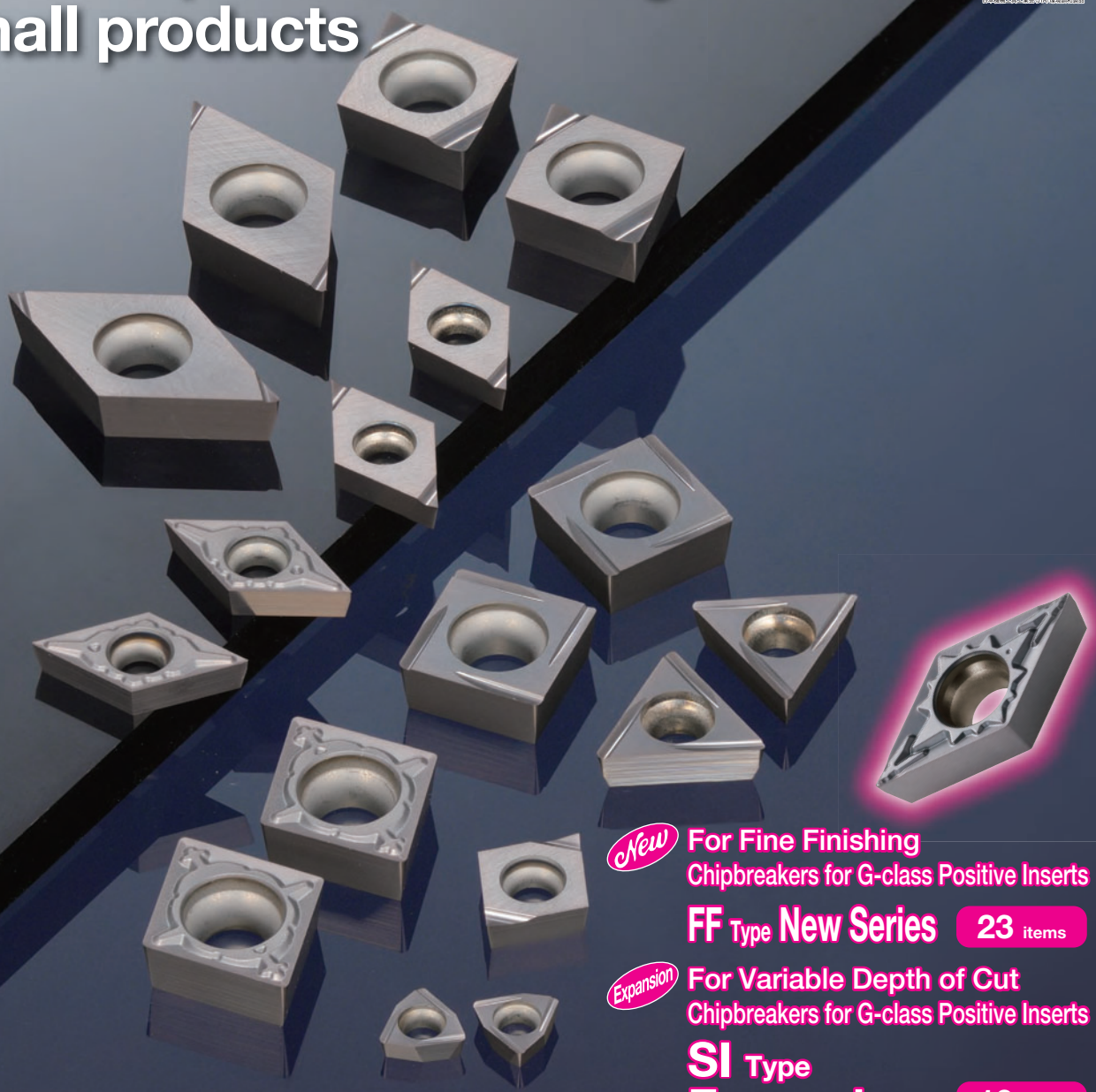


Coated Carbide Grades for Small Product Turning

# AC1030U

Rev. 5

## Perfect for precision turning of small products



Small Lathe/Autolathe Tool Series

# Sumi Small

**New** For Fine Finishing  
Chipbreakers for G-class Positive Inserts

**FF Type New Series** 23 items

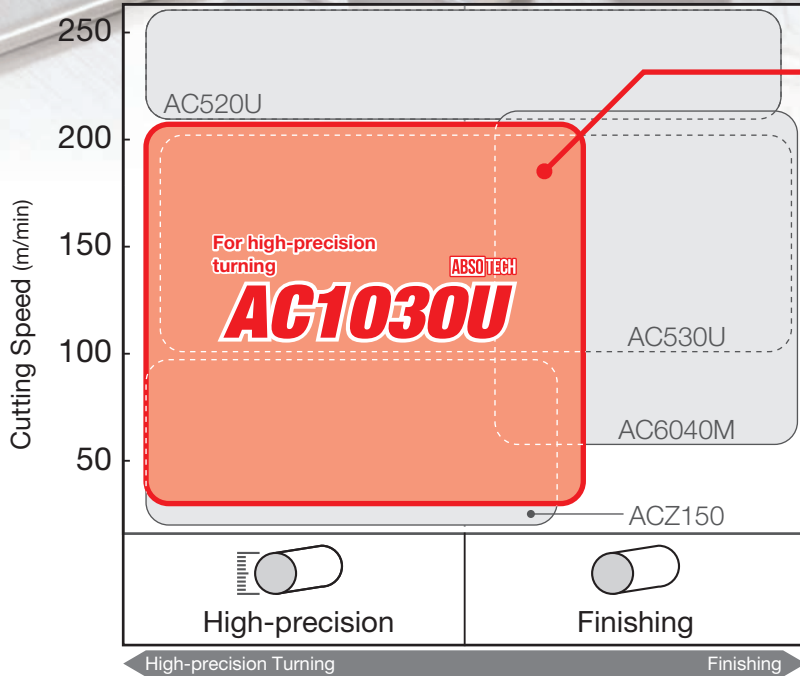
**Expansion** For Variable Depth of Cut  
Chipbreakers for G-class Positive Inserts

**SI Type Expansion** 10 items

**Expansion** For SEC-Grooving Tools SSH Type  
Insert series expansion for  
grooving depths of  
2mm and 3mm 16 items

# AC1030U

## Application Range



## AC1030U

Employs ABSOTECH™ PVD coating and a dedicated tough carbide substrate. High-quality cutting edge suppresses adhesion and micro-chipping, realising excellent machined surface quality.

## Features of AC1030U

### Outstanding wear and chipping resistance

- Smooth layer that suppresses coating chipping
- Improved machined surface quality
- High-hardness/high-heat resistance layer
- Wear resistance improved
- High adhesion technology
- Improved peel-off resistance
- Tough carbide substrate
- Improved chipping resistance

|                             | AC1030U                                       | Conventional Grade                            | Competitor's Product A                       |
|-----------------------------|---|---|--|
| Cutting edge before cutting |   |   |  |
| Cutting edge after cutting  |   |   |  |
|                             | No coating chipping/<br>Wear resistance: Good | Some coating chipping/<br>Wear resistance: OK | No coating chipping/<br>Wear resistance: Low |

### Outstanding machined surface quality

#### High-quality Ground Inserts

Significantly improved cutting edge grinding quality

| High-quality grinding technology | Conventional grade |
|----------------------------------|--------------------|
|                                  |                    |
| Rz0.65µm                         | Rz1.20µm           |

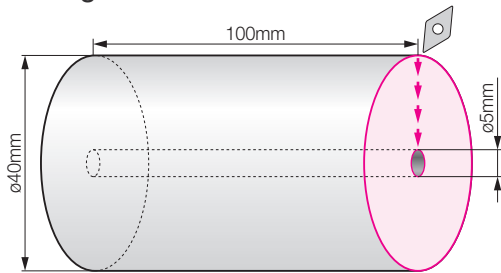
Improved surface quality finish through suppressing micro-chipping and adhesion

| AC1030U                            | Conventional Grade | Competitor's Product B |
|------------------------------------|--------------------|------------------------|
|                                    |                    |                        |
| Rz2.0µm                            | Rz4.1µm            | Rz4.3µm                |
| No tearing, good surface roughness | Obvious tearing    | Surface blemish        |

Work Material: SCM435 External Turning (Finishing) Insert: DCGT11T302R-FY Cutting Conditions:  $v_c = 50\text{m/min}$   $f = 0.05\text{mm/rev}$   $a_p = 0.1\text{mm}$  Wet (Oil-based)

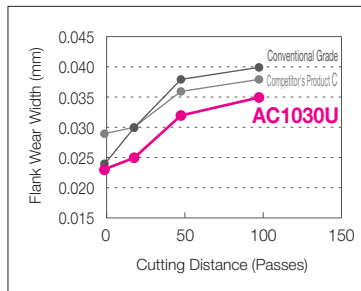
# AC1030U

## ■ Cutting Performance

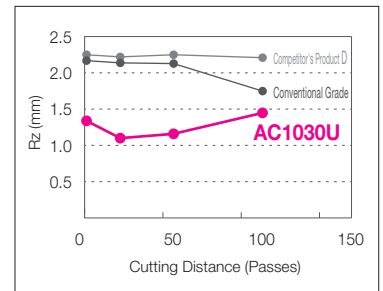


Work Material: SUS304 Insert: DCGT11T302R-FY  
Cutting Conditions:  $v_c = 100\text{m/min}$   $f = 0.05\text{mm/rev}$   $a_p = 0.1\text{mm}$  Wet (Oil-based)

### Wear Resistance



### Machined Surface Roughness



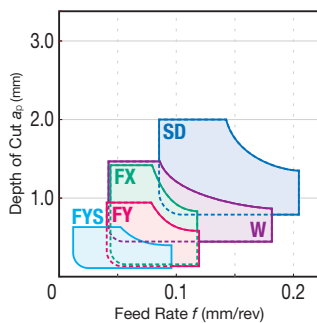
## ■ Application Examples

| STKM12C-EC Pipe   | S45C Shaft Stator   |
|---|---|
| <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>Rz0.3</b><br/><b>AC1030U</b><br/>(1,700 pcs)</p> </div> <div style="text-align: center;"> <p><b>Fracture</b><br/><b>Rz&gt;0.45</b><br/>Conventional Grade<br/>(1,650 pcs)</p> </div> </div> | <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>140</b><br/><b>AC1030U</b></p> </div> <div style="text-align: center;"> <p><b>70</b><br/>Conventional Grade</p> </div> </div> |
| <p>Insert: CCGT060201L-FX (AC1030U)<br/>Cutting Conditions: <math>v_c = 196\text{m/min}</math> <math>f = 0.04\text{mm/rev}</math> <math>a_p = 0.4\text{mm}</math> Wet</p>   | <p>Insert: VCGT110302R-FX (AC1030U)<br/>Cutting Conditions: <math>v_c = 195\text{m/min}</math> <math>f = 0.12\text{mm/rev}</math> <math>a_p = 0.175\text{-}0.250\text{mm}</math> Wet</p>  |

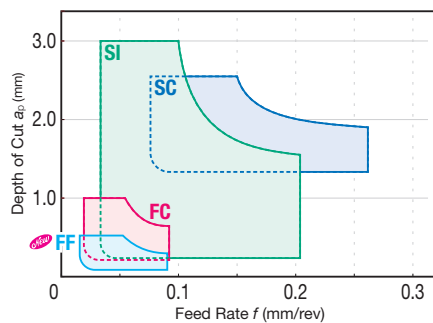
| SUS304 Body Valve   | SUS430 Sensor Housing  |
|---|--|
| <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>No Chips Clinging to Tool</b><br/><b>AC1030U</b><br/>(1,500 pcs)</p> </div> <div style="text-align: center;"> <p><b>Chips Clinging to Tool</b><br/>Competitor's Product E<br/>(1,000 pcs)</p> </div> </div> | <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>1,600</b><br/><b>AC1030U</b></p> </div> <div style="text-align: center;"> <p><b>800</b><br/>Conventional Grade</p> </div> </div> |
| <p>Insert: VCGT110301R-FY (AC1030U)<br/>Cutting Conditions: <math>v_c = 131.5\text{m/min}</math> <math>f = 0.025\text{mm/rev}</math> <math>a_p = 0.2\text{mm}</math> Wet</p>  | <p>Insert: DCGT11T304MN-FC (AC1030U)<br/>Cutting Conditions: <math>v_c = 150\text{m/min}</math> <math>f = 0.06\text{mm/rev}</math> <math>a_p = 0.2\text{mm}</math> Wet</p>   |

## ■ Chipbreaker Application Range

### ● Ground Type



### ● 3D Chipbreaker



**FF Type** *New* Fine Cutting to Finishing

Protrusion design enables chip control in fine cutting

Chipbreaker Cross Section (CCGT09T300 Type)

Corner Part: 0.45 (mm)

Cutting Edge: 11°




Wavy cutting edge and chip pocket design prevents chips from overflowing the breaker wall

## ■ Recommended Cutting Conditions









| Work Material Grade | P Free-Cutting Steel |              | P Carbon Steel |              | M Stainless Steel |              | N Brass       |              |
|---------------------|----------------------|--------------|----------------|--------------|-------------------|--------------|---------------|--------------|
|                     | $v_c$ (m/min)        | $f$ (mm/rev) | $v_c$ (m/min)  | $f$ (mm/rev) | $v_c$ (m/min)     | $f$ (mm/rev) | $v_c$ (m/min) | $f$ (mm/rev) |
| <b>AC1030U</b>      | 50 to 200            | 0.02 to 0.15 | 50 to 200      | 0.02 to 0.10 | 50 to 150         | 0.02 to 0.10 | 70 to 300     | 0.05 to 0.20 |

