

High Precision Multi-purpose Shoulder Milling Cutter

SEC-WaveMill **WEZ** series

Rev. 9

# Ultra-Refined "Universal" Cutter



New Coated Grades  
**XCU2500/XCK2000 Expanded**








**Features**

- **Supports A Variety of Machining Operations**  
A lineup of cutter sizes from  $\varnothing 14$  to  $\varnothing 160$ mm which enable large ramping angles. 28 repeater type items are now available in addition to the modular type and short shank type
- **Excellent Machining Quality**  
With a combination of optimised cutting edge shape and high-precision molding technology, superb wall accuracy and surface finish quality are achieved.
- **Excellent Sharpness with Low Cutting Force**  
Reducing machining noise and suppressing burrs, the lineup includes ground type inserts with a focus on sharpness.
- **Applicable to Various Work Materials**  
In addition to the general-purpose grade ACU2500, the new-generation coated carbide grades XCU2500/XCK2000 are available. Applicable to various work materials such as steel, stainless steel, cast iron, exotic alloys, and more.

**Product Range (Standard)**

| Type    | Cat. No.   | Dia. (mm)        |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                   |                   |                   |      |
|---------|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|------|
|         |  | $\varnothing 14$ | $\varnothing 16$ | $\varnothing 18$ | $\varnothing 20$ | $\varnothing 22$ | $\varnothing 25$ | $\varnothing 26$ | $\varnothing 28$ | $\varnothing 30$ | $\varnothing 32$ | $\varnothing 35$ | $\varnothing 40$ | $\varnothing 50$ | $\varnothing 63$ | $\varnothing 80$ | $\varnothing 100$ | $\varnothing 125$ | $\varnothing 160$ |      |
| Shell   | WEZ 11000RS  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 4 6              | 5 7              | 6 8              | 7 10             | 9 12              |                   |                   |      |
|         | WEZ 11000R    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 7 10             | 9 12              |                   |                   |      |
|         | WEZ 17000RS  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 3 4              | 3 5              | 4 6              | 4 7              | 5 8               | 6 11              | 9 12              | 8 10 |
|         | WEZ 17000R  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 4 7              | 5 8               | 6 11              | 9 12              | 8 10 |
| Shank   | WEZ 11000E   | 1                | 2*               | 2                | 2 3*             | 3                |                  | 2 4*             | 3*               | 4                | 4                |                  | 2 4              | 3 5*             | 5                | 2 6              | 4 7               | 8                 | 10                |      |
|         | WEZ 11000ES<br><small>For multi-tasking machines</small>                                       | 1                | 2*               |                  | 3*               |                  |                  | 4*               |                  |                  |                  |                  |                  |                  |                  |                  |                   |                   |                   |      |
|         | WEZ 11000EL  | 1                | 2*               | 2                | 2*               | 2                | 2*               | 3                |                  | 2                | 2                | 2*               | 3                | 2                | 3                |                  |                   |                   |                   |      |
|         | WEZ 17000E   |                  |                  |                  |                  |                  | 2*               |                  |                  | 2                | 3                |                  | 2 3*             | 3                | 3                | 4                | 3*                | 4*                | 6*                | 7    |
|         | WEZ 17000ES<br><small>For multi-tasking machines</small>                                       |                  |                  |                  |                  |                  | 2                |                  |                  |                  |                  |                  | 3                |                  |                  |                  |                   |                   |                   |      |
|         | WEZ 17000EL  |                  |                  |                  |                  |                  | 2                |                  |                  | 2                | 2                |                  | 2*               | 3                | 2                | 2 4              | 3                 | 3*                | 4*                | 6*   |
| Modular | WEZ 11000M   |                  | 2                | 2                | 2 3              | 3                | 2 4              | 3                | 4                | 4                | 2 4              | 2 4              | 2 4              | 2 4              |                  |                  |                   |                   |                   |      |
|         | WEZ 17000M   |                  |                  |                  |                  |                  | 2 3              |                  | 4                | 5                | 2 4              | 2 4              | 2 4              | 2 4              |                  |                  |                   |                   |                   |      |


Number in ●●● shows the number of teeth  Inch Bore \* mark: Different diameter shanks available

Modular type 

**Product Range (Repeater)**

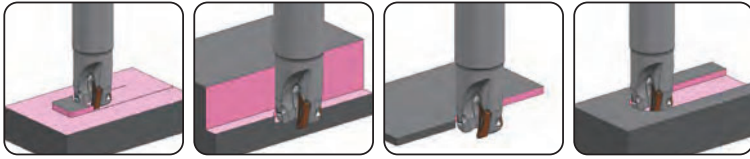
| Type    | Cat. No.     | Dia. (mm)        |                  |                  |                  |                  |                  |                  |                  |                  |
|---------|--------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|         |              | $\varnothing 20$ | $\varnothing 25$ | $\varnothing 30$ | $\varnothing 32$ | $\varnothing 35$ | $\varnothing 40$ | $\varnothing 50$ | $\varnothing 63$ | $\varnothing 80$ |
| Shell   | WEZR 11000RS |                  |                  |                  |                  |                  | 4                | 4                |                  |                  |
|         | WEZR 17000RS |                  |                  |                  |                  |                  |                  | 2 3 4            | 3 4 5            | 5                |
| Shank   | WEZR 11000E  | 1 2              | 2                | 2                | 2 3              | 3                | 3 4              |                  |                  |                  |
|         | WEZR 17000E  |                  |                  |                  |                  |                  | 2 3              | 2 3              |                  |                  |
| Modular | WEZR 11000M  |                  |                  |                  | 3                |                  |                  |                  |                  |                  |
|         | WEZR 17000M  |                  |                  |                  |                  |                  | 3                |                  |                  |                  |

Numbers in ●●● represent the effective number of teeth

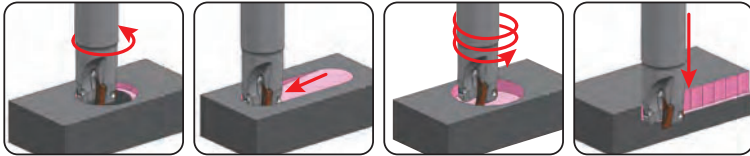
Modular type 

■ Supports Ramping/Helical Milling/Plunge Milling  
Applicable to various applications!

Face Milling Shoulder Milling Side Milling Groove Milling



Hole Expansion Ramping Helical Milling\* Plunge Milling



\*Helical milling is not recommended for WEZR type products.

■ Optimised Body Design  
Wide Guide Face  
for Stable Insert Clamping



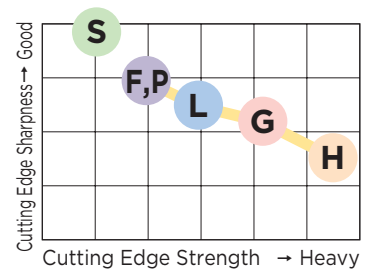
■ Chipbreaker Selection

| Work Material              | P Steel, M Stainless Steel, K Cast Iron, S Heat-resistant Alloy, Titanium Alloy, H Hardened Steel |  |  |                                  |   | N Non-Ferrous Metal |
|----------------------------|---|--|--|----------------------------------|---|---------------------|
| Applications               | Light Cutting   | General-purpose to Interrupted Milling | Heavy Cutting                            | Light Cutting                    | Light Cutting   | Non-Ferrous Metals  |
| Features                   | Low-rigidity Machining  | Standard                               | Heavy Interrupted Cutting Hardened Steel | Medium Finishing Burr Prevention | High-precision Machining High Wall Surface Squareness | Low Cutting Force   |
| Chipbreaker                | L type  | G type                                 | H type                                   | F type                           | P type  | S type              |
|                            |   |  |  |                                  |   |                     |
| Cutting Edge Cross Section | 11 type   | Not Available                          | 0.05mm<br>28°                            | 0.15mm<br>20°                    | 28°   | 28°                 |
|                            | 17 type   | 0.05mm<br>28°                          | 0.15mm<br>20°                            | 0.2mm<br>10°                     | 28°   | 28°                 |

■ Insert Size Comparison



■ Chipbreaker Selection Guide



■ Product Range (Insert)

●: Standard stocked item

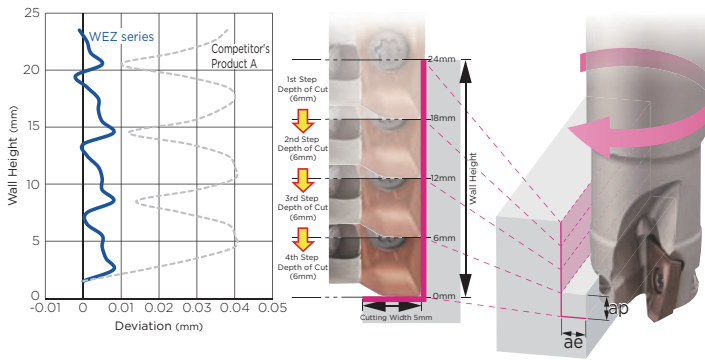
| Size    | Insert Class     | Cat. No.           | Corner Radius (mm) |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---------|------------------|--------------------|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|         |                  |                    | R0.2               | R0.4 | R0.5 | R0.8 | R1.0 | R1.2 | R1.6 | R2.0 | R2.4 | R3.0 | R3.2 | R4.0 | R5.0 | R6.4 |
| 11 type | M Class          | AOMT11T3○○PEER-G   | ●                  | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |      |      |      |
|         |                  | AOMT11T3○○PEER-H   |                    | ●    |      | ●    |      | ●    | ●    |      |      |      |      |      |      |      |
|         | E Class          | AOET11T3○○PEER-F   | ●                  | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |      |      |      |
|         |                  | AOET11T3○○PEER-P16 | ●                  | ●    | ●    | ●    | ●    | ●    | ●    |      |      |      |      |      |      |      |
|         |                  | AOET11T3○○PEER-P20 | ●                  | ●    | ●    | ●    | ●    | ●    | ●    |      |      |      |      |      |      |      |
|         |                  | AOET11T3○○PEER-P25 | ●                  | ●    | ●    | ●    | ●    | ●    | ●    |      |      |      |      |      |      |      |
|         | AOET11T3○○PEFR-S | ●                  | ●                  | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |      |      |      |      |
| 17 type | M Class          | AOMT1705○○PEER-L   | ●                  | ●    |      | ●    |      | ●    | ●    |      |      |      |      |      |      |      |
|         |                  | AOMT1705○○PEER-G   | ●                  | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
|         |                  | AOMT1705○○PEER-H   |                    | ●    |      | ●    |      | ●    | ●    |      |      |      |      |      |      |      |
|         | E Class          | AOET1705○○PEER-F   | ●                  | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
|         |                  | AOET1705○○PEER-P25 | ●                  | ●    | ●    | ●    | ●    | ●    | ●    |      |      |      |      |      |      |      |
|         |                  | AOET1705○○PEER-P32 | ●                  | ●    | ●    | ●    | ●    | ●    | ●    |      |      |      |      |      |      |      |
|         | AOET1705○○PEFR-S | ●                  | ●                  | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |      |

P type chipbreaker Cat. No. is specific to a range of cutter diameters. For details, see the P type Chipbreaker Selection Guide on P5.



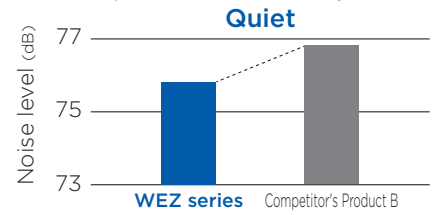
■ Cutting Performance

● Good Wall Accuracy



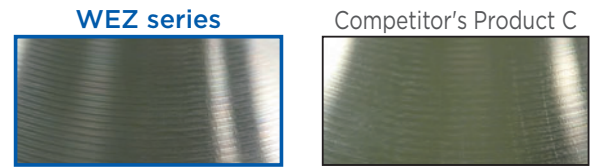
Machine : Vertical Machining Centre BT40 Work Material: S50C  
 Tool : WEZ 11020E03 (ø20, 3 teeth)  
 Insert : AOMT 11T308PEER-G (ACU2500)  
 Cutting Conditions : vc= 150m/min, fz= 0.15mm/t, ap=6mm x 4 Passes, ae= 5mm, Dry

● Lower Cutting Force Helps Reduce Machining Noise



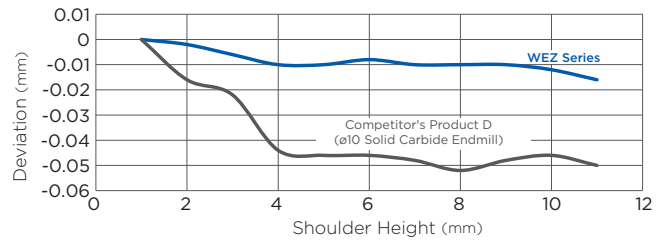
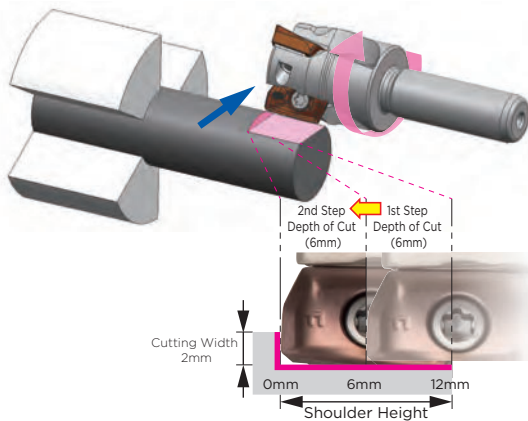
Machine : Vertical Machining Centre BT40, Work Material: S50C  
 Tool : WEZ 11020E03 (ø20, 3 teeth)  
 Insert : AOMT 11T308PEER-G (ACU2500)  
 Cutting Conditions : vc= 150m/min, fz= 0.15mm/t, ap=8mm, ae= 5mm, Dry

● Excellent Surface Quality

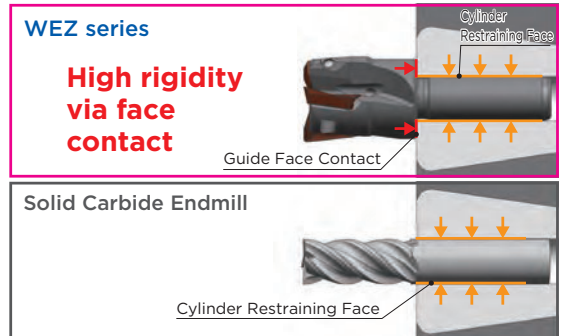


Machine : Vertical Machining Centre BT50, Work Material: SCM440  
 Tool : WEZ 17100RS08 (ø100, 8 teeth)  
 Insert : AOMT 170508PEER-G (ACU2500)  
 Cutting Conditions : vc= 250m/min, fz = 0.15mm/t, ap=2mm, ae= 85mm, Dry

● Good Wall Accuracy (for Multi-tasking Machines)

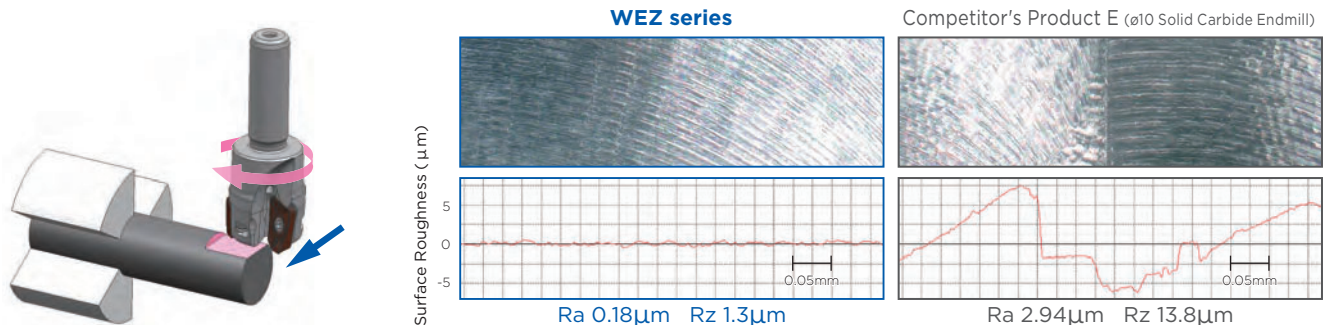


Machine : Multi-tasking Machine Work Material: SUS304 ø16 Round Bar  
 Tool : WEZ 11020ES03-10 (ø20, 3 teeth)  
 Insert : AOET 11T308PEER-F (ACU2500)  
 Cutting Conditions : vc=100m/min, fz=0.08mm/t, ap=6mm x 2 Passes, ae=2mm, Wet



● Excellent machine surface quality (for multi-tasking machines)

Larger tool diameter than solid carbide endmills enables reduced number of passes for high-efficiency machining!  
 Good wall accuracy and machined surface quality, eliminating the finishing process!

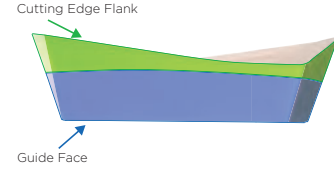


Machine : Multi-tasking Machine Work Material: SUS304 ø16 Round Bar Tool: WEZ 11020ES03-10 (ø20, 3 teeth)  
 Insert : AOET 11T308PEER-F (ACU2500)  
 Cutting Conditions : WEZ series vc=100m/min, fz=0.05mm/t, ap=2mm, ae=12mm, Wet  
 Competitor's Product E vc=100m/min, fz=0.05mm/t, ap=2mm, ae=6mm x 2 Passes, Wet (Solid Carbide Endmill)

High-precision Ground type Insert with Excellent Sharpness

- Ground finish on cutting edge and guide face

The cutting edge, as well as the guide faces are ground finish to minimize corner variations when mounted on the body. Stable edge run-out accuracy and machining quality can be realized!



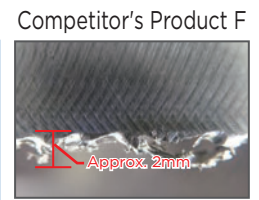
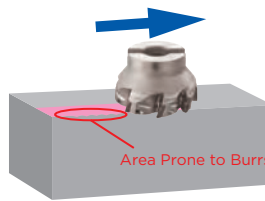
Lineup of Chipbreakers for Ground type Inserts

- F type Chipbreaker - Emphasises Edge Sharpness



- Sharpness from ground finish enables burr control
- Good wall accuracy with all cutter diameters

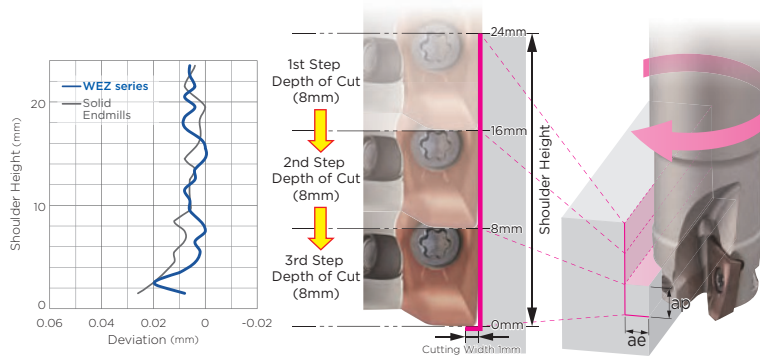
|                    |   |
|--------------------|---|
| Machine            | : Vertical Machining Centre BT50                    |
| Work Material      | : SUS304  |
| Tool               | : WEZ 11050RS07 (ø50, 7 teeth)                      |
| Insert             | : AOET 11T308PEER-F (ACU2500)                       |
| Cutting Conditions | : vc= 120m/min, fz= 0.12mm/t, ap=1mm, ae= 30mm, Dry |



- P type Chipbreaker - Achieves Wall Squareness Equivalent to Using Solid Endmills



- High-precision type with cutting edge shape optimised for each cutter diameter while maintaining the F type chipbreaker's sharpness
- Enables wall squareness equal to using solid endmills, through cutting edge shape optimisation for each cutter diameter



|                    |  |
|--------------------|--|
| Machine            | : Vertical Machining Centre BT50                             |
| Work Material      | : S50C   |
| Tool               | : WEZ 11020E03 (ø20, 3 teeth)                                |
| Insert             | : AOET 11T308PEER-P20 (ACU2500)                              |
| Cutting Conditions | : vc= 150m/min, fz= 0.1mm/t, ap=8mm x 3 Passes, ae= 1mm, Dry |

P type Chipbreaker Selection Guide

| Cat. No.           | Dia. (mm)      |      |                |     |      |                |     |                |     |     |               |
|--------------------|----------------|------|----------------|-----|------|----------------|-----|----------------|-----|-----|---------------|
|                    | ø14            | ø16  | ø18            | ø20 | ø22  | ø25            | ø28 | ø30            | ø32 | ø35 | ø40 and above |
| AOET11T308PEER-P00 | -P16           | -P20 | Not applicable |     | -P25 | Not applicable |     |                |     |     |               |
| AOET170508PEER-P00 | Not applicable |      |                |     | -P25 | -P32           |     | Not applicable |     |     |               |

- S type Chipbreaker - Sharp-Edged Breaker for Non-Ferrous Metals with Excellent Adhesion Resistance



- Suppresses adhesion with rake face lapping
- DLC Coat inserts available for further improved adhesion resistance

|                    |  |
|--------------------|--|
| Machine            | : Vertical Machining Centre BT30                   |
| Work Material      | : ADC12  |
| Tool               | : WEZ 11020E03 (ø20, 3 teeth)                      |
| Insert             | : AOET 11T308PEFR-S (H20)                          |
| Cutting Conditions | : vc= 350m/min, fz= 0.1mm/t, ap=3mm, ae= 10mm, Dry |



**Grade Application Range**

New-generation coated carbide grades **XCU2500/XCK2000** now available!  
Enhanced lineup of coated grades in addition to cemented carbide and cermet for milling steel, stainless steel, cast iron, and aluminum alloy.

| Work Material              | Finishing to Light Cutting   | Medium Cutting | Rough to Heavy Cutting |
|----------------------------|--|----------------|------------------------|
| <b>P</b> Steel             | Coated Carbide<br><b>ACU2500</b><br><b>XCU2500</b><br><b>ACP2000</b>                                     |                | <b>ACP3000</b>         |
|                            | Cermet<br><b>T2500A</b>  |                |                        |
| <b>M</b> Stainless Steel   | Coated Carbide<br><b>ACU2500</b><br><b>XCU2500</b><br><b>ACM200</b>                                      |                | <b>ACM300</b>          |
|                            | Coated Carbide<br><b>ACU2500</b><br><b>XCU2500</b><br><b>XCK2000</b><br><b>ACK2000</b><br><b>ACK3000</b> |                |                        |
| <b>N</b> Non-Ferrous Metal | Coated Carbide<br><b>DL2000</b>  |                |                        |
|                            | Cemented Carbide<br><b>H20</b>   |                |                        |

The letters "C" and "P" at the end of each grade indicate the coating type. ▽: CVD ▲: PVD

**Grade Features**

New coating technology that realises absolute stability  
**ABSOTECH™ (Absolute Technology)**

**ABSOTECH CVD**

- Special Surface Treatment**  
Suppresses thermal cracking by introducing high compressive stress, resulting in chipping resistance more than twice that of conventional types
- Crystal Orientation Control Al<sub>2</sub>O<sub>3</sub>**  
By controlling the growth direction, Al<sub>2</sub>O<sub>3</sub> is reinforced for crater wear resistance more than twice that of conventional types
- High Hardness TiCN**  
Increased TiCN hardness by using a C-rich composition for flank wear resistance more than twice that of conventional types

Applicable Grades: ACP2000, ACK2000

**ABSOTECH PVD**

- New Super Multi-Layered Structure**  
Higher hardness and twice the conventional wear resistance due to a fine crystal structure AlTiCrBN-based nano-layered coating
- High Adhesion Strength**  
Significantly improved coating adhesion has more than twice the chipping resistance as conventional coatings.

Applicable Grades: ACU2500, ACP3000, ACK3000

**ABSOTECH X CVD**

Pure Cubic Crystal AlTiN with High Al Content:  
With proprietary structural control technology, differently composed layers of AlTiN are stacked at the nanometre level. With a high-Al composition containing over 80% Al on average, it also maintains a cubic crystalline structure to achieve excellent thermal resistance and high hardness. Vastly improved wear resistance.

**Special Surface Treatment:**  
Proprietary surface treatment introduces high compression stress to the coating, suppressing the development of cracks. Greatly improved fracture and thermal crack resistance.

Applicable Grades: XCU2500, XCK2000

**Grade Characteristic Values**

**CVD**

| Work Material            | Grade          | Hardness (HRA) | TRS (GPa) | Coating type  | Coating Thickness (µm) | Features  | Old Grade        |
|--------------------------|----------------|----------------|-----------|---------------|------------------------|---|------------------|
| <b>P</b> Steel           | <b>ACP2000</b> | 89.5           | 3.2       | ABSOTECH      | 10                     | <ul style="list-style-type: none"> <li>For high-speed machining of steel</li> <li>Stable long tool life in high-speed machining is realised by adopting a tough carbide substrate and a new coating with excellent thermal crack resistance</li> </ul>  | ACP100           |
|                          | <b>XCU2500</b> | 89.5           | 3.2       | ABSOTECH X    | 6                      | <ul style="list-style-type: none"> <li>General-purpose grade for a wide variety of materials such as steel, cast iron and stainless steel</li> <li>New coating combining wear and fracture resistance realises long tool life in medium-speed to high-speed machining</li> </ul>                        | —                |
| <b>M</b> Stainless Steel | <b>ACM200</b>  | 89.8           | 3.4       | Super FF Coat | 6                      | <ul style="list-style-type: none"> <li>For machining high-hardness stainless steel</li> <li>Adopts a newly developed high-strength cemented carbide substrate with excellent wear resistance and thermal resistance, realizing outstanding stability when machining hardened stainless steel</li> </ul> | AC230            |
| <b>K</b> Cast Iron       | <b>ACK2000</b> | 91.7           | 3.1       | ABSOTECH      | 10                     | <ul style="list-style-type: none"> <li>For high-speed cast iron milling</li> <li>Stable long tool life in high-speed machining is realised by adopting a tough carbide substrate and a new coating with excellent thermal resistance</li> </ul>   | ACK100<br>ACK200 |
|                          | <b>XCK2000</b> | 91.7           | 2.5       | ABSOTECH X    | 6                      | <ul style="list-style-type: none"> <li>For high-speed cast iron milling</li> <li>Along with a high-hardness carbide substrate, the new coating combining wear and fracture resistance realises superb long tool life in medium-speed to high-speed machining</li> </ul>                                 | —                |

**PVD**

| Work Material              | Grade          | Hardness (HRA) | TRS (GPa) | Coating type        | Coating Thickness (µm) | Features  | Old Grade        |
|----------------------------|----------------|----------------|-----------|---------------------|------------------------|---|------------------|
| <b>P</b> Steel             | <b>ACU2500</b> | 91.6           | 3.8       | ABSOTECH            | 3                      | <ul style="list-style-type: none"> <li>General-purpose grade supporting steel, stainless steel, and cast iron machining</li> <li>Adopts a carbide substrate with excellent fracture resistance and wear resistance, plus a new coating with excellent wear resistance and chipping resistance, realising stable long tool life with various work material grades</li> </ul> | —                |
|                            | <b>ACP3000</b> | 89.5           | 3.2       | ABSOTECH            | 3                      | <ul style="list-style-type: none"> <li>Our 1st recommended grade for milling steel</li> <li>Carbide substrate with excellent thermal crack resistance, plus a new coating with excellent wear resistance and chipping resistance, realises stable long tool life over a wide range of cutting conditions</li> </ul>   | ACP200<br>ACP300 |
| <b>M</b> Stainless Steel   | <b>ACM300</b>  | 89.8           | 3.4       | (New) Super ZX Coat | 3                      | <ul style="list-style-type: none"> <li>Our 1st recommended grade for milling stainless steel</li> <li>Adopts a high-strength carbide substrate and super multi-layered coating for next-level wear resistance and fracture resistance</li> </ul>  | —                |
| <b>K</b> Cast Iron         | <b>ACK3000</b> | 91.7           | 3.1       | ABSOTECH            | 3                      | <ul style="list-style-type: none"> <li>Our 1st recommended grade for milling cast iron</li> <li>Adopts a high thermal conductivity carbide substrate and a new coating with excellent wear resistance and chipping resistance, realizing stable long tool life over a wide range of cast iron machining operations</li> </ul>   | ACK300           |
| <b>N</b> Non-Ferrous Metal | <b>DL2000</b>  | 91.6           | 3.8       | AURORA Coat (DLC)   | 0.5                    | <ul style="list-style-type: none"> <li>Grade for milling non-ferrous metal, utilising DLC coat with a low coefficient of friction and excellent adhesion resistance</li> </ul>  | —                |

**Cermet**

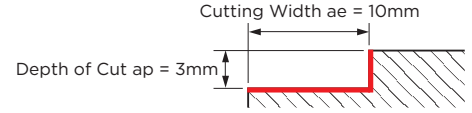
| Work Material                              | Grade         | Hardness (HRA) | TRS (GPa) | Coating type | Coating Thickness (µm) | Features  | Old Grade |
|--|---------------|----------------|-----------|--------------|------------------------|---|-----------|
| <b>P</b> Steel<br><b>M</b> Stainless Steel | <b>T2500A</b> | 91.8           | 2.4       | —            | —                      | <ul style="list-style-type: none"> <li>For finishing of steel and stainless steel</li> <li>Fine, uniform grain structure greatly improves toughness, realising long tool life and excellent surface finishes</li> </ul> | T250A     |

Recommended Cutting Conditions

**WEZ11 type**

Tool: WEZ11020E03, Insert: AO□T11T3 type

Cutting Conditions: Depth of Cut ap = 3mm, Cutting Width ae = 10mm, Dry



| ISO Classification     | Work Material   | Work Material Hardness (HB) | Chipbreaker     | Grade   |                 |                 |                 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|------------------------|---|-----------------------------|-----------------|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------|--------|--|------------------|--|--|
|                        |   |                             |                 | ACU2500   | XCU2500         | ACP2000         | ACP3000         | T2500A          | XCK2000         | ACK2000         | ACK3000         | ACM200          | ACM300 | DL2000 |  |                  |  |  |
|                        |   |                             |                 | Feed Rate per Tooth fz (mm/t) Min. - Optimum - Max. |                 |                 |                 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        |   |                             |                 | Cutting Speed vc (m/min) Min. - Optimum - Max.      |                 |                 |                 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
| P                      | Steel, Carbon Steel S15C                              | 125 G                       | 270 - 320 - 370 | 300 - 350 - 400                                     | 300 - 350 - 400 | 250 - 300 - 350 | 230 - 280 - 330 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | S45C  | 190 G                       | 170 - 220 - 270 | 200 - 250 - 300                                     | 200 - 250 - 300 | 150 - 200 - 250 | 130 - 180 - 230 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | S45C Hardened   | 250 G                       | 140 - 180 - 220 | 160 - 200 - 245                                     | 160 - 200 - 245 | 120 - 160 - 200 | 105 - 145 - 185 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | S75C  | 270 G                       | 110 - 145 - 175 | 130 - 165 - 195                                     | 130 - 165 - 195 | 100 - 130 - 165 | 85 - 115 - 150  |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | S75C Hardened   | 300 G                       | 70 - 90 - 110   | 80 - 100 - 120                                      | 80 - 100 - 120  | 60 - 80 - 100   | 50 - 70 - 90    |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | Low-alloy Steel SCM, SNCM                             | 180 G                       | 160 - 205 - 255 | 190 - 235 - 280                                     | 190 - 235 - 280 | 140 - 190 - 235 | 120 - 170 - 215 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | SCM, SNCM Hardened                                    | 275 G                       | 95 - 120 - 150  | 110 - 135 - 165                                     | 110 - 135 - 165 | 80 - 110 - 140  | 70 - 100 - 125  |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | SCM, SNCM Hardened                                    | 300 G                       | 85 - 110 - 130  | 100 - 125 - 150                                     | 100 - 125 - 150 | 75 - 100 - 125  | 65 - 90 - 115   |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | SCM, SNCM Hardened                                    | 350 G                       | 60 - 80 - 100   | 70 - 90 - 110                                       | 70 - 90 - 110   | 50 - 70 - 90    | 45 - 65 - 85    |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | High-alloy Steel SKD, SKT, SKH                        | 200 G                       | 140 - 180 - 220 | 160 - 200 - 245                                     | 160 - 200 - 245 | 120 - 160 - 205 |                 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
| SKD, SKT, SKH Hardened | 325 G   | 55 - 70 - 85                | 60 - 80 - 100   | 60 - 80 - 100                                       | 50 - 65 - 80    |                 |                 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
| M                      | Stainless Steel SUS430, Others (Martensitic/Ferritic) | 200 G                       | 110 - 140 - 170 | 160 - 190 - 210                                     |                 |                 |                 |                 |                 |                 | 140 - 170 - 190 | 90 - 110 - 140  |        |        |  |                  |  |  |
|                        | SUS403 and Others (Martensitic Hardened)              | 240 G                       | 100 - 125 - 150 | 145 - 170 - 190                                     |                 |                 |                 |                 |                 |                 | 125 - 150 - 170 | 80 - 100 - 125  |        |        |  |                  |  |  |
|                        | SUS304, SUS316 (Austenitic)                           | 180 G                       | 120 - 150 - 180 | 170 - 200 - 220                                     |                 |                 |                 |                 |                 |                 | 150 - 180 - 200 | 100 - 120 - 150 |        |        |  |                  |  |  |
| K                      | Cast Iron   | G                           | 150 - 200 - 250 | 250 - 300 - 350                                     |                 |                 |                 | 250 - 300 - 350 | 250 - 300 - 350 | 170 - 220 - 270 |                 |                 |        |        |  |                  |  |  |
|                        | Ductile Cast Iron                                     | G                           | 90 - 120 - 150  | 150 - 180 - 210                                     |                 |                 |                 | 150 - 180 - 210 | 150 - 180 - 210 | 100 - 130 - 160 |                 |                 |        |        |  |                  |  |  |
| S                      | Exotic Alloy Heat-Resistant Alloy                     | G                           | 30 - 40 - 55    |   |                 |                 |                 |                 |                 |                 | 35 - 45 - 60    | 25 - 35 - 50    |        |        |  |                  |  |  |
|                        | Ti Alloy  | G                           | 60 - 80 - 100   |   |                 |                 |                 |                 |                 |                 | 70 - 90 - 110   | 50 - 70 - 90    |        |        |  |                  |  |  |
| N                      | Aluminum Alloy Si content of 12.6% or less            | S                           |                 |   |                 |                 |                 |                 |                 |                 |                 |                 |        |        |  | 500 - 750 - 1000 |  |  |
|                        | Si content of over 12.6%                              | S                           |                 |   |                 |                 |                 |                 |                 |                 |                 |                 |        |        |  | 170 - 200 - 250  |  |  |
|                        | Copper Alloy  | S                           |                 |   |                 |                 |                 |                 |                 |                 |                 |                 |        |        |  | 300 - 330 - 350  |  |  |

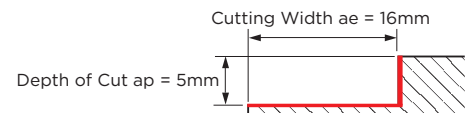
- The recommended cutting conditions may not be practical depending on the operating conditions (e.g. machine, work material shape, clamping system).
- For groove milling, adjust the feed rate to around 70% of the above values.

**Note** The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, work clamp rigidity, depth of cut and other factors. The above are the recommended conditions for WEZ11 type overall. Use within the maximum allowable spindle speed.

