



|                               |   |            |
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Inserts identification system

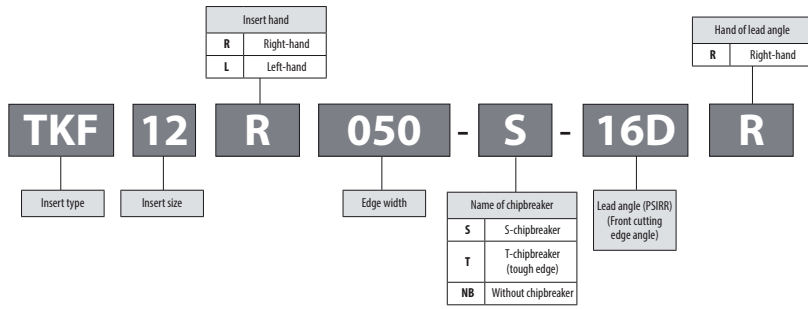
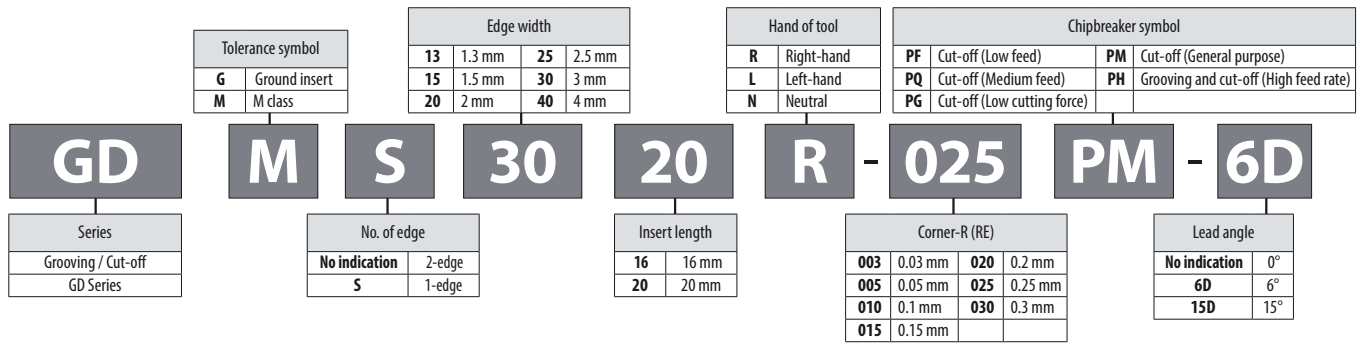


Table 1

|            |            |            |            |
|------------|------------|------------|------------|
| Toolholder | Right-hand | Toolholder | Left-hand  |
| Insert     | Right-hand | Insert     | Left-hand  |
| Lead angle | Right-hand | Lead angle | Right-hand |

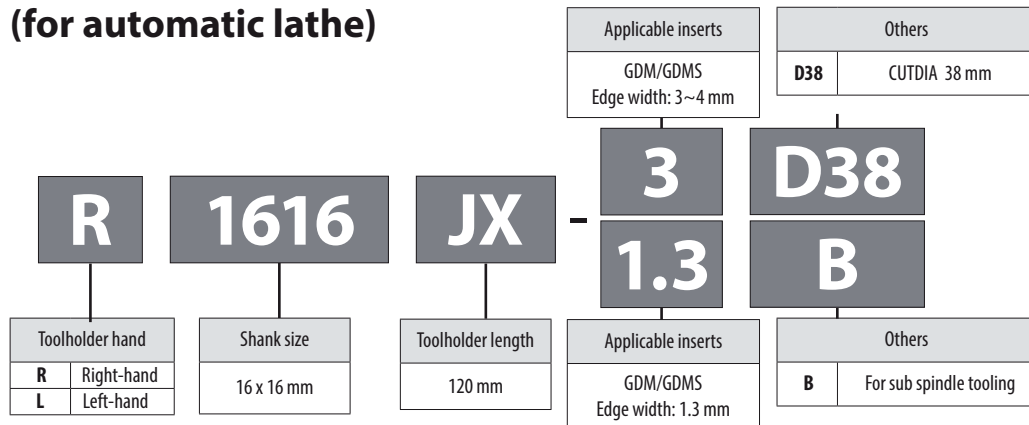
GDM



### Toolholder identification system

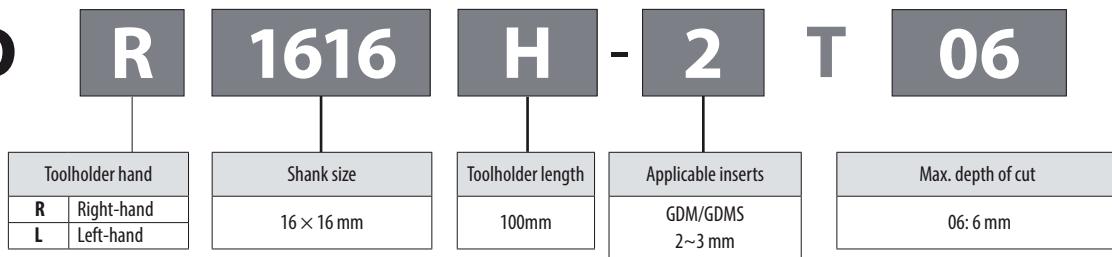
#### KGD / KGDS (for automatic lathe)

**KGD**  
**KGDS**



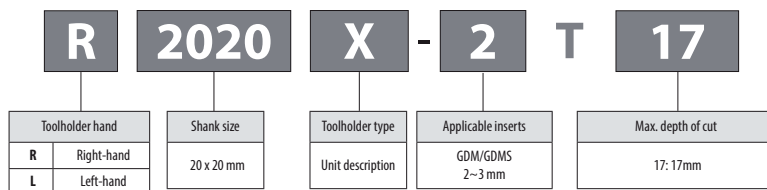
#### KGD (Integral type)

**KGD**



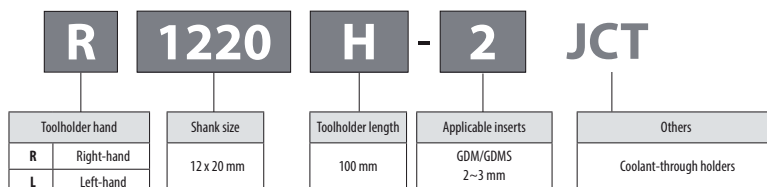
#### KGD (Separate type / Unit description)

**KGD** **R** **2020** **X** - **2** **T** **17** **S**

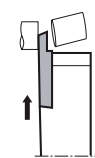
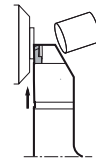
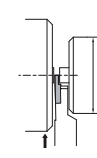
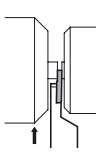
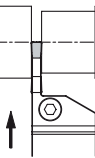
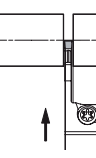
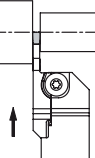
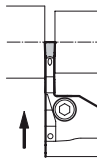
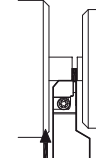
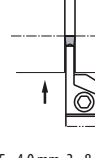
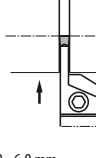
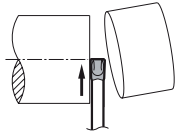
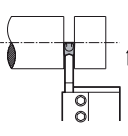


#### KGD-JCT (Coolant-through holders)

**KGD** **R** **1220** **H** - **2** **JCT**

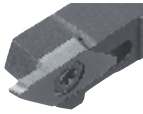







Product lineup

|   |   |  |  |  |
|---|---|--|--|--|
| <p>For small diameter cut-off (automatic lathes)<br/>CUTDIA ~ø16 mm</p>  <p>KTKF</p> <p>CUTDIA: ~ ø5, ø8, ø12, ø16 mm<br/>CW: 0.5~2.0 mm</p> |  <p>KTKF-JCT</p> <p>CUTDIA: ~ ø5, ø8, ø12, ø16 mm<br/>CW: 0.5~2.0 mm</p>                 |  | <p>For sub spindle tooling</p>  <p>KTKF-S</p> <p>CUTDIA: ~ ø5, ø8, ø12, ø16 mm<br/>CW: 0.5 ~ 2.0 mm</p> |  <p>KTKFS</p> <p>CUTDIA: ~ ø6, ø9, ø12, ø14, ø16 mm<br/>CW: 1.0~2.0 mm</p>            |
| <p>KGD (Bolt clamp)<br/>CUTDIA ~ø51 mm</p>  <p>KGD</p> <p>CW: 1.3~4.0 mm</p>   |  <p>KGD-JCT (for automatic lathes)</p> <p>CUTDIA: ~ ø24, ø32 mm<br/>CW: 2.0 ~ 3.0 mm</p> |  <p>KGD-S</p> <p>CW: 2.0~4.0 mm</p> |  <p>KGD-JCT</p> <p>CW: 3.0 ~ 4.0 mm</p>  | <p>For sub spindle tooling</p>  <p>KGDS</p> <p>CUTDIA: ~ø24 mm<br/>CW: 1.3~3.0 mm</p> |
| <p>KGM (Bolt clamp)<br/>CUTDIA ~ø60 mm</p>  <p>KGM</p> <p>CW: 1.5~4.0 mm, 3~8 mm</p>   |  <p>KGM-T</p> <p>CW: 2.0~6.0 mm</p>  |  |  |  |
| <p>KTKB<br/>KTKH (1-edge)<br/>CUTDIA ~ ø120</p> <p>Toolholder type<br/>CUTDIA ø30 ~ ø79 mm</p>  <p>KTKB<br/>KTKH</p> <p>CW: 2.2~5.1 mm</p> |   |  | <p>Blade type<br/>CUTDIA ø32~ø120</p>  | <p>KTKB-S(S)</p>  <p>CW: 1.6~9.6 mm</p>   |


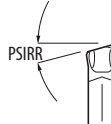
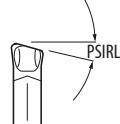
H  
Cut-Off

Cut-off tools

| Series name                | Shape   | Advantage  | Applications   |
|----------------------------|---|--|--|
| For small diameter cut-off |  | <ol style="list-style-type: none"> <li>1) Insert clamp is side screw type from lateral side</li> <li>2) 2-edge insert</li> <li>3) Max. cut-off dia.: ø16 mm</li> </ol>   | <ol style="list-style-type: none"> <li>1) For cut-off and grooving of small workpieces</li> <li>2) For automatic lathe, small machine</li> </ol>   |
| KGD                        |  | <ol style="list-style-type: none"> <li>1) Insert is clamped from top side</li> <li>2) 1-edge and 2-edge inserts available</li> <li>3) Integral type and separate type are available</li> <li>4) Max. Cut-off dia.: ø50 mm</li> </ol>                               | <ol style="list-style-type: none"> <li>1) PM chipbreaker ... for cut-off</li> <li>2) PH chipbreaker ... for cut-off (high feed rate) for grooving</li> <li>3) PG chipbreaker ... for cut-off (for automatic lathe), sharp-cutting oriented</li> <li>4) PF chipbreaker ... for cut-off (for automatic lathe), low feed</li> <li>5) PQ chipbreaker ... for cut-off (for automatic lathe), medium feed</li> </ol>                               |
| KGM                        |  | <ol style="list-style-type: none"> <li>1) Insert is clamped from top side</li> <li>2) 1-edge and 2-edge inserts available</li> <li>3) Max. cut-off dia.: ø60 mm</li> </ol>   | <ol style="list-style-type: none"> <li>1) For cut-off and grooving of small workpieces</li> <li>2) For automatic lathe, small machine</li> <li>3) TMR-chipbreaker provides stable chip control up to high feed rate ranges</li> </ol>  |
| KTKB<br>KTKH               |  | <ol style="list-style-type: none"> <li>1) Self-clamping system<br/>tap the insert lightly with a plastic hammer to set it in the pocket</li> <li>2) 1-edge insert</li> <li>3) Blade type and integral shank type</li> <li>4) Max. cut-off dia.: ø120 mm</li> </ol> | <ol style="list-style-type: none"> <li>1) For cut-off and deep grooving</li> <li>2) Standard chipbreaker is general cut-off type<br/>feed rate: over 0.1 mm/rev</li> </ol> <p>P-chipbreaker is for cut-off at low feed rates<br/>feed rate: 0.03~0.08 mm/rev</p>   |

## How to select cut-off inserts with / without lead angle (Including sharp corner)

1. Use a neutral angle insert if there is no limit to the finished shape.
2. Use an angled insert to reduce the size of the remaining boss.
3. Use a sharp-cornered lead-angled insert to make the remaining boss much smaller when machining small parts and thin parts.

| Hand of lead angle | N<br>(Neutral)  | R<br>(Right-hand)   | L<br>(Left-hand)  |
|--------------------|---|---|---|
|                    |    |  |  |
|                    | <ul style="list-style-type: none"> <li>● Angled insert can reduce the burr size when cutting off.</li> <li>● When using a larger lead angle, cutting force becomes smaller, but the feed rate should be reduced.</li> </ul> |   |   |

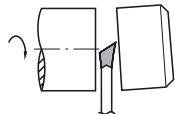
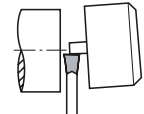
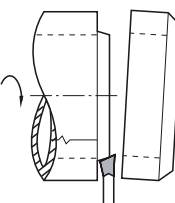
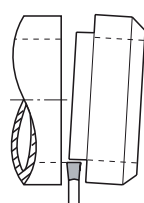
|                                  | Right-hand (R)<br>Lead angle  | Neutral  |
|----------------------------------|---|--|
| Example: Solid workpiece         |  |  |
| Example: Hollow workpiece (Pipe) |  |  |

Fig.1

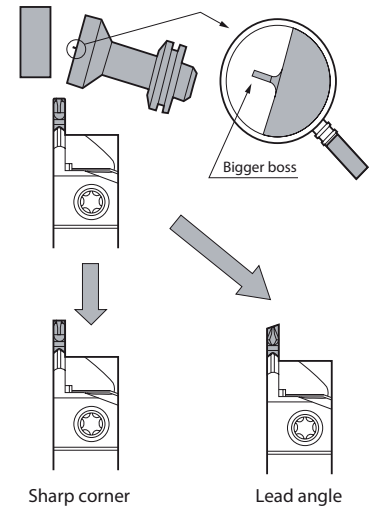


Fig.2

### Caution

1. For TKN and TK<sup>B</sup>/L, set the cutting edge height 0.1~0.2 mm above the center height (Fig. 3)  
For other toolholders, set the cutting edge to the center height.
2. Be sure to perform wet processing. Apply enough coolant to the cutting edge.
3. Keep a constant rate during processing so that optimum product life will be achieved.
4. Cut off as close to the chuck as possible.
5. Lower the feed rate to 1/2 to 1/3 at the near center to prevent impact caused by machining.

Overuse of insert and toolholder (blade) may cause insert breakage and toolholder (blade) damage.  
Do not rework the insert and toolholder (blade) to prevent damage.  
Clean the insert pocket well with compressed air when replacing insert.

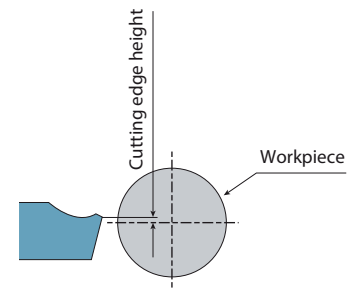
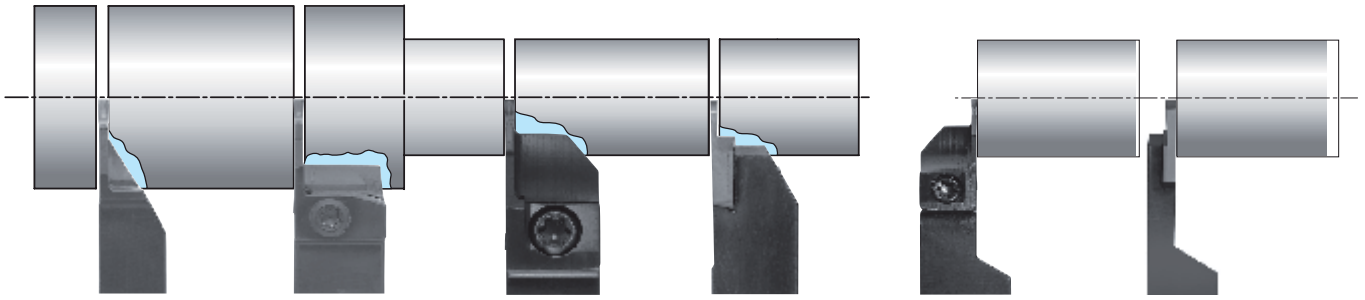


Fig. 3 (TKN, TK<sup>B</sup>/L)


Small dia. cut-off ~ $\phi$ 51


Small shank

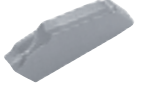


| KTKH-S  | KGM  | KGD / KGD-JCT  | KTKF  | KGDS  | KTKF-S / KTKFS  |
|---|--|--|---|---|---|
| Cut-off dia.: ~ $\phi$ 45<br>Shank: □10~25<br>CW: 2.2~4.1<br>Self clamp | Cut-off dia.: ~ $\phi$ 32<br>Shank: □10~16<br>CW: 1.5~4.0<br>Top clamp | Cut-off dia.: ~ $\phi$ 51<br>Shank: □10~25<br>CW: 1.3~4.0<br>Top clamp | Cut-off dia.: ~ $\phi$ 16<br>Shank: □10~20<br>CW: 0.5~2.0<br>Lateral side clamp | Cut-off dia.: ~ $\phi$ 24<br>Shank: □16<br>CW: 1.3~3.0<br>Top clamp | Cut-off dia.: ~ $\phi$ 16<br>Shank: □10~12<br>CW: 0.5~2.0 (KTKF-S)<br>1.0~2.0 (KTKFS)<br>Lateral side clamp |

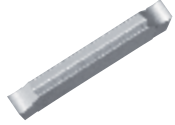
**H**  
Cut-Off

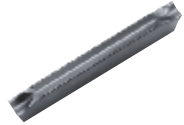
For KTKF / KTKF-S / KTKFS  
2-edge  
  
Low cutting force

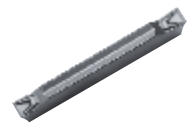
 Chipbreaker for general cut-off


 Chipbreaker for low feed cut-off

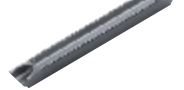
2-edge

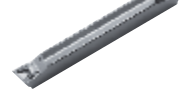
 Sharp cutting PG chipbreaker




 Low feed PF chipbreaker

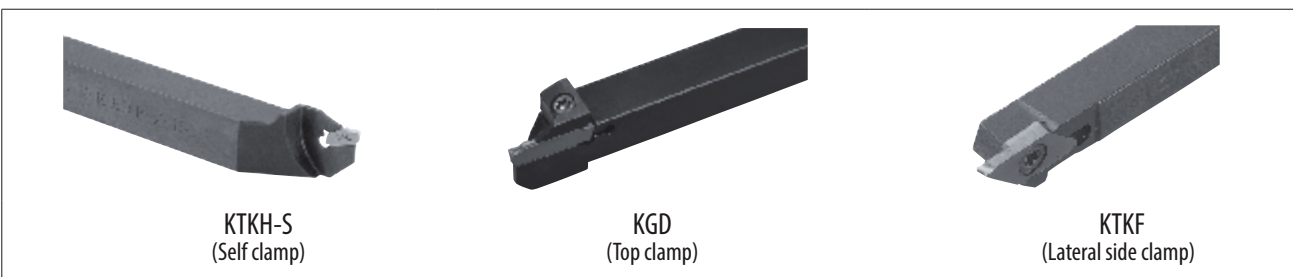
 Medium feed PQ chipbreaker

 (15° Lead angle)

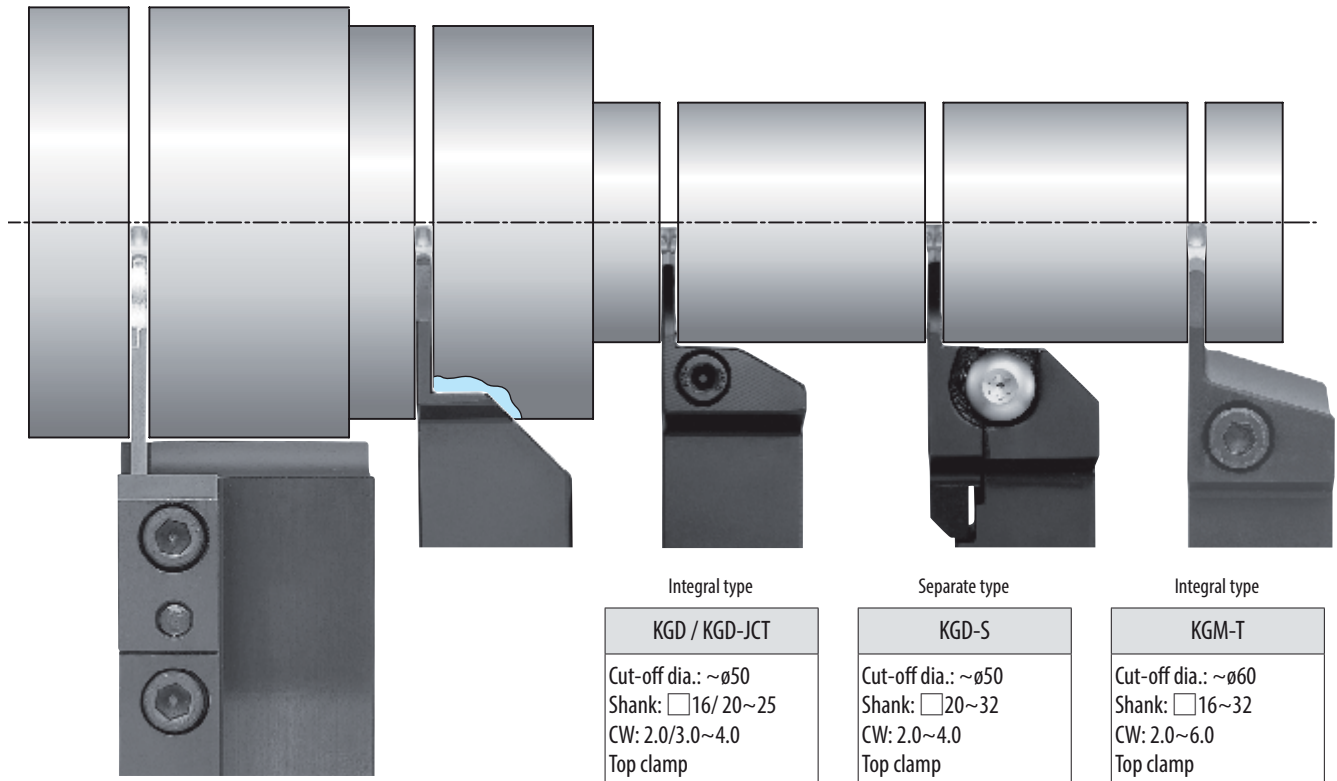
 (15° Lead angle)

 (15° Lead angle)

| Chipbreaker edge shape | Cut-off (Self clamp)  |   |   |
|------------------------|---|---|---|
|                        | General cut-off   |   | Low feed cut-off  |
|                        | Chamfer + Honed   | Sharp edge  | R honed   |
|                        |  |  |  |



## General cut-off ~ $\phi$ 120



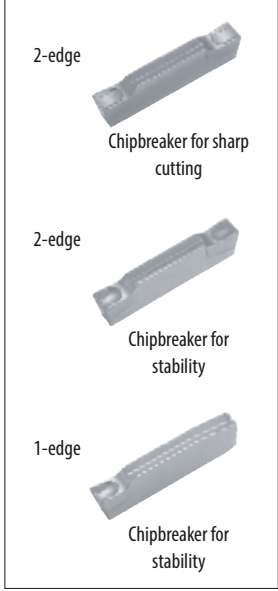
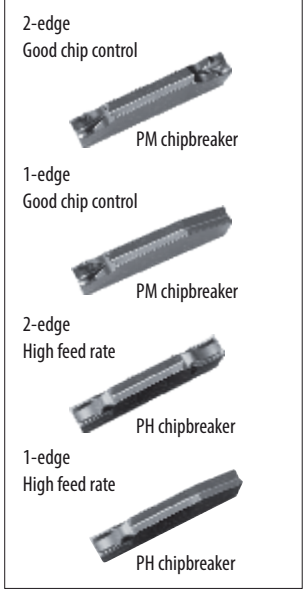
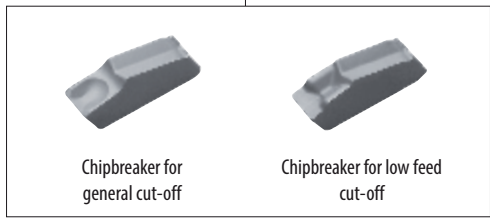
**Integral type**  
**KGD / KGD-JCT**  
 Cut-off dia.: ~ $\phi$ 50  
 Shank:  $\square$ 16/20~25  
 CW: 2.0/3.0~4.0  
 Top clamp