# AC1030U

## Positive 80° Diamond Type / E-class

| Shape  | Relief Angle | Cat. No.          | Stock<br>AC1030U | Dimensions (mm)  |           |           |               |      |     |      |
|--|--------------|-------------------|------------------|------------------|-----------|-----------|---------------|------|-----|------|
|  |              |                   |                  | Inscribed Circle | Thickness | Hole Dia. | Corner Radius |      |     |      |
|    | 7°           | CCET 0602003R-FX  | ●                | 6.35             | 2.38      | 2.8       | 0.03          |      |     |      |
|  |              | 0602003L-FX       | ●                |                  |           |           | 0.03          |      |     |      |
|  |              | 060201R-FX        | ●                |                  |           |           | 0.1           |      |     |      |
|  |              | 060201L-FX        | ●                |                  |           |           | 0.1           |      |     |      |
|  |              | 060202R-FX        | ●                |                  |           |           | 0.2           |      |     |      |
|  |              | 060202L-FX        | ●                |                  |           |           | 0.2           |      |     |      |
|  |              | 060204R-FX        | ●                |                  |           |           | 0.4           |      |     |      |
|  |              | 060204L-FX        | ●                |                  |           |           | 0.4           |      |     |      |
|  |              | CCET 09T3003R-FX  | ●                |                  |           |           | 9.525         | 3.97 | 4.4 | 0.03 |
|  |              | 09T3003L-FX       | ●                |                  |           |           |               |      |     | 0.03 |
|  |              | 09T301R-FX        | ●                |                  |           |           |               |      |     | 0.1  |
|  |              | 09T301L-FX        | ●                |                  |           |           |               |      |     | 0.1  |
| 09T302R-FX   | ●            | 0.2               |                  |                  |           |           |               |      |     |      |
| 09T302L-FX   | ●            | 0.2               |                  |                  |           |           |               |      |     |      |
| 09T304R-FX   | ●            | 0.4               |                  |                  |           |           |               |      |     |      |
| 09T304L-FX   | ●            | 0.4               |                  |                  |           |           |               |      |     |      |
|    | 7°           | CCET 03X1003R-FYS | ●                | 3.5              | 1.4       | 1.8       |               |      |     | 0.03 |
|  |              | 03X1003L-FYS      | ●                |                  |           |           |               |      |     | 0.03 |
|  |              | 03X101R-FYS       | ●                |                  |           |           |               |      |     | 0.1  |
|  |              | 03X101L-FYS       | ●                |                  |           |           |               |      |     | 0.1  |
|  |              | 03X102R-FYS       | ●                |                  |           |           | 0.2           |      |     |      |
|  |              | 03X102L-FYS       | ●                |                  |           |           | 0.2           |      |     |      |
|  |              | 03X104R-FYS       | ●                |                  |           |           | 0.4           |      |     |      |
|  |              | 03X104L-FYS       | ●                |                  |           |           | 0.4           |      |     |      |
|  |              | CCET 04X1003R-FYS | ●                |                  |           |           | 4.3           | 1.8  | 2.3 | 0.03 |
|  |              | 04X1003L-FYS      | ●                |                  |           |           |               |      |     | 0.03 |
|  |              | 04X101R-FYS       | ●                |                  |           |           |               |      |     | 0.1  |
|  |              | 04X101L-FYS       | ●                |                  |           |           |               |      |     | 0.1  |
| 04X102R-FYS  | ●            | 0.2               |                  |                  |           |           |               |      |     |      |
| 04X102L-FYS  | ●            | 0.2               |                  |                  |           |           |               |      |     |      |
| 04X104R-FYS  | ●            | 0.4               |                  |                  |           |           |               |      |     |      |
| 04X104L-FYS  | ●            | 0.4               |                  |                  |           |           |               |      |     |      |
|  | 7°           | CCET 03X1003R-FY  | ●                | 3.5              | 1.4       | 1.8       |               |      |     | 0.03 |
|  |              | 03X1003L-FY       | ●                |                  |           |           |               |      |     | 0.03 |
|  |              | 03X101R-FY        | ●                |                  |           |           |               |      |     | 0.1  |
|  |              | 03X101L-FY        | ●                |                  |           |           |               |      |     | 0.1  |
|  |              | 03X102R-FY        | ●                |                  |           |           | 0.2           |      |     |      |
|  |              | 03X102L-FY        | ●                |                  |           |           | 0.2           |      |     |      |
|  |              | 03X104R-FY        | ●                |                  |           |           | 0.4           |      |     |      |
|  |              | 03X104L-FY        | ●                |                  |           |           | 0.4           |      |     |      |
|  |              | CCET 04X1003R-FY  | ●                |                  |           |           | 4.3           | 1.8  | 2.3 | 0.03 |
|  |              | 04X1003L-FY       | ●                |                  |           |           |               |      |     | 0.03 |
|  |              | 04X101R-FY        | ●                |                  |           |           |               |      |     | 0.1  |
|  |              | 04X101L-FY        | ●                |                  |           |           |               |      |     | 0.1  |
|  |              | 04X102R-FY        | ●                | 0.2              |           |           |               |      |     |      |
|  |              | 04X102L-FY        | ●                | 0.2              |           |           |               |      |     |      |
|  |              | 04X104R-FY        | ●                | 0.4              |           |           |               |      |     |      |
|  |              | 04X104L-FY        | ●                | 0.4              |           |           |               |      |     |      |
|  |              | CCET 0602003R-FY  | ●                | 6.35             | 2.38      | 2.8       |               |      |     | 0.03 |
|  |              | 0602003L-FY       | ●                |                  |           |           |               |      |     | 0.03 |
|  |              | 060201R-FY        | ●                |                  |           |           |               |      |     | 0.1  |
|  |              | 060201L-FY        | ●                |                  |           |           |               |      |     | 0.1  |
|  |              | 060202R-FY        | ●                |                  |           |           | 0.2           |      |     |      |
|  |              | 060202L-FY        | ●                |                  |           |           | 0.2           |      |     |      |
|  |              | 060204R-FY        | ●                |                  |           |           | 0.4           |      |     |      |
|  |              | 060204L-FY        | ●                |                  |           |           | 0.4           |      |     |      |
| CCET 09T3003R-FY   | ●            | 9.525             | 3.97             |                  |           |           | 4.4           | 0.03 |     |      |
| 09T3003L-FY  | ●            |                   |                  |                  |           |           |               | 0.03 |     |      |
| 09T301R-FY   | ●            |                   |                  |                  |           |           |               | 0.1  |     |      |
| 09T301L-FY   | ●            |                   |                  |                  |           |           |               | 0.1  |     |      |
| 09T302R-FY   | ●            |                   |                  | 0.2              |           |           |               |      |     |      |
| 09T302L-FY   | ●            |                   |                  | 0.2              |           |           |               |      |     |      |
| 09T304R-FY   | ●            |                   |                  | 0.4              |           |           |               |      |     |      |
| 09T304L-FY   | ●            |                   |                  | 0.4              |           |           |               |      |     |      |

## Positive 80° Diamond Type / G-class




| Shape   | Relief Angle | Cat. No.  | Stock<br>AC1030U | Dimensions (mm)  |           |                  |               |      |      |      |     |       |      |     |      |
|---|--------------|---|------------------|------------------|-----------|------------------|---------------|------|------|------|-----|-------|------|-----|------|
|   |              |   |                  | Inscribed Circle | Thickness | Hole Dia.        | Corner Radius |      |      |      |     |       |      |     |      |
|    | 7°           | CCGT 060201MN-FF  | ●                | 6.35             | 2.38      | 2.8              | <0.1          |      |      |      |     |       |      |     |      |
|   |              | 060202MN-FF   | ●                |                  |           |                  | <0.2          |      |      |      |     |       |      |     |      |
|   |              | 060204MN-FF   | ●                |                  |           |                  | <0.4          |      |      |      |     |       |      |     |      |
|    | 7°           | CCGT 09T301MN-FF  | ●                | 9.525            | 3.97      | 4.4              | <0.1          |      |      |      |     |       |      |     |      |
|   |              | 09T302MN-FF   | ●                |                  |           |                  | <0.2          |      |      |      |     |       |      |     |      |
|   |              | 09T304MN-FF   | ●                |                  |           |                  | <0.4          |      |      |      |     |       |      |     |      |
|    | 7°           | CCGT 060201MN-FC  | ●                | 6.35             | 2.38      | 2.8              | <0.1          |      |      |      |     |       |      |     |      |
|   |              | 060202MN-FC   | ●                |                  |           |                  | <0.2          |      |      |      |     |       |      |     |      |
|   |              | 060204MN-FC   | ●                |                  |           |                  | <0.4          |      |      |      |     |       |      |     |      |
|   |              | CCGT 09T301MN-FC  | ●                |                  |           |                  | 9.525         | 3.97 | 4.4  | <0.1 |     |       |      |     |      |
|   |              | 09T302MN-FC   | ●                |                  |           |                  |               |      |      | <0.2 |     |       |      |     |      |
| 09T304MN-FC   | ●            | <0.4  |                  |                  |           |                  |               |      |      |      |     |       |      |     |      |
|    | 7°           | CCGT 0602003R-FX  | ●                | 6.35             | 2.38      | 2.8              | 0.03          |      |      |      |     |       |      |     |      |
|   |              | 0602003L-FX   | ●                |                  |           |                  | 0.03          |      |      |      |     |       |      |     |      |
|   |              | 060201R-FX  | ●                |                  |           |                  | 0.1           |      |      |      |     |       |      |     |      |
|   |              | 060201L-FX  | ●                |                  |           |                  | 0.1           |      |      |      |     |       |      |     |      |
|   |              | 060202R-FX  | ●                |                  |           |                  | 0.2           |      |      |      |     |       |      |     |      |
|   |              | 060202L-FX  | ●                |                  |           |                  | 0.2           |      |      |      |     |       |      |     |      |
|   |              | 060204R-FX  | ●                |                  |           |                  | 0.4           |      |      |      |     |       |      |     |      |
|   |              | 060204L-FX  | ●                |                  |           |                  | 0.4           |      |      |      |     |       |      |     |      |
|   |              | CCGT 09T3003R-FX  | ●                |                  |           |                  | 9.525         | 3.97 | 4.4  | 0.03 |     |       |      |     |      |
|   |              | 09T3003L-FX   | ●                |                  |           |                  |               |      |      | 0.03 |     |       |      |     |      |
|   |              | 09T301R-FX  | ●                |                  |           |                  |               |      |      | 0.1  |     |       |      |     |      |
|   |              | 09T301L-FX  | ●                |                  |           |                  |               |      |      | 0.1  |     |       |      |     |      |
|   |              | 09T302R-FX  | ●                | 0.2              |           |                  |               |      |      |      |     |       |      |     |      |
|   |              | 09T302L-FX  | ●                | 0.2              |           |                  |               |      |      |      |     |       |      |     |      |
|   |              | 09T304R-FX  | ●                | 0.4              |           |                  |               |      |      |      |     |       |      |     |      |
|   |              | 09T304L-FX  | ●                | 0.4              |           |                  |               |      |      |      |     |       |      |     |      |
|   |              | 09T308R-FX  | ●                | 0.8              |           |                  |               |      |      |      |     |       |      |     |      |
|   |              | 09T308L-FX  | ●                | 0.8              |           |                  |               |      |      |      |     |       |      |     |      |
|  | 7°           | CCGT 03X1003R-FYS   | ●                | 3.5              | 1.4       | 1.8              |               |      |      | 0.03 |     |       |      |     |      |
|   |              | 03X1003L-FYS  | ●                |                  |           |                  |               |      |      | 0.03 |     |       |      |     |      |
|   |              | 03X101R-FYS   | ●                |                  |           |                  | 0.1           |      |      |      |     |       |      |     |      |
|   |              | 03X101L-FYS   | ●                |                  |           |                  | 0.1           |      |      |      |     |       |      |     |      |
|   |              | 03X102R-FYS   | ●                |                  |           |                  | 0.2           |      |      |      |     |       |      |     |      |
|   |              | 03X102L-FYS   | ●                |                  |           |                  | 0.2           |      |      |      |     |       |      |     |      |
|   |              | 03X104R-FYS   | ●                |                  |           |                  | 0.4           |      |      |      |     |       |      |     |      |
|   |              | 03X104L-FYS   | ●                |                  |           |                  | 0.4           |      |      |      |     |       |      |     |      |
|   |              | CCGT 04X1003R-FYS   | ●                |                  |           |                  | 4.3           | 1.8  | 2.3  | 0.03 |     |       |      |     |      |
|   |              | 04X1003L-FYS  | ●                |                  |           |                  |               |      |      | 0.03 |     |       |      |     |      |
|   |              | 04X101R-FYS   | ●                |                  |           |                  |               |      |      | 0.1  |     |       |      |     |      |
|   |              | 04X101L-FYS   | ●                |                  |           |                  |               |      |      | 0.1  |     |       |      |     |      |
|   |              | 04X102R-FYS   | ●                | 0.2              |           |                  |               |      |      |      |     |       |      |     |      |
|   |              | 04X102L-FYS   | ●                | 0.2              |           |                  |               |      |      |      |     |       |      |     |      |
|   |              | 04X104R-FYS   | ●                | 0.4              |           |                  |               |      |      |      |     |       |      |     |      |
|   |              | 04X104L-FYS   | ●                | 0.4              |           |                  |               |      |      |      |     |       |      |     |      |
|   |              |  | 7°               | CCGT 03X101R-FY  | ●         | 3.5              |               |      |      | 1.4  | 1.8 | 0.1   |      |     |      |
|   |              |   |                  | 03X101L-FY       | ●         |                  |               |      |      |      |     | 0.1   |      |     |      |
| 03X102R-FY  | ●            |   |                  | 0.2              |           |                  |               |      |      |      |     |       |      |     |      |
| 03X102L-FY  | ●            |   |                  | 0.2              |           |                  |               |      |      |      |     |       |      |     |      |
| 03X104R-FY  | ●            |   |                  | 0.4              |           |                  |               |      |      |      |     |       |      |     |      |
| 03X104L-FY  | ●            |   |                  | 0.4              |           |                  |               |      |      |      |     |       |      |     |      |
| CCGT 04X101R-FY   | ●            |   |                  | 4.3              | 1.8       |                  | 2.3           | 0.1  |      |      |     |       |      |     |      |
| 04X101L-FY  | ●            |   |                  |                  |           |                  |               | 0.1  |      |      |     |       |      |     |      |
| 04X102R-FY  | ●            |   |                  |                  |           |                  |               | 0.2  |      |      |     |       |      |     |      |
| 04X102L-FY  | ●            |   |                  |                  |           |                  |               | 0.2  |      |      |     |       |      |     |      |
| 04X104R-FY  | ●            |   |                  |                  |           |                  |               | 0.4  |      |      |     |       |      |     |      |
| 04X104L-FY  | ●            |   |                  |                  |           |                  |               | 0.4  |      |      |     |       |      |     |      |
|  | 7°           |   |                  |                  |           | CCGT 060201MN-SI |               | ●    | 6.35 | 2.38 | 2.8 | <0.1  |      |     |      |
|   |              |   |                  |                  |           | 060202MN-SI      |               | ●    |      |      |     | <0.2  |      |     |      |
|   |              |   |                  |                  |           | 060204MN-SI      |               | ●    |      |      |     | <0.4  |      |     |      |
|   |              |   |                  |                  |           | CCGT 09T301MN-SI |               | ●    |      |      |     | 9.525 | 3.97 | 4.4 | <0.1 |
|   |              |   |                  |                  |           | 09T302MN-SI      |               | ●    |      |      |     |       |      |     | <0.2 |
|   |              |   |                  |                  |           | 09T304MN-SI      |               | ●    |      |      |     |       |      |     | <0.4 |
|  | 7°           | CCGT 0602003N-SC  | ●                | 6.35             | 2.38      | 2.8              | 0.03          |      |      |      |     |       |      |     |      |
|   |              | CCGT 060201MN-SC  | ●                | 6.35             | 2.38      | 2.8              | <0.1          |      |      |      |     |       |      |     |      |
|   |              | 060202MN-SC   | ●                | 6.35             | 2.38      | 2.8              | <0.2          |      |      |      |     |       |      |     |      |
|   |              | CCGT 09T3003N-SC  | ●                | 9.525            | 3.97      | 4.4              | 0.03          |      |      |      |     |       |      |     |      |
| CCGT 09T301MN-SC  | ●            | 9.525   | 3.97             | 4.4              | <0.1      |                  |               |      |      |      |     |       |      |     |      |
| 09T302MN-SC   | ●            | 9.525   | 3.97             | 4.4              | <0.2      |                  |               |      |      |      |     |       |      |     |      |

A "<" next to the corner radius indicates a negative tolerance.











