PCBN [NX/HS/TS] PCD
Diamond [SCD/ Mono]
Insert Series

KB404 | KB504 | KB601 | KB604 | KB620
KB902 | KB951 | KB952
KP01E | KP05 | KP10 | KPM | KPC
SCD | Mono

The KOHER Company Identity Symbol represents Korea, the hub of Northeast Asia, spreading out to the world with 4 ways

Courage to challenge
Creative spirit
Faith & Trust in Humanity
Honesty

Headquarter
103ho, Jungjungong POST-BI Center, 64 Yeonsuwon-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Korea 15432

Factory / R&D Center
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Web : www.kohertech.com     SNS : www.facebook.com/kohertech

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Germany Branch
Donatusstr. 32 D-50259 Pulheim, Germany
KOHER PCBN [NX/HS/TS] PCD & SCD Insert Series

**CBN Application**
- Cast Iron
  - Engine Block
  - Brake Disc
  - Clutch Plates
  - Rolls
  - Pumps
- Hardened Steel
  - Gears
  - Transmission parts
  - Gear shafts
  - Bearing Hub
  - Dies, Punches
- Powder Metal
  - Valve Seat
  - Con-rods
  - Oil pumps
- Super Alloy
  - Turbine blades
  - Turbine vane

**PCD Application**
- Automotive
- Aerospace
- Electronics
- Woods
- Aluminum alloy
  - Transmission Case
  - Aluminum Alloy wheels
  - Pistons
  - Cylinder heads
- Aluminum alloy & Others
  - Turbine blades
- Aluminum alloy & Others
  - PCB
  - Mobile phone casing
  - Hard disk casing
  - DVD Cover
- Woods
  - Furniture
  - Wood floor

Cutting Tool Application Area
- Impact Resistance/Deflective Strength
- Hardness/Wear Resistance

PCD Chip Breaker Inserts  |  CBN Chip Breaker Inserts  |  Diamond Inserts  |  Holder & Cutter
PCD & CBN Grooving Inserts  |  PCD & CBN ISO Turning Inserts  |  CBN Coating inserts

www.kohertech.com
# ISO Identification Table

## Insert Shape

<table>
<thead>
<tr>
<th>C</th>
<th>D</th>
<th>E</th>
<th>K</th>
<th>L</th>
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</thead>
<tbody>
<tr>
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## Relief Angle

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<tr>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Tolerance

- Inscribed Circle Diameter:
  - Diameter (d): ±0.015
  - Corner Height (m): ±0.025
  - Thickness (t): ±0.13

- M:
  - ±0.05 – ±0.15
  - ±0.08 – ±0.20
  - ±0.3

## Screw Hole Type

<table>
<thead>
<tr>
<th>A</th>
<th>T</th>
<th>W</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

## Inscribed Circle Diameter

<table>
<thead>
<tr>
<th>C</th>
<th>D</th>
<th>E</th>
<th>K</th>
<th>L</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Chip breaker Type

- Laser Chip Breaker Type
- Grinding Chip Breaker Type
- Combined Chip Breaker Type

## Chip breaker Design

- Regrinding Process
- One Use Type
- Half Solid Type
- 2 corner
- 4 corner
- 6 corner
- 4 corner
- 3 corner
- 6 corner

## CBN Edge Size

<table>
<thead>
<tr>
<th>Application</th>
<th>Grade</th>
<th>High Speed</th>
<th>Standard</th>
<th>Strong</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardened Steel</td>
<td>KB404, KB504, KB601</td>
<td>01020010</td>
<td>015250020</td>
<td>020300025</td>
</tr>
<tr>
<td>Sintered Alloy &amp; Cast Iron</td>
<td>KB901, KB902, KB951</td>
<td>010150000</td>
<td>015200005</td>
<td>020250010</td>
</tr>
</tbody>
</table>