**Separate type**  
**KGD-S**  
 Cut-off dia.: ~ $\phi$ 50  
 Shank:  $\square$ 20~32  
 CW: 2.0~4.0  
 Top clamp

**Integral type**  
**KGM-T**  
 Cut-off dia.: ~ $\phi$ 60  
 Shank:  $\square$ 16~32  
 CW: 2.0~6.0  
 Top clamp

**Blade + Toolblock**  
**KTKB**  
 Cut-off dia.: ~ $\phi$ 120  
 Shank:  $\square$ 16~32  
 CW: 1.6~9.6  
 Self clamp

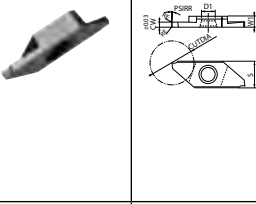
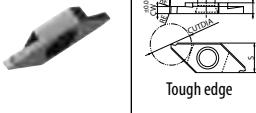
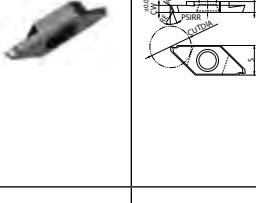
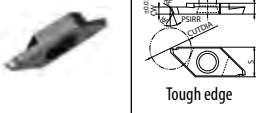
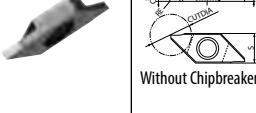
**Integral type**  
**KTKH-S**  
 Cut-off dia.: ~ $\phi$ 79  
 Shank:  $\square$ 20~25  
 CW: 3.1~5.1  
 Self clamp



| Blade + Toolblock   | Separate type  | Integral type   |   |  |
|---|--|---|---|--|
| <br>KTKB | <br>KGD-S | <br>KTKH-S | <br>KGD / KGD-JCT | <br>KGM-T |



TKF12

| Insert  |     | Description   | Dimension (mm)             |     |    |      |    |        | Angle (°) | Tolerance |         | Carbide |        |        |        | Applicable toolholder |          |          |
|---|-----|---------------|----------------------------|-----|----|------|----|--------|-----------|-----------|---------|---------|--------|--------|--------|-----------------------|----------|----------|
|   |     |               | CW                         | S   | D1 | RE   | W1 | CUTDIA | PSIRR     | CW min.   | CW max. | PVD     |        | -      |        |                       |          |          |
|   |     |               |                            |     |    |      |    |        |           |           |         |         | PRT725 | PR1535 | PR1225 |                       | PDL025   | KW10     |
|   |     |               | Carbon steel / Alloy steel |     |    |      |    |        | ●         | ●         | ●       | ●       | ●      | ●      | ●      | ●                     | ●        | P        |
|   |     |               | Stainless steel            |     |    |      |    |        | ●         | ●         | ●       | ●       | ●      | ●      | ●      | ●                     | ●        | M        |
|   |     |               | Cast iron                  |     |    |      |    |        | ●         | ●         | ●       | ●       | ●      | ●      | ●      | ●                     | ●        | K        |
|   |     |               | Non-ferrous metals         |     |    |      |    |        | ●         | ●         | ●       | ●       | ●      | ●      | ●      | ●                     | ●        | N        |
|    | TKF | 12L050-S      | 0.5                        |     |    |      |    | 5      |           |           |         | ●       | ●      | ●      | ●      | ●                     | ●        | H11, H16 |
|   |     | 12L070-S      | 0.7                        |     |    |      |    | 8      |           |           |         | ●       | ●      | ●      | ●      | ●                     | ●        |          |
|   |     | 12L100-S      | 1                          |     |    |      |    | 12     |           |           |         | ●       | ●      | ●      | ●      | ●                     | ●        |          |
|   |     | 12L125-S      | 1.25                       |     |    |      |    | 12     |           |           |         | ●       | ●      | ●      | ●      | ●                     | ●        |          |
|   |     | 12L150-S      | 1.5                        |     |    |      |    | 12     |           |           |         | ●       | ●      | ●      | ●      | ●                     | ●        |          |
|   |     | 12L200-S      | 2                          | 8.7 | 5  | 0.03 | 3  | 12     | 0         | -0.03     | +0.03   | ●       | ●      | ●      | ●      | ●                     | ●        |          |
|   |     | 12R050-S      | 0.5                        |     |    |      |    | 5      |           |           |         | ●       | ●      | ●      | ●      | ●                     | ●        |          |
|   |     | 12R070-S      | 0.7                        |     |    |      |    | 8      |           |           |         | ●       | ●      | ●      | ●      | ●                     | ●        |          |
|   |     | 12R100-S      | 1                          |     |    |      |    | 12     |           |           |         | ●       | ●      | ●      | ●      | ●                     | ●        |          |
|   |     | 12R125-S      | 1.25                       |     |    |      |    | 12     |           |           |         | ●       | ●      | ●      | ●      | ●                     | ●        |          |
|    | TKF | 12L100-T      | 1                          |     |    |      |    |        |           |           | ●       | ●       | ●      | ●      | ●      | ●                     | H11, H16 |          |
|   |     | 12L150-T      | 1.5                        |     |    |      |    |        |           |           | ●       | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12L200-T      | 2                          | 8.7 | 5  | 0.08 | 3  | 12     | 0         | -0.03     | +0.03   | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12R100-T      | 1                          |     |    |      |    |        |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12R150-T      | 1.5                        |     |    |      |    |        |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12R200-T      | 2                          |     |    |      |    |        |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|  | TKF | 12L050-S-16DR | 0.5                        |     |    |      |    | 5      |           |           |         | ●       | ●      | ●      | ●      | ●                     | H11, H16 |          |
|   |     | 12L070-S-16DR | 0.7                        |     |    |      |    | 8      |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12L100-S-16DR | 1                          |     |    |      |    | 12     |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12L125-S-16DR | 1.25                       |     |    |      |    | 12     |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12L150-S-16DR | 1.5                        |     |    |      |    | 12     |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12L200-S-16DR | 2                          | 8.7 | 5  | 0.03 | 3  | 12     | 16        | -0.03     | +0.03   | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12R050-S-16DR | 0.5                        |     |    |      |    | 5      |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12R070-S-16DR | 0.7                        |     |    |      |    | 8      |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12R100-S-16DR | 1                          |     |    |      |    | 12     |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12R125-S-16DR | 1.25                       |     |    |      |    | 12     |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|  | TKF | 12L100-T-16DR | 1                          |     |    |      |    |        |           |           | ●       | ●       | ●      | ●      | ●      | ●                     | H11, H16 |          |
|   |     | 12L150-T-16DR | 1.5                        |     |    |      |    |        |           |           | ●       | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12L200-T-16DR | 2                          | 8.7 | 5  | 0.08 | 3  | 12     | 16        | -0.03     | +0.03   | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12R100-T-16DR | 1                          |     |    |      |    |        |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12R150-T-16DR | 1.5                        |     |    |      |    |        |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12R200-T-16DR | 2                          |     |    |      |    |        |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|  | TKF | 12L050-NB     | 0.5                        |     |    |      |    | 5      |           |           |         | ●       | ●      | ●      | ●      | ●                     | H11, H16 |          |
|   |     | 12L070-NB     | 0.7                        |     |    |      |    | 8      |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12L100-NB     | 1                          |     |    |      |    | 12     |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12L150-NB     | 1.5                        |     |    |      |    | 12     |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12L200-NB     | 2                          | 8.7 | 5  | 0    | 3  | 12     | 0         | -0.03     | +0.03   | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12R050-NB     | 0.5                        |     |    |      |    | 5      |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12R070-NB     | 0.7                        |     |    |      |    | 8      |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12R100-NB     | 1                          |     |    |      |    | 12     |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12R150-NB     | 1.5                        |     |    |      |    | 12     |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |
|   |     | 12R200-NB     | 2                          |     |    |      |    | 12     |           |           |         | ●       | ●      | ●      | ●      | ●                     |          |          |

Lead angle (PSIRR) shows the angle when installed in toolholder.

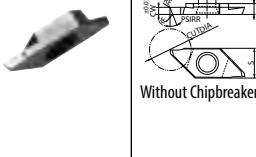
As Fig. 1 of H12 shows, the cut-off diameter of the insert (CUTDIA) is indicated when the top of the cut-off edge progresses 1mm from the center. Right-hand shown

● : Standard item R : Right hand only L : Left hand only □ : Check availability





TKF12

| Insert  |  | Description        |     | Dimension (mm) |   |    |    |    |        | Angle (°) | Tolerance |         | Carbide |        |        |        | Applicable toolholder |          |  |
|---|--|--------------------|-----|----------------|---|----|----|----|--------|-----------|-----------|---------|---------|--------|--------|--------|-----------------------|----------|--|
|   |  |                    |     | CW             | S | D1 | RE | W1 | CUTDIA | PSIRR     | CW min.   | CW max. | PVD     |        |        |        |                       |          |  |
|   |  |                    |     |                |   |    |    |    |        |           |           |         | PRT725  | PRT635 | PRT225 | PDL025 |                       | KW10     |  |
|  |  | TKF 12L050-NB-20DR | 0.5 |                |   |    |    | 5  |        |           |           |         | ●       | ●      | ●      | ●      |                       | H11, H16 |  |
|   |  | 12L070-NB-20DR     | 0.7 |                |   |    |    | 8  |        |           |           |         | ●       | ●      | ●      | ●      |                       |          |  |
|   |  | 12L100-NB-20DR     | 1   |                |   |    |    | 12 |        |           |           |         | ●       | ●      | ●      | ●      |                       |          |  |
|   |  | 12L150-NB-20DR     | 1.5 |                |   |    |    | 12 |        |           |           |         | ●       | ●      | ●      | ●      |                       |          |  |
|   |  | 12L200-NB-20DR     | 2   | 8.7            | 5 | 0  | 3  | 12 | 20     | -0.03     | +0.03     |         | ●       | ●      | ●      | ●      |                       |          |  |
|   |  | 12R050-NB-20DR     | 0.5 |                |   |    |    | 5  |        |           |           |         |         | ●      | ●      | ●      | ●                     |          |  |
|   |  | 12R070-NB-20DR     | 0.7 |                |   |    |    | 8  |        |           |           |         |         | ●      | ●      | ●      | ●                     |          |  |
|   |  | 12R100-NB-20DR     | 1   |                |   |    |    | 12 |        |           |           |         |         | ●      | ●      | ●      | ●                     |          |  |
|   |  | 12R150-NB-20DR     | 1.5 |                |   |    |    | 12 |        |           |           |         |         | ●      | ●      | ●      | ●                     |          |  |
|   |  | 12R200-NB-20DR     | 2   |                |   |    |    | 12 |        |           |           |         |         | ●      | ●      | ●      | ●                     |          |  |

Lead angle (PSIRR) shows the angle when installed in toolholder.

As Fig. 1 of H12 shows, the cut-off diameter of the insert (CUTDIA) is indicated when the top of the cut-off edge progresses 1mm from the center. Right-hand shown


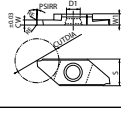

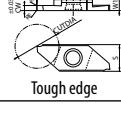

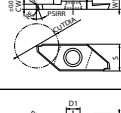

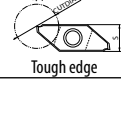

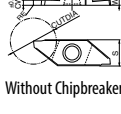

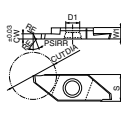
H



Cut-Off

● : Standard item R : Right hand only L : Left hand only □ : Check availability

TKF16

| Insert  |  | Description   | Dimension (mm)             |     |    |      |    |        |       | Angle (°) | Tolerance |         | Carbide |         |        |      | Applicable toolholder |          |
|---|--|---|----------------------------|-----|----|------|----|--------|-------|-----------|-----------|---------|---------|---------|--------|------|-----------------------|----------|
|   |  |   | CW                         | S   | D1 | RE   | W1 | CUTDIA | PSIRR | CW min.   | CW max.   | PVD     |         |         |        |      |                       |          |
|   |  |   |                            |     |    |      |    |        |       |           |           | PRT1725 | PRT1535 | PRT1725 | PDL025 | KW10 |                       |          |
|   |  |   |                            |     |    |      |    |        |       |           |           |         |         |         |        |      |                       | -        |
|   |  |   | Carbon steel / Alloy steel |     |    |      |    |        |       | ●         | ●         | ●       | ●       | ●       | ●      | ●    | ●                     | P        |
|   |  |   | Stainless steel            |     |    |      |    |        |       | ●         | ●         | ●       | ●       | ●       | ●      | ●    | ●                     | M        |
|   |  |   | Cast iron                  |     |    |      |    |        |       | ●         | ●         | ●       | ●       | ●       | ●      | ●    | ●                     | K        |
|   |  |   | Non-ferrous metals         |     |    |      |    |        |       | ●         | ●         | ●       | ●       | ●       | ●      | ●    | ●                     | N        |
|    |                           | TKF<br>16L150-S<br>16L200-S<br>16R150-S<br>16R200-S                         | 1.5<br>2<br>1.5<br>2       | 9.5 | 5  | 0.05 | 4  | 16     | 0     | -0.03     | +0.03     | ●       | ●       | ●       | ●      | ●    | ●                     | H11, H16 |
|    | <br>Tough edge            | TKF<br>16L150-T<br>16L200-T<br>16R150-T<br>16R200-T                         | 1.5<br>2<br>1.5<br>2       | 9.5 | 5  | 0.08 | 4  | 16     | 0     | -0.03     | +0.03     | ●       | ●       | ●       | ●      | ●    | ●                     |          |
|    |                           | TKF<br>16L150-S-16DR<br>16L200-S-16DR<br>16R150-S-16DR<br>16R200-S-16DR     | 1.5<br>2<br>1.5<br>2       | 9.5 | 5  | 0.05 | 4  | 16     | 16    | -0.03     | +0.03     | ●       | ●       | ●       | ●      | ●    | ●                     |          |
|   | <br>Tough edge           | TKF<br>16L150-T-16DR<br>16L200-T-16DR<br>16R150-T-16DR<br>16R200-T-16DR     | 1.5<br>2<br>1.5<br>2       | 9.5 | 5  | 0.08 | 4  | 16     | 16    | -0.03     | +0.03     | ●       | ●       | ●       | ●      | ●    | ●                     |          |
|  | <br>Without Chipbreaker | TKF<br>16L150-NB<br>16L200-NB<br>16R150-NB<br>16R200-NB                     | 1.5<br>2<br>1.5<br>2       | 9.5 | 5  | 0    | 4  | 16     | 0     | -0.03     | +0.03     | ●       | ●       | ●       | ●      | ●    | ●                     |          |
|  | <br>Without Chipbreaker | TKF<br>16L150-NB-20DR<br>16L200-NB-20DR<br>16R150-NB-20DR<br>16R200-NB-20DR | 1.5<br>2<br>1.5<br>2       | 9.5 | 5  | 0    | 4  | 16     | 20    | -0.03     | +0.03     | ●       | ●       | ●       | ●      | ●    | ●                     |          |

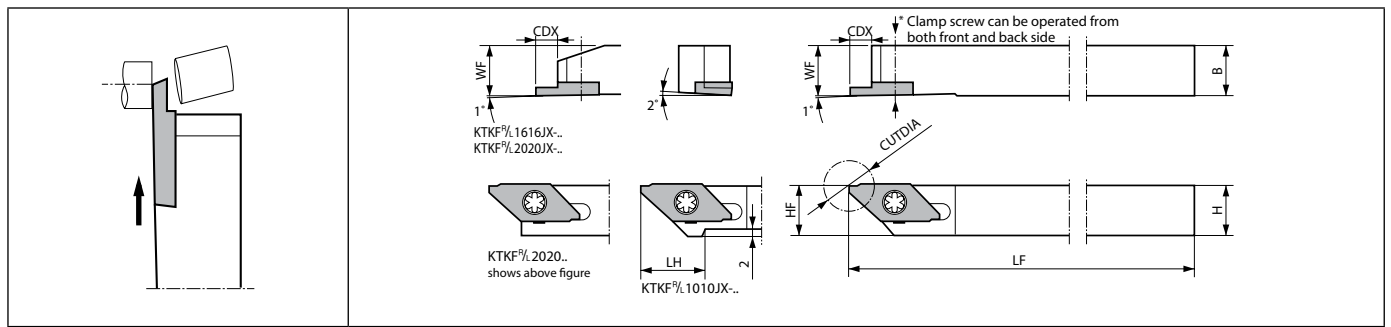
Lead angle (PSIRR) shows the angle when installed in toolholder.  
As Fig. 1 of H12 shows, the cut-off diameter of the insert (CUTDIA) is indicated when the top of the cut-off edge progresses 1mm from the center.  
Right-hand shown

● : Standard item R : Right hand only L : Left hand only □ : Check availability

H10





KTKF



Right-hand shown | Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

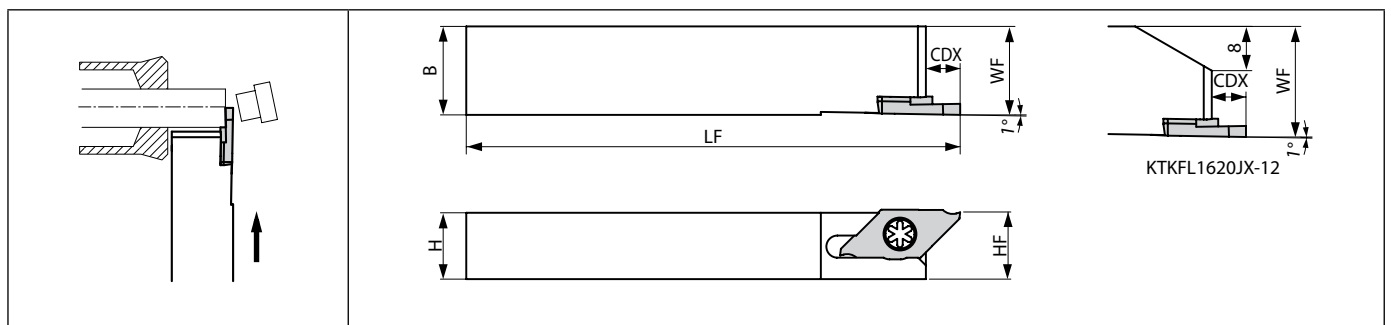
Toolholder dimensions

| Description      | Availability |   | Dimension (mm) |    |    |    |    |     |    | Spare parts   |  | Applicable inserts |
|------------------|--------------|---|----------------|----|----|----|----|-----|----|---|--|--------------------|
|                  |              |   |                |    |    |    |    |     |    | Clamp screw   | Wrench (Torx)  |                    |
|                  | R            | L | CDX            | H  | B  | LH | HF | LF  | WF |  |  |                    |
| KTKF%L 1010JX-12 | ●            | ● | 6              | 10 | 10 | 15 | 10 | 120 | 10 | SB-4590TRWN   | FT-10  | TKF12%L...         |
| 1212JX-12        | ●            | ● |                | 12 | 12 |    | 12 |     |    |   |  |                    |
| 1616JX-12        | ●            | ● |                | 16 | 16 |    | 16 |     |    |   |  |                    |
| 2020JX-12        | ●            | ● |                | 20 | 20 |    | 20 |     |    |   |  |                    |
| KTKF%L 1010JX-16 | ●            | ● | 8              | 10 | 10 | 20 | 10 | 120 | 10 | SB-4590TRWN   | FT-10  | TKF16%L...         |
| 1212JX-16        | ●            | ● |                | 12 | 12 |    | 12 |     |    |   |  |                    |
| 1616JX-16        | ●            | ● |                | 16 | 16 |    | 16 |     |    |   |  |                    |
| 2020JX-16        | ●            | ● |                | 20 | 20 |    | 20 |     |    |   |  |                    |
| KTKF%L 1212F-12  | ●            | ● | 6              | 12 | 12 |    | 12 | 85  | 12 | SB-4590TRWN   | FT-10  | TKF12%L...         |
| KTKF%L 1212F-16  | ●            | ● | 8              | 12 | 12 |    | 12 | 85  | 12 | SB-4590TRWN   | FT-10  | TKF16%L...         |

CDX shows the distance from the toolholder to the cutting edge. H8, H9 and H10 for the actual cut-off diameter.





KTKF



Left-hand shown | Left-hand Insert for Left-hand Toolholder.

Toolholder dimensions

| Description     | Availability |     | Dimension (mm) |    |    |     |    |   | Spare parts   |               | Applicable inserts |
|-----------------|--------------|-----|----------------|----|----|-----|----|---|---|---------------|--------------------|
|                 |              |     |                |    |    |     |    |   | Clamp screw   | Wrench (Torx) |                    |
|                 | L            | CDX | H              | B  | HF | LF  | WF |  |  |               |                    |
| KTKFL 1216JX-12 | ●            | 6   | 12             | 16 | 12 | 120 | 16 | SB-4590TRWN   | FT-10   | TKF12L...     |                    |
| 1620JX-12       | ●            |     | 16             | 20 | 16 |     | 20 |   |   |               |                    |

CDX shows the distance from the toolholder to the cutting edge. H8, H9 and H10 for the actual cut-off diameter.

● : Standard item R : Right hand only L : Left hand only □ : Check availability

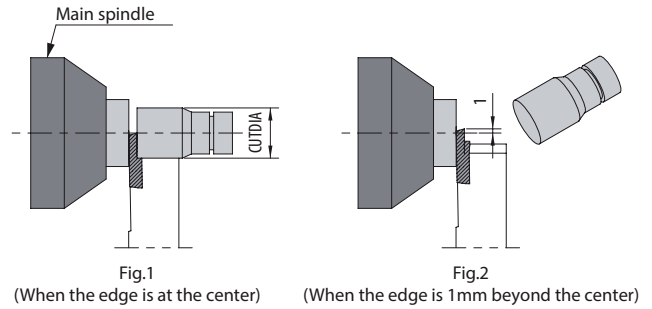
## How to Use

### 1) When using main spindle only

Maximum cutting diameter is CUTDIA (Fig.1).

Even if the cutting edge runs beyond the center line, the insert does not contact the workpiece, since the workpiece falls off.

(The clearance between the insert and the workpiece is 0.2 mm)



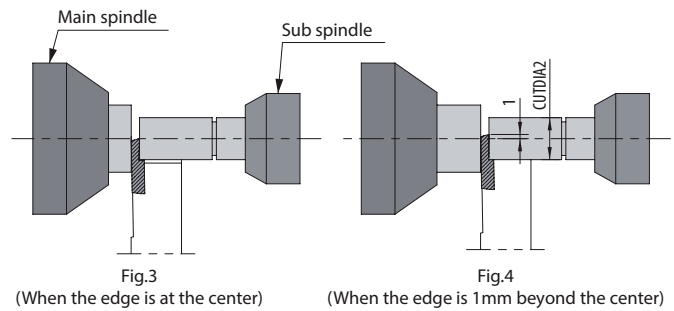
### 2) When using both main and sub spindles

In this case, when the cutting edge runs beyond the center line, the insert will contact the workpiece, since the workpiece does not fall off.

e.g.) When the cutting edge is programmed to run 1mm beyond the center.

Workpiece maximum, CUTDIA2 (Fig.4) = [CUTDIA - 1 mm x 2] (mm)

(The clearance between the insert and the workpiece is 0.2 mm)



H



Cut-Off

## How to select edge preparation

### Troubleshooting

| Problems                               | Countermeasures                 | Countermeasures    |           |            |           |                     |           |           |
|--|---------------------------------|--------------------|-----------|------------|-----------|---------------------|-----------|-----------|
|  |                                 | Lead angle (PSIRR) |           | Edge width |           | Name of chipbreaker |           |           |
|  |                                 | Neutral (0°)       | Yes       | Narrower   | Wider     | S                   | T         | NB        |
| Insert fracture                        | Insert fracture prevention      | Effective          |           |            | Effective |                     | Effective | Effective |
| Long cutting time                      | Cutting time reduction          | Effective          |           |            | Effective |                     | Effective | Effective |
| Entangled chips                        | Prevention of chip entanglement | Effective          |           | Effective  |           | Effective           |           |           |
| Large boss remain                      | Small boss remain               |                    | Effective | Effective  |           | Effective           |           |           |
| Ring remain (Hollow workpiece)         | Prevention of ring remain       |                    | Effective | Effective  |           | Effective           |           |           |
| Deformation of hollow workpiece (pipe) | Preventing deformation          |                    | Effective | Effective  |           | Effective           |           |           |

Cut-off toolholders for automatic lathe great for high pressure coolant

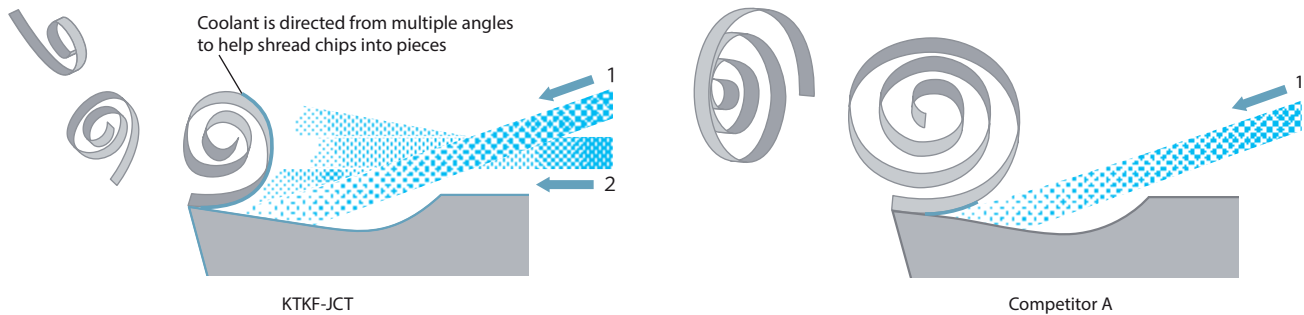
# KTKF-JCT

Finely breaks chips into small pieces. Superior chip control performance when machining difficult-to-cut material and stainless steel. Superior cooling action improves tool life.

## 1 Superior chip control performance

Discharges coolant in two directions toward rake surface of insert. Finely breaks chips into small pieces.

