



PERFECT SOLUTIONS FOR  
HIGH-END PRECISION DEVICES  
精密切割完美解决方案

<https://www.zydiamondtools.com>



优质产品缔造者  
high quality cutting tools

Zhengzhou Zhongyuan (ZY) Super hard Tools Co.,Ltd is located in Shangjie District ,AUX Industrial Park,Zhengzhou City,Henan Province which is known as "China Abrasive Capital". We are specialized in manufacturing ultra-thin diamond cutting blades. We have the cutting-edge technology, been engaged in technical research and development of superhard materials, with extensive experienced of research and production management.

Our main products include super-thin metal bond diamond cutting discs and resin bond diamond cutting discs, super-thin diamond cutting wheels, high precision diamond cutting disc.

Adhering to the "integrity-based, customer first, careful manufacturing, dedicated service" purpose, strive to create better quality products for you, sincerely welcome calls to negotiate, looking forward to providing you with more professional and more reliable cutting technology services!

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Please follow the table and try to fill in the known content so that we can understand your needs

Work piece material	Cut deepness	Cut length	Slot or Cut off	Single or Combined use	Machine Model	Cutting Speed	Forward Speed	Wet or Dry Cutting

Cutting disc(cut-off wheel) specification

D-T-H-X-E	Type 1A1 or 1A1R	Conductive or not	Slotting or not	Guide hole or not	Cutting accuracy	Side damage requirements

**Note:**Please try to fill in the known content so that we can know more your needs and provide you with professional service



# Main features

Metal bond diamond cutting discs



## Metal bond diamond cutting discs series

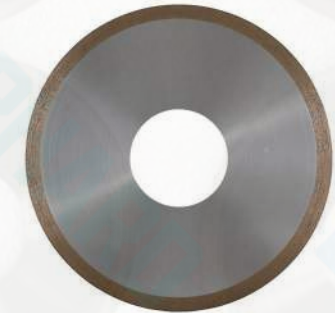
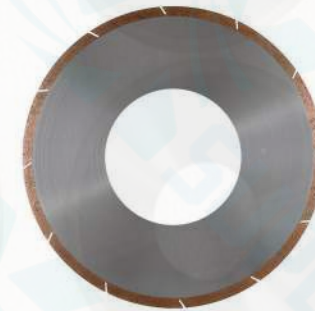
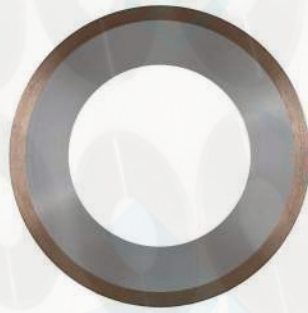
Metal bond diamond cutting discs with steel core is compound of steel plate and bronze bond work layer, the steel plate has high strength and high rigidity. They are generally used for middle and deep cutting and grooving.

### Main features:

- The grits are strongly held on, the discs have good wear resistance, long service life and good shape maintenance.
- The thickness of work layer is as same as steel plate. They are mainly used for precise grooving and cutting.
- The thickness of work layer is higher than the steel plate. They have advantages for removing chips and cooling. They are mainly used for deep cutting and grooving of compoment.



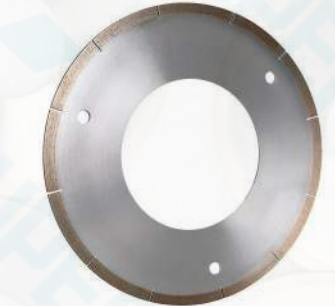
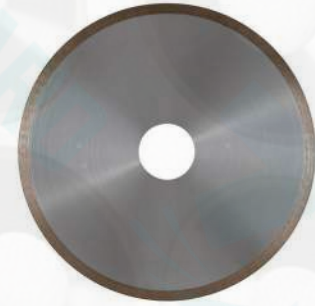
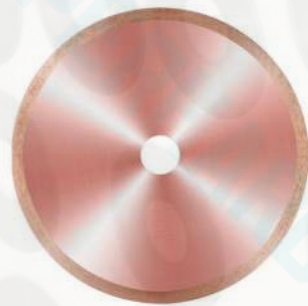
D	50-100	101.6-127	130-160	175-203	250-400	thick tolerance
T						
0.2						1A1: ±0.005
0.3						
0.4						
0.5						
0.6						
0.7						1A1R: ±0.010
0.8						
0.9						
1.0						
1.5						
2.0						
H	12.7、19.05、20、22.225、25.4、31.75、32、40、50.8、52、60、69.875、88.9、127、191.23					



**Diamond cutting disc for fuse glass tube and quartz tube**  
Mainly used for cutting fuse glass tube with small diameter and thin wall thickness, the durability is also good on the condition of keeping good sharpness. Service life will be 45-60days/PC according to customers' feedback. With the features of good shape, high precision, good cutting surface quality during the whole service life.

