

# Electroformed Bond Blades with HUB ZHFX SERIES

**Realizes continuous processing of oxide wafers**



## The ZHFX Series realizes high level continuous processing of oxide wafers by using a new bond.

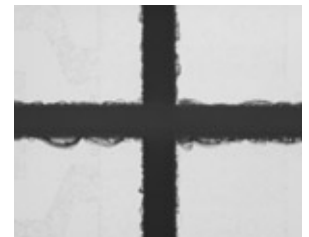
The ZHFX Series employs a bond that has ideal wear properties for processing newly developed oxide wafers. It is capable of continuously processing oxide wafers, which has been difficult thus far, with a high level with stability. In addition, greater processing stability can be expected in the DBG processing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



New ZHFX Series



Current NBC-ZH Series



### Applications

Oxide wafers (LiTaO<sub>3</sub>, etc.), etc.

## Specifications

Grit type		Bond type	
SD		C1	
<b>ZHFX - SD 1700 - C1 - 50 D D</b>			
Grit Size	Concentration	Exposure	Kerf Width
1700	50	A 0.380~0.510	C 0.025~0.030
2000	70	B 0.510~0.640	D 0.030~0.035
	90	C 0.640~0.760	E 0.035~0.040
	110	D 0.760~0.890	F 0.040~0.050
		E 0.890~1.020	
		F 1.020~1.150	
(mm)			

## Electroformed Bond Blades with HUB

# ZHFX SERIES



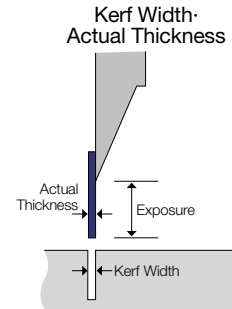
### Standard blade types\*

Kerf Width	Exposure	A		B		C		D		E		F	
		mm	0.380 ~0.510	0.510 ~0.640	0.640 ~0.760	0.760 ~0.890	0.890 ~1.020	1.020 ~1.150					
C	0.025 ~0.030	AC	BC	CC									
D	0.030 ~0.035	AD	BD	CD	DD								
E	0.035 ~0.040	AE	BE	CE	DE	EE							
F	0.040 ~0.050	AF	BF	CF	DF	EF	FF						

\* Please contact a Disco representative for details.

### Standard specification range by grit size

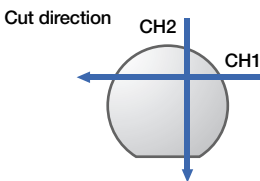
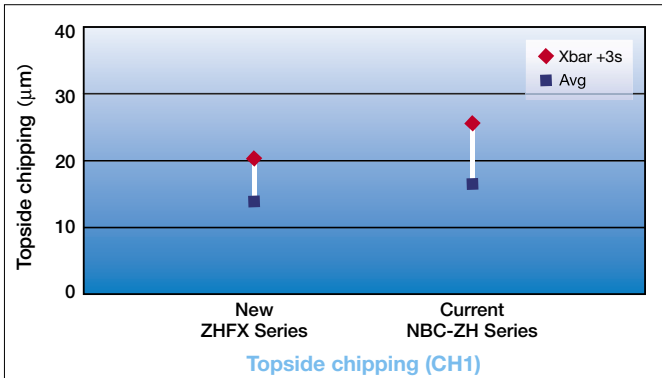
Grit Size	Concentration			
	50	70	90	110
#1700	✓	✓	✓	✓
#2000	✓	✓	✓	✓



## Experimental Data

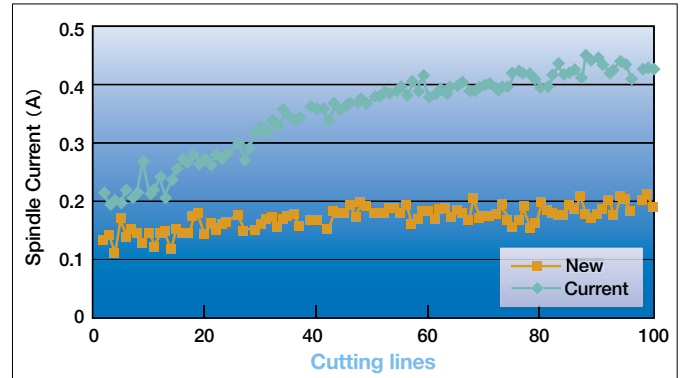
The ZHFX Series is an optimal blade for applications such as half-cut dicing for the DBG process or the continuous processing of oxide wafers.

### ■ Topside chipping size comparison



Wafer : 4" LiTaO<sub>3</sub> x 350µm  
Depth : 350µm (full cut)  
Blade : ZHFX-SD2000-C1-50 DF  
NBC-ZH105L 27HEDF

### ■ Spindle current comparison



The above graph shows the measurement of current during the processing of a LiTaO<sub>3</sub> wafer. 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.

Wafer : 4" LiTaO<sub>3</sub> x 350µm  
Depth : 150µm (half cut)  
Blade : ZHFX-SD1700-C1-50 BC  
NBC-ZH106J 27HFC

### 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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