### Coolant discharge structure comparison



### Chip control comparison (Internal evaluation)

SUS304

| f (mm/rev)   | 0.01 | 0.02 | 0.03 |
|--------------|------|------|------|
| KTKF-JCT     |      |      |      |
| Competitor A |      |      |      |

TAB6400 (Ti-6Al-4V)

| f (mm/rev)   | 0.01 | 0.02 | 0.03 |
|--------------|------|------|------|
| KTKF-JCT     |      |      |      |
| Competitor A |      |      |      |

(Internal evaluation)

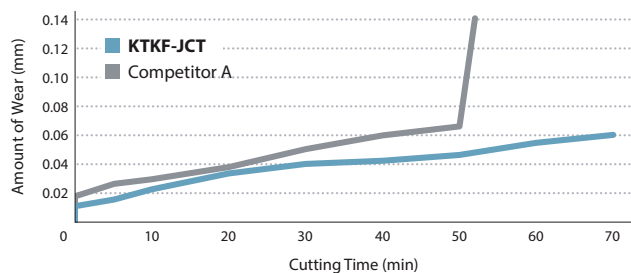
Cutting conditions: Vc = 80 m/min, Wet (Oil-based) lubricating pressure: 1.5 MPa (Internal)  
Workpiece: ø12 mm

## 2 Superior cooling action improves tool life

Coolant is directed from the flank face of the insert as well  
An ample supply of coolant to the tool edge area helps to further suppress insert wear



### Wear resistance comparison (Internal evaluation)



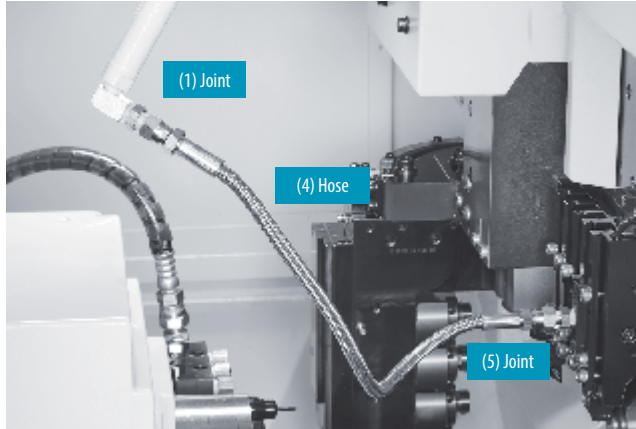
Cutting conditions: Vc = 100 m/min, f = 0.02 mm/rev, Wet (Oil-based)  
Lubricating Pressure: 1.5 MPa (Internal) Workpiece material: TAB6400 (Ti-6Al-4v) ø12



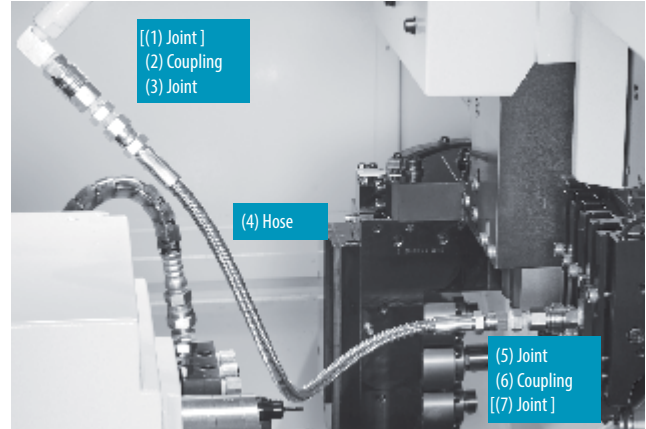
### Coolant pipe parts

Pipe parts will be required separately if internal coolant is used.

#### Without coupling (Pump pressure: Up to 20 MPa)



#### With coupling (Pump pressure: Up to 7.5 MPa)



H  
Cut-Off

#### Combination part description (Example)

| Spare parts | Description      |
|-------------|------------------|
| (1) Joint   | J-ST-R1/8-G1/8   |
| (4) Hose    | HS-G1/8-G1/8-500 |
| (5) Joint   | J-ST-R1/8-G1/8   |

Convert the thread standards on the machine's side (Rc1/4, Rc1/8, NPT1/8, etc.) to the thread standard on the hose side (G1/8) for use.  
Use sealing agents such as seal tapes when installing piping parts.

#### Combination part description (Example)

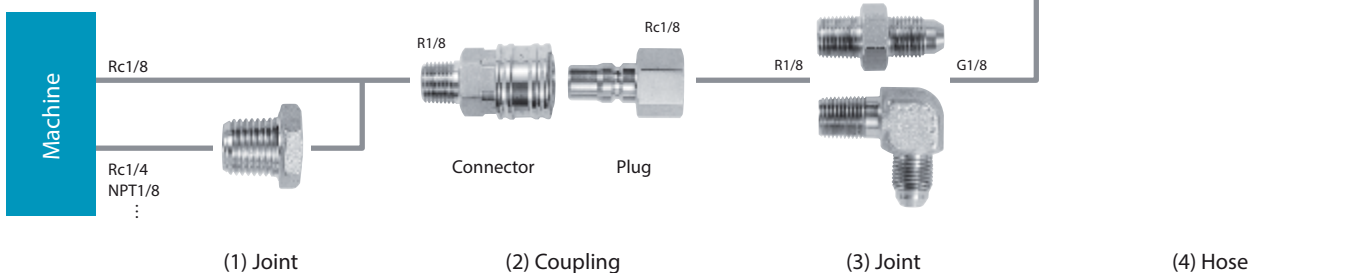
| Spare parts  | Description           |
|--------------|-----------------------|
| [(1) Joint]  | -                     |
| (2) Coupling | CP-ST-R1/8,P-ST-RC1/8 |
| (3) Joint    | J-ST-R1/8-G1/8        |
| (4) Hose     | HS-G1/8-G1/8-500      |
| (5) Joint    | J-ST-R1/8-G1/8        |
| (6) Coupling | P-ST-RC1/8,CP-ST-R1/8 |
| [(7) Joint]  | -                     |

Convert the thread standards on the machine's side (Rc1/4, Rc1/8, NPT1/8, etc.) to thread standards of the coupling (Rc1/8, etc.) or hose (G1/8) for use.  
Use sealing agents such as seal tapes when installing piping parts.

#### Without coupling (Pump pressure: Up to 20 MPa)



#### With coupling (Pump pressure: Up to 7.5 MPa)



## Piping installation parts description

### Joint [(1)(3)(5)(7)]

Pressure resistance: ~20.0MPa

| Exterior | Description       | Thread standard                | Std. |
|----------|-------------------|--------------------------------|------|
|          | J-ST-R1/4-G1/8    | R1/4 ↔ G1/8                    | ●    |
|          | J-ST-NPT1/8-G1/8  | NPT1/8 ↔ G1/8                  | ●    |
|          | J-ST-R1/8-G1/8    | R1/8 ↔ G1/8                    | ●    |
|          | J-AN-R1/8-G1/8    |                                | ●    |
|          | J-ST-R1/4-Rc1/8   | R1/4 ↔ Rc1/8                   | ●    |
|          | J-ST-NPT1/8-Rc1/8 | NPT1/8 ↔ Rc1/8                 | ●    |
|          | J-ST-R1/8-Rc1/8   | Rc1/8 ↔ R1/8 (Extension Joint) | ●    |

### Coupling [(2)(6)]

Pressure resistance: ~7.5MPa

| Exterior | Description | Thread standard | Std. |
|----------|-------------|-----------------|------|
|          | CP-ST-R1/8  | R1/8            | ●    |
|          | P-ST-Rc1/8  | Rc1/8           | ●    |

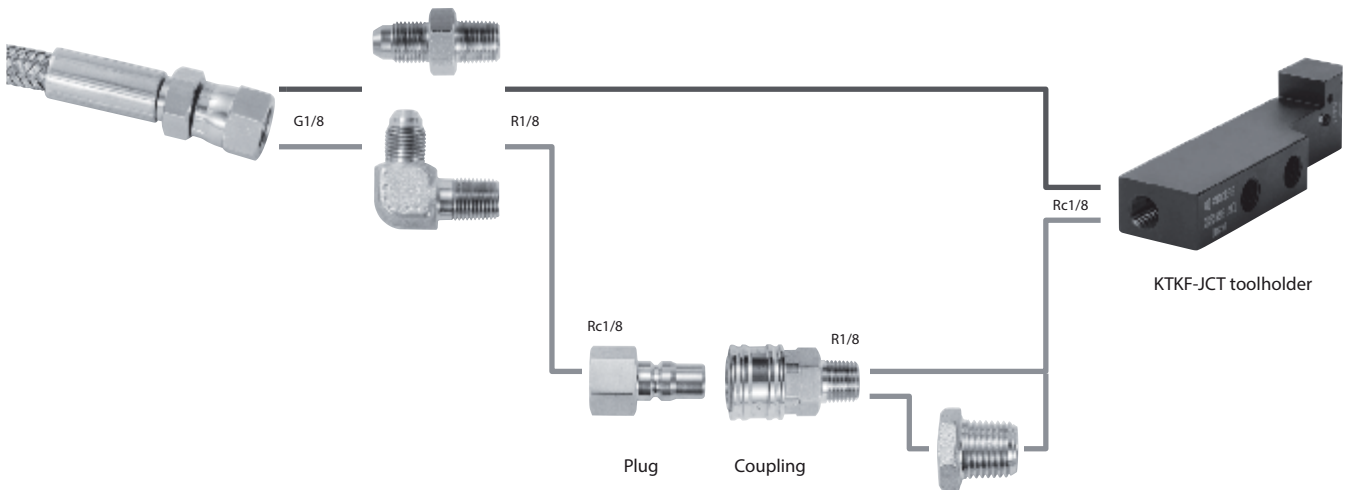
### Hose (4)

Pressure resistance: ~20.0MPa

| Exterior | Description      | Thread standard | Total length (mm) | Std. |
|----------|------------------|-----------------|-------------------|------|
|          | HS-G1/8-G1/8-200 | G1/8            | 200               | ●    |
|          | HS-G1/8-G1/8-300 |                 | 300               | ●    |
|          | HS-G1/8-G1/8-400 |                 | 400               | ●    |
|          | HS-G1/8-G1/8-500 |                 | 500               | ●    |
|          | HS-G1/8-G1/8-600 |                 | 600               | ●    |
|          | HS-G1/8-G1/8-800 |                 | 800               | ●    |

#### Cautions

1. Make sure machine door is completely closed before use of these parts.
2. Use appropriate seal for the male thread of the piping parts and make sure the connection is secure.  
Use plugs to seal off unused coolant holes.
3. Connect and fasten the coolant hose firmly.
4. The use of copper washers may cause leakage but will have no effect on the performance.
5. Commercial piping parts can be used if the thread standards are same. Check the pressure resistance before use.
6. Regularly changing the coolant filter is recommended.



(4) Hose

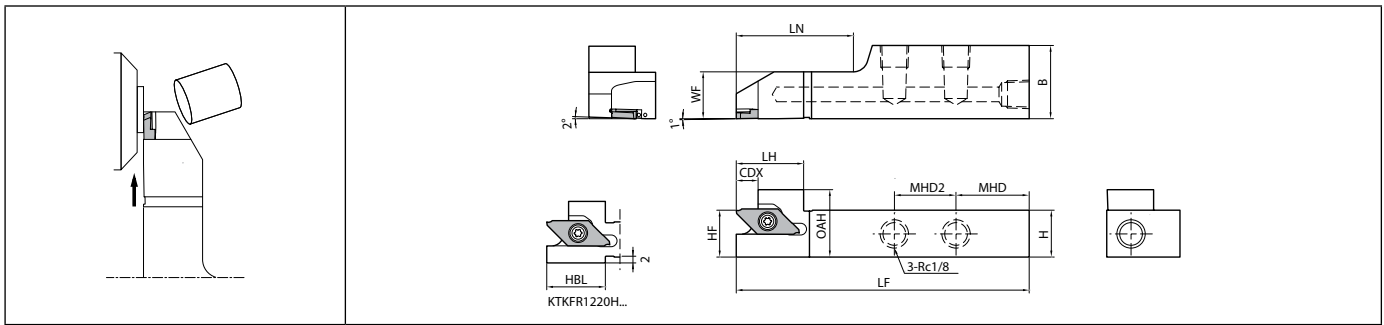
(5) Joint

(6) Coupling

(7) Joint (Extension joint)



KTKF-JCT R-hand



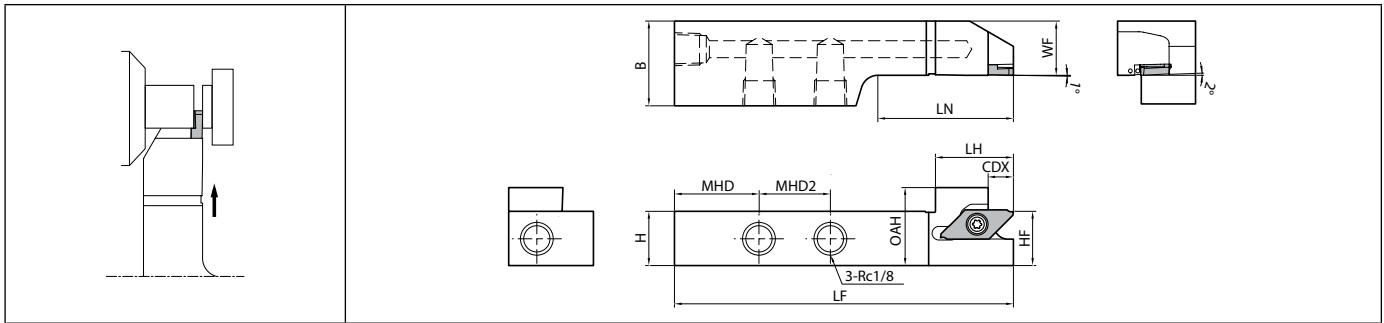
Right-hand shown | Right-hand Insert for Right-hand Toolholder.

Toolholder dimensions

| Description       | Availability | Dimension (mm) |     |    |    |    |     |     |      |     |     |    |    | Coolant hole | Spare parts |             |       | Applicable inserts |
|-------------------|--------------|----------------|-----|----|----|----|-----|-----|------|-----|-----|----|----|--------------|-------------|-------------|-------|--------------------|
|                   |              | R              | CDX | H  | B  | LH | OAH | MHD | MHD2 | HF  | HBL | LF | LN |              | WF          | Clamp screw | Plug  |                    |
| KTKFR 1220H-12JCT | ●            |                | 12  | 20 | 20 | 19 | 35  |     | 12   | 20  |     | 28 | 12 | Yes          | SB-4590TRWN | GP-1        | FT-10 | TKF12R...          |
| KTKFR 1625H-12JCT | ●            | 7.5            | 16  | 25 | 23 | 23 | 25  | 21  | 16   | 100 | 40  | 16 |    |              |             |             |       |                    |
| KTKFR 2025H-12JCT | ●            |                | 20  |    | 27 | 25 | 21  | 20  |      |     |     |    |    |              |             |             |       |                    |
| KTKFR 1625H-16JCT | ●            | 9.6            | 16  | 25 | 23 | 25 | 21  | 16  | 100  |     | 40  | 16 |    |              |             |             |       |                    |
| KTKFR 2025H-16JCT | ●            |                | 20  |    | 27 |    |     | 20  |      | 41  | 20  |    |    |              |             |             |       |                    |

CDX shows the distance from the toolholder to the cutting edge.  
 Cut-off diameter (CUTDIA) depends on the insert edge width.  
 Please see page H14 and H15 for piping parts of coolant-through holders.

KTKF-JCT L-hand



Left-hand shown | Left-hand Insert for Left-hand Toolholder.

Toolholder dimensions

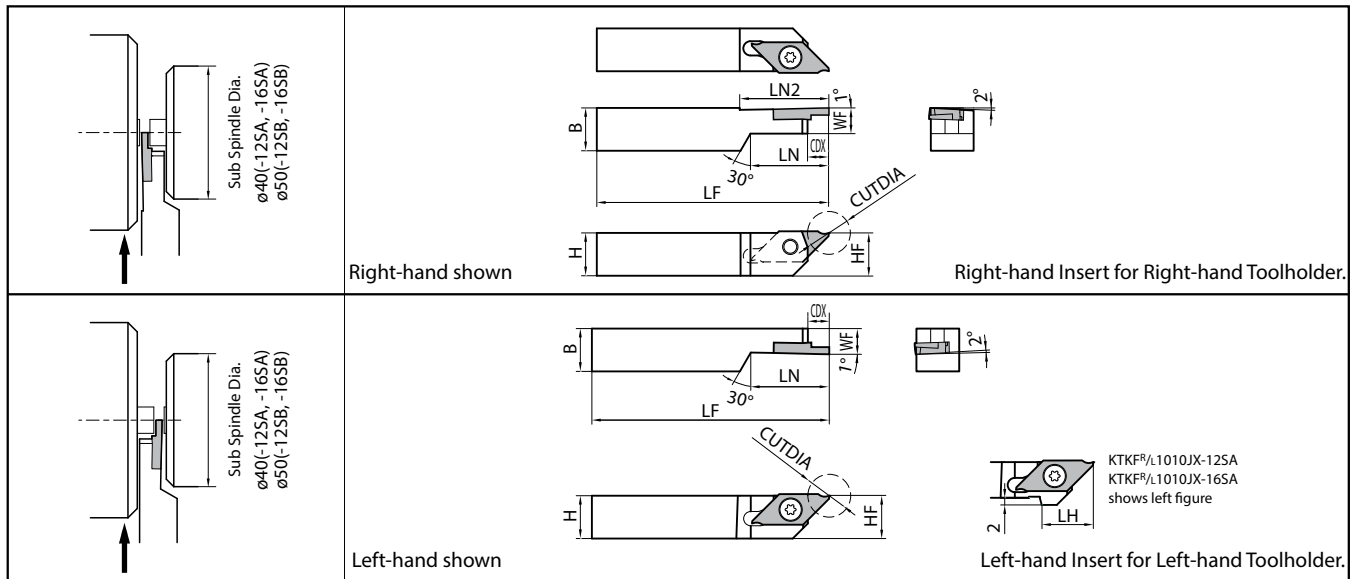
| Description       | Availability | Dimension (mm) |     |    |    |    |     |     |      |     |    |    |    | Coolant hole | Spare parts |      |               | Applicable inserts |
|-------------------|--------------|----------------|-----|----|----|----|-----|-----|------|-----|----|----|----|--------------|-------------|------|---------------|--------------------|
|                   |              | L              | CDX | H  | B  | LH | OAH | MHD | MHD2 | HF  | LF | LN | WF |              | Clamp screw | Plug | Wrench (Torx) |                    |
| KTKFL 1625H-12JCT | ●            | 7.5            | 16  | 25 | 23 | 25 | 21  | 16  | 100  | 40  | 16 |    |    |              |             |      |               |                    |
| KTKFL 2025H-12JCT | ●            |                | 20  |    | 27 |    |     | 20  |      |     |    |    |    |              |             |      |               |                    |
| KTKFL 1625H-16JCT | ●            | 9.6            | 16  | 25 | 23 | 25 | 21  | 16  |      | 100 | 40 | 16 |    |              |             |      |               |                    |
| KTKFL 2025H-16JCT | ●            |                | 20  |    | 27 |    |     | 20  | 41   |     | 20 |    |    |              |             |      |               |                    |

CDX shows the distance from the toolholder to the cutting edge.  
 Cut-off diameter (CUTDIA) depends on the insert edge width.  
 Please see page H14 and H15 for piping parts of coolant-through holders.

● : Standard item R : Right hand only L : Left hand only □ : Check availability



**KTKF-S** (for sub spindle tooling)



**Toolholder dimensions**

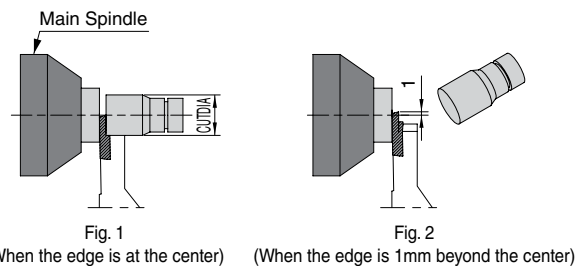
| Description                      | Availability |   | Dimension (mm) |            |     |    |    |     |     |    |      |     |     | Spare parts |        | Applicable inserts    |                       |
|----------------------------------|--------------|---|----------------|------------|-----|----|----|-----|-----|----|------|-----|-----|-------------|--------|-----------------------|-----------------------|
|                                  | R            | L | CUTDIA min     | CUTDIA max | H   | HF | B  | LF  | LH  | LN | *LN2 | WF  | CDX | Clamp screw | Wrench |                       |                       |
|                                  |              |   |                |            |     |    |    |     |     |    |      |     |     |             |        |                       |                       |
| KTKF <sup>®</sup> /L 1010JX-12SA | ●            | ● | 5              | 12         | 10  | 10 | 10 | 120 | 15  | 22 | 26   | 7.2 | 6   | SB-4570TRN  | FT-10  | TKF12 <sup>®</sup> /L |                       |
| KTKF <sup>®</sup> /L 1212F-12SA  | ●            | ● |                |            | 12  | 12 | 12 | 85  | -   |    |      |     |     |             |        |                       |                       |
| KTKF <sup>®</sup> /L 1212JX-12SB | ●            | ● | 16             | 16         | 10  | 10 | 10 | 120 | 20  | 22 | 30   | 7.2 | 8   |             |        |                       | TKF16 <sup>®</sup> /L |
| KTKF <sup>®</sup> /L 1010JX-16SA | ●            | ● |                |            | 12  | 12 | 12 | 85  | -   |    |      |     |     |             |        |                       |                       |
| KTKF <sup>®</sup> /L 1212F-16SA  | ●            | ● |                |            | 120 | -  | 26 | 30  | 7.2 | 8  |      |     |     |             |        |                       |                       |
| KTKF <sup>®</sup> /L 1212JX-16SB | ●            | ● |                |            |     |    |    |     |     |    |      |     |     |             |        |                       |                       |

CDX shows the distance from the toolholder to the cutting edge. Ref. to the table below for the actual cut-off diameter.  
 Cut-off diameter (CUTDIA) depends on the insert edge width.  
 Only Right-hand is available for LN2 dimension.

**How to Use**

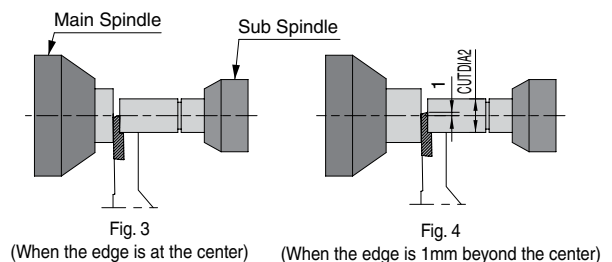
1) When using Main Spindle only

Maximum cutting diameter is CUTDIA  
 Even if the cutting edge runs beyond the center line as Fig. 2 on the program, the insert does not contact the fallen off workpiece.  
 (The clearance between the insert and the workpiece is 0.2 mm)



2) When using both main and Sub Spindles

In this case, when the cutting edge runs beyond the center line, the insert will contact the workpiece, since the workpiece does not fall off. Therefore the programmed distance beyond the center must be considered.  
 e.g.) When the cutting edge is programmed to run 1 mm beyond the center as shown in Fig.4,  
 Maximum cutting diameter CUTDIA2 (Fig. 4) is  $CUTDIA2 = [CUTDIA - 1 \text{ mm} \times 2] \text{ (mm)}$ .  
 (The clearance between the insert and the workpiece is 0.2 mm)



● : Standard item R : Right hand only L : Left hand only □ : Check availability



TKFS

| Insert |  | Description   | Dimension (mm) |     |     |      |     |            | Tolerance |         | Carbide                  |                          |                          |                          | Applicable toolholder     |
|--------|--|---------------|----------------|-----|-----|------|-----|------------|-----------|---------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------|
|        |  |               | CW             | S   | D1  | RE   | W1  | CUTDIA max | CW min.   | CW max. | PVD                      |                          |                          |                          |                           |
|        |  |               |                |     |     |      |     |            |           |         | PR1725                   | PR1535                   | PR1725                   | KW10                     |                           |
|        |  | TKFS12L 100-S | 1              |     |     |      |     | 6          |           |         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | See below table for KTKFS |
|        |  | TKFS12L 150-S | 1.5            |     |     |      |     | 9          |           |         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                           |
|        |  | TKFS12L 200-S | 2              |     |     |      |     | 12         |           |         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                           |
|        |  | TKFS12R 100-S | 1              | 8.7 | 4.4 | 0.05 | 2.2 | 6          | -0.03     | +0.03   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                           |
|        |  | TKFS12R 150-S | 1.5            |     |     |      |     | 9          |           |         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                           |
|        |  | TKFS12R 200-S | 2              |     |     |      |     | 12         |           |         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                           |
|        |  | TKFS16L 150-S | 1.5            |     |     |      |     | 14         |           |         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                           |
|        |  | TKFS16L 200-S | 2              |     |     |      |     | 16         |           |         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                           |
|        |  | TKFS16R 150-S | 1.5            | 9.5 | 4.4 | 0.05 | 2.2 | 14         | -0.03     | +0.03   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                           |
|        |  | TKFS16R 200-S | 2              |     |     |      |     | 16         |           |         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                           |

Left-hand shown

H

KTKFS



Cut-Off

|  |  |
|--|--|
|  | <p>Right-hand shown   Right-hand Insert for Right-hand Toolholder.</p>   |
|  | <p>Left-hand shown   Left-hand Insert for Left-hand Toolholder.</p> <p>KTKFS%1010K-12A<br/>KTKFS%1010K-16A<br/>shows left figure</p> |

Toolholder dimensions

| Description                                | Availability             |                          | Dimension (mm) |            |     |    |    |    |    |     |    |     |    | Spare parts |               | Applicable inserts    |
|--|--------------------------|--------------------------|----------------|------------|-----|----|----|----|----|-----|----|-----|----|-------------|---------------|-----------------------|
|  | R                        | L                        | CUTDIA min     | CUTDIA max | CDX | H  | B  | LH | HF | LF  | LN | LN2 | WF | Clamp screw | Wrench (Torx) |                       |
| KTKFS% 1010K-12A<br>1212F-12A<br>1212K-12B | <input type="checkbox"/> | <input type="checkbox"/> | 6              | 12         | 6   | 10 | 10 | 15 | 10 | 120 | 22 | 26  | 5  | SB-4050TRN  | LTW-10S       | TKFS12 <sup>R/L</sup> |
|  | <input type="checkbox"/> | <input type="checkbox"/> | 6              | 12         | 6   | 12 | 12 |    | 12 | 85  | 22 |     | 5  | SB-4050TRN  | LTW-10S       |                       |
|  | <input type="checkbox"/> | <input type="checkbox"/> |                |            |     |    |    |    |    | 120 | 26 |     |    |             |               |                       |
| KTKFS% 1010K-16A<br>1212F-16A<br>1212K-16B | <input type="checkbox"/> | <input type="checkbox"/> | 14             | 16         | 8   | 10 | 10 | 20 | 10 | 120 | 22 | 30  | 5  | SB-4050TRN  | LTW-10S       | TKFS16 <sup>R/L</sup> |
|  | <input type="checkbox"/> | <input type="checkbox"/> | 14             | 16         | 8   | 12 | 12 |    | 12 | 85  | 22 |     | 5  | SB-4050TRN  | LTW-10S       |                       |
|  | <input type="checkbox"/> | <input type="checkbox"/> |                |            |     |    |    |    |    | 120 | 26 |     |    |             |               |                       |

CDX shows the distance from the toolholder to the cutting edge. Ref. to the table below for the actual cut-off diameter.