**WEZ17 type**

Tool: WEZ17032E03, Insert: AO□T1705 type

Cutting Conditions: Depth of Cut ap = 5mm, Cutting Width ae = 16mm, Dry



| ISO Classification     | Work Material  | Work Material Hardness (HB) | Chipbreaker     | Grade   |                 |                 |                 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|------------------------|--|-----------------------------|-----------------|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------|--------|--|------------------|--|--|
|                        |  |                             |                 | ACU2500   | XCU2500         | ACP2000         | ACP3000         | T2500A          | XCK2000         | ACK2000         | ACK3000         | ACM200          | ACM300 | DL2000 |  |                  |  |  |
|                        |  |                             |                 | Feed Rate per Tooth fz (mm/t) Min. - Optimum - Max. |                 |                 |                 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        |  |                             |                 | Cutting Speed vc (m/min) Min. - Optimum - Max.      |                 |                 |                 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
| P                      | Steel, Carbon Steel S15C                                 | 125 G                       | 285 - 335 - 390 | 315 - 360 - 420                                     | 315 - 360 - 420 | 265 - 315 - 370 | 240 - 295 - 345 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | S45C   | 190 G                       | 180 - 230 - 285 | 210 - 265 - 315                                     | 210 - 265 - 315 | 160 - 210 - 265 | 135 - 190 - 240 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | S45C Hardened  | 250 G                       | 145 - 190 - 230 | 170 - 210 - 255                                     | 170 - 210 - 255 | 130 - 170 - 215 | 110 - 155 - 195 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | S75C   | 270 G                       | 115 - 150 - 185 | 135 - 170 - 205                                     | 135 - 170 - 205 | 100 - 135 - 170 | 90 - 125 - 155  |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | S75C Hardened  | 300 G                       | 70 - 90 - 115   | 85 - 105 - 125                                      | 85 - 105 - 125  | 65 - 85 - 105   | 55 - 75 - 95    |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | Low-alloy Steel SCM, SNCM                                | 180 G                       | 170 - 220 - 265 | 200 - 245 - 295                                     | 200 - 245 - 295 | 150 - 200 - 250 | 130 - 180 - 225 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | SCM, SNCM Hardened                                       | 275 G                       | 100 - 130 - 155 | 115 - 145 - 175                                     | 115 - 145 - 175 | 85 - 115 - 145  | 75 - 105 - 135  |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | SCM, SNCM Hardened                                       | 300 G                       | 90 - 115 - 140  | 105 - 130 - 155                                     | 105 - 130 - 155 | 75 - 105 - 130  | 65 - 90 - 120   |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | SCM, SNCM Hardened                                       | 350 G                       | 65 - 85 - 100   | 75 - 95 - 115                                       | 75 - 95 - 115   | 55 - 75 - 95    | 50 - 70 - 85    |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
|                        | High-alloy Steel SKD, SKT, SKH                           | 200 G                       | 145 - 185 - 230 | 170 - 215 - 255                                     | 170 - 215 - 255 | 130 - 170 - 215 |                 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
| SKD, SKT, SKH Hardened | 325 G  | 55 - 75 - 90                | 65 - 85 - 100   | 65 - 85 - 100                                       | 50 - 65 - 85    |                 |                 |                 |                 |                 |                 |                 |        |        |  |                  |  |  |
| M                      | Stainless Steel SUS430 and Others (Martensitic/Ferritic) | 200 G                       | 115 - 145 - 175 | 165 - 195 - 215                                     |                 |                 |                 |                 |                 |                 | 145 - 175 - 195 | 100 - 115 - 145 |        |        |  |                  |  |  |
|                        | SUS403 and Others (Martensitic Hardened)                 | 240 G                       | 105 - 130 - 155 | 150 - 175 - 195                                     |                 |                 |                 |                 |                 |                 | 130 - 155 - 175 | 85 - 105 - 130  |        |        |  |                  |  |  |
|                        | SUS304, SUS316 (Austenitic)                              | 180 G                       | 125 - 155 - 190 | 180 - 210 - 230                                     |                 |                 |                 |                 |                 |                 | 160 - 190 - 210 | 105 - 125 - 160 |        |        |  |                  |  |  |
| K                      | Cast Iron  | G                           | 160 - 210 - 265 | 265 - 315 - 370                                     |                 |                 |                 | 265 - 315 - 370 | 265 - 315 - 370 | 180 - 230 - 285 |                 |                 |        |        |  |                  |  |  |
|                        | Ductile Cast Iron  | G                           | 95 - 125 - 160  | 160 - 190 - 220                                     |                 |                 |                 | 160 - 190 - 220 | 160 - 190 - 220 | 105 - 140 - 170 |                 |                 |        |        |  |                  |  |  |
| S                      | Exotic Alloy Heat-Resistant Alloy                        | G                           | 30 - 40 - 60    |   |                 |                 |                 |                 |                 |                 | 35 - 45 - 60    | 25 - 35 - 50    |        |        |  |                  |  |  |
|                        | Ti Alloy   | G                           | 60 - 85 - 105   |   |                 |                 |                 |                 |                 |                 | 75 - 95 - 115   | 50 - 75 - 95    |        |        |  |                  |  |  |
| N                      | Aluminum Alloy Si content of 12.6% or less               | S                           |                 |   |                 |                 |                 |                 |                 |                 |                 |                 |        |        |  | 500 - 750 - 1000 |  |  |
|                        | Si content of over 12.6%                                 | S                           |                 |   |                 |                 |                 |                 |                 |                 |                 |                 |        |        |  | 170 - 200 - 250  |  |  |
|                        | Copper Alloy   | S                           |                 |   |                 |                 |                 |                 |                 |                 |                 |                 |        |        |  | 300 - 330 - 350  |  |  |

- The recommended cutting conditions may not be practical depending on the operating conditions (e.g. machine, work material shape, clamping system).
- For groove milling, adjust the feed rate to around 70% of the above values.

**Note** The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, work clamp rigidity, depth of cut and other factors.



## Maximum Allowable Spindle Speed

### WEZ11

| Dia. DC(mm) | n max(min <sup>-1</sup> ) | Dia. DC(mm) | n max(min <sup>-1</sup> ) |
|-------------|---------------------------|-------------|---------------------------|
| 14          | 12,000(7,500)             | 32          | 17,200                    |
| 16          | 29,000                    | 35          | 16,250                    |
| 18          | 26,150                    | 40          | 14,950                    |
| 20          | 24,000                    | 50          | 13,100                    |
| 22          | 22,300                    | 63          | 11,500                    |
| 25          | 20,300                    | 80          | 10,050                    |
| 28          | 18,800                    | 100         | 8,900                     |
| 30          | 17,950                    |             |                           |

### WEZ17

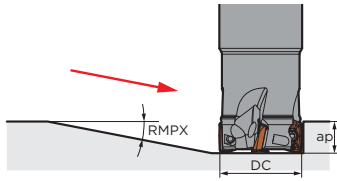
| Dia. DC(mm) | n max(min <sup>-1</sup> ) | Dia. DC(mm) | n max(min <sup>-1</sup> ) |
|-------------|---------------------------|-------------|---------------------------|
| 25          | 15,700                    | 80          | 7,250                     |
| 28          | 14,350                    | 100         | 6,400                     |
| 30          | 13,650                    | 125         | 5,650                     |
| 32          | 13,000                    | 160         | 4,950                     |
| 35          | 12,200                    |             |                           |
| 40          | 11,100                    |             |                           |
| 50          | 9,600                     |             |                           |
| 63          | 8,350                     |             |                           |

\*The parentheses above refer to the use of WEZ11014EL01.

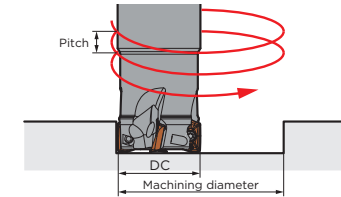
\*The maximum allowable spindle speeds are set to prevent the inserts from dislodging by centrifugal force.

## Ramping/Helical Milling Upper Limit

### Ramping



### Helical Milling



### WEZ11 type

| Dia. DC (mm) | Max. Ramping Angle RMPX (°) | Helical Milling          |                        |                        |                        |                          |                        |
|--------------|-----------------------------|--------------------------|------------------------|------------------------|------------------------|--------------------------|------------------------|
|              |                             | Max. Machining Dia. (mm) | Maximum Pitch (mm/rev) | Standard Diameter (mm) | Maximum Pitch (mm/rev) | Min. Machining Dia. (mm) | Maximum Pitch (mm/rev) |
| 14           | 8.0                         | 25.3                     | 5.0                    | 23.1                   | 3.4                    | 19.0                     | 1.5                    |
| 16           | 10.5                        | 29.3                     | 7.6                    | 27.0                   | 5.6                    | 21.7                     | 1.5                    |
| 18           | 8.1                         | 33.3                     | 6.7                    | 30.9                   | 5.0                    | 25.2                     | 1.4                    |
| 20           | 6.5                         | 37.3                     | 6.0                    | 34.9                   | 4.6                    | 29.1                     | 1.3                    |
| 22           | 5.3                         | 41.3                     | 5.4                    | 38.8                   | 4.3                    | 32.9                     | 1.3                    |
| 25           | 4.1                         | 47.3                     | 4.8                    | 44.8                   | 3.9                    | 38.9                     | 1.3                    |
| 28           | 3.4                         | 53.3                     | 4.4                    | 50.7                   | 3.6                    | 44.9                     | 1.3                    |
| 30           | 3.0                         | 57.3                     | 4.2                    | 54.7                   | 3.5                    | 48.8                     | 1.3                    |
| 32           | 2.7                         | 61.3                     | 4.0                    | 58.7                   | 3.3                    | 52.8                     | 1.2                    |
| 35           | 2.3                         | 67.3                     | 3.8                    | 64.6                   | 3.1                    | 58.8                     | 1.2                    |
| 40           | 1.8                         | 77.3                     | 3.4                    | 74.6                   | 2.9                    | 68.8                     | 1.2                    |
| 50           | 1.2                         | 97.3                     | 3.0                    | 94.6                   | 2.6                    | 88.8                     | 1.1                    |
| 63           | 0.8                         | 123.3                    | 2.8                    | 120.5                  | 2.5                    | 114.7                    | 1.1                    |
| 80           |                             |                          |                        | Not recommended        |                        |                          |                        |
| 100          |                             |                          |                        | Not recommended        |                        |                          |                        |

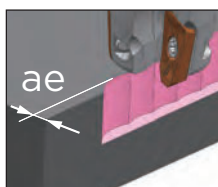
\*The table above shows values with corner radius 0.8mm. Helical milling is not recommended for WEZR type products.

### WEZ17 type

| Dia. DC (mm) | Max. Ramping Angle RMPX (°) | Helical Milling          |                        |                        |                        |                          |                        |
|--------------|-----------------------------|--------------------------|------------------------|------------------------|------------------------|--------------------------|------------------------|
|              |                             | Max. Machining Dia. (mm) | Maximum Pitch (mm/rev) | Standard Diameter (mm) | Maximum Pitch (mm/rev) | Min. Machining Dia. (mm) | Maximum Pitch (mm/rev) |
| 25           | 10.8                        | 47.3                     | 13.0                   | 41.0                   | 8.3                    | 33.1                     | 1.8                    |
| 28           | 8.1                         | 53.3                     | 11.1                   | 46.9                   | 7.5                    | 39.0                     | 1.8                    |
| 30           | 7.0                         | 57.3                     | 10.2                   | 50.9                   | 7.0                    | 43.0                     | 1.8                    |
| 32           | 6.1                         | 61.3                     | 9.5                    | 54.9                   | 6.7                    | 47.0                     | 1.7                    |
| 35           | 5.1                         | 67.3                     | 8.7                    | 60.8                   | 6.2                    | 53.0                     | 1.7                    |
| 40           | 4.0                         | 77.3                     | 7.7                    | 70.8                   | 5.7                    | 63.0                     | 1.7                    |
| 50           | 2.5                         | 97.3                     | 6.5                    | 90.7                   | 5.0                    | 83.0                     | 1.6                    |
| 63           | 1.8                         | 123.3                    | 5.6                    | 116.7                  | 4.5                    | 109.0                    | 1.6                    |
| 80           | 1.2                         | 156.0                    | 5.0                    | 149.4                  | 4.1                    | 141.8                    | 1.5                    |
| 100          | 0.9                         | 197.3                    | 4.7                    | 190.7                  | 4.0                    | 183.1                    | 1.5                    |
| 125          |                             |                          |                        | Not recommended        |                        |                          |                        |
| 160          |                             |                          |                        | Not recommended        |                        |                          |                        |

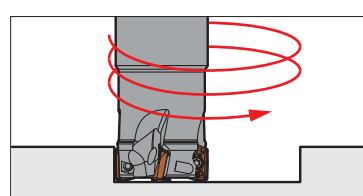
\*The table above shows values with corner radius 0.8mm. Helical milling is not recommended for WEZR type products.

## Plunge Cutting Upper Limit



|            | Max. ae (mm) |
|------------|--------------|
| WEZ11 type | 3            |
| WEZ17 type | 5            |

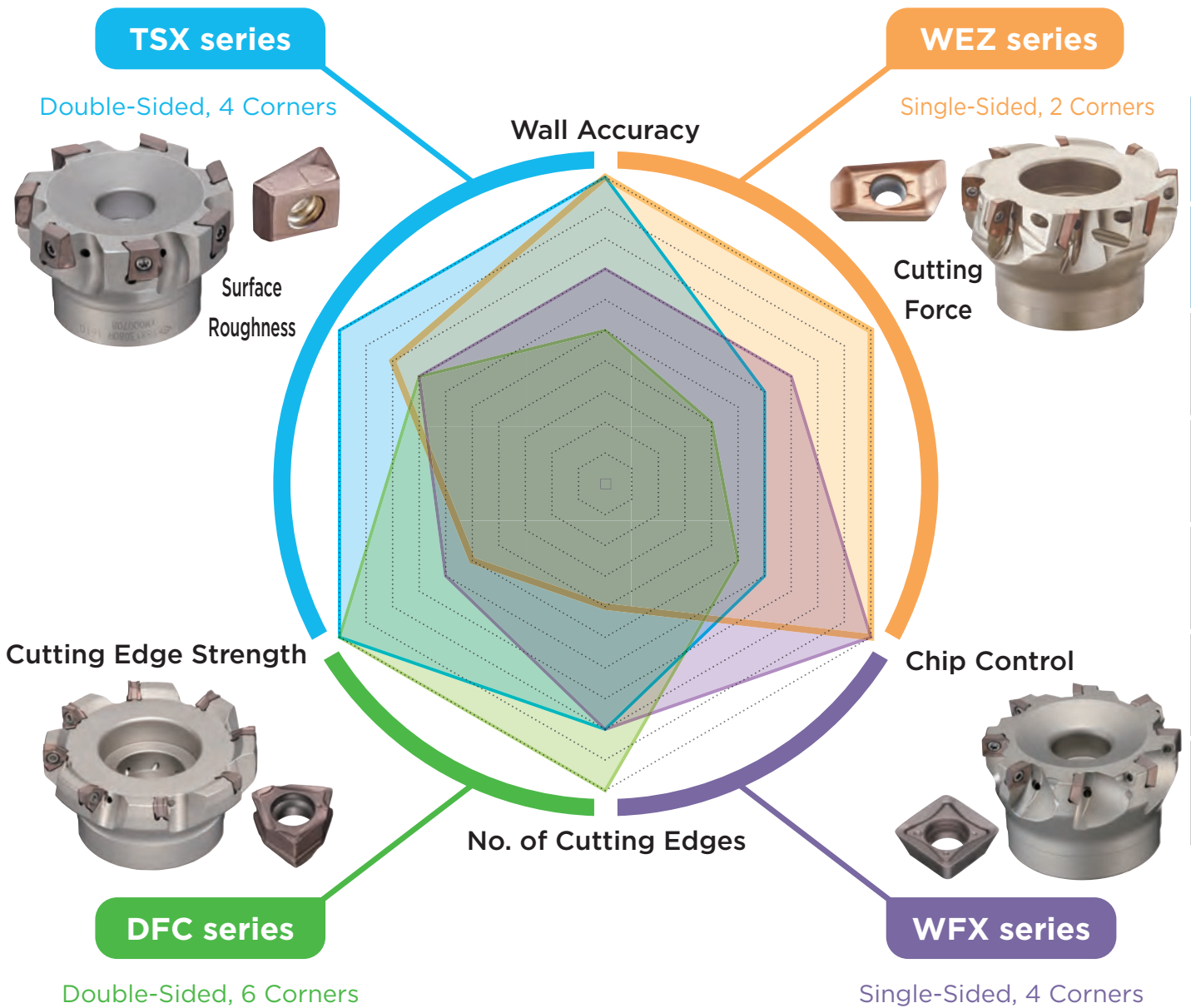
## Precautions for Helical Milling



- For helical milling, if the work diameter is smaller than the standard diameter, there will be a centre uncut portion.
- A prepared centre hole should be made.
- Above the standard diameter, this portion can be removed by traverse cutting with the same cutter.



Shoulder Milling Selection Guide

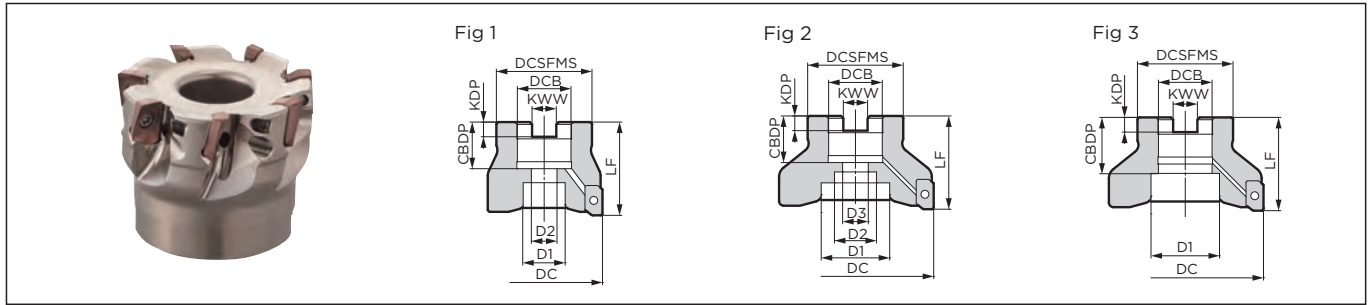


- WEZ
- WEZR
- Shell
- Shank
- Modular
- Application Examples
- Made-to-Order Product

★★★: 1st Recommendation

|                   | Surface Roughness | Wall Accuracy | Cutting Force | Chip Control | No. of Cutting Edges | Cutting Edge Strength |
|-------------------|-------------------|---------------|---------------|--------------|----------------------|-----------------------|
| <b>WEZ series</b> | ★★★               | ★★★           | ★★★           | ★★★          | ★                    | ★★★                   |
| <b>TSX series</b> | ★★★               | ★★★           | ★★            | ★★★          | ★★                   | ★★★                   |
| <b>DFC series</b> | ★★★               | ★             | ★             | ★★★          | ★★★                  | ★★★                   |
| <b>WFX series</b> | ★★★               | ★★            | ★★            | ★★★          | ★★                   | ★★                    |

\* For the details of each product, see the TSX series (brochure No. 523), DFC series (brochure No. 513), and WFX series (brochure No. 491).



### Body (Shell type)

Dimensions (mm)

|        | Cat. No.             | Stock | Dimensions (mm) |             |           |               |                  |                  |                      |         |         |         |    | Number of Teeth | Weight (kg) | Fig |
|--------|----------------------|-------|-----------------|-------------|-----------|---------------|------------------|------------------|----------------------|---------|---------|---------|----|-----------------|-------------|-----|
|        |                      |       | Diameter DC     | Boss DCSFMS | Height LF | Hole Dia. DCB | Keyway Width KWW | Keyway Depth KDP | Mounting Depth CBDDP | Bolt D1 | Bolt D2 | Bolt D3 |    |                 |             |     |
| Metric | <b>WEZ 11040RS04</b> | ●     | 40              | 33          | 40(39.7)  | 16            | 8.4              | 5.6              | 18                   | 14      | 9       | —       | 4  | 0.21            | 1           |     |
|        | <b>11040RS06</b>     | ●     | 40              | 33          | 40(39.7)  | 16            | 8.4              | 5.6              | 18                   | 14      | 9       | —       | 6  | 0.20            | 1           |     |
|        | <b>11050RS05</b>     | ●     | 50              | 41          | 40(39.7)  | 22            | 10.4             | 6.3              | 20                   | 18      | 11      | —       | 5  | 0.32            | 1           |     |
|        | <b>11050RS07</b>     | ●     | 50              | 41          | 40(39.7)  | 22            | 10.4             | 6.3              | 20                   | 18      | 11      | —       | 7  | 0.31            | 1           |     |
|        | <b>11063RS06</b>     | ●     | 63              | 50          | 40(39.7)  | 22            | 10.4             | 6.3              | 20                   | 18      | 11      | —       | 6  | 0.58            | 1           |     |
|        | <b>11063RS08</b>     | ●     | 63              | 50          | 40(39.7)  | 22            | 10.4             | 6.3              | 20                   | 18      | 11      | —       | 8  | 0.57            | 1           |     |
|        | <b>11080RS07</b>     | ●     | *80             | 55          | 50(49.7)  | 27            | 12.4             | 7                | 22                   | 20      | 14      | —       | 7  | 1.08            | 1           |     |
|        | <b>11080RS10</b>     | ●     | *80             | 55          | 50(49.7)  | 27            | 12.4             | 7                | 22                   | 20      | 14      | —       | 10 | 1.07            | 1           |     |
|        | <b>11100RS09</b>     | ●     | *100            | 70          | 50(49.7)  | 32            | 14.4             | 8                | 32                   | 46      | —       | —       | 9  | 1.57            | 3           |     |
|        | <b>11100RS12</b>     | ●     | *100            | 70          | 50(49.7)  | 32            | 14.4             | 8                | 32                   | 46      | —       | —       | 12 | 1.56            | 3           |     |
| Inch   | <b>WEZ 11080R07</b>  | ●     | *80             | 55          | 50(49.7)  | 25.4          | 9.5              | 6                | 25                   | 20      | 14      | —       | 7  | 1.09            | 1           |     |
|        | <b>11080R10</b>      | ●     | *80             | 55          | 50(49.7)  | 25.4          | 9.5              | 6                | 25                   | 20      | 14      | —       | 10 | 1.08            | 1           |     |
|        | <b>11100R09</b>      | ●     | *100            | 70          | 63(62.7)  | 31.75         | 12.7             | 8                | 32                   | 46      | 27      | 18      | 9  | 2.12            | 2           |     |
|        | <b>11100R12</b>      | ●     | *100            | 70          | 63(62.7)  | 31.75         | 12.7             | 8                | 32                   | 46      | 27      | 18      | 12 | 2.10            | 2           |     |

The LF dimensions in parentheses are dimensions using RE = 3.0/3.2 insert.

When using RE = 3.0/3.2 inserts, the maximum depth of cut is 9.5mm.

Take note of the cutter mounting size (DCB) when selecting a cutter. Inserts are sold separately.

**Note** For mounting the cutters marked with \* to an arbor, use a JIS B1176 hex socket bolt (ø80: M12 x 30 to 35mm, ø100: M16 x 40 to 45mm).

### Parts

| Flat Insert Screw | Wrench | Anti-seizure Cream |
|-------------------|--------|--------------------|
|                   |        |                    |
| BFTXO3061P        | 1.5    | TRDR081P SUMI-P    |

### Identification Code

**WEZ 11 050 R S 07**

Series Code    Insert Size    Dia.    Feed Direction    Metric Bore    Number of Teeth

\* Modification of the cutter body is required when using inserts with corner radius RE 2.4 or larger.



Modify the C chamfering portion.

#### WEZ11 type

Reworking guidelines

Corner radius = 2.4: C1

(AOMT11T324PEER)

Corner radius = 3.0: C2.5

(AOMT11T330PEER)

Corner radius = 3.2: C2.5

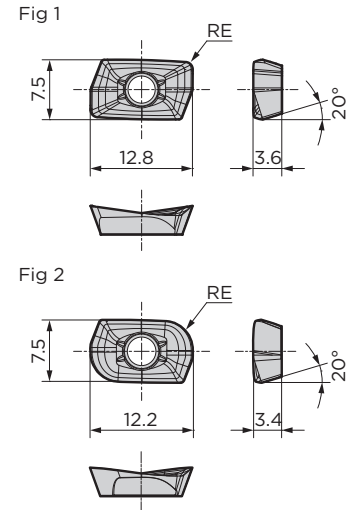
(AOMT11T332PEER)

Standard: R1.

## Insert

Dimensions (mm)

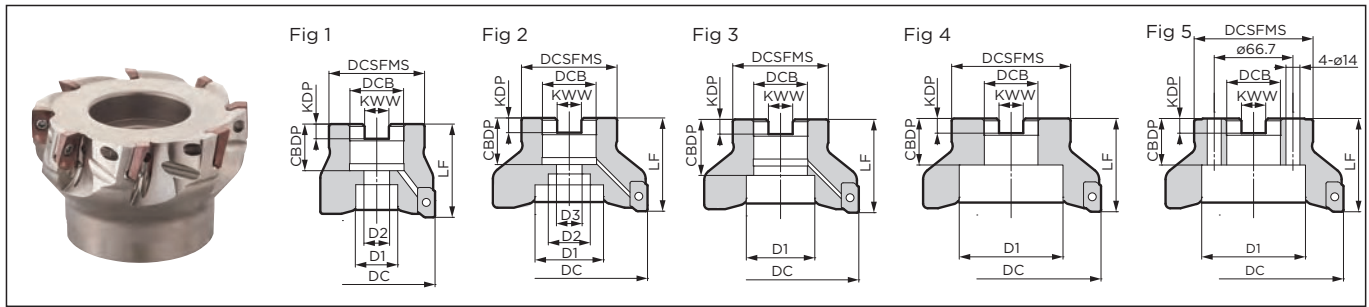
| Process  | Grade Classification     |                 | Coated Carbide |         |         |         |         |         | Cemented Carbide | DLC    | Cermet | Corner Radius RE | Fig    |     |   |
|----------|--------------------------|-----------------|----------------|---------|---------|---------|---------|---------|------------------|--------|--------|------------------|--------|-----|---|
|          | High-speed/Light Cutting | General-purpose | KP             | P       | K       | K       | KS      |         | N                | P      |        |                  |        |     |   |
|          | General-purpose          | Roughing        | KP             | P       | K       | K       | KS      | N       | N                |        |        |                  |        |     |   |
| Cat. No. |                          | ACU2500         | XCU2500        | ACP2000 | ACP3000 | XCK2000 | ACK2000 | ACK3000 | ACM200           | ACM300 | H20    | DL2000           | T2500A |     |   |
| AOMT     | 11T302PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | ●      | 0.2 | 1 |
|          | 11T304PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | ●      | 0.4 | 1 |
|          | 11T305PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 0.5 | 1 |
|          | 11T308PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | ●      | 0.8 | 1 |
|          | 11T310PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 1.0 | 1 |
|          | 11T312PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 1.2 | 1 |
|          | 11T316PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 1.6 | 1 |
|          | 11T320PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 2.0 | 1 |
|          | 11T324PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 2.4 | 1 |
|          | 11T330PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 3.0 | 2 |
|          | 11T332PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 3.2 | 2 |
| AOMT     | 11T304PEER-H             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 0.4 | 1 |
|          | 11T308PEER-H             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 0.8 | 1 |
|          | 11T312PEER-H             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 1.2 | 1 |
|          | 11T316PEER-H             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 1.6 | 1 |
| AOET     | 11T302PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.2 | 1 |
|          | 11T304PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.4 | 1 |
|          | 11T305PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.5 | 1 |
|          | 11T308PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.8 | 1 |
|          | 11T310PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.0 | 1 |
|          | 11T312PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.2 | 1 |
|          | 11T316PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.6 | 1 |
|          | 11T320PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 2.0 | 1 |
|          | 11T324PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 2.4 | 1 |
|          | 11T330PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 3.0 | 2 |
|          | 11T332PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 3.2 | 2 |
| AOET     | 11T302PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 0.2 | 1 |
|          | 11T304PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 0.4 | 1 |
|          | 11T305PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 0.5 | 1 |
|          | 11T308PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 0.8 | 1 |
|          | 11T310PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 1.0 | 1 |
|          | 11T312PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 1.2 | 1 |
|          | 11T316PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 1.6 | 1 |
|          | 11T320PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 2.0 | 1 |
|          | 11T324PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 2.4 | 1 |
|          | 11T330PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 3.0 | 2 |
|          | 11T332PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 3.2 | 2 |



-G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -P16/-P20/-P25: High-precision Machining, -S: Non-Ferrous Metals.

Recommended Cutting Conditions **P7** Maximum Allowable Spindle Speed **P8**

Precautions for Mounting Inserts **P49**



## Body (Shell type)

Dimensions (mm)

| Cat. No.             | Stock | Dia. DC | Boss DCSFMS | Height LF | Hole Dia. DCB | Keyway Width KWW | Keyway Depth KDP | Mounting Depth CBDDP | Bolt D1 | Bolt D2 | Bolt D3 | Number of Teeth | Weight (kg) | Fig |
|----------------------|-------|---------|-------------|-----------|---------------|------------------|------------------|----------------------|---------|---------|---------|-----------------|-------------|-----|
| <b>WEZ 17040RS03</b> | ●     | 40      | 33          | 40(39.3)  | 16            | 8.4              | 5.6              | 18                   | 14      | 9       | —       | 3               | 0.19        | 1   |
| <b>17040RS04</b>     | ●     | 40      | 33          | 40(39.3)  | 16            | 8.4              | 5.6              | 18                   | 14      | 9       | —       | 4               | 0.16        | 1   |
| <b>17050RS03</b>     | ●     | 50      | 41          | 40(39.3)  | 22            | 10.4             | 6.3              | 20                   | 18      | 11      | —       | 3               | 0.30        | 1   |
| <b>17050RS05</b>     | ●     | 50      | 41          | 40(39.3)  | 22            | 10.4             | 6.3              | 20                   | 18      | 11      | —       | 5               | 0.26        | 1   |
| <b>17063RS04</b>     | ●     | 63      | 50          | 40(39.3)  | 22            | 10.4             | 6.3              | 20                   | 18      | 11      | —       | 4               | 0.54        | 1   |
| <b>17063RS06</b>     | ●     | 63      | 50          | 40(39.3)  | 22            | 10.4             | 6.3              | 20                   | 18      | 11      | —       | 6               | 0.51        | 1   |
| <b>17080RS04</b>     | ●     | 80      | 55          | 50(49.3)  | 27            | 12.4             | 7                | 22                   | 20      | 14      | —       | 4               | 1.10        | 1   |
| <b>17080RS07</b>     | ●     | 80      | 55          | 50(49.3)  | 27            | 12.4             | 7                | 22                   | 20      | 14      | —       | 7               | 1.05        | 1   |
| <b>17100RS05</b>     | ●     | 100     | 70          | 50(49.3)  | 32            | 14.4             | 8                | 32                   | 46      | —       | —       | 5               | 1.58        | 3   |
| <b>17100RS08</b>     | ●     | 100     | 70          | 50(49.3)  | 32            | 14.4             | 8                | 32                   | 46      | —       | —       | 8               | 1.57        | 3   |
| <b>17125RS06</b>     | ●     | 125     | 80          | 63(62.3)  | 40            | 16.4             | 9                | 29                   | 52      | 29      | —       | 6               | 3.04        | 1   |
| <b>17125RS09</b>     | ●     | 125     | 80          | 63(62.3)  | 40            | 16.4             | 9                | 29                   | 52      | 29      | —       | 9               | 3.07        | 1   |
| <b>17125RS11</b>     | ●     | 125     | 80          | 63(62.3)  | 40            | 16.4             | 9                | 29                   | 52      | 29      | —       | 11              | 3.02        | 1   |
| <b>17160RS08</b>     | ●     | 160     | 100         | 63(62.3)  | 40            | 16.4             | 9                | 29                   | 90      | —       | —       | 8               | 5.24        | 5   |
| <b>17160RS10</b>     | ●     | 160     | 100         | 63(62.3)  | 40            | 16.4             | 9                | 29                   | 90      | —       | —       | 10              | 5.31        | 5   |
| <b>17160RS12</b>     | ●     | 160     | 100         | 63(62.3)  | 40            | 16.4             | 9                | 29                   | 90      | —       | —       | 12              | 5.26        | 5   |
| <b>WEZ 17080R04</b>  | ●     | 80      | 55          | 50(49.3)  | 25.4          | 9.5              | 6                | 25                   | 20      | 14      | —       | 4               | 1.10        | 1   |
| <b>17080R07</b>      | ●     | 80      | 55          | 50(49.3)  | 25.4          | 9.5              | 6                | 25                   | 20      | 14      | —       | 7               | 1.06        | 1   |
| <b>17100R05</b>      | ●     | 100     | 70          | 63(62.3)  | 31.75         | 12.7             | 8                | 32                   | 46      | 27      | 18      | 5               | 2.08        | 2   |
| <b>17100R08</b>      | ●     | 100     | 70          | 63(62.3)  | 31.75         | 12.7             | 8                | 32                   | 46      | 27      | 18      | 8               | 2.07        | 2   |
| <b>17125R06</b>      | ●     | 125     | 80          | 63(62.3)  | 38.1          | 15.9             | 10               | 35.5                 | 55      | 30      | —       | 6               | 3.09        | 1   |
| <b>17125R09</b>      | ●     | 125     | 80          | 63(62.3)  | 38.1          | 15.9             | 10               | 35.5                 | 55      | 30      | —       | 9               | 3.11        | 1   |
| <b>17125R11</b>      | ●     | 125     | 80          | 63(62.3)  | 38.1          | 15.9             | 10               | 35.5                 | 55      | 30      | —       | 11              | 3.06        | 1   |
| <b>17160R08</b>      | ●     | 160     | 100         | 63(62.3)  | 50.8          | 19.1             | 11               | 38                   | 72      | —       | —       | 8               | 5.04        | 4   |
| <b>17160R10</b>      | ●     | 160     | 100         | 63(62.3)  | 50.8          | 19.1             | 11               | 38                   | 72      | —       | —       | 10              | 5.09        | 4   |
| <b>17160R12</b>      | ●     | 160     | 100         | 63(62.3)  | 50.8          | 19.1             | 11               | 38                   | 72      | —       | —       | 12              | 5.04        | 4   |

The LF dimensions in parentheses are dimensions using RE = 5.0/6.4 insert. When using RE = 5.0/6.4 inserts, the maximum depth of cut is 14.5mm. Take note of the cutter mounting size (DCB) when selecting a cutter. Inserts are sold separately.

**Note** For mounting the cutters marked with \* to an arbor, use a JIS B1176 hex socket bolt (ø80: M12 x 30 to 35mm, ø100: M16 x 40 to 45mm).

Note: The values in red have been changed from Tooling News No. 528 Rev. 8.

## Parts

| Applicable Cutter  | Flat Insert Screw |     | Integrated Wrench | Detachable Wrench Handle Grip | Wrench Bit | Anti-seizure Cream |
|--|-------------------|-----|-------------------|-------------------------------|------------|--------------------|
|  | Icon              | N·m |                   |                               |            |                    |
| WEZ17040RS03<br>WEZ17040RS04<br>WEZ17050RS03<br>WEZ17050RS05<br>WEZ17063RS04<br>WEZ17063RS06<br>WEZ17080R(S)04<br>WEZ17080R(S)07<br>WEZ17100R(S)05<br>WEZ17100R(S)08<br>WEZ17125R(S)06<br>WEZ17125R(S)09<br>WEZ17125R(S)11<br>WEZ17160R(S)08<br>WEZ17160R(S)10<br>WEZ17160R(S)12 | BFTX0409IP        | 3.0 | —                 | HPS1015                       | TRB15IP    | SUMI-P             |
|  |                   |     | TRDR15IP          | —                             | —          |                    |

## Identification Code

# WEZ 17 100 R S 05

Series Code    Insert Size    Dia.    Feed Direction    Metric Bore    Number of Teeth

**\* Modification of the cutter body is required when using inserts with corner radius RE 2.4 or larger.**

Modify the C chamfering portion.

**WEZ17 type**  
Reworking guidelines  
Corner radius = 2.4: C1 (AOMT170524PEER)  
Corner radius = 3.0: C1.5 (AOMT170530PEER)  
Corner radius = 3.2: C1.5 (AOMT170532PEER)  
Corner radius = 4.0: C2 (AOMT170540PEER)  
Corner radius = 5.0: C5 (AOMT170550PEER)  
Corner radius = 6.4: C5 (AOMT170564PEER)

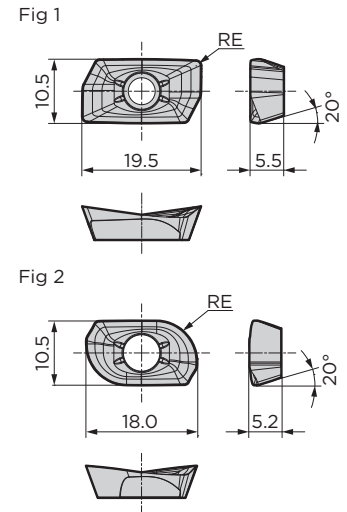
Standard: R1.