● mark: Standard stocked item ● mark: Standard stocked item (new product/expanded item)

# AC1030U

## Positive 55° Diamond Type / E-class

| Shape   | Relief Angle | Cat. No.  | Stock   | Dimensions (mm)  |           |           |               |      |     |                  |   |      |      |     |      |
|---|--------------|---|---------|------------------|-----------|-----------|---------------|------|-----|------------------|---|------|------|-----|------|
|   |              |   | AC1030U | Inscribed Circle | Thickness | Hole Dia. | Corner Radius |      |     |                  |   |      |      |     |      |
|  | 7°           | DCET 0702003R-FX  | ●       | 6.35             | 2.38      | 2.8       | 0.03          |      |     |                  |   |      |      |     |      |
|   |              | 0702003L-FX   | ●       |                  |           |           | 0.03          |      |     |                  |   |      |      |     |      |
|   |              | 0702008R-FX   | ●       |                  |           |           | 0.08          |      |     |                  |   |      |      |     |      |
|   |              | 0702008L-FX   | ●       |                  |           |           | 0.08          |      |     |                  |   |      |      |     |      |
|   |              | 070201R-FX  | ●       |                  |           |           | 0.1           |      |     |                  |   |      |      |     |      |
|   |              | 070201L-FX  | ●       |                  |           |           | 0.1           |      |     |                  |   |      |      |     |      |
|   |              | 0702018R-FX   | ●       |                  |           |           | 0.18          |      |     |                  |   |      |      |     |      |
|   |              | 0702018L-FX   | ●       |                  |           |           | 0.18          |      |     |                  |   |      |      |     |      |
|   |              | 070204R-FX  | ●       |                  |           |           | 0.4           |      |     |                  |   |      |      |     |      |
|   |              | 070204L-FX  | ●       |                  |           |           | 0.4           |      |     |                  |   |      |      |     |      |
|   |              | DCET 11T3003R-FX  | ●       |                  |           |           | 9.525         | 3.97 | 4.4 | 0.03             |   |      |      |     |      |
|   |              | 11T3003L-FX   | ●       |                  |           |           |               |      |     | 0.03             |   |      |      |     |      |
|   |              | 11T3008R-FX   | ●       |                  |           |           |               |      |     | 0.08             |   |      |      |     |      |
|   |              | 11T3008L-FX   | ●       |                  |           |           |               |      |     | 0.08             |   |      |      |     |      |
|   |              | 11T301R-FX  | ●       |                  |           |           |               |      |     | 0.1              |   |      |      |     |      |
|   |              | 11T301L-FX  | ●       |                  |           |           |               |      |     | 0.1              |   |      |      |     |      |
|   |              | 11T3018R-FX   | ●       |                  |           |           |               |      |     | 0.18             |   |      |      |     |      |
|   |              | 11T3018L-FX   | ●       |                  |           |           |               |      |     | 0.18             |   |      |      |     |      |
| 11T304R-FX  | ●            | 0.4   |         |                  |           |           |               |      |     |                  |   |      |      |     |      |
| 11T304L-FX  | ●            | 0.4   |         |                  |           |           |               |      |     |                  |   |      |      |     |      |
|  | 7°           | DCET 0702003R-FYS   | ●       | 6.35             | 2.38      | 2.8       |               |      |     | 0.03             |   |      |      |     |      |
|   |              | 0702003L-FYS  | ●       |                  |           |           |               |      |     | 0.03             |   |      |      |     |      |
|   |              | 070201R-FYS   | ●       |                  |           |           |               |      |     | 0.1              |   |      |      |     |      |
|   |              | 070201L-FYS   | ●       |                  |           |           |               |      |     | 0.1              |   |      |      |     |      |
|   |              | 070202R-FYS   | ●       |                  |           |           |               |      |     | 0.2              |   |      |      |     |      |
|   |              | 070202L-FYS   | ●       |                  |           |           |               |      |     | 0.2              |   |      |      |     |      |
|   |              | 070204R-FYS   | ●       |                  |           |           |               |      |     | 0.4              |   |      |      |     |      |
|   |              | 070204L-FYS   | ●       |                  |           |           |               |      |     | 0.4              |   |      |      |     |      |
|   |              | DCET 11T3003R-FYS   | ●       |                  |           |           | 9.525         | 3.97 | 4.4 | 0.03             |   |      |      |     |      |
|   |              | 11T3003L-FYS  | ●       |                  |           |           |               |      |     | 0.03             |   |      |      |     |      |
|   |              | 11T301R-FYS   | ●       |                  |           |           |               |      |     | 0.1              |   |      |      |     |      |
|   |              | 11T301L-FYS   | ●       |                  |           |           |               |      |     | 0.1              |   |      |      |     |      |
|   |              | 11T302R-FYS   | ●       |                  |           |           |               |      |     | 0.2              |   |      |      |     |      |
|   |              | 11T302L-FYS   | ●       |                  |           |           |               |      |     | 0.2              |   |      |      |     |      |
|   |              | 11T304R-FYS   | ●       |                  |           |           |               |      |     | 0.4              |   |      |      |     |      |
|   |              | 11T304L-FYS   | ●       |                  |           |           |               |      |     | 0.4              |   |      |      |     |      |
|   |              |  | 7°      |                  |           |           |               |      |     | DCET 0702003R-FY | ● | 6.35 | 2.38 | 2.8 | 0.03 |
|   |              |   |         |                  |           |           |               |      |     | 0702003L-FY      | ● |      |      |     | 0.03 |
| 0702008R-FY   | ●            |   |         | 0.08             |           |           |               |      |     |                  |   |      |      |     |      |
| 0702008L-FY   | ●            |   |         | 0.08             |           |           |               |      |     |                  |   |      |      |     |      |
| 070201R-FY  | ●            |   |         | 0.1              |           |           |               |      |     |                  |   |      |      |     |      |
| 070201L-FY  | ●            |   |         | 0.1              |           |           |               |      |     |                  |   |      |      |     |      |
| 0702018R-FY   | ●            |   |         | 0.18             |           |           |               |      |     |                  |   |      |      |     |      |
| 0702018L-FY   | ●            |   |         | 0.18             |           |           |               |      |     |                  |   |      |      |     |      |
| 070204R-FY  | ●            |   |         | 0.4              |           |           |               |      |     |                  |   |      |      |     |      |
| 070204L-FY  | ●            |   |         | 0.4              |           |           |               |      |     |                  |   |      |      |     |      |
| DCET 11T3003R-FY  | ●            |   |         | 9.525            | 3.97      | 4.4       | 0.03          |      |     |                  |   |      |      |     |      |
| 11T3003L-FY   | ●            |   |         |                  |           |           | 0.03          |      |     |                  |   |      |      |     |      |
| 11T3008R-FY   | ●            |   |         |                  |           |           | 0.08          |      |     |                  |   |      |      |     |      |
| 11T3008L-FY   | ●            |   |         |                  |           |           | 0.08          |      |     |                  |   |      |      |     |      |
| 11T301R-FY  | ●            |   |         |                  |           |           | 0.1           |      |     |                  |   |      |      |     |      |
| 11T301L-FY  | ●            |   |         |                  |           |           | 0.1           |      |     |                  |   |      |      |     |      |
| 11T3018R-FY   | ●            |   |         |                  |           |           | 0.18          |      |     |                  |   |      |      |     |      |
| 11T3018L-FY   | ●            |   |         |                  |           |           | 0.18          |      |     |                  |   |      |      |     |      |
| 11T304R-FY  | ●            | 0.4   |         |                  |           |           |               |      |     |                  |   |      |      |     |      |
| 11T304L-FY  | ●            | 0.4   |         |                  |           |           |               |      |     |                  |   |      |      |     |      |

## Positive 55° Diamond Type / G-class



| Shape   | Relief Angle | Cat. No.  | Stock   | Dimensions (mm)  |           |           |                  |      |       |                   |     |      |      |     |      |
|---|--------------|---|---------|------------------|-----------|-----------|------------------|------|-------|-------------------|-----|------|------|-----|------|
|   |              |   | AC1030U | Inscribed Circle | Thickness | Hole Dia. | Corner Radius    |      |       |                   |     |      |      |     |      |
|    | 7°           | DCGT 070201MN-FF  | ●       | 6.35             | 2.38      | 2.8       | <0.1             |      |       |                   |     |      |      |     |      |
|   |              | 070202MN-FF   | ●       |                  |           |           | <0.2             |      |       |                   |     |      |      |     |      |
|   |              | 070204MN-FF   | ●       |                  |           |           | <0.4             |      |       |                   |     |      |      |     |      |
|    | 7°           | DCGT 11T301MN-FF  | ●       | 9.525            | 3.97      | 4.4       | <0.1             |      |       |                   |     |      |      |     |      |
|   |              | 11T302MN-FF   | ●       |                  |           |           | <0.2             |      |       |                   |     |      |      |     |      |
|   |              | 11T304MN-FF   | ●       |                  |           |           | <0.4             |      |       |                   |     |      |      |     |      |
|    | 7°           | DCGT 070201MN-FC  | ●       | 6.35             | 2.38      | 2.8       | <0.1             |      |       |                   |     |      |      |     |      |
|   |              | 070202MN-FC   | ●       |                  |           |           | <0.2             |      |       |                   |     |      |      |     |      |
|   |              | 070204MN-FC   | ●       |                  |           |           | <0.4             |      |       |                   |     |      |      |     |      |
|    | 7°           | DCGT 11T301MN-FC  | ●       | 9.525            | 3.97      | 4.4       | <0.1             |      |       |                   |     |      |      |     |      |
|   |              | 11T302MN-FC   | ●       |                  |           |           | <0.2             |      |       |                   |     |      |      |     |      |
|   |              | 11T304MN-FC   | ●       |                  |           |           | <0.4             |      |       |                   |     |      |      |     |      |
|    | 7°           | DCGT 0702003R-FX  | ●       | 6.35             | 2.38      | 2.8       | 0.03             |      |       |                   |     |      |      |     |      |
|   |              | 0702003L-FX   | ●       |                  |           |           | 0.03             |      |       |                   |     |      |      |     |      |
|   |              | 070201R-FX  | ●       |                  |           |           | 0.1              |      |       |                   |     |      |      |     |      |
|   |              | 070201L-FX  | ●       |                  |           |           | 0.1              |      |       |                   |     |      |      |     |      |
|   |              | 070202R-FX  | ●       |                  |           |           | 0.2              |      |       |                   |     |      |      |     |      |
|   |              | 070202L-FX  | ●       |                  |           |           | 0.2              |      |       |                   |     |      |      |     |      |
|   |              | DCGT 11T3003R-FX  | ●       |                  |           |           | 9.525            | 3.97 | 4.4   | 0.03              |     |      |      |     |      |
|   |              | 11T3003L-FX   | ●       |                  |           |           |                  |      |       | 0.03              |     |      |      |     |      |
|   |              | 11T301R-FX  | ●       |                  |           |           |                  |      |       | 0.1               |     |      |      |     |      |
|   |              | 11T301L-FX  | ●       |                  |           |           |                  |      |       | 0.1               |     |      |      |     |      |
|   |              | 11T302R-FX  | ●       |                  |           |           |                  |      |       | 0.2               |     |      |      |     |      |
|   |              | 11T302L-FX  | ●       |                  |           |           |                  |      |       | 0.2               |     |      |      |     |      |
|   |              | 11T304R-FX  | ●       |                  |           |           |                  |      |       | 0.4               |     |      |      |     |      |
|   |              | 11T304L-FX  | ●       |                  |           |           |                  |      |       | 0.4               |     |      |      |     |      |
|   |              |  | 7°      |                  |           |           |                  |      |       | DCGT 0702003R-FYS | ●   | 6.35 | 2.38 | 2.8 | 0.03 |
|   |              |   |         |                  |           |           |                  |      |       | 0702003L-FYS      | ●   |      |      |     | 0.03 |
|   |              |   |         |                  |           |           |                  |      |       | 070201R-FYS       | ●   |      |      |     | 0.1  |
|   |              |   |         |                  |           |           |                  |      |       | 070201L-FYS       | ●   |      |      |     | 0.1  |
| 070202R-FYS   | ●            |   |         | 0.2              |           |           |                  |      |       |                   |     |      |      |     |      |
| 070202L-FYS   | ●            |   |         | 0.2              |           |           |                  |      |       |                   |     |      |      |     |      |
| 070204R-FYS   | ●            |   |         | 0.4              |           |           |                  |      |       |                   |     |      |      |     |      |
| 070204L-FYS   | ●            |   |         | 0.4              |           |           |                  |      |       |                   |     |      |      |     |      |
| DCGT 11T3003R-FYS   | ●            |   |         | 9.525            | 3.97      | 4.4       |                  |      |       | 0.03              |     |      |      |     |      |
| 11T3003L-FYS  | ●            |   |         |                  |           |           |                  |      |       | 0.03              |     |      |      |     |      |
| 11T301R-FYS   | ●            |   |         |                  |           |           | 0.1              |      |       |                   |     |      |      |     |      |
| 11T301L-FYS   | ●            |   |         |                  |           |           | 0.1              |      |       |                   |     |      |      |     |      |
| 11T302R-FYS   | ●            |   |         |                  |           |           | 0.2              |      |       |                   |     |      |      |     |      |
| 11T302L-FYS   | ●            |   |         |                  |           |           | 0.2              |      |       |                   |     |      |      |     |      |
| 11T304R-FYS   | ●            |   |         |                  |           |           | 0.4              |      |       |                   |     |      |      |     |      |
| 11T304L-FYS   | ●            |   |         |                  |           |           | 0.4              |      |       |                   |     |      |      |     |      |
|  | 7°           |   |         |                  |           |           | DCGT 0702003R-FY | ●    | 6.35  | 2.38              | 2.8 |      |      |     | 0.03 |
|   |              |   |         |                  |           |           | 0702003L-FY      | ●    |       |                   |     |      |      |     | 0.03 |
|   |              | 070201R-FY  | ●       |                  |           |           | 0.1              |      |       |                   |     |      |      |     |      |
|   |              | 070201L-FY  | ●       |                  |           |           | 0.1              |      |       |                   |     |      |      |     |      |
|   |              | 070202R-FY  | ●       |                  |           |           | 0.2              |      |       |                   |     |      |      |     |      |
|   |              | 070202L-FY  | ●       |                  |           |           | 0.2              |      |       |                   |     |      |      |     |      |
|   |              | 070204R-FY  | ●       |                  |           |           | 0.4              |      |       |                   |     |      |      |     |      |
|   |              | 070204L-FY  | ●       |                  |           |           | 0.4              |      |       |                   |     |      |      |     |      |
|   |              | DCGT 11T3003R-FY  | ●       |                  |           |           | 9.525            | 3.97 |       |                   |     | 4.4  | 0.03 |     |      |
|   |              | 11T3003L-FY   | ●       |                  |           |           |                  |      |       |                   |     |      | 0.03 |     |      |
|   |              | 11T301R-FY  | ●       | 0.1              |           |           |                  |      |       |                   |     |      |      |     |      |
|   |              | 11T301L-FY  | ●       | 0.1              |           |           |                  |      |       |                   |     |      |      |     |      |
|   |              | 11T302R-FY  | ●       | 0.2              |           |           |                  |      |       |                   |     |      |      |     |      |
|   |              | 11T302L-FY  | ●       | 0.2              |           |           |                  |      |       |                   |     |      |      |     |      |
|   |              | 11T304R-FY  | ●       | 0.4              |           |           |                  |      |       |                   |     |      |      |     |      |
|   |              | 11T304L-FY  | ●       | 0.4              |           |           |                  |      |       |                   |     |      |      |     |      |
|   |              |  | 7°      | DCGT 070201MN-SI | ●         | 6.35      |                  |      |       |                   |     |      | 2.38 | 2.8 | <0.1 |
|   |              |   |         | 070202MN-SI      | ●         |           |                  |      |       |                   |     |      |      |     | <0.2 |
| 070204MN-SI   | ●            |   |         | <0.4             |           |           |                  |      |       |                   |     |      |      |     |      |
|  | 7°           | DCGT 11T301MN-SI  | ●       | 9.525            | 3.97      | 4.4       |                  |      | <0.1  |                   |     |      |      |     |      |
|   |              | 11T302MN-SI   | ●       |                  |           |           |                  |      | <0.2  |                   |     |      |      |     |      |
|   |              | 11T304MN-SI   | ●       |                  |           |           |                  |      | <0.4  |                   |     |      |      |     |      |
|  | 7°           | DCGT 0702003N-SC  | ●       | 6.35             | 2.38      | 2.8       |                  |      | 0.03  |                   |     |      |      |     |      |
|   |              | DCGT 070201MN-SC  | ●       |                  |           |           |                  |      | <0.1  |                   |     |      |      |     |      |
|   |              | 070202MN-SC   | ●       |                  |           |           |                  |      | <0.2  |                   |     |      |      |     |      |
|   |              | DCGT 11T3003N-SC  | ●       |                  |           |           |                  |      | 9.525 | 3.97              | 4.4 |      | 0.03 |     |      |
|   |              | DCGT 11T301MN-SC  | ●       |                  |           |           | <0.1             |      |       |                   |     |      |      |     |      |
|   |              | 11T302MN-SC   | ●       |                  |           |           | <0.2             |      |       |                   |     |      |      |     |      |
| 11T304MN-SC   | ●            | <0.4  |         |                  |           |           |                  |      |       |                   |     |      |      |     |      |
| 11T308MN-SC   | ●            | <0.8  |         |                  |           |           |                  |      |       |                   |     |      |      |     |      |