## Identification Table

- 01: 0.1
- 02: 0.2
- 04: 0.4
- 08: 0.8
- 12: 1.2
- 16: 1.6
- 24: 2.4
- 28: 2.8
- 32: 3.2
- 40: Round
- 50: Round

## General Process

- Round

## Screw Hole Type

- A
- T
- W

## Chip breaker Type

- Laser Chip Breaker Type
- Grinding Chip Breaker Type
- Combined Chip Breaker Type

## Chip breaker Design

- Regrinding Process
- One Use Type
- Half Solid Type
- 2 corner
- 4 corner
- 6 corner
- 4 corner
- 3 corner
- 6 corner

## CBN Edge Size

- 015
- 25
- 0015

## Tolerance

- Inscribed Circle Diameter (d):
  - Diameter (d): ±0.015
  - Corner Height (m): ±0.025
  - Thickness (t): ±0.13

- M:
  - ±0.05 – ±0.15
  - ±0.08 – ±0.20
  - ±0.3
KOHER PCD Grade

KOHER PCD line-up provides you various choices with grades for your non-ferrous material machining with long tool life.

**KP01E**
- Super fine grade provides stable wear resistance for precision machining of non-ferrous metals and non-metals.
- Low silicon aluminum alloy & Titanium machining

**KP05**
- General purpose with fine surface finishing.
- Graphite, Copper alloy
- Wood composites

**KP10**
- Good wear resistance and toughness. General use, high speed cutting of aluminum alloy.
- <14% silicon aluminum alloy

**KPC**
- Higher wear resistance and impact resistance. Suitable for hard to cut materials with wear.
- >14% Silicon aluminum alloy
- Sintered tungsten carbide

**KPM**
- Higher impact and wear resistance. Bi-modal mixed grain structure.
- Stone sawing
- >14% Silicon aluminum alloy

---

**Machinability**

<table>
<thead>
<tr>
<th>Material</th>
<th>Process</th>
<th>Grade Recommendation</th>
<th>Speed (m/min)</th>
<th>Feed (mm/rev)</th>
<th>Depth of Cut (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum alloy</td>
<td>Turning</td>
<td>KP01E / KP05 / KP10</td>
<td>900 - 3,500</td>
<td>0.1 - 0.4</td>
<td>0.1 - 4.0</td>
</tr>
<tr>
<td>Aluminum alloy</td>
<td>Milling</td>
<td>KP01E / KP05 / KP10</td>
<td>1,000 - 5,000</td>
<td>0.1 - 0.3</td>
<td>0.1 - 3.0</td>
</tr>
<tr>
<td>Aluminum alloy</td>
<td>Turning</td>
<td>KP01E / KP05 / KP10 / KPC</td>
<td>600 - 2,400</td>
<td>0.1 - 0.4</td>
<td>0.1 - 4.0</td>
</tr>
<tr>
<td>Aluminum alloy</td>
<td>Milling</td>
<td>KP10 / KPM / KPC</td>
<td>300 - 700</td>
<td>0.1 - 0.3</td>
<td>0.1 - 3.0</td>
</tr>
<tr>
<td>Aluminum alloy</td>
<td>Turning</td>
<td>KP10 / KPM / KPC</td>
<td>300 - 700</td>
<td>0.1 - 0.4</td>
<td>0.1 - 4.0</td>
</tr>
<tr>
<td>Aluminum alloy</td>
<td>Milling</td>
<td>KP10 / KPM / KPC</td>
<td>400 - 900</td>
<td>0.1 - 0.3</td>
<td>0.1 - 3.0</td>
</tr>
<tr>
<td>Copper, Zinc, Brass</td>
<td>Turning / Milling</td>
<td>KP01E / KP05 / KP10</td>
<td>400 - 1,200</td>
<td>0.03 - 0.3</td>
<td>0.05 - 2.0</td>
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</tbody>
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---

