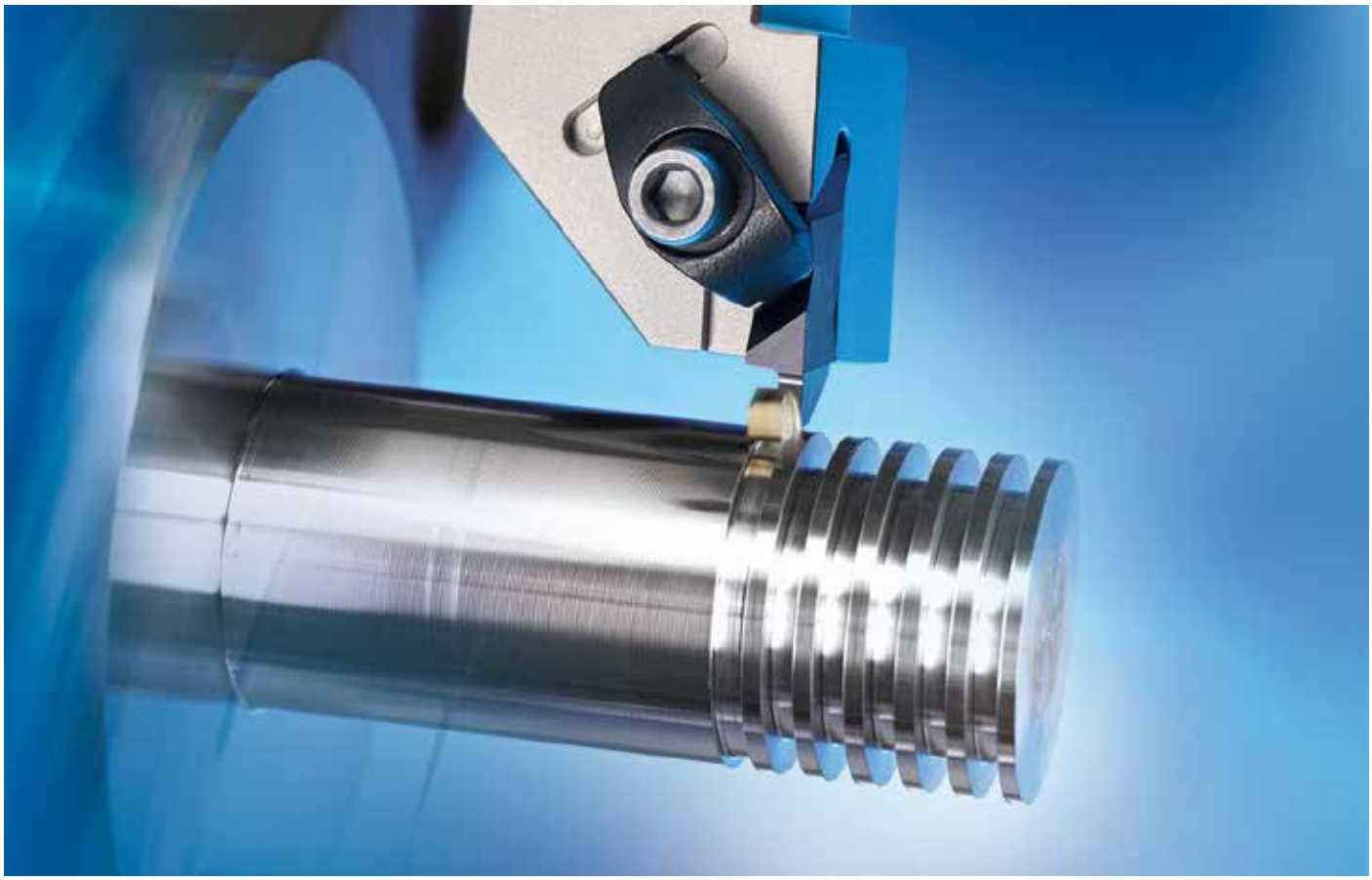
KORLOY
TECH-NEWS

## KORLOY Grooving Tool

# K Notch

## The Solution for High-Precision Grooving

- KORLOY clamping system offers high rigidity for high precision machining
- High-quality cutting edge ensuring long tool life and excellent machinability
- Provides various cutting edge widths for a wide range of selection

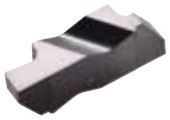


KORLOY

## High-Precision Grooving Inserts with High-Rigidity Clamping Design

# K Notch

The machining stability of cutting tools is a very important issue when machining hard-to-cut materials used for aircraft, medical devices and precision machining parts. Specifically, machining hard-to-cut materials requires not only high-quality surface finish and dimensions accuracy, but also decent cutting life.



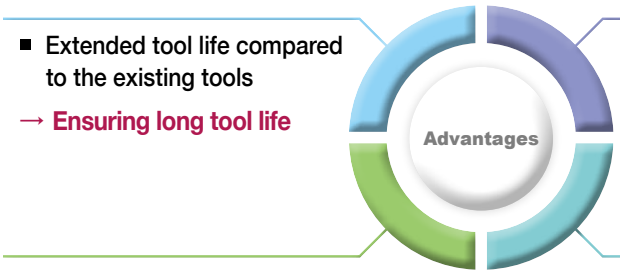
### Insert

**K Notch holders** feature the 3-face clamping design for high rigidity. The clamping force increases with the tightening force for clamp screws. They can minimize chattering even under heavy cutting load, providing long and stable machining life.

