

### TURNING

#### Applications

Super-finishing of non-ferrous materials

#### Insert Shapes/Sizes

CCGT 32.50.5, 32.51, 431, 432

DCGT 21.50.5, 21.51, 32.50.5,  
32.51, 32.52

VCGT 331, 332

#### Chipbreaker

CF - Finishing applications

#### Grade

TD1020 - PCD for general  
turning of non-  
ferrous materials

#### Materials

■ Non-Ferrous

## ISO TURN™

#### PCD Inserts with CF Chipbreaker for Finishing

- » Laser etched chipbreaker for light depth of cut applications
- » Capable of chip breaking at depths of cut as low as .004"
- » PCD allows for maximum speed and wear resistance in non-ferrous machining



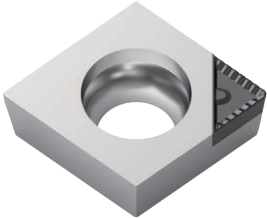
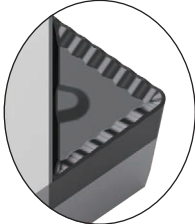
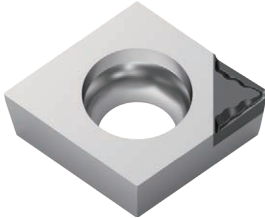
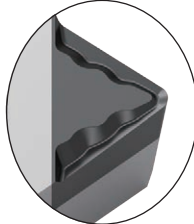
For more  
information »



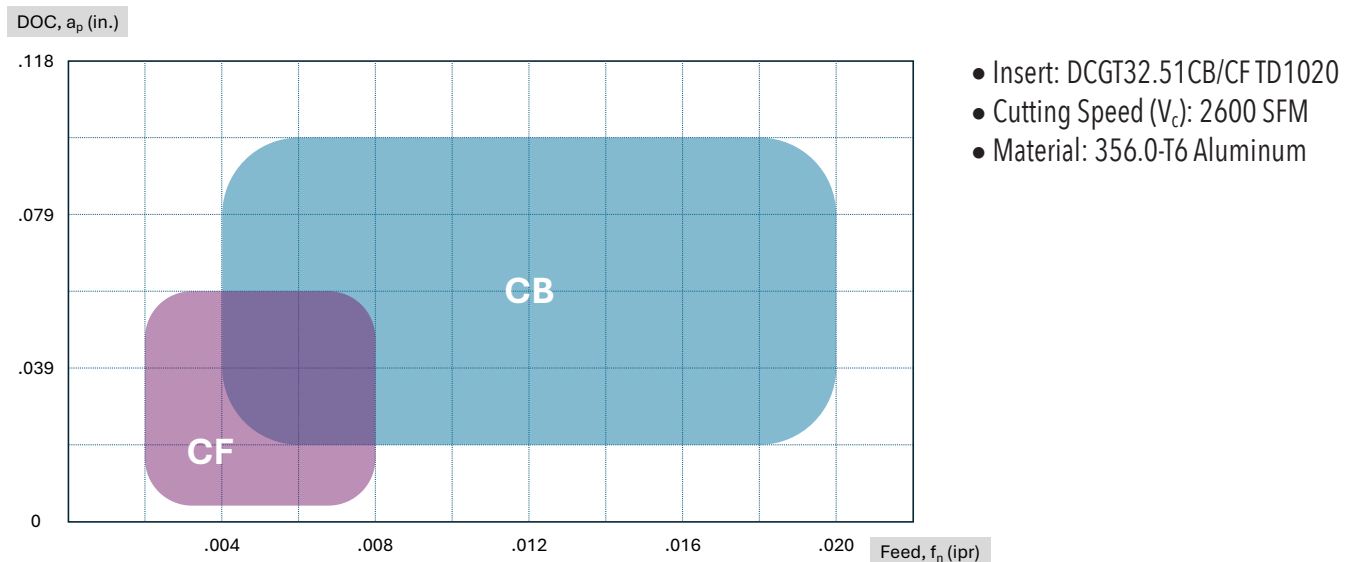
## Ingersoll introduces the new CF chipbreaker for finishing of non-ferrous materials

Long, stringy chips are often seen in finish machining of non-ferrous materials. This lack of chip control can lead to machine downtime that decreases productivity. The new CF chipbreaker is capable of breaking chips even in low depth of cut machining of non-ferrous materials. These new inserts are offered in PCD grade TD1020, which allow for a wide range of non-ferrous material machining.