**Work-piece Material**

<table>
<thead>
<tr>
<th>Machinability</th>
<th>Turning</th>
<th>Milling</th>
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</thead>
<tbody>
<tr>
<td>Good</td>
<td>Sintered Aluminum</td>
<td>Si &lt;14%</td>
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<tr>
<td></td>
<td>KP01E</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Si &gt;14%</td>
<td></td>
</tr>
<tr>
<td>Difficult</td>
<td>Aluminum Die casting</td>
<td>Si &gt;14%</td>
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<tr>
<td></td>
<td>KP10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>KPM</td>
<td></td>
</tr>
</tbody>
</table>

---

**KOHER PCD Turning Series**

**CNMA**
- Cutting Edge Length
- Diameter (D)
- Thickness (t)
- Corner R
- Grade
- KP01E / KP05 / KP10 / KPC

**DNMA**
- Cutting Edge Length
- Diameter (D)
- Thickness (t)
- Corner R
- Grade
- KP01E / KP05 / KP10 / KPC

**TNMA**
- Cutting Edge Length
- Diameter (D)
- Thickness (t)
- Corner R
- Grade
- KP01E / KP05 / KP10 / KPC

**VNMA**
- Cutting Edge Length
- Diameter (D)
- Thickness (t)
- Corner R
- Grade
- KP01E / KP05 / KP10 / KPC

**CCMT**
- Cutting Edge Length
- Diameter (D)
- Thickness (t)
- Corner R
- Grade
- KP01E / KP05 / KP10 / KPC

**CPMT**
- Cutting Edge Length
- Diameter (D)
- Thickness (t)
- Corner R
- Grade
- KP01E / KP05 / KP10 / KPC

**DCMT**
- Cutting Edge Length
- Diameter (D)
- Thickness (t)
- Corner R
- Grade
- KP01E / KP05 / KP10 / KPC

**TCMT**
- Cutting Edge Length
- Diameter (D)
- Thickness (t)
- Corner R
- Grade
- KP01E / KP05 / KP10 / KPC

**TPMT**
- Cutting Edge Length
- Diameter (D)
- Thickness (t)
- Corner R
- Grade
- KP01E / KP05 / KP10 / KPC

**VBMT**
- Cutting Edge Length
- Diameter (D)
- Thickness (t)
- Corner R
- Grade
- KP01E / KP05 / KP10 / KPC

**VCMT**
- Cutting Edge Length
- Diameter (D)
- Thickness (t)
- Corner R
- Grade
- KP01E / KP05 / KP10 / KPC

---

**Cutting Edge Material**

- CNMA: DCMT11T302/04/08
- DNMA: DCMT11T302/04/08
- TNMA: DCMT11T302/04/08
- VNMA: DCMT11T302/04/08
- CCMT: DCMT11T302/04/08
- CPMT: DCMT11T302/04/08
- TCMT: DCMT11T302/04/08
- TPMT: DCMT11T302/04/08
- VBMT: DCMT11T302/04/08
- VCMT: DCMT11T302/04/08

---

**Material**

- Aluminum alloy
- Die casting
- Sintered
- Si >14%
- Si <14%
- VNMA: With grades for your non-ferrous material machining with long tool life.

---

**www.kohertech.com**

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**KOHER TIPS**

1. **Material Selection**
   - Consider material characteristics and requirements.

2. **Process Optimization**
   - Adjust parameters for best performance.

3. **Performance Monitoring**
   - Regularly assess tool wear and adjust as necessary.

4. **Environmental Considerations**
   - Minimize waste and maximize sustainability.

---

**Additional Resources**

- Connect with KOHER for ongoing support and consultation.

---

**Contact Information**

- KOHER Technologies Inc.
- 123 Main Street, Anytown USA
- Tel: 123-456-7890
- Email: info@kohertech.com

---

**Disclaimer**

- Information provided is for guidance only.
- Actual results may vary based on specific conditions.

---

**For more information, visit: www.kohertech.com**
Special Series – PCD Chip breaker

KOHER PCD Laser Chip breaker system is widely being used for non-ferrous material machining process with various designs meeting customer’s each different request in each different work environment.