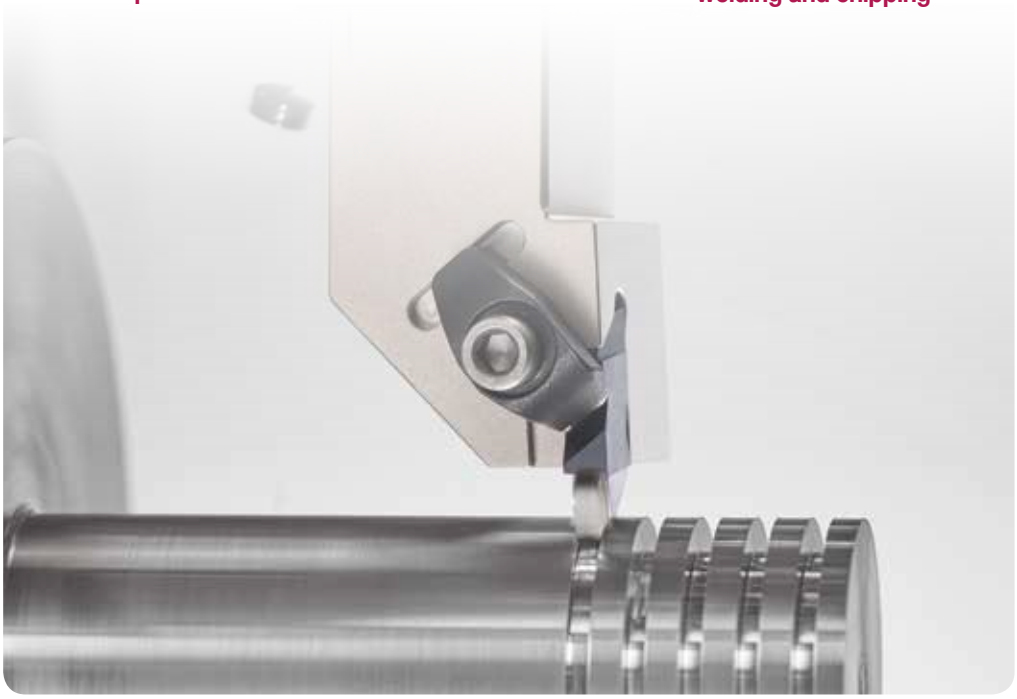
### Holder

**K Notch inserts** ensure high quality cutting edges with outstanding edge preparation.
The mirror-like insert surface provides stronger resistance to welding and chipping for improved surface finish of workpieces.

KORLOY's K Notch offers a single holder type which can be easily clamped to a wide range of cutting edge widths so that it provides higher convenience to its users.




- Extended tool life compared to the existing tools
  → Ensuring long tool life
- Strong clamping system
  → High-rigidity clamping
  → Minimized chattering
- A simple tooling system
  → A single holder type compatible with various inserts
  → Convenient clamping using clamp screws
- Advanced edge preparation technology applied
  → Cutting edges in uniform quality
  → Excellent resistance to welding and chipping



## Code System

**[ Insert ]**

| KN | G | P | 3 | M | 200 | R |
|---|---|---|---|---|---|---|
| K Notch | **Insert type**<br>B: Blank<br>G: Grooving<br>R: Full Radius | **Additional information**<br>P: Positive<br>None: Flat | **Insert size**<br>2, 3, 4 | **Unit**<br>M: Metric<br>None: Inch | **Insert width**<br>200: 2.00 mm | **Hand**<br>L: Left<br>R: Right |

**[ Holder ]**

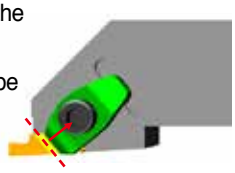
| KN | S | R | 25 | 25 | M | 3 |
|---|---|---|---|---|---|---|
| K Notch | **Clamping position**<br>S: Side | **Hand**<br>L: Left<br>R: Right | **Shank size**<br>Height: 25 mm<br>Width: 25 mm | | **Holder length**<br>E: 70 mm<br>F: 80 mm<br>H: 100 mm<br>K: 125 mm<br>M: 150 mm<br>P: 170 mm | **Insert size**<br>2, 3, 4 |

## Holder Features

• High-rigidity clamps enduring a variety of machining conditions

### Clamp

- Rigid binding force relative to the clamping force
- User-oriented convenient shape

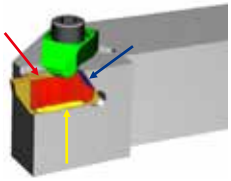


Clamped view

• Compatible with various types of inserts including KNB, KNG and KNR

### Insert clamping

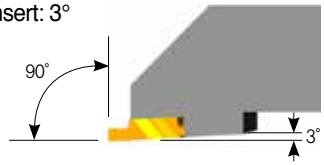
- Provides excellent clamping stability due to the 3-face (bottom, side, and rear face) binding

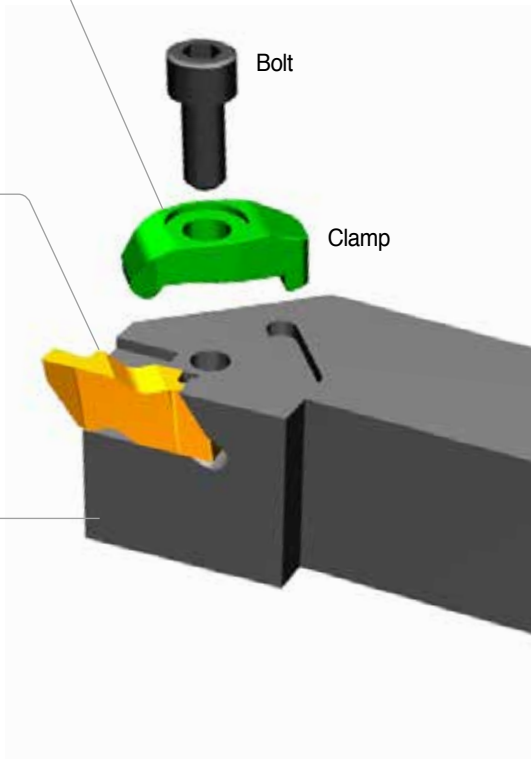


3-face clamping

### Relief angle

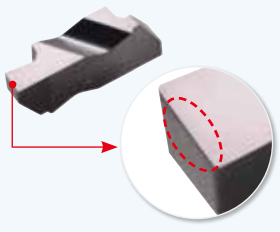
- The relief angle of a flank surface when clamping an insert: 3°