**CBN | cutting disc for valve stem (engine valves)**  
Mainly used for cutting the valve stem in car engine, with features of high sharpness, high cutting efficiency, long service life and smooth cutting surface.

**Diamond cutting disc for zirconia ceramic**  
We select high-strength imported diamonds and steel base, can provide suitable cutting discs according to customers' requirements. It can be cut continuously without slipping and passivation during the using life, and it also overcomes the disadvantage of short life of resin bond diamond cutting disc. Any size can be customized.



**Copper plated cutting disc**  
The base surface is plated with copper by handcraft standard, with the features of excellent water and corrosion resistant, and can be customized for the foreign trade companies.

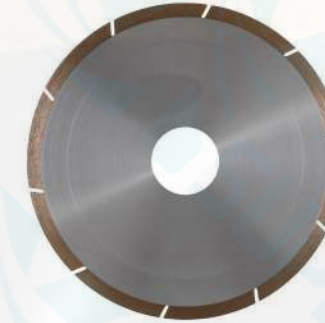
**Diamond cutting disc for optical glass**  
Mainly used for cutting optical glass, can be used for heavy duty deep cutting with high sharpness, vertical cutting angle and long lasting durability.

**Diamond cutting disc for alumina ceramic**  
Mainly used for cutting a variety of alumina ceramics and refractory materials, can process the required ceramic sheets, blocks, rods, plates, etc. according to requirements, with the features of sharp cutting, high processing efficiency, good surface finish, and long service life.

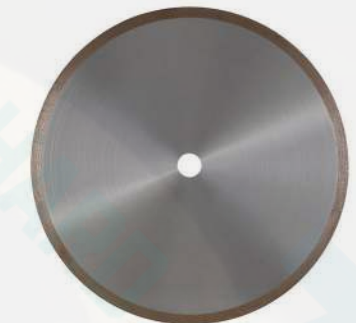
**Diamond cutting disc for glass**  
Glass with the thickness of more than 15mm is hard to be cut by glass knife. This kind of diamond cutting disc is designed for the users who only have manual tool equipment. Glass with the thickness of 15-30mm can be easily cut by only one marble machine or angle grinder (marble machine is much better), and the cutting is sharp without chipping.



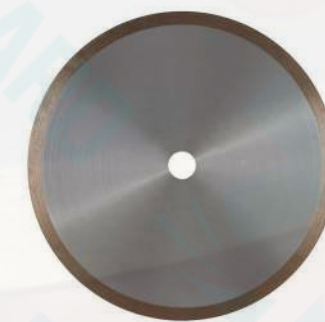
**Professional steel plate**  
We select imported high-quality stainless steel plate with good rigidity, strong corrosion resistance, non-magnetic characteristics, various thicknesses for you to choose.



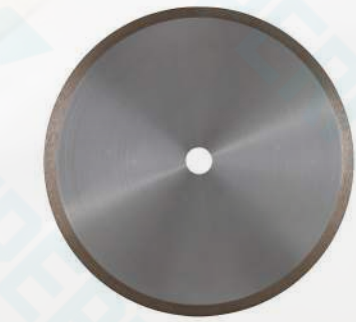
**Diamond cutting disc for brake pad grooving**  
Brake pads are belong to composite materials, which contain metal wires inside, with high toughness, have high demand for blade sharpness. According to the special requirements of the brake pad material, our company has developed a product with the features of moderate sharpness, no sticking to the knife and no chipping. It is very suitable for cutting and grooving brake pad. Any specifications, can be customized!



**Diamond cutting disc for superfinishing stone**  
superfinishing stone is commonly used for silicon carbide, alumina, diamond, CBN oil stone according to its own abrasives, according to different cutting requirements, we can provide you the suitable products. In order to give you a better cutting experience, we electroplated a layer of diamonds on the surface of the blade to prevent clipping saw and polish section, it can ensure a straight line and a straight angle.