KOHER Z Series- Laser Chip breaker

KOHER PCD Laser Chip breaker system is widely being used for non-ferrous material machining process with various designs meeting customer’s each different request in each different work environment.

KOHER R&D Center

With various experiences and know-how, KOHER R&D Center provides technical solution and feedback for your excellent machining performance. We analyze customer’s main problem and produce new customized design with various trials via simulation software.

Special Series – PCD Chip breaker

C Series PCD Combined Type Chipbreaker

C Series PCD Chip breaker is KOHER’s unique own PCD Chip breaking designed insert with great chip control ability. By inserting PCD edge into carbide body, we can provide you with different size and direction of design meeting our customer’s request.

CC Series – S Type
Sharp edge Chip breaker design provides finishing turning process.

CC Series – R Type
Sharp edge with Long Chip breaker design provides roughing turning process.

CC Series – F Type
Sharp edge Chip breaker design provides finishing turning process.

DCMT

<table>
<thead>
<tr>
<th>DCMT</th>
<th>Cut Edge Length</th>
<th>Diameter</th>
<th>Thickness</th>
<th>Corner R</th>
<th>Grade</th>
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<tbody>
<tr>
<td>DCMT070204/08</td>
<td>3.0</td>
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<td>2.38</td>
<td>0.2/0.4/0.8</td>
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<tr>
<td>DCMT110204/08</td>
<td>5.0</td>
<td>9.525</td>
<td>3.97</td>
<td>0.2/0.4/0.8</td>
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</table>

VBMT

<table>
<thead>
<tr>
<th>VBMT</th>
<th>Cut Edge Length</th>
<th>Diameter</th>
<th>Thickness</th>
<th>Corner R</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>VBMT110304/08</td>
<td>4.5</td>
<td>6.35</td>
<td>3.18</td>
<td>0.2/0.4/0.8</td>
<td></td>
</tr>
<tr>
<td>VBMT160404/08</td>
<td>6.0</td>
<td>9.525</td>
<td>4.76</td>
<td>0.2/0.4/0.8</td>
<td></td>
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</tbody>
</table>

VCMT

<table>
<thead>
<tr>
<th>VCMT</th>
<th>Cut Edge Length</th>
<th>Diameter</th>
<th>Thickness</th>
<th>Corner R</th>
<th>Grade</th>
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<tbody>
<tr>
<td>VCMT110304/08</td>
<td>4.5</td>
<td>6.35</td>
<td>3.18</td>
<td>0.2/0.4/0.8</td>
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<tr>
<td>VCMT160404/08</td>
<td>6.0</td>
<td>9.525</td>
<td>4.76</td>
<td>0.2/0.4/0.8</td>
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</tbody>
</table>
PCD Milling & Grooving Insert

PCD Milling insert
KOHER is producing PCD milling inserts with high precision technology and high efficiency. Both ISO and Special inserts are available.

PCD Grooving insert
KOHER PCD grooving line up is giving you better surface roughness and much longer tool life in various aluminum part grooving process.

KOHER PCD Insert Applications

KOHER's Success Story – Aluminum parts

KOHER DCGW11T304 KP10
Material: Aluminum Turbo Charger
Cutting Process: OD Turning
Speed, N: 3,000 m/min
Feed: 0.2 mm/rev
Depth of Cut: 0.5 mm

KOHER DCGW11T304 KP01E
Material: Aluminum Si – 14%, 6 Gear Housing
Cutting Process: OD Turning, Ø132
Speed, N: 1,120 m/min
Feed: 0.1~0.3 mm/rev
Depth of Cut: 0.4 mm

KOHER SNEW1204ADTR KP01E
Material: Al + CI Bi Metal, Engine Block
Cutting Process: Milling, Wet cut
Speed, N: 300 m/min
Feed: 0.1 mm/rev
Depth of Cut: 0.5 mm

KOHER PCD Milling & Grooving Insert

APKT
<table>
<thead>
<tr>
<th>Dimension (mm)</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>Diameter(D)</td>
<td>Thickness(t)</td>
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<tr>
<td>6.457</td>
<td>1.60</td>
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<tr>
<td>9.525</td>
<td>4.76</td>
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Order Made

KOHER PCD Grooving line up is giving you better surface roughness and much longer tool life in various aluminum part grooving process.

