



Electroformed Bond Hub Blades

ZHFX SERIES

Realizes continuous processing of oxide wafers

The ZHFX Series realizes high level continuous processing of oxide wafers

The ZHFX Series employs a bond that has ideal wear properties for processing newly developed oxide wafers. It is capable of continuously processing oxide wafers, which has been difficult thus far, with a high level of stability. In addition, greater processing stability can be expected in the DBG processing of Lithium Tantalite wafers.

- Realizes high level and stable processing of oxide wafers.
- Significantly lowers dress frequency during processing and shows high continuous processing performance.



■ Lithium Tantalite wafers process example



ZHFX Series



NBC-ZH Series

Applications

Oxide wafers(LiTaO₃, etc), etc.

Specifications

Bond
C1

Special specification

ZHFX - SD 1700 - C1 - 50 - A* D D**

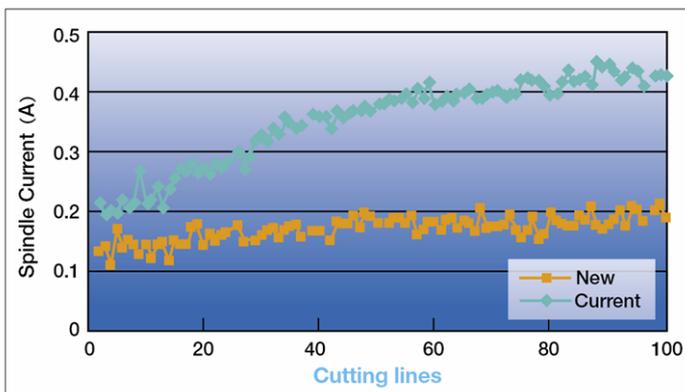
Grit type	Grit size		Concentration	Exposure		Kerf width	
SD	1700	#1700	50	A	0.38 - 0.51	C	0.025 - 0.030
	2000	#2000	70	B	0.51 - 0.64	D	0.030 - 0.035
			90	C	0.64 - 0.76	E	0.035 - 0.040
			110	D	0.76 - 0.89	F	0.040 - 0.050
				E	0.89 - 1.02		
				F	1.02 - 1.15		

(mm)

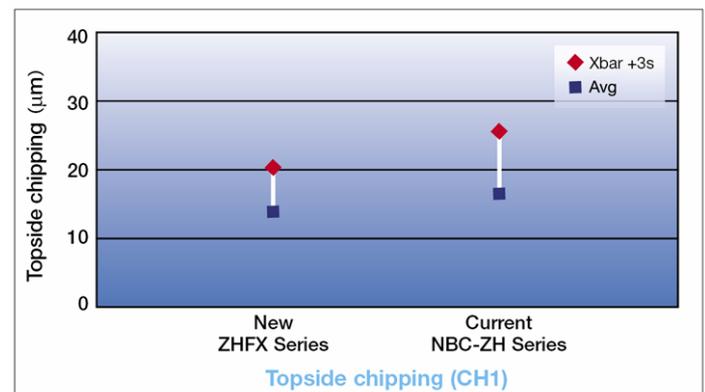
Experimental Data

The ZHFX Series is an optimal blade for applications such as half-cut dicing for the DBG process or the continuous processing of oxide wafers.

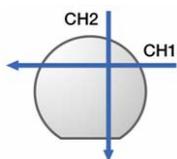
■ **Topside chipping size comparison**



■ **Spindle current comparison**



Cut direction



Workpiece : 4"LiTaO₃ x 350 µm
 Depth : 350 µm (full cut)
 Blade : ZHFX-SD2000-C1-50 DF
 NBC-ZH105L 27HEDF

The above graph shows the measurement of current during the processing of a LiTaO₃ wafers. With the ZHFX Series, compared to the existing series, as the number of lines increased, there is no rise in current, so stable processing can be verified.

Workpiece : 4"LiTaO₃ x 350 µm
 Depth : 150 µm (full cut)
 Blade : ZHFX-SD1700-C1-50 DF
 NBC-ZH106L 27HEDF

When ordering

Please contact a DISCO representative with your product needs such as type, wheel size, and quantity.

When you place the first order with us, please explain application information such as materials to grind, sizes, 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 blades and wheels (hereafter precision tooling) 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 specified rpm limit indicated on the precision tooling.
- FOLLOW the instruction manual of the equipment to mount the precision tooling properly.
- DO NOT DROP OR HIT the precision tooling. This may cause breakage or injury.
- Always CHECK the precision tooling for chipping or any other damage before starting to use it. DO NOT USE the tooling if there is any damage.
- READ the operation manual of the cutting/grinding equipment before use.
- DO NOT USE the precision tooling with modified or customized equipment.
- DO NOT USE precision tooling that has a different size from the one recommended for your equipment.
- DO NOT USE the precision tooling for any other purpose than grinding, cutting, or polishing.
- Always USE water or coolant to prevent precision tooling damage.