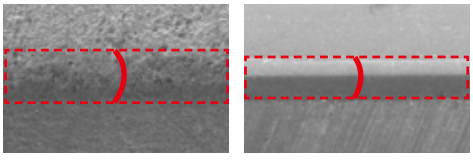

## Insert Features

[ Edge preparation ]



### High-quality edge preparation

- Cutting edges in uniform quality
- Long tool life



[ Competitor ] [ K Notch ]

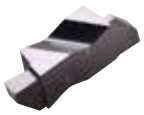
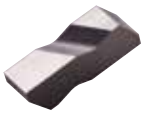
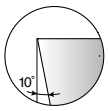
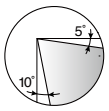
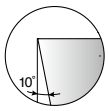
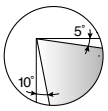
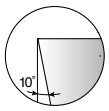
### Mirror-like rake surface

- Improved resistance to welding and chipping
- Improved surface finish of workpieces

[ K Notch ]

## Recommended Feed per Insert Type

• Various applications and sizes provide customers with a wider selection.

| Type | | KNG | KNGP | KNR | KNRP | KNB |
|---|---|---|---|---|---|---|
| Insert shape | |  |  |  |  |  |
| Cutting-edge | |  |  |  |  |  |
| Application | | General grooving | General grooving | Turning profiling | Turning profiling | Blank |
| Recom-mended workpiece | 1st | P, K | M, N, S | P, K | M, N, S | - |
| | 2nd | M, N, S | P, K | M, N, S | P, K | - |
| Recom-mended feed, fn (mm/rev) | P | 0.10 - 0.28 | 0.08 - 0.25 | 0.10 - 0.28 | 0.08 - 0.25 | - |
| | M | 0.10 - 0.25 | 0.08 - 0.25 | 0.10 - 0.25 | 0.08 - 0.25 | - |
| | K | 0.10 - 0.28 | 0.08 - 0.25 | 0.10 - 0.28 | 0.08 - 0.25 | - |
| | N | 0.01 - 0.30 | 0.01 - 0.30 | 0.01 - 0.30 | 0.01 - 0.30 | - |
| | S | 0.05 - 0.15 | 0.05 - 0.15 | 0.05 - 0.15 | 0.05 - 0.15 | - |

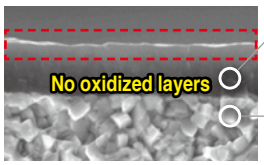
## Recommended Cutting Speed per Grade

• An appropriate choice for cutting speed is directly linked with surface finish of workpieces.

| Workpiece | | Grade | Recommended cutting speed, vc (m/min) |
|---|---|---|---|
| | | | 50 100 200 300 600 |
| P | Grade | PC5300 | 80 – 200 |
| | Alloy steel | PC5300 | 60 – 160 |
| M | Stainless steel | PC5300 | 80 – 130 |
| | | PC8110 | 80 – 160 |
| K | Cast iron | PC5300 | 90 – 200 |
| N | Non-ferrous metal | PC5300 | 150 – 600 |
| S | Heat-resistant alloy | PC8110 | 35 – 65 |

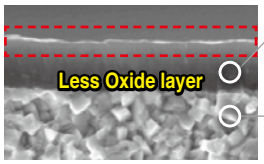
## PVD Coated Grades

### PC5300




- Ultra-fine grain substrate with high toughness and special treatment on the surface
  - Improved welding resistance and chipping resistance
- PVD coating layer with high hardness and oxidation resistance during machining at high temperature
  - Superior oxidation resistance during machining of steel, cast iron, stainless steel, and heat-resistant alloys

### PC8110

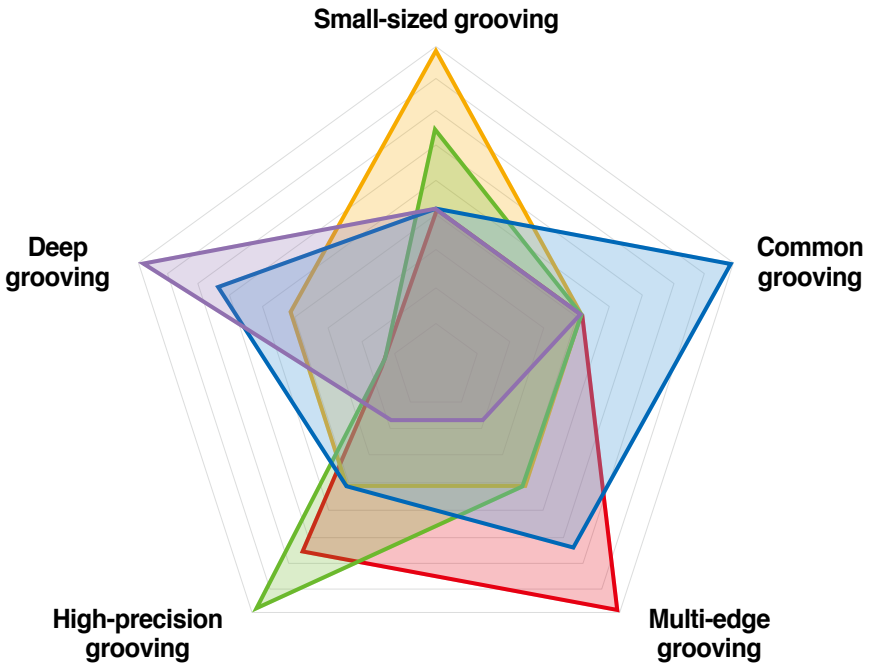



- Prevents wear at a high temperature to apply excellent surface roughness and coating with oxidation resistance and high hardness
- Improves wear resistance to equalize sub-micron matrix, secure stability between corners and improve chipping and wear resistance