CDEW
<table>
<thead>
<tr>
<th>Dimension (mm)</th>
<th>Grade</th>
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<tbody>
<tr>
<td>Diameter(D)</td>
<td>Thickness(t)</td>
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<tr>
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Order Made

SNEW
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<td>Thickness(t)</td>
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<tr>
<td>9.525</td>
<td>3.97</td>
</tr>
<tr>
<td>12.7</td>
<td>3.18</td>
</tr>
<tr>
<td>12.7</td>
<td>4.76</td>
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Order Made

MN
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<th>Dimension (mm)</th>
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<td>Cutting Edge Length(L)</td>
<td>Diameter(D)</td>
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<td>4.3</td>
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Order Made

GBA
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<td>Diameter(D)</td>
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<td>1.25</td>
<td>2.0</td>
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Order Made

TKF
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<th>Grade</th>
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</thead>
<tbody>
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<td>Cutting Edge Length(L)</td>
<td>Diameter(D)</td>
</tr>
<tr>
<td>2.5</td>
<td>10</td>
</tr>
</tbody>
</table>

Order Made

KOHER is producing PCD milling inserts with high precision technology and high efficiency. Both ISO and Special inserts are available.
KOHER'S NEW CBN Line up

KOHER HS / TS / Coating Series
KOHER Half CBN Solid(HS) and Tip CBN Solid(TS) Series will give you the best performance from continuous to high interrupted turning process which frequently cause severe damage from the high impact turning.

KOHER HS CBN Series
Corner Management System
Numbering corner on each side of tips would show you how to identify used corner easily.

Medium impact resistance
Half Tip Brazed CBN insert tip is offering you the best cost-effective solution for mid-interrupted turning process.

KOHER TS CBN Series
KOHER’S TS Series Design
Unique CBN tip design with stronger vacuum brazing system.

KOHER’S TS New Grade
Non-Coating - KB601
Coating - KB601N

KOHER Coated CBN Series
Coating Series
KOHER'S New Coating Series line up is now available. Not only providing you ISO Standard inserts, but also suggesting you to choose various coating grade in order to meet your tool life improvement.

 Grade Information
KOHER’s KB404 NX Series Design
Strong performance for Continuous Hard Turning process which causes wear and heat problem. Suitable for both wet and dry process.

KB504
KOHER’s KB504 NX Series Design
Strong performance for Continuous Hard Turning process which causes wear and heat problem.

KB601
KOHER’s KB601 NX, HS, TS Series Design
Unique CBN tip design with stronger vacuum brazing system. Optimized for light interrupted cut.

KB604
KOHER’s KB604 NX Series Design
60% CBN tip for continuous to medium cut of hardened steel with superior flank wear resistant.

KB620
KOHER’s KB620 NX, HS, TS Series Design
KOHER’s stronger Tip Solid for High Speed interrupted cut.

*KOHER is continuously developing New CBN grades for our customers, please contact us for further information.

Grade Applications

<table>
<thead>
<tr>
<th>Work Material</th>
<th>Hardness</th>
<th>V (m/min)</th>
<th>Depth (mm)</th>
<th>Feed (mm/rev)</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardened Steel</td>
<td>&gt;55 HRC</td>
<td>80 - 120</td>
<td>0.3 – 1.5</td>
<td>0.08 – 0.2</td>
<td>KB404 / KB504 / KB604 / KB620</td>
</tr>
<tr>
<td>&lt;55 HRC</td>
<td>80 - 150</td>
<td>0.5 – 2.0</td>
<td>0.1 – 0.25</td>
<td>KB404 / KB504 / KB604 / KB620</td>
<td></td>
</tr>
</tbody>
</table>

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CBN INSERTS
KOHER Coating CBN Series Grade

KOHER’s Coating Line-up

TIN, TIAIN, AITIN and KOHER’s Special Nano Coating line up is available.