A "<" next to the corner radius indicates a negative tolerance.











● mark: Standard stocked item ● mark: Standard stocked item (new product/expanded item)

# AC1030U






## ○ Positive Square Type / G-class

| Shape  | Relief Angle | Cat. No.         | Stock   | Dimensions (mm)  |           |           |               |
|--|--------------|------------------|---------|------------------|-----------|-----------|---------------|
|  |              |                  | AC1030U | Inscribed Circle | Thickness | Hole Dia. | Corner Radius |
|  | 7°           | SCGT 09T302R-FX  | ●       | 9.525            | 3.97      | 4.4       | 0.2           |
|  |              | 09T302L-FX       | ●       |                  |           |           | 0.2           |
|  |              | 09T304R-FX       | ●       |                  |           |           | 0.4           |
|  |              | 09T304L-FX       | ●       |                  |           |           | 0.4           |
|  |              | SCGT 120404R-FX  | ●       |                  |           |           | 12.7          |
| 120404L-FX   | ●            | 0.4              |         |                  |           |           |               |
|  | 7°           | SCGT 070201MN-SC | ●       | 7.94             | 2.38      | 3.4       | <0.1          |
|  |              | 070202MN-SC      | ●       |                  |           |           | <0.2          |
|  |              | SCGT 09T301MN-SC | ●       |                  |           |           | 9.525         |
| 09T302MN-SC  | ●            | <0.2             |         |                  |           |           |               |

## △ Positive Triangular Type / G-class

| Shape  | Relief Angle | Cat. No.         | Stock   | Dimensions (mm)  |           |           |               |      |     |      |
|--|--------------|------------------|---------|------------------|-----------|-----------|---------------|------|-----|------|
|  |              |                  | AC1030U | Inscribed Circle | Thickness | Hole Dia. | Corner Radius |      |     |      |
|    | 5°           | TBGT 060102R-FX  | ●       | 3.97             | 1.59      | 2.2       | 0.2           |      |     |      |
|  |              | 060102L-FX       | ●       |                  |           |           | 0.2           |      |     |      |
|  |              | 060104R-FX       | ●       |                  |           |           | 0.4           |      |     |      |
|  |              | 060104L-FX       | ●       |                  |           |           | 0.4           |      |     |      |
|    | 5°           | TBGT 060101R-FY  | ●       | 3.97             | 1.59      | 2.2       | 0.1           |      |     |      |
|  |              | 060101L-FY       | ●       |                  |           |           | 0.1           |      |     |      |
|  |              | 060102R-FY       | ●       |                  |           |           | 0.2           |      |     |      |
|  |              | 060102L-FY       | ●       |                  |           |           | 0.2           |      |     |      |
|  |              | 060104R-FY       | ●       |                  |           |           | 0.4           |      |     |      |
|  |              | 060104L-FY       | ●       |                  |           |           | 0.4           |      |     |      |
|  | 5°           | TBGT 060102R-W   | ●       | 3.97             | 1.59      | 2.2       | 0.2           |      |     |      |
|  |              | 060102L-W        | ●       |                  |           |           | 0.2           |      |     |      |
|  |              | 060104R-W        | ●       |                  |           |           | 0.4           |      |     |      |
|  |              | 060104L-W        | ●       |                  |           |           | 0.4           |      |     |      |
|  | 7°           | TCGT 110201MN-FF | ●       | 6.35             | 2.38      | 2.8       | <0.1          |      |     |      |
|  |              | 110202MN-FF      | ●       |                  |           |           | <0.2          |      |     |      |
|  |              | 110204MN-FF      | ●       |                  |           |           | <0.4          |      |     |      |
|  | 7°           | TCGT 090201R-FX  | ●       | 5.56             | 2.38      | 2.5       | 0.1           |      |     |      |
|  |              | 090201L-FX       | ●       |                  |           |           | 0.1           |      |     |      |
|  |              | 090202R-FX       | ●       |                  |           |           | 0.2           |      |     |      |
|  |              | 090202L-FX       | ●       |                  |           |           | 0.2           |      |     |      |
|  |              | TCGT 110201R-FX  | ●       |                  |           |           | 6.35          | 2.38 | 2.8 | 0.1  |
|  |              | 110201L-FX       | ●       |                  |           |           |               |      |     | 0.1  |
| 110202R-FX   | ●            | 0.2              |         |                  |           |           |               |      |     |      |
| 110202L-FX   | ●            | 0.2              |         |                  |           |           |               |      |     |      |
|  | 7°           | TCGT 090201R-FY  | ●       | 5.56             | 2.38      | 2.5       | 0.1           |      |     |      |
|  |              | 090201L-FY       | ●       |                  |           |           | 0.1           |      |     |      |
|  |              | 090202R-FY       | ●       |                  |           |           | 0.2           |      |     |      |
|  |              | 090202L-FY       | ●       |                  |           |           | 0.2           |      |     |      |
|  |              | TCGT 110201R-FY  | ●       |                  |           |           | 6.35          | 2.38 | 2.8 | 0.1  |
|  |              | 110201L-FY       | ●       |                  |           |           |               |      |     | 0.1  |
| 110202R-FY   | ●            | 0.2              |         |                  |           |           |               |      |     |      |
| 110202L-FY   | ●            | 0.2              |         |                  |           |           |               |      |     |      |
|  | 7°           | TCGT 110201MN-SI | ●       | 6.35             | 2.38      | 2.8       | <0.1          |      |     |      |
|  |              | 110202MN-SI      | ●       |                  |           |           | <0.2          |      |     |      |
|  |              | 110204MN-SI      | ●       |                  |           |           | <0.4          |      |     |      |
|  | 7°           | TCGT 080201MN-SC | ●       | 4.76             | 2.38      | 2.3       | <0.1          |      |     |      |
|  |              | 080202MN-SC      | ●       |                  |           |           | <0.2          |      |     |      |
|  |              | TCGT 090201MN-SC | ●       |                  |           |           | 5.56          | 2.38 | 2.5 | <0.1 |
| 090202MN-SC  | ●            | <0.2             |         |                  |           |           |               |      |     |      |
|  | 11°          | TPGT 080201MN-FF | ●       | 4.76             | 2.38      | 2.4       | <0.1          |      |     |      |
|  |              | 080202MN-FF      | ●       |                  |           |           | <0.2          |      |     |      |
|  | 11°          | TPGT 110302MN-FC | ●       | 6.35             | 3.18      | 3.4       | <0.2          |      |     |      |
|  |              | 110304MN-FC      | ●       |                  |           |           | <0.4          |      |     |      |

## △ Positive Triangular Type / G-class (continued)






| Shape   | Relief Angle | Cat. No.   | Stock   | Dimensions (mm)  |           |           |               |      |     |      |
|---|--------------|--|---------|------------------|-----------|-----------|---------------|------|-----|------|
|   |              |  | AC1030U | Inscribed Circle | Thickness | Hole Dia. | Corner Radius |      |     |      |
|    | 11°          | TPGT 080202R-FX  | ●       | 4.76             | 2.38      | 2.4       | 0.2           |      |     |      |
|   |              | 080202L-FX   | ●       |                  |           |           | 0.2           |      |     |      |
|   |              | 080204R-FX   | ●       |                  |           |           | 0.4           |      |     |      |
|   |              | 080204L-FX   | ●       |                  |           |           | 0.4           |      |     |      |
|   |              | TPGT 110302R-FX  | ●       |                  |           |           | 6.35          | 3.18 | 3.4 | 0.2  |
|   |              | 110302L-FX   | ●       |                  |           |           |               |      |     | 0.2  |
|   |              | 110304R-FX   | ●       | 0.4              |           |           |               |      |     |      |
|   |              | 110304L-FX   | ●       | 0.4              |           |           |               |      |     |      |
|   |              | TPGT 110308R-FX  | ●       | 6.35             | 3.18      | 3.4       | 0.8           |      |     |      |
|   |              | 110308L-FX   | ●       |                  |           |           | 0.8           |      |     |      |
|   |              |  | 11°     | TPGT 160304R-FX  | ●         | 9.525     | 3.18          | 4.4  | 0.4 |      |
|   |              |  |         | 160304L-FX       | ●         |           |               |      | 0.4 |      |
|   |              |  |         | 160308R-FX       | ●         |           |               |      | 0.8 |      |
|   |              |  |         | 160308L-FX       | ●         |           |               |      | 0.8 |      |
| TPGT 080203R-FY   | ●            |  |         | 4.76             | 2.38      |           |               |      | 2.4 | 0.03 |
| 0802003L-FY   | ●            |  |         |                  |           |           |               |      |     | 0.03 |
| 080201R-FY  | ●            |  |         |                  |           | 0.1       |               |      |     |      |
| 080201L-FY  | ●            |  |         |                  |           | 0.1       |               |      |     |      |
| 080202R-FY  | ●            |  |         |                  |           | 0.2       |               |      |     |      |
| 080202L-FY  | ●            |  |         |                  |           | 0.2       |               |      |     |      |
| 080204R-FY  | ●            |  |         |                  |           | 0.4       |               |      |     |      |
| 080204L-FY  | ●            |  |         |                  |           | 0.4       |               |      |     |      |
| TPGT 090201R-FY   | ●            |  |         | 5.56             | 2.38      | 2.3       | 0.1           |      |     |      |
| 090201L-FY  | ●            |  |         |                  |           |           | 0.1           |      |     |      |
| 090202R-FY  | ●            | 0.2  |         |                  |           |           |               |      |     |      |
| 090202L-FY  | ●            | 0.2  |         |                  |           |           |               |      |     |      |
| TPGT 1103003R-FY  | ●            | 6.35   | 3.18    | 3.4              | 0.03      |           |               |      |     |      |
| 1103003L-FY   | ●            |  |         |                  | 0.03      |           |               |      |     |      |
| 110301R-FY  | ●            |  |         |                  | 0.1       |           |               |      |     |      |
| 110301L-FY  | ●            |  |         |                  | 0.1       |           |               |      |     |      |
| 110302R-FY  | ●            |  |         |                  | 0.2       |           |               |      |     |      |
| 110302L-FY  | ●            |  |         |                  | 0.2       |           |               |      |     |      |
| 110304R-FY  | ●            |  |         |                  | 0.4       |           |               |      |     |      |
| 110304L-FY  | ●            |  |         |                  | 0.4       |           |               |      |     |      |
| TPGT 160302R-FY   | ●            | 9.525  | 3.18    | 4.4              | 0.2       |           |               |      |     |      |
| 160302L-FY  | ●            |  |         |                  | 0.2       |           |               |      |     |      |
| 160304R-FY  | ●            |  |         |                  | 0.4       |           |               |      |     |      |
| 160304L-FY  | ●            |  |         |                  | 0.4       |           |               |      |     |      |
| 160308R-FY  | ●            |  |         |                  | 0.8       |           |               |      |     |      |
| 160308L-FY  | ●            |  |         |                  | 0.8       |           |               |      |     |      |
|  | 11°          | TPGT 080202R-W   | ●       | 4.76             | 2.38      | 2.4       | 0.2           |      |     |      |
|   |              | 080202L-W  | ●       |                  |           |           | 0.2           |      |     |      |
|   |              | 080204R-W  | ●       |                  |           |           | 0.4           |      |     |      |
|   |              | 080204L-W  | ●       |                  |           |           | 0.4           |      |     |      |
|  | 11°          | TPGT 110302R-SD  | ●       | 6.35             | 3.18      | 3.4       | 0.2           |      |     |      |
|   |              | 110302L-SD   | ●       |                  |           |           | 0.2           |      |     |      |
|   |              | 110304R-SD   | ●       |                  |           |           | 0.4           |      |     |      |
|   |              | 110304L-SD   | ●       |                  |           |           | 0.4           |      |     |      |
|   |              | 110308R-SD   | ●       |                  |           |           | 0.8           |      |     |      |
|   |              | 110308L-SD   | ●       |                  |           |           | 0.8           |      |     |      |
|  | 11°          | TPGT 080201MN-SI   | ●       | 4.76             | 2.38      | 2.4       | <0.1          |      |     |      |
|   |              | 080202MN-SI  | ●       |                  |           |           | <0.2          |      |     |      |
|   |              | 080204MN-SI  | ●       |                  |           |           | <0.4          |      |     |      |
|   |              | 080204MN-SI  | ●       |                  |           |           | <0.4          |      |     |      |

A "<" next to the corner radius indicates a negative tolerance.












