 73010          | 73310          | 73632          |

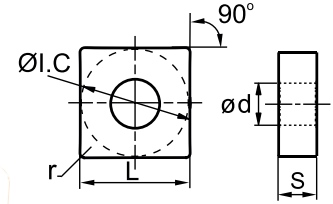
**Semi-Finishing**

| Insert Type  |                 | Dimensions |       |               |           | Coated Grades  |                |                |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|----------------|----------------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Hole Size | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| DNMG 432     | DNMG 15 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | 73128          | 73428          | 73644          |
| DNMG 433     | DNMG 15 04 12   | 1/2        | 3/16  | 3/64          | 0.203     | 73130          | 73430          | 73646          |

**Roughing**

| Insert Type  |                 | Dimensions |       |               |           | Coated Grades  |                |                |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|----------------|----------------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Hole Size | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| DNMG 432     | DNMG 15 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | 73214          | 73514          | 73814          |

# Style SNMG



## Finishing

| Insert Type  |                 | Dimensions |       |               |           | Coated Grades  |                |                |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|----------------|----------------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Hole Size | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| SNMG 321     | SNMG 09 03 04   | 3/8        | 1/8   | 1/64          | 0.1500    | 73016          | 73316          | 73652          |
| SNMG 322     | SNMG 09 03 08   | 3/8        | 1/8   | 1/32          | 0.1500    | 73018          | 73318          | 73654          |
| SNMG 431     | SNMG 12 04 04   | 1/2        | 3/16  | 1/64          | 0.203     | 73020          | 73320          | 73656          |
| SNMG 432     | SNMG 12 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | 73022          | 73322          | 73658          |

## Semi-Finishing

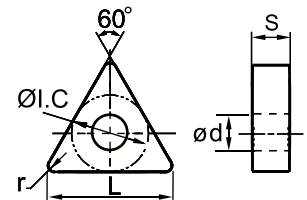
| Insert Type  |                 | Dimensions |       |               |           | Coated Grades  |                |                |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|----------------|----------------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Hole Size | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| SNMG 321     | SNMG 09 03 04   | 3/8        | 1/8   | 1/64          | 0.1500    | 73136          | 73436          |                |
| SNMG 322     | SNMG 09 03 08   | 3/8        | 1/8   | 1/32          | 0.1500    | 73138          | 73438          |                |
| SNMG 431     | SNMG 12 04 04   | 1/2        | 3/16  | 1/64          | 0.203     | 73140          | 73440          |                |
| SNMG 432     | SNMG 12 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | 73142          | 73442          |                |
| SNMG 433     | SNMG 12 04 12   | 1/2        | 3/16  | 3/64          | 0.203     | 73144          | 73444          | 73668          |
| SNMG 434     | SNMG 12 04 16   | 1/2        | 3/16  | 1/16          | 0.203     | 73146          | 73446          | 73670          |
| SNMG 542     | SNMG 15 06 08   | 5/8        | 1/4   | 1/32          | 0.2500    | 73148          | 73448          | 73672          |
| SNMG 543     | SNMG 15 06 12   | 5/8        | 1/4   | 3/64          | 0.2500    | 73150          | 73450          | 73674          |
| SNMG 544     | SNMG 15 06 16   | 5/8        | 1/4   | 1/16          | 0.2500    | 73152          | 73452          | 73676          |
| SNMG 642     | SNMG 19 06 08   | 3/4        | 1/4   | 1/32          | 0.3130    | 73154          | 73454          | 73678          |
| SNMG 643     | SNMG 19 06 12   | 3/4        | 1/4   | 3/64          | 0.3130    | 73156          | 73456          | 73680          |
| SNMG 644     | SNMG 19 06 16   | 3/4        | 1/4   | 1/16          | 0.3130    | 73158          | 73458          | 73682          |