Cut-off diameter (CUTDIA) depends on the insert edge width.

Only Right-hand is available for LN2 dimension.

● : Standard item R : Right hand only L : Left hand only  : Check availability

TKF12 / 16

| Workpiece material | Recommended insert grades (Vc: m/min) |                             |                             |                    |                | TKF12              |             |                              |             |                              |                              | TKF16                        |                              | Remarks |
|--------------------|---------------------------------------|-----------------------------|-----------------------------|--------------------|----------------|--------------------|-------------|------------------------------|-------------|------------------------------|------------------------------|------------------------------|------------------------------|---------|
|                    | MEGACOAT NANO PLUS                    | MEGACOAT NANO               | MEGACOAT                    | DLC coated carbide | Carbide        | Edge width CW (mm) |             |                              |             |                              |                              |                              |                              |         |
|                    |                                       |                             |                             |                    |                | 0.5                | 0.7         | 1.0                          | 1.25        | 1.5                          | 2.0                          | 1.5                          | 2.0                          |         |
| PR1725             | PR1535                                | PR1225                      | PDL025                      | KW10               | f (mm/rev)     |                    |             |                              |             |                              |                              |                              |                              |         |
| Carbon steel       | ★<br>70 ~ 170<br>(50 ~ 140)           | ☆<br>70 ~ 150<br>(50 ~ 120) | ☆<br>70 ~ 150<br>(50 ~ 120) | -                  | -              | 0.01 ~ 0.02        | 0.01 ~ 0.03 | 0.01 ~ 0.04<br>(0.01 ~ 0.05) | 0.01 ~ 0.04 | 0.01 ~ 0.04<br>(0.02 ~ 0.1)  | 0.01 ~ 0.04<br>(0.02 ~ 0.1)  | 0.02 ~ 0.07<br>(0.02 ~ 0.1)  | 0.02 ~ 0.07<br>(0.02 ~ 0.1)  | Coolant |
| Alloy steel        | ★<br>70 ~ 170<br>(50 ~ 140)           | ☆<br>70 ~ 150<br>(50 ~ 120) | ☆<br>70 ~ 150<br>(50 ~ 120) | -                  | -              | 0.01 ~ 0.02        | 0.01 ~ 0.03 | 0.01 ~ 0.04<br>(0.01 ~ 0.05) | 0.01 ~ 0.04 | 0.01 ~ 0.04<br>(0.02 ~ 0.1)  | 0.01 ~ 0.04<br>(0.02 ~ 0.1)  | 0.02 ~ 0.07<br>(0.02 ~ 0.1)  | 0.02 ~ 0.07<br>(0.02 ~ 0.1)  |         |
| Stainless steel    | ☆<br>60 ~ 140<br>(40 ~ 120)           | ★<br>60 ~ 120<br>(40 ~ 100) | ☆<br>60 ~ 120<br>(40 ~ 100) | -                  | -              | 0.005 ~ 0.015      | 0.01 ~ 0.02 | 0.01 ~ 0.02<br>(0.01 ~ 0.03) | 0.01 ~ 0.02 | 0.01 ~ 0.02<br>(0.01 ~ 0.05) | 0.01 ~ 0.02<br>(0.01 ~ 0.05) | 0.01 ~ 0.04<br>(0.01 ~ 0.05) | 0.01 ~ 0.04<br>(0.01 ~ 0.05) |         |
| Cast iron          | -                                     | -                           | -                           | -                  | ★<br>50 ~ 100  | 0.01 ~ 0.03        | 0.01 ~ 0.04 | 0.01 ~ 0.05                  | 0.01 ~ 0.05 | 0.01 ~ 0.05                  | 0.01 ~ 0.05                  | 0.02 ~ 0.08                  | 0.02 ~ 0.08                  |         |
| Aluminum alloys    | -                                     | -                           | -                           | ★<br>200 ~ 500     | ☆<br>200 ~ 450 | 0.01 ~ 0.03        | 0.01 ~ 0.04 | 0.01 ~ 0.05                  | 0.01 ~ 0.05 | 0.01 ~ 0.05                  | 0.01 ~ 0.05                  | 0.02 ~ 0.08                  | 0.02 ~ 0.08                  |         |
| Brass              | -                                     | -                           | -                           | -                  | ★<br>100 ~ 200 | 0.01 ~ 0.03        | 0.01 ~ 0.04 | 0.01 ~ 0.06                  | 0.01 ~ 0.06 | 0.01 ~ 0.06                  | 0.01 ~ 0.06                  | 0.02 ~ 0.1                   | 0.02 ~ 0.1                   |         |

\*(): Tough edge type (TKF..L.)

★: 1st Recommendation ☆: 2nd Recommendation






TKFS (For small diameter cut-off)

| Workpiece material | Recommended insert grades (Vc: m/min) |               |               |                | TKFS12          |             |             | TKFS16      |             | Remarks |
|--------------------|---------------------------------------|---------------|---------------|----------------|-----------------|-------------|-------------|-------------|-------------|---------|
|                    | MEGACOAT NANO PLUS                    | MEGACOAT NANO | MEGACOAT      | Carbide        | Edge width (mm) |             |             |             |             |         |
|                    |                                       |               |               |                | 1.0             | 1.5         | 2.0         | 1.5         | 2.0         |         |
| PR1725             | PR1535                                | PR1225        | KW10          | f (mm/rev)     |                 |             |             |             |             |         |
| Carbon steel       | ★<br>70 ~ 170                         | ☆<br>70 ~ 150 | ☆<br>70 ~ 150 | -              | 0.01 ~ 0.03     | 0.01 ~ 0.03 | 0.01 ~ 0.03 | 0.01 ~ 0.03 | 0.01 ~ 0.03 | Coolant |
| Alloy steel        | ★<br>70 ~ 170                         | ☆<br>70 ~ 150 | ☆<br>70 ~ 150 | -              | 0.01 ~ 0.03     | 0.01 ~ 0.03 | 0.01 ~ 0.03 | 0.01 ~ 0.03 | 0.01 ~ 0.03 |         |
| Stainless steel    | ☆<br>60 ~ 140                         | ★<br>60 ~ 120 | ☆<br>60 ~ 120 | -              | 0.01 ~ 0.02     | 0.01 ~ 0.02 | 0.01 ~ 0.03 | 0.01 ~ 0.02 | 0.01 ~ 0.03 |         |
| Cast iron          | -                                     | -             | -             | ★<br>50 ~ 100  | 0.01 ~ 0.03     | 0.01 ~ 0.03 | 0.01 ~ 0.03 | 0.01 ~ 0.03 | 0.01 ~ 0.03 |         |
| Aluminum alloys    | -                                     | -             | -             | ★<br>200 ~ 450 | 0.01 ~ 0.03     | 0.01 ~ 0.03 | 0.01 ~ 0.03 | 0.01 ~ 0.03 | 0.01 ~ 0.03 |         |
| Brass              | -                                     | -             | -             | ★<br>100 ~ 200 | 0.01 ~ 0.04     | 0.01 ~ 0.04 | 0.01 ~ 0.04 | 0.01 ~ 0.04 | 0.01 ~ 0.04 |         |

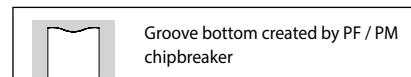
★: 1st Recommendation ☆: 2nd Recommendation



GDM/GDMS/GDG







|  |   |              | Carbon steel / Alloy steel |                      | Stainless steel      |       | Cast iron |                      | Non-ferrous metals |         | P   |        | M      |        | K                            |                              | N                            |  |
|--|---|--------------|----------------------------|----------------------|----------------------|-------|-----------|----------------------|--------------------|---------|-----|--------|--------|--------|------------------------------|------------------------------|------------------------------|--|
| Insert   | Description   | No. of edges | Dimension (mm)             |                      |                      |       | Angle (°) | Tolerance            |                    | Carbide |     |        |        |        | Applicable toolholder        |                              |                              |  |
|  |   |              | CW                         | S                    | RE                   | INSL  |           | PSIR <sup>®</sup> /L | CW min.            | CW max. | DLC | PVD    |        |        |                              | -                            |                              |  |
|  |   |              |                            |                      |                      |       |           |                      |                    |         |     | PR1215 | PR1225 | PR1535 |                              |                              | GW15                         |  |
| <br>Low feed                | GDM 1316N-003PF<br>1316N-015PF                            | 2            | 1.3                        | 3.7                  | 0.03<br>0.15         | 16    | -         | -0.04                | +0.04              | ●       | ●   | ●      | ●      | ●      | ●                            | ●                            | H22, H23, H25, H26, H27, H28 |  |
|  | GDM 1516N-003PF<br>1516N-015PF                            | 2            | 1.5                        |                      | 0.03<br>0.15         | 16    |           | -0.04                | +0.04              | ●       | ●   | ●      | ●      | ●      | ●                            |                              |                              |  |
|  | GDM 2020N-003PF<br>2020N-015PF                            | 2            | 2                          | 0.03<br>0.15         | 20                   | -0.04 |           | +0.04                | ●                  | ●       | ●   | ●      | ●      | ●      |                              |                              |                              |  |
|  | GDM 2520N-003PF<br>2520N-015PF                            | 2            | 2.5                        | 0.03<br>0.15         | 20                   | -0.04 |           | +0.04                | ●                  | ●       | ●   | ●      | ●      | ●      |                              |                              |                              |  |
|  | GDM 3020N-003PF<br>3020N-015PF                            | 2            | 3                          | 0.03<br>0.15         | 20                   | -0.04 |           | +0.04                | ●                  | ●       | ●   | ●      | ●      | ●      |                              |                              |                              |  |
| <br>Low feed               | GDM 1316L-003PF-15D<br>1316R-003PF-15D                    | 2            | 1.3                        | 3.7                  | 0.03                 | 16    | 15        | -0.04                | +0.04              | ●       | ●   | ●      | ●      | ●      | ●                            | H22, H23, H25, H26, H27, H28 |                              |  |
|  | GDM 1516L-003PF-15D<br>1516R-003PF-15D<br>1516R-015PF-15D | 2            | 1.5                        |                      | 0.03<br>0.03<br>0.15 | 16    |           | -0.04                | +0.04              | ●       | ●   | ●      | ●      | ●      | ●                            |                              |                              |  |
|  | GDM 2020L-003PF-15D<br>2020R-003PF-15D<br>2020R-015PF-15D | 2            | 2                          | 0.03<br>0.03<br>0.15 | 20                   | -0.04 |           | +0.04                | ●                  | ●       | ●   | ●      | ●      | ●      |                              |                              |                              |  |
|  | GDM 2520L-003PF-15D<br>2520R-003PF-15D<br>2520R-015PF-15D | 2            | 2.5                        | 0.03<br>0.03<br>0.15 | 20                   | -0.04 |           | +0.04                | ●                  | ●       | ●   | ●      | ●      | ●      |                              |                              |                              |  |
|  | GDM 3020L-003PF-15D<br>3020R-003PF-15D<br>3020R-015PF-15D | 2            | 3                          | 0.03<br>0.03<br>0.15 | 20                   | -0.04 |           | +0.04                | ●                  | ●       | ●   | ●      | ●      | ●      |                              |                              |                              |  |
| <br>Cut-off / Medium feed | GDM 2020N-010PQ   | 2            | 2                          | 4.3                  | 0.1                  | 20    | -         | -0.03                | +0.03              | ●       | ●   | ●      | ●      | ●      | H22, H23, H25, H26, H27, H28 |                              |                              |  |
|  | GDM 2520N-010PQ   | 2            | 2.5                        |                      | 0.1                  | 20    |           | -0.03                | +0.03              | ●       | ●   | ●      | ●      | ●      |                              |                              |                              |  |
|  | GDM 3020N-010PQ   | 2            | 3                          |                      | 0.1                  | 20    |           | -0.03                | +0.03              | ●       | ●   | ●      | ●      | ●      |                              |                              |                              |  |
| <br>Cut-off / Medium feed | GDM 2020R-010PQ-15D                                       | 2            | 2                          | 4.3                  | 0.1                  | 20    | 15        | -0.03                | +0.03              | ●       | ●   | ●      | ●      | ●      |                              |                              |                              |  |
|  | GDM 2520R-010PQ-15D                                       | 2            | 2.5                        |                      | 0.1                  | 20    |           | -0.03                | +0.03              | ●       | ●   | ●      | ●      | ●      |                              |                              |                              |  |
|  | GDM 3020R-010PQ-15D                                       | 2            | 3                          |                      | 0.1                  | 20    |           | -0.03                | +0.03              | ●       | ●   | ●      | ●      | ●      |                              |                              |                              |  |
| <br>Low cutting force     | GDG 2020N-005PG   | 2            | 2                          | 4.3                  | 0.05                 | 20    | -         | -0.02                | +0.02              | ●       | ●   | ●      | ●      | ●      | H22, H23, H25, H26, H27, H28 |                              |                              |  |
|  | GDG 2520N-005PG   | 2            | 2.5                        |                      | 0.05                 | 20    |           | -0.02                | +0.02              | ●       | ●   | ●      | ●      | ●      |                              |                              |                              |  |
|  | GDG 3020N-005PG   | 2            | 3                          |                      | 0.05                 | 20    |           | -0.02                | +0.02              | ●       | ●   | ●      | ●      | ●      |                              |                              |                              |  |
|  | GDG 2020R-005PG-15D                                       | 2            | 2                          | 0.05                 | 20                   | -0.02 | +0.02     | ●                    | ●                  | ●       | ●   | ●      |        |        |                              |                              |                              |  |
|  | GDG 2520R-005PG-15D                                       | 2            | 2.5                        | 0.05                 | 20                   | -0.02 | +0.02     | ●                    | ●                  | ●       | ●   | ●      |        |        |                              |                              |                              |  |
|  | GDG 3020R-005PG-15D                                       | 2            | 3                          | 0.05                 | 20                   | -0.02 | +0.02     | ●                    | ●                  | ●       | ●   | ●      |        |        |                              |                              |                              |  |

Using the PF / PM chipbreaker (for cut-off) for grooving cannot create a flat bottom (Ref. to the right figure).

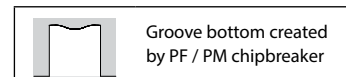


● : Standard item R : Right hand only L : Left hand only □ : Check availability

GDM/GDMS/GDG

| Insert                                |   | Description         |   | Carbon steel / Alloy steel |     |      |    | P         |           |         |         |        |                       |        |
|---------------------------------------|---|---------------------|---|----------------------------|-----|------|----|-----------|-----------|---------|---------|--------|-----------------------|--------|
|                                       |   |                     |   | Stainless steel            |     |      |    | M         |           |         |         |        |                       |        |
|                                       |   |                     |   | Cast iron                  |     |      |    | K         |           |         |         |        |                       |        |
|                                       |   |                     |   | Non-ferrous metals         |     |      |    | N         |           |         |         |        |                       |        |
| Insert                                |   | Description         |   | Dimension (mm)             |     |      |    | Angle (°) | Tolerance |         | Carbide |        | Applicable toolholder |        |
|                                       |   |                     |   | No. of edges               | CW  | S    | RE | INSL      | PSIRR     | CW min. | CW max. | PVD    |                       |        |
|                                       |   |                     |   |                            |     |      |    |           |           |         |         | PR1215 |                       | PR1225 |
| Cut-off / General purpose             | <br>General purpose      | GDM 2020N-020PM     | 2 | 2                          | 4.3 | 0.2  | 20 | -         | -0.03     | +0.03   | ●       | ●      | H22, H23, H25, H26    |        |
|                                       |   | GDM 2520N-020PM     | 2 | 2.5                        |     | 0.2  | 20 | -         | -0.03     | +0.03   | ●       | ●      |                       |        |
|                                       |   | GDM 3020N-025PM     | 2 | 3                          |     | 0.25 | 20 | -         | -0.03     | +0.03   | ●       | ●      |                       |        |
|                                       |   | GDM 4020N-030PM     | 2 | 4                          |     | 0.3  | 20 | -         | -0.03     | +0.03   | ●       | ●      |                       |        |
|                                       | <br>General purpose     | GDM 2020R-020PM-6D  | 2 | 2                          | 4.3 | 0.2  | 20 | 6         | -0.03     | +0.03   | ●       | ●      |                       |        |
|                                       |   | GDM 2520R-020PM-6D  | 2 | 2.5                        |     | 0.2  | 20 | 6         | -0.03     | +0.03   | ●       | ●      |                       |        |
|                                       |   | GDM 3020R-025PM-6D  | 2 | 3                          |     | 0.25 | 20 | 6         | -0.03     | +0.03   | ●       | ●      |                       |        |
|                                       | <br>General purpose    | GDMS 2020N-020PM    | 1 | 2                          | 4.3 | 0.2  | 20 | -         | -0.03     | +0.03   | ●       | ●      |                       |        |
|                                       |   | GDMS 3020N-025PM    | 1 | 3                          |     | 0.25 | 20 | -         | -0.03     | +0.03   | ●       | ●      |                       |        |
|                                       |   | GDMS 4020N-030PM    | 1 | 4                          |     | 0.3  | 20 | -         | -0.03     | +0.03   | ●       | ●      |                       |        |
|                                       | <br>General purpose    | GDMS 2020R-020PM-6D | 1 | 2                          | 4.3 | 0.2  | 20 | 6         | -0.03     | +0.03   | ●       | ●      |                       |        |
|                                       |   | GDMS 3020R-025PM-6D | 1 | 3                          |     | 0.25 | 20 | 6         | -0.03     | +0.03   | ●       | ●      |                       |        |
| GDMS 4020R-030PM-6D                   |   | 1                   | 4 | 0.3                        |     | 20   | 6  | -0.03     | +0.03     | ●       | ●       |        |                       |        |
| Grooving and cut-off / High feed rate | <br>High feed          | GDM 2020N-020PH     | 2 | 2                          | 4.3 | 0.2  | 20 | -         | -0.03     | +0.03   | ●       | ●      |                       |        |
|                                       |   | GDM 3020N-030PH     | 2 | 3                          |     | 0.3  | 20 | -         | -0.03     | +0.03   | ●       | ●      |                       |        |
|                                       |   | GDM 4020N-030PH     | 2 | 4                          |     | 0.3  | 20 | -         | -0.03     | +0.03   | ●       | ●      |                       |        |
|                                       | <br>1-edge / High feed | GDMS 2020N-020PH    | 1 | 2                          | 4.3 | 0.2  | 20 | -         | -0.03     | +0.03   | ●       | ●      |                       |        |
|                                       |   | GDMS 3020N-030PH    | 1 | 3                          |     | 0.3  | 20 | -         | -0.03     | +0.03   | ●       | ●      |                       |        |
|                                       |   | GDMS 4020N-030PH    | 1 | 4                          |     | 0.3  | 20 | -         | -0.03     | +0.03   | ●       | ●      |                       |        |

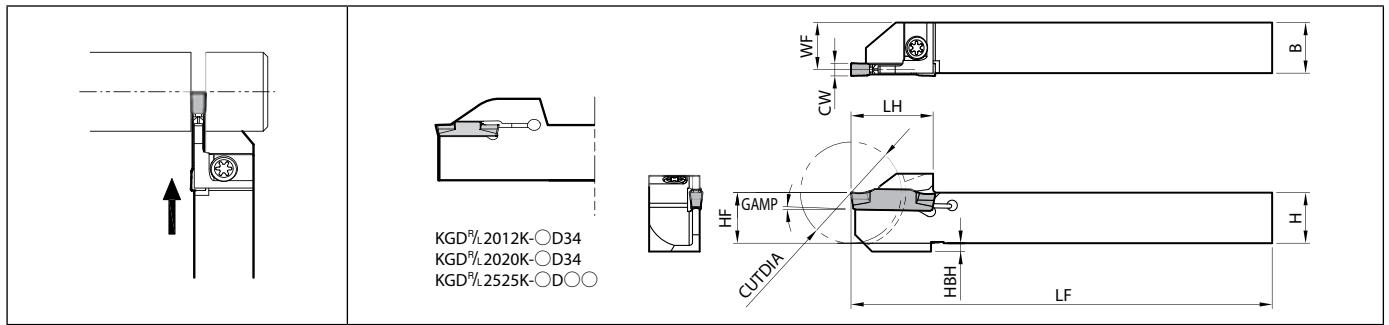
Using the PF / PM chipbreaker (for cut-off) for grooving cannot create a flat bottom (Ref. to the right figure).