KBC Series

N Series [TIN] - Gold
Titanium Nitride is general coating for edge retention and corrosion resistance on machine tooling. This is widely used in high content CBN or carbide drills.

A Series [AlCN] - Grey
This coating performs great on machining with high impact and wear resistance which reduces especially flank wear and cutting edge wear in wide range of cutting condition.

T Series [AlTiN] - Blue black
T series is the most suitable coating for general hard turning of hardened steel machining with wide range of lubrication conditions. It also shows great works on stainless steel and nickel alloys.

Coating S [Special]
Coating S, the special type, is providing excellent performance on hard-to-cut material machining process with multi-layered coating on CBN.

KOHER High Contents CBN Series Grade

KOHER’s KB902 NX Series Design
90% CBN tip for interrupted purpose of Cast Iron / Sintered Alloy machining process.

KOHER’s KB951 NX Series Design
99% CBN tip for continuous to medium cut of Cast Iron / Sintered Alloy with good wear resistant.

KOHER’s KB952 NX Series Design
Rough or Semi-finishing process of Cast Iron / Sintered Alloy turning and milling process.

KOHER Code Information

work Material Grade Cutting Speed (m/min) Depth (mm) Feed (mm/rev) CBN911 400 - 1700 0.08 - 0.2 1.0 - 2.0 CBN912 400 - 1900 0.2 - 1.2 0.08 - 0.4 CBN913 400 - 1700 0.2 - 2.0 0.08 - 2.0

Please contact us for special tools as well.
## KOHER CBN Guide

### KOHER Solid CBN Grade

<table>
<thead>
<tr>
<th>Grade</th>
<th>Dimension (mm)</th>
<th>Grade</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CNGA</td>
<td>Cutting Edge Length (l)</td>
<td>Diameter(D)</td>
<td>Corner R</td>
</tr>
<tr>
<td>KG06</td>
<td>12.7</td>
<td>4.76</td>
<td>04/08/12</td>
</tr>
<tr>
<td>TNGN</td>
<td>Cutting Edge Length (l)</td>
<td>Diameter(D)</td>
<td>Corner R</td>
</tr>
<tr>
<td>KG06</td>
<td>4.35</td>
<td>3.18</td>
<td>04/08/12</td>
</tr>
<tr>
<td>SNGN</td>
<td>Cutting Edge Length (l)</td>
<td>Diameter(D)</td>
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</tr>
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<td>3.18</td>
<td>04/08/12</td>
</tr>
<tr>
<td>RNGN</td>
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<tr>
<td>KG06</td>
<td>12.7</td>
<td>4.76</td>
<td>04/08/12</td>
</tr>
</tbody>
</table>

### KOHER’s Success Story

- **KOHER CNGA120408N KB601**
  - **Material**: SCR420H1, Middle Gear
  - **Hardness (HRc)**: 60 – 63
  - **Speed**: 180 m/min
  - **Feed**: 0.12mm/rev
  - **Depth of Cut**: 0.1

- **KOHER DNGA150408H1 KB601**
  - **Material**: 555CR, Bearing Hub
  - **Hardness (HRc)**: 58 – 62
  - **Speed**: 200 m/min, 770
  - **Feed**: 0.15mm/rev
  - **Depth of Cut**: 0.1

- **KOHER TPN110312 KB601A**
  - **Material**: SCM620-His, Sun Gear
  - **Coolant**: Yes
  - **Speed**: 120m/min
  - **Feed**: 0.008
  - **Depth of Cut**: 0.5

### Special Series - CBN Chip breaker Insert

**KOHER CBN Chip breaker Insert Series**

Long chip could be jammed during machining and it would damage your product. KOHER has 2 different types of CBN Chip breaker line-up on G Series.