**Diamond cutting blade for Circuit board**  
This product is mainly used for cutting various composite circuit boards ,such as copper-based, rubber-based and plastic-based circuit boards. With the features of good sharp, non-sticky, high precision, good surface quality and extremely high service life. Any specifications, can be customized!



**Diamond cutting disc for piezoelectric crystal**  
Piezoelectric crystal is a valuable material, which needs to be cut vertically. It has high requirements for the sharpness of the saw blade and the material of the base and the connection strength between the work layer and the base. Our company adopts a new process, using a high-strength steel plate to improve the overall rigidity of the blade, to ensure vertical cutting, and improve the customer's yield.

Resin bond diamond cutting discs

# Main features

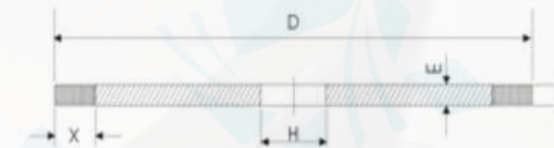


## Resin bond diamond cutting discs series

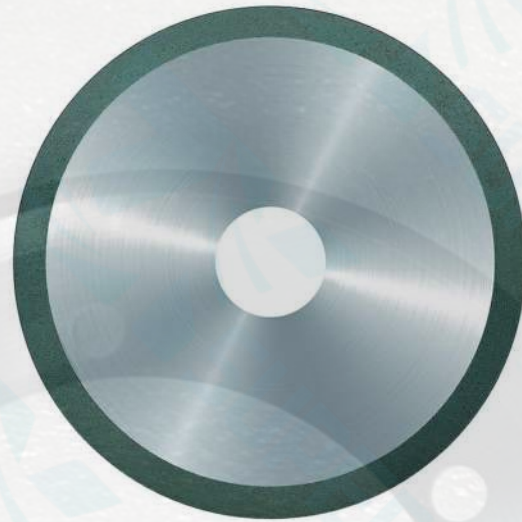
Resin bond diamond cutting discs with steel core is compound of steel plate and resin bond work layer, the steel plate has high strength and high rigidity. They are generally used for middle and deep cutting and grooving.

### Main features:

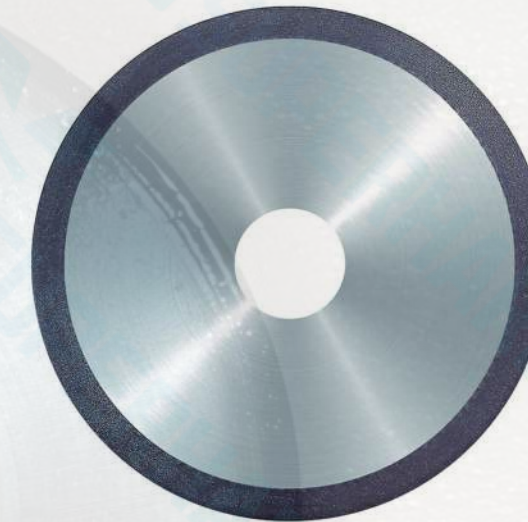
- Resin bond diamond cutting discs can self-sharpen and cut sharply. The work quality can be improved due to the elastic resin bond.
- The thickness of work layer is as same as steel plate. They are mainly used for precise grooving and cutting.
- The thickness of work layer is higher than the steel plate. They have advantages for removing chips and cooling. They are mainly used for deep cutting and grooving of component.



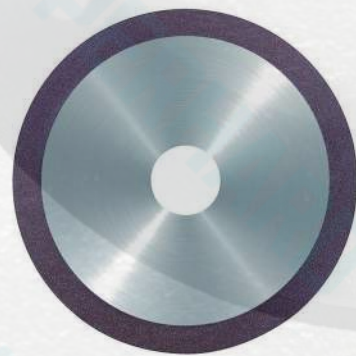
D \ T	50~100	101.6~127	130~160	175~203	250~400	thick tolerance
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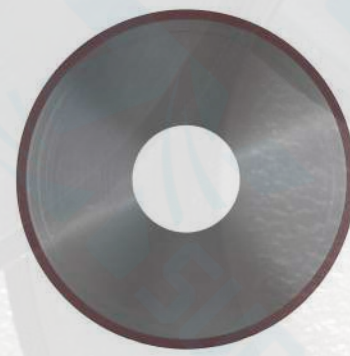
**Diamond cutting disc for quartz (high borosilicate glass tube) processing**  
This product specializes in precision cutting of quartz and borosilicate glass tubes. It has sharp cutting, self-sharpness, good smooth section and long service life.  
Mainly used in: high borosilicate glass tube, quartz tube, electrodeless lamp, U-tube, electronic cigarette tube, chemical laboratory equipment and other quartz glass shaped products.