## Insert

Dimensions (mm)

| Grade Classification |   | Coated Carbide |         |         |         |         |         | Cemented Carbide | DLC    | Cermet | Corner Radius RE | Fig    |     |   |
|----------------------|---|----------------|---------|---------|---------|---------|---------|------------------|--------|--------|------------------|--------|-----|---|
| Process              | High-speed/Light Cutting<br>General-purpose<br>Roughing | KP             | P       | K       | K       | KS      |         | N                | P      |        |                  |        |     |   |
| Cat. No.             |   | ACU2500        | XCU2500 | ACP2000 | ACP3000 | ACK2000 | ACK3000 | ACM200           | ACM300 | H20    | DL2000           | T2500A |     |   |
| AOMT 170502PEER-L    |   | ●              |         |         |         |         |         |                  |        |        |                  | ●      | 0.2 | 1 |
| 170504PEER-L         |   | ●              |         |         |         |         |         |                  |        |        |                  | ●      | 0.4 | 1 |
| 170508PEER-L         |   | ●              |         |         |         |         |         |                  |        |        |                  | ●      | 0.8 | 1 |
| 170512PEER-L         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 1.2 | 1 |
| 170516PEER-L         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 1.6 | 1 |
| AOMT 170502PEER-G    |   | ●              | ●       |         | ●       | ●       | ●       | ●                | ●      |        |                  | ●      | 0.2 | 1 |
| 170504PEER-G         |   | ●              | ●       |         | ●       | ●       | ●       | ●                | ●      |        |                  | ●      | 0.4 | 1 |
| 170505PEER-G         |   | ●              |         |         |         |         |         |                  |        |        |                  | ●      | 0.5 | 1 |
| 170508PEER-G         |   | ●              | ●       |         | ●       | ●       | ●       | ●                | ●      |        |                  | ●      | 0.8 | 1 |
| 170510PEER-G         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 1.0 | 1 |
| 170512PEER-G         |   | ●              | ●       |         | ●       | ●       | ●       | ●                | ●      |        |                  |        | 1.2 | 1 |
| 170516PEER-G         |   | ●              | ●       |         | ●       | ●       | ●       | ●                | ●      |        |                  |        | 1.6 | 1 |
| 170520PEER-G         |   | ●              | ●       |         | ●       | ●       | ●       | ●                | ●      |        |                  |        | 2.0 | 1 |
| 170524PEER-G         |   | ●              | ●       |         | ●       | ●       | ●       | ●                | ●      |        |                  |        | 2.4 | 1 |
| 170530PEER-G         |   | ●              | ●       |         | ●       | ●       | ●       | ●                | ●      |        |                  |        | 3.0 | 1 |
| 170532PEER-G         |   | ●              | ●       |         | ●       | ●       | ●       | ●                | ●      |        |                  |        | 3.2 | 1 |
| 170540PEER-G         |   | ●              | ●       |         | ●       | ●       | ●       | ●                | ●      |        |                  |        | 4.0 | 1 |
| 170550PEER-G         |   | ●              | ●       |         | ●       | ●       | ●       | ●                | ●      |        |                  |        | 5.0 | 2 |
| 170564PEER-G         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 6.4 | 2 |
| AOMT 170504PEER-H    |   | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      |        |                  |        | 0.4 | 1 |
| 170508PEER-H         |   | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      |        |                  |        | 0.8 | 1 |
| 170512PEER-H         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 1.2 | 1 |
| 170516PEER-H         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 1.6 | 1 |
| AOET 170502PEER-F    |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 0.2 | 1 |
| 170504PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 0.4 | 1 |
| 170505PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 0.5 | 1 |
| 170508PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 0.8 | 1 |
| 170510PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 1.0 | 1 |
| 170512PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 1.2 | 1 |
| 170516PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 1.6 | 1 |
| 170520PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 2.0 | 1 |
| 170524PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 2.4 | 1 |
| 170530PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 3.0 | 1 |
| 170532PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 3.2 | 1 |
| 170540PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 4.0 | 1 |
| 170550PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 5.0 | 2 |
| 170564PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | 6.4 | 2 |
| AOET 170502PEFR-S    |   |                |         |         |         |         |         | ●                | ●      |        |                  |        | 0.2 | 1 |
| 170504PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        | 0.4 | 1 |
| 170505PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        | 0.5 | 1 |
| 170508PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        | 0.8 | 1 |
| 170510PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        | 1.0 | 1 |
| 170512PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        | 1.2 | 1 |
| 170516PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        | 1.6 | 1 |
| 170520PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        | 2.0 | 1 |
| 170524PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        | 2.4 | 1 |
| 170530PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        | 3.0 | 1 |
| 170532PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        | 3.2 | 1 |
| 170540PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        | 4.0 | 1 |
| 170550PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        | 5.0 | 2 |
| 170564PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        | 6.4 | 2 |

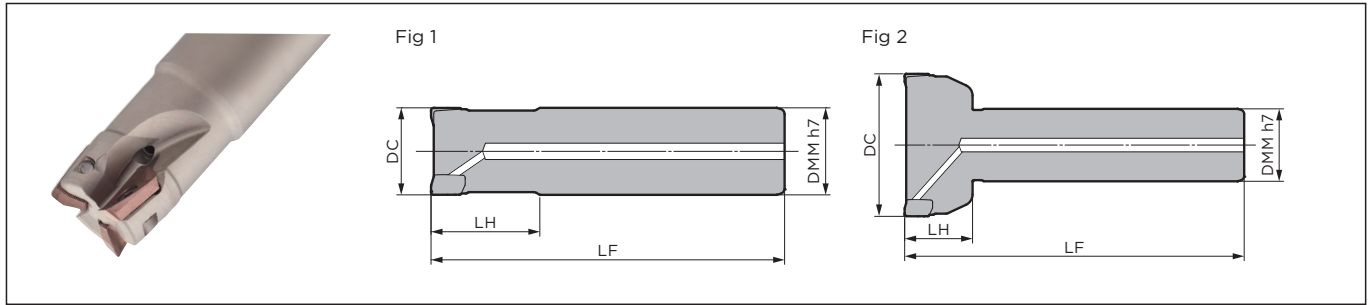


-L: Low Cutting Force, -G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -S: Non-Ferrous Metals.

Recommended Cutting Conditions **P7** Maximum Allowable Spindle Speed **P8**

Precautions for Mounting Inserts **P49**

● mark: Standard stocked item ● mark: Standard stocked item (new product/expanded item) Blank: Made-to-order item — mark: Not available



### Body (Shank type)

Dimensions (mm)

| Cat. No.     | Stock | Dia. DC | Shank DMM | Head LH  | Overall Length LF | Number of Teeth | Weight (kg) | Fig |
|--------------|-------|---------|-----------|----------|-------------------|-----------------|-------------|-----|
| WEZ 11014E01 | ●     | 14      | 16        | 25(24.7) | 80(79.7)          | 1               | 0.10        | 1   |
| 11016E02     | ●     | 16      | 16        | 25(24.7) | 100(99.7)         | 2               | 0.13        | 1   |
| 11016E02-12  | ●     | 16      | 12        | 25(24.7) | 100(99.7)         | 2               | 0.07        | 2   |
| 11018E02     | ●     | 18      | 16        | 25(24.7) | 100(99.7)         | 2               | 0.13        | 2   |
| 11020E02     | ●     | 20      | 20        | 30(29.7) | 110(109.7)        | 2               | 0.23        | 1   |
| 11020E02-16  | ●     | 20      | 16        | 30(29.7) | 110(109.7)        | 2               | 0.15        | 2   |
| 11020E03     | ●     | 20      | 20        | 30(29.7) | 110(109.7)        | 3               | 0.22        | 1   |
| 11020E03-16  | ●     | 20      | 16        | 30(29.7) | 110(109.7)        | 3               | 0.14        | 2   |
| 11022E03     | ●     | 22      | 20        | 30(29.7) | 110(109.7)        | 3               | 0.23        | 2   |
| 11025E02     | ●     | 25      | 25        | 35(34.7) | 120(119.7)        | 2               | 0.40        | 1   |
| 11025E03     | ●     | 25      | 25        | 35(34.7) | 120(119.7)        | 3               | 0.40        | 1   |
| 11025E03-20  | ●     | 25      | 20        | 35(34.7) | 120(119.7)        | 3               | 0.26        | 2   |
| 11025E04     | ●     | 25      | 25        | 35(34.7) | 120(119.7)        | 4               | 0.39        | 1   |
| 11025E04-20  | ●     | 25      | 20        | 35(34.7) | 120(119.7)        | 4               | 0.26        | 2   |
| 11028E04     | ●     | 28      | 25        | 35(34.7) | 120(119.7)        | 4               | 0.41        | 2   |
| 11030E04     | ●     | 30      | 25        | 40(39.7) | 130(129.7)        | 4               | 0.46        | 2   |
| 11032E02     | ●     | 32      | 32        | 40(39.7) | 130(129.7)        | 2               | 0.74        | 1   |
| 11032E03     | ●     | 32      | 32        | 40(39.7) | 130(129.7)        | 3               | 0.73        | 1   |
| 11032E04     | ●     | 32      | 32        | 40(39.7) | 130(129.7)        | 4               | 0.73        | 1   |
| 11032E05     | ●     | 32      | 32        | 40(39.7) | 130(129.7)        | 5               | 0.72        | 1   |
| 11032E05-25  | ●     | 32      | 25        | 40(39.7) | 130(129.7)        | 5               | 0.46        | 2   |
| 11035E05     | ●     | 35      | 32        | 40(39.7) | 130(129.7)        | 5               | 0.75        | 2   |
| 11040E02     | ●     | 40      | 32        | 30(29.7) | 150(149.7)        | 2               | 0.96        | 2   |
| 11040E04     | ●     | 40      | 32        | 30(29.7) | 150(149.7)        | 4               | 0.94        | 2   |
| 11040E06     | ●     | 40      | 32        | 30(29.7) | 150(149.7)        | 6               | 0.93        | 2   |
| 11050E05     | ●     | 50      | 32        | 30(29.7) | 150(149.7)        | 5               | 1.04        | 2   |
| 11050E07     | ●     | 50      | 32        | 30(29.7) | 150(149.7)        | 7               | 1.04        | 2   |
| 11063E08     | ●     | 63      | 32        | 30(29.7) | 150(149.7)        | 8               | 1.24        | 2   |
| 11080E10     | ●     | 80      | 32        | 30(29.7) | 150(149.7)        | 10              | 1.52        | 2   |

The LH and LF dimensions in parentheses are dimensions using RE = 3.0/3.2 insert. When using RE = 3.0/3.2 inserts, the maximum depth of cut is 9.5mm. Inserts are sold separately.

### Parts

| Applicable Cutter | Flat Insert Screw |     | Integrated Wrench | Anti-seizure Cream |
|-------------------|-------------------|-----|-------------------|--------------------|
|                   |                   |     |                   |                    |
| WEZ11014E01       | BFTX0305IP        | 1.5 | TRDR08IP          | SUMI-P             |
| WEZ11016E02(-12)  |                   |     |                   |                    |
| WEZ11018E02       |                   |     |                   |                    |
| WEZ11020E02(-16)  |                   |     |                   |                    |
| WEZ11020E03(-16)  |                   |     |                   |                    |
| WEZ11022E03       |                   |     |                   |                    |
| WEZ11025E02       |                   |     |                   |                    |
| WEZ11025E03(-20)  |                   |     |                   |                    |
| WEZ11025E04(-20)  |                   |     |                   |                    |
| WEZ11028E04       |                   |     |                   |                    |
| WEZ11030E04       | BFTX0306IP        | 1.5 | TRDR08IP          | SUMI-P             |
| WEZ11032E02       |                   |     |                   |                    |
| WEZ11032E03       |                   |     |                   |                    |
| WEZ11032E04       |                   |     |                   |                    |
| WEZ11032E05(-25)  |                   |     |                   |                    |
| WEZ11035E05       |                   |     |                   |                    |
| WEZ11040E02       |                   |     |                   |                    |
| WEZ11040E04       |                   |     |                   |                    |
| WEZ11040E06       |                   |     |                   |                    |
| WEZ11050E05       |                   |     |                   |                    |
| WEZ11050E07       |                   |     |                   |                    |
| WEZ11063E08       |                   |     |                   |                    |
| WEZ11080E10       |                   |     |                   |                    |

### Identification Code

**WEZ 11 025 E 03 -20**  
 Series Code    Insert Size    Dia.    Shank type    Number of Teeth    Shank Dia.

\* Modification of the cutter body is required when using inserts with corner radius RE 2.4 or larger.

Modify the C chamfering portion.

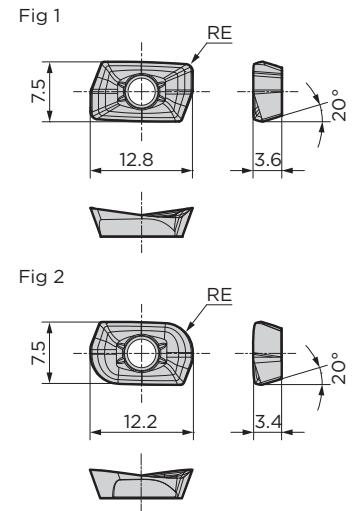
**WEZ11 type**  
 Reworking guidelines  
 Corner radius = 2.4: C1 (AOMT11T324PEER)  
 Corner radius = 3.0: C2.5 (AOMT11T330PEER)  
 Corner radius = 3.2: C2.5 (AOMT11T332PEER)  
 Standard: R1.

Recommended Tightening Torque (N·m)    ● mark: Standard stocked item

**Insert**

Dimensions (mm)

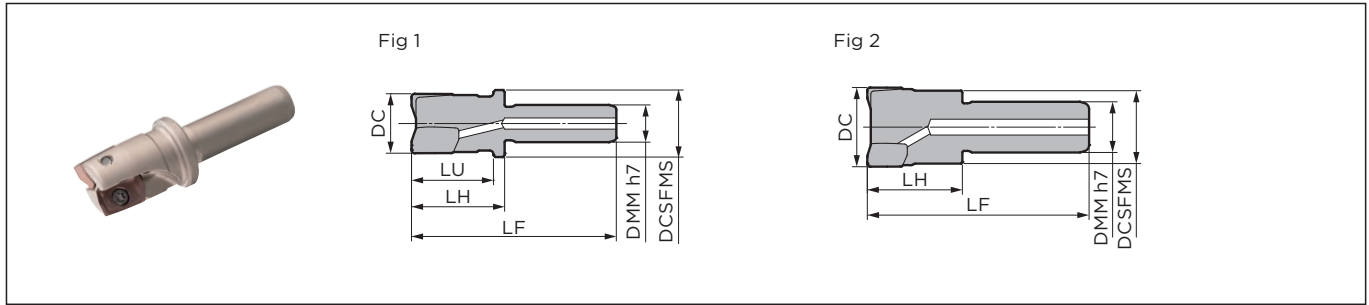
| Grade Classification |                          | Coated Carbide   |   |   |   |   |         | Cemented Carbide  | DLC   | Cermet | Corner Radius RE | Fig    |        |     |   |
|----------------------|--------------------------|--|---|---|---|---|---------|---|---|--------|------------------|--------|--------|-----|---|
| Process              | High-speed/Light Cutting | <span style="border: 1px solid black; padding: 1px;">KP</span> | <span style="border: 1px solid black; padding: 1px;">P</span> | <span style="border: 1px solid black; padding: 1px;">K</span> | <span style="border: 1px solid black; padding: 1px;">K</span> | <span style="border: 1px solid black; padding: 1px;">S</span> |         | <span style="border: 1px solid black; padding: 1px;">N</span> | <span style="border: 1px solid black; padding: 1px;">P</span> |        |                  |        |        |     |   |
|                      | General-purpose          | <span style="border: 1px solid black; padding: 1px;">KP</span> | <span style="border: 1px solid black; padding: 1px;">P</span> | <span style="border: 1px solid black; padding: 1px;">K</span> | <span style="border: 1px solid black; padding: 1px;">K</span> | <span style="border: 1px solid black; padding: 1px;">S</span> |         | <span style="border: 1px solid black; padding: 1px;">N</span> |   |        |                  |        |        |     |   |
|                      | Roughing                 | <span style="border: 1px solid black; padding: 1px;">KP</span> | <span style="border: 1px solid black; padding: 1px;">P</span> | <span style="border: 1px solid black; padding: 1px;">K</span> | <span style="border: 1px solid black; padding: 1px;">K</span> | <span style="border: 1px solid black; padding: 1px;">S</span> |         |   |   |        |                  |        |        |     |   |
| Cat. No.             |                          | ACU2500  | XCU2500   | ACP2000   | ACP3000   | XCK2000   | ACK2000 | ACK3000   | ACM200  | ACM300 | H20              | DL2000 | T2500A |     |   |
| AOMT                 | 11T302PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | ●      | 0.2 | 1 |
|                      | 11T304PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | ●      | 0.4 | 1 |
|                      | 11T305PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | ●      | 0.8 | 1 |
|                      | 11T310PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 1.2 | 1 |
|                      | 11T316PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 1.6 | 1 |
|                      | 11T320PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 2.0 | 1 |
|                      | 11T324PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 2.4 | 1 |
|                      | 11T330PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 3.0 | 2 |
|                      | 11T332PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 3.2 | 2 |
| AOMT                 | 11T304PEER-H             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 0.4 | 1 |
|                      | 11T308PEER-H             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 0.8 | 1 |
|                      | 11T312PEER-H             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 1.2 | 1 |
|                      | 11T316PEER-H             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 1.6 | 1 |
| AOET                 | 11T302PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.2 | 1 |
|                      | 11T304PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.4 | 1 |
|                      | 11T305PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.8 | 1 |
|                      | 11T310PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.2 | 1 |
|                      | 11T316PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.6 | 1 |
|                      | 11T320PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 2.0 | 1 |
|                      | 11T324PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 2.4 | 1 |
|                      | 11T330PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 3.0 | 2 |
|                      | 11T332PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 3.2 | 2 |
| AOET                 | 11T302PEER-P16           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.2 | 1 |
|                      | 11T304PEER-P16           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.4 | 1 |
|                      | 11T305PEER-P16           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-P16           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.8 | 1 |
|                      | 11T310PEER-P16           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-P16           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.2 | 1 |
| AOET                 | 11T302PEER-P20           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.2 | 1 |
|                      | 11T304PEER-P20           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.4 | 1 |
|                      | 11T305PEER-P20           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-P20           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.8 | 1 |
|                      | 11T310PEER-P20           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-P20           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.2 | 1 |
| AOET                 | 11T302PEER-P25           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.2 | 1 |
|                      | 11T304PEER-P25           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.4 | 1 |
|                      | 11T305PEER-P25           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-P25           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.8 | 1 |
|                      | 11T310PEER-P25           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-P25           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.2 | 1 |
| AOET                 | 11T302PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | ●                | ●      | —      | 0.2 | 1 |
|                      | 11T304PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | ●                | ●      | —      | 0.4 | 1 |
|                      | 11T305PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | ●                | ●      | —      | 0.5 | 1 |
|                      | 11T308PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | ●                | ●      | —      | 0.8 | 1 |
|                      | 11T310PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | ●                | ●      | —      | 1.0 | 1 |
|                      | 11T312PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | ●                | ●      | —      | 1.2 | 1 |
|                      | 11T316PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | ●                | ●      | —      | 1.6 | 1 |
|                      | 11T320PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | ●                | ●      | —      | 2.0 | 1 |
|                      | 11T324PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | ●                | ●      | —      | 2.4 | 1 |
|                      | 11T330PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | ●                | ●      | —      | 3.0 | 2 |
|                      | 11T332PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | ●                | ●      | —      | 3.2 | 2 |



-G: General-purpose, -H: Strong Edge, -F: Medium Finishing,  
 -P16/-P20/-P25: High-precision Machining, -S: Non-Ferrous Metals.  
 \* -P16 is applicable to cutter diameters  $\phi 14$  and  $\phi 16$ .  
 -P20 is applicable to cutter diameters  $\phi 18$  and  $\phi 20$ .  
 -P25 is applicable to cutter diameters  $\phi 25$  and  $\phi 28$ .

Recommended Cutting Conditions **P7** Maximum Allowable Spindle Speed **P8**  
 Precautions for Mounting Inserts **P49**

WEZ  
 WEZR  
 Shell  
 Shank  
 Modular  
 Application Examples  
 Made-to-Order Product



## Body (Short Shank type)

Dimensions (mm)

| Cat. No.                | Stock | Dia. DC | Boss DCSFMS | Shank DMM | Head LH  | Effective Length LU | Overall Length LF | Number of Teeth | Weight (kg) | Fig |
|-------------------------|-------|---------|-------------|-----------|----------|---------------------|-------------------|-----------------|-------------|-----|
| <b>WEZ 11014ES01-12</b> | ●     | 14      | 18          | 12        | 30(29.7) | 27                  | 65(64.7)          | 1               | 0.05        | 1   |
| <b>11016ES02-10</b>     | ●     | 16      | 18          | 10        | 25(24.7) | 22                  | 55(54.7)          | 2               | 0.04        | 1   |
| <b>11016ES02-12</b>     | ●     | 16      | 18          | 12        | 30(29.7) | 27                  | 65(64.7)          | 2               | 0.05        | 1   |
| <b>11020ES03-10</b>     | ●     | 20      | 18          | 10        | 25(24.7) | —                   | 55(54.7)          | 3               | 0.04        | 2   |
| <b>11020ES03-12</b>     | ●     | 20      | 18          | 12        | 30(29.7) | —                   | 65(64.7)          | 3               | 0.06        | 2   |
| <b>11020ES03-16</b>     | ●     | 20      | 23          | 16        | 30(29.7) | 27                  | 70(69.7)          | 3               | 0.10        | 1   |
| <b>11025ES04-12</b>     | ●     | 25      | 23          | 12        | 30(29.7) | —                   | 65(64.7)          | 4               | 0.09        | 2   |
| <b>11025ES04-16</b>     | ●     | 25      | 23          | 16        | 30(29.7) | —                   | 70(69.7)          | 4               | 0.12        | 2   |

The LH and LF dimensions in parentheses are dimensions using RE = 3.0/3.2 insert. When using RE = 3.0/3.2 inserts, the maximum depth of cut is 9.5mm. Inserts are sold separately.

## Parts

| Applicable Cutter | Flat Insert Screw  | Wrench                       | Anti-seizure Cream |
|-------------------|--|------------------------------|--------------------|
|                   | <br>WEZ11014ES01-12<br>WEZ11016ES02-10<br>WEZ11016ES02-12<br>WEZ11020ES03-10<br>WEZ11020ES03-12<br>WEZ11020ES03-16<br>WEZ11025ES04-12<br>WEZ11025ES04-16 | <br>BFTX0305IP<br>BFTX0306IP | <br>1.5 TRDR08IP   |

## Identification Code

**WEZ 11 020 E S 03 -12**

Series Code    Insert Size    Dia.    Shank type    Short Shank    Number of Teeth    Shank Dia.

\* Modification of the cutter body is required when using inserts with corner radius RE 2.4 or larger.

Modify the C chamfering portion.

**WEZ11 type**

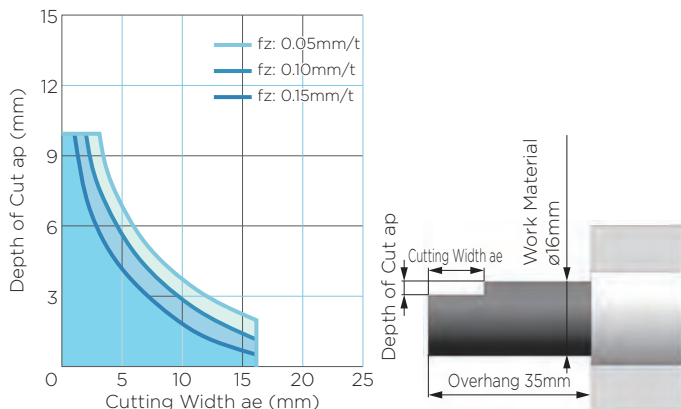
Reworking guidelines

- Corner radius = 2.4: C1 (AOMT11T324PEER)
- Corner radius = 3.0: C2.5 (AOMT11T330PEER)
- Corner radius = 3.2: C2.5 (AOMT11T332PEER)

Standard: R1.

## Recommended Cutting Conditions

Tool: WEZ 11016ES02-10  
 Insert: AOET 11T300PEER-F



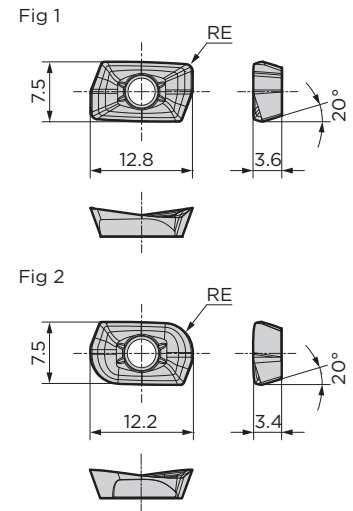
- For cutting conditions for each work material, see P7.
- The recommended cutting conditions may not be practical depending on the operating conditions (e.g. machine, work material shape, clamping system).



**Insert**

Dimensions (mm)

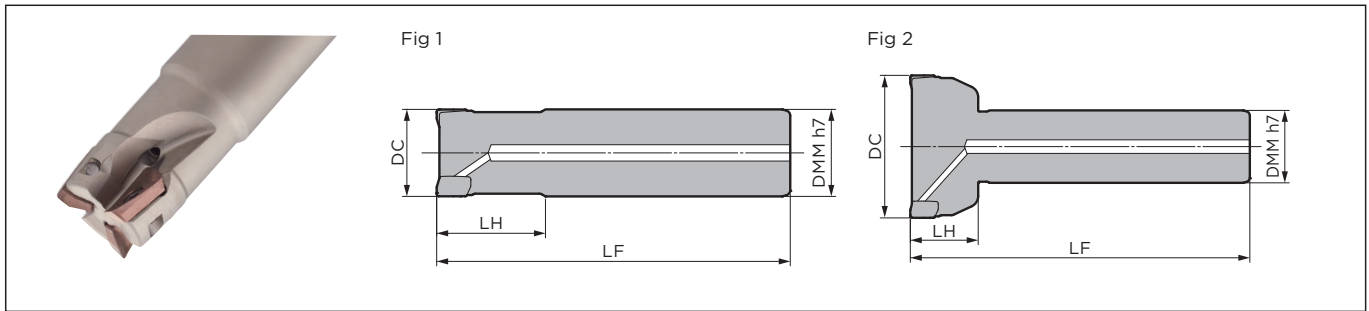
| Process  | Grade Classification     |                 | Coated Carbide |         |         |         |         |         | Cemented Carbide | DLC    | Cermet | Corner Radius RE | Fig    |     |   |
|----------|--------------------------|-----------------|----------------|---------|---------|---------|---------|---------|------------------|--------|--------|------------------|--------|-----|---|
|          | High-speed/Light Cutting | General-purpose | KP             | P       | K       | K       | S       |         | N                | P      |        |                  |        |     |   |
|          | High-speed/Light Cutting | General-purpose | KP             | P       | K       | K       | S       | N       | P                |        |        |                  |        |     |   |
|          | Roughing                 |                 |                |         |         |         |         |         |                  |        |        |                  |        |     |   |
| Cat. No. |                          | ACU2500         | XCU2500        | ACP2000 | ACP3000 | XCK2000 | ACK2000 | ACK3000 | ACM200           | ACM300 | H20    | DL2000           | T2500A |     |   |
| AOMT     | 11T302PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | ●      | 0.2 | 1 |
|          | 11T304PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | ●      | 0.4 | 1 |
|          | 11T305PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 0.5 | 1 |
|          | 11T308PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | ●      | 0.8 | 1 |
|          | 11T310PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 1.0 | 1 |
|          | 11T312PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 1.2 | 1 |
|          | 11T316PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 1.6 | 1 |
|          | 11T320PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 2.0 | 1 |
|          | 11T324PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 2.4 | 1 |
|          | 11T330PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 3.0 | 2 |
|          | 11T332PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 3.2 | 2 |
| AOMT     | 11T304PEER-H             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 0.4 | 1 |
|          | 11T308PEER-H             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 0.8 | 1 |
|          | 11T312PEER-H             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 1.2 | 1 |
|          | 11T316PEER-H             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 1.6 | 1 |
| AOET     | 11T302PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.2 | 1 |
|          | 11T304PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.4 | 1 |
|          | 11T305PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.5 | 1 |
|          | 11T308PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.8 | 1 |
|          | 11T310PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.0 | 1 |
|          | 11T312PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.2 | 1 |
|          | 11T316PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.6 | 1 |
|          | 11T320PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 2.0 | 1 |
|          | 11T324PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 2.4 | 1 |
|          | 11T330PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 3.0 | 2 |
|          | 11T332PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 3.2 | 2 |
| AOET     | 11T302PEER-P16           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.2 | 1 |
|          | 11T304PEER-P16           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.4 | 1 |
|          | 11T305PEER-P16           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.5 | 1 |
|          | 11T308PEER-P16           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.8 | 1 |
|          | 11T310PEER-P16           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.0 | 1 |
|          | 11T312PEER-P16           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.2 | 1 |
| AOET     | 11T302PEER-P20           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.2 | 1 |
|          | 11T304PEER-P20           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.4 | 1 |
|          | 11T305PEER-P20           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.5 | 1 |
|          | 11T308PEER-P20           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.8 | 1 |
|          | 11T310PEER-P20           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.0 | 1 |
|          | 11T312PEER-P20           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.2 | 1 |
| AOET     | 11T302PEER-P25           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.2 | 1 |
|          | 11T304PEER-P25           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.4 | 1 |
|          | 11T305PEER-P25           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.5 | 1 |
|          | 11T308PEER-P25           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.8 | 1 |
|          | 11T310PEER-P25           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.0 | 1 |
|          | 11T312PEER-P25           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.2 | 1 |
| AOET     | 11T302PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 0.2 | 1 |
|          | 11T304PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 0.4 | 1 |
|          | 11T305PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 0.5 | 1 |
|          | 11T308PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 0.8 | 1 |
|          | 11T310PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 1.0 | 1 |
|          | 11T312PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 1.2 | 1 |
|          | 11T316PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 1.6 | 1 |
|          | 11T320PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 2.0 | 1 |
|          | 11T324PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 2.4 | 1 |
|          | 11T330PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 3.0 | 2 |
|          | 11T332PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 3.2 | 2 |



-G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -P16/-P20/-P25: High-precision Machining, -S: Non-Ferrous Metals.  
 \* -P16 is applicable to cutter diameters  $\phi 14$  and  $\phi 16$ .  
 -P20 is applicable to cutter diameters  $\phi 18$  and  $\phi 20$ .  
 -P25 is applicable to cutter diameters  $\phi 25$  and  $\phi 28$ .

Recommended Cutting Conditions **P7** Maximum Allowable Spindle Speed **P8**  
 Precautions for Mounting Inserts **P49**

WEZ  
 WEZR  
 Shell  
 Shank  
 Modular  
 Application Examples  
 Made-to-Order Product



## Body (Long Shank type)

Dimensions (mm)

| Cat. No.             | Stock | Dia. DC | Shank DMM | Head LH  | Overall Length LF | Number of Teeth | Weight (kg) | Fig |
|----------------------|-------|---------|-----------|----------|-------------------|-----------------|-------------|-----|
| <b>WEZ 11014EL01</b> | ●     | 14      | 16        | 25(24.7) | 120(119.7)        | 1               | 0.16        | 1   |
| <b>11016EL02</b>     | ●     | 16      | 16        | 25(24.7) | 145(144.7)        | 2               | 0.19        | 1   |
| <b>11016EL02-14</b>  | ●     | 16      | 14        | 25(24.7) | 145(144.7)        | 2               | 0.15        | 2   |
| <b>11018EL02</b>     | ●     | 18      | 16        | 25(24.7) | 145(144.7)        | 2               | 0.20        | 2   |
| <b>11020EL02</b>     | ●     | 20      | 20        | 40(39.7) | 150(149.7)        | 2               | 0.31        | 1   |
| <b>11020EL02-18</b>  | ●     | 20      | 18        | 25(24.7) | 150(149.7)        | 2               | 0.26        | 2   |
| <b>11022EL02</b>     | ●     | 22      | 20        | 30(29.7) | 150(149.7)        | 2               | 0.32        | 2   |
| <b>11025EL02</b>     | ●     | 25      | 25        | 50(49.7) | 170(169.7)        | 2               | 0.57        | 1   |
| <b>11025EL02-22</b>  | ●     | 25      | 22        | 30(29.7) | 170(169.7)        | 2               | 0.46        | 2   |
| <b>11025EL03</b>     | ●     | 25      | 25        | 50(49.7) | 170(169.7)        | 3               | 0.57        | 1   |
| <b>11028EL02</b>     | ●     | 28      | 25        | 30(29.7) | 170(169.7)        | 2               | 0.60        | 2   |
| <b>11030EL02</b>     | ●     | 30      | 25        | 30(29.7) | 170(169.7)        | 2               | 0.62        | 2   |
| <b>11032EL02</b>     | ●     | 32      | 32        | 60(59.7) | 170(169.7)        | 2               | 0.97        | 1   |
| <b>11032EL02-30</b>  | ●     | 32      | 30        | 30(29.7) | 170(169.7)        | 2               | 0.88        | 2   |
| <b>11032EL03</b>     | ●     | 32      | 32        | 60(59.7) | 170(169.7)        | 3               | 0.96        | 1   |
| <b>11035EL02</b>     | ●     | 35      | 32        | 30(29.7) | 170(169.7)        | 2               | 1.02        | 2   |
| <b>11035EL03</b>     | ●     | 35      | 32        | 30(29.7) | 170(169.7)        | 3               | 1.00        | 2   |
| <b>11040EL02</b>     | ●     | 40      | 32        | 30(29.7) | 170(169.7)        | 2               | 1.08        | 2   |
| <b>11050EL03</b>     | ●     | 50      | 32        | 30(29.7) | 170(169.7)        | 3               | 1.19        | 2   |

The LH and LF dimensions in parentheses are dimensions using RE = 3.0/3.2 insert. When using RE = 3.0/3.2 inserts, the maximum depth of cut is 9.5mm. Inserts are sold separately.

## Parts

| Applicable Cutter  | Flat Insert Screw  | Wrench       | Anti-seizure Cream |
|--|--|--------------|--------------------|
|  |  |              |                    |
| WEZ11014EL01<br>WEZ11016EL02(-14)<br>WEZ11018EL02<br>WEZ11020EL02(-18)<br>WEZ11022EL02<br>WEZ11025EL02(-22)<br>WEZ11025EL03<br>WEZ11028EL02<br>WEZ11030EL02<br>WEZ11032EL02(-30)<br>WEZ11032EL03<br>WEZ11035EL02<br>WEZ11035EL03<br>WEZ11040EL02<br>WEZ11050EL03 | BFTX0305IP<br><br><br><br><br><br><br><br><br><br>BFTX0306IP | 1.5 TRDR08IP | SUMI-P             |

## Identification Code

# WEZ 11 025 E L 02 -22

Series Code    Insert Size    Dia.    Shank type    Long Shank    Number of Teeth    Shank Dia.

**\* Modification of the cutter body is required when using inserts with corner radius RE 2.4 or larger.**

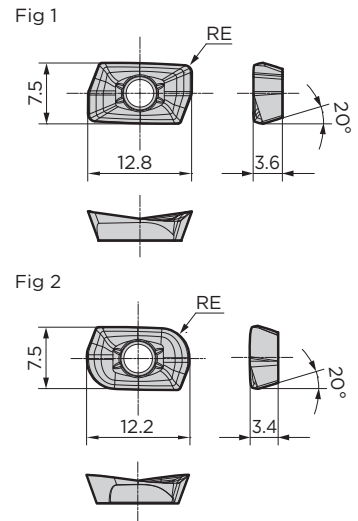
Modify the C chamfering portion.

**WEZ11 type**  
Reworking guidelines  
Corner radius = 2.4: C1 (AOMT11T324PEER)  
Corner radius = 3.0: C2.5 (AOMT11T330PEER)  
Corner radius = 3.2: C2.5 (AOMT11T332PEER)  
Standard: R1.

**Insert**

Dimensions (mm)

| Grade Classification |   | Coated Carbide |         |         |         |         |         | Cemented Carbide | DLC    | Cermet | Corner Radius RE | Fig    |        |     |   |
|----------------------|---|----------------|---------|---------|---------|---------|---------|------------------|--------|--------|------------------|--------|--------|-----|---|
| Process              | High-speed/Light Cutting<br>General-purpose<br>Roughing | KP             | P       | K       | K       | S       |         | N                | P      |        |                  |        |        |     |   |
| Cat. No.             |   | ACU2500        | XCU2500 | ACP2000 | ACP3000 | XCK2000 | ACK2000 | ACK3000          | ACM200 | ACM300 | H20              | DL2000 | T2500A |     |   |
| AOMT                 | 11T302PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | —      | —      | —                | —      | ●      | 0.2 | 1 |
|                      | 11T304PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | —      | —      | —                | —      | ●      | 0.4 | 1 |
|                      | 11T305PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | —      | —      | —                | —      | ●      | 0.5 | 1 |
|                      | 11T308PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | —      | —      | —                | —      | ●      | 0.8 | 1 |
|                      | 11T310PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | —      | —      | —                | —      | ●      | 1.0 | 1 |
|                      | 11T312PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | —      | —      | —                | —      | ●      | 1.2 | 1 |
|                      | 11T316PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | —      | —      | —                | —      | ●      | 1.6 | 1 |
|                      | 11T320PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | —      | —      | —                | —      | ●      | 2.0 | 1 |
|                      | 11T324PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | —      | —      | —                | —      | ●      | 2.4 | 1 |
|                      | 11T330PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | —      | —      | —                | —      | ●      | 3.0 | 2 |
|                      | 11T332PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | —      | —      | —                | —      | ●      | 3.2 | 2 |
| AOMT                 | 11T304PEER-H  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | —      | —      | —                | —      | —      | 0.4 | 1 |
|                      | 11T308PEER-H  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | —      | —      | —                | —      | —      | 0.8 | 1 |
|                      | 11T312PEER-H  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | —      | —      | —                | —      | —      | 1.2 | 1 |
|                      | 11T316PEER-H  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | —      | —      | —                | —      | —      | 1.6 | 1 |
| AOET                 | 11T302PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.2 | 1 |
|                      | 11T304PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.4 | 1 |
|                      | 11T305PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.8 | 1 |
|                      | 11T310PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.2 | 1 |
|                      | 11T316PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.6 | 1 |
|                      | 11T320PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 2.0 | 1 |
|                      | 11T324PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 2.4 | 1 |
|                      | 11T330PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 3.0 | 2 |
|                      | 11T332PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 3.2 | 2 |
| AOET                 | 11T302PEER-P16  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.2 | 1 |
|                      | 11T304PEER-P16  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.4 | 1 |
|                      | 11T305PEER-P16  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-P16  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.8 | 1 |
|                      | 11T310PEER-P16  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-P16  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.2 | 1 |
| AOET                 | 11T302PEER-P20  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.2 | 1 |
|                      | 11T304PEER-P20  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.4 | 1 |
|                      | 11T305PEER-P20  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-P20  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.8 | 1 |
|                      | 11T310PEER-P20  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-P20  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.2 | 1 |
| AOET                 | 11T302PEER-P25  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.2 | 1 |
|                      | 11T304PEER-P25  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.4 | 1 |
|                      | 11T305PEER-P25  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-P25  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.8 | 1 |
|                      | 11T310PEER-P25  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-P25  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.2 | 1 |
| AOET                 | 11T302PEFR-S  | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 0.2 | 1 |
|                      | 11T304PEFR-S  | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 0.4 | 1 |
|                      | 11T305PEFR-S  | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEFR-S  | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 0.8 | 1 |
|                      | 11T310PEFR-S  | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEFR-S  | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 1.2 | 1 |
|                      | 11T316PEFR-S  | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 1.6 | 1 |
|                      | 11T320PEFR-S  | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 2.0 | 1 |
|                      | 11T324PEFR-S  | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 2.4 | 1 |
|                      | 11T330PEFR-S  | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 3.0 | 2 |
|                      | 11T332PEFR-S  | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 3.2 | 2 |



-G: General-purpose, -H: Strong Edge, -F: Medium Finishing,  
 -P16/-P20/-P25: High-precision Machining, -S: Non-Ferrous Metals.  
 \* -P16 is applicable to cutter diameters  $\phi 14$  and  $\phi 16$ .  
 -P20 is applicable to cutter diameters  $\phi 18$  and  $\phi 20$ .  
 -P25 is applicable to cutter diameters  $\phi 25$  and  $\phi 28$ .