● mark: Standard stocked item ● mark: Standard stocked item (new product/expanded item)

# AC1030U

## Positive 35° Diamond Type / E-class

| Shape   | Relief Angle | Cat. No.          | Stock   | Dimensions (mm)  |           |           |               |      |     |      |
|---|--------------|-------------------|---------|------------------|-----------|-----------|---------------|------|-----|------|
|   |              |                   | AC1030U | Inscribed Circle | Thickness | Hole Dia. | Corner Radius |      |     |      |
|    | 5°           | VBET 1103003R-FYS | ●       | 6.35             | 3.18      | 2.8       | 0.03          |      |     |      |
|   |              | 1103003L-FYS      | ●       |                  |           |           | 0.03          |      |     |      |
|   |              | 110301R-FYS       | ●       |                  |           |           | 0.1           |      |     |      |
|   |              | 110301L-FYS       | ●       |                  |           |           | 0.1           |      |     |      |
|   |              | 110302R-FYS       | ●       |                  |           |           | 0.2           |      |     |      |
|   |              | 110302L-FYS       | ●       |                  |           |           | 0.2           |      |     |      |
|   |              | 110304R-FYS       | ●       |                  |           |           | 0.4           |      |     |      |
|   |              | 110304L-FYS       | ●       |                  |           |           | 0.4           |      |     |      |
|   |              | 110308R-FYS       | ●       |                  |           |           | 0.8           |      |     |      |
|   |              | 110308L-FYS       | ●       |                  |           |           | 0.8           |      |     |      |
|    | 7°           | VCET 1103008R-FX  | ●       | 6.35             | 3.18      | 2.8       | 0.08          |      |     |      |
|   |              | 1103008L-FX       | ●       |                  |           |           | 0.08          |      |     |      |
|   |              | 110301R-FX        | ●       |                  |           |           | 0.1           |      |     |      |
|   |              | 110301L-FX        | ●       |                  |           |           | 0.1           |      |     |      |
|   |              | 1103018R-FX       | ●       |                  |           |           | 0.18          |      |     |      |
|   |              | 1103018L-FX       | ●       |                  |           |           | 0.18          |      |     |      |
|    | 7°           | VCET 1103008R-FY  | ●       | 6.35             | 3.18      | 2.8       | 0.08          |      |     |      |
|   |              | 1103008L-FY       | ●       |                  |           |           | 0.08          |      |     |      |
|   |              | 110301R-FY        | ●       |                  |           |           | 0.1           |      |     |      |
|   |              | 110301L-FY        | ●       |                  |           |           | 0.1           |      |     |      |
|   |              | 1103018R-FY       | ●       |                  |           |           | 0.18          |      |     |      |
|   |              | 1103018L-FY       | ●       |                  |           |           | 0.18          |      |     |      |
|    | 11°          | VPET 0802008R-FX  | ●       | 4.76             | 2.38      | 2.4       | 0.08          |      |     |      |
|   |              | 0802008L-FX       | ●       |                  |           |           | 0.08          |      |     |      |
|   |              | 0802015R-FX       | ●       |                  |           |           | 0.15          |      |     |      |
|   |              | 0802015L-FX       | ●       |                  |           |           | 0.15          |      |     |      |
|   |              | 0802018R-FX       | ●       |                  |           |           | 0.18          |      |     |      |
|   |              | 0802018L-FX       | ●       |                  |           |           | 0.18          |      |     |      |
|   |              | VPET 1103003R-FX  | ●       |                  |           |           | 6.35          | 3.18 | 2.8 | 0.03 |
|   |              | 1103003L-FX       | ●       |                  |           |           |               |      |     | 0.03 |
|   |              | 110301R-FX        | ●       |                  |           |           |               |      |     | 0.1  |
|   |              | 110301L-FX        | ●       |                  |           |           |               |      |     | 0.1  |
| 110302R-FX  | ●            | 0.2               |         |                  |           |           |               |      |     |      |
| 110302L-FX  | ●            | 0.2               |         |                  |           |           |               |      |     |      |
|  | 11°          | VPET 0802008R-FY  | ●       | 4.76             | 2.38      | 2.4       | 0.08          |      |     |      |
|   |              | 0802008L-FY       | ●       |                  |           |           | 0.08          |      |     |      |
|   |              | 0802015R-FY       | ●       |                  |           |           | 0.15          |      |     |      |
|   |              | 0802015L-FY       | ●       |                  |           |           | 0.15          |      |     |      |
|   |              | 0802018R-FY       | ●       |                  |           |           | 0.18          |      |     |      |
|   |              | 0802018L-FY       | ●       |                  |           |           | 0.18          |      |     |      |
|   |              | VPET 1103003R-FY  | ●       |                  |           |           | 6.35          | 3.18 | 2.8 | 0.03 |
|   |              | 1103003L-FY       | ●       |                  |           |           |               |      |     | 0.03 |
|   |              | 110301R-FY        | ●       |                  |           |           |               |      |     | 0.1  |
|   |              | 110301L-FY        | ●       |                  |           |           |               |      |     | 0.1  |
| 110302R-FY  | ●            | 0.2               |         |                  |           |           |               |      |     |      |
| 110302L-FY  | ●            | 0.2               |         |                  |           |           |               |      |     |      |

## Positive 35° Diamond Type / G-class



| Shape   | Relief Angle | Cat. No.  | Stock   | Dimensions (mm)  |           |           |                  |      |      |      |     |      |
|---|--------------|---|---------|------------------|-----------|-----------|------------------|------|------|------|-----|------|
|   |              |   | AC1030U | Inscribed Circle | Thickness | Hole Dia. | Corner Radius    |      |      |      |     |      |
|    | 5°           | VBGT 110301R-FX   | ●       | 6.35             | 3.18      | 2.8       | 0.1              |      |      |      |     |      |
|   |              | 110301L-FX  | ●       |                  |           |           | 0.1              |      |      |      |     |      |
|   |              | 110302R-FX  | ●       |                  |           |           | 0.2              |      |      |      |     |      |
|   |              | 110302L-FX  | ●       |                  |           |           | 0.2              |      |      |      |     |      |
|   |              | 110304R-FX  | ●       |                  |           |           | 0.4              |      |      |      |     |      |
|   |              | 110304L-FX  | ●       |                  |           |           | 0.4              |      |      |      |     |      |
|    | 5°           | VBGT 1103003R-FYS   | ●       | 6.35             | 3.18      | 2.8       | 0.03             |      |      |      |     |      |
|   |              | 1103003L-FYS  | ●       |                  |           |           | 0.03             |      |      |      |     |      |
|   |              | 110301R-FYS   | ●       |                  |           |           | 0.1              |      |      |      |     |      |
|   |              | 110301L-FYS   | ●       |                  |           |           | 0.1              |      |      |      |     |      |
|   |              | 110302R-FYS   | ●       |                  |           |           | 0.2              |      |      |      |     |      |
|   |              | 110302L-FYS   | ●       |                  |           |           | 0.2              |      |      |      |     |      |
|   |              | 110304R-FYS   | ●       |                  |           |           | 0.4              |      |      |      |     |      |
|   |              | 110304L-FYS   | ●       |                  |           |           | 0.4              |      |      |      |     |      |
|   |              | 110308R-FYS   | ●       |                  |           |           | 0.8              |      |      |      |     |      |
|   |              | 110308L-FYS   | ●       |                  |           |           | 0.8              |      |      |      |     |      |
|    | 5°           | VBGT 110301R-FY   | ●       | 6.35             | 3.18      | 2.8       | 0.1              |      |      |      |     |      |
|   |              | 110301L-FY  | ●       |                  |           |           | 0.1              |      |      |      |     |      |
|   |              | 110302R-FY  | ●       |                  |           |           | 0.2              |      |      |      |     |      |
|   |              | 110302L-FY  | ●       |                  |           |           | 0.2              |      |      |      |     |      |
|   |              | 110304R-FY  | ●       |                  |           |           | 0.4              |      |      |      |     |      |
|   |              | 110304L-FY  | ●       |                  |           |           | 0.4              |      |      |      |     |      |
|    | 5°           | VBGT 110301MN-SI  | ●       | 6.35             | 3.18      | 2.8       | <0.1             |      |      |      |     |      |
|   |              | 110302MN-SI   | ●       |                  |           |           | <0.2             |      |      |      |     |      |
|   |              | 110304MN-SI   | ●       |                  |           |           | <0.4             |      |      |      |     |      |
|   |              | 110308MN-SI   | ●       |                  |           |           | <0.8             |      |      |      |     |      |
|   |              | VBGT 160401MN-SI  | ●       |                  |           |           | 9.525            | 4.76 | 4.4  | <0.1 |     |      |
|   |              | 160402MN-SI   | ●       |                  |           |           |                  |      |      | <0.2 |     |      |
| 160404MN-SI   | ●            | <0.4  |         |                  |           |           |                  |      |      |      |     |      |
| 160408MN-SI   | ●            | <0.8  |         |                  |           |           |                  |      |      |      |     |      |
|  | 7°           | VCGT 110301MN-FF  | ●       | 6.35             | 3.18      | 2.8       | <0.1             |      |      |      |     |      |
|   |              | 110302MN-FF   | ●       |                  |           |           | <0.2             |      |      |      |     |      |
|   |              | 110304MN-FF   | ●       |                  |           |           | <0.4             |      |      |      |     |      |
|  | 7°           | VCGT 080204MN-FC  | ●       | 4.76             | 2.38      | 2.3       | <0.4             |      |      |      |     |      |
|   |              | VCGT 110301MN-FC  | ●       |                  |           |           | 6.35             | 3.18 | 2.8  | <0.1 |     |      |
|   |              | 110302MN-FC   | ●       |                  |           |           |                  |      |      | <0.2 |     |      |
| 110304MN-FC   | ●            | <0.4  |         |                  |           |           |                  |      |      |      |     |      |
|  | 7°           | VCGT 110301R-FX   | ●       | 6.35             | 3.18      | 2.8       | 0.1              |      |      |      |     |      |
|   |              | 110301L-FX  | ●       |                  |           |           | 0.1              |      |      |      |     |      |
|   |              | 110302R-FX  | ●       |                  |           |           | 0.2              |      |      |      |     |      |
|   |              | 110302L-FX  | ●       |                  |           |           | 0.2              |      |      |      |     |      |
|   |              | 110304R-FX  | ●       |                  |           |           | 0.4              |      |      |      |     |      |
|   |              | 110304L-FX  | ●       |                  |           |           | 0.4              |      |      |      |     |      |
|  | 7°           | VCGT 110301R-FY   | ●       | 6.35             | 3.18      | 2.8       | 0.1              |      |      |      |     |      |
|   |              | 110301L-FY  | ●       |                  |           |           | 0.1              |      |      |      |     |      |
|   |              | 110302R-FY  | ●       |                  |           |           | 0.2              |      |      |      |     |      |
|   |              | 110302L-FY  | ●       |                  |           |           | 0.2              |      |      |      |     |      |
|   |              | 110304R-FY  | ●       |                  |           |           | 0.4              |      |      |      |     |      |
|   |              | 110304L-FY  | ●       |                  |           |           | 0.4              |      |      |      |     |      |
|  | 7°           | VCGT 110301MN-SI  | ●       | 6.35             | 3.18      | 2.8       | <0.1             |      |      |      |     |      |
|   |              | 110302MN-SI   | ●       |                  |           |           | <0.2             |      |      |      |     |      |
|   |              | 110304MN-SI   | ●       |                  |           |           | <0.4             |      |      |      |     |      |
|   |              | 110308MN-SI   | ●       |                  |           |           | <0.8             |      |      |      |     |      |
|   |              | VCGT 160401MN-SI  | ●       |                  |           |           | 9.525            | 4.76 | 4.4  | <0.1 |     |      |
|   |              | 160402MN-SI   | ●       |                  |           |           |                  |      |      | <0.2 |     |      |
|   |              | 160404MN-SI   | ●       |                  |           |           |                  |      |      | <0.4 |     |      |
|   |              | 160408MN-SI   | ●       |                  |           |           | <0.8             |      |      |      |     |      |
|   |              |  | 11°     |                  |           |           | VPGT 110301MN-FF | ●    | 6.35 | 3.18 | 2.8 | <0.1 |
|   |              |   |         |                  |           |           | 110302MN-FF      | ●    |      |      |     | <0.2 |
|  | 11°          | VPGT 110301MN-SI  | ●       | 6.35             | 3.18      | 2.8       | <0.1             |      |      |      |     |      |
|   |              | 110302MN-SI   | ●       |                  |           |           | <0.2             |      |      |      |     |      |

A "<" next to the corner radius indicates a negative tolerance.