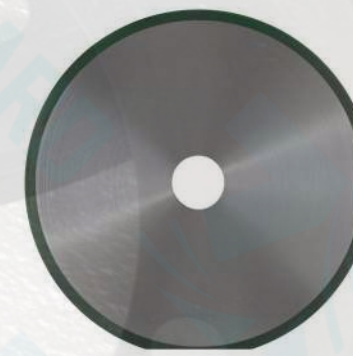
**Diamond cutting disc for carbide processing**  
This product is used for processing carbide (cobalt-tungsten alloy Yg8), can provide perfect cutting and slottin for rods and blocks according to customers' needs.  
With the features of sharp cutting, long service life, smooth cutting surface without breakage. Any specification can be customized!



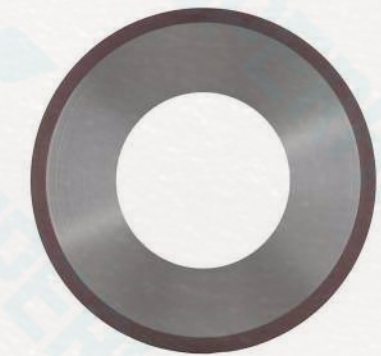
**Diamond cutting disc for quartz crucible**  
Mainly used for precision cutting or grooving quartz products, suitable for the following products: quartz glass rod, quartz glass sheet, quartz glass crucible, furnace core rod, quartz glass boat, quartz crucible, etc., With the features of sharp cutting, smooth section and long service life!



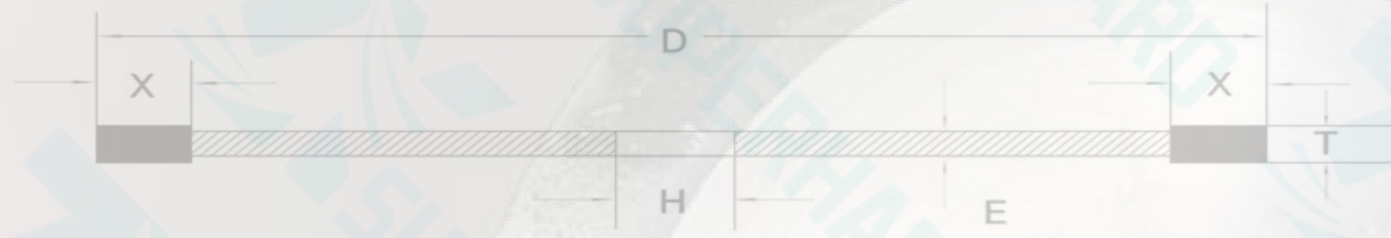
**Diamond cutting disc for optical glass**  
Mainly used for optical glass cutting , including camera lens, microscope lens, magnifying lens, telescope lens, spectacle lens and other optical glass. high sharpness, small slit, long life . It can completely replace the imported products. Any specifications can be customized!



**Diamond cutting disc for glass cup (tea strainer) slotting**  
Mainly used for slotting tea strainer of glass cup, with the features of sharp cutting , smooth cutting surface, no cracks, no chipping . It can maintain stable sharpness and good cutting life, greatly improve production efficiency and yield for users.



**Diamond cutting disc for magnetic materials**  
This material is a brittle material. Our diamond disc can efficiently cut NdFeB, silicon steel, amorphous, nanocrystalline, ferrite, magnetic powder core and other materials. Any specification can be customized



Detailed processing range

- Glass material: Various glass tube / Glass spout / Tea strainer/ High borosilicate glass (electronic cigarette) / Capillary glass tube / Optical glass / Quartz glass / Crystal glass / Gem / Crystal / Jade
- Ceramic material: Alumina / Zirconia / Silicon Carbide / Boron Carbide / Boron Nitride / Black Ceramic / Glass Products
- Abrasive material: Refractory / Superfinishing stone
- Magnetic material: Ferrite/NdFeB
- Alloy material: High speed steel / Abrasive steel / Alloy steel
- Brittle metal material: Carbide (YG Series)

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