## Roughing

| Insert Type  |                 | Dimensions |       |               |           | Coated Grades  |                |                |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|----------------|----------------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Hole Size | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| SNMG 432     | SNMG 12 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | 73218          | 73518          | 73818          |
| SNMG 433     | SNMG 12 04 12   | 1/2        | 3/16  | 3/64          | 0.203     | 73220          | 73520          | 73820          |
| SNMG 434     | SNMG 12 04 16   | 1/2        | 3/16  | 1/16          | 0.203     | 73222          | 73522          | 73822          |
| SNMG 542     | SNMG 15 06 08   | 5/8        | 1/4   | 1/32          | 0.2500    | 73224          | 73524          | 73824          |
| SNMG 543     | SNMG 15 06 12   | 5/8        | 1/4   | 3/64          | 0.2500    | 73226          | 73526          | 73826          |
| SNMG 544     | SNMG 15 06 16   | 5/8        | 1/4   | 1/16          | 0.2500    | 73228          | 73528          | 73828          |
| SNMG 643     | SNMG 19 06 12   | 3/4        | 1/4   | 3/64          | 0.3130    | 73230          | 73530          | 73830          |
| SNMG 644     | SNMG 19 06 16   | 3/4        | 1/4   | 3/64          | 0.3130    | 73232          | 73532          | 73832          |



# Style TNMG



## Finishing

| Insert Type  |                 | Dimensions |       |               |           | Coated Grades  |                |                |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|----------------|----------------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Hole Size | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| TNMG 331     | TNMG 16 04 04   | 3/8        | 3/16  | 1/64          | 0.1500    | 73024          | 73324          | 73684          |
| TNMG 332     | TNMG 16 04 08   | 3/8        | 3/16  | 1/32          | 0.1500    | 73026          | 73326          | 73686          |
| TNMG 431     | TNMG 22 04 04   | 1/2        | 3/16  | 1/64          | 0.203     | 73028          | 73328          | 73688          |
| TNMG 432     | TNMG 22 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | 73030          | 73330          | 73690          |

## Semi-Finishing

| Insert Type  |                 | Dimensions |       |               |           | Coated Grades  |                |                |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|----------------|----------------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Hole Size | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| TNMG 322     | TNMG 16 03 08   | 3/8        | 1/8   | 1/32          | 0.1500    | 73160          | 73460          | 73692          |
| TNMG 323     | TNMG 16 03 12   | 3/8        | 1/8   | 3/64          | 0.1500    | 73162          | 73462          | 73694          |
| TNMG 332     | TNMG 16 04 08   | 3/8        | 3/16  | 1/32          | 0.1500    | 73164          | 73464          |                |
| TNMG 333     | TNMG 16 04 12   | 3/8        | 3/16  | 3/64          | 0.1500    | 73166          | 73466          | 73698          |
| TNMG 432     | TNMG 22 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | 73168          | 73468          |                |
| TNMG 433     | TNMG 22 04 12   | 1/2        | 3/16  | 3/64          | 0.203     | 73170          | 73470          | 73702          |
| TNMG 542     | TNMG 27 06 08   | 5/8        | 1/4   | 1/32          | 0.2500    | 73172          | 73472          | 73704          |
| TNMG 543     | TNMG 27 06 12   | 5/8        | 1/4   | 3/64          | 0.2500    | 73174          | 73474          | 73706          |
| TNMG 544     | TNMG 27 06 16   | 5/8        | 1/4   | 1/16          | 0.2500    | 73176          | 73476          | 73708          |