● : Standard item R : Right hand only L : Left hand only □ : Check availability

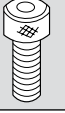





**KGD** (For automatic lathe)



Right-hand shown

**Toolholder dimensions**

| Description   | Availability  |    | Dimension (mm) |        |      |      |         |         |         |        |      |      | GAMP (°) | Spare parts   |   |   |   |
|---|---|----|----------------|--------|------|------|---------|---------|---------|--------|------|------|----------|---|---|---|---|
|   |   |    |                |        |      |      |         |         |         |        |      |      |          | Clamp bolt  | Clamp screw   | Wrench (Torx)   | Wrench (hex.)   |
|   |   |    |                |        |      |      |         |         |         |        |      |      |          |  |  |  |  |
| KGD%/ 1010JX-1.3D16<br>1010JX-1.3<br>1212F-1.3D16<br>1212F-1.3<br>1212JX-1.3D16<br>1212JX-1.3                         | R   | L  | CUTDIA         | H      | B    | LH   | CW min. | CW max. | HF      | HBH    | LF   | WF   | 5        | -   | SB-40120TR  | LTW-15S   | -   |
|   | ●   | ●  | 16             | 10     | 10   | 18   | 1.3     | 1.3     | 10      | 2      | 120  | 9.9  |          |   |   |   |   |
|   | ●   | ●  | 20             | 12     | 12   | 19.5 |         |         |         |        | 85   | 11.9 |          |   |   |   |   |
|   | ●   | ●  | 16             |        |      |      | 120     | 11.5    |         |        |      |      |          |   |   |   |   |
|   | ●   | ●  | 24             | 11.9   |      |      |         |         |         |        |      |      |          |   |   |   |   |
|   | ●   | ●  | 16             | 11.5   |      |      |         |         |         |        |      |      |          |   |   |   |   |
| KGD%/ 1010JX-1.5D16<br>1010JX-1.5<br>1212F-1.5D16<br>1212F-1.5<br>1212JX-1.5D16<br>1212JX-1.5                         | R   | L  | CUTDIA         | H      | B    | LH   | CW min. | CW max. | HF      | HBH    | LF   | WF   | 5        | -   | SB-40120TR  | LTW-15S   | -   |
|   | ●   | ●  | 16             | 10     | 10   | 18   | 1.5     | 1.5     | 10      | 2      | 120  | 9.7  |          |   |   |   |   |
|   | ●   | ●  | 20             | 12     | 12   | 19.5 |         |         |         |        | 85   | 11.7 |          |   |   |   |   |
|   | ●   | ●  | 16             |        |      |      | 11.4    |         |         |        |      |      |          |   |   |   |   |
|   | ●   | ●  | 24             | 11.7   |      |      |         |         |         |        |      |      |          |   |   |   |   |
|   | ●   | ●  | 16             | 11.4   |      |      |         |         |         |        |      |      |          |   |   |   |   |
| KGD%/ 1010JX-2<br>1212F-2<br>1212JX-2<br>1616JX-2<br>2012K-2D34<br>2020K-2D34<br>2525K-2D34                           | R   | L  | CUTDIA         | H      | B    | LH   | CW min. | CW max. | HF      | HBH    | LF   | WF   | 1        | -   | SB-40120TR  | LTW-15S   | -   |
|   | ●   | ●  | 20             | 10     | 10   | 18   | 2       | 3       | 10      | 2      | 120  | 9.2  |          |   |   |   |   |
|   | ●   | ●  | 24             | 12     | 12   | 19.5 |         |         |         |        | 12   | 85   |          |   |   |   |   |
|   | ●   | ●  | 24             | 120    | 15.2 |      |         |         |         |        |      |      |          |   |   |   |   |
|   | ●   | ●  | 32             | 16     | 16   | 24.5 | 20      | 11.2    |         |        |      |      |          |   |   |   |   |
|   | ●   | ●  | 34             | 20     | 12   | 32.5 | 20      | 19.2    |         |        |      |      |          |   |   |   |   |
|   | ●   | ●  | 25             | 25     | 25   | 24.2 | 25      | 24.2    | 0       | HH5X16 | -    | -    | LW-4     |   |   |   |   |
|   | KGD%/ 1010JX-2.4<br>1212F-2.4<br>1212JX-2.4<br>1616JX-2.4<br>2012K-2.4D34<br>2020K-2.4D34<br>2525K-2.4D34 | R  | L              | CUTDIA | H    | B    | LH      | CW min. | CW max. | HF     | HBH  | LF   | WF       | 1   | -   | SB-40120TR  | LTW-15S   |
| ●   |   | ●  | 20             | 10     | 10   | 18   | 2.4     | 3       | 10      | 2      | 120  | 9    |          |   |   |   |   |
| ●   |   | ●  | 24             | 12     | 12   | 19.5 |         |         |         |        | 12   | 85   | 11       |   |   |   |   |
| ●   |   | ●  | 24             | 120    | 15   |      |         |         |         |        |      |      |          |   |   |   |   |
| ●   |   | ●  | 32             | 16     | 16   | 24.5 | 20      | 11      |         |        |      |      |          |   |   |   |   |
| ●   |   | ●  | 34             | 20     | 12   | 32.5 | 20      | 19      |         |        |      |      |          |   |   |   |   |
| ●   | ●   | 25 | 25             | 25     | 24   | 25   | 24      | 0       | HH5X16  | -      | -    | LW-4 |          |   |   |   |   |
| KGD%/ 1212JX-3  | ●   | ●  | 24             | 12     | 12   | 19.5 | 3       | 3       | 12      | 2      | 120  | 10.8 | 1        | -   | SB-40120TR  | LTW-15S   | -   |
| KGD%/ 1616JX-3<br>1616JX-3D38<br>1913K-3D38<br>2012JX-3D42<br>2012JX-3D51<br>2020JX-3D42<br>2020JX-3D51<br>2525K-3D51 | R   | L  | CUTDIA         | H      | B    | LH   | CW min. | CW max. | HF      | HBH    | LF   | WF   | 1        | -   | SE-50125TR  | LTW-20  | -   |
|   | ●   | ●  | 32             | 16     | 16   | 24.5 | 3       | 4       | 16      | 20     | 120  | 14.8 |          |   |   |   |   |
|   | ●   | ●  | 38             | 19     | 13   | 29   |         |         |         |        | 19   | 125  | 11.8     |   |   |   |   |
|   | ●   | ●  | 42             | 20     | 12   | 31   | 31      | 36      | 10.8    |        |      |      |          |   |   |   |   |
|   | ●   | ●  | 51             |        |      |      |         |         |         | 120    | 18.8 |      |          |   |   |   |   |
|   | ●   | ●  | 42             | 31     |      |      |         |         |         |        |      |      |          |   |   |   |   |
|   | ●   | ●  | 51             | 36     |      |      |         |         |         |        |      |      |          |   |   |   |   |
|   | ●   | ●  | 25             | 25     | 41.5 | 25   | 125     | 23.8    | 0       | HH5X16 | -    | -    | LW-4     |   |   |   |   |

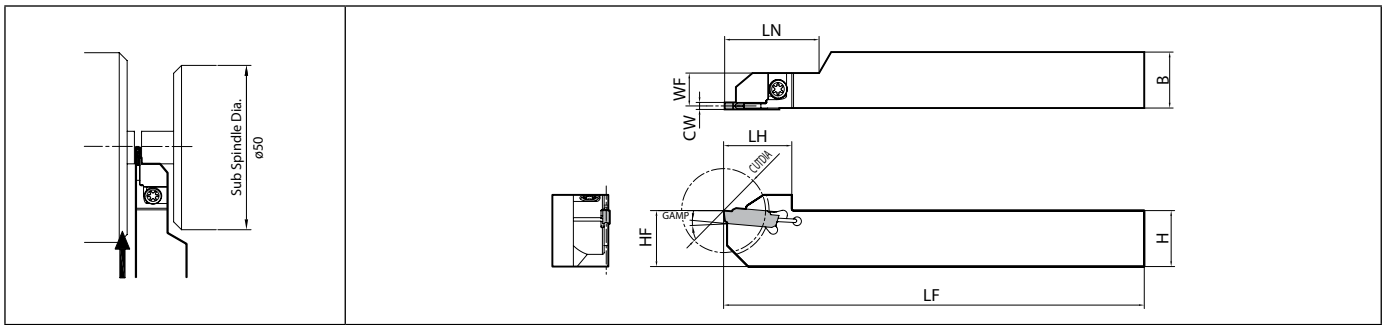
4mm width Insert cannot be installed in KGDR/L1212JX-3

Recommended tightening torque of clamp screw : 2.0N·m (SB-40120TR), 2.5N·m (SE-50125TR), 6.5N·m (HH5X16)

When machining the material greater than ø36mm with KGDR/L...-3D38, KGDR/L...-3D42 or KGDR/L...-3D51 toolholders, please use 1-edge inserts.



Maximum cutting diameter for 2-edge inserts is ø36mm.

**KGDS** (Right-hand, for sub spindle tooling)



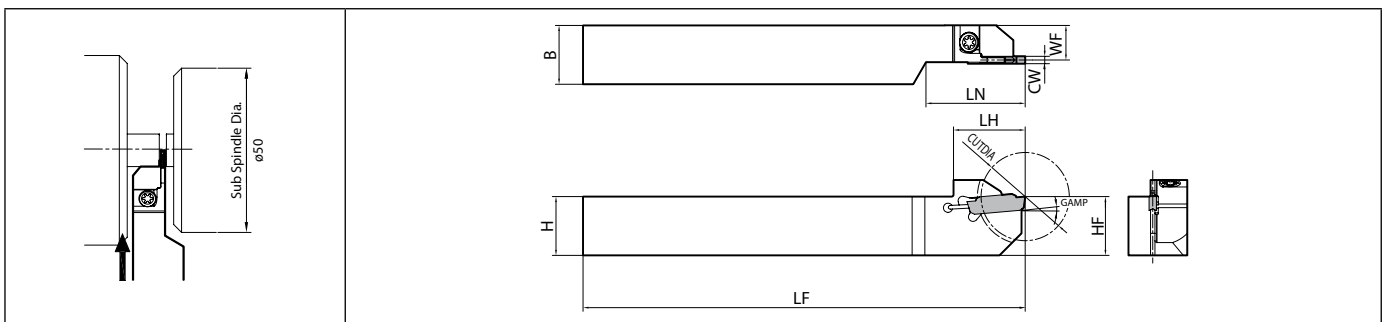
Right-hand shown

**Toolholder dimensions**

| Description       | Availability | Dimension (mm) |        |    |      |     |         |         |     |    |     |    | GAMP (°)   | Spare parts   |   |
|-------------------|--------------|----------------|--------|----|------|-----|---------|---------|-----|----|-----|----|------------|---|---|
|                   |              | R              | CUTDIA | H  | B    | LH  | CW min. | CW max. | HF  | LF | LN  | WF |            | Clamp screw   | Wrench (Torx)   |
|                   |              |                |        |    |      |     |         |         |     |    |     |    |            |  |  |
| KGDSR 1616JX-1.3B | ●            | 24             | 16     | 16 | 19.5 | 1.3 | 1.3     | 16      | 120 | 27 | 9.5 | 5  | SB-40120TR | LTW-15S   |   |
| KGDSR 1616JX-1.5B | ●            | 24             | 16     | 16 | 19.5 | 1.5 | 1.5     | 16      | 120 | 27 | 9.4 | 5  | SB-40120TR | LTW-15S   |   |
| KGDSR 1616JX-2B   | ●            | 24             | 16     | 16 | 19.5 | 2   | 3       | 16      | 120 | 27 | 9.2 | 1  | SB-40120TR | LTW-15S   |   |





**KGDS** (Left-hand, for sub spindle tooling)



Left-hand shown

**Toolholder dimensions**

| Description       | Availability | Dimension (mm) |        |    |      |     |         |         |     |    |     |    | GAMP (°)   | Spare parts   |   |
|-------------------|--------------|----------------|--------|----|------|-----|---------|---------|-----|----|-----|----|------------|---|---|
|                   |              | L              | CUTDIA | H  | B    | LH  | CW min. | CW max. | HF  | LF | LN  | WF |            | Clamp screw   | Wrench (Torx)   |
|                   |              |                |        |    |      |     |         |         |     |    |     |    |            |  |  |
| KGDSL 1616JX-1.3B | ●            | 24             | 16     | 16 | 19.5 | 1.3 | 1.3     | 16      | 120 | 27 | 9.5 | 5  | SB-40120TR | LTW-15S   |   |
| KGDSL 1616JX-1.5B | ●            | 24             | 16     | 16 | 19.5 | 1.5 | 1.5     | 16      | 120 | 27 | 9.4 | 5  | SB-40120TR | LTW-15S   |   |
| KGDSL 1616JX-2B   | ●            | 24             | 16     | 16 | 19.5 | 2   | 3       | 16      | 120 | 27 | 9.2 | 1  | SB-40120TR | LTW-15S   |   |

● : Standard item R : Right hand only L : Left hand only □ : Check availability

Cut-off toolholders for automatic lathe great for high pressure coolant

# KGD-JCT (for automatic lathe)

## 1 Optimized coolant hole position

## 2 Discharge coolant towards the flank face of the insert

Directing coolant towards the cutting edge lengthens tool life.

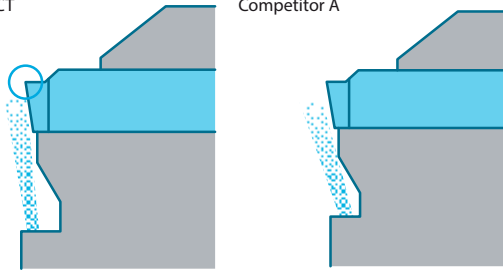


H

Coolant discharging

KGD-JCT

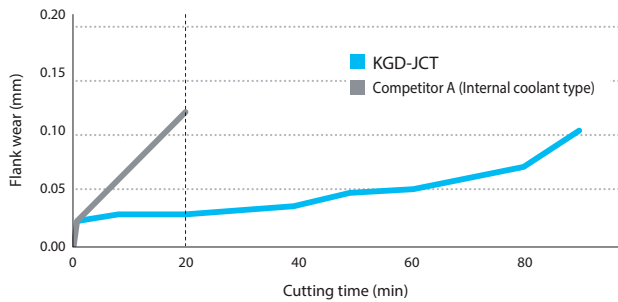
Competitor A



Sufficient cooling towards the cutting edge

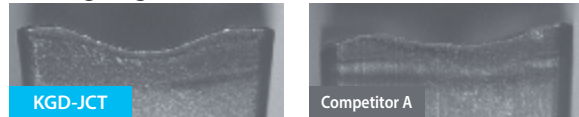
Coolant does not flow directly towards the cutting edge

### Wear resistance comparison (Internal evaluation)

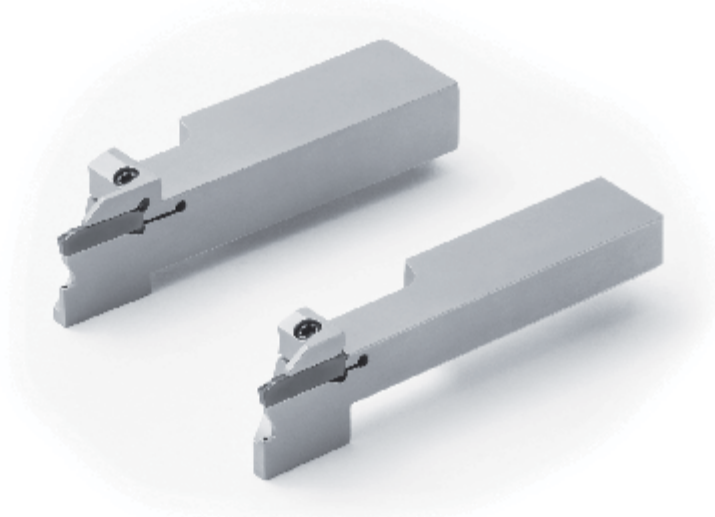


Cutting conditions:  $V_c = 80$  m/min,  $f = 0.06$  mm/rev (~2 mm :  $f=0.02$  mm/rev),  
 KGDR1625H-2JCT, GDM2020N-015PF PR1535 (CW: 2.0 mm)  
 Workpiece material : SUS304 (ø25) Internal coolant (1.5MPa) Cut-off

### Cutting edge condition (after machining 20min)

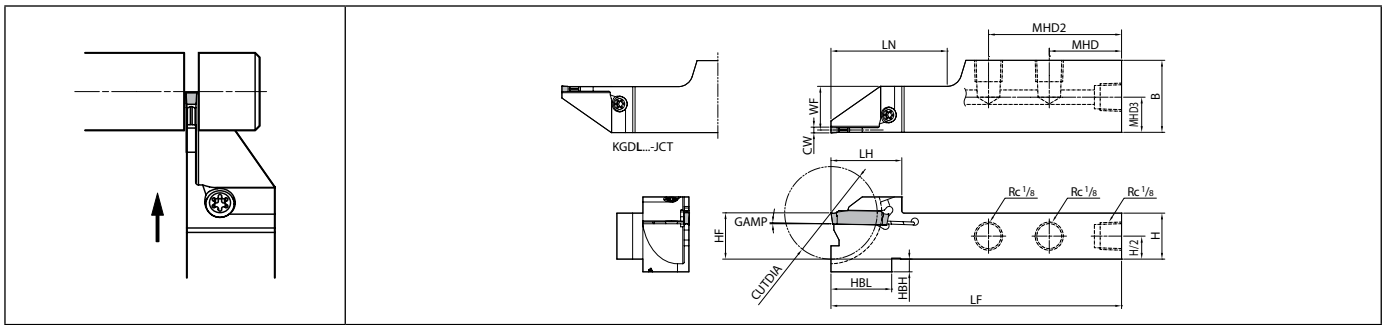


High density and high speeds coolant provides effective cooling of the cutting edge  
 Superior cooling action improves tool life




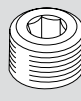
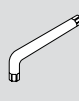


**KGD-JCT** (For automatic lathe)



Right-hand shown

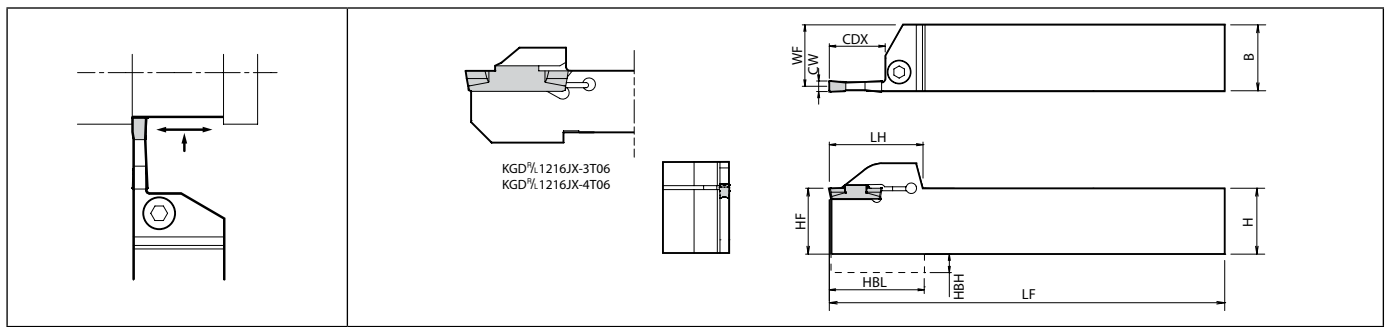
**Toolholder dimensions**

| Description                       | Availability |   | Dimension (mm) |    |    |      |    |    |      |     |     |    |     |     |      |     |      |      | GAMP (°) | Coolant hole | Spare parts  |   |   | Applicable inserts |
|-----------------------------------|--------------|---|----------------|----|----|------|----|----|------|-----|-----|----|-----|-----|------|-----|------|------|----------|--------------|--|---|---|--------------------|
|                                   |              |   |                |    |    |      |    |    |      |     |     |    |     |     |      |     |      |      |          |              | Clamp screw  | Plug  | Wrench (Torx)   |                    |
|                                   |              |   |                |    |    |      |    |    |      |     |     |    |     |     |      |     |      |      |          |              |  |  |  |                    |
| KGDR 1220H-2JCT<br>1625H-2JCT     | ●            |   | 24             | 12 | 20 | 19.5 | 35 |    | 8.4  | 2   | 3   | 12 | 8.5 | 21  | 100  | 44  | 11.2 | 1    | Yes      | SB-40120TR   | GP-1   | LTW-15S   | GDM type<br>GDG type<br>(GDMS type)<br>(GDGS type)                                  |                    |
| KGDL 1220H-2JCT<br>1625H-2JCT     |              | ● | 32             | 16 | 25 | 24.5 | 25 | 46 | 12.2 | 7.7 | 2   | 3  | 12  | 8.5 | 21.5 | 100 | 44   | 11.2 | 1        | Yes          | SB-40120TR   | GP-1  |   | LTW-15S            |
| KGDR 1220H-2.4JCT<br>1625H-2.4JCT | ●            |   | 24             | 12 | 20 | 19.5 | 35 |    | 8.4  | 2.4 | 3   | 12 | 8.5 | 21  | 100  | 44  | 11   | 1    | Yes      | SB-40120TR   | GP-1   | LTW-15S   |   |                    |
| KGDL 1220H-2.4JCT<br>1625H-2.4JCT |              | ● | 32             | 16 | 25 | 24.5 | 25 | 46 | 12.2 | 7.7 | 2.4 | 3  | 12  | 8.5 | 21   | 100 | 44   | 15   | 1        | Yes          | SB-40120TR   | GP-1  |   | LTW-15S            |
| KGDR 1220H-3JCT<br>1625H-3JCT     | ●            |   | 24             | 12 | 20 | 19.5 | 35 |    | 8.6  | 3   | 3   | 12 | 8.5 | 21  | 100  | 44  | 10.8 | 1    | Yes      | SB-40120TR   | GP-1   | LTW-15S   |   |                    |
| KGDL 1220H-3JCT<br>1625H-3JCT     |              | ● | 32             | 16 | 25 | 24.5 | 25 | 46 | 12.2 | 7.7 | 3   | 3  | 12  | 8.5 | 21.5 | 100 | 44   | 10.8 | 1        | Yes          | SB-40120TR   | GP-1  |   | LTW-15S            |



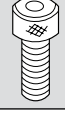



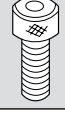



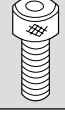



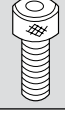



● : Standard item R : Right hand only L : Left hand only □ : Check availability

**KGD** (Integral type)



Right-hand shown

**Toolholder dimensions**

| Description  | Availability   |    | Dimension (mm) |      |      |      |      |        |         |         |      |     |        |   |   |   | Spare parts   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|--|--|----|----------------|------|------|------|------|--------|---------|---------|------|-----|--------|---|---|---|---|---|---|---------------|---|------|------|--------|---|---|------|------|----|----|-----|------|---|---|---|---|
|  |  |    |                |      |      |      |      |        |         |         |      |     |        |   |   |   | Clamp bolt  | Clamp screw   | Wrench (Torx)   | Wrench (hex.) |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  |  |    | R              | L    | CDX  | H    | B    | LH     | CW min. | CW max. | HF   | HBH | HBL    | LF  | WF  |    |  |  |  |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
| KGD% 1616H-2T06<br>1616H-2T10<br>1616H-2T17<br>2012K-2T17<br>2020K-2T06<br>2020K-2T10<br>2020K-2T17<br>2525M-2T06<br>2525M-2T10<br>2525M-2T17                | ●  | ●  | 6              | 16   | 16   | 27.7 | 2    | 3      | 16      | 4       | 28   | 100 | 15.2   |  |  |  |  |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 10             |      |      | 30.2 |      |        |         |         | 30.5 |     |        |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 17             |      |      | 31.2 |      |        |         |         | 31.5 |     |        |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 6              | 20   | 20   | 28   |      |        | 20      | 20      | 20   | 25  | 125    |   |   |   |   | 19.2  | HH5X16  | -             | - | LW-4 |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 10             |      |      | 30.5 |      |        |         |         |      |     |        |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 17             |      |      | 32.5 |      |        |         |         |      |     |        |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 6              | 25   | 25   | 28   |      |        |         |         | 25   | 25  | 25     |   |   |   |   | 150   |   |               |   |      | 24.2 | HH5X25 | - | - | LW-4 |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 10             |      |      | 30.5 |      |        |         |         |      |     |        |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 17             |      |      | 32.5 |      |        |         |         |      |     |        |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
| KGD% 2012K-2.4T17<br>2020K-2.4T17  | ●  | ●  | 17             | 20   | 12   | 2.4  | 3    | 20     |         |         |      |     | -      | -   | 125   | 11  | HH5X16  | -   |   |               |   |      | -    |        |   |   |      | LW-4 |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 20             |      | 32.5 |      |      |        |         |         |      |     |        |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      | 19 |    |     |      |   |   |   |   |
|  | ●  | ●  | 17             | 20   | 32.5 |      |      | 19     |         |         |      |     |        |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
| KGD% 1216JX-3T06<br>1616H-3T06<br>1616H-3T10<br>1616H-3T20<br>2012K-3T20<br>2020K-3T06<br>2020K-3T10<br>2020K-3T20<br>2525M-3T06<br>2525M-3T10<br>2525M-3T20 | ●  | ●  | 6              | 12   | 16   | 19.5 | 3    | 4      | 12      | 2       |      |     | 19     | 120   | 14.8  |    |  |  |  |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 10             |      |      | 27.7 |      |        |         |         |      |     | 28     |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 16             |      |      | 30.2 |      |        |         |         |      |     | 30.5   |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 20             | 20   | 20   | 34.2 |      |        | 20      | 20      | 20   | 25  | 125    | 18.8  | HH5X16  |   |   |   |   | -             | - | LW-4 |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 6              |      |      | 34.5 |      |        |         |         |      |     |        |   |   |   |   |   |   |               |   |      | 34.5 |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 10             |      |      | 30.5 |      |        |         |         |      |     |        |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 20             | 34.5 |      |      |      |        |         |         |      |     |        |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 6              | 25   | 25   | 28   |      |        |         |         | 25   | 25  | 25     | 150   |   |   |   |   |   |               |   |      | 23.8 | HH5X25 | - | - | LW-4 |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 10             |      |      | 30.5 |      |        |         |         |      |     |        |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  | ●  | ●  | 20             |      |      | 35.5 |      |        |         |         |      |     |        |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
|  | KGD% 1216JX-4T06<br>2020K-4T10<br>2020K-4T20<br>2525M-4T10<br>2525M-4T20<br>2525M-4T25 | ●  | ●              | 6    | 12   | 16   |      |        |         |         |      |     | 19.5   | 4   |   |   |   |   |   |               |   |      | 5    |        |   |   |      | 12   | 2  | 19 | 120 | 14.3 |  |  |  |  |
|  |  | ●  | ●              | 10   |      |      |      |        |         |         |      |     | 30.5   |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    | 20 |     |      |   |   |   |   |
| ●  |  | ●  | 20             | 20   | 34.5 | 20   | 125  | 18.3   |         |         |      |     | HH5X16 |   |   | -   | -   | LW-4  |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
| ●  |  | ●  | 10             | 30.5 | 25   | 150  | 23.3 | HH5X25 |         |         |      |     | -      |   |   | -   | LW-4  |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
| ●  |  | ●  | 20             | 35.5 |      |      |      |        |         |         |      |     |        |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
| ●  |  | ●  | 25             | 40.5 |      |      |      |        |         |         |      |     |        |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |
| ●  | ●  | 25 | 40.5           |      |      |      |      |        |         |         |      |     |        |   |   |   |   |   |   |               |   |      |      |        |   |   |      |      |    |    |     |      |   |   |   |   |

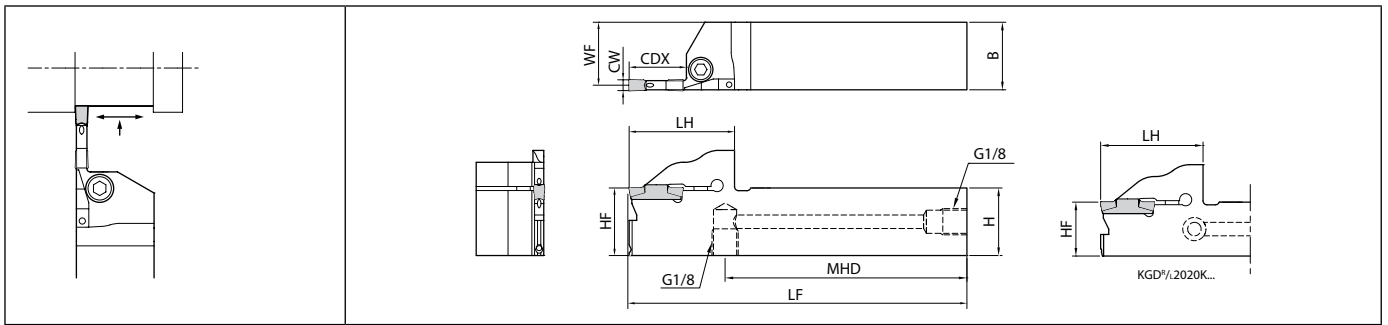
CDX : Maximum depth to which processing can be made. (If the CDX is 20 mm or more, the maximum groove-depth of groove made by the 2-edge insert will be 18 mm.)

Recommended tightening torque of clamp bolt : 6.5N · m (HH5X○○), 8.0N · m (HH6X25), 2.5N · m (SE-50125TR)

Above toolholders are applicable to grooving, too.

