

# Electroformed Bond Blades with HUB **ZH05**SERIES

## *Advanced Hub blade for Improved Process Stability and Consistency*

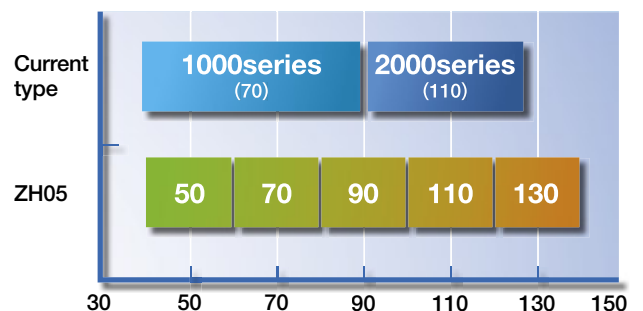


### The high-precision grit concentration control of the ZH05 Series allows for extremely stable and consistent process results.

Newly developed grit concentration control technology has made possible five distinct levels of grit concentration. This wider range of choices offers improved balance between blade life and process quality (in particular, backside chipping). In addition, by strengthening the abrasive portion of the blade, wavy cutting and blade breakage are further reduced (as compared to previous blades).

- 5 grit concentration levels support diverse applications.
- Higher blade strength reduces wavy cutting and blade breakage.
- The ZH05 Series offers shorter precut times and lower chance of blade breakage due to flying die.

### ■ Concentration range



During dicing, grit concentration affects both the speed of blade wear and the size of chipping. By selecting precisely a grit concentration that is appropriate to the application, both wear rate and process quality can be made more stable and consistent. "Grit concentration" refers to the percentage of diamond grit in the abrasive portion of the blade. For example, a grit concentration level of 100 indicates 25% diamond grit by volume.

### Applications

*Silicon and compound semiconductor (GaAs, GaP, etc.) wafers, oxide wafers (LiTaO<sub>3</sub>, etc.), etc.*



ISO 9001  
JQA-0954



REGISTERED ORGANIZATION  
No. E892-ISO 14001

## Specifications

Grit type		Bond type	
SD		N1	
<b>ZH05 - SD 2000 - N1 - 110 D D</b>			
Grit Size	Concentration	Exposure	Kerf Width
1500	50	A 0.380~0.510	A 0.015~0.020
1700	70	B 0.510~0.640	B 0.020~0.025
1800	90	C 0.640~0.760	C 0.025~0.030
2000	110	D 0.760~0.890	D 0.030~0.035
2500	130	E 0.890~1.020	E 0.035~0.040
3000		F 1.020~1.150	F 0.040~0.050
3500		G 1.150~1.280	G 0.050~0.060
4000			
4500			
4800			
5000			

## Electroformed Bond Blades with HUB

# ZH05 SERIES



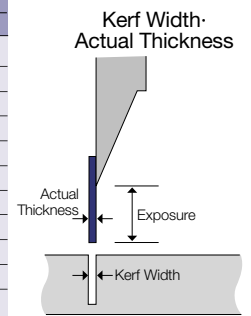
### Standard blade types

Exposure	Kerf Width	mm						
		A	B	C	D	E	F	G
A	0.015~0.020	AA	BA					
B	0.020~0.025	AB	BB	CB				
C	0.025~0.030		BC	CC	DC			
D	0.030~0.035		BD	CD	DD	ED		
E	0.035~0.040			CE	DE	EE	FE	
F	0.040~0.050			CF	DF	EF	FF	GF
G	0.050~0.060				DG	EG	FG	GG

\* Please contact a Disco representative for details.

### Standard specification range by grit size

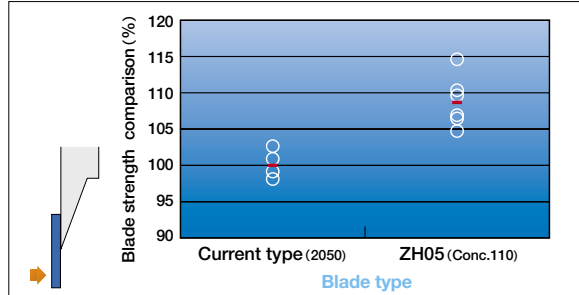
Grit Size	Concentration				
	50	70	90	110	130
#1500	✓	✓	✓	✓	✓
#1700	✓	✓	✓	✓	✓
#1800	✓	✓	✓	✓	✓
#2000	✓	✓	✓	✓	✓
#2500	✓	✓	✓	✓	✓
#3000	✓	✓	✓	✓	✓
#3500	✓	✓	✓	✓	✓
#4000	✓	✓	✓	✓	
#4500	✓	✓	✓		
#4800	✓	✓	✓		
#5000	✓	✓	✓		



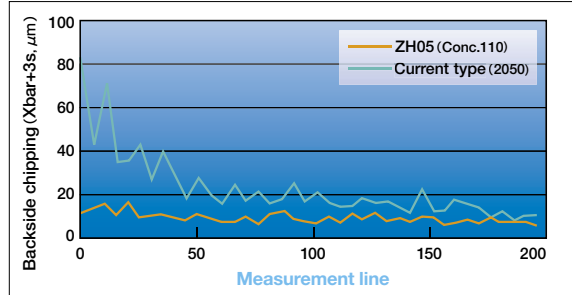
## Experimental Data

Compared to previous blades, the ZH05 Series offers, by means of more precise control of grit concentration levels, blade life and process quality that are more stable and consistent.

### Die strength comparison



### Reduction in precut time



### 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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