● mark: Standard stocked item ● mark: Standard stocked item (new product/expanded item)

# AC1030U



## Positive Trigon Type / G-class

| Shape  | Relief Angle | Cat. No.        | Stock   | Dimensions (mm)  |           |           |               |      |     |     |
|--|--------------|-----------------|---------|------------------|-----------|-----------|---------------|------|-----|-----|
|  |              |                 | AC1030U | Inscribed Circle | Thickness | Hole Dia. | Corner Radius |      |     |     |
|  | 5°           | WBGT 060102R-FX | ●       | 3.97             | 1.59      | 2.2       | 0.2           |      |     |     |
|  |              | 060102L-FX      | ●       |                  |           |           | 0.2           |      |     |     |
|  |              | 060104R-FX      | ●       |                  |           |           | 0.4           |      |     |     |
|  |              | 060104L-FX      | ●       |                  |           |           | 0.4           |      |     |     |
|  |              | WBGT 080202R-FX | ●       |                  |           |           | 4.76          | 2.38 | 2.4 | 0.2 |
|  |              | 080202L-FX      | ●       |                  |           |           |               |      |     | 0.2 |
| 080204R-FX   | ●            | 0.4             |         |                  |           |           |               |      |     |     |
| 080204L-FX   | ●            | 0.4             |         |                  |           |           |               |      |     |     |
|  | 5°           | WBGT 060102R-FY | ●       | 3.97             | 1.59      | 2.2       | 0.2           |      |     |     |
|  |              | 060102L-FY      | ●       |                  |           |           | 0.2           |      |     |     |
|  |              | 060104R-FY      | ●       |                  |           |           | 0.4           |      |     |     |
|  |              | 060104L-FY      | ●       |                  |           |           | 0.4           |      |     |     |



## Negative 55° Diamond Type / G-class

| Shape   | Cat. No. | Stock           | Dimensions (mm)  |           |           |               |     |
|---|----------|-----------------|------------------|-----------|-----------|---------------|-----|
|   |          | AC1030U         | Inscribed Circle | Thickness | Hole Dia. | Corner Radius |     |
|  | FY       | DNGG 150402R-FY | ●                | 12.7      | 4.76      | 5.16          | 0.2 |
|   |          | 150402L-FY      | ●                |           |           |               | 0.2 |
|   |          | 150404R-FY      | ●                |           |           |               | 0.4 |
|   |          | 150404L-FY      | ●                |           |           |               | 0.4 |
|   |          | 150408R-FY      | ●                |           |           |               | 0.8 |
|   |          | 150408L-FY      | ●                |           |           |               | 0.8 |
|  | FX       | DNGG 150402R-FX | ●                | 12.7      | 4.76      | 5.16          | 0.2 |
|   |          | 150402L-FX      | ●                |           |           |               | 0.2 |
|   |          | 150404R-FX      | ●                |           |           |               | 0.4 |
|   |          | 150404L-FX      | ●                |           |           |               | 0.4 |
|   |          | 150408R-FX      | ●                |           |           |               | 0.8 |
|   |          | 150408L-FX      | ●                |           |           |               | 0.8 |

## Negative Triangular Type / G-class

| Shape   | Cat. No. | Stock           | Dimensions (mm)  |           |           |               |     |
|---|----------|-----------------|------------------|-----------|-----------|---------------|-----|
|   |          | AC1030U         | Inscribed Circle | Thickness | Hole Dia. | Corner Radius |     |
|    | FY       | TNGG 160402R-FY | ●                | 9.525     | 4.76      | 3.81          | 0.2 |
|   |          | 160402L-FY      | ●                |           |           |               | 0.2 |
|   |          | 160404R-FY      | ●                |           |           |               | 0.4 |
|   |          | 160404L-FY      | ●                |           |           |               | 0.4 |
|   |          | 160408R-FY      | ●                |           |           |               | 0.8 |
|   |          | 160408L-FY      | ●                |           |           |               | 0.8 |
|  | FX       | TNGG 160402R-FX | ●                | 9.525     | 4.76      | 3.81          | 0.2 |
|   |          | 160402L-FX      | ●                |           |           |               | 0.2 |
|   |          | 160404R-FX      | ●                |           |           |               | 0.4 |
|   |          | 160404L-FX      | ●                |           |           |               | 0.4 |
|   |          | 160408R-FX      | ●                |           |           |               | 0.8 |
|   |          | 160408L-FX      | ●                |           |           |               | 0.8 |

## Negative 35° Diamond Type / G-class

| Shape   | Cat. No. | Stock           | Dimensions (mm)  |           |           |               |     |
|---|----------|-----------------|------------------|-----------|-----------|---------------|-----|
|   |          | AC1030U         | Inscribed Circle | Thickness | Hole Dia. | Corner Radius |     |
|  | FY       | VNGG 160402R-FY | ●                | 9.525     | 4.76      | 3.81          | 0.2 |
|   |          | 160402L-FY      | ●                |           |           |               | 0.2 |
|   |          | 160404R-FY      | ●                |           |           |               | 0.4 |
|   |          | 160404L-FY      | ●                |           |           |               | 0.4 |
|   |          | 160408R-FY      | ●                |           |           |               | 0.8 |
|   |          | 160408L-FY      | ●                |           |           |               | 0.8 |
|  | FX       | VNGG 160402R-FX | ●                | 9.525     | 4.76      | 3.81          | 0.2 |
|   |          | 160402L-FX      | ●                |           |           |               | 0.2 |
|   |          | 160404R-FX      | ●                |           |           |               | 0.4 |
|   |          | 160404L-FX      | ●                |           |           |               | 0.4 |
|   |          | 160408R-FX      | ●                |           |           |               | 0.8 |
|   |          | 160408L-FX      | ●                |           |           |               | 0.8 |

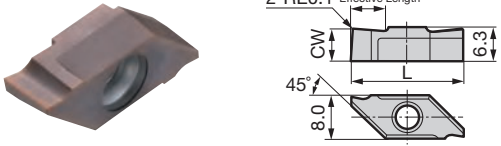


## For SEC-Wide-Cut Holders SGW Type

### KGV Type

Dimensions (mm)

| Cat. No. | AC1030U | Width of Cut<br>CW | Overall Length<br>L | Effective Length |
|----------|---------|--------------------|---------------------|------------------|
| KGV R400 | ●       | 4.0                | 21.0                | 6.3              |
| KGV R500 | ●       | 5.0                | 21.0                | 6.3              |
| KGV R600 | ●       | 6.0                | 21.0                | 6.3              |

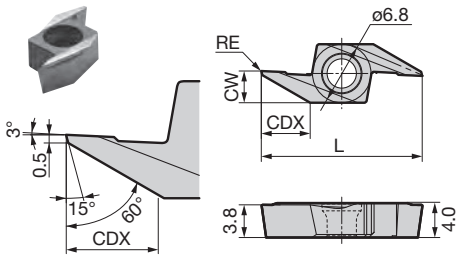


## For SEC-MINI Tool Holders SBT Type / PBT Type

### BT Type

Dimensions (mm)

| Cat. No. | AC1030U | Overall Length<br>L | Maximum Depth of Cut<br>CDX | Width of Cut<br>CW | Corner Radius<br>RE | Applicable Holder |
|----------|---------|---------------------|-----------------------------|--------------------|---------------------|-------------------|
| BT R3505 | ●       | 15                  | 3.5                         | 2.5                | 0.05                | SBT35R○○○○        |
| BT R3515 | ●       | 15                  | 3.5                         | 2.5                | 0.15                | PBT35R○○○○        |
| BT R5505 | ●       | 19                  | 5.5                         | 3.7                | 0.05                | PBT55R○○○○        |
| BT R5515 | ●       | 19                  | 5.5                         | 3.7                | 0.15                | PBT55R○○○○        |
| BT R8005 | ●       | 24                  | 8.0                         | 5.2                | 0.05                | PBT80R○○○○        |
| BT R8015 | ●       | 24                  | 8.0                         | 5.2                | 0.15                | PBT80R○○○○        |

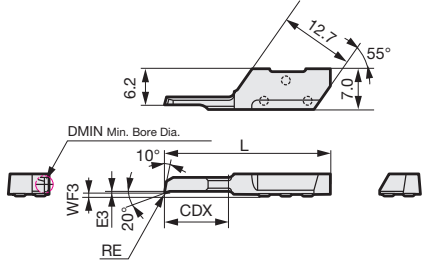


## For SEC-MINI Boring Bars CKB Type

### KBMX Type (For Very Small Diameter L Type Holders)

Dimensions (mm)

| Cat. No.       | AC1030U | Min. Bore Dia.<br>DMIN | Cutting Edge Position<br>WF3 | Offset<br>E3 | Corner Radius<br>RE | Overall Length<br>L | Depth of Cut<br>CDX |
|----------------|---------|------------------------|------------------------------|--------------|---------------------|---------------------|---------------------|
| KBMX L0206-05R | ●       | 2.0                    | 0.5                          | 0.25         | 0.05                | 23.5                | 6                   |
| KBMX L0206-20R | ●       | 2.0                    | 0.5                          | 0.25         | 0.20                | 23.5                | 6                   |
| KBMX L0311-05R | ●       | 3.0                    | 0.5                          | 0.30         | 0.05                | 28.5                | 11                  |
| KBMX L0311-20R | ●       | 3.0                    | 0.5                          | 0.30         | 0.20                | 28.5                | 11                  |
| KBMX L0411-05R | ●       | 4.0                    | 0.5                          | 0.50         | 0.05                | 28.5                | 11                  |
| KBMX L0411-20R | ●       | 4.0                    | 0.5                          | 0.50         | 0.20                | 28.5                | 11                  |
| KBMX L0420-05R | ●       | 4.0                    | 0.5                          | 0.50         | 0.05                | 37.5                | 20                  |
| KBMX L0420-20R | ●       | 4.0                    | 0.5                          | 0.50         | 0.20                | 37.5                | 20                  |
| KBMX L0511-05R | ●       | 5.0                    | 0.5                          | 0.50         | 0.05                | 28.5                | 11                  |
| KBMX L0511-20R | ●       | 5.0                    | 0.5                          | 0.50         | 0.20                | 28.5                | 11                  |
| KBMX L0520-05R | ●       | 5.0                    | 0.5                          | 0.50         | 0.05                | 37.5                | 20                  |
| KBMX L0520-20R | ●       | 5.0                    | 0.5                          | 0.50         | 0.20                | 37.5                | 20                  |

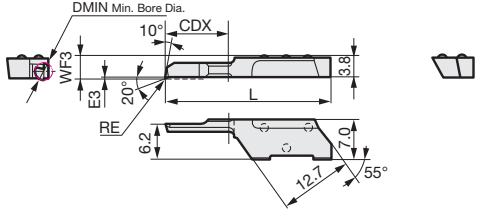


\* Figure shows left-handed insert with a right-handed cutting edge

### KBMX Type (Internal Boring)

Dimensions (mm)

| Cat. No.       | AC1030U | Min. Bore Dia.<br>DMIN | Cutting Edge Position<br>WF3 | Offset<br>E3 | Corner Radius<br>RE | Overall Length<br>L | Depth of Cut<br>CDX |
|----------------|---------|------------------------|------------------------------|--------------|---------------------|---------------------|---------------------|
| KBMX R0103-05  | ●       | 1.0                    | 4.00                         | 0.20         | 0.05                | 20.5                | 3                   |
| KBMX R0103-20  | ●       | 1.0                    | 4.00                         | 0.20         | 0.20                | 20.5                | 3                   |
| KBMX R01506-05 | ●       | 1.5                    | 4.05                         | 0.25         | 0.05                | 23.5                | 6                   |
| KBMX R01506-20 | ●       | 1.5                    | 4.05                         | 0.25         | 0.20                | 23.5                | 6                   |
| KBMX R0206-05  | ●       | 2.0                    | 4.05                         | 0.25         | 0.05                | 23.5                | 6                   |
| KBMX R0206-20  | ●       | 2.0                    | 4.05                         | 0.25         | 0.20                | 23.5                | 6                   |
| KBMX R0311-05  | ●       | 3.0                    | 4.10                         | 0.30         | 0.05                | 28.5                | 11                  |
| KBMX R0311-20  | ●       | 3.0                    | 4.10                         | 0.30         | 0.20                | 28.5                | 11                  |
| KBMX R0411-05  | ●       | 4.0                    | 4.30                         | 0.50         | 0.05                | 28.5                | 11                  |
| KBMX R0411-20  | ●       | 4.0                    | 4.30                         | 0.50         | 0.20                | 28.5                | 11                  |
| KBMX R0420-05  | ●       | 4.0                    | 4.30                         | 0.50         | 0.05                | 37.5                | 20                  |
| KBMX R0420-20  | ●       | 4.0                    | 4.30                         | 0.50         | 0.20                | 37.5                | 20                  |
| KBMX R0511-05  | ●       | 5.0                    | 4.50                         | 0.70         | 0.05                | 28.5                | 11                  |
| KBMX R0511-20  | ●       | 5.0                    | 4.50                         | 0.70         | 0.20                | 28.5                | 11                  |
| KBMX R0520-05  | ●       | 5.0                    | 4.50                         | 0.70         | 0.05                | 37.5                | 20                  |
| KBMX R0520-20  | ●       | 5.0                    | 4.50                         | 0.70         | 0.20                | 37.5                | 20                  |

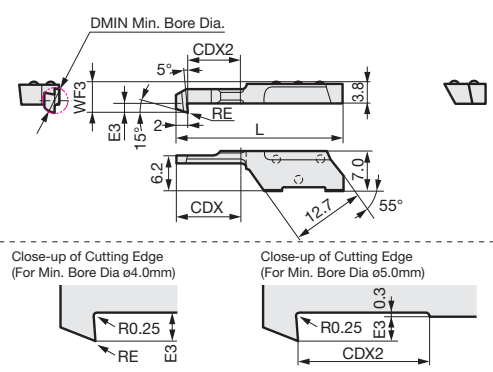


## For SEC-MINI Boring Bars CKB Type

### KBMZ Type (Internal Back Turning)

Dimensions (mm)

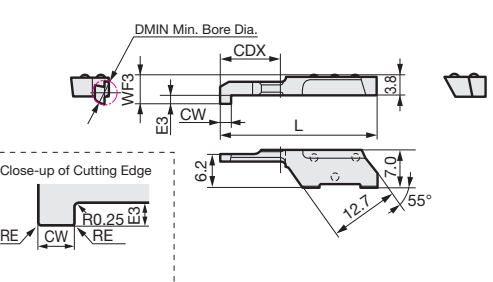
| Cat. No.             | AC1030U | Min. Bore Dia. | Cutting Edge Position | Offset | Corner Radius | Overall Length | Maximum Depth of Cut | Depth of Cut |
|----------------------|---------|----------------|-----------------------|--------|---------------|----------------|----------------------|--------------|
|                      |         | DMIN           | WF3                   | E3     | RE            | L              | CDX                  | CDX2         |
| <b>KBMZ R0411-05</b> | ●       | 4.0            | 5.10                  | 1.3    | 0.05          | 28.5           | 11                   | 9            |
| <b>KBMZ R0411-20</b> | ●       |                |                       |        | 0.20          |                |                      |              |
| <b>KBMZ R0511-05</b> | ●       | 5.0            | 5.10                  | 1.3    | 0.05          | 28.5           | 11                   | 9            |
| <b>KBMZ R0511-20</b> | ●       |                |                       |        | 0.20          |                |                      |              |



