

## MT Bond Diamond & cBN Wheels



### MT Bond Wheel - pursuing the ideal grinding wheel

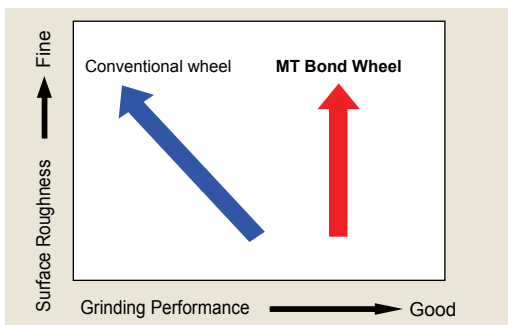
MT Bond is a new metal bond which is manufactured to reach optimum grinding ability, fusing the advantages of both resin bond and metal bond.

The Diamond Wheel efficiently grinds ceramic, carbide, cermet, and quartz, on the other hand, cBN wheel is for non-ferrous materials.

MT Bond Wheel is recommended for the surface grinding and creep feed grinding by profiled wheel, which sustains its grinding ability.

### ■ Suitable for various workpieces

MT10 and 20 are recommended for the grinding operation of various tools such as cemented carbide, cermet, and high speed steel. MT30, 40, and 50 are recommended for the surface grinding of glass, various ceramics, and steels.

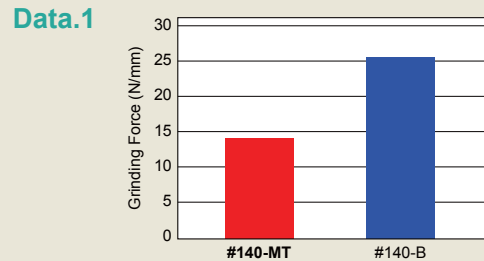


### □ Surface grinding

#### ● Grinding conditions

Workpiece : Silicon Nitride  
 Wheel Speed :  $V=1760\text{m/min}$   
 Work Speed :  $F=10\text{m/min}$   
 D.O.C. :  $a=20\mu\text{m}$

**Result** The grinding force (normal force) is 40% lower than the resin bond wheel

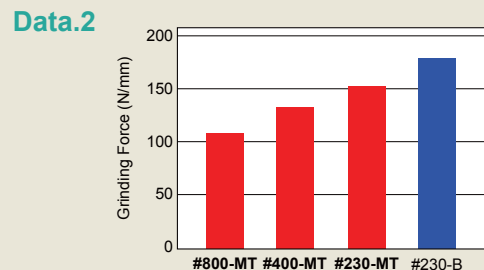


### □ Creep feed grinding

#### ● Grinding conditions

Workpiece : Silicon Nitride  
 Wheel Speed :  $V=1600\text{m/min}$   
 Work Speed :  $F=60\text{m/min}$   
 D.O.C. :  $a=1\text{mm}$

**Result** MT Bond Wheel shows 20% lower grinding force than resin bond wheel with the same grit size. The finer grit produces a lower grinding force (comparison is between grit sizes #230, #400, and #800).



### □ Grinding ability of each grades MT Bond

#### ● Grinding conditions

Workpiece : Silicon Nitride  
 Wheel Speed :  $V=1,650\text{m/min}$   
 Work Speed :  $F=10\text{m/min}$   
 D.O.C. :  $a=20\mu\text{m}$

