

## Semiconductor Tools

### CMP Pad Conditioner



#### Application

CMP Pad Conditioners work as tools for re-conditioning of Polyurethane-based polishing pad for the planarization process of semiconductor wafer.

### Dicing Blade (Electroplated)



#### Application

Dicing blade is used for cutting the scribe line on the wafer to separate the wafer into many pieces of chips.

Dicing blade is installed to the M/C named dicing saw, and cutting saw for cutting various kinds of materials such as semiconductor wafer.

### Super Precision Blade



#### Application

Super Precision Blades are widely used for cutting substrate of semiconductor. SHINHAN has been developing the technology to meet our customers' high expectations.

### Back Grinding Wheel

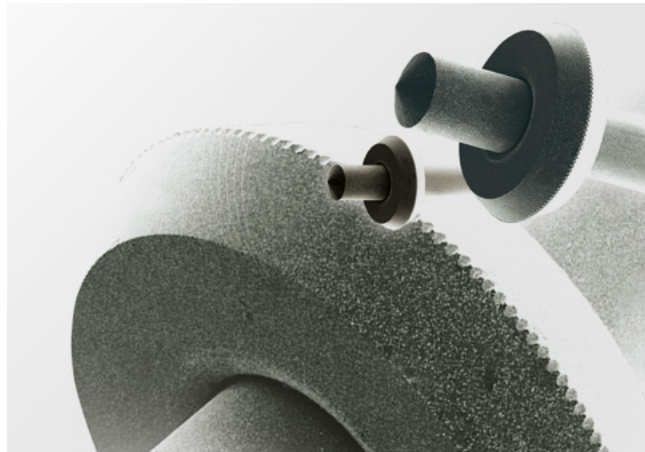


#### Application

SHINHAN has been developing the technology to combine diamond abrasives and bond matrix to meet our customers' requirements.

Especially, our advanced porosity technology makes it possible to grind all types of semiconductor wafers with less subsurface damage.

### PCD Normal Scribe



#### Application

TFT, LCD, PDP, TN, STN glass.

#### Feature / Benefit

- Fine roughness of the cutting surface.
- 20-30 times longer tool life than Tungsten-Carbide scribe.
- Excellent quality stability and product repeatability though using CNC M/C.
- High accuracy and good abrasion-resistance.

## Precision & Semiconductor Tools

[www.shinhandia.co.kr](http://www.shinhandia.co.kr)



#### Head Office & Factory

36B - 10L, Namdong Industrial Complex, 610 - 9, Namchon-dong, Namdong-gu, Incheon, 405 - 100, South Korea  
TEL. +82. 32. 814. 2211 FAX. +82. 32. 814. 1193 E-mail. [webmaster@shinhandia.co.kr](mailto:webmaster@shinhandia.co.kr)

#### R&BD Center

7 - 5, Songdo-dong, Yeosu-gu, Songdo International City, Incheon, 406 - 840, South Korea  
TEL. +82. 32. 814. 2211 FAX. +82. 32. 814. 1193 E-mail. [webmaster@shinhandia.co.kr](mailto:webmaster@shinhandia.co.kr)

#### USA

Shinhan Diamond America, Inc., 900 S. Ajax Ave. City of Industry, CA 91748, USA  
TEL. +1. 626. 363. 9258 FAX. +1. 626. 363. 9259 E-mail. [jkoh@shinhandia.co.kr](mailto:jkoh@shinhandia.co.kr)

#### China

No. 45 Dongjing Road, Qingdao Free Trade Zone, Shandong Province, China  
TEL. +86. 532. 8676. 8555 FAX. +86. 532. 8676. 8355 E-mail. [webmaster@shinhandia.co.kr](mailto:webmaster@shinhandia.co.kr)  
Web. [www.shinhandia.cn](http://www.shinhandia.cn)

#### Germany

Mergenthaleralle 79 - 81, 65760, Eschborn, Germany  
TEL. +49. 6196. 775. 872 FAX. +49. 6196. 775. 874 E-mail. [webmaster@shinhandia.co.kr](mailto:webmaster@shinhandia.co.kr)

#### Shanghai

1633 room, 16/F Oriental Century Plaza, No. 345 Xian Xia Road, Shanghai, 200336, China  
TEL. +86. 21. 6229. 2685 FAX. +86. 21. 6229. 2010 E-mail. [webmaster@shinhandia.co.kr](mailto:webmaster@shinhandia.co.kr)



## Precision & Semiconductor Tools

Diamond & CBN Tools for Grinding, Cutting, Polishing and Dressing in Precision and Semiconductor Industry.



# Metal | Resin Bond Wheels

Metal Bond Wheel



**Application**

Flat & Safety Glass Edge Grinding and Drilling, Optical Lens Grinding, Crystal Grinding, Tungsten Carbide, Cermet, Cast Alloy, Ferrite, Quartz Grinding, Engine Parts Honing.

## Edge Grinding Wheel

**Application**

SHINHAN designs Diamond Wheels for fine processing of Safety Glass, LCD Glass and Wafer for the Semiconductor Industry.

**Feature / Benefit**

Excellent Form-holding capability, Good Abrasion & Heat Resistance, Long Tool Life, Excellent for Glass Drilling & Edge Grinding.