Recommended Cutting Conditions **P7** Maximum Allowable Spindle Speed **P8**  
 Precautions for Mounting Inserts **P49**

● mark: Standard stocked item ● mark: Standard stocked item (new product/expanded item) Blank: Made-to-order item — mark: Not available

WEZ

WEZR

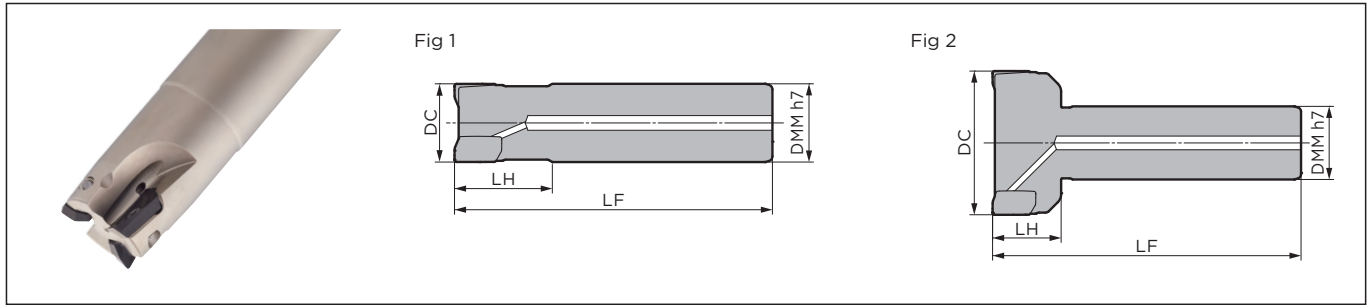
Shell

Shank

Modular

Application Examples

Made-to-Order Product



## Body (Shank type)

| Cat. No.            | Stock | Dimensions (mm) |           |          |                   |                 |             |     |
|---------------------|-------|-----------------|-----------|----------|-------------------|-----------------|-------------|-----|
|                     |       | Dia. DC         | Shank DMM | Head LH  | Overall Length LF | Number of Teeth | Weight (kg) | Fig |
| <b>WEZ 17025E02</b> | ●     | 25              | 25        | 35(34.3) | 120(119.3)        | 2               | 0.38        | 1   |
| <b>17025E02-20</b>  | ●     | 25              | 20        | 35(34.3) | 120(119.3)        | 2               | 0.25        | 2   |
| <b>17028E02</b>     | ●     | 28              | 25        | 35(34.3) | 120(119.3)        | 2               | 0.40        | 2   |
| <b>17030E03</b>     | ●     | 30              | 25        | 40(39.3) | 130(129.3)        | 3               | 0.43        | 2   |
| <b>17032E02</b>     | ●     | 32              | 32        | 40(39.3) | 130(129.3)        | 2               | 0.71        | 1   |
| <b>17032E03</b>     | ●     | 32              | 32        | 40(39.3) | 130(129.3)        | 3               | 0.69        | 1   |
| <b>17032E03-25</b>  | ●     | 32              | 25        | 40(39.3) | 130(129.3)        | 3               | 0.44        | 2   |
| <b>17035E03</b>     | ●     | 35              | 32        | 40(39.3) | 130(129.3)        | 3               | 0.72        | 2   |
| <b>17040E03</b>     | ●     | 40              | 32        | 30(29.3) | 135(134.3)        | 3               | 0.81        | 2   |
| <b>17040E04</b>     | ●     | 40              | 32        | 30(29.3) | 135(134.3)        | 4               | 0.79        | 2   |
| <b>17050E03</b>     | ●     | 50              | 32        | 30(29.3) | 135(134.3)        | 3               | 0.93        | 2   |
| <b>17050E03-42</b>  | ●     | 50              | 42        | 30(29.3) | 135(134.3)        | 3               | 1.41        | 2   |
| <b>17050E05</b>     | ●     | 50              | 32        | 30(29.3) | 135(134.3)        | 5               | 0.89        | 2   |
| <b>17050E05-42</b>  | ●     | 50              | 42        | 30(29.3) | 135(134.3)        | 5               | 1.37        | 2   |
| <b>17063E04</b>     | ●     | 63              | 32        | 30(29.3) | 135(134.3)        | 4               | 1.10        | 2   |
| <b>17063E04-42</b>  | ●     | 63              | 42        | 30(29.3) | 135(134.3)        | 4               | 1.58        | 2   |
| <b>17063E06</b>     | ●     | 63              | 32        | 30(29.3) | 135(134.3)        | 6               | 1.08        | 2   |
| <b>17063E06-42</b>  | ●     | 63              | 42        | 30(29.3) | 135(134.3)        | 6               | 1.56        | 2   |
| <b>17080E07</b>     | ●     | 80              | 32        | 30(29.3) | 135(134.3)        | 7               | 1.39        | 2   |

The LH and LF dimensions in parentheses are dimensions using RE = 5.0/6.4 insert. When using RE = 5.0/6.4 inserts, the maximum depth of cut is 14.5mm. Inserts are sold separately.

## Parts

| Applicable Cutter | Flat Insert Screw |     | Wrench   | Anti-seizure Cream |
|-------------------|-------------------|-----|----------|--------------------|
|                   |                   |     |          |                    |
| WEZ17025E02(-20)  | BFTX0407IP        | 3.0 | TRDR15IP | SUMI-P             |
| WEZ17028E02       |                   |     |          |                    |
| WEZ17030E03       |                   |     |          |                    |
| WEZ17032E02       |                   |     |          |                    |
| WEZ17032E03(-25)  |                   |     |          |                    |
| WEZ17035E03       |                   |     |          |                    |
| WEZ17040E03       |                   |     |          |                    |
| WEZ17040E04       |                   |     |          |                    |
| WEZ17050E03(-42)  |                   |     |          |                    |
| WEZ17050E05(-42)  |                   |     |          |                    |
| WEZ17063E04(-42)  | BFTX0409IP        | 3.0 | TRDR15IP | SUMI-P             |
| WEZ17063E06(-42)  |                   |     |          |                    |
| WEZ17080E07       |                   |     |          |                    |

## Identification Code

**WEZ 17 025 E 02 -20**

Series Code    Insert Size    Dia.    Shank type    Number of Teeth    Shank Dia.

\* Modification of the cutter body is required when using inserts with corner radius RE 2.4 or larger.

Modify the C chamfering portion.

**WEZ17 type**

Reworking guidelines

- Corner radius = 2.4: C1 (AOMT170524PEER)
- Corner radius = 3.0: C1.5 (AOMT170530PEER)
- Corner radius = 3.2: C1.5 (AOMT170532PEER)
- Corner radius = 4.0: C2 (AOMT170540PEER)
- Corner radius = 5.0: C5 (AOMT170550PEER)
- Corner radius = 6.4: C5 (AOMT170564PEER)

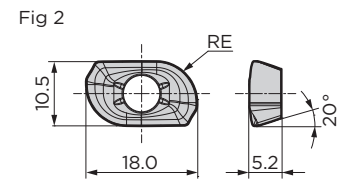
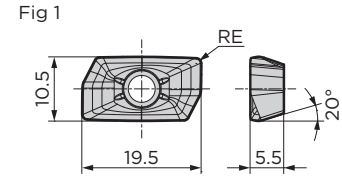
Standard: R1.



**Insert**

Dimensions (mm)

| Grade Classification |                          | Coated Carbide   |   |   |   |   |         | Cemented Carbide  | DLC   | Cermet | Corner Radius RE | Fig    |        |     |   |
|----------------------|--------------------------|--|---|---|---|---|---------|---|---|--------|------------------|--------|--------|-----|---|
| Process              | High-speed/Light Cutting | <span style="border: 1px solid black; padding: 1px;">KP</span> | <span style="border: 1px solid black; padding: 1px;">P</span> | <span style="border: 1px solid black; padding: 1px;">K</span> | <span style="border: 1px solid black; padding: 1px;">K</span> | <span style="border: 1px solid black; padding: 1px;">S</span> |         | <span style="border: 1px solid black; padding: 1px;">N</span> | <span style="border: 1px solid black; padding: 1px;">P</span> |        |                  |        |        |     |   |
|                      | General-purpose          | <span style="border: 1px solid black; padding: 1px;">KP</span> | <span style="border: 1px solid black; padding: 1px;">P</span> | <span style="border: 1px solid black; padding: 1px;">K</span> | <span style="border: 1px solid black; padding: 1px;">K</span> | <span style="border: 1px solid black; padding: 1px;">S</span> |         | <span style="border: 1px solid black; padding: 1px;">N</span> | <span style="border: 1px solid black; padding: 1px;">P</span> |        |                  |        |        |     |   |
|                      | Roughing                 | <span style="border: 1px solid black; padding: 1px;">KP</span> | <span style="border: 1px solid black; padding: 1px;">P</span> | <span style="border: 1px solid black; padding: 1px;">K</span> | <span style="border: 1px solid black; padding: 1px;">K</span> | <span style="border: 1px solid black; padding: 1px;">S</span> |         |   |   |        |                  |        |        |     |   |
| Cat. No.             |                          | ACU2500  | XCU2500   | ACP2000   | ACP3000   | XCK2000   | ACK2000 | ACK3000   | ACM200  | ACM300 | H20              | DL2000 | T2500A |     |   |
| AOMT                 | 170502PEER-L             | ●  | ●   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.2 | 1 |
|                      | 170504PEER-L             | ●  | ●   | —   | —   | —   | —       | —   | —   | —      | —                | —      | ●      | 0.4 | 1 |
|                      | 170508PEER-L             | ●  | ●   | —   | —   | —   | —       | —   | —   | —      | —                | —      | ●      | 0.8 | 1 |
|                      | 170512PEER-L             | ●  | ●   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.2 | 1 |
|                      | 170516PEER-L             | ●  | ●   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.6 | 1 |
| AOMT                 | 170502PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 0.2 | 1 |
|                      | 170504PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | ●      | 0.4 | 1 |
|                      | 170505PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | ●      | 0.5 | 1 |
|                      | 170508PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | ●      | 0.8 | 1 |
|                      | 170510PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 1.0 | 1 |
|                      | 170512PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 1.2 | 1 |
|                      | 170516PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 1.6 | 1 |
|                      | 170520PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 2.0 | 1 |
|                      | 170524PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 2.4 | 1 |
|                      | 170530PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 3.0 | 1 |
|                      | 170532PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 3.2 | 1 |
|                      | 170540PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 4.0 | 1 |
|                      | 170550PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 5.0 | 2 |
|                      | 170564PEER-G             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 6.4 | 2 |
| AOMT                 | 170504PEER-H             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 0.4 | 1 |
|                      | 170508PEER-H             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 0.8 | 1 |
|                      | 170512PEER-H             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 1.2 | 1 |
|                      | 170516PEER-H             | ●  | ●   | ●   | ●   | ●   | ●       | ●   | ●   | ●      | —                | —      | —      | 1.6 | 1 |
| AOET                 | 170502PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.2 | 1 |
|                      | 170504PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.4 | 1 |
|                      | 170505PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.5 | 1 |
|                      | 170508PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.8 | 1 |
|                      | 170510PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.0 | 1 |
|                      | 170512PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.2 | 1 |
|                      | 170516PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.6 | 1 |
|                      | 170520PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 2.0 | 1 |
|                      | 170524PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 2.4 | 1 |
|                      | 170530PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 3.0 | 1 |
|                      | 170532PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 3.2 | 1 |
|                      | 170540PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 4.0 | 1 |
|                      | 170550PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 5.0 | 2 |
|                      | 170564PEER-F             | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 6.4 | 2 |
| AOET                 | 170502PEER-P25           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.2 | 1 |
|                      | 170504PEER-P25           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.4 | 1 |
|                      | 170505PEER-P25           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.5 | 1 |
|                      | 170508PEER-P25           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.8 | 1 |
|                      | 170510PEER-P25           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.0 | 1 |
|                      | 170512PEER-P25           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.2 | 1 |
| AOET                 | 170502PEER-P32           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.2 | 1 |
|                      | 170504PEER-P32           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.4 | 1 |
|                      | 170505PEER-P32           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.5 | 1 |
|                      | 170508PEER-P32           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 0.8 | 1 |
|                      | 170510PEER-P32           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.0 | 1 |
|                      | 170512PEER-P32           | ●  | —   | —   | —   | —   | —       | —   | —   | —      | —                | —      | —      | 1.2 | 1 |
| AOET                 | 170502PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | —                | —      | —      | 0.2 | 1 |
|                      | 170504PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | —                | —      | —      | 0.4 | 1 |
|                      | 170505PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | —                | —      | —      | 0.5 | 1 |
|                      | 170508PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | —                | —      | —      | 0.8 | 1 |
|                      | 170510PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | —                | —      | —      | 1.0 | 1 |
|                      | 170512PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | —                | —      | —      | 1.2 | 1 |
|                      | 170516PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | —                | —      | —      | 1.6 | 1 |
|                      | 170520PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | —                | —      | —      | 2.0 | 1 |
|                      | 170524PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | —                | —      | —      | 2.4 | 1 |
|                      | 170530PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | —                | —      | —      | 3.0 | 1 |
|                      | 170532PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | —                | —      | —      | 3.2 | 1 |
|                      | 170540PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | —                | —      | —      | 4.0 | 1 |
|                      | 170550PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | —                | —      | —      | 5.0 | 2 |
|                      | 170564PEFR-S             | —  | —   | —   | —   | —   | —       | —   | ●   | ●      | —                | —      | —      | 6.4 | 2 |



-L: Low Cutting Force, -G: General-purpose, -H: Strong Edge,

-F: Medium Finishing,

-P25/-P32: High-precision Machining, -S: Non-Ferrous Metals.

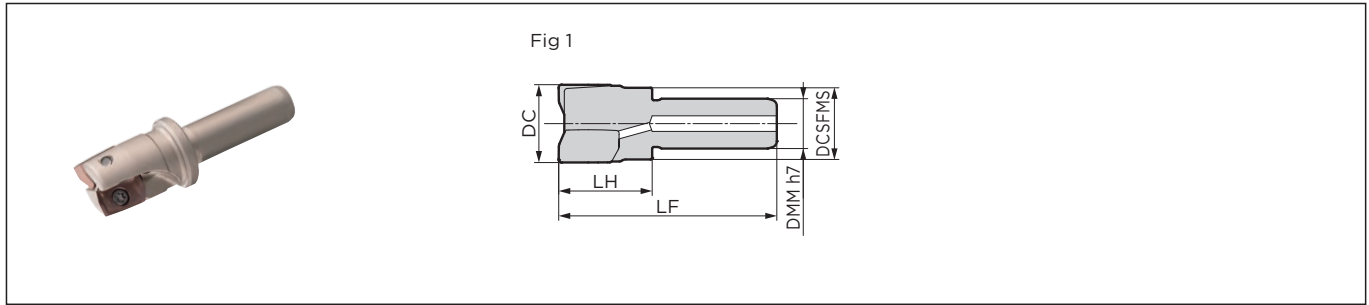
\* -P25 is applicable to cutter diameters  $\phi 25$  and  $\phi 28$ . -P32 is applicable to cutter diameters  $\phi 30$ ,  $\phi 32$  and  $\phi 35$ .

Recommended Cutting Conditions **P7** Maximum Allowable Spindle Speed **P8**

Precautions for Mounting Inserts **P49**

● mark: Standard stocked item ● mark: Standard stocked item (new product/expanded item) Blank: Made-to-order item — mark: Not available

WEZ  
 WEZR  
 Shell  
 Shank  
 Modular  
 Application Examples  
 Made-to-Order Product



### Body (Short Shank type)

Dimensions (mm)

| Cat. No.                | Stock | Dia. DC   | Boss DCSFMS | Shank DMM | Head LH  | Overall Length LF | Number of Teeth | Weight (kg) | Fig |
|-------------------------|-------|-----------|-------------|-----------|----------|-------------------|-----------------|-------------|-----|
| <b>WEZ 17025ES02-16</b> | ●     | <b>25</b> | 23          | 16        | 30(29.3) | 70(69.3)          | 2               | 0.11        | 1   |
| <b>17032ES03-16</b>     | ●     | <b>32</b> | 27          | 16        | 30(29.3) | 70(69.3)          | 3               | 0.14        | 1   |

The LH and LF dimensions in parentheses are dimensions using RE = 5.0/6.4 insert. When using RE = 5.0/6.4 inserts, the maximum depth of cut is 14.5mm. Inserts are sold separately.

### Parts

| Applicable Cutter | Flat Insert Screw | Wrench | Anti-seizure Cream |
|-------------------|-------------------|--------|--------------------|
| WEZ17025ES02-16   | BFTX0407IP        | 3.0    | TRDR15IP           |
| WEZ17032ES03-16   | BFTX0409IP        | 3.0    | SUMI-P             |

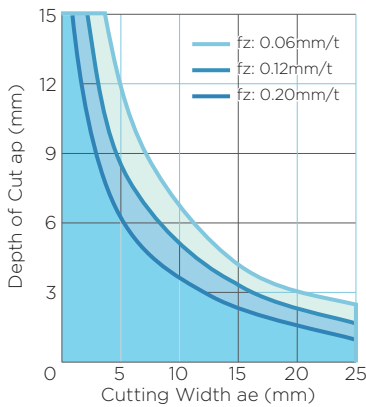
### Identification Code

**WEZ 17 025 E S 02 -16**

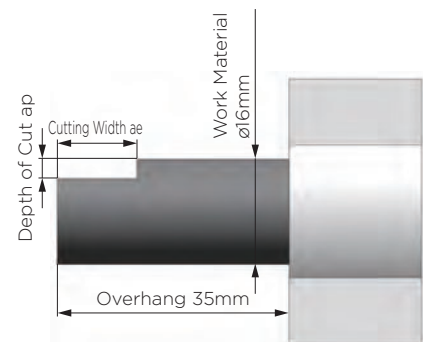
Series Code    Insert Size    Dia.    Shank type    Short Shank    Number of Teeth    Shank Dia.

### Recommended Cutting Conditions

Tool: WEZ17025ES02-16  
Insert: AOET170500PEER-F



- For cutting conditions for each work material, see P7.
- The recommended cutting conditions may not be practical depending on the operating conditions (e.g. machine, work material shape, clamping system).



**\* Modification of the cutter body is required when using inserts with corner radius RE 2.4 or larger.**

Modify the C chamfering portion.

**WEZ17 type**

Reworking guidelines

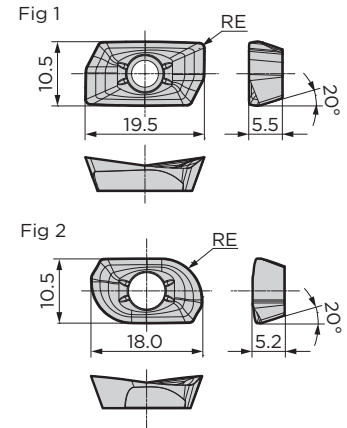
- Corner radius = 2.4: C1 (AOMT170524PEER)
- Corner radius = 3.0: C1.5 (AOMT170530PEER)
- Corner radius = 3.2: C1.5 (AOMT170532PEER)
- Corner radius = 4.0: C2 (AOMT170540PEER)
- Corner radius = 5.0: C5 (AOMT170550PEER)
- Corner radius = 6.4: C5 (AOMT170564PEER)

Standard: R1.

## Insert

Dimensions (mm)

| Grade Classification |   | Coated Carbide       |          |                      |                      |                      |          | Cemented Carbide | DLC      | Cermet | Corner Radius RE | Fig    |        |     |   |
|----------------------|---|----------------------|----------|----------------------|----------------------|----------------------|----------|------------------|----------|--------|------------------|--------|--------|-----|---|
| Process              | High-speed/Light Cutting<br>General-purpose<br>Roughing | <b>K</b><br><b>M</b> | <b>P</b> | <b>K</b><br><b>K</b> | <b>K</b><br><b>K</b> | <b>S</b><br><b>S</b> | <b>N</b> | <b>N</b>         | <b>P</b> |        |                  |        |        |     |   |
| Cat. No.             |   | ACU2500              | XCU2500  | ACP2000              | ACP3000              | XCK2000              | ACK2000  | ACK3000          | ACM200   | ACM300 | H20              | DL2000 | T2500A |     |   |
| AOMT 170502PEER-L    |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        | ●      | 0.2 | 1 |
| 170504PEER-L         |   | ●                    | ●        |                      | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 0.4 | 1 |
| 170508PEER-L         |   | ●                    | ●        |                      | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 0.8 | 1 |
| 170512PEER-L         |   | ●                    | ●        |                      | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 1.2 | 1 |
| 170516PEER-L         |   | ●                    | ●        |                      | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 1.6 | 1 |
| AOMT 170502PEER-G    |   | ●                    | ●        |                      | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 0.2 | 1 |
| 170504PEER-G         |   | ●                    | ●        | ●                    | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 0.4 | 1 |
| 170505PEER-G         |   | ●                    | ●        |                      | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 0.5 | 1 |
| 170508PEER-G         |   | ●                    | ●        | ●                    | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 0.8 | 1 |
| 170510PEER-G         |   | ●                    | ●        |                      | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 1.0 | 1 |
| 170512PEER-G         |   | ●                    | ●        |                      | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 1.2 | 1 |
| 170516PEER-G         |   | ●                    | ●        |                      | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 1.6 | 1 |
| 170520PEER-G         |   | ●                    | ●        |                      | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 2.0 | 1 |
| 170524PEER-G         |   | ●                    | ●        |                      | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 2.4 | 1 |
| 170530PEER-G         |   | ●                    | ●        |                      | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 3.0 | 1 |
| 170532PEER-G         |   | ●                    | ●        |                      | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 3.2 | 1 |
| 170540PEER-G         |   | ●                    | ●        |                      | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 4.0 | 1 |
| 170550PEER-G         |   | ●                    | ●        |                      | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 5.0 | 2 |
| 170564PEER-G         |   | ●                    | ●        |                      | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 6.4 | 2 |
| AOMT 170504PEER-H    |   | ●                    | ●        | ●                    | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 0.4 | 1 |
| 170508PEER-H         |   | ●                    | ●        | ●                    | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 0.8 | 1 |
| 170512PEER-H         |   | ●                    | ●        | ●                    | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 1.2 | 1 |
| 170516PEER-H         |   | ●                    | ●        | ●                    | ●                    | ●                    |          | ●                | ●        | ●      |                  |        | ●      | 1.6 | 1 |
| AOET 170502PEER-F    |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 0.2 | 1 |
| 170504PEER-F         |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 0.4 | 1 |
| 170505PEER-F         |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 0.5 | 1 |
| 170508PEER-F         |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 0.8 | 1 |
| 170510PEER-F         |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 1.0 | 1 |
| 170512PEER-F         |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 1.2 | 1 |
| 170516PEER-F         |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 1.6 | 1 |
| 170520PEER-F         |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 2.0 | 1 |
| 170524PEER-F         |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 2.4 | 1 |
| 170530PEER-F         |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 3.0 | 1 |
| 170532PEER-F         |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 3.2 | 1 |
| 170540PEER-F         |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 4.0 | 1 |
| 170550PEER-F         |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 5.0 | 2 |
| 170564PEER-F         |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 6.4 | 2 |
| AOET 170502PEER-P25  |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 0.2 | 1 |
| 170504PEER-P25       |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 0.4 | 1 |
| 170505PEER-P25       |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 0.5 | 1 |
| 170508PEER-P25       |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 0.8 | 1 |
| 170510PEER-P25       |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 1.0 | 1 |
| 170512PEER-P25       |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 1.2 | 1 |
| AOET 170502PEER-P32  |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 0.2 | 1 |
| 170504PEER-P32       |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 0.4 | 1 |
| 170505PEER-P32       |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 0.5 | 1 |
| 170508PEER-P32       |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 0.8 | 1 |
| 170510PEER-P32       |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 1.0 | 1 |
| 170512PEER-P32       |   | ●                    |          |                      |                      |                      |          |                  |          |        |                  |        |        | 1.2 | 1 |
| AOET 170502PEFR-S    |   |                      |          |                      |                      |                      |          | ●                | ●        |        |                  |        |        | 0.2 | 1 |
| 170504PEFR-S         |   |                      |          |                      |                      |                      |          | ●                | ●        |        |                  |        |        | 0.4 | 1 |
| 170505PEFR-S         |   |                      |          |                      |                      |                      |          | ●                | ●        |        |                  |        |        | 0.5 | 1 |
| 170508PEFR-S         |   |                      |          |                      |                      |                      |          | ●                | ●        |        |                  |        |        | 0.8 | 1 |
| 170510PEFR-S         |   |                      |          |                      |                      |                      |          | ●                | ●        |        |                  |        |        | 1.0 | 1 |
| 170512PEFR-S         |   |                      |          |                      |                      |                      |          | ●                | ●        |        |                  |        |        | 1.2 | 1 |
| 170516PEFR-S         |   |                      |          |                      |                      |                      |          | ●                | ●        |        |                  |        |        | 1.6 | 1 |
| 170520PEFR-S         |   |                      |          |                      |                      |                      |          | ●                | ●        |        |                  |        |        | 2.0 | 1 |
| 170524PEFR-S         |   |                      |          |                      |                      |                      |          | ●                | ●        |        |                  |        |        | 2.4 | 1 |
| 170530PEFR-S         |   |                      |          |                      |                      |                      |          | ●                | ●        |        |                  |        |        | 3.0 | 1 |
| 170532PEFR-S         |   |                      |          |                      |                      |                      |          | ●                | ●        |        |                  |        |        | 3.2 | 1 |
| 170540PEFR-S         |   |                      |          |                      |                      |                      |          | ●                | ●        |        |                  |        |        | 4.0 | 1 |
| 170550PEFR-S         |   |                      |          |                      |                      |                      |          | ●                | ●        |        |                  |        |        | 5.0 | 2 |
| 170564PEFR-S         |   |                      |          |                      |                      |                      |          | ●                | ●        |        |                  |        |        | 6.4 | 2 |



-L: Low Cutting Force, -G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -P25/-P32: High-precision Machining, -S: Non-Ferrous Metals.

\* -P25 is applicable to cutter diameters ø25 and ø28. -P32 is applicable to cutter diameters ø30, ø32 and ø35.

Recommended Cutting Conditions **P7**

● mark: Standard stocked item ● mark: Standard stocked item (new product/expanded item) Blank: Made-to-order item — mark: Not available

WEZ

WEZR

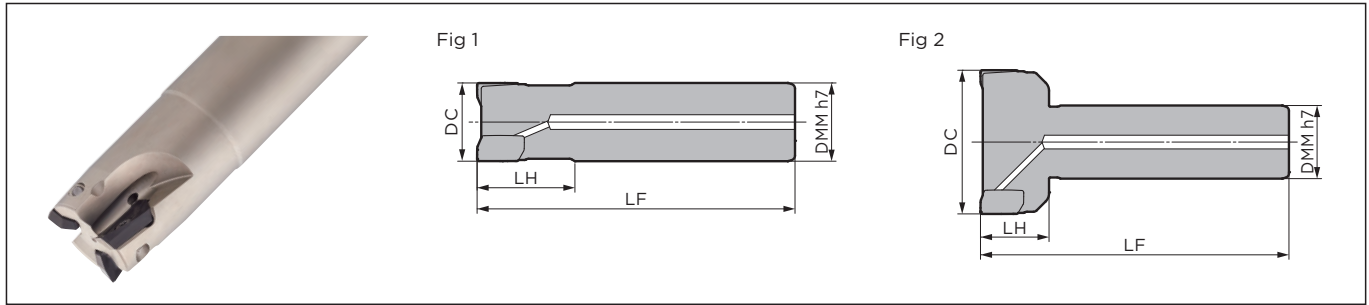
Shell

Shank

Modular

Application Examples

Made-to-Order Product



### Body (Long Shank type)

Dimensions (mm)

| Cat. No.      | Stock | Dia. DC | Shank DMM | Head LH  | Overall Length LF | Number of Teeth | Weight (kg) | Fig |
|---------------|-------|---------|-----------|----------|-------------------|-----------------|-------------|-----|
| WEZ 17025EL02 | ●     | 25      | 25        | 50(49.3) | 170(169.3)        | 2               | 0.55        | 1   |
| 17028EL02     | ●     | 28      | 25        | 50(49.3) | 170(169.3)        | 2               | 0.57        | 2   |
| 17030EL02     | ●     | 30      | 25        | 50(49.3) | 170(169.3)        | 2               | 0.59        | 2   |
| 17032EL02     | ●     | 32      | 32        | 60(59.3) | 170(169.3)        | 2               | 0.94        | 1   |
| 17032EL02-30  | ●     | 32      | 30        | 50(49.3) | 170(169.3)        | 2               | 0.85        | 2   |
| 17032EL03     | ●     | 32      | 32        | 60(59.3) | 170(169.3)        | 3               | 0.92        | 1   |
| 17035EL02     | ●     | 35      | 32        | 50(49.3) | 170(169.3)        | 2               | 0.98        | 2   |
| 17040EL02     | ●     | 40      | 32        | 50(49.3) | 170(169.3)        | 2               | 1.09        | 2   |
| 17040EL03     | ●     | 40      | 32        | 50(49.3) | 170(169.3)        | 3               | 1.08        | 2   |
| 17040EL04     | ●     | 40      | 32        | 50(49.3) | 170(169.3)        | 4               | 1.05        | 2   |
| 17050EL03     | ●     | 50      | 32        | 50(49.3) | 170(169.3)        | 3               | 1.29        | 2   |
| 17050EL03-42  | ●     | 50      | 42        | 50(49.3) | 170(169.3)        | 3               | 1.83        | 2   |
| 17050EL05     | ●     | 50      | 32        | 50(49.3) | 170(169.3)        | 5               | 1.25        | 2   |
| 17050EL05-42  | ●     | 50      | 42        | 50(49.3) | 170(169.3)        | 5               | 1.79        | 2   |
| 17063EL04     | ●     | 63      | 32        | 50(49.3) | 170(169.3)        | 4               | 1.61        | 2   |
| 17063EL04-42  | ●     | 63      | 42        | 50(49.3) | 170(169.3)        | 4               | 2.16        | 2   |
| 17063EL06     | ●     | 63      | 32        | 50(49.3) | 170(169.3)        | 6               | 1.58        | 2   |
| 17063EL06-42  | ●     | 63      | 42        | 50(49.3) | 170(169.3)        | 6               | 2.13        | 2   |

The LH and LF dimensions in parentheses are dimensions using RE = 5.0/6.4 insert. When using RE = 5.0/6.4 inserts, the maximum depth of cut is 14.5mm. Inserts are sold separately.

### Parts

| Applicable Cutter  | Flat Insert | Screw | Wrench   | Anti-seizure Cream |
|--|-------------|-------|----------|--------------------|
|  |             |       |          |                    |
| WEZ17025EL02<br>WEZ17028EL02<br>WEZ17030EL02<br>WEZ17032EL02(-30)<br>WEZ17032EL03<br>WEZ17035EL02                                | BFTX0407IP  |       |          |                    |
| WEZ17040EL02<br>WEZ17040EL03<br>WEZ17040EL04<br>WEZ17050EL03(-42)<br>WEZ17050EL05(-42)<br>WEZ17063EL04(-42)<br>WEZ17063EL06(-42) | BFTX0409IP  | 3.0   | TRDR15IP | SUMI-P             |

### Identification Code

**WEZ 17 032 E L 02 -30**  
 Series Code    Insert Size    Dia.    Shank type    Long Shank    Number of Teeth    Shank Dia.

\* Modification of the cutter body is required when using inserts with corner radius RE 2.4 or larger.

Modify the C chamfering portion.

**WEZ17 type**

Reworking guidelines

- Corner radius = 2.4: C1 (AOMT170524PEER)
- Corner radius = 3.0: C1.5 (AOMT170530PEER)
- Corner radius = 3.2: C1.5 (AOMT170532PEER)
- Corner radius = 4.0: C2 (AOMT170540PEER)
- Corner radius = 5.0: C5 (AOMT170550PEER)
- Corner radius = 6.4: C5 (AOMT170564PEER)

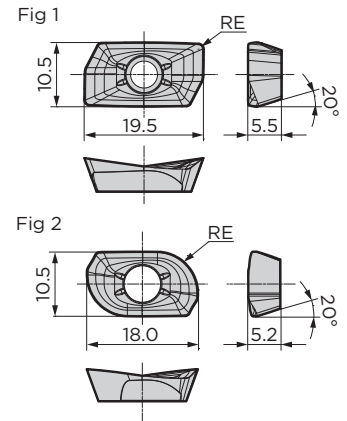
Standard: R1.



## Insert

Dimensions (mm)

| Grade Classification |   | Coated Carbide |         |         |         |         |         | Cemented Carbide | DLC    | Cermet | Corner Radius RE | Fig    |        |     |   |
|----------------------|---|----------------|---------|---------|---------|---------|---------|------------------|--------|--------|------------------|--------|--------|-----|---|
| Process              | High-speed/Light Cutting<br>General-purpose<br>Roughing | KP             | P       | K       | K       | KS      |         | N                | N      | P      |                  |        |        |     |   |
| Cat. No.             |   | ACU2500        | XCU2500 | ACP2000 | ACP3000 | XCK2000 | ACK2000 | ACK3000          | ACM200 | ACM300 | H20              | DL2000 | T2500A |     |   |
| AOMT 170502PEER-L    |   | ●              |         |         |         |         |         |                  |        |        |                  |        | ●      | 0.2 | 1 |
| 170504PEER-L         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        | ●      | 0.4 | 1 |
| 170508PEER-L         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        | ●      | 0.8 | 1 |
| 170512PEER-L         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.2 | 1 |
| 170516PEER-L         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.6 | 1 |
| AOMT 170502PEER-G    |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        | ●      | 0.2 | 1 |
| 170504PEER-G         |   | ●              | ●       | ●       | ●       | ●       |         | ●                | ●      | ●      |                  |        | ●      | 0.4 | 1 |
| 170505PEER-G         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.5 | 1 |
| 170508PEER-G         |   | ●              | ●       | ●       | ●       | ●       |         | ●                | ●      | ●      |                  |        | ●      | 0.8 | 1 |
| 170510PEER-G         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.0 | 1 |
| 170512PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 1.2 | 1 |
| 170516PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 1.6 | 1 |
| 170520PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 2.0 | 1 |
| 170524PEER-G         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 2.4 | 1 |
| 170530PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 3.0 | 1 |
| 170532PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 3.2 | 1 |
| 170540PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 4.0 | 1 |
| 170550PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 5.0 | 2 |
| 170564PEER-G         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 6.4 | 2 |
| AOMT 170504PEER-H    |   | ●              | ●       | ●       | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 0.4 | 1 |
| 170508PEER-H         |   | ●              | ●       | ●       | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 0.8 | 1 |
| 170512PEER-H         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.2 | 1 |
| 170516PEER-H         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.6 | 1 |
| AOET 170502PEER-F    |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.2 | 1 |
| 170504PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.4 | 1 |
| 170505PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.5 | 1 |
| 170508PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.8 | 1 |
| 170510PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.0 | 1 |
| 170512PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.2 | 1 |
| 170516PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.6 | 1 |
| 170520PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 2.0 | 1 |
| 170524PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 2.4 | 1 |
| 170530PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 3.0 | 1 |
| 170532PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 3.2 | 1 |
| 170540PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 4.0 | 1 |
| 170550PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 5.0 | 2 |
| 170564PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 6.4 | 2 |
| AOET 170502PEER-P25  |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.2 | 1 |
| 170504PEER-P25       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.4 | 1 |
| 170505PEER-P25       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.5 | 1 |
| 170508PEER-P25       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.8 | 1 |
| 170510PEER-P25       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.0 | 1 |
| 170512PEER-P25       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.2 | 1 |
| AOET 170502PEER-P32  |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.2 | 1 |
| 170504PEER-P32       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.4 | 1 |
| 170505PEER-P32       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.5 | 1 |
| 170508PEER-P32       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.8 | 1 |
| 170510PEER-P32       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.0 | 1 |
| 170512PEER-P32       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.2 | 1 |
| AOET 170502PEFR-S    |   |                |         |         |         |         |         | ●                | ●      |        |                  |        |        | 0.2 | 1 |
| 170504PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        |        | 0.4 | 1 |
| 170505PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        |        | 0.5 | 1 |
| 170508PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        |        | 0.8 | 1 |
| 170510PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        |        | 1.0 | 1 |
| 170512PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        |        | 1.2 | 1 |
| 170516PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        |        | 1.6 | 1 |
| 170520PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        |        | 2.0 | 1 |
| 170524PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        |        | 2.4 | 1 |
| 170530PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        |        | 3.0 | 1 |
| 170532PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        |        | 3.2 | 1 |
| 170540PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        |        | 4.0 | 1 |
| 170550PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        |        | 5.0 | 2 |
| 170564PEFR-S         |   |                |         |         |         |         |         | ●                | ●      |        |                  |        |        | 6.4 | 2 |



-L: Low Cutting Force, -G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -P25/-P32: High-precision Machining, -S: Non-Ferrous Metals.