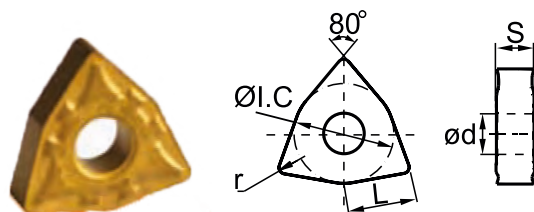
## Roughing

| Insert Type  |                 | Dimensions |       |               |           | Coated Grades  |                |                |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|----------------|----------------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Hole Size | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| TNMG 332     | TNMG 16 04 08   | 3/8        | 3/16  | 1/32          | 0.1500    | 73234          | 73534          | 73834          |
| TNMG 333     | TNMG 16 04 12   | 3/8        | 3/16  | 3/64          | 0.1500    | 73236          | 73536          | 73836          |
| TNMG 432     | TNMG 22 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | 73238          | 73538          | 73838          |
| TNMG 433     | TNMG 22 04 12   | 1/2        | 3/16  | 3/64          | 0.203     | 73240          | 73540          | 73840          |
| TNMG 542     | TNMG 27 06 08   | 5/8        | 1/4   | 1/32          | 0.2500    | 73241          | 73541          | 73841          |
| TNMG 543     | TNMG 27 06 12   | 5/8        | 1/4   | 3/64          | 0.2500    | 73242          | 73542          | 73842          |
| TNMG 544     | TNMG 27 06 16   | 5/8        | 1/4   | 1/16          | 0.2500    | 73244          | 73544          | 73844          |

Style

**WNMG**

**Finishing**



| Insert Type  |                 | Dimensions |       |               |           | Coated Grades  |                |                |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|----------------|----------------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Hole Size | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| WNMG 331     | WNMG 06 04 04   | 3/8        | 3/16  | 1/64          | 0.1500    | 73032          | 73332          | 73710          |
| WNMG 332     | WNMG 06 04 08   | 3/8        | 3/16  | 1/32          | 0.1500    | 73034          | 73334          | 73712          |
| WNMG 431     | WNMG 08 04 04   | 1/2        | 3/16  | 1/64          | 0.203     | 73036          | 73336          | 73714          |
| WNMG 432     | WNMG 08 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | 73038          | 73338          | 73716          |

**Semi-Finishing**

| Insert Type  |                 | Dimensions |       |               |           | Coated Grades  |                |                |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|----------------|----------------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Hole Size | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| WNMG 331     | WNMG 06 04 04   | 3/8        | 3/16  | 1/64          | 0.1500    | 73178          | 73478          |                |
| WNMG 332     | WNMG 06 04 08   | 3/8        | 3/16  | 1/32          | 0.1500    | 73180          | 73480          |                |
| WNMG 432     | WNMG 08 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | 73184          | 73484          |                |
| WNMG 433     | WNMG 08 04 12   | 1/2        | 3/16  | 3/64          | 0.203     | 73186          | 73486          | 73726          |

**Roughing**

| Insert Type  |                 | Dimensions |       |               |           | Coated Grades  |                |                |
|--------------|-----------------|------------|-------|---------------|-----------|----------------|----------------|----------------|
| Insert Style | ISO Designation | I.C.       | Width | Corner Radius | Hole Size | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| WNMG 332     | WNMG 06 04 08   | 3/8        | 3/16  | 1/32          | 0.1500    | 73246          | 73546          | 73846          |
| WNMG 432     | WNMG 08 04 08   | 1/2        | 3/16  | 1/32          | 0.203     | 73250          | 73550          | 73850          |
| WNMG 433     | WNMG 08 04 12   | 1/2        | 3/16  | 3/64          | 0.203     | 73252          | 73552          | 73852          |

# Style APKT



## Finishing



| Insert Type  | Dimensions |       |            |               | Coated Grades  |                |                |
|--------------|------------|-------|------------|---------------|----------------|----------------|----------------|
| Insert Style | (L)        | (I.W) | Radius (r) | Hole Size (d) | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| APKT 1003    | 0.441      | 0.264 | 0.020      | 0.110         | 73078          | 73358          | 73746          |
| APKT 1505    | 0.650      | 0.375 | 0.031      | 0.175         | 73080          | 73360          | 73748          |
| APKT 1604    | 0.650      | 0.375 | 0.031      | 0.175         | 73082          | 73362          | 73750          |