### KBMG Type (Internal Grooving)

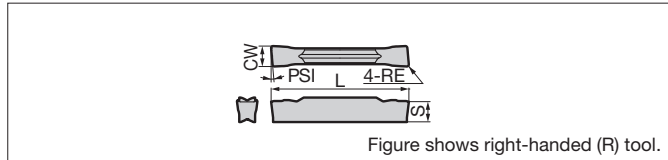
Dimensions (mm)

| Cat. No.             | AC1030U | Min. Bore Dia. | Cutting Edge Position | Offset | Width of Cut | Corner Radius | Overall Length | Maximum Depth of Cut |
|----------------------|---------|----------------|-----------------------|--------|--------------|---------------|----------------|----------------------|
|                      |         | DMIN           | WF3                   | E3     | CW           | RE            | L              | CDX                  |
| <b>KBMG R0411-05</b> | ●       | 4.0            | 4.90                  | 1.1    | 1.00         | 0.05          | 28.5           | 11                   |
| <b>KBMG R0411-10</b> | ●       |                |                       |        | 2.00         | 0.10          |                |                      |
| <b>KBMG R0511-05</b> | ●       | 5.0            | 5.10                  | 1.3    | 1.00         | 0.05          | 28.5           | 11                   |
| <b>KBMG R0511-10</b> | ●       |                |                       |        | 2.00         | 0.10          |                |                      |



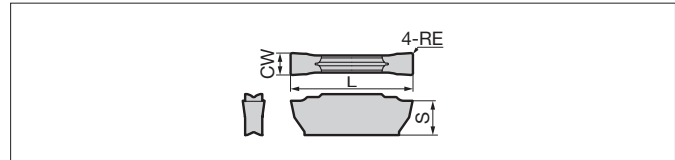
## For SEC-Grooving Tools GND Type

Dimensions (mm)




## For SEC-Grooving Tools GNDIS Type

Dimensions (mm)




### Cut-off (Handed Edge)

| Appearance   | Cat. No.                | AC1030U | Lead Angle | Width of Cut |           | Corner Radius | Overall Length | Thickness | Pcs/Pack |
|--|-------------------------|---------|------------|--------------|-----------|---------------|----------------|-----------|----------|
|  |                         |         |            | CW           |           |               |                |           |          |
|  |                         |         |            | Width of Cut | Tolerance |               |                |           |          |
|  | <b>GCM R20003-CF-10</b> | ●       | 10°        | 2.0          | ±0.08     | 0.03          | 22.4           | 3.6       | 5        |
|  | <b>L20003-CF-10</b>     | ●       | 10°        | 2.0          | ±0.08     | 0.03          | 22.4           | 3.6       |          |
|  | <b>R30003-CF-10</b>     | ●       | 10°        | 3.0          | ±0.08     | 0.03          | 22.4           | 3.8       |          |
|  | <b>L30003-CF-10</b>     | ●       | 10°        | 3.0          | ±0.08     | 0.03          | 22.4           | 3.8       |          |
|  | <b>GCM R20003-CF-15</b> | ●       | 15°        | 2.0          | ±0.08     | 0.03          | 22.4           | 3.6       |          |
|  | <b>L20003-CF-15</b>     | ●       | 15°        | 2.0          | ±0.08     | 0.03          | 22.4           | 3.6       |          |
|  | <b>R30003-CF-15</b>     | ●       | 15°        | 3.0          | ±0.08     | 0.03          | 22.4           | 3.8       |          |
|  | <b>L30003-CF-15</b>     | ●       | 15°        | 3.0          | ±0.08     | 0.03          | 22.4           | 3.8       |          |


GCMR: Right-handed, GCML: Left-handed  
 Select holders and inserts with matching width of cut (CW).  
 GXM inserts are not mutually compatible.

### Grooving / Traverse Cutting

| Appearance  | Cat. No.             | AC1030U | Width of Cut |           | Corner Radius | Overall Length | Thickness | Pcs/Pack |
|---|----------------------|---------|--------------|-----------|---------------|----------------|-----------|----------|
|   |                      |         | CW           |           |               |                |           |          |
|   |                      |         | Width of Cut | Tolerance |               |                |           |          |
|  | <b>GXM N2002S-ML</b> | ●       | 2.0          | ±0.03     | 0.2           | 11.1           | 3.1       | 5        |
|   | <b>N3002S-ML</b>     | ●       | 3.0          | ±0.03     | 0.2           | 11.1           | 3.1       |          |
|   | Low Feed             |         |              |           |               |                |           |          |

### Grooving / Cut-off

Dimensions (mm)

| Appearance  | Cat. No.               | AC1030U | Width of Cut |           | Corner Radius | Overall Length | Thickness | Pcs/Pack |
|---|------------------------|---------|--------------|-----------|---------------|----------------|-----------|----------|
|   |                        |         | CW           |           |               |                |           |          |
|   |                        |         | Width of Cut | Tolerance |               |                |           |          |
|  | <b>GXM N150005S-GF</b> | ●       | 1.5          | ±0.03     | 0.05          | 11.1           | 3.1       | 5        |
|   | <b>GXM N2002S-GF</b>   | ●       | 2.0          | ±0.03     | 0.2           | 11.1           | 3.1       |          |
|   | <b>N3002S-GF</b>       | ●       | 3.0          | ±0.03     | 0.2           | 11.1           | 3.1       |          |
| Low Cutting Force   |                        |         |              |           |               |                |           |          |

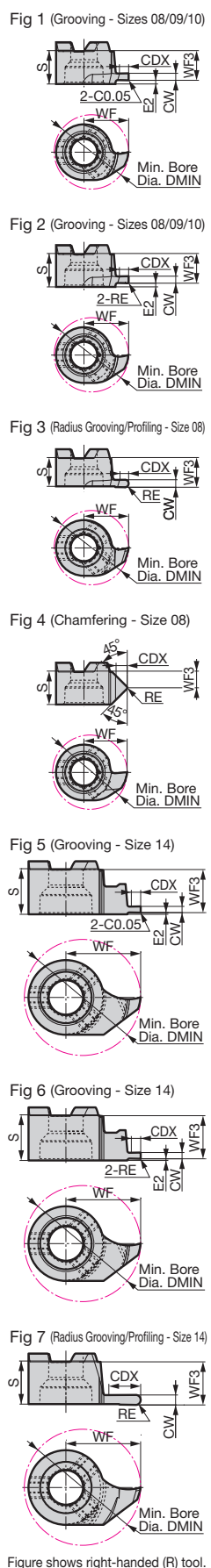
Select holders and inserts with matching width of cut (CW).  
 GCM/GCG inserts are not mutually compatible.

**For SEC-Grooving Tools SSH Type**

Grooving/Radius Grooving/Profiling/Chamfering

Dimensions (mm)

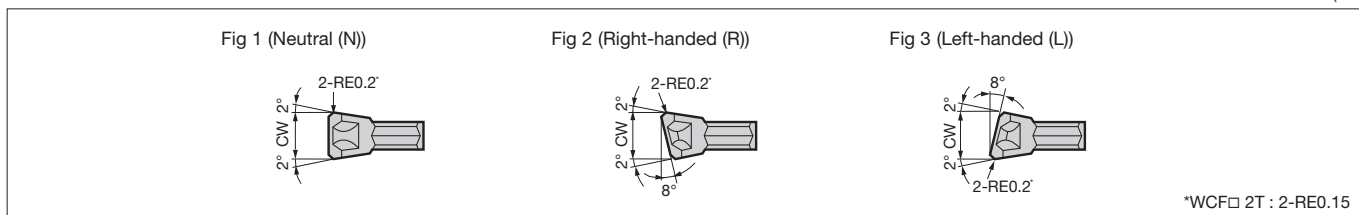
| Applications                        | Cat. No.          | AC1030U |      | Width of Cut | Maximum Groove Depth | Corner Radius | Cutting Edge Distance | Cutting Edge Distance | Thickness | Cutting Edge Distance | Applicable Holder                      | Fig |
|-------------------------------------|-------------------|---------|------|--------------|----------------------|---------------|-----------------------|-----------------------|-----------|-----------------------|--|-----|
|                                     |                   | R       | L    |              |                      |               |                       |                       |           |                       |  |     |
| Grooving (Size 08)                  | SSHG R/L 0807400  | ●       | ●    | 0.74         | 1.0                  | —             | 3.2                   | 4.8                   | 3.6       | 0.4                   | E08□-SSHMN0000-08<br>E12□-SSHMN0000-08 | 1   |
|                                     | R/L 0808400       | ●       | ●    | 0.84         | 1.0                  | —             | 3.2                   | 4.8                   | 3.6       | 0.4                   |  | 1   |
|                                     | R/L 0809400       | ●       | ●    | 0.94         | 1.0                  | —             | 3.2                   | 4.8                   | 3.6       | 0.4                   |  | 1   |
|                                     | R/L 0810000       | ●       | ●    | 1.00         | 1.0                  | —             | 3.2                   | 4.8                   | 3.1       | —                     |  | 1   |
|                                     | R/L 0810010       | ●       | ●    | 1.00         | 1.0                  | 0.10          | 3.2                   | 4.8                   | 3.1       | —                     |  | 2   |
|                                     | R/L 0811900       | ●       | ●    | 1.19         | 1.0                  | —             | 3.2                   | 4.8                   | 3.1       | —                     |  | 1   |
|                                     | R/L 0813900       | ●       | ●    | 1.39         | 1.0                  | —             | 3.2                   | 4.8                   | 3.0       | —                     |  | 1   |
|                                     | R/L 0815000       | ●       | ●    | 1.50         | 1.0                  | —             | 3.2                   | 4.8                   | 3.0       | —                     |  | 1   |
|                                     | R/L 0815010       | ●       | ●    | 1.50         | 1.0                  | 0.10          | 3.2                   | 4.8                   | 3.0       | —                     |  | 2   |
|                                     | R/L 0816900       | ●       | ●    | 1.69         | 1.0                  | —             | 3.2                   | 4.8                   | 3.0       | —                     |  | 1   |
|                                     | R/L 0820000       | ●       | ●    | 2.00         | 1.0                  | —             | 3.2                   | 4.8                   | 3.0       | —                     |  | 1   |
|                                     | R/L 0820010       | ●       | ●    | 2.00         | 1.0                  | 0.10          | 3.2                   | 4.8                   | 3.0       | —                     |  | 2   |
| R/L 0820020                         | ●                 | ●       | 2.00 | 1.0          | 0.20                 | 3.2           | 4.8                   | 3.0                   | —         | 2                     |  |     |
| Grooving (Size 09)                  | SSHG R 0910010    | ●       | —    | 1.00         | 2.0                  | 0.10          | 3.6                   | 5.5                   | 3.5       | —                     | E08□-SSHMN0000-08<br>E12□-SSHMN0000-08 | 2   |
|                                     | R 0915010         | ●       | —    | 1.50         | 2.0                  | 0.10          | 3.6                   | 5.5                   | 3.4       | —                     |  | 2   |
|                                     | R 0920010         | ●       | —    | 2.00         | 2.0                  | 0.10          | 3.6                   | 5.5                   | 3.4       | —                     |  | 2   |
|                                     | R 0920020         | ●       | —    | 2.00         | 2.0                  | 0.20          | 3.6                   | 5.5                   | 3.4       | —                     |  | 2   |
|                                     | R 0925010         | ●       | —    | 2.50         | 2.0                  | 0.10          | 3.6                   | 5.5                   | 3.4       | —                     |  | 2   |
|                                     | R 0925020         | ●       | —    | 2.50         | 2.0                  | 0.20          | 3.6                   | 5.5                   | 3.4       | —                     |  | 2   |
|                                     | R 0930010         | ●       | —    | 3.00         | 2.0                  | 0.10          | 3.6                   | 5.5                   | 3.4       | —                     |  | 2   |
|                                     | R 0930020         | ●       | —    | 3.00         | 2.0                  | 0.20          | 3.6                   | 5.5                   | 3.4       | —                     |  | 2   |
| Grooving (Size 10)                  | SSHG R 1010010    | ●       | —    | 1.00         | 3.0                  | 0.10          | 3.6                   | 6.5                   | 3.5       | —                     | E08□-SSHMN0000-08<br>E12□-SSHMN0000-08 | 2   |
|                                     | R 1015010         | ●       | —    | 1.50         | 3.0                  | 0.10          | 3.6                   | 6.5                   | 3.4       | —                     |  | 2   |
|                                     | R 1020010         | ●       | —    | 2.00         | 3.0                  | 0.10          | 3.6                   | 6.5                   | 3.4       | —                     |  | 2   |
|                                     | R 1020020         | ●       | —    | 2.00         | 3.0                  | 0.20          | 3.6                   | 6.5                   | 3.4       | —                     |  | 2   |
|                                     | R 1025010         | ●       | —    | 2.50         | 3.0                  | 0.10          | 3.6                   | 6.5                   | 3.4       | —                     |  | 2   |
|                                     | R 1025020         | ●       | —    | 2.50         | 3.0                  | 0.20          | 3.6                   | 6.5                   | 3.4       | —                     |  | 2   |
|                                     | R 1030010         | ●       | —    | 3.00         | 3.0                  | 0.10          | 3.6                   | 6.5                   | 3.4       | —                     |  | 2   |
|                                     | R 1030020         | ●       | —    | 3.00         | 3.0                  | 0.20          | 3.6                   | 6.5                   | 3.4       | —                     |  | 2   |
| Grooving (Size 14)                  | SSHG R/L 1407400  | ●       | ●    | 0.74         | 1.2                  | —             | 5.3                   | 9.0                   | 5.5       | 0.2                   | E12□-SSHMN0000-14<br>E16□-SSHMN0000-14 | 5   |
|                                     | R/L 1408400       | ●       | ●    | 0.84         | 1.3                  | —             | 5.3                   | 9.0                   | 5.5       | 0.2                   |  | 5   |
|                                     | R/L 1409400       | ●       | ●    | 0.94         | 1.5                  | —             | 5.3                   | 9.0                   | 5.5       | 0.2                   |  | 5   |
|                                     | R/L 1410000       | ●       | ●    | 1.00         | 1.6                  | —             | 5.3                   | 9.0                   | 5.5       | 0.2                   |  | 5   |
|                                     | R/L 1410010       | ●       | ●    | 1.00         | 1.6                  | 0.10          | 5.3                   | 9.0                   | 5.5       | 0.2                   |  | 6   |
|                                     | R/L 1411900       | ●       | ●    | 1.19         | 4.0                  | —             | 5.3                   | 9.0                   | 5.2       | —                     |  | 5   |
|                                     | R/L 1413900       | ●       | ●    | 1.39         | 4.0                  | —             | 5.3                   | 9.0                   | 5.1       | —                     |  | 5   |
|                                     | R/L 1415000       | ●       | ●    | 1.50         | 4.0                  | —             | 5.3                   | 9.0                   | 5.1       | —                     |  | 5   |
|                                     | R/L 1415010       | ●       | ●    | 1.50         | 4.0                  | 0.10          | 5.3                   | 9.0                   | 5.1       | —                     |  | 6   |
|                                     | R/L 1416900       | ●       | ●    | 1.69         | 4.0                  | —             | 5.3                   | 9.0                   | 5.1       | —                     |  | 5   |
|                                     | R/L 1420000       | ●       | ●    | 2.00         | 4.0                  | —             | 5.3                   | 9.0                   | 5.1       | —                     |  | 5   |
|                                     | R/L 1420010       | ●       | ●    | 2.00         | 4.0                  | 0.10          | 5.3                   | 9.0                   | 5.1       | —                     |  | 6   |
|                                     | R/L 1420020       | ●       | ●    | 2.00         | 4.0                  | 0.20          | 5.3                   | 9.0                   | 5.1       | —                     |  | 6   |
|                                     | R/L 1425000       | ●       | ●    | 2.50         | 4.0                  | —             | 5.3                   | 9.0                   | 5.1       | —                     |  | 5   |
|                                     | R/L 1425010       | ●       | ●    | 2.50         | 4.0                  | 0.10          | 5.3                   | 9.0                   | 5.1       | —                     |  | 6   |
|                                     | R/L 1425020       | ●       | ●    | 2.50         | 4.0                  | 0.20          | 5.3                   | 9.0                   | 5.1       | —                     |  | 6   |
|                                     | R/L 1430000       | ●       | ●    | 3.00         | 4.0                  | —             | 5.3                   | 9.0                   | 5.1       | —                     |  | 5   |
|                                     | R/L 1430010       | ●       | ●    | 3.00         | 4.0                  | 0.10          | 5.3                   | 9.0                   | 5.1       | —                     |  | 6   |
| R/L 1430020                         | ●                 | ●       | 3.00 | 4.0          | 0.20                 | 5.3           | 9.0                   | 5.1                   | —         | 6                     |  |     |
| Radius Grooving/Profiling (Size 08) | SSHR R/L 08080    | ●       | ●    | 0.80         | 1.0                  | 0.40          | 3.2                   | 4.8                   | 3.1       | —                     | E08□-SSHMN0000-08<br>E12□-SSHMN0000-08 | 3   |
|                                     | R/L 08100         | ●       | ●    | 1.00         | 1.0                  | 0.50          | 3.2                   | 4.8                   | 3.1       | —                     |  | 3   |
|                                     | R/L 08120         | ●       | ●    | 1.20         | 1.0                  | 0.60          | 3.2                   | 4.8                   | 3.1       | —                     |  | 3   |
|                                     | R/L 08150         | ●       | ●    | 1.50         | 1.0                  | 0.75          | 3.2                   | 4.8                   | 3.0       | —                     |  | 3   |
|                                     | R/L 08180         | ●       | ●    | 1.80         | 1.0                  | 0.90          | 3.2                   | 4.8                   | 3.0       | —                     |  | 3   |
|                                     | R/L 08200         | ●       | ●    | 2.00         | 1.0                  | 1.00          | 3.2                   | 4.8                   | 3.0       | —                     |  | 3   |
| Radius Grooving/Profiling (Size 14) | SSHR R/L 14100    | ●       | ●    | 1.00         | 1.6                  | 0.50          | 5.3                   | 9.0                   | 5.2       | —                     | E12□-SSHMN0000-14<br>E16□-SSHMN0000-14 | 7   |
|                                     | R/L 14120         | ●       | ●    | 1.20         | 4.0                  | 0.60          | 5.3                   | 9.0                   | 5.2       | —                     |  | 7   |
|                                     | R/L 14150         | ●       | ●    | 1.50         | 4.0                  | 0.75          | 5.3                   | 9.0                   | 5.1       | —                     |  | 7   |
|                                     | R/L 14180         | ●       | ●    | 1.80         | 4.0                  | 0.90          | 5.3                   | 9.0                   | 5.1       | —                     |  | 7   |
|                                     | R/L 14200         | ●       | ●    | 2.00         | 4.0                  | 1.00          | 5.3                   | 9.0                   | 5.1       | —                     |  | 7   |
|                                     | R/L 14220         | ●       | ●    | 2.20         | 4.0                  | 1.10          | 5.3                   | 9.0                   | 5.1       | —                     |  | 7   |
|                                     | R/L 14250         | ●       | ●    | 2.50         | 4.0                  | 1.25          | 5.3                   | 9.0                   | 5.1       | —                     |  | 7   |
|                                     | R/L 14300         | ●       | ●    | 3.00         | 4.0                  | 1.50          | 5.3                   | 9.0                   | 5.1       | —                     |  | 7   |
| Chamfering (Size 08)                | SSHC R/L 08454502 | ●       | ●    | —            | 1.4                  | 0.20          | 1.8                   | 4.65                  | 3.6       | —                     | E08□-SSHMN0000-08<br>E12□-SSHMN0000-08 | 4   |