<table>
<thead>
<tr>
<th>CG-F</th>
<th>CC-S</th>
</tr>
</thead>
</table>

**G Series CBN Grinding Type Chipbreaker**

KOHER CBN Grinding Type Chipbreaker system for Hardened steel Continuous Turning Process. From each different shape to coating, various Chipbreaker design can be applied to your hard turning process.

**CG Series – S Type**

Unique CBN tip chip breaker design shows outstanding performance on general hard turning process.

**CG Series – F Type**

Sharp edge Chip breaker design provides finishing turning process.

### CBN INSERTS

**KOHER G Series**

- **KOHER CBN Guide**
- **KOHER CBN Chip breaker Insert Series**
- **G Series CBN Grinding Type Chipbreaker**

### KOHER CBN Guide Details

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### CNGA

<table>
<thead>
<tr>
<th>Grade</th>
<th>Dimension (mm)</th>
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### SNGA

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### RNGA

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<td>KG06</td>
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### RNGA

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<tbody>
<tr>
<td>RNGA</td>
<td>Cutting Edge Length (l)</td>
<td>Diameter(D)</td>
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<tr>
<td>KG06</td>
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<td>4.76</td>
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### VNGA

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<tbody>
<tr>
<td>VNGA</td>
<td>Cutting Edge Length (l)</td>
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<tr>
<td>KG06</td>
<td>4.5</td>
<td>9.525</td>
</tr>
</tbody>
</table>
KOHER New Line up - Notch Bite Series

KOHER Notch Bite Series
Special order made Notch Bite Series line-up is now available for your request of Carbide and Cast Iron roll notching in steel industry. KOHER provides you good quality of products with many experiences. RCGX, RnMn full top and solid insert as well as PCD/CBN Notch bites are all available.

KOHER – PCD & CBN Notch Bite Series

<table>
<thead>
<tr>
<th>RCGX</th>
<th>Dimension (mm)</th>
<th>Grade</th>
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<tbody>
<tr>
<td></td>
<td>D (mm)</td>
<td>T (mm)</td>
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<td>RCGX090400</td>
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Order Made
RCGX Solid

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<td>D (mm)</td>
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<td>RnMn120300</td>
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Order Made

KOHER – PCD & CBN Notch Bite Series

Table: KOHER New Line up - Notch Bite Series
Special Series - CBN Grooving & Form Tool

KOHER Grooving Series

Special order made Grooving Series line-up is now available for your request of Hardened steel and Cast Iron work piece. KBG Bites are specially made to perfectly machine Automobile Valve Seats on Cylinder block.

<table>
<thead>
<tr>
<th>KG</th>
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<th>Grade</th>
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<tbody>
<tr>
<td>Width</td>
<td>R</td>
<td>Relief Angle</td>
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<tr>
<td>KG*</td>
<td>1.5x5.0</td>
<td>2.4-0.8</td>
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</table>

KOHER’s Success Story – Cast iron parts

KOHER SCD & Mono Insert Series

For more accurate and precise machining of your non-ferrous product such as aluminum, copper, zinc and brass, here we have Single Crystal Diamond & Mono Crystalline Diamond Insert line-up. KOHER provides you various special diamond insert items for your demands.

<table>
<thead>
<tr>
<th>SCD &amp; Mono</th>
<th>Cutting Edge Length (mm)</th>
<th>Diameter (mm)</th>
<th>Thickness (mm)</th>
<th>Corner R</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCGW09T302/04/08</td>
<td>4.2</td>
<td>9.525</td>
<td>1.6</td>
<td>0.2 – 2.0</td>
<td>SCD</td>
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<tr>
<td>DCGW11T302/04/08</td>
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<td>9.525</td>
<td>1.6</td>
<td>0.2 – 2.0</td>
<td>SCD</td>
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<tr>
<td>VBGW11102/04/08</td>
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<td>0.2 – 2.0</td>
<td>SCD</td>
</tr>
</tbody>
</table>

Automobile Tools

There are thousands of big and small single parts required to make one car in each various production line. Especially Alloy Wheels and DC motors industry require higher precision technology on part making process.