## Semi-Finishing

| Insert Type  | Dimensions |       |            |               | Coated Grades  |                |                |
|--------------|------------|-------|------------|---------------|----------------|----------------|----------------|
| Insert Style | (L)        | (I.W) | Radius (r) | Hole Size (d) | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| APKT 1003    | 0.441      | 0.264 | 0.020      | 0.110         | 73215          | 75028          |                |
| APKT 1505    | 0.650      | 0.375 | 0.031      | 0.175         | 73217          | 75030          |                |
| APKT 1604    | 0.650      | 0.375 | 0.031      | 0.175         | 73219          | 75032          |                |

## Roughing

| Insert Type  | Dimensions |       |            |               | Coated Grades  |                |                |
|--------------|------------|-------|------------|---------------|----------------|----------------|----------------|
| Insert Style | (L)        | (I.W) | Radius (r) | Hole Size (d) | PF CP4010 EDP# | MF CM2010 EDP# | KM CK3015 EDP# |
| APKT 1003    | 0.441      | 0.264 | 0.020      | 0.110         | 73292          | 73592          | 73892          |
| APKT 1505    | 0.650      | 0.375 | 0.031      | 0.175         | 73294          | 73594          | 73894          |
| APKT 1604    | 0.650      | 0.375 | 0.031      | 0.175         | 73296          | 73596          | 73896          |



# INSERT TOOL HOLDERS



## MCLN R/L

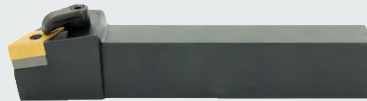


### Description:

MC Tool Holder  
For Negative 80° Diamond CNM Insert  
5° End or Cutting Edge Angle

| Insert Type   | Dimensions |            |          | Item Number |          | Parts  |          |          |       |             |            |
|---------------|------------|------------|----------|-------------|----------|--------|----------|----------|-------|-------------|------------|
| Insert Style  | Square B-H | Length (L) | Head (F) | RH EDP #    | LH EDP # | Insert | Seat     | Lock Pin | Clamp | Clamp Screw | Seat Screw |
| MCLNR/L 12-4B | 3/4        | 4-1/2      | 1        | 80000       | 80006    | CNM 43 | ICSN 433 | NL-46    | CL-20 | XNS-48      | S-46       |
| MCLNR/L 16-4D | 1          | 6          | 1-1/4    | 80012       | 80018    | CNM 43 | ICSN 433 | NL-46    | CL-20 | XNS-48      | S-46       |
| MCLNR/L 20-4D | 1-1/4      | 6          | 1-1/2    | 80024       | 80030    | CNM 43 | ICSN 433 | NL-46    | CL-20 | XNS-48      | S-46       |
| MCLNR/L 24-4D | 1-1/2      | 6          | 2        | 80036       | 80042    | CNM 43 | ICSN 433 | NL-46    | CL-20 | XNS-48      | S-46       |

## MDJN R/L



### Description:

MD Tool Holder  
For Negative 55° Diamond DNM Insert  
3° Side Cutting Edge Angle

| Insert Type   | Dimensions |            |          | Item Number |          | Parts  |          |          |       |             |            |
|---------------|------------|------------|----------|-------------|----------|--------|----------|----------|-------|-------------|------------|
| Insert Style  | Square B-H | Length (L) | Head (F) | RH EDP #    | LH EDP # | Insert | Seat     | Lock Pin | Clamp | Clamp Screw | Seat Screw |
| MDJNR/L 12-4B | 3/4        | 4-1/2      | 1        | 80048       | 80054    | DNM 43 | IDSN 433 | NL-46    | CL-7  | XNS-36      | S-46       |
| MDJNR/L 16-4D | 1          | 6          | 1-1/4    | 80060       | 80066    | DNM 43 | IDSN 433 | NL-46    | CL-20 | XNS-48      | S-46       |
| MDJNR/L 20-4D | 1-1/4      | 6          | 1-1/2    | 80072       | 80078    | DNM 43 | IDSN 433 | NL-46    | CL-20 | XNS-48      | S-46       |
| MDJNR/L 24-4D | 1-1/2      | 6          | 2        | 80084       | 80090    | DNM 43 | IDSN 433 | NL-46    | CL-20 | XNS-48      | S-46       |