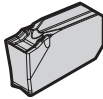
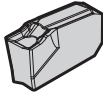
Minimum bore diameter DMIN dimensions are 8mm for size 08, 9mm for size 09, 10mm for size 10, and 14mm for size 14.

For SEC-Cut-off Tool Holders SumiGrip Jr. STF Type / SumiGrip WCF Type

Dimensions (mm)



For Low Feed Rates

| Appearance   | Cat. No.         | AC1030U | Width of Cut | Applicable Holder | Fig |
|--|------------------|---------|--------------|-------------------|-----|
|  |                  |         | CW           |                   |     |
| WCF NO-GF<br>Exotic Alloy<br>Low Feed<br>             | <b>WCF N2-GF</b> | ●       | 2.0          | STFH ○○-2         | 1   |
|  | <b>WCF N3-GF</b> | ●       | 3.0          | STFH ○○-3         | 1   |
|  | <b>WCF N4-GF</b> | ●       | 4.0          | STFH ○○-4         | 1   |
|  | <b>WCF N5-GF</b> | ●       | 5.0          | STFH ○○-5         | 1   |
| WCF □○-CF<br>Exotic Alloy<br>Low Feed<br>(Handed)<br> | <b>WCF R3-CF</b> | ●       | 3.0          | STFH ○○-3         | 2   |
|  | <b>WCF L3-CF</b> | ●       | 3.0          | STFH ○○-3         | 3   |
|  | <b>WCF R4-CF</b> | ●       | 4.0          | STFH ○○-4         | 2   |
|  | <b>WCF L4-CF</b> | ●       | 4.0          | STFH ○○-4         | 3   |

● mark: Standard stocked item Refer to the General Catalogue for details on the tool holders of the products indicated on this page.

**For SEC-Small Diameter Cut-off Tools SCT Type**

Insert Mounting Status and Dimensions (Figures show insert with chipbreaker)

| Holder Feed Direction       | For Right-handed Holders (SCTR) |        |        | For Left-handed Holders (SCTL) |        |        |
|-----------------------------|---------------------------------|--------|--------|--------------------------------|--------|--------|
| Insert Cat. No.             | CTROOR                          | CTROON | CTROOL | CTLOOR                         | CTLOON | CTLOOL |
| Holder Mounting Status      |                                 |        |        |                                |        |        |
| Insert Shape and Dimensions |                                 |        |        |                                |        |        |

**Inserts (For Right-handed Holders)**

Dimensions (mm)

| Cat. No.            | AC1030U |   |   | Max. Cut-off Dia. | Width of Cut<br>CW | Corner Radius<br>RE | Overall Length<br>L | Thickness<br>S | Chipbreaker | Applicable Holder                            |
|---------------------|---------|---|---|-------------------|--------------------|---------------------|---------------------|----------------|-------------|--|
|                     | R       | N | L |                   |                    |                     |                     |                |             |  |
| CTR 050505 R/N/L    | ●       | ● | ● | 5                 | 0.5                | 0.05                | 19                  | 7              | Yes         | SCT R1010<br>SCT R1212<br>SCT R1616          |
| CTR 050500 R/N/L    | ●       | ● |   | 5                 | 0.5                | 0                   |                     |                |             |  |
| CTR 121005 R/N/L    | ●       | ● | ● | 12                | 1.0                | 0.05                | 19                  | 7              | Yes         |  |
| CTR 121505 R/N/L    | ●       | ● | ● | 12                | 1.5                |                     |                     |                |             |  |
| CTR 122005 R/N/L    | ●       | ● |   | 12                | 2.0                | 0                   | 19                  | 7              | Yes         |  |
| CTR 121000 R/N/L    | ●       | ● |   | 12                | 1.0                |                     |                     |                |             |  |
| CTR 121500 R/N/L    | ●       | ● |   | 12                | 1.5                | 0                   | 23.1                | 8.3            | Yes         |  |
| CTR 122000 R/N/L    | ●       | ● |   | 12                | 2.0                |                     |                     |                |             |  |
| CTR 161005 R/N/L    | ●       | ● |   | 16                | 1.0                | 0.05                | 23.1                | 8.3            | Yes         | SCT R1010-16<br>SCT R1212-16<br>SCT R1616-16 |
| CTR 161505 R/N/L    | ●       | ● |   | 16                | 1.5                |                     |                     |                |             |  |
| CTR 162005 R/N/L    | ●       | ● | ● | 16                | 2.0                | 0                   | 23.1                | 8.3            | Yes         |  |
| CTR 161000 R/N/L    | ●       | ● |   | 16                | 1.0                |                     |                     |                |             |  |
| CTR 161500 R/N/L    | ●       | ● |   | 16                | 1.5                | 0                   | 23.1                | 8.3            | No          |  |
| CTR 162000 R/N/L    | ●       | ● | ● | 16                | 2.0                |                     |                     |                |             |  |
| CTR 050500 R/N/L-NB |         |   |   | 5                 | 0.5                | 0                   | 19                  | 7              | No          | SCT R1010<br>SCT R1212<br>SCT R1616          |
| CTR 121000 R/N/L-NB | ●       |   |   | 12                | 1.0                | 0                   | 19                  | 7              | No          |  |
| CTR 121500 R/N/L-NB | ●       |   |   | 12                | 1.5                |                     |                     |                |             |  |
| CTR 122000 R/N/L-NB | ●       |   |   | 12                | 2.0                | 0                   | 23.1                | 8.3            | No          |  |
| CTR 161000 R/N/L-NB |         |   |   | 16                | 1.0                |                     |                     |                |             |  |
| CTR 161500 R/N/L-NB |         |   |   | 16                | 1.5                | 0                   | 23.1                | 8.3            | No          |  |
| CTR 162000 R/N/L-NB | ●       |   |   | 16                | 2.0                |                     |                     |                |             |  |

**Inserts (For Left-handed Holders)**

Dimensions (mm)

| Cat. No.            | AC1030U |   |   | Max. Cut-off Dia. | Width of Cut<br>CW | Corner Radius<br>RE | Overall Length<br>L | Thickness<br>S | Chipbreaker | Applicable Holder                            |
|---------------------|---------|---|---|-------------------|--------------------|---------------------|---------------------|----------------|-------------|--|
|                     | R       | N | L |                   |                    |                     |                     |                |             |  |
| CTL 050505 R/N/L    | ●       | ● |   | 5                 | 0.5                | 0.05                | 19                  | 7              | Yes         | SCT L1010<br>SCT L1212<br>SCT L1616          |
| CTL 050500 R/N/L    | ●       | ● |   | 5                 | 0.5                | 0                   |                     |                |             |  |
| CTL 121005 R/N/L    | ●       | ● | ● | 12                | 1.0                | 0.05                | 19                  | 7              | Yes         |  |
| CTL 121505 R/N/L    | ●       | ● | ● | 12                | 1.5                |                     |                     |                |             |  |
| CTL 122005 R/N/L    | ●       | ● |   | 12                | 2.0                | 0                   | 19                  | 7              | Yes         |  |
| CTL 121000 R/N/L    | ●       | ● |   | 12                | 1.0                |                     |                     |                |             |  |
| CTL 121500 R/N/L    | ●       | ● |   | 12                | 1.5                | 0                   | 23.1                | 8.3            | Yes         |  |
| CTL 122000 R/N/L    | ●       | ● |   | 12                | 2.0                |                     |                     |                |             |  |
| CTL 161005 R/N/L    | ●       | ● |   | 16                | 1.0                | 0.05                | 23.1                | 8.3            | Yes         | SCT L1010-16<br>SCT L1212-16<br>SCT L1616-16 |
| CTL 161505 R/N/L    | ●       | ● |   | 16                | 1.5                |                     |                     |                |             |  |
| CTL 162005 R/N/L    | ●       | ● | ● | 16                | 2.0                | 0                   | 23.1                | 8.3            | Yes         |  |
| CTL 161000 R/N/L    | ●       | ● |   | 16                | 1.0                |                     |                     |                |             |  |
| CTL 161500 R/N/L    | ●       | ● |   | 16                | 1.5                | 0                   | 23.1                | 8.3            | No          |  |
| CTL 162000 R/N/L    | ●       | ● | ● | 16                | 2.0                |                     |                     |                |             |  |
| CTL 050500 R/N/L-NB |         |   |   | 5                 | 0.5                | 0                   | 19                  | 7              | No          | SCT L1010<br>SCT L1212<br>SCT L1616          |
| CTL 121000 R/N/L-NB |         |   |   | 12                | 1.0                | 0                   | 19                  | 7              | No          |  |
| CTL 121500 R/N/L-NB |         |   |   | 12                | 1.5                |                     |                     |                |             |  |
| CTL 122000 R/N/L-NB |         |   |   | 12                | 2.0                | 0                   | 23.1                | 8.3            | No          |  |
| CTL 161000 R/N/L-NB |         |   |   | 16                | 1.0                |                     |                     |                |             |  |
| CTL 161500 R/N/L-NB |         |   |   | 16                | 1.5                | 0                   | 23.1                | 8.3            | No          |  |
| CTL 162000 R/N/L-NB |         |   |   | 16                | 2.0                |                     |                     |                |             |  |

● mark: Standard stocked item Refer to the General Catalogue for details on the tool holders of the products indicated on this page.

# MEMO

A large grid of dotted lines for writing a memo. The grid consists of 20 columns and 30 rows of small squares, each formed by two dotted lines. The grid is intended for handwritten notes or a formal memo.

# MEMO

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Sumitomo Electric Cutting Tools Official Apps for iOS/Android



Cutting calculation App

## SumiTool Calculator



Grade & chipbreaker comparison App

## SumiTool Converter



### < SAFETY NOTES >



- Very hot or lengthy chips may be discharged while the machine is in operation. Therefore, machine guards, safety goggles or other protective covers must be used. Fire safety precautions must also be considered.

- Please handle with care as this product has sharp edges.
- Improper cutting conditions or mis-handling of the tool may result in breakages or projectiles. Therefore, please use the tool within its recommended conditions.

- When using non-water soluble cutting oil, precautions against fire must be taken and please ensure that a fire extinguisher is placed near the machine.

 Sumitomo Electric Industries, Ltd.

Hardmetal Division

Global Marketing Department : 1-1-1, Koyakita, Itami, Hyogo 664-0016, Japan

<https://www.sumitool.com/global>