\* -P25 is applicable to cutter diameters ø25 and ø28. -P32 is applicable to cutter diameters ø30, ø32 and ø35.

Recommended Cutting Conditions **P7**

● mark: Standard stocked item ● mark: Standard stocked item (new product/expanded item) Blank: Made-to-order item — mark: Not available



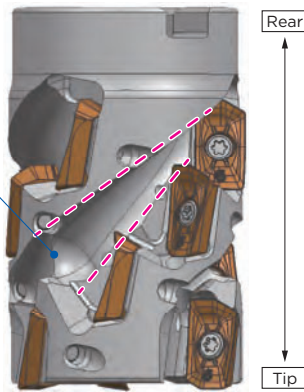
■ Features

- High-efficiency shoulder milling of deep steps  
Inserts for SEC-WaveMill WEZ series are arranged in multiple stages forming a long cutting edge, to enable high-efficiency shoulder milling of deep steps
- Superb chatter resistance  
Sharp inserts and irregular pitched body help suppress chatter and vibration
- Support for all types of work materials  
A lineup of grades specific to each work material, as well as the general-purpose ACU2500 grade, which is applicable to steel, stainless steel and cast iron

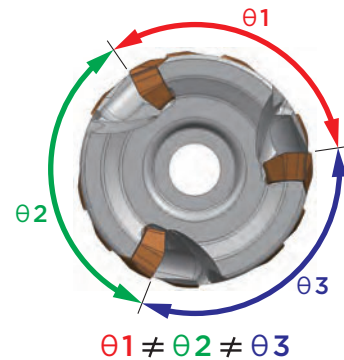
■ Body Features

- Flute shape ensures both rigidity and excellent chip evacuation performance

The chip pocket is larger toward the tip and the body is thicker toward the rear, for excellent chip evacuation and rigidity



- Irregular pitched body suppresses chattering



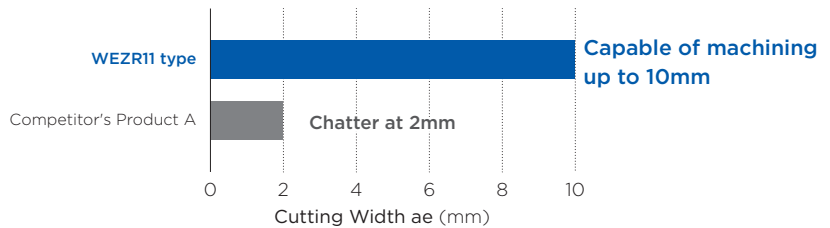
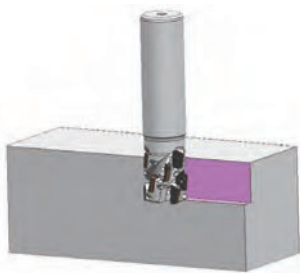
Irregular pitch is used to improve chatter resistance

■ Cutting Performance

- Sharp inserts and irregular pitched body provide superb chatter resistance

Capable of stable machining even with BT40 spindle machines

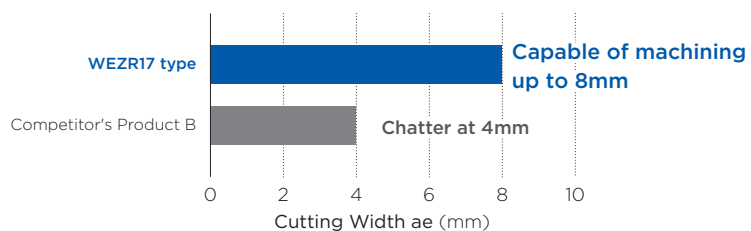
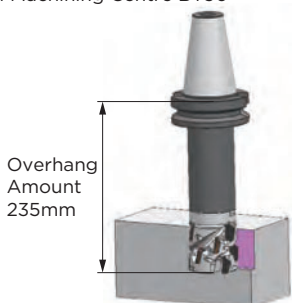
Vertical Machining Centre BT40



Machine: Vertical Machining Centre BT40, Work Material: S50C, Overhang Amount: 60mm  
Tool: WEZR 11032E3632Z03 (ø32, 3-tooth 4-stage)  
Insert: AOMT 11T308PEER-G(ACU2500)  
Cutting Conditions: vc= 150m/min, fz= 0.1mm/t, ap=30mm, Dry

Capable of stable machining even with a long overhang

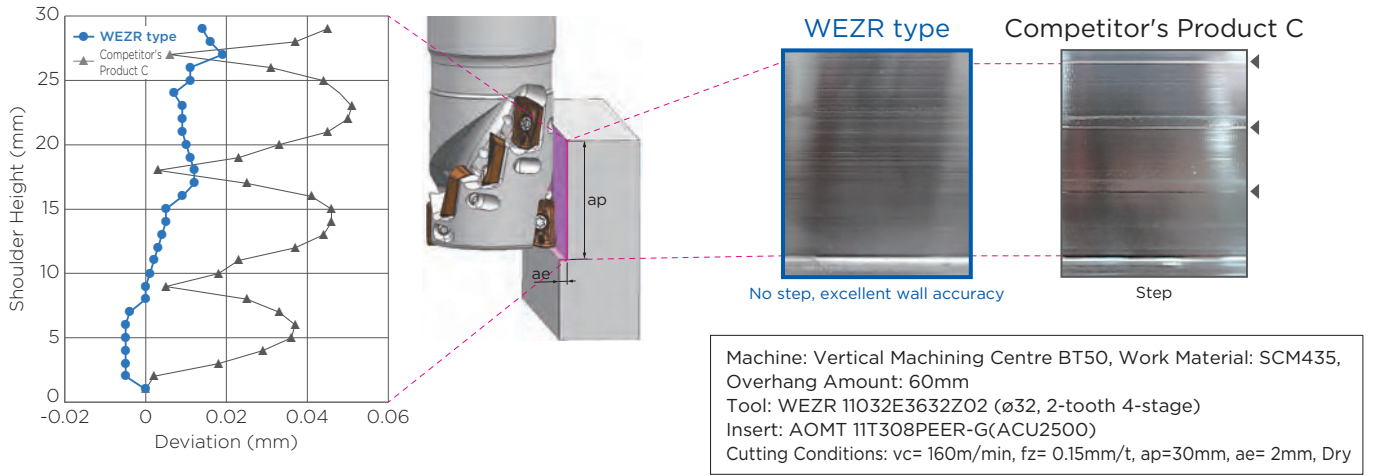
Vertical Machining Centre BT50



Machine: Vertical Machining Centre BT50, Work Material: SCM440, Overhang Amount: 235mm  
Tool: WEZR 17063RS5727Z04 (ø63, 4-tooth 4-stage)  
Insert: AOMT 170508PEER-G(ACU2500)  
Cutting Conditions: vc= 150m/min, fz= 0.15mm/t, ap=50mm, Dry

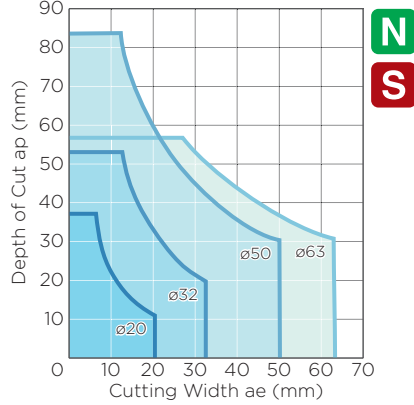
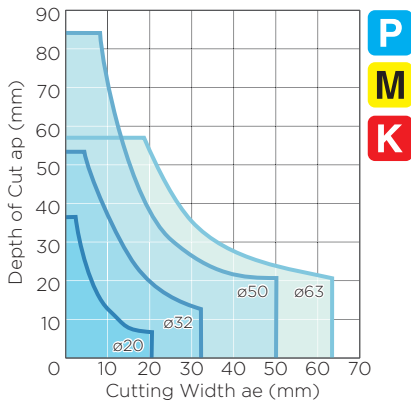
### Cutting Performance

- Optimised cutting edge shape and high-precision molding technology result in excellent wall accuracy



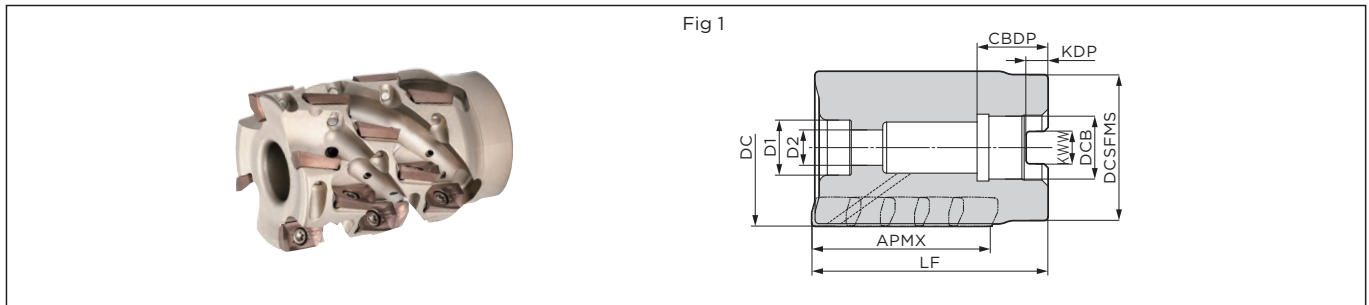
### Application Range

- Steel, stainless steel, cast iron
- Aluminum alloys, titanium alloys



**Note** ·The depth of cut figures above are guidelines for use with BT50 machine tools. Use a depth of cut of approximately 50% if using BT40.  
 ·For a tool overhang of L/D = 3 or L/D = 4, use a depth of cut of approximately 50% or 25%, respectively.  
 ·There may be cases where machining cannot be performed at the depth of cut figures above, depending on the machine rigidity and work rigidity.  
 ·Refer to P7 for the cutting speed and feed rate.

WEZ  
 WEZR  
 Shell  
 Shank  
 Modular  
 Application Examples  
 Made-to-Order Product



### Body (Shell type)

Dimensions (mm)

| Metric | Cat. No.                   | Stock | Diameter DC | Max. Depth of Cut APMX | Boss DCSFMS | Height LF | Hole Dia. DCB | Keyway Width KWW | Keyway Depth KDP | Mounting Depth CBDP | Bolt D1 | Bolt D2 | Total No. of Teeth | No. of Stages | Effective Number of Teeth | Weight (kg) | Fig |
|--------|----------------------------|-------|-------------|------------------------|-------------|-----------|---------------|------------------|------------------|---------------------|---------|---------|--------------------|---------------|---------------------------|-------------|-----|
|        |                            |       |             |                        |             |           |               |                  |                  |                     |         |         |                    |               |                           |             |     |
|        | <b>WEZR 11040RS4416Z04</b> | ●     | <b>40</b>   | 44(43)                 | 37          | 60(59.7)  | 16            | 8.4              | 5.6              | 18                  | 14      | 9       | 20                 | 5             | 4                         | 0.27        | 1   |
|        | <b>11050RS5322Z04</b>      | ●     | <b>50</b>   | 53(52)                 | 47          | 70(69.7)  | 22            | 10.4             | 6.3              | 20                  | 18      | 11      | 24                 | 6             | 4                         | 0.57        | 1   |

The APMX and LF dimensions in parentheses are dimensions using RE = 3.0/3.2 insert.  
Take note of the cutter mounting size (DCB) when selecting a cutter. Inserts are sold separately.

### Parts

| Applicable Cutter | Flat Insert Screw                          | Wrench     | Bolt         | Anti-seizure Cream |
|-------------------|--|------------|--------------|--------------------|
|                   | WEZR 11040RS4416Z04<br>WEZR 11050RS5322Z04 | BFTX0306IP | 1.5 TRDR08IP | BX0850<br>BX1060   |

### Identification Code

**WEZR 11 040 R S 44 16 Z04**

Series Code    Insert Size    Dia.    Feed Direction    Metric Bore    Max. Depth of Cut    Mounting Hole Diameter    Effective No. of Teeth

### Recommended Cutting Conditions

| ISO | Work Material                      | Hardness   | Chipbreaker | Cutting Speed vc (m/min) |                       | Feed Rate fz (mm/t)                      |  | Insert Grade |
|-----|------------------------------------|------------|-------------|--------------------------|-----------------------|--|--|--------------|
|     |                                    |            |             | Min. - Optimum - Max.    | Min. - Optimum - Max. |  |  |              |
| P   | Carbon Steel                       | ≤ 280HB    | G           | 80 - 150 - 200           | 0.08 - 0.12 - 0.20    | ACU2500<br>XCU2500<br>ACP2000<br>ACP3000 |  |              |
|     |                                    | > 280HB    | G           | 80 - 100 - 120           | 0.08 - 0.12 - 0.20    |  |  |              |
| M   | Alloy Steel                        | ≤ 280HB    | G           | 80 - 150 - 180           | 0.08 - 0.12 - 0.20    | ACU2500<br>ACM200<br>ACM300              |  |              |
|     |                                    | > 280HB    | G           | 80 - 120 - 160           | 0.08 - 0.12 - 0.20    |  |  |              |
| K   | Cast Iron/<br>Ductile<br>Cast Iron | —          | G           | 80 - 150 - 200           | 0.08 - 0.12 - 0.20    | ACU2500<br>XCK2000<br>ACK2000<br>ACK3000 |  |              |
| S   | Exotic Alloy                       | —          | G           | 40 - 50 - 60             | 0.08 - 0.12 - 0.20    | ACU2500<br>ACM200<br>ACM300              |  |              |
| N   | Aluminum Alloy                     | Si ≤ 12.6% | S           | 300 - 500 - 800          | 0.05 - 0.10 - 0.15    | DL2000<br>H20                            |  |              |
|     |                                    | Si > 12.6% | S           | 100 - 200 - 250          | 0.05 - 0.10 - 0.15    |  |  |              |

**Note** ·The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, work clamp rigidity, depth of cut and other factors.  
·There may be cases where machining cannot be performed under recommended cutting conditions, depending on the machine rigidity and work rigidity.

\* Modification of the cutter body is required when using inserts with corner radius RE 2.4 or larger.



Modify the C chamfering portion.

#### WEZ11 type

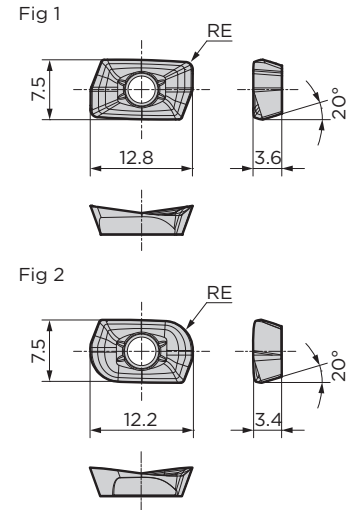
Reworking guidelines  
 Corner radius = 2.4: C1 (AOMT11T324PEER)  
 Corner radius = 3.0: C2.5 (AOMT11T330PEER)  
 Corner radius = 3.2: C2.5 (AOMT11T332PEER)

Standard: R1.

## Insert

Dimensions (mm)

| Grade Classification |   | Coated Carbide |         |         |         |         |         | Cemented Carbide | DLC    | Cermet | Corner Radius RE | Fig    |        |     |   |
|----------------------|---|----------------|---------|---------|---------|---------|---------|------------------|--------|--------|------------------|--------|--------|-----|---|
| Process              | High-speed/Light Cutting<br>General-purpose<br>Roughing | KP             | P       | K       | K       | KS      |         | N                | N      | P      |                  |        |        |     |   |
| Cat. No.             |   | ACU2500        | XCU2500 | ACP2000 | ACP3000 | XCK2000 | ACK2000 | ACK3000          | ACM200 | ACM300 | H20              | DL2000 | T2500A |     |   |
| AOMT                 | 11T302PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | ●      | 0.2 | 1 |
|                      | 11T304PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | ●      | 0.4 | 1 |
|                      | 11T305PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | ●      | 0.8 | 1 |
|                      | 11T310PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | —      | 1.2 | 1 |
|                      | 11T316PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | —      | 1.6 | 1 |
|                      | 11T320PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | —      | 2.0 | 1 |
|                      | 11T324PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | —      | 2.4 | 1 |
|                      | 11T330PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | —      | 3.0 | 2 |
|                      | 11T332PEER-G  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | —      | 3.2 | 2 |
| AOMT                 | 11T304PEER-H  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | —      | 0.4 | 1 |
|                      | 11T308PEER-H  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | —      | 0.8 | 1 |
|                      | 11T312PEER-H  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | —      | 1.2 | 1 |
|                      | 11T316PEER-H  | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | —      | 1.6 | 1 |
| AOET                 | 11T302PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.2 | 1 |
|                      | 11T304PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.4 | 1 |
|                      | 11T305PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.8 | 1 |
|                      | 11T310PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.2 | 1 |
|                      | 11T316PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.6 | 1 |
|                      | 11T320PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 2.0 | 1 |
|                      | 11T324PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 2.4 | 1 |
|                      | 11T330PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 3.0 | 2 |
|                      | 11T332PEER-F  | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 3.2 | 2 |
| AOET                 | 11T302PEFR-S  | —              | —       | —       | —       | —       | —       | —                | —      | —      | ●                | ●      | —      | 0.2 | 1 |
|                      | 11T304PEFR-S  | —              | —       | —       | —       | —       | —       | —                | —      | —      | ●                | ●      | —      | 0.4 | 1 |
|                      | 11T305PEFR-S  | —              | —       | —       | —       | —       | —       | —                | —      | —      | ●                | ●      | —      | 0.5 | 1 |
|                      | 11T308PEFR-S  | —              | —       | —       | —       | —       | —       | —                | —      | —      | ●                | ●      | —      | 0.8 | 1 |
|                      | 11T310PEFR-S  | —              | —       | —       | —       | —       | —       | —                | —      | —      | ●                | ●      | —      | 1.0 | 1 |
|                      | 11T312PEFR-S  | —              | —       | —       | —       | —       | —       | —                | —      | —      | ●                | ●      | —      | 1.2 | 1 |
|                      | 11T316PEFR-S  | —              | —       | —       | —       | —       | —       | —                | —      | —      | ●                | ●      | —      | 1.6 | 1 |
|                      | 11T320PEFR-S  | —              | —       | —       | —       | —       | —       | —                | —      | —      | ●                | ●      | —      | 2.0 | 1 |
|                      | 11T324PEFR-S  | —              | —       | —       | —       | —       | —       | —                | —      | —      | ●                | ●      | —      | 2.4 | 1 |
|                      | 11T330PEFR-S  | —              | —       | —       | —       | —       | —       | —                | —      | —      | ●                | ●      | —      | 3.0 | 2 |
|                      | 11T332PEFR-S  | —              | —       | —       | —       | —       | —       | —                | —      | —      | ●                | ●      | —      | 3.2 | 2 |



-G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -S: Non-Ferrous Metals.  
Use peripheral inserts with RE of 0.8mm or less from the second stage and above.

Recommended Cutting Conditions **P7**

Precautions for Mounting Inserts **P49**

WEZ

WEZR

Shell

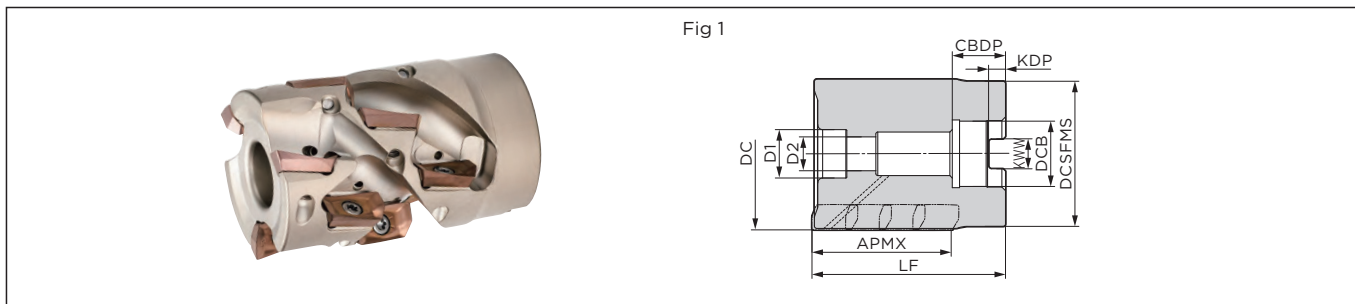
Shank

Modular

Application Examples

Made-to-Order Product





### Body (Shell type)

Dimensions (mm)

| Cat. No.                   | Stock | Diameter DC | Max. Depth of Cut APMX | Boss DCSFMS | Height LF | Hole Dia. DCB | Keyway Width KWW | Keyway Depth KDP | Mounting Depth CBDP | Bolt D1 | Bolt D2 | Total No. of Teeth | No. of Stages | Effective Number of Teeth | Weight (kg) | Fig |
|----------------------------|-------|-------------|------------------------|-------------|-----------|---------------|------------------|------------------|---------------------|---------|---------|--------------------|---------------|---------------------------|-------------|-----|
|                            |       |             |                        |             |           |               |                  |                  |                     |         |         |                    |               |                           |             |     |
| <b>WEZR 17050RS2922Z04</b> | ●     | 50          | 29(28)                 | 47          | 50(49.3)  | 22            | 10.4             | 6.3              | 20                  | 18      | 11      | 8                  | 2             | 4                         | 0.35        | 1   |
| <b>17050RS5722Z02</b>      | ●     | 50          | 57(56)                 | 47          | 80(79.3)  | 22            | 10.4             | 6.3              | 20                  | 18      | 11      | 8                  | 4             | 2                         | 0.70        | 1   |
| <b>17050RS5722Z03</b>      | ●     | 50          | 57(56)                 | 47          | 80(79.3)  | 22            | 10.4             | 6.3              | 20                  | 18      | 11      | 12                 | 4             | 3                         | 0.59        | 1   |
| <b>17063RS2927Z05</b>      | ●     | 63          | 29(28)                 | 60          | 55(54.3)  | 27            | 12.4             | 7                | 22                  | 20      | 14      | 10                 | 2             | 5                         | 0.74        | 1   |
| <b>17063RS5727Z03</b>      | ●     | 63          | 57(56)                 | 60          | 80(79.3)  | 27            | 12.4             | 7                | 22                  | 20      | 14      | 12                 | 4             | 3                         | 1.11        | 1   |
| <b>17063RS5727Z04</b>      | ●     | 63          | 57(56)                 | 60          | 80(79.3)  | 27            | 12.4             | 7                | 22                  | 20      | 14      | 16                 | 4             | 4                         | 1.05        | 1   |
| <b>17080RS5627Z05</b>      | ●     | 80          | 56(55)                 | 70          | 80(79.3)  | 27            | 12.4             | 7                | 22                  | 20      | 14      | 20                 | 4             | 5                         | 1.85        | 1   |
| <b>17080RS5632Z05</b>      | ●     | 80          | 56(55)                 | 70          | 80(79.3)  | 32            | 14.4             | 8                | 26                  | 25      | 18      | 20                 | 4             | 5                         | 1.76        | 1   |

The APMX and LF dimensions in parentheses are dimensions using RE = 5.0/6.4 insert.  
 Take note of the cutter mounting size (DCB) when selecting a cutter. Inserts are sold separately.

### Parts

| Applicable Cutter   | Flat Insert Screw |     | Wrench | Detachable Wrench |         | Bolt     | Anti-seizure Cream |   |   |        |
|---------------------|-------------------|-----|--------|-------------------|---------|----------|--------------------|---|---|--------|
|                     | Handle            | Bit |        | Handle Grip       | Bit     |          |                    |   |   |        |
| WEZR 17050RS2922Z04 | BFTX0409IP        | 3.0 | —      | HPS1015           | TRB15IP | BX1045   | SUMI-P             |   |   |        |
| WEZR 17050RS5722Z02 |                   |     |        |                   |         | BX1070   |                    |   |   |        |
| WEZR 17050RS5722Z03 |                   |     |        |                   |         | BX1240   |                    |   |   |        |
| WEZR 17063RS2927Z05 |                   |     |        |                   |         | BX1265   |                    |   |   |        |
| WEZR 17063RS5727Z03 |                   |     |        |                   |         | TRDR15IP |                    | — | — | BX1660 |
| WEZR 17063RS5727Z04 |                   |     |        |                   |         |          |                    |   |   |        |
| WEZR 17080RS5627Z05 |                   |     |        |                   |         |          |                    |   |   |        |
| WEZR 17080RS5632Z05 |                   |     |        |                   |         |          |                    |   |   |        |

### Identification Code

**WEZR 17 050 R S 29 22 Z04**

Series Code    Insert Size    Dia.    Feed Direction    Metric Bore    Max. Depth of Cut    Mounting Hole Diameter    Effective No. of Teeth

### Recommended Cutting Conditions

| ISO | Work Material                      | Hardness   | Chipbreaker | Cutting Speed vc (m/min) |                       | Feed Rate fz (mm/t)                      |  | Insert Grade |
|-----|------------------------------------|------------|-------------|--------------------------|-----------------------|--|--|--------------|
|     |                                    |            |             | Min. - Optimum - Max.    | Min. - Optimum - Max. |  |  |              |
| P   | Carbon Steel                       | ≤ 280HB    | G           | 80 - 150 - 200           | 0.10 - 0.20 - 0.30    | ACU2500<br>XCU2500<br>ACP2000<br>ACP3000 |  |              |
|     |                                    | > 280HB    | G           | 80 - 100 - 120           | 0.10 - 0.20 - 0.30    |  |  |              |
|     | Alloy Steel                        | ≤ 280HB    | G           | 80 - 150 - 180           | 0.10 - 0.20 - 0.30    |  |  |              |
| M   | Stainless Steel                    | ≤ 280HB    | G           | 80 - 120 - 160           | 0.10 - 0.20 - 0.30    | ACU2500<br>ACM200<br>ACM300              |  |              |
| K   | Cast Iron/<br>Ductile<br>Cast Iron | —          | G           | 80 - 150 - 200           | 0.10 - 0.20 - 0.30    | ACU2500<br>XCK2000<br>ACK2000<br>ACK3000 |  |              |
| S   | Exotic Alloy                       | —          | G           | 40 - 50 - 60             | 0.10 - 0.20 - 0.30    | ACU2500<br>ACM200<br>ACM300              |  |              |
| N   | Aluminum Alloy                     | Si ≤ 12.6% | S           | 300 - 500 - 800          | 0.05 - 0.10 - 0.15    | DL2000<br>H20                            |  |              |
|     |                                    | Si > 12.6% | S           | 100 - 200 - 250          | 0.05 - 0.10 - 0.15    |  |  |              |

**Note** -The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, work clamp rigidity, depth of cut and other factors.  
 -There may be cases where machining cannot be performed under recommended cutting conditions, depending on the machine rigidity and work rigidity.

\* Modification of the cutter body is required when using inserts with corner radius RE 2.4 or larger.



Modify the C chamfering portion.

#### WEZR17 type

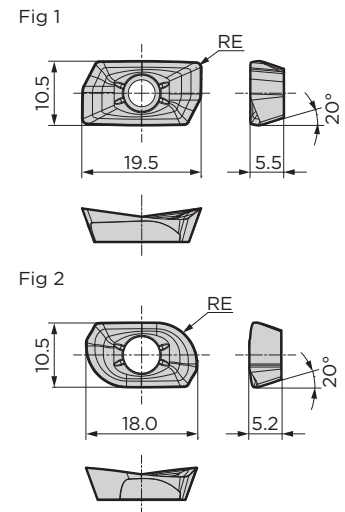
- Reworking guidelines
- Corner radius = 2.4: C1 (AOMT170524PEER)
  - Corner radius = 3.0: C1.5 (AOMT170530PEER)
  - Corner radius = 3.2: C1.5 (AOMT170532PEER)
  - Corner radius = 4.0: C2 (AOMT170540PEER)
  - Corner radius = 5.0: C5 (AOMT170550PEER)
  - Corner radius = 6.4: C5 (AOMT170564PEER)

Standard: R1.

## Insert

Dimensions (mm)

| Grade Classification |                          | Coated Carbide |         |         |         |         |         | Cemented Carbide | DLC    | Cermet |        |        |                  |     |
|----------------------|--------------------------|----------------|---------|---------|---------|---------|---------|------------------|--------|--------|--------|--------|------------------|-----|
| Process              | High-speed/Light Cutting |                |         |         |         |         |         |                  |        |        |        |        |                  |     |
|                      | General-purpose          |                |         |         |         |         |         |                  |        |        |        |        |                  |     |
|                      | Roughing                 |                |         |         |         |         |         |                  |        |        |        |        |                  |     |
| Cat. No.             |                          | ACU2500        | XCU2500 | ACP2000 | ACP3000 | ACK2000 | ACK3000 | ACM200           | ACM300 | H20    | DL2000 | T2500A | Corner Radius RE | Fig |
| AOMT                 | 170502PEER-L             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 0.2              | 1   |
|                      | 170504PEER-L             | ●              | ●       | —       | ●       | ●       | ●       | ●                | ●      | —      | —      | ●      | 0.4              | 1   |
|                      | 170508PEER-L             | ●              | ●       | —       | ●       | ●       | ●       | ●                | ●      | —      | —      | ●      | 0.8              | 1   |
|                      | 170512PEER-L             | ●              | ●       | —       | ●       | ●       | ●       | ●                | ●      | —      | —      | ●      | 1.2              | 1   |
|                      | 170516PEER-L             | ●              | ●       | —       | ●       | ●       | ●       | ●                | ●      | —      | —      | ●      | 1.6              | 1   |
| AOMT                 | 170502PEER-G             | ●              | ●       | —       | ●       | ●       | ●       | ●                | ●      | —      | —      | ●      | 0.2              | 1   |
|                      | 170504PEER-G             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —      | ●      | 0.4              | 1   |
|                      | 170505PEER-G             | ●              | ●       | —       | —       | —       | —       | —                | —      | —      | —      | ●      | 0.5              | 1   |
|                      | 170508PEER-G             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —      | ●      | 0.8              | 1   |
|                      | 170510PEER-G             | ●              | ●       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 1.0              | 1   |
|                      | 170512PEER-G             | ●              | ●       | —       | ●       | ●       | —       | —                | —      | —      | —      | —      | 1.2              | 1   |
|                      | 170516PEER-G             | ●              | ●       | —       | ●       | ●       | —       | —                | —      | —      | —      | —      | 1.6              | 1   |
|                      | 170520PEER-G             | ●              | ●       | —       | ●       | ●       | —       | —                | —      | —      | —      | —      | 2.0              | 1   |
|                      | 170524PEER-G             | ●              | ●       | —       | ●       | ●       | —       | —                | —      | —      | —      | —      | 2.4              | 1   |
|                      | 170530PEER-G             | ●              | ●       | —       | ●       | ●       | —       | —                | —      | —      | —      | —      | 3.0              | 1   |
|                      | 170532PEER-G             | ●              | ●       | —       | ●       | ●       | —       | —                | —      | —      | —      | —      | 3.2              | 1   |
|                      | 170540PEER-G             | ●              | ●       | —       | ●       | ●       | —       | —                | —      | —      | —      | —      | 4.0              | 1   |
|                      | 170550PEER-G             | ●              | ●       | —       | ●       | ●       | —       | —                | —      | —      | —      | —      | 5.0              | 2   |
|                      | 170564PEER-G             | ●              | ●       | —       | ●       | ●       | —       | —                | —      | —      | —      | —      | 6.4              | 2   |
| AOMT                 | 170504PEER-H             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —      | —      | 0.4              | 1   |
|                      | 170508PEER-H             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —      | —      | 0.8              | 1   |
|                      | 170512PEER-H             | ●              | ●       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 1.2              | 1   |
|                      | 170516PEER-H             | ●              | ●       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 1.6              | 1   |
| AOET                 | 170502PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 0.2              | 1   |
|                      | 170504PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 0.4              | 1   |
|                      | 170505PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 0.5              | 1   |
|                      | 170508PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 0.8              | 1   |
|                      | 170510PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 1.0              | 1   |
|                      | 170512PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 1.2              | 1   |
|                      | 170516PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 1.6              | 1   |
|                      | 170520PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 2.0              | 1   |
|                      | 170524PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 2.4              | 1   |
|                      | 170530PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 3.0              | 1   |
|                      | 170532PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 3.2              | 1   |
|                      | 170540PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 4.0              | 1   |
|                      | 170550PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 5.0              | 2   |
|                      | 170564PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —      | —      | 6.4              | 2   |
| AOET                 | 170502PEFR-S             | —              | —       | —       | —       | —       | —       | ●                | ●      | —      | —      | —      | 0.2              | 1   |
|                      | 170504PEFR-S             | —              | —       | —       | —       | —       | —       | ●                | ●      | —      | —      | —      | 0.4              | 1   |
|                      | 170505PEFR-S             | —              | —       | —       | —       | —       | —       | ●                | ●      | —      | —      | —      | 0.5              | 1   |
|                      | 170508PEFR-S             | —              | —       | —       | —       | —       | —       | ●                | ●      | —      | —      | —      | 0.8              | 1   |
|                      | 170510PEFR-S             | —              | —       | —       | —       | —       | —       | ●                | ●      | —      | —      | —      | 1.0              | 1   |
|                      | 170512PEFR-S             | —              | —       | —       | —       | —       | —       | ●                | ●      | —      | —      | —      | 1.2              | 1   |
|                      | 170516PEFR-S             | —              | —       | —       | —       | —       | —       | ●                | ●      | —      | —      | —      | 1.6              | 1   |
|                      | 170520PEFR-S             | —              | —       | —       | —       | —       | —       | ●                | ●      | —      | —      | —      | 2.0              | 1   |
|                      | 170524PEFR-S             | —              | —       | —       | —       | —       | —       | ●                | ●      | —      | —      | —      | 2.4              | 1   |
|                      | 170530PEFR-S             | —              | —       | —       | —       | —       | —       | ●                | ●      | —      | —      | —      | 3.0              | 1   |
|                      | 170532PEFR-S             | —              | —       | —       | —       | —       | —       | ●                | ●      | —      | —      | —      | 3.2              | 1   |
|                      | 170540PEFR-S             | —              | —       | —       | —       | —       | —       | ●                | ●      | —      | —      | —      | 4.0              | 1   |
|                      | 170550PEFR-S             | —              | —       | —       | —       | —       | —       | ●                | ●      | —      | —      | —      | 5.0              | 2   |
|                      | 170564PEFR-S             | —              | —       | —       | —       | —       | —       | ●                | ●      | —      | —      | —      | 6.4              | 2   |

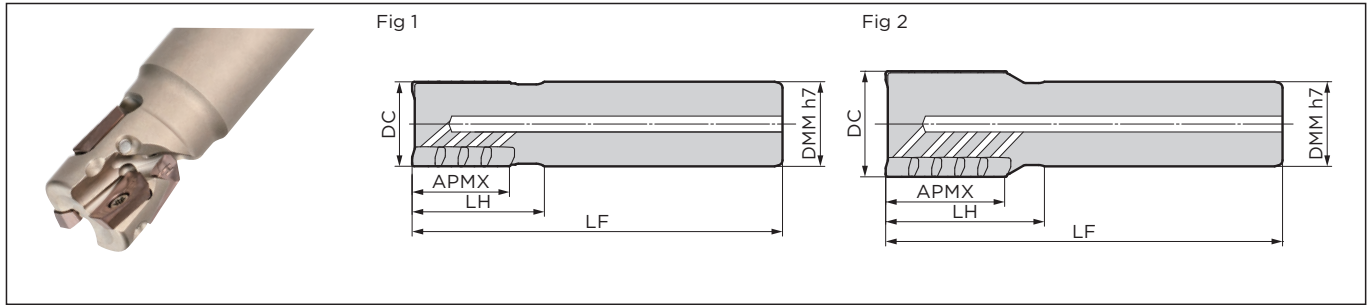


-L: Low Cutting Force, -G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -S: Non-Ferrous Metals. Use peripheral inserts with RE of 0.8mm or less from the second stage and above.