## MTGN R/L

### Description:

MT Tool Holder  
For Negative 60° Triangular TN Insert  
0° Side Cutting Edge Angle

| Insert Type   | Dimensions |            |          | Item Number |          | Parts  |          |          |       |             |            |
|---------------|------------|------------|----------|-------------|----------|--------|----------|----------|-------|-------------|------------|
| Insert Style  | Square B-H | Length (L) | Head (F) | RH EDP #    | LH EDP # | Insert | Seat     | Lock Pin | Clamp | Clamp Screw | Seat Screw |
| MTGNR/L 12-3B | 3/4        | 4-1/2      | 1        | 80096       | 80102    | TNM 33 | ITSN 322 | NL-34L   | CL-6  | XNS-36      | S-34       |
| MTGNR/L 16-3D | 1          | 6          | 1-1/4    | 80108       | 80114    | TNM 33 | ITSN 322 | NL-34L   | CL-6  | XNS-36      | S-34       |
| MTGNR/L 16-4D | 1          | 6          | 1-1/4    | 80120       | 80126    | TNM 43 | ITSN 433 | NL-46    | CL-9  | XNS-510     | S-46       |
| MTGNR/L 20-4D | 1-1/4      | 6          | 1-1/2    | 80132       | 80138    | TNM 43 | ITSN 433 | NL-46    | CL-9  | XNS-510     | S-46       |

## MVJN R/L



### Description:

MV Tool Holder  
For Negative 35° Diamond VNM Insert  
0° End or Side Cutting Edge Angle

| Insert Type   | Dimensions |            |          | Item Number |          | Parts  |          |          |       |             |            |
|---------------|------------|------------|----------|-------------|----------|--------|----------|----------|-------|-------------|------------|
| Insert Style  | Square B-H | Length (L) | Head (F) | RH EDP #    | LH EDP # | Insert | Seat     | Lock Pin | Clamp | Clamp Screw | Seat Screw |
| MVJNR/L 12-3B | 3/4        | 4-1/2      | 1        | 80144       | 80150    | VNM 33 | IVSN 322 | NL-34L   | CL-30 | XNS-510     | S-34       |
| MVJNR/L 16-3D | 1          | 6          | 1-1/4    | 80156       | 80162    | VNM 33 | IVSN 322 | NL-34L   | CL-30 | XNS-510     | S-34       |
| MVJNR/L 20-3D | 1-1/4      | 6          | 1-1/2    | 80168       | 80174    | VNM 43 | IVSN 322 | NL-34L   | CL-30 | XNS-510     | S-46       |

## MWLN R/L



### Description:

MW Tool Holder  
For Negative 80° Trigon WNM Insert  
5° End or Side Cutting Edge Angle

| Insert Type    | Dimensions |            |          | Item Number |          | Parts  |          |          |       |             |            |
|----------------|------------|------------|----------|-------------|----------|--------|----------|----------|-------|-------------|------------|
| Insert Style   | Square B-H | Length (L) | Head (F) | RH EDP #    | LH EDP # | Insert | Seat     | Lock Pin | Clamp | Clamp Screw | Seat Screw |
| MWLN R/L 12-3B | 3/4        | 4-1/2      | 1        | 80180       | 80186    | WNM 33 | IWSN 322 | NL-34L   | CL-6  | XNS-36      | S-34       |
| MWLN R/L 12-4B | 3/4        | 4-1/2      | 1        | 80192       | 80198    | WNM 43 | IWSN 433 | NL-46    | CL-9  | XNS-59      | S-46       |
| MWLN R/L 16-4D | 1          | 6          | 1-1/4    | 80204       | 80210    | WNM 43 | IWSN 433 | NL-46    | CL-9  | XNS-59      | S-46       |
| MWLN R/L 20-4D | 1-1/4      | 6          | 1-1/2    | 80216       | 80222    | WNM 43 | IWSN 433 | NL-46    | CL-9  | XNS-59      | S-46       |
| MWLN R/L 24-4E | 1-1/2      | 7          | 2        | 80228       | 80234    | WNM 43 | IWSN 433 | NL-46    | CL-9  | XNS-59      | S-46       |