# Inserts Selection Guide

## Selection system of tools

■ K Notch ■ TB ■ MGT, KGT ■ Saw-man ■ Auto tools

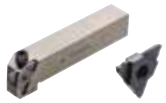



### K Notch New

• High-rigidity clamping

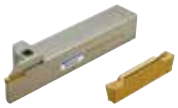
### TB

• 3-corner grooving



### MGT, KGT

• Various machining



### Saw-man

• 1-corner parting machining

### Auto tools

• Automatic lathes

| Product name | High-precision grooving | Common grooving | Small-sized grooving | Deep grooving | Multi-edge grooving |
|---|---|---|---|---|---|
| K Notch New | ★★★★ | ★★ | ★★★ | ★ | ★★ |
| TB | ★★★ | ★★ | ★★ | ★★ | ★★★★ |
| MGT, KGT | ★★ | ★★★★ | ★★ | ★★★ | ★★ |
| Saw-man | ★ | ★★ | ★★ | ★★★★ | ★ |
| Auto tools (Blade, Multifunctional) | ★★★ | ★★ | ★★★★ | ★★ | ★★ |

# Cutting Edge Width of Insert and T-max

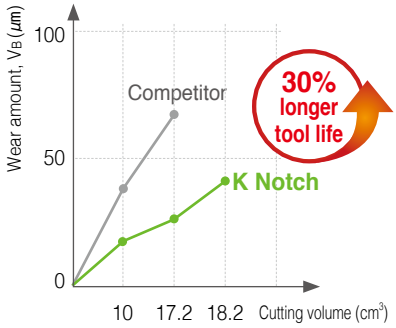
◎: 1st Rec. ○: 2nd Rec.

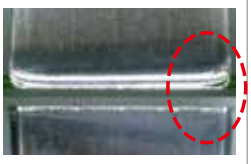
| Picture | Cutting edge width (mm) / T-max (mm) | No. of edges | Machining: External | Internal | Facing | Parting-off | Features |
|---|---|---|---|---|---|---|---|
| K Notch | 0.75 – 6.3 / 6.5 | 2 | ◎ | | | | • Rigid clamping system<br>• High-quality edge preparation |
| TB | 1.25 – 6.0 / 6.5 | 3 | ◎ | | | ○ | • High-precision ground<br>• Optimized to automated machining |
| KGT | 1.5 – 8.0 / 28 | 2 | ◎ | ○ | ○ | ○ | • Diverse machining method<br>• Wide range of machining |
| Saw-man | 2.0 – 6.0 / 125.0 | 1 | ○ | | | ◎ | • Various lead angle<br>• Minimized burr |
| Auto tools | 0.7 – 2.0 / 8.3 | 2 | ◎ | | | ○ | • For automatic lathes (Blade)<br>• Machining of small precision parts |
| | 1.0 – 4.0 / 8.5 | 2 | ◎ | | | ○ | • For automatic lathes (Multi-functional)<br>• Machining of small precision parts |

## Performance Evaluation

### Evaluation of Wear Resistance

- Workpiece: Ti-6Al-4V
- Cutting conditions: vc (m/min) = 70, fn (mm/rev) = 0.15, ap (mm) = 3, Wet
- Tool: Insert KNG3125R (PC8110)
  Holder KNSR2525M3

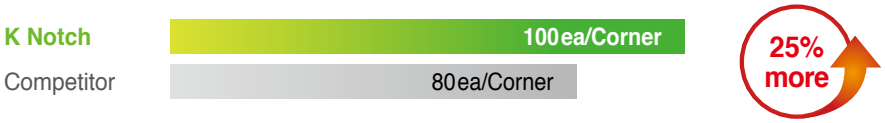



| Type | K Notch | Competitor |
|---|---|---|
| Picture of wear |  |  |
| Tool life | **100%** | 70% |

## Application Examples

### Input shaft (Carbon steel)

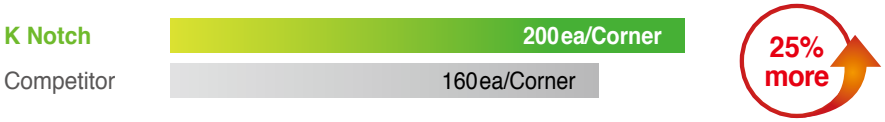
- Workpiece: SM40C
- Cutting conditions: vc (m/min) = 150, fn (mm/rev) = 0.15, ap (mm) = 3, Wet
- Tool: Insert KNG3125R (PC5300)
  Holder KNSR2525M3




➔ **25% longer tool life compared to the competitor**

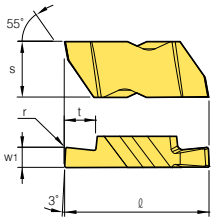
### Medical device parts (Titanium)

- Workpiece: Ti-6Al-4V
- Cutting conditions: vc (m/min) = 80, fn (mm/rev) = 0.1, ap (mm) = 2, Wet
- Tool: Insert KNGP3088R (PC8110)
  Holder KNSR2525M3

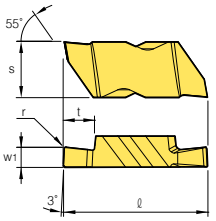



➔ **25% longer tool life compared to the competitor**

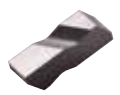
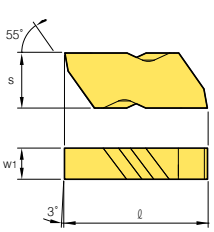
## Insert (Metric)