● : Standard item R : Right hand only L : Left hand only □ : Check availability

KGD-JCT (Integral type)



Right-hand shown | Pressure Resistance : ~15MPa

Toolholder dimensions

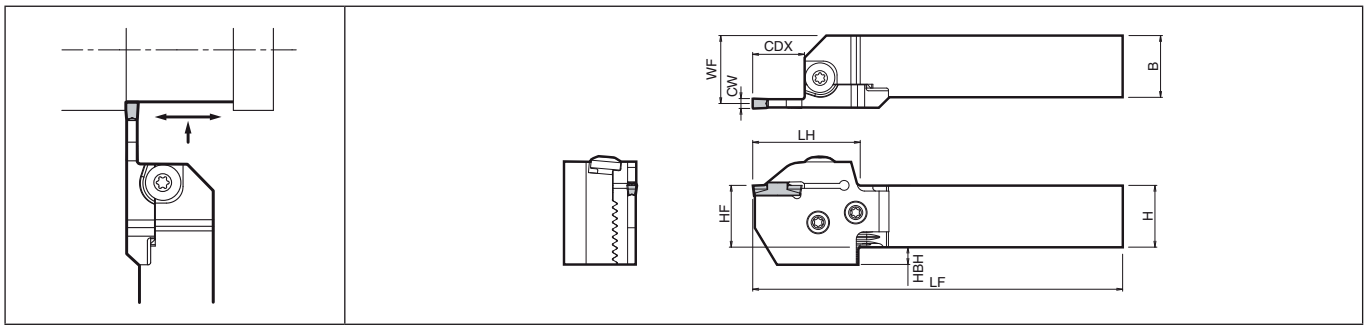
| Description                       | Availability |   | Dimension (mm) |      |      |      |      |    |     |         |         |      |     | Coolant hole | Spare parts |            |      |               |
|-----------------------------------|--------------|---|----------------|------|------|------|------|----|-----|---------|---------|------|-----|--------------|-------------|------------|------|---------------|
|                                   |              |   | R              | L    | CDX  | H    | B    | LH | MHD | CW min. | CW max. | HF   | LF  |              | WF          | Clamp bolt | Plug | Wrench (hex.) |
|                                   |              |   |                |      |      |      |      |    |     |         |         |      |     |              |             |            |      |               |
| KGD <sup>®</sup> /L 2020K-3T06JCT | ●            | ● | 6              | 20   | 20   | 31.5 | 96.2 | 3  | 4   | 20      | 125     | 18.8 | Yes | HH5X16       | HSG1/8X8.0  | LW-4       |      |               |
|                                   | ●            | ● | 10             |      |      | 34   | 94.2 |    |     |         |         |      |     |              |             |            |      |               |
|                                   | ●            | ● | 20             | 38   | 90.2 |      |      |    |     |         |         |      |     |              |             |            |      |               |
|                                   | ●            | ● | 6              | 31.5 | 96.5 |      |      |    |     |         |         |      |     |              |             |            |      |               |
|                                   | ●            | ● | 10             | 34   | 94.5 |      |      |    |     |         |         |      |     |              |             |            |      |               |
| KGD <sup>®</sup> /L 2525K-3T10JCT | ●            | ● | 10             | 25   | 25   | 39   | 89.5 | 4  | 5   | 25      | 125     | 23.8 | Yes | HH5X25       | HSG1/8X8.0  | LW-4       |      |               |
|                                   | ●            | ● | 20             |      |      | 34   | 94.5 |    |     |         |         |      |     |              |             |            |      |               |
|                                   | ●            | ● | 6              | 31.5 | 96.5 |      |      |    |     |         |         |      |     |              |             |            |      |               |
|                                   | ●            | ● | 10             | 34   | 94.5 |      |      |    |     |         |         |      |     |              |             |            |      |               |
|                                   | ●            | ● | 20             | 39   | 89.5 |      |      |    |     |         |         |      |     |              |             |            |      |               |
| KGD <sup>®</sup> /L 2525K-4T20JCT | ●            | ● | 10             | 20   | 20   | 34   | 94.2 | 4  | 5   | 20      | 125     | 18.3 | Yes | HH5X16       | HSG1/8X8.0  | LW-4       |      |               |
|                                   | ●            | ● | 20             |      |      | 38   | 90.2 |    |     |         |         |      |     |              |             |            |      |               |
|                                   | ●            | ● | 10             | 34   | 94.5 |      |      |    |     |         |         |      |     |              |             |            |      |               |
|                                   | ●            | ● | 20             | 39   | 89.5 |      |      |    |     |         |         |      |     |              |             |            |      |               |
|                                   | ●            | ● | 25             | 44   | 84.5 |      |      |    |     |         |         |      |     |              |             |            |      |               |

Please see page D5 for piping parts of coolant-through holders.



● : Standard item R : Right hand only L : Left hand only □ : Check availability

**KGD-S** (0° separate type)



Right-hand shown (Right-hand blade and right-hand toolholder)

**Toolholder dimensions (Blade and toolholder)**

| Shank angle | Width (mm) | Max. depth of cut (mm) | Shank size (mm) | Unit description                | Availability                    |                                 | Blade description          | Toolholder description     | Dimension (mm)             |                            |     |     |      |      |      |      | CW (mm) |      |     |     |
|-------------|------------|------------------------|-----------------|---------------------------------|---------------------------------|---------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----|-----|------|------|------|------|---------|------|-----|-----|
|             |            |                        |                 |                                 | R                               | L                               |                            |                            | H                          | HF                         | HBH | B   | LF   | LH   | WF   | CDX  | MIN.    | MAX. |     |     |
| 0°          | 2          | 17                     | □20             | KGD <sup>®</sup> /L 2020X-2T17S | ●                               | -                               | KGD <sup>®</sup> /L-2T17-C | KGD <sup>®</sup> /L 2020-C | 20                         | 20                         | 12  | 20  | 122  | 40   | 23.4 | 17   | 2.0     | 3.0  |     |     |
|             |            |                        | □25             | 2525X-2T17S                     | ●                               | ●                               |                            | KGD <sup>®</sup> /L 2525-C | 25                         | 25                         | 7   | 25  | 147  | 28.4 |      |      |         |      |     |     |
|             |            |                        | □32             | No unit description →           |                                 | KGD <sup>®</sup> /L 3232-C      |                            | 32                         | 32                         | -                          | 32  | 167 | 35.4 |      |      |      |         |      |     |     |
|             | 3          | 10                     | 10              | □20                             | KGD <sup>®</sup> /L 2020X-3T10S | ●                               | -                          | KGD <sup>®</sup> /L-3T10-C | KGD <sup>®</sup> /L 2020-C | 20                         | 20  | 12  | 20   | 115  | 33   | 23.0 | 10      | 3.0  | 4.0 |     |
|             |            |                        |                 | □25                             | 2525X-3T10S                     | ●                               | -                          |                            | KGD <sup>®</sup> /L 2525-C | 25                         | 25  | 7   | 25   | 140  | 28.0 |      |         |      |     |     |
|             |            |                        |                 | □32                             | No unit description →           |                                 | KGD <sup>®</sup> /L 3232-C |                            | 32                         | 32                         | -   | 32  | 160  | 35.0 |      |      |         |      |     |     |
|             |            | 20                     | 20              | 20                              | □20                             | KGD <sup>®</sup> /L 2020X-3T20S | ●                          | ●                          | KGD <sup>®</sup> /L-3T20-C | KGD <sup>®</sup> /L 2020-C | 20  | 20  | 12   | 20   | 125  | 43   | 23.0    | 20   | 3.0 | 4.0 |
|             |            |                        |                 |                                 | □25                             | 2525X-3T20S                     | ●                          | ●                          |                            | KGD <sup>®</sup> /L 2525-C | 25  | 25  | 7    | 25   | 150  | 28.0 |         |      |     |     |
|             |            |                        |                 |                                 | □32                             | 3232X-3T20S                     | ●                          | -                          |                            | KGD <sup>®</sup> /L 3232-C | 32  | 32  | -    | 32   | 170  | 35.0 |         |      |     |     |
|             | 4          | 10                     | 10              | □20                             | KGD <sup>®</sup> /L 2020X-4T10S | ●                               | -                          | KGD <sup>®</sup> /L-4T10-C | KGD <sup>®</sup> /L 2020-C | 20                         | 20  | 12  | 20   | 115  | 33   | 22.5 | 10      | 4.0  | 5.0 |     |
|             |            |                        |                 | □25                             | 2525X-4T10S                     | ●                               | -                          |                            | KGD <sup>®</sup> /L 2525-C | 25                         | 25  | 7   | 25   | 140  | 27.5 |      |         |      |     |     |
|             |            |                        |                 | □32                             | No unit description →           |                                 | KGD <sup>®</sup> /L 3232-C |                            | 32                         | 32                         | -   | 32  | 160  | 34.5 |      |      |         |      |     |     |
|             |            | 20                     | 20              | 20                              | □20                             | KGD <sup>®</sup> /L 2020X-4T20S | ●                          | -                          | KGD <sup>®</sup> /L-4T20-C | KGD <sup>®</sup> /L 2020-C | 20  | 20  | 12   | 20   | 125  | 43   | 22.5    | 20   | 4.0 | 5.0 |
|             |            |                        |                 |                                 | □25                             | 2525X-4T20S                     | ●                          | ●                          |                            | KGD <sup>®</sup> /L 2525-C | 25  | 25  | 7    | 25   | 150  | 27.5 |         |      |     |     |
|             |            |                        |                 |                                 | □32                             | 3232X-4T20S                     | ●                          | -                          |                            | KGD <sup>®</sup> /L 3232-C | 32  | 32  | -    | 32   | 170  | 34.5 |         |      |     |     |
|             |            | 25                     | 25              | 25                              | □20                             | KGD <sup>®</sup> /L 2020X-4T25S | ●                          | ●                          | KGD <sup>®</sup> /L-4T25-C | KGD <sup>®</sup> /L 2020-C | 20  | 20  | 12   | 20   | 130  | 48   | 22.5    | 25   | 4.0 | 5.0 |
|             |            |                        |                 |                                 | □25                             | 2525X-4T25S                     | ●                          | ●                          |                            | KGD <sup>®</sup> /L 2525-C | 25  | 25  | 7    | 25   | 155  | 27.5 |         |      |     |     |
|             |            |                        |                 |                                 | □32                             | 3232X-4T25S                     | ●                          | -                          |                            | KGD <sup>®</sup> /L 3232-C | 32  | 32  | -    | 32   | 175  | 34.5 |         |      |     |     |

- Note) 1. When using the toolholder in normal mounting position, the lower jaw of toolholder may interfere with the tool presetter.  
 2. The toolholder and blade descriptions are printed on the toolholder body. (Unit description is not printed.)  
**KGD-S: Right-hand blade for right-hand toolholder, left-hand blade for left-hand toolholder.**  
**The toolholder is applicable for all blade with suitable hand.**  
 3. When the unit description is not available (No unit description) and/or stock status is "-", please purchase toolholder and blade separately.  
 4. CDX: Maximum depth to which processing can be made. (If the CDX is 20 mm or more, the maximum groove-depth of groove made by the 2-edge insert will be 18 mm.)  
 5. Recommended tightening torque of clamp bolt for insert : 6.5N·m (Groove width 2 ~ 4 mm)  
 6. Above toolholders are applicable to external grooving, too.

**Spare parts**

| Unit Description          | Spare parts                   |                         |        |
|---------------------------|-------------------------------|-------------------------|--------|
|                           | Clamp bolt (for insert clamp) | Clamp screw (for blade) | Wrench |
| KGD <sup>®</sup> /L.....S | BH6X10TR                      | SB-60120TR              | LTW-25 |

● Standard item

### KGD recommended cutting conditions (PF/PQ/PG chipbreaker)

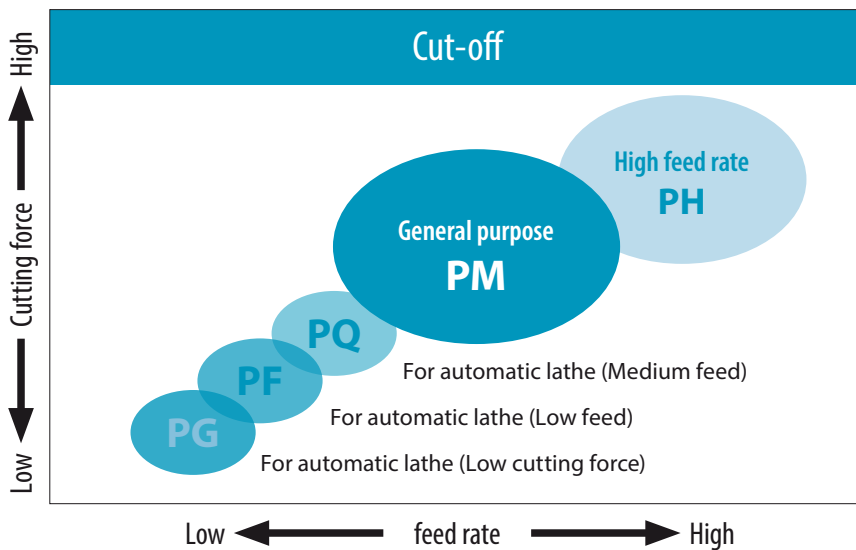
| Workpiece material | Recommended insert grades<br>(Vc: m/min) |               |               | f (mm/rev)         |             |             |                   |             |             | Remarks |
|--------------------|--|---------------|---------------|--------------------|-------------|-------------|-------------------|-------------|-------------|---------|
|                    |  |               |               | PF (RE = 0.03 mm)  |             |             | PF (RE = 0.15 mm) |             |             |         |
|                    | MEGACOAT NANO                            | MEGACOAT      |               | Edge width CW (mm) |             |             |                   |             |             |         |
| PR1535             | PR1225                                   | PR1215        | 1.3/1.5       | 2.0                | 2.5/3.0     | 1.3/1.5     | 2.0               | 2.5/3.0     |             |         |
| Carbon steel       | ☆<br>70 ~ 150                            | ★<br>70 ~ 150 | ☆<br>70 ~ 180 | 0.01 ~ 0.04        | 0.02 ~ 0.06 | 0.02 ~ 0.08 | 0.01 ~ 0.05       | 0.03 ~ 0.08 | 0.04 ~ 0.10 |         |
| Alloy steel        | ☆<br>70 ~ 150                            | ★<br>70 ~ 150 | ☆<br>70 ~ 180 |                    |             |             |                   |             |             |         |
| Stainless steel    | ★<br>60 ~ 120                            | ☆<br>60 ~ 120 | ☆<br>60 ~ 150 |                    |             |             |                   |             |             |         |
| Cast iron          | -  | -             | ★<br>80 ~ 200 |                    |             |             |                   |             |             |         |

★: 1st Recommendation ☆: 2nd Recommendation

| Workpiece Material | Recommended insert grades<br>(Vc: m/min) |               |               |                    |                | f (mm/rev)         |             |             |             | Remarks |
|--------------------|--|---------------|---------------|--------------------|----------------|--------------------|-------------|-------------|-------------|---------|
|                    |  |               |               |                    |                | PQ                 |             | PG          |             |         |
|                    | MEGACOAT NANO                            | MEGACOAT      |               | DLC coated carbide | Carbide        | Edge width CW (mm) |             |             |             |         |
| PR1535             | PR1225                                   | PR1215        | PDL025        | GW15               | 2.0            | 2.5 / 3.0          | 2.0         | 2.5 / 3.0   |             |         |
| Carbon steel       | ☆<br>70 ~ 150                            | ★<br>70 ~ 150 | ☆<br>70 ~ 180 | -                  | -              | 0.03 ~ 0.1         | 0.04 ~ 0.12 | 0.01 ~ 0.04 | 0.01 ~ 0.05 |         |
| Alloy steel        | ☆<br>70 ~ 150                            | ★<br>70 ~ 150 | ☆<br>70 ~ 180 | -                  | -              |                    |             |             |             |         |
| Stainless steel    | ★<br>60 ~ 120                            | ☆<br>60 ~ 120 | ☆<br>60 ~ 150 | -                  | -              | 0.02 ~ 0.07        | 0.02 ~ 0.08 | 0.01 ~ 0.03 | 0.01 ~ 0.04 |         |
| Cast iron          | -  | -             | ★<br>80 ~ 200 | -                  | ☆<br>50 ~ 100  | 0.04 ~ 0.1         | 0.04 ~ 0.12 | 0.01 ~ 0.04 | 0.01 ~ 0.05 |         |
| Aluminum Alloys    | -  | -             | -             | ★<br>200 ~ 500     | ☆<br>200 ~ 450 | -                  | -           | 0.01 ~ 0.05 | 0.01 ~ 0.06 |         |
| Brass              | -  | -             | -             | -                  | ★<br>100 ~ 200 | -                  | -           | 0.01 ~ 0.07 | 0.01 ~ 0.08 |         |

★: 1st Recommendation ☆: 2nd Recommendation

### Application map



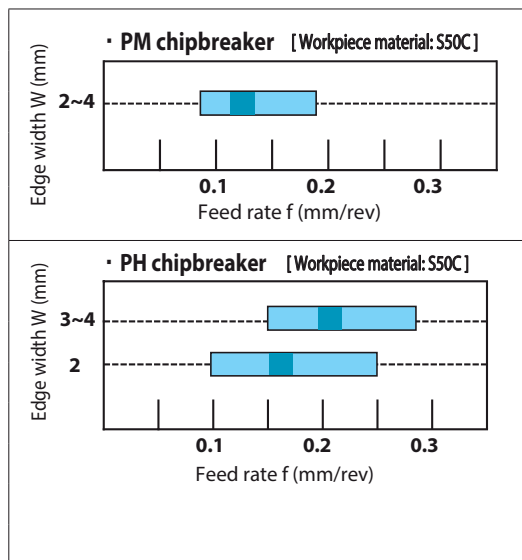
### KGD recommended cutting conditions (PM / PH chipbreaker)

| Workpiece material | Recommended insert grades<br>(Vc: m/min) |               |                | f (mm/rev)  |                    |             | Remarks |
|--------------------|--|---------------|----------------|-------------|--------------------|-------------|---------|
|                    | MEGACOAT<br>NANO                         | MEGACOAT      |                | PM          | PH                 |             |         |
|                    |  | PR1535        | PR1225         | PR1215      | Edge width CW (mm) |             |         |
|                    |  |               |                | 2 ~ 4       | 2                  | 3 ~ 4       |         |
| Carbon steel       | ☆<br>80 ~ 200                            | ★<br>80 ~ 200 | ☆<br>100 ~ 200 | 0.08 ~ 0.18 | 0.10 ~ 0.25        | 0.15 ~ 0.28 | Coolant |
| Alloy steel        | ☆<br>70 ~ 180                            | ★<br>70 ~ 180 | ☆<br>80 ~ 180  |             |                    |             |         |
| Stainless steel    | ★<br>60 ~ 150                            | ☆<br>60 ~ 150 | ☆<br>60 ~ 150  | 0.06 ~ 0.12 | 0.05 ~ 0.12        | 0.08 ~ 0.15 |         |
| Cast iron          | -  | -             | ★<br>100 ~ 200 | 0.08 ~ 0.18 | 0.10 ~ 0.25        | 0.15 ~ 0.28 |         |

★: 1st Recommendation ☆: 2nd Recommendation

H

#### Example of feed ■ In the graph indicates the most recommended value of feed (f)



#### Caution (Cut-off)

1. Be sure to perform wet processing. Apply enough coolant to the cutting edge.
2. Keep a constant rate during processing so that optimum product life will be achieved.
3. Cut-off as close to the chuck as possible.
4. Lower the feed rate to 1/2 to 1/3 at the near center to prevent impact caused by machining.

GMM/GMN/GMR/GML

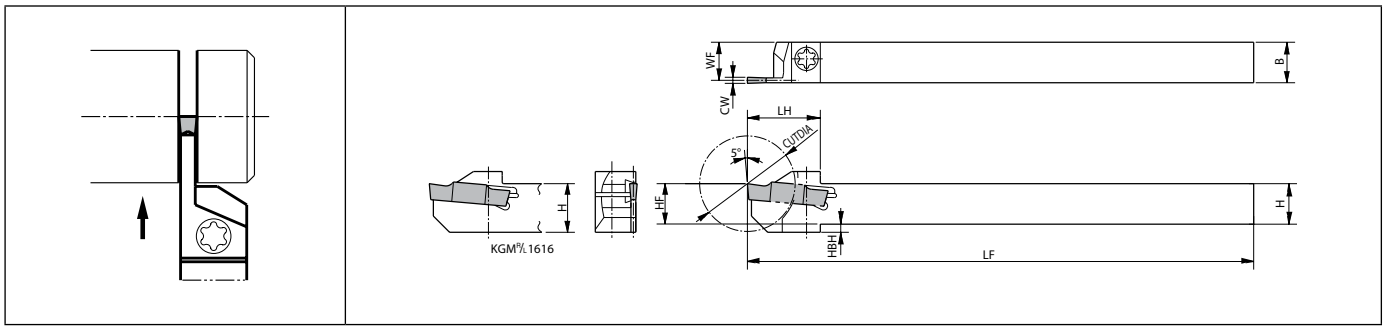
|        |                                 | Carbon steel / Alloy steel |                |     |           |      |         |           |           |         |         | ●     | ☺      | ●    |      |   | P             |                       |   |   |   |   |   |   |   |
|--------|---------------------------------|----------------------------|----------------|-----|-----------|------|---------|-----------|-----------|---------|---------|-------|--------|------|------|---|---------------|-----------------------|---|---|---|---|---|---|---|
|        |                                 | Stainless steel            |                |     |           |      |         |           |           |         |         | ●     | ☺      | ●    |      |   | M             |                       |   |   |   |   |   |   |   |
|        |                                 | Cast iron                  |                |     |           |      |         |           |           |         |         |       |        |      | ●    |   | K             |                       |   |   |   |   |   |   |   |
|        |                                 | Non-ferrous metals         |                |     |           |      |         |           |           |         |         |       |        |      | ●    |   | N             |                       |   |   |   |   |   |   |   |
| Insert | Description                     | No. of edges               | Dimension (mm) |     |           |      |         | Angle (°) | Tolerance |         | Carbide |       |        |      |      |   | Cermets       | Applicable toolholder |   |   |   |   |   |   |   |
|        |                                 |                            | CW             | S   | RE        | INSL | PSIRR/L |           | CW min.   | CW max. | CVD     |       | PVD    |      |      | - |               |                       | - |   |   |   |   |   |   |
|        |                                 |                            |                |     |           |      |         |           |           | CR9025  | PR915   | PR930 | PR1115 | KW10 | TN90 |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 1520-MT                     | 2                          | 1.5            | 4.3 | 0<br>0.05 | 20   |         | -0.05     | +0.05     |         | ☺       |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 2020-MT                     | 2                          | 2              | 4.3 | 0<br>0.05 | 20   |         | -0.05     | +0.05     | ☺       | ☺       |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 2520-MT                     | 2                          | 2.5            | 4.3 | 0<br>0.05 | 20   |         | -0.05     | +0.05     |         | ☺       |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 3020-MT                     | 2                          | 3              | 4.3 | 0<br>0.05 | 20   |         | -0.05     | +0.05     | ☺       | ☺       |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 1520-NB                     | 2                          | 1.5            | 4.3 | 0         | 20   |         | -0.05     | +0.05     |         |         |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 2020-NB                     | 2                          | 2              | 4.3 | 0         | 20   |         | -0.05     | +0.05     |         |         |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 2520-NB                     | 2                          | 2.5            | 4.3 | 0         | 20   |         | -0.05     | +0.05     |         |         |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 3020-NB                     | 2                          | 3              | 4.3 | 0         | 20   |         | -0.05     | +0.05     |         |         |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 2020-TK                     | 2                          | 2.0            | 4.3 | 0.2       | 20   |         | -0.05     | +0.05     |         | ☺       | ☺     |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 2520-TK                     | 2                          | 2.5            | 4.3 | 0.2       | 20   |         | -0.05     | +0.05     |         | ☺       | ☺     |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 3020-TK                     | 2                          | 3.0            | 4.3 | 0.25      | 20   |         | -0.05     | +0.05     | ☺       | ☺       | ☺     |        | ☺    |      |   | H32, H33, H34 |                       |   |   |   |   |   |   |   |
|        | GMM 2020-TMR                    | 2                          | 2.0            | 4.3 | 0.2       | 20   |         | -0.05     | +0.05     |         |         |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 2520-TMR                    | 2                          | 2.5            | 4.3 | 0.2       | 20   |         | -0.05     | +0.05     |         |         |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 3020-TMR                    | 2                          | 3.0            | 4.3 | 0.25      | 20   |         | -0.05     | +0.05     |         |         |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 2-TK                        | 1                          | 2              | 4.3 | 0.2       | 20   |         | -0.05     | +0.05     |         | ☺       | ☺     |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 3-TK                        | 1                          | 3              | 4.3 | 0.25      | 20   |         | -0.05     | +0.05     |         | ☺       | ☺     |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 4-TK                        | 1                          | 4              | 4.3 | 0.3       | 20   |         | -0.05     | +0.05     | ☺       | ☺       | ☺     |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 2.2                         | 1                          | 2.2            | 4.3 | 0.17      | 20   |         | -0.05     | +0.05     | ☺       |         |       |        | ☺    | ☺    |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 3                           | 1                          | 3              | 4.3 | 0.2       | 20   |         | -0.05     | +0.05     | ☺       |         |       |        | ☺    | ☺    |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 4                           | 1                          | 4              | 4.3 | 0.25      | 20   |         | -0.05     | +0.05     | ☺       |         |       |        | ☺    | ☺    |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 5                           | 1                          | 5              | 4.3 | 0.8       | 20   |         | -0.05     | +0.05     | ☺       |         |       |        | ☺    | ☺    |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 6                           | 1                          | 6              | 4.3 | 0.8       | 20   |         | -0.05     | +0.05     | ☺       |         |       |        | ☺    | ☺    |   |               |                       |   |   |   |   |   |   |   |
|        |                                 |                            |                |     |           |      |         |           |           | R       | L       | R     | L      | R    | L    | R | L             | R                     | L | R | L | R | L | R | L |
|        | GMM 1520 <sup>PS</sup> L-MT-15D | 2                          | 1.5            | 4.3 | 0<br>0.05 | 20   | 15      | -0.05     | +0.05     |         | ☺       |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 2020 <sup>PS</sup> L-MT-15D | 2                          | 2              | 4.3 | 0<br>0.05 | 20   | 15      | -0.05     | +0.05     | ☺       | ☺       |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 2520 <sup>PS</sup> L-MT-15D | 2                          | 2.5            | 4.3 | 0<br>0.05 | 20   | 15      | -0.05     | +0.05     |         | ☺       |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 3020 <sup>PS</sup> L-MT-15D | 2                          | 3              | 4.3 | 0<br>0.05 | 20   | 15      | -0.05     | +0.05     | ☺       | ☺       |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 2020R-TK-8D                 | 2                          | 2              | 4.3 | 0.2       | 20   | 8       | -0.05     | +0.05     |         | ☺       |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 2520R-TK-8D                 | 2                          | 2.5            | 4.3 | 0.2       | 20   | 8       | -0.05     | +0.05     |         | ☺       |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 3020R-TK-8D                 | 2                          | 3              | 4.3 | 0.25      | 20   | 8       | -0.05     | +0.05     | ☺       | ☺       |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 2020R-TMR-6D                | 2                          | 2.0            | 4.3 | 0.2       | 20   | 6       | -0.05     | +0.05     |         |         |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 2520R-TMR-6D                | 2                          | 2.5            | 4.3 | 0.2       | 20   | 6       | -0.05     | +0.05     |         |         |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 3020R-TMR-6D                | 2                          | 3.0            | 4.3 | 0.25      | 20   | 6       | -0.05     | +0.05     |         |         |       |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 2-TK-8D                     | 1                          | 2              | 4.3 | 0.2       | 20   | 8       | -0.05     | +0.05     |         | ☺       | ☺     |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 3-TK-8D                     | 1                          | 3              | 4.3 | 0.25      | 20   | 8       | -0.05     | +0.05     |         | ☺       | ☺     |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM 4-TK-8D                     | 1                          | 4              | 4.3 | 0.3       | 20   | 8       | -0.05     | +0.05     | ☺       | ☺       | ☺     |        | ☺    |      |   |               |                       |   |   |   |   |   |   |   |
|        | GMM <sup>PS</sup> L 2.2-8D      | 1                          | 2.2            | 4.3 | 0.17      | 20   | 8       | -0.05     | +0.05     | ☺       |         |       |        | ☺    | ☺    |   |               |                       |   |   |   |   |   |   |   |
|        | GMM <sup>PS</sup> L 2.2-15D     | 1                          | 2.2            | 4.3 | 0         | 20   | 15      | -0.05     | +0.05     | ☺       |         |       |        | ☺    | ☺    |   |               |                       |   |   |   |   |   |   |   |
|        | GMM <sup>PS</sup> L 3-4D        | 1                          | 3              | 4.3 | 0.2       | 20   | 4       | -0.05     | +0.05     | ☺       | ☺       |       |        | ☺    | ☺    |   |               |                       |   |   |   |   |   |   |   |
|        | GMM <sup>PS</sup> L 4-4D        | 1                          | 4              | 4.3 | 0.25      | 20   | 4       | -0.05     | +0.05     | ☺       | ☺       |       |        | ☺    | ☺    |   |               |                       |   |   |   |   |   |   |   |