## SCLC R/L



### Description:

SC Tool Holder  
For Positive 80° Diamond CCMT Insert  
5° End or Side Cutting Edge Angle

| Insert Type   | Dimensions |            |          | Item Number |          | Parts     |      |          |       |             |          |
|---------------|------------|------------|----------|-------------|----------|-----------|------|----------|-------|-------------|----------|
| Insert Style  | Square B-H | Length (L) | Head (F) | RH EDP #    | LH EDP # | Insert    | Seat | Lock Pin | Clamp | Clamp Screw | Torx Key |
| SCLCR 04-2    | 0.315      | 2.36       | 0.394    | 80240       | 80246    | CCMT 21.5 |      |          |       | 99599       | T-7      |
| SCLCR/L 06-2J | 3/8        | 3-1/2      | 1/2      | 80252       | 80258    | CCMT 21.5 |      |          |       | 99599       | T-7      |
| SCLCR 08-03A  | 1/2        | 4          | 5/8      | 80264       | 80270    | CCMT 32.5 |      |          |       | 99596       | T-15     |
| SCLCR 10-3B   | 5/8        | 4-1/2      | 3/4      | 80276       | 80282    | CCMT 32.5 |      |          |       | 99596       | T-15     |
| SCLCR 12-3B   | 3/4        | 4-1/2      | 1        | 80288       | 80294    | CCMT 32.5 |      |          |       | 99596       | T-15     |

## SDJC R/L



### Description:

SD Tool Holder  
For Negative 55° Diamond DCMT Insert  
3° End or Side Cutting Edge Angle

| Insert Type    | Dimensions |            |          | Item Number |          | Parts     |      |          |       |             |          |
|----------------|------------|------------|----------|-------------|----------|-----------|------|----------|-------|-------------|----------|
| Insert Style   | Square B-H | Length (L) | Head (F) | RH EDP #    | LH EDP # | Insert    | Seat | Lock Pin | Clamp | Clamp Screw | Torx Key |
| SDJCR/L 04-2   | 0.315      | 2.36       | 0.394    | 80300       | 80306    | DCMT 21.5 |      |          |       | 99599       | T-7      |
| SDJCR/L 06-2J  | 3/8        | 3-1/2      | 1/2      | 80312       | 80318    | DCMT 21.5 |      |          |       | 99599       | T-7      |
| SDJCR/L 08-02A | 1/2        | 4          | 5/8      | 80324       | 80330    | DCMT 21.5 |      |          |       | 99596       | T-15     |
| SDJCR/L 08-03A | 1/2        | 4          | 5/8      | 80336       | 80342    | DCMT 32.5 |      |          |       | 99596       | T-15     |
| SDJCR/L 10-3B  | 5/8        | 4-1/2      | 3/4      | 80348       | 80354    | DCMT 32.5 |      |          |       | 99596       | T-15     |
| SDJCR/L 12-3B  | 3/4        | 4-1/2      | 1        | 80360       | 80366    | DCMT 32.5 |      |          |       | 99596       | T-15     |

## SSDCN



### Description:

SS Tool Holder  
For Positive Square SCMT Insert  
45° Side Cutting Edge Angle

| Insert Type  | Dimensions |            |          | Item Number | Parts     |      |          |       |             |          |
|--------------|------------|------------|----------|-------------|-----------|------|----------|-------|-------------|----------|
| Insert Style | Square B-H | Length (L) | Head (F) | EDP #       | Insert    | Seat | Lock Pin | Clamp | Clamp Screw | Torx Key |
| SSDCN 04-2   | 0.315      | 2.36       |          | 80372       | SCMT 21.5 |      |          |       | 99599       | T-7      |
| SSDCN 08-03A | 1/2        | 4          |          | 80384       | SCMT 32.5 |      |          |       | 99596       | T-15     |
| SSDCN 10-3B  | 5/8        | 4-1/2      |          | 80396       | SCMT 32.5 |      |          |       | 99596       | T-15     |
| SSDCN 12-3B  | 3/4        | 4-1/2      |          | 80408       | SCMT 32.5 |      |          |       | 99596       | T-15     |

