

Metal Bond Blades

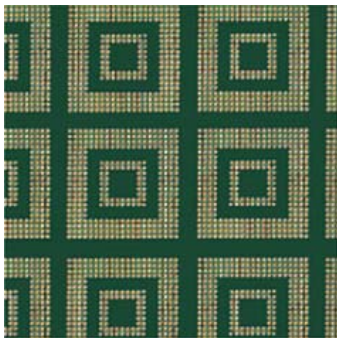
# B1A SERIES

Realizes precise processing of difficult to cut materials based on superior wear resistance and rigidity

## Precision Processing of Difficult-to-cut Materials

Sintered metal powder is used as the bonding agent material to realize strong holding power. As a result, these blades have a low wear rate. They are excellent for accurate cutting or grooving of electronic devices such as CSP packages, ceramics, and optical materials. Also, since they have both excellent rigidity and cutting ability there is low risk of wavy cutting.

- Minimized blade wear and high cutting ability.
- High rigidity to minimize wavy and slant cutting.
- Wide variety of bond types for various applications.
- Provides precise control of diamond concentration for optimal cutting quality.



CSP



Ceramics

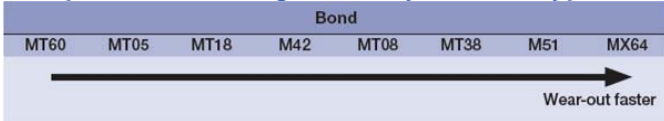


### Applications

Electronic parts, Optical devices, Various types of semiconductor packages, Ceramics, Mono-crystal ferrite, Glass, etc.

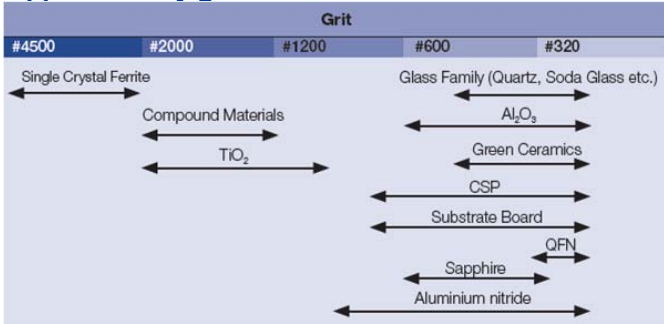
**Processing Data**

**Comparison of cutting efficiency for bond types**



The above shows the tendency of the process result when a dresser board is cut. Depending on the cutting conditions and type of material, actual results may vary. Therefore, these values are for reference only.

**Application by grit size**



**Specifications**

**Internal code**<sup>\*3</sup>      **Thickness accuracy**<sup>\*4</sup>      **Bonding strength**      **Concentration**      **Bond**

1 Standard accuracy <sup>*5</sup>	25		
2 ±0.005	50		
3 ±0.002	75		
	100		
	125		

**\*1 B 1E8 6 3 S3 SD 600 L 50 MT38**      **54 × 0.15 × 40 × 45°**

Basic shape <sup>*2</sup>	Slit <sup>*6</sup>	Grit type	Grit size	O.D.	Thickness	I.D.	Angle
1A8	S1 No. of slits 4 Depth 1 mm	SD Synthetic diamond	320 #320 360 #360				$\theta$
1E8	S2 No. of slits 8 Depth 1 mm	SDC Coated Synthetic diamond	400 #400 500 #500				$\theta$
1M8	S3 No. of slits 16 Depth 1 mm	B cBN	600 #600				$\theta$
1N8	S5 No. of slits 40 Depth 1 mm	BC Coated cBN	800 #800 1000 #1000				$\theta$
1V8	SS Optional		1200 #1200 1500 #1500 1700 #1700 2000 #2000 3000 #3000 4000 #4000 5000 #5000 6000 #6000				$\theta$

**\*3** Regarding the combination of blades Internal code and bonding strength of each blade correspond to the bond type. Please refer to the chart below.

Internal code	Bonding strength	Bond	Thickness accuracy
0	N	M42	1,2,3
		M51	
		MT08	
6	L	MT38	2,3
		MX64	
		MT05	
	P	MT18	
		MT60	

**\*4** Possible accuracy differs depending on the product, size and bond.  
**\*5** Standard accuracy differs depending on the product and size.

**\*1** Products that include a special specification may be denoted with "MBT-\*\*\*\*\*"  
**\*2** Shapes other than 1A8 are available with a thickness of 0.1 mm or more.  
**\*6** All slit widths are 0.5 mm (except for the SS type)

**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.