

**NEW Vitrified Bond Blades**

# VT07 SERIES

**Vitrified bond blade for high-load processing**



## The VT07 series realizes hard material processing with thin vitrified bond blades

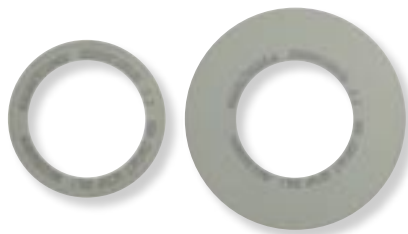
The VT07 series employs a vitrified bond that has been difficult to manufacture into thin blades until now. These blades can process with a high degree of straightness and dimensional accuracy for high-load processing by using the high rigidity and high cut ability of the vitrified bond. As a result, this realizes quality processing for difficult to cut materials such as silicon nitride.

- Realizes thin blades with a vitrified bond
- Able to process with a high degree of straightness and dimensional accuracy for high-load processing
- Realizes high-grade processing of hardened ceramic



High-load deep-groove processing, which could only be realized with multi-step cutting, can now be processed in one pass.

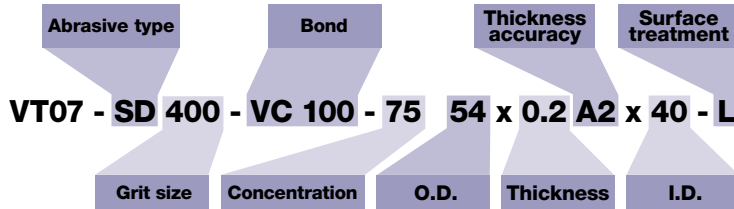
Workpiece : Silicon Nitride  
Cutting depth : 2.6 mm  
Groove width : 0.25 mm  
Feed speed : 2 mm/s  
Blade : VT07-SD400-VC100-75



### Applications

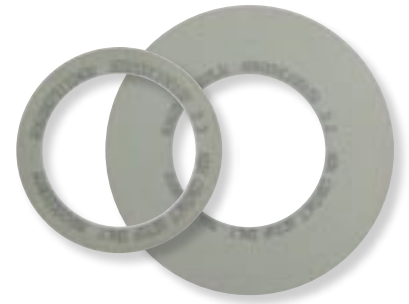
*Silicon nitride, silicon carbide, crystal, etc.*

## Specifications



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## Experimental Data

### Deep-groove processing

The current blade bends during deep-groove processing. The VT07 series can achieve highly straight processing results for deep-groove processing.



**New** (Speed:2 mm/s, Depth:2.6 mm)



**Current** (Speed:1 mm/s, Depth:1 mm)

Workpiece : Silicon nitride

Blade : New VT07-SD400-VC100-75

Current NBC-ZB1120

Kerf : 0.25 mm

### Crystal processing

The VT07 series has the potential to process hard materials at a higher quality and speed than the current blade.



**New : VT07** 5 mm/s (1pass)



**Current : Resin** 3 mm/s (2pass)

Workpiece : Crystal 1.2 1mmt

Blade : VT07-SD400-VC100-75

G1A851 SDC320R13B01

Spindle rpm : VT07 20,000 rpm

G1A 10,000 rpm

### Cautions during usage

Note the below points on its characteristics when using the vitrified bond.

1. Since the VT07 series is nonconductive, contact setup (conductive type) can not be used.
2. Since there is a fear of breakage when using the VT07 series at high rpm, use at the specified rpm.
3. When using the VT07 series on a machine with the standard BBD (Blade Breakage Detector Unit), since there is a possibility of a wrong detection, use with the BBD function turned off.

**Note:** For details, contact your DISCO sales representative.

### 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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