Handed insert shows Right-hand

● : Standard item R : Right hand only L : Left hand only ☺ : Check availability





**KGM** (For automatic lathe)



Right-hand shown

**Toolholder dimensions**

| Description        | Availability             |                          | Dimension (mm) |    |    |      |         |         |     |     |     |       | Spare parts   |   |            |        |
|--------------------|--------------------------|--------------------------|----------------|----|----|------|---------|---------|-----|-----|-----|-------|---|---|------------|--------|
|                    | R                        | L                        | CUTDIA         | H  | B  | LH   | CW min. | CW max. | HF  | HBH | LF  | WF    | Clamp screw   | Wrench (Torx)   |            |        |
|                    |                          |                          |                |    |    |      |         |         |     |     |     |       |  |  |            |        |
| KGM%L 1010JX-1.5   | <input type="checkbox"/> | <input type="checkbox"/> | 18             | 10 | 10 | 18   | 1.5     | 2       | 10  | 2   | 120 | 9.4   | SE-40120TR  | LTW-15S   |            |        |
| 1212F-1.5-85       | <input type="checkbox"/> | <input type="checkbox"/> | 23             | 12 | 12 | 19   |         |         | 12  |     | 85  | 11.4  |   |   |            |        |
| 1212JX-1.5         | <input type="checkbox"/> | <input type="checkbox"/> |                |    |    |      |         |         |     |     | 120 |       |   |   |            |        |
| KGM%L 1010JX-2     | <input type="checkbox"/> | <input type="checkbox"/> | 18             | 10 | 10 | 18   | 2       | 3       | 10  | 2   | 120 | 9.15  | SE-40120TR  | LTW-15S   |            |        |
| 1212F-2-85         | <input type="checkbox"/> | <input type="checkbox"/> | 23             | 12 | 12 | 19   |         |         | 12  |     | 85  | 11.15 |   |   |            |        |
| 1212JX-2           | <input type="checkbox"/> | <input type="checkbox"/> |                |    |    |      |         |         |     |     | 120 |       |   |   |            |        |
| 1616JX-2           | <input type="checkbox"/> | <input type="checkbox"/> | 30             | 16 | 16 | 24.5 |         |         | 16  |     |     | 15.15 |   |   | SE-50125TR | LTW-20 |
| KGM%L 1212F-2.5-85 | <input type="checkbox"/> | <input type="checkbox"/> | 23             | 12 | 12 | 19   | 2.4     | 3.0     | 12  | 2   | 85  | 11    | SE-40120TR  | LTW-15S   |            |        |
| 1212JX-2.5         | <input type="checkbox"/> | <input type="checkbox"/> |                |    |    |      |         |         | 120 |     | 15  |       |   |   |            |        |
| 1616JX-2.5         | <input type="checkbox"/> | <input type="checkbox"/> |                |    |    |      |         |         | 30  |     | 16  | 16    |   |   | 24.5       | 16     |
| KGM%L 1616JX-3     | <input type="checkbox"/> | <input type="checkbox"/> | 30             | 16 | 16 | 24.5 |         |         | 3.0 | 4.0 | 16  | -     | 120   | 14.8  | SE-50125TR | LTW-20 |

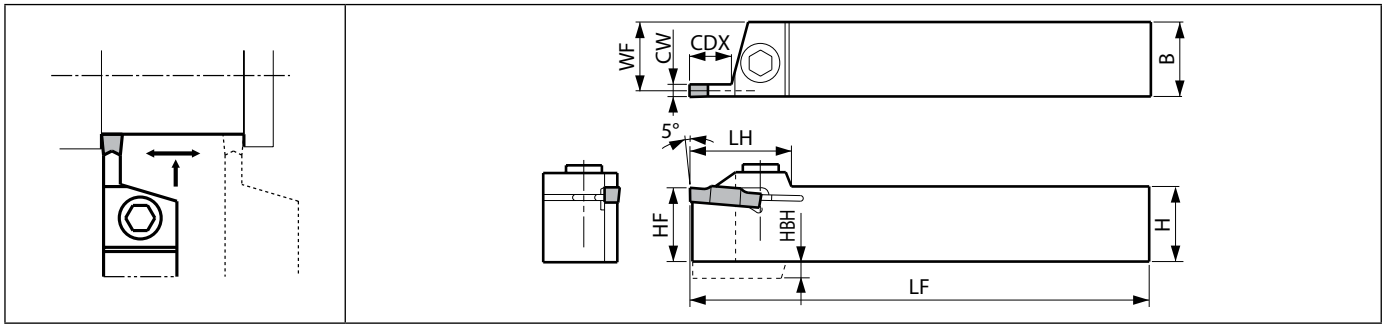
CDX shows the distance from the toolholder to the cutting edge. Ref. to the Table (G40) for the relationship between the available grooving depth and the cutting dia.  
 When using GMG / GMM (2-edge) insert, set the groove depth under 15mm.

● : Standard item R : Right hand only L : Left hand only  : Check availability









KGM



Right-hand shown

Toolholder dimensions

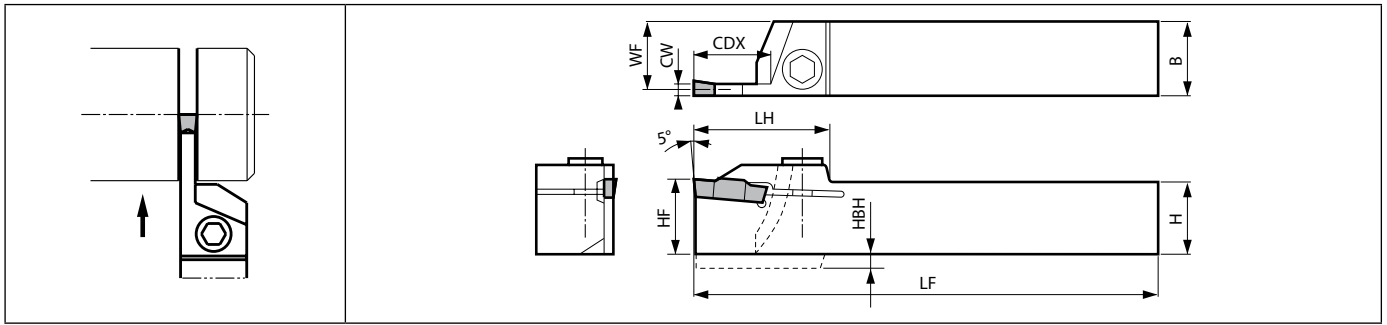
| Description  | Availability             |                          | Dimension (mm) |    |    |    |         |         |    |     |     |      |  | Spare parts   |   |   |               |        |      |   |      |
|--|--------------------------|--------------------------|----------------|----|----|----|---------|---------|----|-----|-----|------|--|---|---|---|---------------|--------|------|---|------|
|  |                          |                          |                |    |    |    |         |         |    |     |     |      |  | Clamp bolt  | Clamp screw (Torx)  | Wrench (Torx)   | Wrench (hex.) |        |      |   |      |
|  | R                        | L                        | CDX            | H  | B  | LH | CW min. | CW max. | HF | HBH | LF  | WF   |  |  |  |  |               |        |      |   |      |
| KGM <sup>®</sup> /L 1212H-3<br>1616H-3<br>2020K-3<br>2525M-3 | <input type="checkbox"/> |                          | 9              | 12 | 12 | 27 | 3       | 3       | 12 | 4   | 100 | 10.8 | -  | SB-5TR  | LTW-20  | -   |               |        |      |   |      |
|  | <input type="checkbox"/> |                          |                | 16 | 16 |    |         |         | 16 |     |     |      | 14.8   |   |   |   | HH5X16        | -      | LW-4 |   |      |
|  | <input type="checkbox"/> | <input type="checkbox"/> |                | 20 | 20 |    |         |         | 20 |     |     |      | 125  |   |   |   | 18.8          | HH5X25 | -    | - | LW-4 |
|  | <input type="checkbox"/> | <input type="checkbox"/> |                | 25 | 25 |    |         |         | 25 |     |     |      | 150  |   |   |   | 23.8          | HH5X25 | -    | - | LW-4 |
| KGM <sup>®</sup> /L 2020K-4<br>2525M-4                       | <input type="checkbox"/> |                          | 10             | 20 | 20 | 27 | 4       | 5       | 20 |     | 125 | 18.3 | HH5X16   | -   | -   | LW-4  |               |        |      |   |      |
|  | <input type="checkbox"/> | <input type="checkbox"/> |                | 25 | 25 |    |         |         | 25 |     |     |      | 150  |   |   |   | 23.3          | HH5X25 | -    | - | LW-4 |
| KGM <sup>®</sup> /L 2020K-5<br>2525M-5                       | <input type="checkbox"/> |                          | 10             | 20 | 20 | 27 | 5       | 6       | 20 |     | 125 | 17.8 | HH5X16   | -   | -   | LW-4  |               |        |      |   |      |
|  | <input type="checkbox"/> | <input type="checkbox"/> |                | 25 | 25 |    |         |         | 25 |     |     |      | 150  |   |   |   | 22.8          | HH5X25 | -    | - | LW-4 |
| KGM <sup>®</sup> /L 2525M-8                                  | <input type="checkbox"/> | <input type="checkbox"/> | 25             | 25 | 25 | 40 | 8       | 8       | 25 | 7.5 | 150 | 22   | HH6X25   | -   | -   | -   | LW-5          |        |      |   |      |

CDX shows available grooving depth.

4mm width Insert can be installed in KGMR/L1212H-3, but is not recommended due to the toolholder's rigidity.

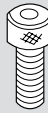





KGM-T



Right-hand shown

Toolholder dimensions











| Description  | Availability             |                          | Dimension (mm) |    |    |    |         |         |      |        |        |        | Spare parts   |   |   |   |      |
|--|--------------------------|--------------------------|----------------|----|----|----|---------|---------|------|--------|--------|--------|---|---|---|---|------|
|  |                          |                          |                |    |    |    |         |         |      |        |        |        | Clamp bolt  | Clamp screw (Torx)  | Wrench (Torx)   | Wrench (hex.)   |      |
|  | R                        | L                        | CDX            | H  | B  | LH | CW min. | CW max. | HF   | HBH    | LF     | WF     |  |  |  |  |      |
| KGM%L 2012K-2T17<br>2020K-2T17<br>2525M-2T17               | <input type="checkbox"/> | <input type="checkbox"/> | 17             | 20 | 12 | 33 | 2       | 3       | 20   |        | 125    | 11.15  | -   | SB-5TR  | LTW-20  | -   |      |
|  | <input type="checkbox"/> | <input type="checkbox"/> |                | 20 | 20 |    |         |         |      |        |        | 19.15  | HH5X16  | -   | -   | LW-4  |      |
|  | <input type="checkbox"/> | <input type="checkbox"/> |                | 25 | 25 |    |         |         |      |        |        | 24.15  | HH5X25  | -   | -   | -   |      |
| KGM%L 1616H-3T20<br>2012K-3T20<br>2020K-3T20<br>2525M-3T20 | <input type="checkbox"/> | <input type="checkbox"/> | 20             | 16 | 16 | 36 | 3       | 4       | 16   | 4      | 100    | 14.8   | HH5X16  | -   | -   | -   | LW-4 |
|  | <input type="checkbox"/> | <input type="checkbox"/> |                | 20 | 12 |    |         |         | 10.8 | -      | SB-5TR | LTW-20 | -   |   |   |   |      |
|  | <input type="checkbox"/> | <input type="checkbox"/> |                | 20 | 20 |    |         |         | 18.8 | HH5X16 | -      | -      | LW-4  |   |   |   |      |
|  | <input type="checkbox"/> | <input type="checkbox"/> |                | 25 | 25 |    |         |         | 150  | 23.8   | HH5X25 | -      | -   | -   |   |   |      |
| KGM%L 2020K-4T20<br>2525M-4T20<br>2525M-4T25               | <input type="checkbox"/> | <input type="checkbox"/> | 20             | 20 | 20 | 36 | 4       | 5       | 20   |        | 125    | 18.3   | HH5X16  | -   | -   | -   | LW-4 |
|  | <input type="checkbox"/> | <input type="checkbox"/> |                | 25 | 25 |    |         |         | 150  | 23.3   | HH5X25 | -      | -   | -   | LW-4  |   |      |
|  | <input type="checkbox"/> | <input type="checkbox"/> |                | 25 | 25 |    |         |         | 41   |        |        |        |   |   |   |   |      |
| KGM%L 2525M-5T25<br>3232P-5T25                             | <input type="checkbox"/> | <input type="checkbox"/> | 25             | 25 | 25 | 42 | 5       | 6       | 25   |        | 150    | 22.8   | HH5X25  | -   | -   | -   | LW-4 |
|  | <input type="checkbox"/> | <input type="checkbox"/> |                | 32 | 32 |    |         |         | 170  | 29.8   | HH5X25 | -      | -   | -   | LW-4  |   |      |
| KGM%L 2525M-6T30   | <input type="checkbox"/> | <input type="checkbox"/> | 30             | 25 | 25 | 45 | 6       | 6       | 25   |        | 150    | 22.4   | HH5X25  | -   | -   | -   | LW-4 |

CDX shows the distance from the toolholder to the cutting edge. Ref. to the Table (G40) for the relationship between the available grooving depth and the cutting dia.  
When using GMM / GMM (2-edge) insert, set the groove depth under 15mm.

● : Standard item R : Right hand only L : Left hand only  : Check availability



Applicable inserts

| Applications              | Grooving / Turning  | Grooving / Turning  | Grooving  | Full-R / Copying  | Full-R / Copying  | Cut Off / Deep Grooving  | Cut Off / Deep Grooving  | Cut Off / Deep Grooving   | Cut Off / Deep Grooving   | Cut Off / Deep Grooving   |
|---------------------------|---|---|---|---|---|--|--|---|---|---|
| Insert                    | MW  | MS  | MG  |   |   | MT   | NB   | TK  |   |   |
| Toolholder description    |  |  |  |  |  |             |  |  |  |  |
| KGM <sup>®</sup> L...1.5  | -   | -   | -   | -   | -   | GMM1520..MT<br>GMM2020..MT<br>GMM1520%L..MT<br>GMM2020%L..MT                                 | GMM1520..NB<br>GMM2020..NB   | GMM2020..T<br>GMM2020R..T   | GMN2..TK<br>GMR2..TK  | -   |
| KGM <sup>®</sup> L...2(T) | GMM2420..MW<br>GMM3020..MW  | GMG3020..MS<br>GMM3020..MS  | GMG2520..MG<br>GMG3020..MG  | GMG3020..R<br>GMM3020..R  | -   | GMM2020..MT<br>GMM2520..MT<br>GMM3020..MT<br>GMM2020%L..MT<br>GMM2520%L..MT<br>GMM3020%L..MT | GMM2020..NB<br>GMM2520..NB<br>GMM3020..NB  | GMM2020..T<br>GMM2520..T<br>GMM3020..T<br>GMM2020R..T<br>GMM2520R..T<br>GMM3020R..T | GMN2..TK<br>GMN3..TK<br>GMR2..TK<br>GMR3..TK  | GMN2.2<br>GMN3<br>GM <sup>®</sup> L2.2<br>GM <sup>®</sup> L3                        |
| KGM <sup>®</sup> L...2.5  | GMM2420..MW<br>GMM3020..MW  | GMG3020..MS<br>GMM3020..MS  | GMG2520..MG<br>GMG3020..MG  | GMG3020..R<br>GMM3020..R  | -   | GMM2520..MT<br>GMM3020..MT<br>GMM2520%L..MT<br>GMM3020%L..MT                                 | GMM2520..NB<br>GMM3020..NB   | GMM2520..T<br>GMM3020..T<br>GMM2520R..T<br>GMM3020R..T                              | GMN3..TK<br>GMR3..TK  | GMN3<br>GM <sup>®</sup> L3  |
| KGM <sup>®</sup> L...3(T) | GMM3020..MW<br>GMM4020..MW  | GMG3020..MS<br>GMM3020..MS<br>GMG4020..MS<br>GMM4020..MS                          | GMG3020..MG<br>GMG3520..MG<br>GMG4020..MG   | GMG3020..R<br>GMM3020..R<br>GMG4020..R<br>GMM4020..R                              | -   | GMM3020..MT<br>GMM3020%L..MT   | GMM3020..NB  | GMM3020..T<br>GMM3020R..T   | GMN3..TK<br>GMN4..TK<br>GMR3..TK<br>GMR4..TK  | GMN3<br>GMN4<br>GM <sup>®</sup> L3<br>GM <sup>®</sup> L4                            |
| KGM <sup>®</sup> L...4(T) | GMM4020..MW<br>GMM5020..MW  | GMG4020..MS<br>GMM4020..MS<br>GMG5020..MS<br>GMM5020..MS                          | GMG4020..MG<br>GMG5020..MG  | GMG4020..R<br>GMM4020..R<br>GMG5020..R<br>GMM5020..R                              | -   | -  | -  | -   | GMN4..TK<br>GMR4..TK  | GMN4<br>GMN5<br>GM <sup>®</sup> L4  |
| KGM <sup>®</sup> L...5T   | GMM5020..MW<br>GMM6020..MW  | GMG5020..MS<br>GMM5020..MS<br>GMG6020..MS<br>GMM6020..MS                          | GMG5020..MG<br>GMG6020..MG  | GMG5020..R<br>GMM5020..R<br>GMG6020..R<br>GMM6020..R                              | GMGA6020..R   | -  | -  | -   | -   | GMN5<br>GMN6  |
| KGM <sup>®</sup> L...6T   | GMM6020..MW   | GMG6020..MS<br>GMM6020..MS  | GMG6020..MG   | GMG6020..R<br>GMM6020..R  | GMGA6020..R   | -  | -  | -   | -   | GMN6  |
| KGM <sup>®</sup> L...8    | GMM8030..MW   | -   | GMG8030..MG   | -   | GMGA8030..R   | -  | -  | -   | -   | -   |



In case of using GMM-MT, GMM-TK, GMM-NB type inserts

| Workpiece material | Recommended insert grades (Vc: m/min) |                    |                    |               |                | Edge width W (mm) |             |             |             |         | Remarks |
|--------------------|---------------------------------------|--------------------|--------------------|---------------|----------------|-------------------|-------------|-------------|-------------|---------|---------|
|                    | Cermet                                | CVD coated carbide | PVD coated carbide |               | Carbide        | 1.5               | 2.0/2.5     | 3.0         | 4.0         |         |         |
|                    | -                                     | CR9025             | PR915              | PR930         | KW10           | f (mm/rev)        |             |             |             |         |         |
| Carbon steel       | -                                     | ★<br>80 ~ 180      | ★<br>60 ~ 150      | ☆<br>60 ~ 130 | -              | 0.01 ~ 0.04       | 0.02 ~ 0.15 | 0.03 ~ 0.20 | 0.08 ~ 0.30 | Coolant |         |
| Alloy steel        | -                                     | ☆<br>70 ~ 150      | ★<br>60 ~ 150      | ☆<br>60 ~ 130 | -              | 0.01 ~ 0.04       | 0.02 ~ 0.15 | 0.03 ~ 0.20 | 0.08 ~ 0.30 |         |         |
| Stainless steel    | -                                     | ☆<br>60 ~ 140      | ★<br>50 ~ 140      | ☆<br>50 ~ 120 | -              | 0.01 ~ 0.03       | 0.02 ~ 0.10 | 0.03 ~ 0.15 | 0.08 ~ 0.25 |         |         |
| Cast iron          | -                                     | -                  | -                  | -             | ★<br>50 ~ 100  | 0.01 ~ 0.05       | 0.05 ~ 0.12 | 0.10 ~ 0.25 | 0.10 ~ 0.30 |         |         |
| Aluminum alloys    | -                                     | -                  | -                  | -             | ★<br>200 ~ 450 | 0.01 ~ 0.05       | 0.05 ~ 0.10 | 0.05 ~ 0.20 | 0.05 ~ 0.25 |         |         |
| Brass              | -                                     | -                  | -                  | -             | ★<br>100 ~ 200 | 0.01 ~ 0.05       | 0.05 ~ 0.10 | 0.05 ~ 0.15 | 0.05 ~ 0.20 |         |         |

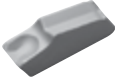
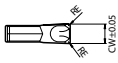
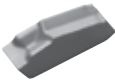
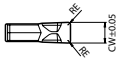
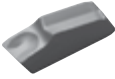
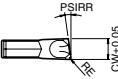
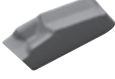
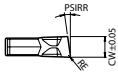
-When machining Steel and Stainless Steel by Insert of PR930, decrease the feed rate by 20%.