## STFC R/L



### Description:

ST Tool Holder  
For Positive 60° Triangular TCMT or TCGT Insert  
0° Side Cutting Edge Angle

| Insert Type   | Dimensions |            |          | Item Number |          | Parts     |      |          |       |             |          |
|---------------|------------|------------|----------|-------------|----------|-----------|------|----------|-------|-------------|----------|
| Insert Style  | Square B-H | Length (L) | Head (F) | RH EDP #    | LH EDP # | Insert    | Seat | Lock Pin | Clamp | Clamp Screw | Torx Key |
| STFCR/L 06-2  | 3/8        | 2-1/2      | 1/2      | 80420       | 80426    | TCMT 21.5 |      |          |       | 99599       | T-7      |
| STFCR/L 08-2J | 1/2        | 3-1/2      | 5/8      | 80432       | 80438    | TCMT 21.5 |      |          |       | 99599       | T-7      |
| STFCR/L 10-2A | 5/8        | 4          | 3/4      | 80444       | 80450    | TCMT 21.5 |      |          |       | 99599       | T-7      |
| STFCR/L 10-3B | 5/8        | 4-1/2      | 3/4      | 80456       | 80462    | TCMT 32.5 |      |          |       | 99596       | T-15     |
| STFCR/L 12-3B | 3/4        | 4-1/2      | 1        | 80468       | 80474    | TCMT 32.5 |      |          |       | 99596       | T-15     |

## STJC R/L

### Description:

ST Tool Holders

For Positive 60° Triangular TCMT or TCGT Insert  
3° End or Side Cutting Edge Angle

| Insert Type   | Dimensions |            |          | Item Number |          | Parts     |      |          |       |             |          |
|---------------|------------|------------|----------|-------------|----------|-----------|------|----------|-------|-------------|----------|
| Insert Style  | Square B-H | Length (L) | Head (F) | RH EDP #    | LH EDP # | Insert    | Seat | Lock Pin | Clamp | Clamp Screw | Seat Key |
| STJCR/L 08-2J | 1/2        | 3-1/2      | 5/8      | 80486       | 80480    | TCMT 21.5 |      |          |       | 99599       | T-7      |
| STJCR/L 12-3B | 3/4        | 4-1/2      | 1        | 80492       | 80498    | TCMT 32.5 |      |          |       | 99596       | T-15     |

## SVJC R/L



### Description:

SV Tool Holders

For Positive 35° Diamond VCMT or VCGT Insert  
3° Side Cutting Edge Angle

| Insert Type   | Dimensions |            |          | Item Number |          | Parts   |      |          |       |             |            |
|---------------|------------|------------|----------|-------------|----------|---------|------|----------|-------|-------------|------------|
| Insert Style  | Square B-H | Length (L) | Head (F) | RH EDP #    | LH EDP # | Insert  | Seat | Lock Pin | Clamp | Clamp Screw | Seat Screw |
| SVJCR/L 12-3B | 3/4        | 4-1/2      | 1        | 80504       | 80510    | VCMT 33 |      |          |       | 99596       | T-15       |
| SVJCR/L 16-3C | 1          | 5          | 1-1/4    | 80516       | 80522    | VCMT 33 |      |          |       | 99596       | T-15       |
| SVJCR/L 16-3D | 1          | 6          | 1-1/4    | 80528       | 80534    | VCMT 33 |      |          |       | 99596       | T-15       |





# INSERTS CATALOG

2021 EDITION

[www.cobracarbide.com](http://www.cobracarbide.com)