### PCD Type Chipbreakers

| CB: For roughing to medium                                                                                                                                            | <b>new</b> CF: For finishing                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |   |

### Chip Control Range

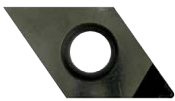
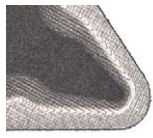


## Chip Comparison Table

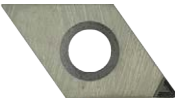
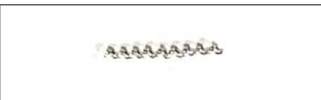
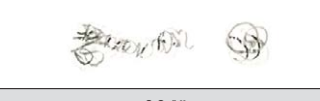
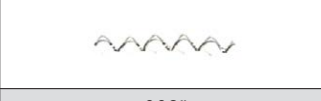
-Excellent chip breaking even in less than .020" depth of cut machining

| Material | 356.0-T6 Aluminum, Ø5" | Application | External turning | Cutting Speed | 2600 SFM |
|----------|------------------------|-------------|------------------|---------------|----------|
|----------|------------------------|-------------|------------------|---------------|----------|

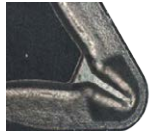
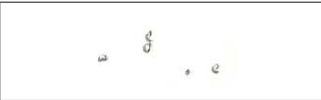
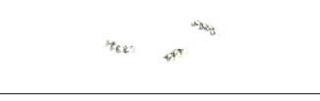
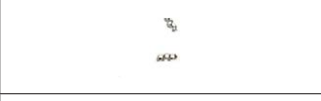
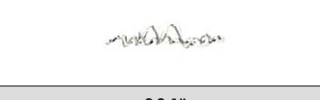
### Ingersoll

|                                                                                                                                                                                       |             |                                                                                   |                                                                                    |                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <br><br>DCGT32.51CF | .020"       |  |  |  |
|                                                                                                                                                                                       | .012"       |  |  |  |
|                                                                                                                                                                                       | .008"       |  |  |  |
|                                                                                                                                                                                       | $a_p$ (in.) | .002"                                                                             | .004"                                                                              | .008"                                                                               |
|                                                                                                                                                                                       |             | Feed, $f_n$ (ipr)                                                                 |                                                                                    |                                                                                     |

### Competitor A

|                                                                                                                                                                                            |             |                                                                                     |                                                                                      |                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <br><br>D-type insert | .020"       |   |   |   |
|                                                                                                                                                                                            | .012"       |  |  |  |
|                                                                                                                                                                                            | .008"       |  |  |  |
|                                                                                                                                                                                            | $a_p$ (in.) | .002"                                                                               | .004"                                                                                | .008"                                                                                 |
|                                                                                                                                                                                            |             | Feed, $f_n$ (ipr)                                                                   |                                                                                      |                                                                                       |

### Competitor B

|                                                                                                                                                                                             |             |                                                                                     |                                                                                      |                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <br><br>D-type insert | .020"       |  |  |  |
|                                                                                                                                                                                             | .012"       |  |  |  |
|                                                                                                                                                                                             | .008"       |  |  |  |
|                                                                                                                                                                                             | $a_p$ (in.) | .002"                                                                               | .004"                                                                                | .008"                                                                                 |
|                                                                                                                                                                                             |             | Feed, $f_n$ (ipr)                                                                   |                                                                                      |                                                                                       |

## CCGT CF

### POSITIVE 80° RHOMBIC INSERTS FOR FINISHING APPLICATIONS

| Size    | Dimensions (in.)         |                           |                |                        |                                       |                              |
|---------|--------------------------|---------------------------|----------------|------------------------|---------------------------------------|------------------------------|
|         | NOI<br>No. of<br>Indexes | IC<br>Inscribed<br>Circle | S<br>Thickness | RE<br>Corner<br>Radius | LE<br>Cutting<br>Edge Eff.<br>Length. | D1<br>Fixing<br>Hole<br>Dia. |
| 32.50.5 | 1                        | .375                      | .156           | .008                   | .161                                  | .173                         |
| 32.51   | 1                        | .375                      | .156           | .016                   | .161                                  | .173                         |
| 431     | 1                        | .500                      | .187           | .016                   | .161                                  | .217                         |
| 432     | 1                        | .500                      | .187           | .031                   | .157                                  | .217                         |

| Part Number   |              | ap (in.) |      | Feed (ipr) |      | PCD    |
|---------------|--------------|----------|------|------------|------|--------|
| Ansi          | ISO          | Min.     | Max. | Min.       | Max. | TD1020 |
| CCGT32.50.5CF | CCGT09T302CF | .004     | .039 | .002       | .008 | •      |
| CCGT32.51CF   | CCGT09T304CF | .004     | .039 | .002       | .008 | •      |
| CCGT431CF     | CCGT120404CF | .004     | .039 | .002       | .008 | •      |
| CCGT432CF     | CCGT120408CF | .004     | .039 | .002       | .008 | •      |