| Type | Insert shape | Designation | | Coated | | Dimensions | | | | | | | | | | Figure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | mm | | | | | inch | | | | | |
| | | | | PC5300 | PC8110 | s | w1 | r | t | ℓ | s | w1 | r | t | ℓ | |
| Flat Top |  | KNG | 2M 150R | | | 5.56 | 1.50 | 0.19 | 2.79 | 13.030 | 0.219 | 0.059 | 0.0075 | 0.11 | 0.513 |  |
| | | | 2M 200R | | | 5.56 | 2.00 | 0.19 | 2.79 | 13.030 | 0.219 | 0.079 | 0.0075 | 0.11 | 0.513 | |
| | | | 2M 250R | | | 5.56 | 2.50 | 0.19 | 2.79 | 13.030 | 0.219 | 0.098 | 0.0075 | 0.11 | 0.513 | |
| | | | 2M 300R | | | 5.56 | 3.00 | 0.19 | 2.79 | 13.030 | 0.219 | 0.118 | 0.0075 | 0.11 | 0.513 | |
| | | | 3M 150R | ● | ● | 8.74 | 1.50 | 0.19 | 1.91 | 22.709 | 0.344 | 0.059 | 0.0075 | 0.075 | 0.894 | |
| | | | 3M 200R | ● | ● | 8.74 | 2.00 | 0.19 | 2.79 | 22.709 | 0.344 | 0.079 | 0.0075 | 0.11 | 0.894 | |
| | | | 3M 250R | ● | ● | 8.74 | 2.50 | 0.19 | 3.81 | 22.709 | 0.344 | 0.098 | 0.0075 | 0.15 | 0.894 | |
| | | | 3M 300R | ● | ● | 8.74 | 3.00 | 0.19 | 3.81 | 22.709 | 0.344 | 0.118 | 0.0075 | 0.15 | 0.894 | |
| | | | 3M 400R | ● | ● | 8.74 | 4.00 | 0.19 | 3.81 | 22.709 | 0.344 | 0.157 | 0.0075 | 0.15 | 0.894 | |
| | | | 4M 500R | | | 11.51 | 5.00 | 0.20 | 6.35 | 28.663 | 0.453 | 0.197 | 0.0079 | 0.25 | 1.128 | |
| | | | 4M 600R | | | 11.51 | 6.00 | 0.20 | 6.35 | 28.663 | 0.453 | 0.236 | 0.0079 | 0.25 | 1.128 | |

● : Stock item

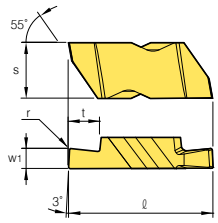
| Type | Insert shape | Designation | | Coated | | Dimensions | | | | | | | | | | Figure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | mm | | | | | inch | | | | | |
| | | | | PC5300 | PC8110 | s | w1 | r | t | ℓ | s | w1 | r | t | ℓ | |
| C/B Ground |  | KNGP | 2M 150R | | | 5.56 | 1.50 | 0.19 | 2.79 | 13.030 | 0.219 | 0.059 | 0.0075 | 0.11 | 0.513 |  |
| | | | 2M 200R | | | 5.56 | 2.00 | 0.19 | 2.79 | 13.030 | 0.219 | 0.079 | 0.0075 | 0.11 | 0.513 | |
| | | | 2M 250R | | | 5.56 | 2.50 | 0.19 | 2.79 | 13.030 | 0.219 | 0.098 | 0.0075 | 0.11 | 0.513 | |
| | | | 2M 300R | | | 5.56 | 3.00 | 0.19 | 2.79 | 13.030 | 0.219 | 0.118 | 0.0075 | 0.11 | 0.513 | |
| | | | 3M 150R | ● | ● | 8.74 | 1.50 | 0.19 | 1.91 | 22.709 | 0.344 | 0.059 | 0.0075 | 0.075 | 0.894 | |
| | | | 3M 200R | ● | ● | 8.74 | 2.00 | 0.19 | 2.79 | 22.709 | 0.344 | 0.079 | 0.0075 | 0.11 | 0.894 | |
| | | | 3M 250R | ● | ● | 8.74 | 2.50 | 0.19 | 3.81 | 22.709 | 0.344 | 0.098 | 0.0075 | 0.15 | 0.894 | |
| | | | 3M 300R | ● | ● | 8.74 | 3.00 | 0.19 | 3.81 | 22.709 | 0.344 | 0.118 | 0.0075 | 0.15 | 0.894 | |
| | | | 3M 400R | ● | ● | 8.74 | 4.00 | 0.19 | 3.81 | 22.709 | 0.344 | 0.157 | 0.0075 | 0.15 | 0.894 | |
| | | | 4M 500R | | | 11.51 | 5.00 | 0.20 | 6.35 | 28.663 | 0.453 | 0.197 | 0.0079 | 0.25 | 1.128 | |
| | | | 4M 600R | | | 11.51 | 6.00 | 0.20 | 6.35 | 28.663 | 0.453 | 0.236 | 0.0079 | 0.25 | 1.128 | |

● : Stock item

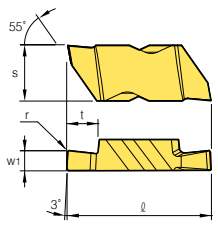
| Type | Insert shape | Designation | | Coated | Dimensions | | | | | | | | | | Figure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mm | | | | | inch | | | | | |
| | | | | H05 | s | w1 | r | t | ℓ | s | w1 | r | t | ℓ | |
| Blank |  | KNB | 2R | | 5.56 | 3.81 | - | - | 13.030 | 0.219 | 0.150 | - | - | 0.513 |  |
| | | | 3R | | 8.74 | 4.95 | - | - | 22.709 | 0.344 | 0.195 | - | - | 0.894 | |
| | | | 4R | | 11.51 | 6.48 | - | - | 28.663 | 0.453 | 0.255 | - | - | 1.128 | |