Recommended Cutting Conditions

Precautions for Mounting Inserts

WEZ  
 WEZR  
 Shell  
 Shank  
 Modular  
 Application Examples  
 Made-to-Order Product



### Body (Shank type)

| Cat. No.                  | Stock | Dimensions (mm) |                        |           |          |                   |                    |               |                        |             |     |
|---------------------------|-------|-----------------|------------------------|-----------|----------|-------------------|--------------------|---------------|------------------------|-------------|-----|
|                           |       | Dia. DC         | Max. Depth of Cut APMX | Shank DMM | Head LH  | Overall Length LF | Total No. of Teeth | No. of Stages | Effective No. of Teeth | Weight (kg) | Fig |
| <b>WEZR 11020E1920Z02</b> | ●     | 20              | 19(18)                 | 20        | 30(29.7) | 110(109.7)        | 4                  | 2             | 2                      | 0.22        | 1   |
| <b>11020E3620Z01</b>      | ●     | 20              | 36(35)                 | 20        | 45(44.7) | 125(124.7)        | 4                  | 4             | 1                      | 0.24        | 1   |
| <b>11025E2725Z02</b>      | ●     | 25              | 27(26)                 | 25        | 40(39.7) | 130(129.7)        | 6                  | 3             | 2                      | 0.41        | 1   |
| <b>11025E3625Z02</b>      | ●     | 25              | 36(35)                 | 25        | 50(49.7) | 140(139.7)        | 8                  | 4             | 2                      | 0.42        | 1   |
| <b>11030E5325Z02</b>      | ●     | 30              | 53(52)                 | 25        | 65(64.7) | 155(154.7)        | 12                 | 6             | 2                      | 0.52        | 2   |
| <b>11032E3632Z02</b>      | ●     | 32              | 36(35)                 | 32        | 50(49.7) | 140(139.7)        | 8                  | 4             | 2                      | 0.74        | 1   |
| <b>11032E3632Z03</b>      | ●     | 32              | 36(35)                 | 32        | 50(49.7) | 140(139.7)        | 12                 | 4             | 3                      | 0.71        | 1   |
| <b>11032E5332Z02</b>      | ●     | 32              | 53(52)                 | 32        | 70(69.7) | 160(159.7)        | 12                 | 6             | 2                      | 0.90        | 1   |
| <b>11035E5332Z03</b>      | ●     | 35              | 53(52)                 | 32        | 65(64.7) | 155(154.7)        | 18                 | 6             | 3                      | 0.88        | 2   |
| <b>11040E4432Z03</b>      | ●     | 40              | 44(43)                 | 32        | 60(59.7) | 150(149.7)        | 15                 | 5             | 3                      | 0.87        | 2   |
| <b>11040E4432Z04</b>      | ●     | 40              | 44(43)                 | 32        | 60(59.7) | 150(149.7)        | 20                 | 5             | 4                      | 0.85        | 2   |
| <b>11040E6132Z03</b>      | ●     | 40              | 61(60)                 | 32        | 75(74.7) | 165(164.7)        | 21                 | 7             | 3                      | 0.95        | 2   |

The APMX, LH and LF dimensions in parentheses are dimensions using RE = 3.0/3.2 insert. Inserts are sold separately.

### Parts

| Flat Insert Screw | Wrench       | Anti-seizure Cream |
|-------------------|--------------|--------------------|
|                   |              |                    |
| BFTX0306IP        | 1.5 TRDR08IP | SUMI-P             |

### Identification Code

**WEZR 11 032 E 36 32 Z02**

Series Code    Insert Size    Dia.    Shank type    Max. Depth of Cut    Shank Dia.    Effective No. of Teeth

### Recommended Cutting Conditions

| ISO | Work Material                      | Hardness   | Chipbreaker | Cutting Speed vc (m/min) |                       | Feed Rate fz (mm/t)                      |  | Insert Grade |
|-----|------------------------------------|------------|-------------|--------------------------|-----------------------|--|--|--------------|
|     |                                    |            |             | Min. - Optimum - Max.    | Min. - Optimum - Max. |  |  |              |
| P   | Carbon Steel                       | ≤ 280HB    | G           | 80 - 150 - 200           | 0.08 - 0.12 - 0.20    | ACU2500<br>XCU2500<br>ACP2000<br>ACP3000 |  |              |
|     |                                    | > 280HB    | G           | 80 - 100 - 120           | 0.08 - 0.12 - 0.20    |  |  |              |
| M   | Alloy Steel                        | ≤ 280HB    | G           | 80 - 150 - 180           | 0.08 - 0.12 - 0.20    | ACU2500<br>ACM200<br>ACM300              |  |              |
|     |                                    | > 280HB    | G           | 80 - 120 - 160           | 0.08 - 0.12 - 0.20    |  |  |              |
| K   | Cast Iron/<br>Ductile<br>Cast Iron | —          | G           | 80 - 150 - 200           | 0.08 - 0.12 - 0.20    | ACU2500<br>XCK2000<br>ACK2000<br>ACK3000 |  |              |
| S   | Exotic Alloy                       | —          | G           | 40 - 50 - 60             | 0.08 - 0.12 - 0.20    | ACU2500<br>ACM200<br>ACM300              |  |              |
| N   | Aluminum Alloy                     | Si ≤ 12.6% | S           | 300 - 500 - 800          | 0.05 - 0.10 - 0.15    | DL2000<br>H20                            |  |              |
|     |                                    | Si > 12.6% | S           | 100 - 200 - 250          | 0.05 - 0.10 - 0.15    |  |  |              |

**Note** The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, work clamp rigidity, depth of cut and other factors.  
There may be cases where machining cannot be performed under recommended cutting conditions, depending on the machine rigidity and work rigidity.

\* Modification of the cutter body is required when using inserts with corner radius RE 2.4 or larger.



Modify the C chamfering portion.

#### WEZR11 type

Reworking guidelines

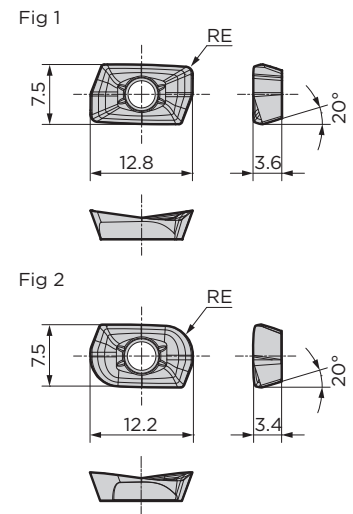
- Corner radius = 2.4: C1 (AOMT11T324PEER)
- Corner radius = 3.0: C2.5 (AOMT11T330PEER)
- Corner radius = 3.2: C2.5 (AOMT11T332PEER)

Standard: R1.

## Insert

Dimensions (mm)

| Process  | Grade Classification     |                 | Coated Carbide |         |         |         |         |         | Cemented Carbide | DLC    | Cermet | Corner Radius RE | Fig    |     |   |
|----------|--------------------------|-----------------|----------------|---------|---------|---------|---------|---------|------------------|--------|--------|------------------|--------|-----|---|
|          | High-speed/Light Cutting | General-purpose | KP             | P       | K       | K       | KS      |         | N                | P      |        |                  |        |     |   |
|          | General-purpose          | Roughing        | KP             | P       | K       | K       | KS      |         | N                | P      |        |                  |        |     |   |
| Cat. No. |                          | ACU2500         | XCU2500        | ACP2000 | ACP3000 | XCK2000 | ACK2000 | ACK3000 | ACM200           | ACM300 | H20    | DL2000           | T2500A |     |   |
| AOMT     | 11T302PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | ●      | 0.2 | 1 |
|          | 11T304PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | ●      | 0.4 | 1 |
|          | 11T305PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 0.5 | 1 |
|          | 11T308PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | ●      | 0.8 | 1 |
|          | 11T310PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 1.0 | 1 |
|          | 11T312PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 1.2 | 1 |
|          | 11T316PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 1.6 | 1 |
|          | 11T320PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 2.0 | 1 |
|          | 11T324PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 2.4 | 1 |
|          | 11T330PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 3.0 | 2 |
|          | 11T332PEER-G             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 3.2 | 2 |
| AOMT     | 11T304PEER-H             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 0.4 | 1 |
|          | 11T308PEER-H             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 0.8 | 1 |
|          | 11T312PEER-H             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 1.2 | 1 |
|          | 11T316PEER-H             | ●               | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | —      | —                | —      | 1.6 | 1 |
| AOET     | 11T302PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.2 | 1 |
|          | 11T304PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.4 | 1 |
|          | 11T305PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.5 | 1 |
|          | 11T308PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.8 | 1 |
|          | 11T310PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.0 | 1 |
|          | 11T312PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.2 | 1 |
|          | 11T316PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.6 | 1 |
|          | 11T320PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 2.0 | 1 |
|          | 11T324PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 2.4 | 1 |
|          | 11T330PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 3.0 | 2 |
|          | 11T332PEER-F             | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 3.2 | 2 |
| AOET     | 11T302PEER-P20           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.2 | 1 |
|          | 11T304PEER-P20           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.4 | 1 |
|          | 11T305PEER-P20           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.5 | 1 |
|          | 11T308PEER-P20           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.8 | 1 |
|          | 11T310PEER-P20           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.0 | 1 |
|          | 11T312PEER-P20           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.2 | 1 |
| AOET     | 11T302PEER-P25           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.2 | 1 |
|          | 11T304PEER-P25           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.4 | 1 |
|          | 11T305PEER-P25           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.5 | 1 |
|          | 11T308PEER-P25           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.8 | 1 |
|          | 11T310PEER-P25           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.0 | 1 |
|          | 11T312PEER-P25           | ●               | —              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.2 | 1 |
| AOET     | 11T302PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 0.2 | 1 |
|          | 11T304PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 0.4 | 1 |
|          | 11T305PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 0.5 | 1 |
|          | 11T308PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 0.8 | 1 |
|          | 11T310PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 1.0 | 1 |
|          | 11T312PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 1.2 | 1 |
|          | 11T316PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 1.6 | 1 |
|          | 11T320PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 2.0 | 1 |
|          | 11T324PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 2.4 | 1 |
|          | 11T330PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 3.0 | 2 |
|          | 11T332PEFR-S             | —               | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 3.2 | 2 |



-G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -P20/-P25: High-precision Machining, -S: Non-Ferrous Metals.

\*-P20 is applicable to cutter diameter  $\phi 20$ . -P25 is applicable to cutter diameter  $\phi 25$ .

Use peripheral inserts with RE of 0.8mm or less from the second stage and above.

Recommended Cutting Conditions **P7**

Precautions for Mounting Inserts **P49**

WEZ

WEZR

Shell

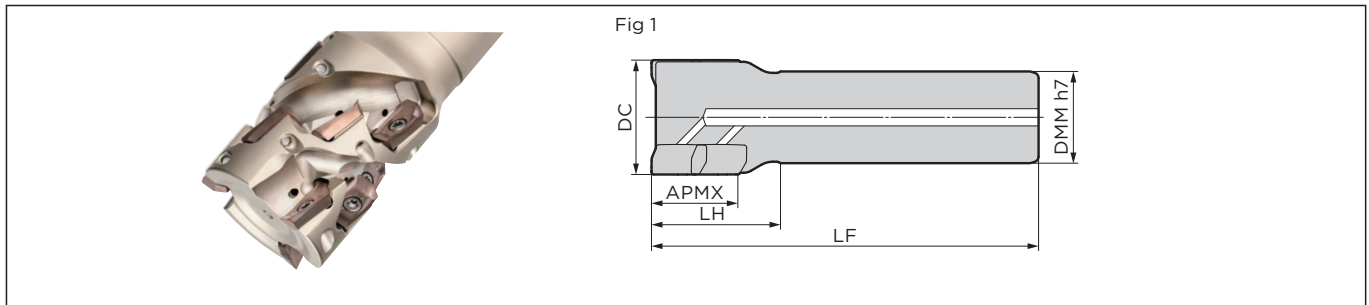
Shank

Modular

Application Examples

Made-to-Order Product

|            |        |            |                    |                  |                |              |
|------------|--------|------------|--------------------|------------------|----------------|--------------|
| Rake Angle | Radial | -9° to -8° | 29 to 84 mm<br>90° | Shoulder Milling | Groove Milling | Side Milling |
|            | Axial  | 10° to 12° |                    |                  |                |              |



### Body (Shank type)

| Cat. No.                  | Stock | Dimensions (mm) |                        |           |            |                   |                    |               |                        |             |     |
|---------------------------|-------|-----------------|------------------------|-----------|------------|-------------------|--------------------|---------------|------------------------|-------------|-----|
|                           |       | Dia. DC         | Max. Depth of Cut APMX | Shank DMM | Head LH    | Overall Length LF | Total No. of Teeth | No. of Stages | Effective No. of Teeth | Weight (kg) | Fig |
| <b>WEZR 17040E2932Z03</b> | ●     | 40              | 29(28)                 | 32        | 45(44.3)   | 135(134.3)        | 6                  | 2             | 3                      | 0.75        | 1   |
| <b>17040E4332Z02</b>      | ●     | 40              | 43(42)                 | 32        | 60(59.3)   | 150(149.3)        | 6                  | 3             | 2                      | 0.86        | 1   |
| <b>17050E5742Z03</b>      | ●     | 50              | 57(56)                 | 42        | 75(74.3)   | 165(164.3)        | 12                 | 4             | 3                      | 1.58        | 1   |
| <b>17050E8442Z02</b>      | ●     | 50              | 84(83)                 | 42        | 105(104.3) | 195(194.3)        | 12                 | 6             | 2                      | 1.94        | 1   |

The APMX, LH and LF dimensions in parentheses are dimensions using RE = 5.0/6.4 insert. Inserts are sold separately.

### Parts

|                   |        |                    |
|-------------------|--------|--------------------|
| Flat Insert Screw | Wrench | Anti-seizure Cream |
|                   |        |                    |
| BFTX0409IP        | 3.0    | TRDR15IP SUMI-P    |

### Identification Code

**WEZR 17 040 E 29 32 Z03**

Series Code    Insert Size    Dia.    Shank type    Max. Depth of Cut    Shank Dia.    Effective No. of Teeth

### Recommended Cutting Conditions

| ISO | Work Material                   | Hardness   | Chipload | Cutting Speed vc (m/min) |                       | Feed Rate fz (mm/t)                      |  | Insert Grade |
|-----|---------------------------------|------------|----------|--------------------------|-----------------------|--|--|--------------|
|     |                                 |            |          | Min. - Optimum - Max.    | Min. - Optimum - Max. |  |  |              |
| P   | Carbon Steel                    | ≤ 280HB    | G        | 80 - 150 - 200           | 0.10 - 0.20 - 0.30    | ACU2500<br>XCU2500<br>ACP2000<br>ACP3000 |  |              |
|     |                                 | > 280HB    | G        | 80 - 100 - 120           | 0.10 - 0.20 - 0.30    |  |  |              |
|     | Alloy Steel                     | ≤ 280HB    | G        | 80 - 150 - 180           | 0.10 - 0.20 - 0.30    |  |  |              |
| M   | Stainless Steel                 | ≤ 280HB    | G        | 80 - 120 - 160           | 0.10 - 0.20 - 0.30    | ACU2500<br>ACM200<br>ACM300              |  |              |
| K   | Cast Iron/<br>Ductile Cast Iron | —          | G        | 80 - 150 - 200           | 0.10 - 0.20 - 0.30    | ACU2500<br>XCK2000<br>ACK2000<br>ACK3000 |  |              |
| S   | Exotic Alloy                    | —          | G        | 40 - 50 - 60             | 0.10 - 0.20 - 0.30    | ACU2500<br>ACM200<br>ACM300              |  |              |
| N   | Aluminum Alloy                  | Si ≤ 12.6% | S        | 300 - 500 - 800          | 0.05 - 0.10 - 0.15    | DL2000<br>H20                            |  |              |
|     |                                 | Si > 12.6% | S        | 100 - 200 - 250          | 0.05 - 0.10 - 0.15    |  |  |              |

**Note** -The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, work clamp rigidity, depth of cut and other factors.  
-There may be cases where machining cannot be performed under recommended cutting conditions, depending on the machine rigidity and work rigidity.

\* Modification of the cutter body is required when using inserts with corner radius RE 2.4 or larger.



Modify the C chamfering portion.

#### WEZ17 type

- Reworking guidelines
- Corner radius = 2.4: C1 (AOMT170524PEER)
  - Corner radius = 3.0: C1.5 (AOMT170530PEER)
  - Corner radius = 3.2: C1.5 (AOMT170532PEER)
  - Corner radius = 4.0: C2 (AOMT170540PEER)
  - Corner radius = 5.0: C5 (AOMT170550PEER)
  - Corner radius = 6.4: C5 (AOMT170564PEER)

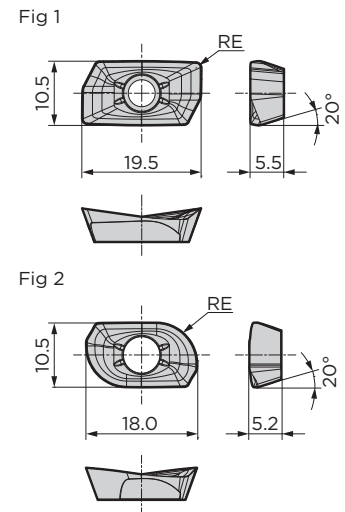
Standard: R1.



## Insert

Dimensions (mm)

| Grade Classification |   | Coated Carbide |         |         |         |         |         | Cemented Carbide | DLC    | Cermet | Corner Radius RE | Fig    |     |   |
|----------------------|---|----------------|---------|---------|---------|---------|---------|------------------|--------|--------|------------------|--------|-----|---|
| Process              | High-speed/Light Cutting<br>General-purpose<br>Roughing | KP             | P       | K       | K       | KS      |         | N                | P      |        |                  |        |     |   |
| Cat. No.             |   | ACU2500        | XCU2500 | ACP2000 | ACP3000 | ACK2000 | ACK3000 | ACM200           | ACM300 | H20    | DL2000           | T2500A |     |   |
| AOMT 170502PEER-L    |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.2 | 1 |
| 170504PEER-L         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.4 | 1 |
| 170508PEER-L         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.8 | 1 |
| 170512PEER-L         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.2 | 1 |
| 170516PEER-L         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.6 | 1 |
| AOMT 170502PEER-G    |   | ●              | ●       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.2 | 1 |
| 170504PEER-G         |   | ●              | ●       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.4 | 1 |
| 170505PEER-G         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.5 | 1 |
| 170508PEER-G         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.8 | 1 |
| 170510PEER-G         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.0 | 1 |
| 170512PEER-G         |   | ●              | ●       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.2 | 1 |
| 170516PEER-G         |   | ●              | ●       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.6 | 1 |
| 170520PEER-G         |   | ●              | ●       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 2.0 | 1 |
| 170524PEER-G         |   | ●              | ●       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 2.4 | 1 |
| 170530PEER-G         |   | ●              | ●       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 3.0 | 1 |
| 170532PEER-G         |   | ●              | ●       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 3.2 | 1 |
| 170540PEER-G         |   | ●              | ●       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 4.0 | 1 |
| 170550PEER-G         |   | ●              | ●       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 5.0 | 2 |
| 170564PEER-G         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 6.4 | 2 |
| AOMT 170504PEER-H    |   | ●              | ●       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.4 | 1 |
| 170508PEER-H         |   | ●              | ●       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.8 | 1 |
| 170512PEER-H         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.2 | 1 |
| 170516PEER-H         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.6 | 1 |
| AOET 170502PEER-F    |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.2 | 1 |
| 170504PEER-F         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.4 | 1 |
| 170505PEER-F         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.5 | 1 |
| 170508PEER-F         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 0.8 | 1 |
| 170510PEER-F         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.0 | 1 |
| 170512PEER-F         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.2 | 1 |
| 170516PEER-F         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 1.6 | 1 |
| 170520PEER-F         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 2.0 | 1 |
| 170524PEER-F         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 2.4 | 1 |
| 170530PEER-F         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 3.0 | 1 |
| 170532PEER-F         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 3.2 | 1 |
| 170540PEER-F         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 4.0 | 1 |
| 170550PEER-F         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 5.0 | 2 |
| 170564PEER-F         |   | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | 6.4 | 2 |
| AOET 170502PEFR-S    |   | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 0.2 | 1 |
| 170504PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 0.4 | 1 |
| 170505PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 0.5 | 1 |
| 170508PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 0.8 | 1 |
| 170510PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 1.0 | 1 |
| 170512PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 1.2 | 1 |
| 170516PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 1.6 | 1 |
| 170520PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 2.0 | 1 |
| 170524PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 2.4 | 1 |
| 170530PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 3.0 | 1 |
| 170532PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 3.2 | 1 |
| 170540PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 4.0 | 1 |
| 170550PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 5.0 | 2 |
| 170564PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | —      | ●      | ●                | —      | 6.4 | 2 |

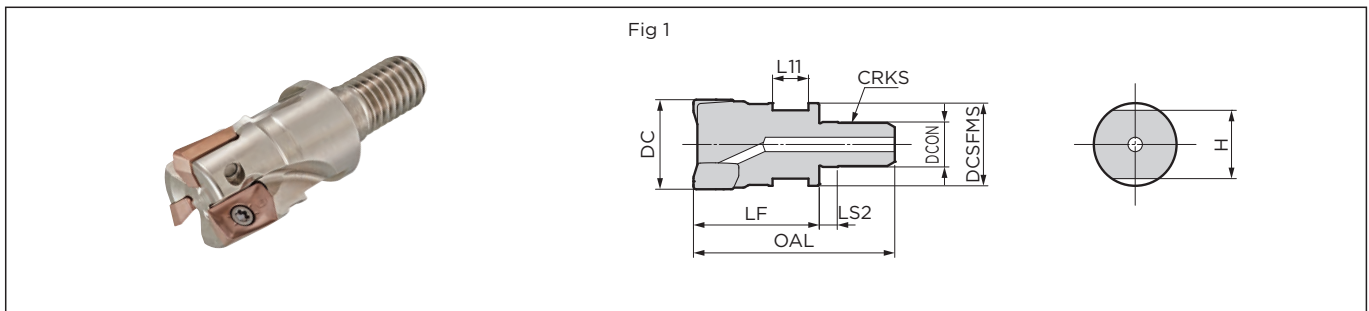


-L: Low Cutting Force, -G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -S: Non-Ferrous Metals.  
Use peripheral inserts with RE of 0.8mm or less from the second stage and above.

Recommended Cutting Conditions **P7**

Precautions for Mounting Inserts **P49**

WEZ  
WEZR  
Shell  
Shank  
Modular  
Application Examples  
Made-to-Order Product



### Head

Dimensions (mm)

| Cat. No.       | Stock | Dia. DC | Boss DCSFMS | Mounting Dia. DCON | Screw CRKS | Overall Length OAL | Effective Length LF | Length LS2 | Flat L11 | Width H | Number of Teeth | Weight (kg) | Fig |
|----------------|-------|---------|-------------|--------------------|------------|--------------------|---------------------|------------|----------|---------|-----------------|-------------|-----|
| WEZ 11016M08Z2 | ●     | 16      | 14.5        | 8.5                | M8         | 42(41.7)           | 25(24.7)            | 5          | 8        | 13      | 2               | 0.03        | 1   |
| 11018M08Z2     | ●     | 18      | 14.5        | 8.5                | M8         | 42(41.7)           | 25(24.7)            | 5          | 8        | 13      | 2               | 0.03        | 1   |
| 11020M10Z2     | ●     | 20      | 18.0        | 10.5               | M10        | 49(48.7)           | 30(29.7)            | 5          | 8        | 15      | 2               | 0.06        | 1   |
| 11020M10Z3     | ●     | 20      | 18.0        | 10.5               | M10        | 49(48.7)           | 30(29.7)            | 5          | 8        | 15      | 3               | 0.05        | 1   |
| 11022M10Z3     | ●     | 22      | 18.0        | 10.5               | M10        | 49(48.7)           | 30(29.7)            | 5          | 8        | 15      | 3               | 0.06        | 1   |
| 11025M12Z2     | ●     | 25      | 23.0        | 12.5               | M12        | 56(55.7)           | 35(34.7)            | 5          | 10       | 19      | 2               | 0.11        | 1   |
| 11025M12Z3     | ●     | 25      | 23.0        | 12.5               | M12        | 56(55.7)           | 35(34.7)            | 5          | 10       | 19      | 3               | 0.10        | 1   |
| 11025M12Z4     | ●     | 25      | 23.0        | 12.5               | M12        | 56(55.7)           | 35(34.7)            | 5          | 10       | 19      | 4               | 0.10        | 1   |
| 11026M12Z4     | ●     | 26      | 23.0        | 12.5               | M12        | 56(55.7)           | 35(34.7)            | 5          | 10       | 19      | 4               | 0.10        | 1   |
| 11026M12Z5     | ●     | 26      | 23.0        | 12.5               | M12        | 56(55.7)           | 35(34.7)            | 5          | 10       | 19      | 5               | 0.09        | 1   |
| 11028M12Z4     | ●     | 28      | 23.0        | 12.5               | M12        | 56(55.7)           | 35(34.7)            | 5          | 10       | 19      | 4               | 0.11        | 1   |
| 11028M12Z5     | ●     | 28      | 23.0        | 12.5               | M12        | 56(55.7)           | 35(34.7)            | 5          | 10       | 19      | 5               | 0.10        | 1   |
| 11030M16Z2     | ●     | 30      | 28.5        | 17                 | M16        | 63(62.7)           | 40(39.7)            | 5          | 10       | 24      | 2               | 0.20        | 1   |
| 11030M16Z4     | ●     | 30      | 28.5        | 17                 | M16        | 63(62.7)           | 40(39.7)            | 5          | 10       | 24      | 4               | 0.19        | 1   |
| 11030M16Z5     | ●     | 30      | 28.5        | 17                 | M16        | 63(62.7)           | 40(39.7)            | 5          | 10       | 24      | 5               | 0.17        | 1   |
| 11032M16Z2     | ●     | 32      | 28.5        | 17                 | M16        | 63(62.7)           | 40(39.7)            | 5          | 10       | 24      | 2               | 0.22        | 1   |
| 11032M16Z3     | ●     | 32      | 28.5        | 17                 | M16        | 63(62.7)           | 40(39.7)            | 5          | 10       | 24      | 3               | 0.20        | 1   |
| 11032M16Z4     | ●     | 32      | 28.5        | 17                 | M16        | 63(62.7)           | 40(39.7)            | 5          | 10       | 24      | 4               | 0.20        | 1   |
| 11032M16Z5     | ●     | 32      | 28.5        | 17                 | M16        | 63(62.7)           | 40(39.7)            | 5          | 10       | 24      | 5               | 0.19        | 1   |
| 11035M16Z2     | ●     | 35      | 28.5        | 17                 | M16        | 63(62.7)           | 40(39.7)            | 5          | 10       | 24      | 2               | 0.24        | 1   |
| 11035M16Z5     | ●     | 35      | 28.5        | 17                 | M16        | 63(62.7)           | 40(39.7)            | 5          | 10       | 24      | 5               | 0.22        | 1   |
| 11040M16Z2     | ●     | 40      | 28.5        | 17                 | M16        | 63(62.7)           | 40(39.7)            | 5          | 10       | 24      | 2               | 0.28        | 1   |
| 11040M16Z4     | ●     | 40      | 28.5        | 17                 | M16        | 63(62.7)           | 40(39.7)            | 5          | 10       | 24      | 4               | 0.26        | 1   |
| 11040M16Z5     | ●     | 40      | 28.5        | 17                 | M16        | 63(62.7)           | 40(39.7)            | 5          | 10       | 24      | 5               | 0.26        | 1   |
| 11040M16Z6     | ●     | 40      | 28.5        | 17                 | M16        | 63(62.7)           | 40(39.7)            | 5          | 10       | 24      | 6               | 0.25        | 1   |

The OAL and LF dimensions in parentheses are dimensions using RE = 3.0/3.2 insert.  
When using RE = 3.0/3.2 inserts, the maximum depth of cut is 9.5mm.  
Inserts are sold separately.

Arbors IS-P4

### Parts

| Applicable Cutter | Flat Insert Screw  | Wrench                   | Anti-seizure Cream |
|-------------------|--|--------------------------|--------------------|
|                   | WEZ11016M08Z2, WEZ11018M08Z2<br>WEZ11020M10Z2 to WEZ11040M16Z6 | BFTX0305IP<br>BFTX0306IP | 1.5 TRDR08IP       |

### Identification Code

**WEZ 11 016 M08 Z2**

Series Code    Insert Size    Dia.    Mounting Screw Size    Number of Teeth

\* Modification of the cutter body is required when using inserts with corner radius RE 2.4 or larger.

Modify the C chamfering portion.

**WEZ11 type**

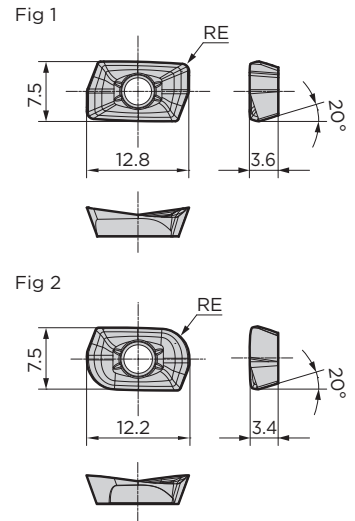
Reworking guidelines  
 Corner radius = 2.4: C1 (AOMT11T324PEER)  
 Corner radius = 3.0: C2.5 (AOMT11T330PEER)  
 Corner radius = 3.2: C2.5 (AOMT11T332PEER)

Standard: R1.

## Insert

Dimensions (mm)

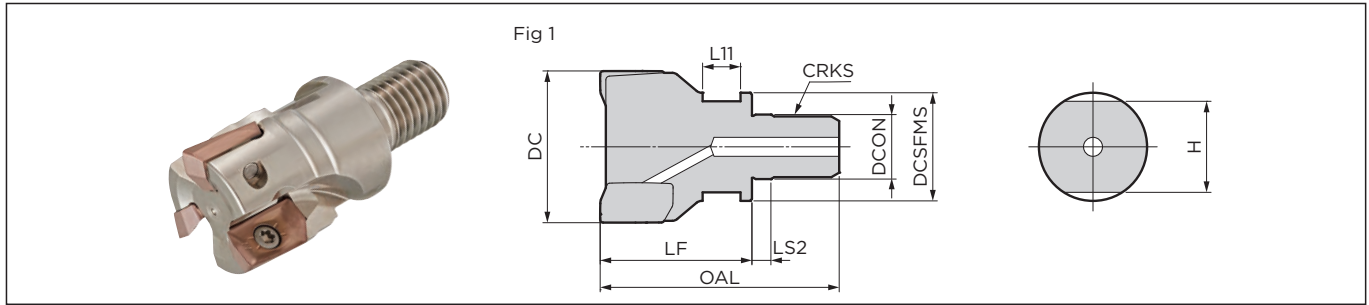
| Grade Classification |                          | Coated Carbide |         |         |         |         |         | Cemented Carbide | DLC    | Cermet | Corner Radius RE | Fig    |        |     |   |
|----------------------|--------------------------|----------------|---------|---------|---------|---------|---------|------------------|--------|--------|------------------|--------|--------|-----|---|
| Process              | High-speed/Light Cutting | KP             | P       | K       | K       | S       |         | N                | P      |        |                  |        |        |     |   |
|                      | General-purpose          | KP             | P       | K       | K       | S       | N       | N                |        |        |                  |        |        |     |   |
|                      | Roughing                 |                | P       |         | K       | S       |         |                  |        |        |                  |        |        |     |   |
| Cat. No.             |                          | ACU2500        | XCU2500 | ACP2000 | ACP3000 | XCK2000 | ACK2000 | ACK3000          | ACM200 | ACM300 | H20              | DL2000 | T2500A |     |   |
| AOMT                 | 11T302PEER-G             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | ●      | 0.2 | 1 |
|                      | 11T304PEER-G             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | ●      | 0.4 | 1 |
|                      | 11T305PEER-G             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | ●      | 0.5 | 1 |
|                      | 11T308PEER-G             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | ●      | 0.8 | 1 |
|                      | 11T310PEER-G             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | ●      | 1.0 | 1 |
|                      | 11T312PEER-G             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | ●      | 1.2 | 1 |
|                      | 11T316PEER-G             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | ●      | 1.6 | 1 |
|                      | 11T320PEER-G             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | ●      | 2.0 | 1 |
|                      | 11T324PEER-G             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | ●      | 2.4 | 1 |
|                      | 11T330PEER-G             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | ●      | 3.0 | 2 |
|                      | 11T332PEER-G             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | ●      | 3.2 | 2 |
| AOMT                 | 11T304PEER-H             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | —      | 0.4 | 1 |
|                      | 11T308PEER-H             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | —      | 0.8 | 1 |
|                      | 11T312PEER-H             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | —      | 1.2 | 1 |
|                      | 11T316PEER-H             | ●              | ●       | ●       | ●       | ●       | ●       | ●                | ●      | ●      | —                | —      | —      | 1.6 | 1 |
| AOET                 | 11T302PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.2 | 1 |
|                      | 11T304PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.4 | 1 |
|                      | 11T305PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.8 | 1 |
|                      | 11T310PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.2 | 1 |
|                      | 11T316PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.6 | 1 |
|                      | 11T320PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 2.0 | 1 |
|                      | 11T324PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 2.4 | 1 |
|                      | 11T330PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 3.0 | 2 |
|                      | 11T332PEER-F             | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 3.2 | 2 |
| AOET                 | 11T302PEER-P16           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.2 | 1 |
|                      | 11T304PEER-P16           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.4 | 1 |
|                      | 11T305PEER-P16           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-P16           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.8 | 1 |
|                      | 11T310PEER-P16           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-P16           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.2 | 1 |
| AOET                 | 11T302PEER-P20           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.2 | 1 |
|                      | 11T304PEER-P20           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.4 | 1 |
|                      | 11T305PEER-P20           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-P20           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.8 | 1 |
|                      | 11T310PEER-P20           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-P20           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.2 | 1 |
| AOET                 | 11T302PEER-P25           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.2 | 1 |
|                      | 11T304PEER-P25           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.4 | 1 |
|                      | 11T305PEER-P25           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-P25           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 0.8 | 1 |
|                      | 11T310PEER-P25           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-P25           | ●              | —       | —       | —       | —       | —       | —                | —      | —      | —                | —      | —      | 1.2 | 1 |
| AOET                 | 11T302PEFR-S             | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 0.2 | 1 |
|                      | 11T304PEFR-S             | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 0.4 | 1 |
|                      | 11T305PEFR-S             | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEFR-S             | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 0.8 | 1 |
|                      | 11T310PEFR-S             | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEFR-S             | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 1.2 | 1 |
|                      | 11T316PEFR-S             | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 1.6 | 1 |
|                      | 11T320PEFR-S             | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 2.0 | 1 |
|                      | 11T324PEFR-S             | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 2.4 | 1 |
|                      | 11T330PEFR-S             | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 3.0 | 2 |
|                      | 11T332PEFR-S             | —              | —       | —       | —       | —       | —       | —                | ●      | ●      | —                | —      | —      | 3.2 | 2 |



-G: General-purpose, -H: Strong Edge, -F: Medium Finishing,  
 -P16/-P20/-P25: High-precision Machining, -S: Non-Ferrous Metals.  
 \* -P16 is applicable to cutter diameters  $\phi 14$ ,  $\phi 16$ .  
 -P20 is applicable to cutter diameters  $\phi 18$  and  $\phi 20$ .  
 -P25 is applicable to cutter diameters  $\phi 25$  and  $\phi 28$ .

Recommended Cutting Conditions **P7** Maximum Allowable Spindle Speed **P8**  
 Precautions for Mounting Inserts **P49**

● mark: Standard stocked item ● mark: Standard stocked item (new product/expanded item) Blank: Made-to-order item — mark: Not available



## Head

Dimensions (mm)

| Cat. No.              | Stock | Dia. DC | Boss DCSFMS | Mounting Dia. DCON | Screw CRKS | Overall Length OAL | Effective Length LF | Length LS2 | Flat L11 | Width H | Number of Teeth | Weight (kg) | Fig |
|-----------------------|-------|---------|-------------|--------------------|------------|--------------------|---------------------|------------|----------|---------|-----------------|-------------|-----|
| <b>WEZ 17025M12Z2</b> | ●     | 25      | 23.0        | 12.5               | <b>M12</b> | 56(55.3)           | 35(34.3)            | 5          | 10       | 19      | 2               | 0.08        | 1   |
| <b>17025M12Z3</b>     | ●     | 25      | 23.0        | 12.5               | <b>M12</b> | 56(55.3)           | 35(34.3)            | 5          | 10       | 19      | 3               | 0.07        | 1   |
| <b>17028M12Z2</b>     | ●     | 28      | 23.0        | 12.5               | <b>M12</b> | 56(55.3)           | 35(34.3)            | 5          | 10       | 19      | 2               | 0.10        | 1   |
| <b>17030M16Z2</b>     | ●     | 30      | 28.5        | 17                 | <b>M16</b> | 63(62.3)           | 40(39.3)            | 5          | 10       | 24      | 2               | 0.17        | 1   |
| <b>17030M16Z3</b>     | ●     | 30      | 28.5        | 17                 | <b>M16</b> | 63(62.3)           | 40(39.3)            | 5          | 10       | 24      | 3               | 0.15        | 1   |
| <b>17032M16Z2</b>     | ●     | 32      | 28.5        | 17                 | <b>M16</b> | 63(62.3)           | 40(39.3)            | 5          | 10       | 24      | 2               | 0.19        | 1   |
| <b>17032M16Z3</b>     | ●     | 32      | 28.5        | 17                 | <b>M16</b> | 63(62.3)           | 40(39.3)            | 5          | 10       | 24      | 3               | 0.16        | 1   |
| <b>17032M16Z4</b>     | ●     | 32      | 28.5        | 17                 | <b>M16</b> | 63(62.3)           | 40(39.3)            | 5          | 10       | 24      | 4               | 0.14        | 1   |
| <b>17035M16Z2</b>     | ●     | 35      | 28.5        | 17                 | <b>M16</b> | 63(62.3)           | 40(39.3)            | 5          | 10       | 24      | 2               | 0.21        | 1   |
| <b>17035M16Z3</b>     | ●     | 35      | 28.5        | 17                 | <b>M16</b> | 63(62.3)           | 40(39.3)            | 5          | 10       | 24      | 3               | 0.19        | 1   |
| <b>17040M16Z2</b>     | ●     | 40      | 28.5        | 17                 | <b>M16</b> | 63(62.3)           | 40(39.3)            | 5          | 10       | 24      | 2               | 0.25        | 1   |
| <b>17040M16Z3</b>     | ●     | 40      | 28.5        | 17                 | <b>M16</b> | 63(62.3)           | 40(39.3)            | 5          | 10       | 24      | 3               | 0.23        | 1   |
| <b>17040M16Z4</b>     | ●     | 40      | 28.5        | 17                 | <b>M16</b> | 63(62.3)           | 40(39.3)            | 5          | 10       | 24      | 4               | 0.21        | 1   |

The OAL and LF dimensions in parentheses are dimensions using RE = 5.0/6.4 insert.  
 When using RE = 5.0/6.4 inserts, the maximum depth of cut is 14.5mm.  
 Inserts are sold separately.