KOHER Armature Tools for DC Motor

- Natural & Mono Diamond Bite
- Natural Diamond V-Block

KOHER Armature Tools for DC Motor

- Natural & Mono Diamond Bite
- Natural Diamond V-Block

KOHER TPgw080202 ND

Material: A661, Fuel Injection Control Valve
Surface Roughness: Below Ra2.0, No burr
Speed, N: 4,000 m/min
Feed: 0.08 mm/rev
Depth of Cut: 0.05 mm

KOHER TPGW080202 ND

Order Made
**KOHER CBN GRADE COMPARISON TABLE**

<table>
<thead>
<tr>
<th>WORK</th>
<th>KOHER</th>
<th>Sumitomo</th>
<th>KYOCERA</th>
<th>NTK</th>
<th>TAGEUTEC</th>
<th>SECO</th>
<th>KENNAMETAL</th>
<th>MITSUBISHI</th>
<th>SANDVIK</th>
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<tbody>
<tr>
<td>N01</td>
<td>KP01E</td>
<td>KB404</td>
<td>BN1000</td>
<td>DA1000</td>
<td>KBN10</td>
<td>KBN10</td>
<td>BN825</td>
<td>BN825</td>
<td>CNB060K</td>
</tr>
<tr>
<td></td>
<td>KP05S</td>
<td>KB504</td>
<td>BN200</td>
<td>DA2000</td>
<td>KB25M</td>
<td>KB25M</td>
<td>BN820</td>
<td>BN820</td>
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<tr>
<td>N10</td>
<td>KP01E</td>
<td>KB651</td>
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<td>BN500</td>
<td>KB35M</td>
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<tr>
<td></td>
<td>KPM</td>
<td>KB802</td>
<td>BN200</td>
<td>BN500</td>
<td>KB35M</td>
<td>KB35M</td>
<td>KB5610</td>
<td>KB5610</td>
<td>CNB060K</td>
</tr>
</tbody>
</table>

**KOHER CBN Trouble Shooting FAQ**

My insert got chipping on edge!
- Inserts need to be chamfered and honed more on edge.
- Increase land size.
- Check if there is a vibration.

It looks like a flank wear!
- Increase cutting speed, feed rate and depth of cut.
- Check tool center height.
- Check workpiece content – Ferrite content rate.

It looks like a crater wear!
- Reduce cutting speed and feed rate.
- Reduce land size on edge.
- Use KOHER Coating Series Inserts.
- Check if you could use coolant in continuous process.

My CBN was broken!
- Adjust cutting tool center height.
- Check if the tool setting parts [clamps/Anvil] were worn.
- Choose tougher grade of CBN.

**KOHER TECHNICAL GUIDANCE**

**CBN Trouble Shooting FAQ**

**Wear Performance reference, Bearing**

- Work – Bearing [100Cr6], HRC 60-62
- CNGA120408BN2 KB404
- Vc = 130m/min, ap = 0.25mm, f=0.1mm/rev, Dry cut

**KOHER CBN Inquiry Guidance**

What kinds of information should I give you to choose the best CBN for my machine?

**Workpiece Material**
- Case Hardening, Thru Hardening etc
- Rockwell hardness – ex> 58-62 HRC
- Grade information – ex> SUJ2

**Cutting conditions**
- Speed, Feed rate, Depth of Cut etc.

**Application**
- Turning, Milling, Grooving etc
- Reason to change or try?
- Tool life problem?
- Burr, Wear, Chipping, Surface roughness etc.