● : Stock item

# Insert (Inch)

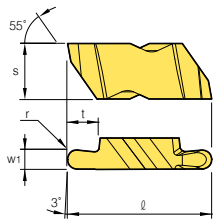
| Type | Insert shape | Designation | | Coated | | Dimensions | | | | | | | | | | Figure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | mm | | | | | inch | | | | | |
| | | | | PC5300 | PC8110 | s | w1 | r | t | ℓ | s | w1 | r | t | ℓ | |
| Flat Top |  | KNG | 2031R | | | 5.56 | 0.79 | 0.09 | 1.27 | 13.030 | 0.219 | 0.031 | 0.0035 | 0.05 | 0.513 |  |
| | | | 2041R | | | 5.56 | 1.04 | 0.09 | 1.27 | 13.030 | 0.219 | 0.041 | 0.0035 | 0.05 | 0.513 | |
| | | | 2047R | | | 5.56 | 1.19 | 0.09 | 1.27 | 13.030 | 0.219 | 0.047 | 0.0035 | 0.05 | 0.513 | |
| | | | 2058R | | | 5.56 | 1.47 | 0.19 | 1.27 | 13.030 | 0.219 | 0.058 | 0.0075 | 0.05 | 0.513 | |
| | | | 2062R | | | 5.56 | 1.57 | 0.19 | 2.79 | 13.030 | 0.219 | 0.062 | 0.0075 | 0.11 | 0.513 | |
| | | | 2094R | | | 5.56 | 2.39 | 0.19 | 2.79 | 13.030 | 0.219 | 0.094 | 0.0075 | 0.11 | 0.513 | |
| | | | 2125R | | | 5.56 | 3.18 | 0.19 | 2.79 | 13.030 | 0.219 | 0.125 | 0.0075 | 0.11 | 0.513 | |
| | | | 3047R | | | 8.74 | 1.19 | 0.19 | 1.91 | 22.709 | 0.344 | 0.047 | 0.0075 | 0.075 | 0.894 | |
| | | | 3062R | ● | ● | 8.74 | 1.57 | 0.19 | 2.39 | 22.709 | 0.344 | 0.062 | 0.0075 | 0.094 | 0.894 | |
| | | | 3072R | | | 8.74 | 1.83 | 0.19 | 2.39 | 22.709 | 0.344 | 0.072 | 0.0075 | 0.094 | 0.894 | |
| | | | 3078R | ● | ● | 8.74 | 1.98 | 0.19 | 2.39 | 22.709 | 0.344 | 0.078 | 0.0075 | 0.094 | 0.894 | |
| | | | 3088R | | | 8.74 | 2.24 | 0.19 | 2.39 | 22.709 | 0.344 | 0.088 | 0.0075 | 0.094 | 0.894 | |
| | | | 3094R | | | 8.74 | 2.39 | 0.19 | 3.81 | 22.709 | 0.344 | 0.094 | 0.0075 | 0.15 | 0.894 | |
| | | | 3097R | ● | ● | 8.74 | 2.46 | 0.32 | 3.81 | 22.709 | 0.344 | 0.097 | 0.0125 | 0.15 | 0.894 | |
| | | | 3105R | | | 8.74 | 2.67 | 0.19 | 3.81 | 22.709 | 0.344 | 0.105 | 0.0075 | 0.15 | 0.894 | |
| | | | 3110R | | | 8.74 | 2.79 | 0.32 | 3.81 | 22.709 | 0.344 | 0.110 | 0.0125 | 0.15 | 0.894 | |
| | | | 3122R | | | 8.74 | 3.10 | 0.19 | 3.81 | 22.709 | 0.344 | 0.122 | 0.0075 | 0.15 | 0.894 | |
| | | | 3125R | ● | ● | 8.74 | 3.18 | 0.19 | 3.81 | 22.709 | 0.344 | 0.125 | 0.0075 | 0.15 | 0.894 | |
| | | | 3142R | | | 8.74 | 3.61 | 0.32 | 3.81 | 22.709 | 0.344 | 0.142 | 0.0125 | 0.15 | 0.894 | |
| | | | 3156R | ● | ● | 8.74 | 3.96 | 0.19 | 3.81 | 22.709 | 0.344 | 0.156 | 0.0075 | 0.15 | 0.894 | |
| | | | 3178R | | | 8.74 | 4.52 | 0.19 | 3.81 | 22.709 | 0.344 | 0.178 | 0.0075 | 0.15 | 0.894 | |
| | | | 3185R | | | 8.74 | 4.70 | 0.57 | 3.81 | 22.709 | 0.344 | 0.185 | 0.0225 | 0.15 | 0.894 | |
| | | | 3189R | ● | ● | 8.74 | 4.80 | 0.57 | 3.81 | 22.709 | 0.344 | 0.189 | 0.0225 | 0.15 | 0.894 | |
| | | | 4125R | ● | ● | 11.51 | 3.18 | 0.19 | 3.81 | 28.663 | 0.453 | 0.125 | 0.0075 | 0.15 | 1.128 | |
| | | | 4189R | | | 11.51 | 4.80 | 0.57 | 6.35 | 28.663 | 0.453 | 0.189 | 0.0225 | 0.25 | 1.128 | |
| | | | 4213R | | | 11.51 | 5.41 | 0.19 | 6.35 | 28.663 | 0.453 | 0.213 | 0.0075 | 0.25 | 1.128 | |
| | | | 4219R | | | 11.51 | 5.56 | 0.57 | 6.35 | 28.663 | 0.453 | 0.219 | 0.0225 | 0.25 | 1.128 | |
| | | | 4250R | | | 11.51 | 6.35 | 0.57 | 6.35 | 28.663 | 0.453 | 0.250 | 0.0225 | 0.25 | 1.128 | |