Arbors **P44**

## Parts

| Applicable Cutter | Flat Insert Screw  |                          | Wrench     | Anti-seizure Cream |
|-------------------|--|--------------------------|------------|--------------------|
|                   | WEZ17025M12Z2 to WEZ17030M16Z3<br>WEZ17032M16Z2 to WEZ17040M16Z4 | BFTX0407IP<br>BFTX0409IP | <b>3.0</b> | TRDR15IP           |

## Identification Code

**WEZ 17 025 M12 Z2**  
 Series Code    Insert Size    Dia.    Mounting Screw Size    Number of Teeth

\* Modification of the cutter body is required when using inserts with corner radius RE 2.4 or larger.

Modify the C chamfering portion.

**WEZ17 type**

Reworking guidelines

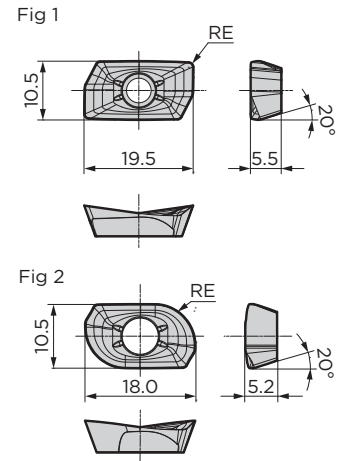
- Corner radius = 2.4: C1 (AOMT170524PEER)
- Corner radius = 3.0: C1.5 (AOMT170530PEER)
- Corner radius = 3.2: C1.5 (AOMT170532PEER)
- Corner radius = 4.0: C2 (AOMT170540PEER)
- Corner radius = 5.0: C5 (AOMT170550PEER)
- Corner radius = 6.4: C5 (AOMT170564PEER)

Standard: R1.

Insert

Dimensions (mm)

| Grade Classification |   | Coated Carbide |         |         |         |         |         | Cemented Carbide | DLC    | Cermet | Corner Radius RE | Fig    |        |     |   |
|----------------------|---|----------------|---------|---------|---------|---------|---------|------------------|--------|--------|------------------|--------|--------|-----|---|
| Process              | High-speed/Light Cutting<br>General-purpose<br>Roughing | KP             | P       | K       | K       | S       |         | N                | P      |        |                  |        |        |     |   |
| Cat. No.             |   | ACU2500        | XCU2500 | ACP2000 | ACP3000 | XCK2000 | ACK2000 | ACK3000          | ACM200 | ACM300 | H20              | DL2000 | T2500A |     |   |
| AOMT 170502PEER-L    |   | ●              |         |         |         |         |         |                  |        |        |                  |        | ●      | 0.2 | 1 |
| 170504PEER-L         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | ●      | 0.4 | 1 |
| 170508PEER-L         |   | ●              |         |         |         |         |         |                  |        |        |                  |        | ●      | 0.8 | 1 |
| 170512PEER-L         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.2 | 1 |
| 170516PEER-L         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.6 | 1 |
| AOMT 170502PEER-G    |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        | ●      | 0.2 | 1 |
| 170504PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        | ●      | 0.4 | 1 |
| 170505PEER-G         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.5 | 1 |
| 170508PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        | ●      | 0.8 | 1 |
| 170510PEER-G         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.0 | 1 |
| 170512PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 1.2 | 1 |
| 170516PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 1.6 | 1 |
| 170520PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 2.0 | 1 |
| 170524PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 2.4 | 1 |
| 170530PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 3.0 | 1 |
| 170532PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 3.2 | 1 |
| 170540PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 4.0 | 1 |
| 170550PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 5.0 | 2 |
| 170564PEER-G         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 6.4 | 2 |
| AOMT 170504PEER-H    |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 0.4 | 1 |
| 170508PEER-H         |   | ●              | ●       |         | ●       | ●       |         | ●                | ●      | ●      |                  |        |        | 0.8 | 1 |
| 170512PEER-H         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.2 | 1 |
| 170516PEER-H         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.6 | 1 |
| AOET 170502PEER-F    |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.2 | 1 |
| 170504PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.4 | 1 |
| 170505PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.5 | 1 |
| 170508PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.8 | 1 |
| 170510PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.0 | 1 |
| 170512PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.2 | 1 |
| 170516PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.6 | 1 |
| 170520PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 2.0 | 1 |
| 170524PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 2.4 | 1 |
| 170530PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 3.0 | 1 |
| 170532PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 3.2 | 1 |
| 170540PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 4.0 | 1 |
| 170550PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 5.0 | 2 |
| 170564PEER-F         |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 6.4 | 2 |
| AOET 170502PEER-P25  |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.2 | 1 |
| 170504PEER-P25       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.4 | 1 |
| 170505PEER-P25       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.5 | 1 |
| 170508PEER-P25       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.8 | 1 |
| 170510PEER-P25       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.0 | 1 |
| 170512PEER-P25       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.2 | 1 |
| AOET 170502PEER-P32  |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.2 | 1 |
| 170504PEER-P32       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.4 | 1 |
| 170505PEER-P32       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.5 | 1 |
| 170508PEER-P32       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 0.8 | 1 |
| 170510PEER-P32       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.0 | 1 |
| 170512PEER-P32       |   | ●              |         |         |         |         |         |                  |        |        |                  |        |        | 1.2 | 1 |
| AOET 170502PEFR-S    |   | —              | —       | —       | —       | —       | —       | —                | ●      | ●      |                  |        |        | 0.2 | 1 |
| 170504PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | ●      | ●      |                  |        |        | 0.4 | 1 |
| 170505PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | ●      | ●      |                  |        |        | 0.5 | 1 |
| 170508PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | ●      | ●      |                  |        |        | 0.8 | 1 |
| 170510PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | ●      | ●      |                  |        |        | 1.0 | 1 |
| 170512PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | ●      | ●      |                  |        |        | 1.2 | 1 |
| 170516PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | ●      | ●      |                  |        |        | 1.6 | 1 |
| 170520PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | ●      | ●      |                  |        |        | 2.0 | 1 |
| 170524PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | ●      | ●      |                  |        |        | 2.4 | 1 |
| 170530PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | ●      | ●      |                  |        |        | 3.0 | 1 |
| 170532PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | ●      | ●      |                  |        |        | 3.2 | 1 |
| 170540PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | ●      | ●      |                  |        |        | 4.0 | 1 |
| 170550PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | ●      | ●      |                  |        |        | 5.0 | 2 |
| 170564PEFR-S         |   | —              | —       | —       | —       | —       | —       | —                | ●      | ●      |                  |        |        | 6.4 | 2 |



-L: Low Cutting Force, -G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -P25/-P32: High-precision Machining, -S: Non-Ferrous Metals.

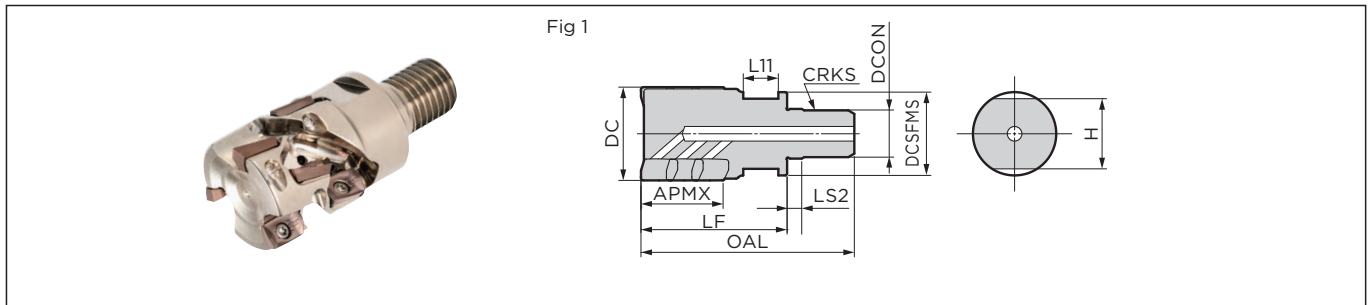
\* -P25 is applicable to cutter diameters  $\phi 25$  and  $\phi 28$ . -P32 is applicable to cutter diameters  $\phi 30$ ,  $\phi 32$  and  $\phi 35$ .

Recommended Cutting Conditions **P7** Maximum Allowable Spindle Speed **P8**

Precautions for Mounting Inserts **P49**

● mark: Standard stocked item ● mark: Standard stocked item (new product/expanded item) Blank: Made-to-order item — mark: Not available





### Head

| Cat. No.                 | Stock | Dimensions (mm) |                        |             |                   |            |                    |                     |            |          |         |                    |               |                        |             |     |
|--------------------------|-------|-----------------|------------------------|-------------|-------------------|------------|--------------------|---------------------|------------|----------|---------|--------------------|---------------|------------------------|-------------|-----|
|                          |       | Diameter DC     | Max. Depth of Cut APMX | Boss DCSFMS | Mounting Dia DCON | Screw CRKS | Overall Length OAL | Effective Length LF | Length LS2 | Flat L11 | Width H | Total No. of Teeth | No. of Stages | Effective No. of Teeth | Weight (kg) | Fig |
| <b>WEZR 11032M1627Z3</b> | ●     | 32              | 27(26)                 | 28.5        | 17                | M16        | 73(72.7)           | 50(49.7)            | 5          | 12       | 24      | 9                  | 3             | 3                      | 0.21        | 1   |

The APMX, OAL and LF dimensions in parentheses are dimensions using RE = 3.0/3.2 insert. Inserts are sold separately.

Arbors **P44**

### Parts

| Flat Insert Screw | Integrated Wrench | Anti-seizure Cream |
|-------------------|-------------------|--------------------|
|                   |                   |                    |
| BFTX0306IP        | 1.5               | TRDR08IP SUMI-P    |

### Identification Code

|                              |             |      |                     |                   |                        |
|------------------------------|-------------|------|---------------------|-------------------|------------------------|
| <b>WEZR 11 032 M16 27 Z3</b> |             |      |                     |                   |                        |
| Series Code                  | Insert Size | Dia. | Mounting Screw Size | Max. Depth of Cut | Effective No. of Teeth |

\* Modification of the cutter body is required when using inserts with corner radius RE 2.4 or larger.



Modify the C chamfering portion.

#### WEZ11 type

Reworking guidelines

Corner radius = 2.4: C1

(AOMT11T324PEER)

Corner radius = 3.0: C2.5

(AOMT11T330PEER)

Corner radius = 3.2: C2.5

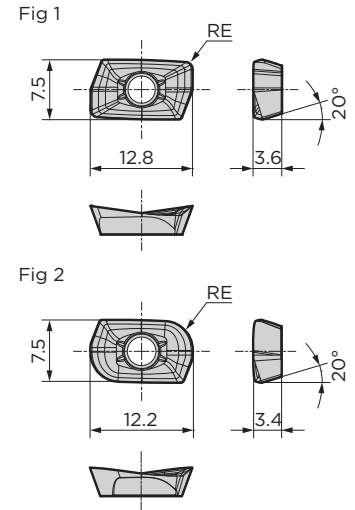
(AOMT11T332PEER)

Standard: R1.

Insert

Dimensions (mm)

| Grade Classification |   | Coated Carbide |         |         |         |          |         | Cemented Carbide | DLC    | Cermet | Corner Radius RE | Fig    |        |     |   |
|----------------------|---|----------------|---------|---------|---------|----------|---------|------------------|--------|--------|------------------|--------|--------|-----|---|
| Process              | High-speed/Light Cutting<br>General-purpose<br>Roughing | KP<br>KM       | P       | K<br>K  | K<br>K  | KS<br>MS |         | N                | N      | P      |                  |        |        |     |   |
| Cat. No.             |   | ACU2500        | XCU2500 | ACP2000 | ACP3000 | XCK2000  | ACK2000 | ACK3000          | ACM200 | ACM300 | H20              | DL2000 | T2500A |     |   |
| AOMT                 | 11T302PEER-G  | ●              | ●       | ●       | ●       | ●        | ●       | ●                | ●      | ●      | —                | —      | ●      | 0.2 | 1 |
|                      | 11T304PEER-G  | ●              | ●       | ●       | ●       | ●        | ●       | ●                | ●      | ●      | —                | —      | ●      | 0.4 | 1 |
|                      | 11T305PEER-G  | ●              | ●       | ●       | ●       | ●        | ●       | ●                | ●      | ●      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-G  | ●              | ●       | ●       | ●       | ●        | ●       | ●                | ●      | ●      | —                | —      | ●      | 0.8 | 1 |
|                      | 11T310PEER-G  | ●              | ●       | ●       | ●       | ●        | ●       | ●                | ●      | ●      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-G  | ●              | ●       | ●       | ●       | ●        | ●       | ●                | ●      | ●      | —                | —      | —      | 1.2 | 1 |
|                      | 11T316PEER-G  | ●              | ●       | ●       | ●       | ●        | ●       | ●                | ●      | ●      | —                | —      | —      | 1.6 | 1 |
|                      | 11T320PEER-G  | ●              | ●       | ●       | ●       | ●        | ●       | ●                | ●      | ●      | —                | —      | —      | 2.0 | 1 |
|                      | 11T324PEER-G  | ●              | ●       | ●       | ●       | ●        | ●       | ●                | ●      | ●      | —                | —      | —      | 2.4 | 1 |
|                      | 11T330PEER-G  | ●              | ●       | ●       | ●       | ●        | ●       | ●                | ●      | ●      | —                | —      | —      | 3.0 | 2 |
|                      | 11T332PEER-G  | ●              | ●       | ●       | ●       | ●        | ●       | ●                | ●      | ●      | —                | —      | —      | 3.2 | 2 |
| AOMT                 | 11T304PEER-H  | ●              | ●       | ●       | ●       | ●        | ●       | ●                | ●      | ●      | —                | —      | —      | 0.4 | 1 |
|                      | 11T308PEER-H  | ●              | ●       | ●       | ●       | ●        | ●       | ●                | ●      | ●      | —                | —      | —      | 0.8 | 1 |
|                      | 11T312PEER-H  | ●              | ●       | ●       | ●       | ●        | ●       | ●                | ●      | ●      | —                | —      | —      | 1.2 | 1 |
|                      | 11T316PEER-H  | ●              | ●       | ●       | ●       | ●        | ●       | ●                | ●      | ●      | —                | —      | —      | 1.6 | 1 |
| AOET                 | 11T302PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 0.2 | 1 |
|                      | 11T304PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 0.4 | 1 |
|                      | 11T305PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 0.5 | 1 |
|                      | 11T308PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 0.8 | 1 |
|                      | 11T310PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 1.0 | 1 |
|                      | 11T312PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 1.2 | 1 |
|                      | 11T316PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 1.6 | 1 |
|                      | 11T320PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 2.0 | 1 |
|                      | 11T324PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 2.4 | 1 |
|                      | 11T330PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 3.0 | 2 |
|                      | 11T332PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 3.2 | 2 |
| AOET                 | 11T302PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | ●      | ●                | ●      | —      | 0.2 | 1 |
|                      | 11T304PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | ●      | ●                | ●      | —      | 0.4 | 1 |
|                      | 11T305PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | ●      | ●                | ●      | —      | 0.5 | 1 |
|                      | 11T308PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | ●      | ●                | ●      | —      | 0.8 | 1 |
|                      | 11T310PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | ●      | ●                | ●      | —      | 1.0 | 1 |
|                      | 11T312PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | ●      | ●                | ●      | —      | 1.2 | 1 |
|                      | 11T316PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | ●      | ●                | ●      | —      | 1.6 | 1 |
|                      | 11T320PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | ●      | ●                | ●      | —      | 2.0 | 1 |
|                      | 11T324PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | ●      | ●                | ●      | —      | 2.4 | 1 |
|                      | 11T330PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | ●      | ●                | ●      | —      | 3.0 | 2 |
|                      | 11T332PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | ●      | ●                | ●      | —      | 3.2 | 2 |

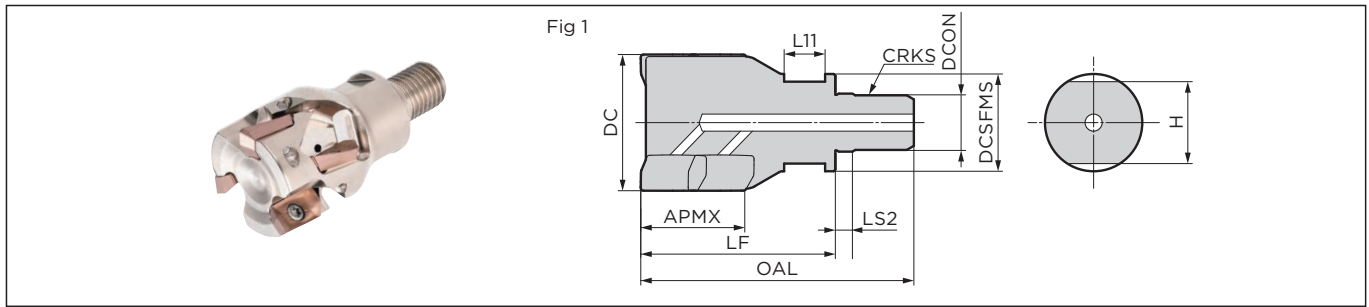


-G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -S: Non-Ferrous Metals.

Recommended Cutting Conditions **P7** Precautions for Mounting Inserts **P49**

Use peripheral inserts with RE of 0.8mm or less from the second stage and above.

|            |        |     |          |  |  |  |
|------------|--------|-----|----------|--|--|--|
| Rake Angle | Radial | -9° | 29mm 90° |  |  |  |
|            | Axial  | 10° |          |  |  |  |



## Head

Dimensions (mm)

| Cat. No.                 | Stock | Diameter DC | Max. Depth of Cut APMX | Boss DCSFMS | Mounting Dia DCON | Screw CRKS | Overall Length OAL | Effective Length LF | Length LS2 | Flat L11 | Width H | Total No. of Teeth | No. of Stages | Effective No. of Teeth | Weight (kg) | Fig |
|--------------------------|-------|-------------|------------------------|-------------|-------------------|------------|--------------------|---------------------|------------|----------|---------|--------------------|---------------|------------------------|-------------|-----|
| <b>WEZR 17040M1629Z3</b> | ●     | <b>40</b>   | 29(28)                 | 28.5        | 17                | <b>M16</b> | 80(79.3)           | 57(56.3)            | 5          | 12       | 24      | 6                  | 2             | 3                      | 0.29        | 1   |

The APMX, OAL and LF dimensions in parentheses are dimensions using RE = 5.0/6.4 insert. Inserts are sold separately.

Arbors **P44**

## Parts

| Flat Insert Screw | Integrated Wrench | Anti-seizure Cream |
|-------------------|-------------------|--------------------|
|                   |                   |                    |
| BFTX0409IP        | <b>3.0</b>        | TRDR15P SUMI-P     |

## Identification Code

|                              |             |      |                     |                   |                        |
|------------------------------|-------------|------|---------------------|-------------------|------------------------|
| <b>WEZR 17 040 M16 29 Z3</b> |             |      |                     |                   |                        |
| Series Code                  | Insert Size | Dia. | Mounting Screw Size | Max. Depth of Cut | Effective No. of Teeth |

\* Modification of the cutter body is required when using inserts with corner radius RE 2.4 or larger.



Modify the C chamfering portion.

### WEZ17 type

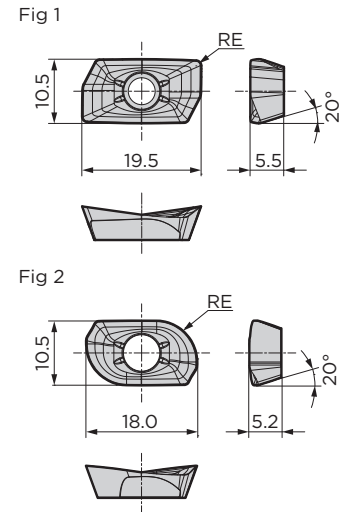
- Reworking guidelines
- Corner radius = 2.4: C1 (AOMT170524PEER)
  - Corner radius = 3.0: C1.5 (AOMT170530PEER)
  - Corner radius = 3.2: C1.5 (AOMT170532PEER)
  - Corner radius = 4.0: C2 (AOMT170540PEER)
  - Corner radius = 5.0: C5 (AOMT170550PEER)
  - Corner radius = 6.4: C5 (AOMT170564PEER)

Standard: R1.

## Insert

Dimensions (mm)

| Grade Classification |   | Coated Carbide |         |         |         |          |         | Cemented Carbide | DLC    | Cermet | Corner Radius RE | Fig    |        |     |   |
|----------------------|---|----------------|---------|---------|---------|----------|---------|------------------|--------|--------|------------------|--------|--------|-----|---|
| Process              | High-speed/Light Cutting<br>General-purpose<br>Roughing | KP<br>KM       | P       | K<br>K  | K<br>K  | KS<br>MS | N       | N                | P      |        |                  |        |        |     |   |
| Cat. No.             |   | ACU2500        | XCU2500 | ACP2000 | ACP3000 | XCK2000  | ACK2000 | ACK3000          | ACM200 | ACM300 | H20              | DL2000 | T2500A |     |   |
| AOMT                 | 170502PEER-L  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 0.2 | 1 |
|                      | 170504PEER-L  | ●              | ●       | —       | —       | —        | —       | —                | —      | —      | —                | —      | ●      | 0.4 | 1 |
|                      | 170508PEER-L  | ●              | ●       | —       | —       | —        | —       | —                | —      | —      | —                | —      | ●      | 0.8 | 1 |
|                      | 170512PEER-L  | ●              | ●       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 1.2 | 1 |
|                      | 170516PEER-L  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 1.6 | 1 |
| AOMT                 | 170502PEER-G  | ●              | ●       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 0.2 | 1 |
|                      | 170504PEER-G  | ●              | ●       | —       | —       | —        | —       | —                | —      | —      | —                | —      | ●      | 0.4 | 1 |
|                      | 170505PEER-G  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 0.5 | 1 |
|                      | 170508PEER-G  | ●              | ●       | —       | —       | —        | —       | —                | —      | —      | —                | —      | ●      | 0.8 | 1 |
|                      | 170510PEER-G  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 1.0 | 1 |
|                      | 170512PEER-G  | ●              | ●       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 1.2 | 1 |
|                      | 170516PEER-G  | ●              | ●       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 1.6 | 1 |
|                      | 170520PEER-G  | ●              | ●       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 2.0 | 1 |
|                      | 170524PEER-G  | ●              | ●       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 2.4 | 1 |
|                      | 170530PEER-G  | ●              | ●       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 3.0 | 1 |
|                      | 170532PEER-G  | ●              | ●       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 3.2 | 1 |
|                      | 170540PEER-G  | ●              | ●       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 4.0 | 1 |
|                      | 170550PEER-G  | ●              | ●       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 5.0 | 2 |
|                      | 170564PEER-G  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 6.4 | 2 |
| AOMT                 | 170504PEER-H  | ●              | ●       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 0.4 | 1 |
|                      | 170508PEER-H  | ●              | ●       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 0.8 | 1 |
|                      | 170512PEER-H  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 1.2 | 1 |
|                      | 170516PEER-H  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 1.6 | 1 |
| AOET                 | 170502PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 0.2 | 1 |
|                      | 170504PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 0.4 | 1 |
|                      | 170505PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 0.5 | 1 |
|                      | 170508PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 0.8 | 1 |
|                      | 170510PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 1.0 | 1 |
|                      | 170512PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 1.2 | 1 |
|                      | 170516PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 1.6 | 1 |
|                      | 170520PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 2.0 | 1 |
|                      | 170524PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 2.4 | 1 |
|                      | 170530PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 3.0 | 1 |
|                      | 170532PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 3.2 | 1 |
|                      | 170540PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 4.0 | 1 |
|                      | 170550PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 5.0 | 2 |
|                      | 170564PEER-F  | ●              | —       | —       | —       | —        | —       | —                | —      | —      | —                | —      | —      | 6.4 | 2 |
| AOET                 | 170502PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | —      | ●                | —      | —      | 0.2 | 1 |
|                      | 170504PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | —      | ●                | —      | —      | 0.4 | 1 |
|                      | 170505PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | —      | ●                | —      | —      | 0.5 | 1 |
|                      | 170508PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | —      | ●                | —      | —      | 0.8 | 1 |
|                      | 170510PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | —      | ●                | —      | —      | 1.0 | 1 |
|                      | 170512PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | —      | ●                | —      | —      | 1.2 | 1 |
|                      | 170516PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | —      | ●                | —      | —      | 1.6 | 1 |
|                      | 170520PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | —      | ●                | —      | —      | 2.0 | 1 |
|                      | 170524PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | —      | ●                | —      | —      | 2.4 | 1 |
|                      | 170530PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | —      | ●                | —      | —      | 3.0 | 1 |
|                      | 170532PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | —      | ●                | —      | —      | 3.2 | 1 |
|                      | 170540PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | —      | ●                | —      | —      | 4.0 | 1 |
|                      | 170550PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | —      | ●                | —      | —      | 5.0 | 2 |
|                      | 170564PEFR-S  | —              | —       | —       | —       | —        | —       | —                | ●      | —      | ●                | —      | —      | 6.4 | 2 |



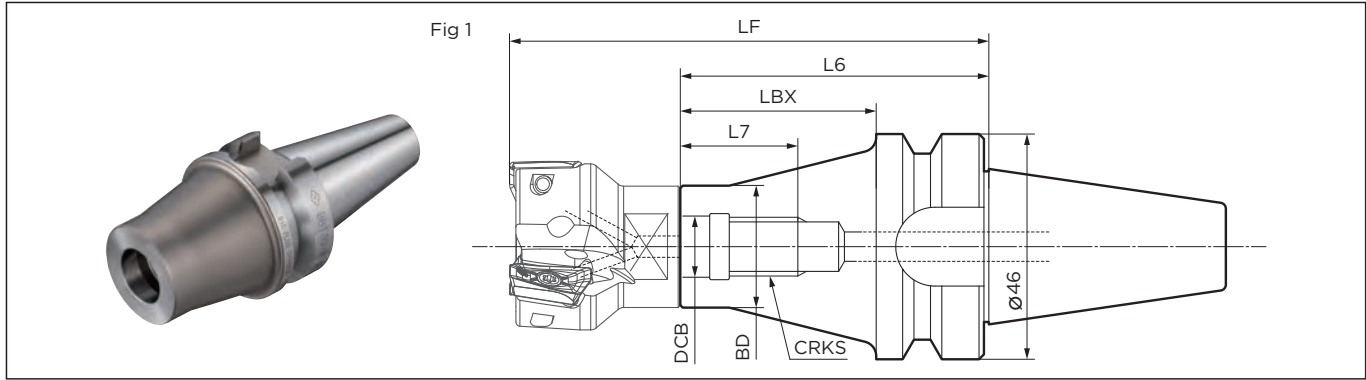
-L: Low Cutting Force, -G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -S: Non-Ferrous Metals.

Recommended Cutting Conditions **P7** Precautions for Mounting Inserts **P49**

Use peripheral inserts with RE of 0.8mm or less from the second stage and above.

# Special Arbors

## BBT Integrated type - SEC-Modular Tools Special Arbors



## BBT Integrated Arbor

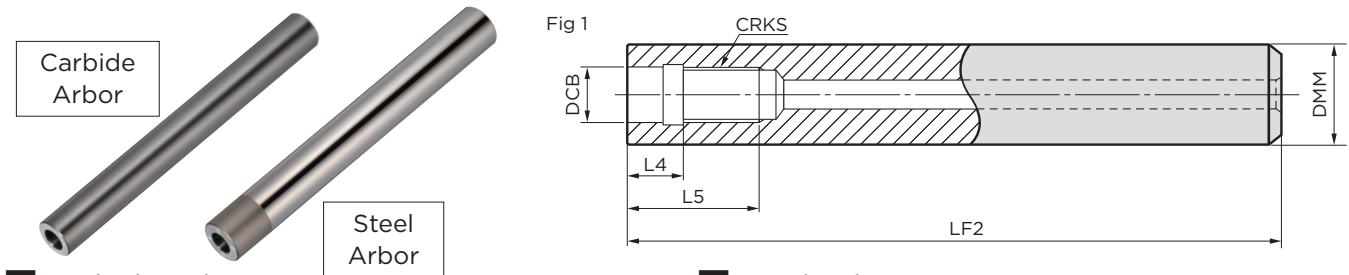
| Cat. No.           | Stock | Screw CRKS | Hole Dia. DCB | External Dia. BD | Body Overhang L6 | Length LBX | Thread Depth L7 | Overhang LF*1 | Coolant Hole | Fig |
|--------------------|-------|------------|---------------|------------------|------------------|------------|-----------------|---------------|--------------|-----|
| <b>BBT30-M8-50</b> | ●     | <b>M8</b>  | 8.5           | 15.9             | 72               | 50         | 18              | 97            | Yes          | 1   |
| <b>M10-45</b>      | ●     | <b>M10</b> | 10.5          | 19.9             | 67               | 45         | 20              | 97            | Yes          | 1   |
| <b>M12-40</b>      | ●     | <b>M12</b> | 12.5          | 24.9             | 62               | 40         | 22              | 97            | Yes          | 1   |
| <b>M16-35</b>      | ●     | <b>M16</b> | 17            | 31.9             | 57               | 35         | 24              | 97            | Yes          | 1   |

\*1: Overhang length for LF is with head mounted.

Can also be used with BT30 spindle machines.

Note: The values in red have been changed from Tooling News No. 528 Rev. 8.

## SEC-Modular Tools - Special Arbors (Carbide Arbor/Steel Arbor)



### Carbide Arbor

| Cat. No.            | Stock | Screw CRKS | Hole Dia. DCB | Shank DMM | Overall Length LF2 | Depth L4 | Thread Depth L5 | Overhang LF*2 | Fig |
|---------------------|-------|------------|---------------|-----------|--------------------|----------|-----------------|---------------|-----|
| <b>MA15M08L120C</b> | ●     | <b>M8</b>  | 8.5           | 15        | 120                | 10       | 18              | 145           | 1   |
| <b>15M08L160C</b>   | ●     | <b>M8</b>  | 8.5           | 15        | 160                | 10       | 18              | 185           | 1   |
| <b>16M08L120C</b>   | ●     | <b>M8</b>  | 8.5           | 16        | 120                | 10       | 18              | 145           | 1   |
| <b>16M08L160C</b>   | ●     | <b>M8</b>  | 8.5           | 16        | 160                | 10       | 18              | 185           | 1   |
| <b>MA18M10L150C</b> | ●     | <b>M10</b> | 10.5          | 18        | 150                | 10       | 20              | 180           | 1   |
| <b>18M10L200C</b>   | ●     | <b>M10</b> | 10.5          | 18        | 200                | 10       | 20              | 230           | 1   |
| <b>20M10L150C</b>   | ●     | <b>M10</b> | 10.5          | 20        | 150                | 10       | 20              | 180           | 1   |
| <b>20M10L200C</b>   | ●     | <b>M10</b> | 10.5          | 20        | 200                | 10       | 20              | 230           | 1   |
| <b>MA23M12L200C</b> | ●     | <b>M12</b> | 12.5          | 23        | 200                | 10       | 22              | 235           | 1   |
| <b>23M12L250C</b>   | ●     | <b>M12</b> | 12.5          | 23        | 250                | 10       | 22              | 285           | 1   |
| <b>25M12L200C</b>   | ●     | <b>M12</b> | 12.5          | 25        | 200                | 10       | 22              | 235           | 1   |
| <b>25M12L250C</b>   | ●     | <b>M12</b> | 12.5          | 25        | 250                | 10       | 22              | 285           | 1   |
| <b>MA28M16L200C</b> | ●     | <b>M16</b> | 17            | 28        | 200                | 10       | 24              | 240           | 1   |
| <b>28M16L300C</b>   | ●     | <b>M16</b> | 17            | 28        | 300                | 10       | 24              | 340           | 1   |
| <b>32M16L200C</b>   | ●     | <b>M16</b> | 17            | 32        | 200                | 10       | 24              | 240           | 1   |
| <b>32M16L300C</b>   | ●     | <b>M16</b> | 17            | 32        | 300                | 10       | 24              | 340           | 1   |

### Steel Arbor

| Cat. No.            | Stock | Screw CRKS | Hole Dia. DCB | Shank DMM | Overall Length LF2 | Depth L4 | Thread Depth L5 | Overhang LF*2 | Fig |
|---------------------|-------|------------|---------------|-----------|--------------------|----------|-----------------|---------------|-----|
| <b>MA16M08L120S</b> | ●     | <b>M8</b>  | 8.5           | 16        | 120                | 10       | 18              | 145           | 1   |
| <b>20M10L150S</b>   | ●     | <b>M10</b> | 10.5          | 20        | 150                | 10       | 20              | 180           | 1   |
| <b>25M12L200S</b>   | ●     | <b>M12</b> | 12.5          | 25        | 200                | 10       | 22              | 235           | 1   |
| <b>32M16L200S</b>   | ●     | <b>M16</b> | 17            | 32        | 200                | 10       | 24              | 240           | 1   |

### Identification Code

**MA 15 M08 L120 C**

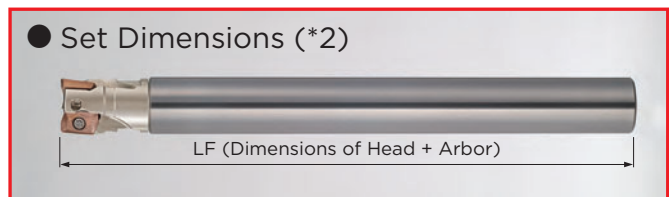
Series Code    Shank Dia.    Mounting Screw Size    Arbor Overall Length    Arbor Materials  
 C: Carbide  
 S: Steel

### Recommended Tightening Torque (N·m)

\* Take care when tightening the head.