★: 1st Recommendation ☆: 2nd Recommendation

In case of using GMM-TMR type inserts

| Workpiece material | Vc (m/min) | f (mm/rev)  | Remarks |
|--------------------|------------|-------------|---------|
| Carbon steel       | 60 ~ 200   | 0.08 ~ 0.18 | Coolant |
| Alloy steel        | 60 ~ 150   |             |         |
| Stainless steel    | 50 ~ 140   |             |         |

TKN/TK

| Insert  |      | Description |     | Dimension (mm) |    | Angle (°) | Tolerance |         | Carbide |        |        |          | Cermet   | Applicable toolholder |  |
|---|------|-------------|-----|----------------|----|-----------|-----------|---------|---------|--------|--------|----------|----------|-----------------------|--|
|   |      |             |     | CW             | RE |           | PSIRR/L   | CW min. | CW max. | CVD    | PVD    | -        | -        |                       |  |
|   |      |             |     |                |    |           |           |         |         | CR8025 | PR1535 | PR830    | KW10     |                       |  |
|                       | TKN  | 1.6         | 1.6 | 0.15           | -  | -0.05     | +0.05     | ●       | ●       | ●      | ●      | ●        | H38, H40 |                       |  |
|   | TKN  | 2           | 2.2 | 0.2            |    | -0.05     | +0.05     | ●       | ●       | ●      | ●      | ●        |          | ●                     |  |
|   | TKN  | 2.4         | 2.4 | 0.2            |    | -0.05     | +0.05     | ●       | ●       | ●      | ●      | ●        |          | ●                     |  |
|   | TKN  | 3           | 3.1 | 0.25           |    | -0.05     | +0.05     | ●       | ●       | ●      | ●      | ●        |          | ●                     |  |
|   | TKN  | 4           | 4.1 | 0.3            |    | -0.05     | +0.05     | ●       | ●       | ●      | ●      | ●        |          | ●                     |  |
|   | TKN  | 4.8         | 4.8 | 0.3            |    | -0.05     | +0.05     | ●       | ●       |        |        |          |          |                       |  |
|   | TKN  | 5           | 5.1 | 0.3            |    | -0.05     | +0.05     | ●       | ●       | ●      |        |          |          |                       |  |
|   | TKN  | 6           | 6.4 | 0.35           |    | -0.05     | +0.05     | ●       | ●       | ●      |        |          |          |                       |  |
|   | TKN  | 8           | 8   | 0.4            |    | -0.05     | +0.05     | ●       | ●       |        |        |          |          |                       |  |
|   | TKN  | 9           | 9.6 | 0.45           |    | -0.05     | +0.05     | ●       | ●       |        |        |          |          |                       |  |
|   <p>Low feed</p> | TKN  | 1.6-P       | 1.6 | 0.2            | -  | -0.05     | +0.05     | ●       | ●       | ●      | ●      | H38, H40 |          |                       |  |
|   | TKN  | 2-P         | 2.2 | 0.2            |    | -0.05     | +0.05     | ●       | ●       | ●      | ●      |          | ●        | ●                     |  |
|   | TKN  | 3-P         | 3.1 | 0.25           |    | -0.05     | +0.05     | ●       | ●       | ●      | ●      |          | ●        | ●                     |  |
|   <p>Low feed</p> | TK%L | 1.6         | 1.6 | 0.15           | 8  | -0.05     | +0.05     | R       | R       | ●      |        | H38, H40 |          |                       |  |
|   | TK%L | 2           | 2.2 | 0.2            |    | -0.05     | +0.05     | ●       | ●       | ●      | R      |          | R        | R                     |  |
|   | TK%L | 2.4         | 2.4 | 0.2            |    | -0.05     | +0.05     | ●       | ●       | ●      | R      |          | ●        |                       |  |
|   | TK%L | 3           | 3.1 | 0.25           |    | -0.05     | +0.05     | ●       | ●       | ●      | ●      |          | R        | R                     |  |
|   | TK%L | 4           | 4.1 | 0.3            |    | -0.05     | +0.05     | ●       | ●       | ●      | ●      |          | R        | R                     |  |
|   | TK%L | 5           | 5.1 | 0.3            |    | -0.05     | +0.05     | R       | ●       |        |        |          |          |                       |  |
|   <p>Low feed</p> | TK%L | 1.6-P       | 1.6 | 0.2            | 8  | -0.05     | +0.05     | R       |         |        |        | H38, H40 |          |                       |  |
|   | TK%L | 2-P         | 2.2 | 0.2            | 8  | -0.05     | +0.05     | R       | ●       | R      | R      |          |          |                       |  |
|   | TK%L | 3-P         | 3.1 | 0.25           | 8  | -0.05     | +0.05     | R       | ●       | R      | R      |          | R        |                       |  |

Handed insert shows Right-hand

● : Standard item R : Right hand only L : Left hand only □ : Check availability



### Set up (TKN / TK<sup>R/L</sup>)

1. Tap the insert lightly with a plastic hammer to push it into the extent that it cannot be removed by hand. (Fig. 1)  
(Pull it to the point where it does not fall out when picked up lightly with fingers)
2. Remove the insert with the supplied wrench. (Fig. 2)

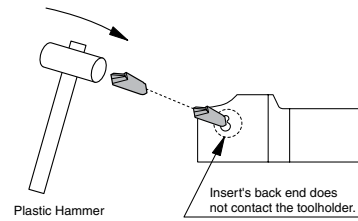


Fig. 1 How to attach inserts

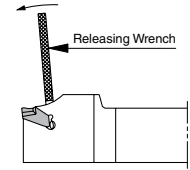


Fig. 2 How to detach inserts

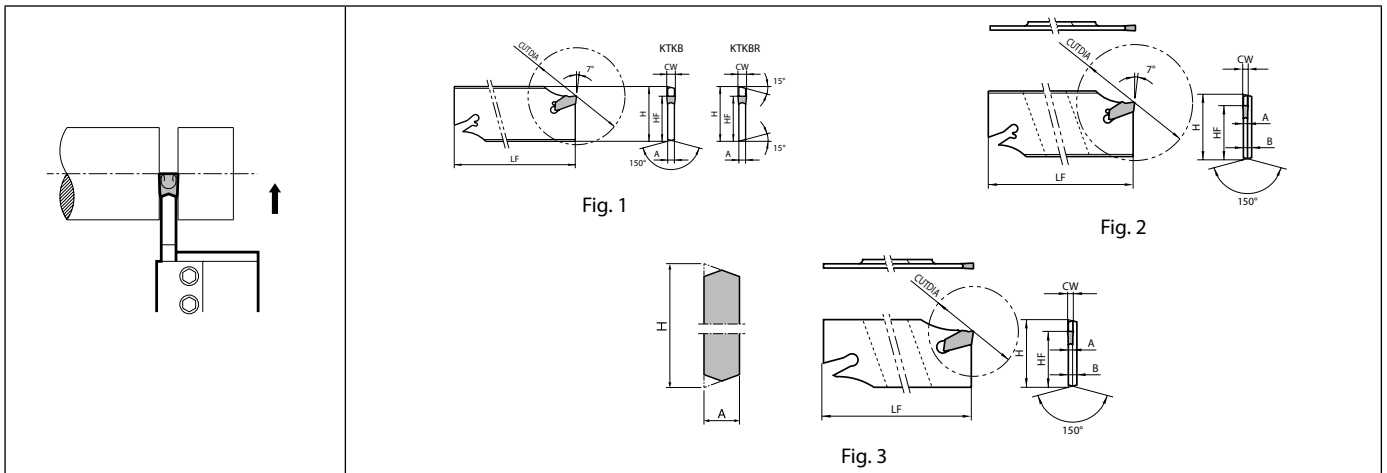
### In case of using TKN, TK<sup>R/L</sup> type inserts

| Workpiece material | Recommended insert grades (Vc: m/min) |                |                    |               |                    |                | Edge width W (mm) |             |             |             |             | Remarks |
|--------------------|---------------------------------------|----------------|--------------------|---------------|--------------------|----------------|-------------------|-------------|-------------|-------------|-------------|---------|
|                    | Cermet                                |                | CVD coated carbide | MEGACOAT NANO | PVD coated carbide | Carbide        | 1.6               | 2.2/2.4     | 3.1         | 4.1         | 4.8 ~ 9.6   |         |
|                    | TN620                                 | TN90           | CR9025             | PR1535        | PR930              | KW10           | f (mm/rev)        |             |             |             |             |         |
| Carbon steel       | ☆<br>60 ~ 200                         | ☆<br>120 ~ 200 | ★<br>80 ~ 180      | ☆<br>60 ~ 150 | ☆<br>60 ~ 130      | -              | 0.02 ~ 0.08       | 0.04 ~ 0.18 | 0.05 ~ 0.25 | 0.08 ~ 0.30 | 0.15 ~ 0.40 | Coolant |
| Alloy steel        | ☆<br>60 ~ 160                         | ☆<br>100 ~ 160 | ★<br>70 ~ 150      | ☆<br>60 ~ 150 | ☆<br>60 ~ 130      | -              | 0.02 ~ 0.08       | 0.04 ~ 0.18 | 0.05 ~ 0.25 | 0.08 ~ 0.30 | 0.15 ~ 0.40 |         |
| Stainless steel    | ☆<br>60 ~ 150                         | ☆<br>80 ~ 150  | ☆<br>60 ~ 140      | ★<br>50 ~ 120 | ☆<br>60 ~ 140      | -              | 0.02 ~ 0.06       | 0.04 ~ 0.12 | 0.05 ~ 0.18 | 0.08 ~ 0.25 | 0.10 ~ 0.30 |         |
| Cast iron          | -                                     | -              | -                  | -             | -                  | ★<br>50 ~ 100  | 0.02 ~ 0.08       | 0.05 ~ 0.12 | 0.10 ~ 0.25 | 0.10 ~ 0.30 | 0.15 ~ 0.35 |         |
| Aluminum alloys    | -                                     | -              | -                  | -             | -                  | ★<br>100 ~ 450 | 0.02 ~ 0.10       | 0.05 ~ 0.10 | 0.05 ~ 0.20 | 0.05 ~ 0.25 | 0.10 ~ 0.25 |         |
| Brass              | -                                     | -              | -                  | -             | -                  | ★<br>100 ~ 200 | 0.02 ~ 0.10       | 0.05 ~ 0.10 | 0.05 ~ 0.15 | 0.05 ~ 0.20 | 0.10 ~ 0.25 |         |

★: 1st Recommendation ☆: 2nd Recommendation



**KTKB**



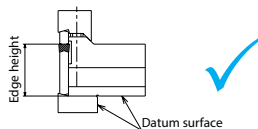
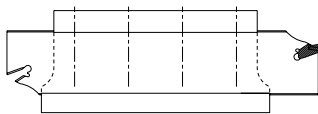
**Toolholder dimensions**

| Description                | Availability | Dimension (mm) |     |            |                |    |      |     | Fig. | Applicable inserts |                      |  |                          | Applicable blocks                                      |                          |  |
|----------------------------|--------------|----------------|-----|------------|----------------|----|------|-----|------|--------------------|----------------------|--|--------------------------|--|--------------------------|--|
|                            |              | CUTDIA         | A   | B          | CW             | H  | HF   | LF  |      |                    |                      |  |                          |  |                          |  |
| KTKB 19-1SS                | ●            | 32             | 1.2 | 2.4        | 1.6            | 19 | 15.7 | 86  | 3    | TKN1.6             | TKN1.6-P             | TK <sup>Ø</sup> /L.1.6                         | TK <sup>Ø</sup> /L.1.6-P | KTKTB 16-19<br>20-19                                   |                          |  |
|                            | ●            | 26             |     |            |                |    |      |     |      | 21.4               | 110                  | TKN1.6   | TKN1.6-P                 | TK <sup>Ø</sup> /L.1.6                                 | TK <sup>Ø</sup> /L.1.6-P | KTKTB 16-26<br>20-26                                   |
|                            | ●            | 32             |     |            |                |    |      |     |      | 25                 | 150                  | TKN1.6   | TKN1.6-P                 | TK <sup>Ø</sup> /L.1.6                                 | TK <sup>Ø</sup> /L.1.6-P | KTKTB 20-32<br>25-32<br>32-32<br>KTKTBF 25-32<br>32-32 |
| KTKB 19-2S                 | ●            | 40             | 1.8 |            | 2.2<br>2.4     | 19 | 15.7 | 86  | 1    | TKN2<br>TKN2.4     | TKN2-P               | TK <sup>Ø</sup> /L.2<br>TK <sup>Ø</sup> /L.2.4 | TK <sup>Ø</sup> /L.2-P   | KTKTB 16-19<br>20-19                                   |                          |  |
| KTKB 26-2S                 | ●            | 50             | 1.8 |            | 2.2<br>2.4     | 26 | 21.4 | 110 | 1    | TKN2<br>TKN2.4     | TKN2-P               | TK <sup>Ø</sup> /L.2<br>TK <sup>Ø</sup> /L.2.4 | TK <sup>Ø</sup> /L.2-P   | KTKTB 16-26<br>20-26                                   |                          |  |
|                            | ●            | 75             | 2.6 | 3.1        | TKN3           |    |      |     |      | TKN3-P             | TK <sup>Ø</sup> /L.3 | TK <sup>Ø</sup> /L.3-P                         |                          |  |                          |  |
|                            | ●            | 80             | 3.4 | 4.1        | TKN4           |    |      |     |      | -                  | TK <sup>Ø</sup> /L.4 | -  |                          |  |                          |  |
|                            | ●            | 80             | 4.2 | 4.8<br>5.1 | TKN4.8<br>TKN5 |    |      |     |      | -                  | TK <sup>Ø</sup> /L.5 | -  |                          |  |                          |  |
| KTKB 32-2S                 | ●            | 50             | 1.8 | 2.6        | 2.2<br>2.4     | 32 | 25   | 150 | 2    | TKN2<br>TKN2.4     | TKN2-P               | TK <sup>Ø</sup> /L.2<br>TK <sup>Ø</sup> /L.2.4 | TK <sup>Ø</sup> /L.2-P   | KTKTB 20-32<br>25-32<br>32-32<br>KTKTBF 25-32<br>32-32 |                          |  |
|                            | ●            | 100            | 2.6 | 3.1        | TKN3           |    |      |     |      | TKN3-P             | TK <sup>Ø</sup> /L.3 | TK <sup>Ø</sup> /L.3-P                         |                          |  |                          |  |
|                            | ●            | 100            | 3.4 | 4.1        | TKN4           |    |      |     |      | -                  | TK <sup>Ø</sup> /L.4 | -  |                          |  |                          |  |
|                            | ●            | 120            | 4.2 | 4.8<br>5.1 | TKN4.8<br>TKN5 |    |      |     |      | -                  | TK <sup>Ø</sup> /L.5 | -  |                          |  |                          |  |
|                            | ●            | 120            | 5.4 | 6.4        | TKN6           |    |      |     |      | -                  | -                    | -  |                          |  |                          |  |
| KTKB <sup>Ø</sup> /L 32-8S | ●            | 120            | 6.8 |            | 8              | 32 | 25   | 150 | 1    | TKN8               | -                    | -  | -                        |  |                          |  |
| KTKB <sup>Ø</sup> /L 32-9S | R            | 120            | 8   |            | 9.6            | 32 | 25   | 150 | 1    | TKN9               | -                    | -  | -                        |  |                          |  |

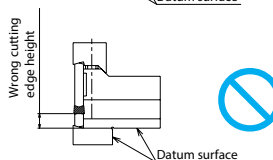
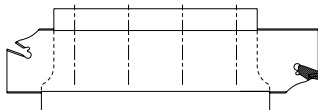
Suffix "-SS" means silver coating.  
 Releasing wrench is "LTK-5".  
 How to attach inserts, See Page H37.  
 Dimension H shows virtual apex distance.

**How to install the toolblock and blade**

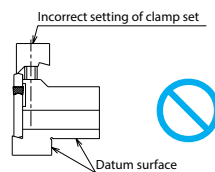
**Correct blade installation**



**Incorrect blade installation**



**Incorrect setting of clamp set**

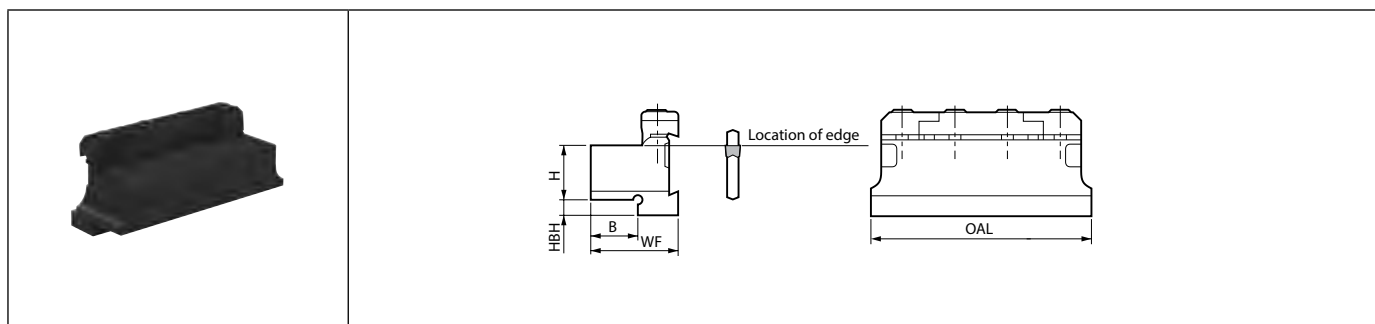


If the clamp set is mounted in the reverse direction, a large gap is created between the toolblock main body and the clamp. If you continue to use the product, the blade may break off. Reinstall in the correct orientation.





● : Standard item R : Right hand only L : Left hand only □ : Check availability



**KTKTB**

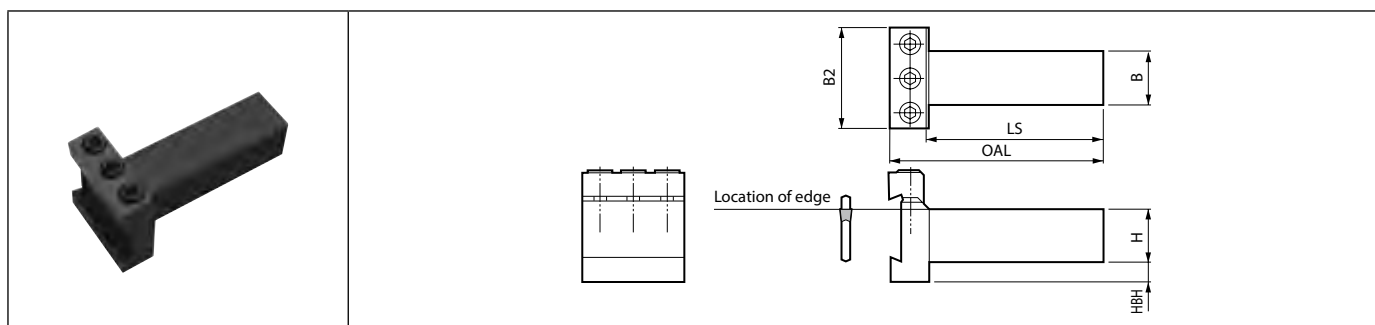


**Toolholder dimensions**




| Description | Availability | Dimension (mm) |      |     |      |    | Spare parts |   |   |  | Applicable blade  |                                    |
|-------------|--------------|----------------|------|-----|------|----|-------------|---|---|--|---|------------------------------------|
|             |              |                |      |     |      |    | Clamp bolt  | Clamp set (integral type)   | Clamp set (separate type)   | Wrench (hex.)  |   |                                    |
|             |              | N              | H    | WF  | OAL  | B  | HBH         |  |  |  |  | Cut-off                            |
| KTKTB 16-19 | ●            | 16             | 29.5 | 76  | 15.5 | 4  | HH5X25      | BCS-1   | -   | LW-4   | KTKB19-OS<br>KTKB19-1SS   | -                                  |
|             | ●            | 20             | 34   |     | 19   |    |             |   |   |  |   |                                    |
| KTKTB 16-26 | ●            | 16             | 31.5 | 86  | 15.5 | 13 | HH6X30      | -   | BCS-2   | LW-5   | KTKB26-OS<br>KTKB26-1SS   | -                                  |
|             | ●            | 20             | 36   |     | 19   |    |             |   |   |  |   |                                    |
| KTKTB 20-32 | ●            | 20             | 38   | 100 | 19   | 13 | HH6X30      | -   | BCS-3   | LW-5   | KTKB32-OS<br>KTKB32-1SS<br>KTKB%L.32-OS   | KFTB%L.○○○○○-4S<br>KFTB%L.○○○○○-5S |
|             | ●            | 25             | 42   |     | 23   |    |             |   |   |  |   |                                    |
|             | ●            | 32             | 48   |     | 29   |    |             |   | 5   |  |   |                                    |



**KTKTBF**

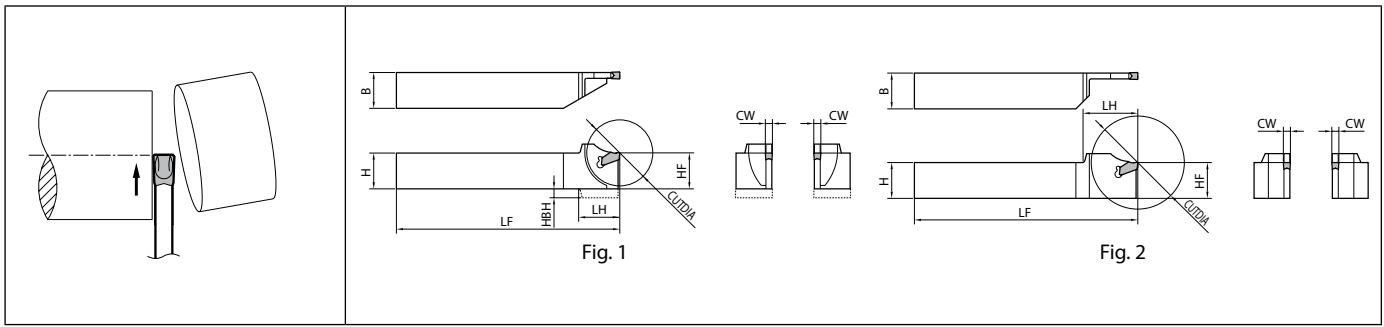


**Toolholder dimensions**

| Description  | Availability | Dimension (mm) |      |     |     |    |     | Spare parts |   |  | Applicable blade  |                                    |
|--------------|--------------|----------------|------|-----|-----|----|-----|-------------|---|--|---|------------------------------------|
|              |              |                |      |     |     |    |     | Clamp bolt  | Clamp set (integral type)   | Wrench (hex.)  |   |                                    |
|              |              | N              | H    | LS  | OAL | B  | B2  | HBH         |  |  |  | Cut-off                            |
| KTKTBF 25-32 | ●            | 25             | 84.5 | 102 | 25  | 48 | 9.5 | HH6X30      | BCS-5   | LW-5   | KTKB32-OS<br>KTKB32-1SS<br>KTKB%L.32-OS   | KFTB%L.○○○○○-4S<br>KFTB%L.○○○○○-5S |
|              | ●            | 32             | 99.5 | 117 | 25  |    | 2.5 |             |   |  |   |                                    |

● : Standard item R : Right hand only L : Left hand only □ : Check availability

KTKH-S



Right-hand shown

Toolholder dimensions

| Description   | Availability  |   | Dimension (mm) |    |    |      |            |            |       |     | Fig. | Spare parts      |       |
|---|---|---|----------------|----|----|------|------------|------------|-------|-----|------|------------------|-------|
|   | R   | L | CUTDIA         | H  | B  | LH   | CW         | HF         | HBH   | LF  |      | Releasing wrench |       |
| KTKH <sup>®</sup> /L 1010F-2S<br>1212H-2S<br>1612H-2S<br>1616H-2S<br>2012K-2S<br>2020K-2S | ●   | ● | 28             | 10 | 10 | 18.6 | 2.2<br>2.4 | 10         | 5     | 80  | 1    | LTK-5            |       |
|   | ●   | ● | 31             | 12 | 12 | 19.8 |            | 12         | 4     | 100 |      |                  |       |
|   | ●   | ● |                | 16 | 16 |      | 16         | 125        |       |     |      |                  |       |
|   | ●   | ● | 36             | 20 | 12 | 22.8 | 20         |            | 20    | 125 |      |                  |       |
|   | ●   | ● |                | 20 | 20 |      |            |            |       |     |      |                  |       |
|   | ●   | ● | 36             | 20 | 20 |      |            |            |       |     |      |                  |       |
| KTKH <sup>®</sup> /L 1612H-3S<br>1616H-3S<br>2012K-3S<br>2020K-3S<br>2525M-3S             | ●   | ● | 35             | 16 | 12 | 21.7 | 3.1        | 16         | 4     | 100 | 1    | LTK-5            |       |
|   | ●   | ● |                | 16 | 16 |      |            | 125        |       |     |      |                  |       |
|   | ●   | ● | 40             | 20 | 12 | 25.3 |            |            | 20    | 25  | 150  |                  |       |
|   | ●   | ● | 51             | 20 | 20 | 31   |            | 2          |       |     |      |                  |       |
|   | ●   | ● | 52             | 25 | 25 | 31.5 |            |            | 25    |     | 150  |                  |       |
| KTKH <sup>®</sup> /L 2012K-4S<br>2020K-4S<br>2525M-4S<br>2525M-5S                         | ●   | ● | 43             | 20 | 12 | 26.3 | 4.1        | 20         | LTK-5 |     |      |                  |       |
|   | ●   | ● | 59             |    | 20 | 35   |            | 25         |       | 150 |      |                  |       |
|   | ●   | ● | 66             | 25 | 25 | 38   | 2          |            |       |     |      |                  |       |
|   | ●   | ● | 77             | 25 | 25 | 43.5 |            | 4.8<br>5.1 |       | 25  | 150  |                  |       |
|   | KTKH <sup>®</sup> /L 2020K-3T17S<br>2525M-3T22S<br>2020K-4T22S<br>2525M-4T22S | ● | ●              | 33 | 20 | 20   | 21.8       | 3.1        |       | 20  | 125  | 1                | LTK-5 |
| ●   |   | ● | 43             | 25 | 25 | 26.8 | 25         |            | 150   |     |      |                  |       |
| ●   |   | ● | 44             | 20 | 20 | 26.8 | 4.1        | 20         | 125   |     |      |                  |       |
| ●   |   | ● | 44             | 25 | 25 | 26.8 |            | 25         | 150   |     |      |                  |       |

Applicable inserts

| Insert         | Low feed | Lead angle                                     | Low feed / Lead angle   |
|----------------|----------|--|-------------------------|
| TKN2<br>TKN2.4 | TKN2-P   | TK <sup>®</sup> /L 2<br>TK <sup>®</sup> /L 2.4 | TK& <sup>®</sup> /L 2-P |
| TKN3           | TKN3-P   | TK <sup>®</sup> /L 3                           | TK <sup>®</sup> /L 3-P  |
| TKN4           | -        | TK <sup>®</sup> /L 4                           | -                       |
| TKN4.8<br>TKN5 | -        | TK <sup>®</sup> /L 5                           | -                       |

● : Standard item R : Right hand only L : Left hand only □ : Check availability