● : Stock item

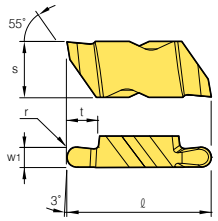
| Type | Insert shape | Designation | | Coated | | Dimensions | | | | | | | | | | Figure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | mm | | | | | inch | | | | | |
| | | | | PC5300 | PC8110 | s | w1 | r | t | ℓ | s | w1 | r | t | ℓ | |
| C/B Ground |  | KNGP | 2031R | | | 5.56 | 0.79 | 0.09 | 1.27 | 13.030 | 0.219 | 0.031 | 0.0035 | 0.05 | 0.513 |  |
| | | | 2062R | | | 5.56 | 1.57 | 0.19 | 2.79 | 13.030 | 0.219 | 0.062 | 0.0075 | 0.11 | 0.513 | |
| | | | 2125R | | | 5.56 | 3.18 | 0.19 | 2.79 | 13.030 | 0.219 | 0.125 | 0.0075 | 0.11 | 0.513 | |
| | | | 3088R | | | 8.74 | 2.24 | 0.19 | 2.39 | 22.709 | 0.344 | 0.088 | 0.0075 | 0.094 | 0.894 | |
| | | | 3125R | ● | ● | 8.74 | 3.18 | 0.19 | 3.81 | 22.709 | 0.344 | 0.125 | 0.0075 | 0.15 | 0.894 | |
| | | | 3156R | ● | ● | 8.74 | 3.96 | 0.19 | 3.81 | 22.709 | 0.344 | 0.156 | 0.0075 | 0.15 | 0.894 | |
| | | | 3189R | | | 8.74 | 4.80 | 0.57 | 3.81 | 22.709 | 0.344 | 0.189 | 0.0225 | 0.15 | 0.894 | |
| | | | 4189R | | | 11.51 | 4.80 | 0.57 | 6.35 | 28.663 | 0.453 | 0.189 | 0.0225 | 0.25 | 1.128 | |
| | | | 4250R | | | 11.51 | 6.35 | 0.57 | 6.35 | 28.663 | 0.453 | 0.250 | 0.0225 | 0.25 | 1.128 | |

● : Stock item

## Insert (Inch)

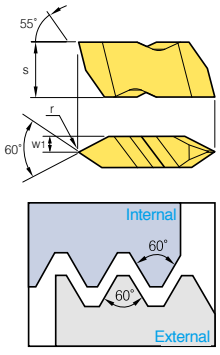
| Type | Insert shape | Designation | | Coated PC5300 | Coated PC8110 | Dimensions mm s | mm w1 | mm r | mm t | mm ℓ | inch s | inch w1 | inch r | inch t | inch ℓ | Figure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Round Flat Top |  | KNR | 2031R | | | 5.56 | 1.57 | 0.79 | 2.79 | 13.030 | 0.219 | 0.062 | 0.031 | 0.11 | 0.513 |  |
| | | | 2047R | | | 5.56 | 2.39 | 1.19 | 2.79 | 13.030 | 0.219 | 0.094 | 0.047 | 0.11 | 0.513 | |
| | | | 3031R | ● | ● | 8.74 | 1.57 | 0.79 | 2.39 | 22.709 | 0.344 | 0.062 | 0.031 | 0.094 | 0.894 | |
| | | | 3047R | ● | ● | 8.74 | 2.39 | 1.19 | 3.81 | 22.709 | 0.344 | 0.094 | 0.047 | 0.15 | 0.894 | |
| | | | 3062R | ● | ● | 8.74 | 3.18 | 1.59 | 3.81 | 22.709 | 0.344 | 0.125 | 0.0625 | 0.15 | 0.894 | |
| | | | 3078R | ● | ● | 8.74 | 3.96 | 1.98 | 3.81 | 22.709 | 0.344 | 0.156 | 0.078 | 0.15 | 0.894 | |
| | | | 3094R | ● | ● | 8.74 | 4.78 | 2.39 | 3.81 | 22.709 | 0.344 | 0.188 | 0.094 | 0.15 | 0.894 | |
| | | | 4125R | | | 11.51 | 6.35 | 3.18 | 6.35 | 28.663 | 0.453 | 0.250 | 0.125 | 0.25 | 1.128 | |

● : Stock item

| Type | Insert shape | Designation | | Coated PC5300 | Coated PC8110 | Dimensions mm s | mm w1 | mm r | mm t | mm ℓ | inch s | inch w1 | inch r | inch t | inch ℓ | Figure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Round C/B Ground |  | KNRP | 2031R | | | 5.56 | 1.57 | 0.79 | 2.79 | 13.030 | 0.219 | 0.062 | 0.031 | 0.11 | 0.513 |  |
| | | | 2047R | | | 5.56 | 2.39 | 1.19 | 2.79 | 13.030 | 0.219 | 0.094 | 0.047 | 0.11 | 0.513 | |
| | | | 3031R | ● | ● | 8.74 | 1.57 | 0.79 | 2.39 | 22.709 | 0.344 | 0.062 | 0.031 | 0.094 | 0.894 | |
| | | | 3047R | ● | ● | 8.74 | 2.39 | 1.19 | 3.81 | 22.709 | 0.344 | 0.094 | 0.047 | 0.15 | 0.894 | |
| | | | 3062R | ● | ● | 8.74 | 3.18 | 1.59 | 3.81 | 22.709 | 0.344 | 0.125 | 0.0625 | 0.15 | 0.894 | |
| | | | 3078R | ● | ● | 8.74 | 3.96 | 1.98 | 3.81 | 22.709 | 0.344 | 0.156 | 0.078 | 0.15 | 0.894 | |
| | | | 3094R | ● | ● | 8.74 | 4.78 | 2.39 | 3.81 | 22.709 | 0.344 | 0.188 | 0.094 | 0.15 | 0.894 | |
| | | | 4125R | | | 11.51 | 6.35 | 3.18 | 6.35 | 28.663 | 0.453 | 0.250 | 0.125 | 0.25 | 1.128 | |

● : Stock item

## Insert (Threading)

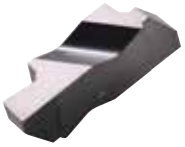
| Type | Insert shape | Designation | | Coated PC5300 | Coated PC8110 | Dimensions mm s | mm w1 | mm r | inch s | inch w1 | inch r | Pitch (External) mm | Pitch (External) tpi | Figure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Partial Profiling 60° |  | KNT | 2R | | | 5.56 | 3.81 | 0.10 | 0.219 | 0.150 | 0.004 | 0.70-3.00 | 8-36 |  |
| | | | 3R | | | 8.74 | 4.95 | 0.17 | 0.344 | 0.195 | 0.007 | 1.25-4.00 | 6-20 | |
| | | | 4R | | | 11.51 | 6.48 | 0.17 | 0.453 | 0.255 | 0.007 | 1.25-6.25 | 4-20 | |

