



Electroformed Bond Hub Blades

# NBC-ZH SERIES

High performance hub blades that take on the challenges of cutting

**The NBC-ZH Series provides high productivity and excellent process results thanks to its superb cutting ability and long life.**

A combination of an ultrathin diamond blade and an aluminum hub provides enhanced operation efficiency and stable cutting results. In combination with DISCO's vast application knowledge, these blades provide excellent cutting results when dicing silicon wafers and compound semiconductor wafers such as GaAs.



- Realizes advanced dicing processes bevel and step cutting
- Wide range of grit sizes and bond types to support various application requirements
- Easy to handle ultra-thin blades
- Shorter blade change time for increased productivity



Bevel Cut



Step Cut

## Applications

Silicon, GaAs, GaP, LiTaO<sub>3</sub>, etc.

**Specifications**

**Standard Type**

Bond <sup>2</sup>		Hub type		Diameter	
O	Standard Bond	SE	Sharp hub edge type	27H	O.D. ø55.56
J	Soft Bond				I.D. ø19.05
F	For Backside Chipping Reduction			35H	O.D. ø76.20
					I.D. ø31.75

(mm)

\*1 **NBC - ZH 2 05 0 - SE 27H E D D**

Concentration	Grit size	Grit size code	Exposure	kerf width
1 Low Concentration	07 #1500	G	A 0.38 - 0.51	A 0.015 - 0.020
2 Standard Concentration	06 #1700	F	B 0.51 - 0.64	B 0.020 - 0.025
	29 #1800	E	C 0.64 - 0.76	C 0.025 - 0.030
	05 #2000	D	D 0.76 - 0.89	D 0.030 - 0.035
	04 #3000	D	E 0.89 - 1.02	E 0.035 - 0.040
	03 #3500	C	F 1.02 - 1.15	F 0.040 - 0.050
	27 #4000		G 1.15 - 1.28	G 0.050 - 0.060
	02 #4500	B	H 1.28 - 1.41	H 0.060 - 0.070
	26 #4800		I 1.41 - 1.54	I 0.070 - 0.080
	22 #5000	A	J 1.54 - 1.67	J 0.080 - 0.090
			K 1.67 - 1.80	K 0.090 - 0.100
			(mm)	L 0.100 - 0.110
				(mm)

\*1 Products that include a special specification may be denoted with "ZHT-\*\*\*\*\*"

**Actual blade thickness**

**NBC - ZH 2 05 0 - D - S1 - T1 - SE**

<b>55.56</b>	<b>×</b>	<b>0.1</b>	<b>×</b>	<b>19.05</b>	<b>×</b>	<b>45°</b>
O.D.		Thickness <sup>4</sup>		I.D.		Angle
55.56		0.060~0.200		19.05		θ
76.2				31.75		
(mm)		(mm)		(mm)		

Exposure	Slit <sup>2</sup>	Blade shape <sup>3</sup>	
A 0.38 - 0.51	S1 No. of slits 4	T1	
B 0.51 - 0.64	S2 No. of slits 8	T2	
C 0.64 - 0.76	S3 No. of slits 16	T3	
D 0.76 - 0.89	SS Optional	T3A	
E 0.89 - 1.02		T3B	
F 1.02 - 1.15		T4	
G 1.15 - 1.28		T4A	
H 1.28 - 1.41		T4B	
I 1.41 - 1.54			
J 1.54 - 1.67			
K 1.67 - 1.80			

(mm)

\*4 Since the applicable ranges differ depending on the grit (mesh) size, bond and concentration, please contact your DISCO representative for details.

\*2 All slit widths are 0.5mm (except for the SS type) All slit depths are 80 -100 % of exposure (except for the SS type) Blade thicknesses greater than 0.06mm are available.

\*3 Blade thicknesses greater than 0.1mm are available.

**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.