- When mounting the head to an arbor, follow the standard tightening torque in the table below.
- Check the mounting screw size for the head and arbor beforehand.


| Screw Size | Regulated Tightening Torque (N·m) |
|------------|-----------------------------------|
| <b>M8</b>  | <b>23</b>                         |
| <b>M10</b> | <b>46</b>                         |
| <b>M12</b> | <b>60</b>                         |
| <b>M16</b> | <b>80</b>                         |

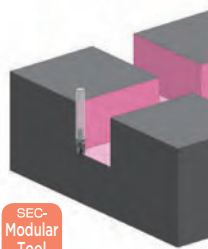




● mark: Standard stocked item

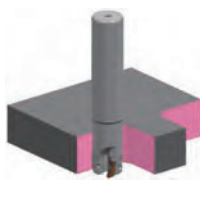



## Application Examples (WEZ type)


| Steel S50C Machine Component   | Sumitomo         | Competitor's Product   |
|--|------------------|--|
| <b>Vertical Machining Centre BT50</b><br> | Tool             | WEZ17032E03 Single-Sided, 2 Corners  |
|  | Grade            | ACU2500  |
|  | Chipbreaker      | G  |
|  | Cutter Dia. (mm) | 32   |
|  | Number of Teeth  | 3  |
|  | vc (m/min)       | 75   |
|  | vf (mm/min)      | 225  |
|  | fz (mm/t)        | 0.1  |
|  | ap (mm)          | 4  |
|  | ae (mm)          | 22   |
|  | Coolant          | Wet  |
|  | Results          | Drastically reduced cutting edge failure with the same output. Continuous use possible, longer tool life |


| Steel S50C Machine Component   | Sumitomo         | Competitor's Product  |
|--|------------------|---|
| <b>5-axis Control Vertical Machining Centre HSK-A100</b><br><br> | Tool             | WEZ11020M10Z3 Single-Sided, 2 Corners   |
|  | Grade            | ACU2500   |
|  | Chipbreaker      | G   |
|  | Cutter Dia. (mm) | 20  |
|  | Number of Teeth  | 3   |
|  | vc (m/min)       | 72  |
|  | vf (mm/min)      | 4,000   |
|  | fz (mm/t)        | 0.2   |
|  | ap (mm)          | 0.7   |
|  | ae (mm)          | 20  |
|  | Coolant          | Dry   |
|  | Results          | Stability without chatter even in groove milling with overhang of 120mm (L/D=6) |

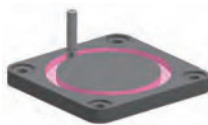
| Die Steel SKD11 (Mild Steel) Mold Component  | Sumitomo         | Competitor's Product   |
|--|------------------|--|
| <b>Vertical Machining Centre BT40</b><br> | Tool             | WEZ11020E03 Double-Sided, 4 Corners  |
|  | Grade            | ACU2500  |
|  | Chipbreaker      | H  |
|  | Cutter Dia. (mm) | 20   |
|  | Number of Teeth  | 3  |
|  | vc (m/min)       | 145  |
|  | vf (mm/min)      | 1,035  |
|  | fz (mm/t)        | 0.15   |
|  | ap (mm)          | 6.0  |
|  | ae (mm)          | 6.0  |
|  | Coolant          | Dry  |
|  | Results          | 3x efficiency in helical milling<br>Improved surface quality and process integration |


| Steel SM490A Machine Component   | Sumitomo         | Competitor's Product                                 |
|--|------------------|--|
| <b>Vertical Machining Centre BT50</b><br> | Tool             | WEZ17032EL03 Single-Sided, 2 Corners                 |
|  | Grade            | ACU2500  |
|  | Chipbreaker      | G  |
|  | Cutter Dia. (mm) | 32   |
|  | Number of Teeth  | 3  |
|  | vc (m/min)       | 150  |
|  | vf (mm/min)      | 671  |
|  | fz (mm/t)        | 0.15   |
|  | ap (mm)          | 1.25   |
|  | ae (mm)          | 32   |
|  | Coolant          | Wet  |
|  | Results          | Efficiency improved 1.5x, quiet and stable machining |


| Steel S45C Machine Component  | Sumitomo         | Competitor's Product                                 |
|---|------------------|--|
| <b>Autolathe</b><br> | Tool             | WEZ11020ES03-10 Single-Sided, 2 Corners              |
|   | Grade            | ACU2500  |
|   | Chipbreaker      | G  |
|   | Cutter Dia. (mm) | 20   |
|   | Number of Teeth  | 3  |
|   | vc (m/min)       | 250  |
|   | vf (mm/min)      | 1,800  |
|   | fz (mm/t)        | 0.15   |
|   | ap (mm)          | 1  |
|   | ae (mm)          | 10   |
|   | Coolant          | Wet  |
|   | Results          | Surface roughness improved from Ra 4.1µm to Ra 0.7µm |

| Steel S40C Hub  | Sumitomo         | Competitor's Product  |
|---|------------------|---|
| <b>Vertical Machining Centre BT40</b><br> | Tool             | WEZ17025E02 Double-Sided, 4 Corners   |
|   | Grade            | ACU2500   |
|   | Chipbreaker      | G   |
|   | Cutter Dia. (mm) | 25  |
|   | Number of Teeth  | 2   |
|   | vc (m/min)       | 120   |
|   | vf (mm/min)      | 300   |
|   | fz (mm/t)        | 0.066   |
|   | ap (mm)          | 9   |
|   | ae (mm)          | 5   |
|   | Coolant          | Wet   |
|   | Results          | The high chattering sound typical of thin workpieces is gone, and stable machining enables longer tool life |

| Steel S45C Machine Component   | Sumitomo         | Competitor's Product  |
|--|------------------|---|
| <b>Multi-tasking Machine</b><br> | Tool             | WEZ11025E03 Single-Sided, 2 Corners   |
|  | Grade            | ACU2500   |
|  | Chipbreaker      | G   |
|  | Cutter Dia. (mm) | 25  |
|  | Number of Teeth  | 3   |
|  | vc (m/min)       | 157   |
|  | vf (mm/min)      | 300   |
|  | fz (mm/t)        | 0.05  |
|  | ap (mm)          | 5   |
|  | ae (mm)          | 3.5   |
|  | Coolant          | —   |
|  | Results          | No chattering with good wall surface accuracy, even with low rigidity multi-tasking machines machining thin-walled parts. |

| Alloy Tool Steel SKT4 (45HRC) Machine Component  | Sumitomo         | Competitor's Product  |
|--|------------------|---|
| <b>Vertical Machining Centre HSK-A63</b><br> | Tool             | WEZ11022E03 Single-Sided, 2 Corners   |
|  | Grade            | ACU2500   |
|  | Chipbreaker      | G   |
|  | Cutter Dia. (mm) | 22  |
|  | Number of Teeth  | 3   |
|  | vc (m/min)       | 50  |
|  | vf (mm/min)      | 217   |
|  | fz (mm/t)        | 0.1   |
|  | ap (mm)          | 3   |
|  | ae (mm)          | 22  |
|  | Coolant          | Wet   |
|  | Results          | Efficiency improved 1.7x, tool life improved 2.5x<br>Stable machining of 45HRC hardened steel is possible |

| Steel S50C Mold Component  | Sumitomo         | Competitor's Product  |
|--|------------------|---|
| <b>Ram-type Milling Machine BT40</b><br> | Tool             | WEZ11022E03 Single-Sided, 2 Corners   |
|  | Grade            | T2500A  |
|  | Chipbreaker      | G   |
|  | Cutter Dia. (mm) | 22  |
|  | Number of Teeth  | 3   |
|  | vc (m/min)       | 83  |
|  | vf (mm/min)      | 320   |
|  | fz (mm/t)        | 0.09  |
|  | ap (mm)          | 2.5   |
|  | ae (mm)          | 10  |
|  | Coolant          | —   |
|  | Results          | Improved machined surface quality and machining efficiency with cermet grades |

| Steel S35C Machine Component   | Sumitomo         | Competitor's Product   |
|--|------------------|--|
| <b>Multi-tasking Machine</b><br> | Tool             | WEZ17032ES03-16 Round type Insert (R5.0)                                 |
|  | Grade            | ACU2500  |
|  | Chipbreaker      | G  |
|  | Cutter Dia. (mm) | 32   |
|  | Number of Teeth  | 3  |
|  | vc (m/min)       | 220  |
|  | vf (mm/min)      | 1,770  |
|  | fz (mm/t)        | 0.27   |
|  | ap (mm)          | 3  |
|  | ae (mm)          | 12   |
|  | Coolant          | Wet  |
|  | Results          | High rigidity and suppressed chattering through body face contact design |

WEZ

WEZR

Shell


Shank


Modular


Application Examples


Made-to-Order Product

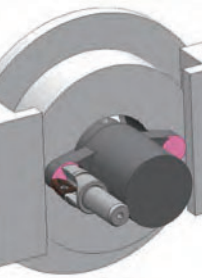
## Application Examples (WEZ type)


| Stainless Steel SUS304 Semiconductor Device                                      |                  | Sumitomo   | Competitor's Product    |
|--|------------------|--|-------------------------|
|  | Tool             | WEZ17050RS05   | Double-Sided, 4 Corners |
|  | Grade            | ACU2500  | —                       |
|  | Chipbreaker      | G  | —                       |
|  | Cutter Dia. (mm) | 50   | 50                      |
|  | Number of Teeth  | 5  | 5                       |
|  | vc (m/min)       | 80   | 80                      |
|  | vf (mm/min)      | 320  | 320                     |
|  | fz (mm/t)        | 0.13   | 0.13                    |
|  | ap (mm)          | 0.2  | 0.2                     |
|  | ae (mm)          | 40   | 40                      |
|  | Coolant          | Wet  | Wet                     |
|  | Results          | Improved surface finish quality and reduced burrs, cutting post-processing time by 50% |                         |


| Stainless Steel SUS304 Machine Component   |                  | Sumitomo                                      | Competitor's Product |
|--|------------------|---|----------------------|
|  | Tool             | WEZ11028E04                                   | —                    |
|  | Grade            | ACU2500                                       | —                    |
|  | Chipbreaker      | G   | —                    |
|  | Cutter Dia. (mm) | 28  | 28                   |
|  | Number of Teeth  | 4   | 4                    |
|  | vc (m/min)       | 150   | 150                  |
|  | vf (mm/min)      | 1,350   | 1,350                |
|  | fz (mm/t)        | 0.2   | 0.2                  |
|  | ap (mm)          | 2   | 2                    |
|  | ae (mm)          | 10  | 10                   |
|  | Coolant          | Dry   | Dry                  |
|  | Results          | Longer tool life<br>Stable machining achieved |                      |


| Stainless Steel SUS304 Machine Component   |                  | Sumitomo  | Competitor's Product    |
|--|------------------|---|-------------------------|
|  | Tool             | WEZ11022E03   | Single-Sided, 2 Corners |
|  | Grade            | ACU2500   | —                       |
|  | Chipbreaker      | G   | —                       |
|  | Cutter Dia. (mm) | 22  | 22                      |
|  | Number of Teeth  | 3   | 3                       |
|  | vc (m/min)       | 120   | 120                     |
|  | vf (mm/min)      | 1,562   | 1,562                   |
|  | fz (mm/t)        | 0.3   | 0.3                     |
|  | ap (mm)          | 2   | 2                       |
|  | ae (mm)          | 22  | 22                      |
|  | Coolant          | Wet   | Wet                     |
|  | Results          | As a result of improved visual quality, the finishing process can be omitted, achieving process integration |                         |


| Stainless Steel SUS Machine Component  |                  | Sumitomo  | Competitor's Product    |
|--|------------------|---|-------------------------|
|  | Tool             | WEZ11032E03   | Single-Sided, 2 Corners |
|  | Grade            | T2500A  | —                       |
|  | Chipbreaker      | G   | —                       |
|  | Cutter Dia. (mm) | 32  | 32                      |
|  | Number of Teeth  | 3   | 3                       |
|  | vc (m/min)       | 154   | 154                     |
|  | vf (mm/min)      | 530   | 400                     |
|  | fz (mm/t)        | 0.12  | 0.09                    |
|  | ap (mm)          | 0.5   | 0.5                     |
|  | ae (mm)          | 20  | 20                      |
|  | Coolant          | —   | —                       |
|  | Results          | Improved machined surface quality and machining efficiency with cermet grades |                         |

| Stainless Steel Duplex SUS Machine Component                                       |                  | Sumitomo                                       | Competitor's Product    |
|--|------------------|--|-------------------------|
|  | Tool             | WEZ11025ES02-16*                               | Single-Sided, 2 Corners |
|  | Grade            | ACU2500  | —                       |
|  | Chipbreaker      | F  | —                       |
|  | Cutter Dia. (mm) | 25   | 25                      |
|  | Number of Teeth  | 2  | 2                       |
|  | vc (m/min)       | 90   | 90                      |
|  | vf (mm/min)      | 300  | 300                     |
|  | fz (mm/t)        | 0.13   | 0.13                    |
|  | ap (mm)          | 1.5  | 1.5                     |
|  | ae (mm)          | 25   | 25                      |
|  | Coolant          | Wet  | Wet                     |
|  | Results          | Suppresses burrs and extends tool life by 1.6x |                         |

| Stainless Steel SUS316L Machine Component  |                  | Sumitomo   | Competitor's Product |
|--|------------------|--|----------------------|
|  | Tool             | WEZ17035E03  | —                    |
|  | Grade            | ACU2500  | —                    |
|  | Chipbreaker      | P  | —                    |
|  | Cutter Dia. (mm) | 35   | —                    |
|  | Number of Teeth  | 3  | —                    |
|  | vc (m/min)       | 100  | —                    |
|  | vf (mm/min)      | 410  | —                    |
|  | fz (mm/t)        | 0.15   | —                    |
|  | ap (mm)          | 9  | —                    |
|  | ae (mm)          | 0.1  | —                    |
|  | Coolant          | Wet  | —                    |
|  | Results          | Good wall accuracy, applicable to finishing (ae = 0.1mm) |                      |


| Stainless Steel SUS304 Machine Component   |                  | Sumitomo   | Competitor's Product    |
|--|------------------|--|-------------------------|
|  | Tool             | WEZ11020E03  | Single-Sided, 2 Corners |
|  | Grade            | ACU2500  | —                       |
|  | Chipbreaker      | G  | —                       |
|  | Cutter Dia. (mm) | 20   | 20                      |
|  | Number of Teeth  | 3  | 3                       |
|  | vc (m/min)       | 150  | 150                     |
|  | vf (mm/min)      | 860  | 860                     |
|  | fz (mm/t)        | 0.12   | 0.12                    |
|  | ap (mm)          | 2  | 2                       |
|  | ae (mm)          | 8  | 8                       |
|  | Coolant          | Wet  | Wet                     |
|  | Results          | Even with low-rigidity BT30 installation, has good surface finish and cutting edge sharpness |                         |

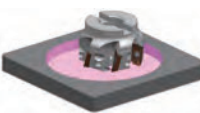
| Stainless Cast Steel SCS13 Machine Component   |                  | Sumitomo   | Competitor's Product    |
|--|------------------|--|-------------------------|
|  | Tool             | WEZ11040E04  | Single-Sided, 4 Corners |
|  | Grade            | ACM300   | —                       |
|  | Chipbreaker      | G  | —                       |
|  | Cutter Dia. (mm) | 40   | 40                      |
|  | Number of Teeth  | 4  | 4                       |
|  | vc (m/min)       | 80   | 80                      |
|  | vf (mm/min)      | 254  | 254                     |
|  | fz (mm/t)        | 0.1  | 0.1                     |
|  | ap (mm)          | 1  | 1                       |
|  | ae (mm)          | 40   | 40                      |
|  | Coolant          | —  | —                       |
|  | Results          | Improved tool life without chipping, even on mill-scale work |                         |


| Stainless Steel SUS304 Machine Component   |                  | Sumitomo   | Competitor's Product                    |
|--|------------------|--|---|
|  | Tool             | WEZ11020E03  | H's (High Speed Steel) Roughing Endmill |
|  | Grade            | ACU2500  | —                                       |
|  | Chipbreaker      | G  | —                                       |
|  | Cutter Dia. (mm) | 20   | 20                                      |
|  | Number of Teeth  | 3  | 4                                       |
|  | vc (m/min)       | 150  | 60                                      |
|  | vf (mm/min)      | 860  | 340                                     |
|  | fz (mm/t)        | 0.12   | 0.09                                    |
|  | ap (mm)          | 2  | 2                                       |
|  | ae (mm)          | 8  | 8                                       |
|  | Coolant          | —  | —                                       |
|  | Results          | Longer tool life with reduced machining time as compared to using HSS endmills |   |

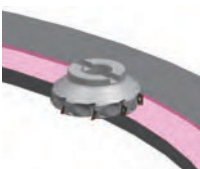
\* Made-to-Order Product

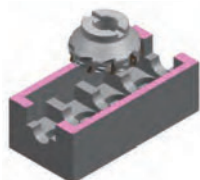
## Application Examples (WEZ type)

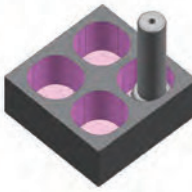
| Ductile Cast Iron FCD450 Straight Rail  | Sumitomo         | Competitor's Product   |                         |
|---|------------------|--|-------------------------|
| Vertical Machining Centre BT50<br> | Tool             | WEZ17040EL03   | Single-Sided, 2 Corners |
|   | Grade            | ACU2500  | —                       |
|   | Chipbreaker      | G  | —                       |
|   | Cutter Dia. (mm) | 40   | 40                      |
|   | Number of Teeth  | 3  | 3                       |
|   | vc (m/min)       | 130  | 130                     |
|   | vf (mm/min)      | 465  | 465                     |
|   | fz (mm/t)        | 0.15   | 0.15                    |
|   | ap (mm)          | 8  | 6                       |
|   | ae (mm)          | 40   | 40                      |
|   | Coolant          | Dry  | Dry                     |
|   | Results          | Reduces vibration during machining with 1.3 times the efficiency |                         |

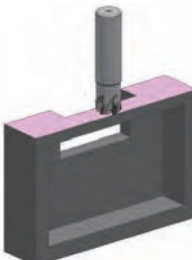
| Gray Cast Iron FC300 Machine Component  | Sumitomo         | Competitor's Product   |                         |
|---|------------------|--|-------------------------|
| Vertical Machining Centre BT50<br> | Tool             | WEZ17063RS06   | Single-Sided, 2 Corners |
|   | Grade            | ACK3000  | —                       |
|   | Chipbreaker      | G  | —                       |
|   | Cutter Dia. (mm) | 63   | 63                      |
|   | Number of Teeth  | 6  | 4                       |
|   | vc (m/min)       | 150  | 175                     |
|   | vf (mm/min)      | 377  | 254                     |
|   | fz (mm/t)        | 0.08   | 0.07                    |
|   | ap (mm)          | 3.5  | 3.5                     |
|   | ae (mm)          | 50   | 50                      |
|   | Coolant          | Wet  | Wet                     |
|   | Results          | Efficiency improved 1.5x in helical milling<br>Tool life doubled |                         |


| Gray Cast Iron FC250 Machine Component  | Sumitomo         | Competitor's Product   |                         |
|---|------------------|--|-------------------------|
| Horizontal Machining Centre BT50<br> | Tool             | WEZ11050RS07   | Single-Sided, 2 Corners |
|   | Grade            | ACU2500  | —                       |
|   | Chipbreaker      | G  | —                       |
|   | Cutter Dia. (mm) | 50   | 50                      |
|   | Number of Teeth  | 7  | 5                       |
|   | vc (m/min)       | 180  | 180                     |
|   | vf (mm/min)      | 805  | 574                     |
|   | fz (mm/t)        | 0.1  | 0.1                     |
|   | ap (mm)          | 0.3  | 0.3                     |
|   | ae (mm)          | 10   | 10                      |
|   | Coolant          | Wet  | Wet                     |
|   | Results          | Quiet machining and increased machining efficiency<br>Good surface finish quality and flatness |                         |


| Cast Steel for Welded Structure Product SCW480 Press Housing  | Sumitomo         | Competitor's Product  |                         |
|---|------------------|---|-------------------------|
| Double Column 5-axis Machining Centre BT50<br> | Tool             | WEZ17160R08   | Single-Sided, 2 Corners |
|   | Grade            | ACU2500   | —                       |
|   | Chipbreaker      | G   | —                       |
|   | Cutter Dia. (mm) | 60  | 60                      |
|   | Number of Teeth  | 8   | 8                       |
|   | vc (m/min)       | 150.7   | 150.7                   |
|   | vf (mm/min)      | 500   | 500                     |
|   | fz (mm/t)        | 0.208   | 0.208                   |
|   | ap (mm)          | 7   | 7                       |
|   | ae (mm)          | 75  | 75                      |
|   | Coolant          | —   | —                       |
|   | Results          | Reduces chipping on large workpieces, enabling stable machining |                         |


| Gray Cast Iron FC250 Cylinder block   | Sumitomo         | Competitor's Product  |       |
|---|------------------|---|-------|
|  | Tool             | WEZ17125RS09  | —     |
|   | Grade            | XCK2000   | —     |
|   | Chipbreaker      | G   | —     |
|   | Cutter Dia. (mm) | 125   | 125   |
|   | Number of Teeth  | 9   | 9     |
|   | vc (m/min)       | 300   | 300   |
|   | vf (mm/min)      | 1,788   | 1,788 |
|   | fz (mm/t)        | 0.26  | 0.26  |
|   | ap (mm)          | 2.0   | 2.0   |
|   | ae (mm)          | —   | —     |
|   | Coolant          | Dry   | Dry   |
|   | Results          | Excellent chipping resistance achieves 6.2 times longer tool life |       |

| Ductile Cast Iron FCD450 Machine Component   | Sumitomo         | Competitor's Product  |                         |
|--|------------------|---|-------------------------|
| Vertical Machining Centre BT40<br> | Tool             | WEZ11050E05   | Single-Sided, 2 Corners |
|  | Grade            | ACU2500   | —                       |
|  | Chipbreaker      | F   | —                       |
|  | Cutter Dia. (mm) | 50  | 50                      |
|  | Number of Teeth  | 5   | 5                       |
|  | vc (m/min)       | 157   | 94                      |
|  | vf (mm/min)      | 300   | 270                     |
|  | fz (mm/t)        | 0.06  | 0.09                    |
|  | ap (mm)          | 1.2   | 1.2                     |
|  | ae (mm)          | 10  | 10                      |
|  | Coolant          | Wet   | Wet                     |
|  | Results          | Superior sharpness ensures chatter control and increased efficiency, enabling finishing as well |                         |

| Gray Cast Iron FC250 Mounting Base Frame   | Sumitomo         | Competitor's Product   |                         |
|--|------------------|--|-------------------------|
| Vertical Machining Centre BT50<br> | Tool             | WEZ11032E05  | Single-Sided, 2 Corners |
|  | Grade            | ACK3000  | —                       |
|  | Chipbreaker      | G  | —                       |
|  | Cutter Dia. (mm) | 32   | 32                      |
|  | Number of Teeth  | 5  | 4                       |
|  | vc (m/min)       | 220  | 220                     |
|  | vf (mm/min)      | 1100   | 900                     |
|  | fz (mm/t)        | 0.1  | 0.1                     |
|  | ap (mm)          | 2  | 2                       |
|  | ae (mm)          | 20   | 20                      |
|  | Coolant          | Dry  | Dry                     |
|  | Results          | Efficiency improved<br>Even thin areas can be machined without chatter |                         |


| Gray Cast Iron FC300 Table   | Sumitomo         | Competitor's Product  |       |
|--|------------------|---|-------|
| 5-axis Control Vertical Machining Centre HSK-A63<br> | Tool             | WEZ11040E06   | —     |
|  | Grade            | ACU2500   | —     |
|  | Chipbreaker      | G   | —     |
|  | Cutter Dia. (mm) | 40  | 40    |
|  | Number of Teeth  | 6   | 6     |
|  | vc (m/min)       | 200   | 200   |
|  | vf (mm/min)      | 1,300   | 1,300 |
|  | fz (mm/t)        | 0.135   | 0.135 |
|  | ap (mm)          | 2   | 2     |
|  | ae (mm)          | 20  | 20    |
|  | Coolant          | Wet   | Wet   |
|  | Results          | Stable machining possible even for thin workpieces or low-rigidity machines |       |


| Gray Cast Iron FC250 Railway Component  | Sumitomo         | Competitor's Product  |                         |
|---|------------------|---|-------------------------|
| Vertical Machining Centre<br> | Tool             | WEZ11040M16Z6   | Single-Sided, 4 Corners |
|   | Grade            | ACK3000   | —                       |
|   | Chipbreaker      | G   | —                       |
|   | Cutter Dia. (mm) | 40  | 40                      |
|   | Number of Teeth  | 6   | 3                       |
|   | vc (m/min)       | 37  | 48                      |
|   | vf (mm/min)      | 707   | 344                     |
|   | fz (mm/t)        | 0.4   | 0.3                     |
|   | ap (mm)          | 2.5 x 1 pass + 1  | 1.5 x 2 passes + 0.5    |
|   | ae (mm)          | —   | —                       |
|   | Coolant          | Wet   | Wet                     |
|   | Results          | Increased cutting edge sharpness enables stable machining with efficiency improved 4.5x |                         |

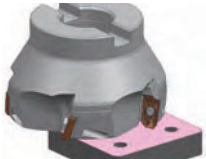
| Gray Cast Iron FC250 Crankshaft  | Sumitomo         | Competitor's Product  |      |
|--|------------------|---|------|
|  | Tool             | WEZ17050E05   | —    |
|  | Grade            | XCK2000   | —    |
|  | Chipbreaker      | G   | —    |
|  | Cutter Dia. (mm) | 50  | 50   |
|  | Number of Teeth  | 5   | 5    |
|  | vc (m/min)       | 188   | 188  |
|  | vf (mm/min)      | 898   | 898  |
|  | fz (mm/t)        | 0.15  | 0.15 |
|  | ap (mm)          | 1.0   | 1.0  |
|  | ae (mm)          | —   | —    |
|  | Coolant          | Wet   | Wet  |
|  | Results          | Excellent wear resistance achieves 4.7 times longer tool life |      |





## Application Examples (WEZ type)


| Aluminum Alloy A2025 Machine Component   | Sumitomo         | Competitor's Product  |                         |
|--|------------------|---|-------------------------|
| Vertical Machining Centre BT40<br> | Tool             | WEZ17063RS04  | Single-Sided, 2 Corners |
|  | Grade            | H20   | —                       |
|  | Chipbreaker      | S   | —                       |
|  | Cutter Dia. (mm) | 63  | 63                      |
|  | Number of Teeth  | 4   | 4                       |
|  | vc (m/min)       | 1,187   | 1,187                   |
|  | vf (mm/min)      | 1,920   | 1,920                   |
|  | fz (mm/t)        | 0.08  | 0.08                    |
|  | ap (mm)          | 1   | 1                       |
|  | ae (mm)          | 50  | 50                      |
|  | Coolant          | —   | —                       |
|  | Results          | Very little dimensional fluctuation and machining precision is stable |                         |

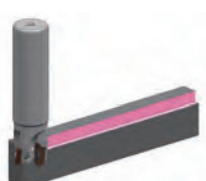
| Aluminum Alloy A5052 Machine Component  | Sumitomo         | —  |   |
|---|------------------|--|---|
| 5-axis Control Vertical Machining Centre HSK-A100<br> | Tool             | WEZ17025M12Z2  | — |
|   | Grade            | DL2000   | — |
|   | Chipbreaker      | S  | — |
|   | Cutter Dia. (mm) | 25   | — |
|   | Number of Teeth  | 2  | — |
|   | vc (m/min)       | 785  | — |
|   | vf (mm/min)      | 4,000  | — |
|   | fz (mm/t)        | 0.2  | — |
|   | ap (mm)          | 3.9  | — |
|   | ae (mm)          | 25   | — |
|   | Coolant          | Wet  | — |
|   | Results          | Stable machining without chatter even at overhang of 100mm (L/D=4) |   |


| Pure Copper (Mill-Scale) Electrical Machinery Component  | Sumitomo         | Competitor's Product                                     |                         |
|--|------------------|--|-------------------------|
| Vertical Machining Centre BT40<br> | Tool             | WEZ17100R05  | Single-Sided, 4 Corners |
|  | Grade            | DL2000   | —                       |
|  | Chipbreaker      | S  | —                       |
|  | Cutter Dia. (mm) | 100  | 100                     |
|  | Number of Teeth  | 5  | 5                       |
|  | vc (m/min)       | 314  | 314                     |
|  | vf (mm/min)      | 400  | 400                     |
|  | fz (mm/t)        | 0.08   | 0.08                    |
|  | ap (mm)          | 0.5  | 0.5                     |
|  | ae (mm)          | 80   | 80                      |
|  | Coolant          | Wet  | Wet                     |
|  | Results          | Holes do not have burrs, so finishing process is reduced |                         |

| Resin Electronic Device  | Sumitomo         | Competitor's Product                                  |                         |
|--|------------------|---|-------------------------|
| Vertical Machining Centre BT40<br> | Tool             | WEZ11080R07   | Single-Sided, 2 Corners |
|  | Grade            | DL2000  | —                       |
|  | Chipbreaker      | S   | —                       |
|  | Cutter Dia. (mm) | 80  | 80                      |
|  | Number of Teeth  | 7   | 7                       |
|  | vc (m/min)       | 376   | 376                     |
|  | vf (mm/min)      | 1,050   | 1,050                   |
|  | fz (mm/t)        | 0.1   | 0.1                     |
|  | ap (mm)          | 3   | 3                       |
|  | ae (mm)          | 50  | 50                      |
|  | Coolant          | Wet   | Wet                     |
|  | Results          | Improved cutting edge sharpness keeps machining quiet |                         |

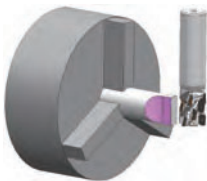
| FRPP Resin Industrial Machine Component  | Sumitomo         | Competitor's Product   |                         |
|--|------------------|--|-------------------------|
| Horizontal Machining Centre BT50<br> | Tool             | WEZ11020E02  | Single-Sided, 2 Corners |
|  | Grade            | DL2000   | —                       |
|  | Chipbreaker      | S  | —                       |
|  | Cutter Dia. (mm) | 20   | 20                      |
|  | Number of Teeth  | 2  | 3                       |
|  | vc (m/min)       | 200  | 37                      |
|  | vf (mm/min)      | 640  | 220                     |
|  | fz (mm/t)        | 0.1  | 0.091                   |
|  | ap (mm)          | 5 to 9 x 3 passes  | 5 to 9 x 3 passes       |
|  | ae (mm)          | 0.95 x 1 pass  | 0.95 x 1 pass           |
|  | Coolant          | —  | —                       |
|  | Results          | Minimized wall surface step, increasing machining efficiency |                         |

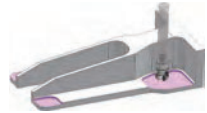
| Titanium Alloy Ti-6Al-4V Aerospace Component   | Sumitomo         | Competitor's Product                              |                         |
|--|------------------|---|-------------------------|
| Vertical Machining Centre BT50<br> | Tool             | WEZ11063RS08                                      | Single-Sided, 2 Corners |
|  | Grade            | ACU2500   | —                       |
|  | Chipbreaker      | G   | —                       |
|  | Cutter Dia. (mm) | 63  | 63                      |
|  | Number of Teeth  | 8   | 8                       |
|  | vc (m/min)       | 48  | 48                      |
|  | vf (mm/min)      | 310   | 310                     |
|  | fz (mm/t)        | 0.16  | 0.16                    |
|  | ap (mm)          | 2   | 2                       |
|  | ae (mm)          | 50  | 50                      |
|  | Coolant          | Wet   | Wet                     |
|  | Results          | No chipping, longer tool life with reduced burrs. |                         |

| Nickel Based Alloy Inconel 718 Aerospace Component   | Sumitomo         | Competitor's Product            |                         |
|--|------------------|---------------------------------|-------------------------|
| Vertical Machining Centre BT50<br> | Tool             | WEZ17032E04 (Special Component) | Single-Sided, 2 Corners |
|  | Grade            | ACU2500                         | —                       |
|  | Chipbreaker      | H                               | —                       |
|  | Cutter Dia. (mm) | 32                              | 32                      |
|  | Number of Teeth  | 4                               | 4                       |
|  | vc (m/min)       | 30                              | 30                      |
|  | vf (mm/min)      | 120                             | 120                     |
|  | fz (mm/t)        | 0.1                             | 0.1                     |
|  | ap (mm)          | 5                               | 5                       |
|  | ae (mm)          | 10                              | 10                      |
|  | Coolant          | Wet                             | Wet                     |
|  | Results          | 50% tool life improvement       |                         |

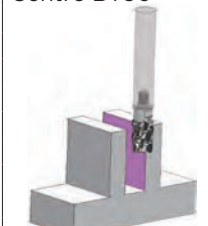
| Titanium Alloy Aerospace Component   | Sumitomo         | Competitor's Product |                         |
|--|------------------|----------------------|-------------------------|
| Compound Lathe<br> | Tool             | WEZ17035E03          | Single-Sided, 2 Corners |
|  | Grade            | ACM300               | —                       |
|  | Chipbreaker      | L                    | —                       |
|  | Cutter Dia. (mm) | 35                   | 35                      |
|  | Number of Teeth  | 3                    | 3                       |
|  | vc (m/min)       | 45                   | 45                      |
|  | vf (mm/min)      | —                    | —                       |
|  | fz (mm/t)        | 0.16                 | 0.16                    |
|  | ap (mm)          | 3                    | 3                       |
|  | ae (mm)          | 17.5                 | 17.5                    |
|  | Coolant          | Wet                  | Wet                     |
|  | Results          | Tool life improved   |                         |

## Application Examples (WEZR type)


| Steel SUM24L Machine Component  |                  | Sumitomo   | Competitor's Product    |
|---|------------------|--|-------------------------|
|  | Tool             | WEZR11032E3632Z03                                | Single-Sided, 2 Corners |
|   | Grade            | ACU2500  | —                       |
|   | Chipbreaker      | G  | —                       |
|   | Cutter Dia. (mm) | 32   | 25                      |
|   | Number of Teeth  | 3×4 stages                                       | 2×3 stages              |
|   | vc (m/min)       | 120  | 80                      |
|   | vf (mm/min)      | 716  | 102                     |
|   | fz (mm/t)        | 0.20   | 0.05                    |
|   | ap (mm)          | 32   | 32                      |
|   | ae (mm)          | 3.0  | 0.8                     |
|   | Coolant          | Wet  | Wet                     |
|   | Results          | No chatter, and efficiency increased 12x or more |                         |

| Titanium Alloy Ti-6Al-4V Aerospace Component                                      |                  | Sumitomo   | Competitor's Product    |
|---|------------------|--|-------------------------|
|  | Tool             | WEZR11032M1618Z3*  | Single-Sided, 2 Corners |
|   | Grade            | ACM300   | —                       |
|   | Chipbreaker      | G  | —                       |
|   | Cutter Dia. (mm) | 32   | 32                      |
|   | Number of Teeth  | 3×2 stages   | 3×3 stages              |
|   | vc (m/min)       | 40   | 40                      |
|   | vf (mm/min)      | 119  | 84                      |
|   | fz (mm/t)        | 0.10   | 0.07                    |
|   | ap (mm)          | 15   | 15                      |
|   | ae (mm)          | 24   | 24                      |
|   | Coolant          | Wet  | Wet                     |
|   | Results          | Capable of machining at reduced cutting force, even at 1.4 times the feed rate |                         |

\*Made-to-Order Product

| Cast Iron FC250 Automotive Component   |                  | Sumitomo   | Competitor's Product    |
|--|------------------|--|-------------------------|
|  | Tool             | WEZR11032M1645Z3*  | Single-Sided, 2 Corners |
|  | Grade            | ACU2500  | —                       |
|  | Chipbreaker      | G  | —                       |
|  | Cutter Dia. (mm) | 32   | 32                      |
|  | Number of Teeth  | 3×5 stages   | 3×5 stages              |
|  | vc (m/min)       | 80   | 80                      |
|  | vf (mm/min)      | 500  | 500                     |
|  | fz (mm/t)        | 0.2  | 0.2                     |
|  | ap (mm)          | 45   | 45                      |
|  | ae (mm)          | 0.5 to 6.0   | 0.5 to 6.0              |
|  | Coolant          | Dry  | Dry                     |
|  | Results          | Capable of low-chatter machining even at a tool overhang amount of 200mm |                         |

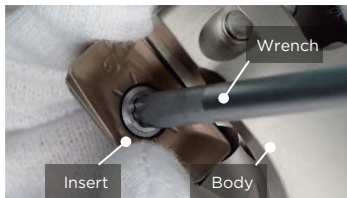
\*Made-to-Order Product

| Aluminum Alloy ADC12 Automotive Component  |                  | Sumitomo  | Competitor's Product |
|--|------------------|---|----------------------|
|  | Tool             | WEZR11033E4525Z03*                                      | H's Solid Endmills   |
|  | Grade            | DL2000  | —                    |
|  | Chipbreaker      | G   | —                    |
|  | Cutter Dia. (mm) | 33  | 32                   |
|  | Number of Teeth  | 3×5 stages  | 4                    |
|  | vc (m/min)       | 487   | 100                  |
|  | vf (mm/min)      | 800   | 224                  |
|  | fz (mm/t)        | 0.056   | 0.056                |
|  | ap (mm)          | 25  | 25                   |
|  | ae (mm)          | 1   | 1                    |
|  | Coolant          | Wet   | Wet                  |
|  | Results          | Efficiency increased 5x or more, for reduced tool costs |                      |

\*Made-to-Order Product

### Precautions for Mounting Inserts

- (1) Clean the mounting seat surface and contact parts.
- (2) While pressing the insert firmly against the seat surface, fasten the screw with the included wrench.
- (3) Apply Anti-seizure Cream to the screw and tighten at the recommended torque.
- (4) After tightening, check that there are no gaps on the seat surface.





## SEC-WaveMill WEZR type Repeater Made-To-Order Request Sheet (1)

Select a cutter design and enter the dimensions in .

After completion, send the sheet to our nearest sales office or distributor.  
Feel free to contact us for other shapes or dimensions or with other requests.

Company Name/Contact



### Reference Specifications

\*1: The max. effective no. of teeth below is based on standard insert stages configurations.

| Applicable Inserts                 | Dia. (mm) | Max. Depth of Cut (mm) | Total No. of Teeth | Insert Stages | Max. Effective No. of Teeth *1 | Specifications |       |
|------------------------------------|-----------|------------------------|--------------------|---------------|--------------------------------|----------------|-------|
|                                    | DC        | APMX                   |                    |               |                                | Shell          | Shank |
| AOMT11<br>AOET11<br>(Refer to P33) | 20        | 19                     | 4                  | 2             | 2                              |                | ○     |
|                                    | 25        | 27                     | 6                  | 3             | 2                              |                | ○     |
|                                    | 32        | 36                     | 12                 | 4             | 3                              |                | ○     |
|                                    | 40        | 44                     | 20                 | 5             | 4                              | ○              | ○     |
|                                    | 50        | 53                     | 24                 | 6             | 4                              | ○              |       |
| AOMT17<br>AOET17<br>(Refer to P35) | 40        | 43                     | 6                  | 3             | 2                              |                | ○     |
|                                    | 50        | 57                     | 12                 | 4             | 3                              | ○              | ○     |
|                                    | 63        | 57                     | 16                 | 4             | 4                              | ○              |       |
|                                    | 80        | 56                     | 20                 | 4             | 5                              | ○              |       |

**Shank** Refer to the reference specifications above.

Effective No. of Teeth Desired: , Coolant Hole: Yes  No

### Accessories

| Flat Insert Screw | Wrench | Anti-seizure Cream |
|-------------------|--------|--------------------|
|                   |        |                    |

The tip insert corner radius (RE) can be selected.  
(Refer to Applicable Size: P3 Product Range)  
Other inserts are all RE = 0.8mm or less.

## SEC-WaveMill WEZR type Repeater Made-To-Order Request Sheet (2)

Select a cutter design and enter the dimensions in .

After completion, send the sheet to our nearest sales office or distributor.  
 Feel free to contact us for other shapes or dimensions or with other requests.

Company Name/Contact

WEZ  
 WEZR  
 Shell  
 Shank  
 Modular  
 Application Examples  
 Made-to-Order Product




**Shell** Refer to the reference specifications on P50.

Effective No. of Teeth Desired: , Coolant Hole: Yes  No

**Integrated Arbor** Refer to the reference specifications on P50.

Effective No. of Teeth Desired: , Coolant Hole: Yes  No

### Accessories

| Flat Insert Screw   | Wrench  | Anti-seizure Cream  |
|---|---|---|
|  |  |  |

The tip insert corner radius (RE) can be selected.  
 (Refer to Applicable Size: P3 ■ Product Range)  
 Other inserts are all RE = 0.8mm or less.



- 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.

**< SAFETY NOTES >**

- 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**

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