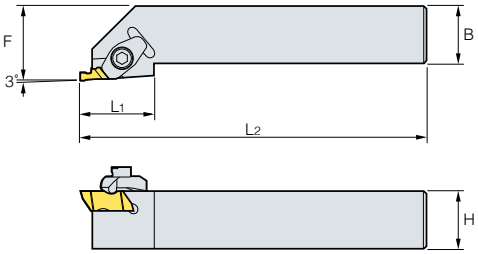
Partial Profiling 60°

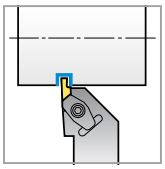
● : Stock item

# Holder (Metric)

• Grooving, Profiling





R type insert

KNG KNGP KNT
KNR KNRP KNB

| Designation | | Stock | mm | | | | | inch | | | | | Insert | Clamp | Screw | Wrench |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | H | B | F | L1 | L2 | H | B | F | L1 | L2 | | | | |
| KNSR | 1010E2 | | 10 | 10 | 14 | 19 | 70 | 0.394 | 0.394 | 0.551 | 0.748 | 2.756 | KNG2□<br>KNGP2□<br>KNR2□<br>KNB2R<br>KNT2R | CM74 | MHB3010 | HW25L |
| | 1212F2 | | 12 | 12 | 16 | 19 | 80 | 0.472 | 0.472 | 0.630 | 0.748 | 3.150 | | | | |
| | 1616H2 | | 16 | 16 | 20 | 19 | 100 | 0.630 | 0.630 | 0.787 | 0.748 | 3.937 | | | | |
| | 2020K2 | | 20 | 20 | 25 | 19 | 125 | 0.787 | 0.787 | 0.984 | 0.748 | 4.921 | | | | |
| | 2525M2 | | 25 | 25 | 32 | 19 | 150 | 0.984 | 0.984 | 1.260 | 0.748 | 5.906 | | | | |
| | 2020K3 | ● | 20 | 20 | 25 | 32 | 125 | 0.787 | 0.787 | 0.984 | 1.260 | 4.921 | KNG3□<br>KNGP3□<br>KNR3□<br>KNRP3□<br>KNB3R<br>KNT3R | CM72LP | MHA0512 | HW40L |
| | 2525M3 | ● | 25 | 25 | 32 | 32 | 150 | 0.984 | 0.984 | 1.260 | 1.260 | 5.906 | | | | |
| | 3225P3 | | 32 | 32 | 32 | 32 | 170 | 1.260 | 1.260 | 1.260 | 1.260 | 6.693 | | | | |
| | 3232P3 | ● | 32 | 32 | 40 | 32 | 170 | 1.260 | 1.260 | 1.575 | 1.260 | 6.693 | | | | |
| | 2525M4 | | 25 | 25 | 32 | 35 | 150 | 0.984 | 0.984 | 1.260 | 1.378 | 5.906 | KNG4□<br>KNGP4□<br>KNR4□<br>KNB4R<br>KNT4R | CM72LP | MHA0512 | HW40L |
| | 3225P4 | | 32 | 32 | 32 | 35 | 170 | 1.260 | 1.260 | 1.260 | 1.378 | 6.693 | | | | |
| | 3232P4 | | 32 | 32 | 40 | 35 | 170 | 1.260 | 1.260 | 1.575 | 1.378 | 6.693 | | | | |

● : Stock item


**KORLOY**

**Holystar B/D, 1350, Nambusunhwan-ro, Geumcheon-gu, Seoul, 08536, Korea**
**Tel : +82-2-522-3181 Fax : +82-2-522-3184, +82-2-3474-4744 Web : www.korloy.com E-mail : export@korloy.com**

**KORLOY AMERICA**
620 Maple Avenue, Torrance, CA 90503, USA
Tel : +1-310-782-3800 Toll Free : +1-888-711-0001 Fax : +1-310-782-3885
E-mail : sales.kai@korloy.com

**KORLOY EUROPE**
Gablonzer Str. 25-27, 61440 Oberursel, Germany
Tel : +49-6171-277-83-0 Fax : +49-6171-277-83-59
E-mail : sales.keg@korloy.com

**KORLOY INDIA**
Plot NO. 415, Sector 8, IMT Manesar, Gurgaon 122051, Haryana, India
Tel : +91-124-4391790 Fax : +91-124-4050032
E-mail : sales.kip@korloy.com

**KORLOY BRASIL**
Av. Aruana 280, conj.12, WLC, Alphaville, Barueri,
CEP06460-010, SP, Brasil
Tel : +55-11-4193-3810 E-mail : sales.kbl@korloy.com

**KORLOY VIETNAM**
No. 133, Le Loi street, Hoa Phu ward, Thu Dau Mot city,
Binh Duong, Vietnam
Tel : +84-96-856-1230 E-mail : sales.kvc@korloy.com

**KORLOY TURKEY**
Orucreis Mah. Vadi Cad. No: 108 Istanbul Ticaret Sarayi
Kat 5 No: 318 Giyimkent Sitesi-Esenler/Istanbul, Turkey
Tel : +90-212-438-5197 E-mail : service@korloy.com.tr

**KORLOY CHILE**
Av. Providencia 1650, Office 1009, 7500027
Providencia-Santiago, Chile
Tel : +56-229-295-490 E-mail : sales.kcs@korloy.com

**KORLOY FACTORY QINGDAO**
Ground Dongjing Road 56(B) District Free Trade Zone. Qingdao, China
Tel : +86-532-86959880 Fax : +86-532-86760651
E-mail : pro.kfq@korloy.com

**KORLOY FACTORY INDIA**
Plot No. 415, Sector 8, IMT Manesar, Gurgaon 122051, Haryana, India
Tel : +91-124-4391790 Fax : +91-124-4050032
E-mail : pro.kim@korloy.com