Resin Bond Wheel



**Application**

Grinding for Carbide Tool, CRT Panel & Funnel, Glass-Finishing and Ceramic Finishing.

**Feature / Benefit**

Good Free-Cutting, Good Abrasion Resistance, Availability in a broad range of Applications in both Dry and Wet Condition, Improved Heat Resistance. (Polymide Series)

Excellent grinding performance and form holding ability in tool grinding, specially for fluting process. (XTG Series)

Flat Glass Grinding & Drilling



Honning Stone



Optical Lens Grinding Wheel



Edge Grinding Wheel



Tool Grinding Wheel



Automotive Glass Grinding Wheel



# Roller Dresser | Vitrified Bond Wheels

Resin Dresser



**Application**

Form, Condition and Tolerances for Automotive Parts, Bearings, Aerospace Parts, Saw & Tap Grinding, Turbine blades.

**Feature / Benefit**

Designed for mass production of parts with cost effectiveness & long life time. Suitable for profiled products.

Vitrified Bond Wheel



**Application**

Grinding for Cam shaft, Crank shaft, CV Joint, Internal injection Nozzle, PCD & PCBN, Bearing, Gear, Ceramic and Cermet.

**Feature / Benefit**

Very Good Abrasion Resistance, Good Form-holding, Easy Truing and Dressing, Least Resistance to Damage, Chemical Stability, Controllable Stock Removal Rate and Surface Finish Characteristics, Heat Resistance.

R.D. (Sintered Type)



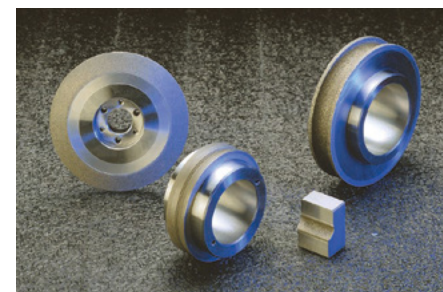
Roller Dresser



Vitrified Bond Wheel for C.V. Joint & Bearing



R.D. (Reverse-plated Type)



Diamond Roller Dresser

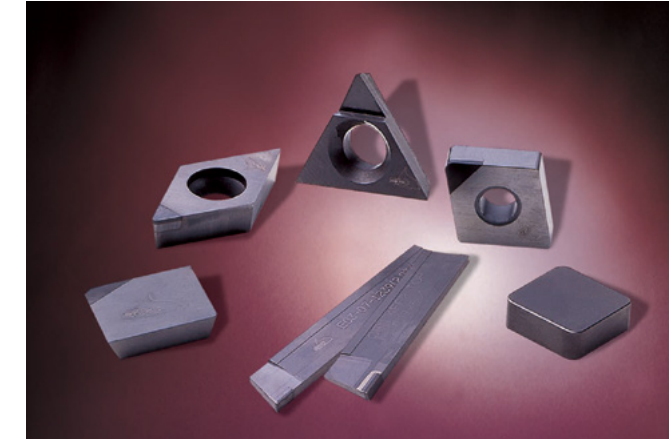


Vitrified Bond Wheel for Cam Shaft



# PCD / PCBN Bite & Insert | Dresser | Electroplated Wheel

PCD / PCBN Bite & Insert



**Application**

Turning, Planing, Drilling, Reaming, Milling, Grooving, Cutting.

- PCD : Non-Ferrous, Non-Metallic Parts
- PCBN : Ferrous Metal

**Feature / Benefit**

Long Tool Life, High Material Removal Rate, Efficient Cutting for Hard and Tough Materials, Uniform Surface Finish, Cost Saving.

Electroplated Wheel & File



**Application**

Cutting Non-Ferrous Metal, Hardened Steel, FRP, Ceramic, Grinding Ferrite, Brake Pad Grinding.

**Feature / Benefit**

Complex Forms Easily Manufactured, Good Form Holding Capability, Maximum Abrasive Particle Exposure, Highest Stock Removal Capability.

## Dresser

**Application**

Dressing and Truing of the grinding wheel used for Automotive Parts, Bearing, Aerospace Parts, Turbine blade, etc.

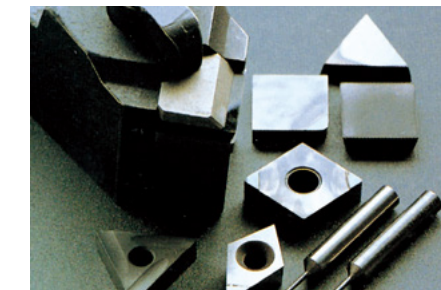
**Feature / Benefit**

Constant Tool Performance, Cost Effectiveness, Fast Dressing. (Multi Type)

PCD Cutter for PCB Cutting



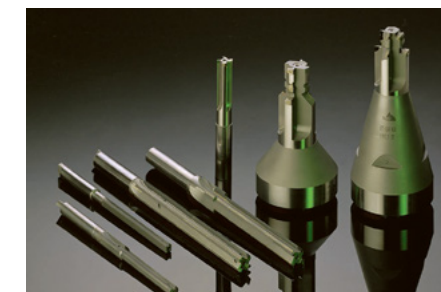
PCD Bite



Diamond Dresser



PCD Reamer



Dresser & Contact Gauge



Multi Point Dresser