• = Standard Items

## DCGT CF

### POSITIVE 55° RHOMBIC INSERTS FOR FINISHING APPLICATIONS

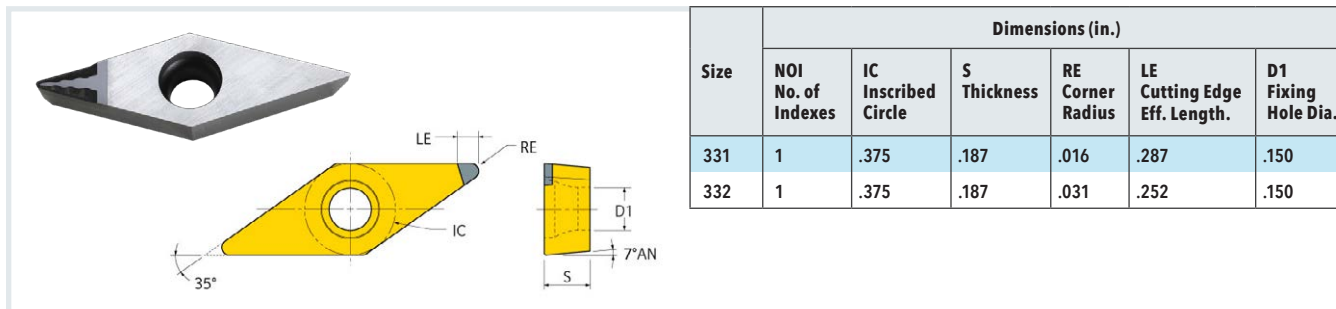
| Size    | Dimensions (in.)         |                           |                |                        |                                       |                              |
|---------|--------------------------|---------------------------|----------------|------------------------|---------------------------------------|------------------------------|
|         | NOI<br>No. of<br>Indexes | IC<br>Inscribed<br>Circle | S<br>Thickness | RE<br>Corner<br>Radius | LE<br>Cutting<br>Edge Eff.<br>Length. | D1<br>Fixing<br>Hole<br>Dia. |
| 21.50.5 | 1                        | .250                      | .094           | .008                   | .134                                  | .110                         |
| 21.51   | 1                        | .250                      | .094           | .016                   | .130                                  | .110                         |
| 32.50.5 | 1                        | .375                      | .156           | .008                   | .193                                  | .173                         |
| 32.51   | 1                        | .375                      | .156           | .016                   | .185                                  | .173                         |
| 32.52   | 1                        | .375                      | .156           | .031                   | .181                                  | .173                         |

| Part Number   |              | ap (in.) |      | Feed (ipr) |      | PCD    |
|---------------|--------------|----------|------|------------|------|--------|
| Ansi          | ISO          | Min.     | Max. | Min.       | Max. | TD1020 |
| DCGT21.50.5CF | DCGT070202CF | .004     | .039 | .002       | .008 | •      |
| DCGT21.51CF   | DCGT070204CF | .004     | .039 | .002       | .008 | •      |
| DCGT32.50.5CF | DCGT11T302CF | .004     | .059 | .002       | .008 | •      |
| DCGT32.51F    | DCGT11T304CF | .004     | .059 | .002       | .008 | •      |
| DCGT32.52CF   | DCGT11T308CF | .004     | .059 | .002       | .008 | •      |

• = Standard Items

## VC GT CF

### POSITIVE 35° RHOMBIC INSERTS FOR FINISHING APPLICATIONS



| Part Number |               | ap (in.) |      | Feed (ipr) |      | PCD    |
|-------------|---------------|----------|------|------------|------|--------|
| Ansi        | ISO           | Min.     | Max. | Min.       | Max. | TD1020 |
| VC GT331CF  | VC GT160404CF | .004     | .079 | .002       | .008 | •      |
| VC GT332CF  | VC GT160408CF | .004     | .079 | .002       | .008 | •      |

• = Standard Items