



DISCO

Kiru · Kezuru · Migaku Technologies



Electroformed Bond Blades with HUB **ZHCR SERIES**

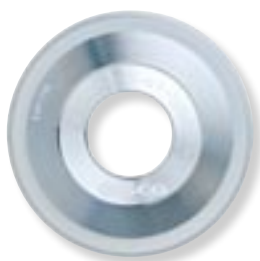
Realizes stable processing by restraining blade tip shape collapse



The ZHCR series hub blade realizes a special blade structure, restrains tip shape collapse for blades exceeding 60 μm thickness, and provides stable processing using DISCO unique technology.

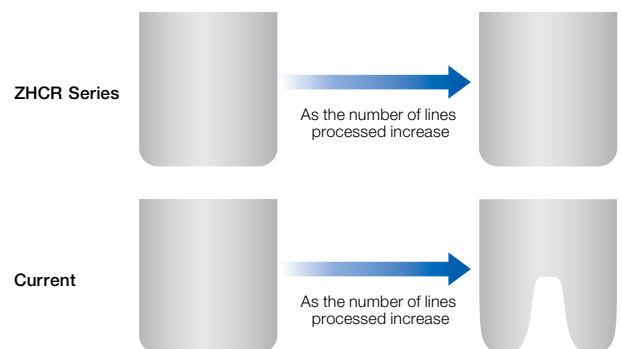
For relatively thick blades in excess of 60 μm, only the blade tip midsection may wear as the number of cut lines increase. This blade tip shape collapse causes quality deterioration such as widening of the kerf and sporadic chipping. The ZHCR series restrains the collapse of the blade tip shape and realizes stable processing without deterioration using a special blade structure based on unique technology. The ZHCR series proves its worth in the following processes where blade tip shape collapse easily occurs.

- Processes that use blades with thicknesses exceeding 60 μm
- Processing of wafers with a lot of TEG on the street
- Blade dicing after laser grooving



■ Image of the blade tip shape

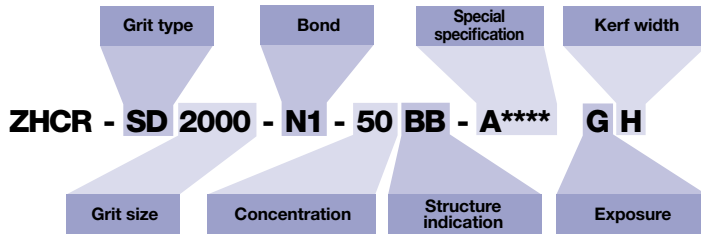
The ZHCR has properties that maintain regular blade shape for cutting processes where only the blade tip midsection wears easily.



Applications

Silicon wafers, etc.

Specifications



Electroformed Bond Blades with HUB

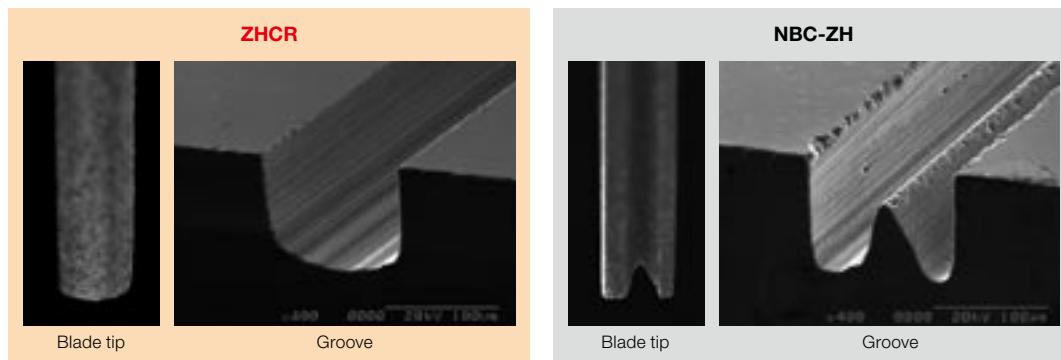
ZHCR SERIES



Experimental Data

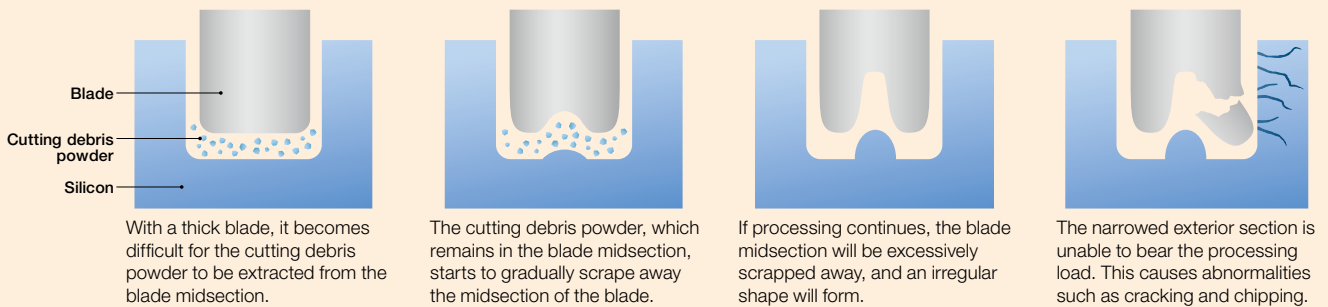
Tip shape and groove comparison (SEM Image)

As the cutting process progresses, the midsection of a regular blade becomes uneven and chipping increases. With the ZHCR, the normal shape of the blade is maintained.



Reference) Image of the blade tip shape change

These images show that when the tip shape of a thick blade collapses, it leads to quality deterioration. The ZHCR series has properties that maintain initial blade tip shape.



Quality deterioration caused by the collapse of the blade tip shape include kerf widening, sudden chipping, curving of 2-axes step cut and workpiece damage.

When ordering

Please contact a DISCO representative with your product needs such as type, thickness, outer and inner diameter, and quantity.

When you place the first order with us, please explain application information such as materials to cut or grind, sizes, shape, machine, type, and other specification.

We are ready to help you to determine which is our most appropriate product type for your application.

Due to improvements in our products, it is possible that product specifications may be changed without advanced notice. Please confirm the product specifications with a DISCO representative.

To use these DISCO wheels safely...

Please read carefully and follow the instructions below to prevent any accidents or injuries.

- USE a safety cover (nozzle case, cover), equipped as a standard accessory, to avoid injury.
- DO NOT EXCEED the maximum rpm if it is specified.
- FOLLOW the instruction manual of the machine to mount wheel properly.
- DO NOT DROP OR HIT wheels. this may cause wheel breakage or injury.
- Always CHECK the wheel for chipping or any other wheel damage before starting to use the wheel. DO NOT USE the wheel if there is any damage.
- READ the operation manual of the cutting/ grinding equipment before use.
- DO NOT USE a wheel with a modified or customized equipment.
- DO NOT USE a wheel that has a different size from the one recommended for your machine.
- DO NOT USE a wheel for any other purpose than Grinding, Cutting, or Polishing.
- Always USE water or coolant to prevent wheel breakage.



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