

Dia-Grid RIGID

Dia-Grid RIGID is a resin bond diamond abrasive disc recommended for hard-to-grind materials. It features a rigid ferromagnetic stainless steel backing with nonslip coating for magnetic platens. Wide, low-profile tabs allow easy disc removal after use.

Warning/Caution:

- **Turn off platen rotation** and wait for the platen to completely stop before attaching or removing the Dia-Grid RIGID disc. Do not start platen rotation until the disc is firmly fastened to the platen.
- Tabs on the perimeter of the Dia-Grid RIGID disc help with removal of the disc from the magnetic platen. Do not remove the disc until the platen has **completely stopped rotating**.
- Keep hands, fingers and body parts away from moving edges to avoid injury.

Directions for Use:

- Only water is needed and should be used for grinding. The use of any other media may produce undesirable effects. Allied High Tech Products assumes no responsibility for damages resulting from misuse.
- Dia-Grid RIGID reaches optimal grinding efficiency after it is dressed.
- Upon initial use, it will take about 6 to 10 minutes of operation for it to begin fully grinding at its highest efficiency. During this process, only water is needed for lubrication.
- The optimal removal rate is achieved when the RPM is 300 and the applied force is between 6-8 lbf (27-36 N) for each 1.25" (32 mm) diameter mount. Samples that take up more area of the mount may require greater forces to maintain efficiency.

Life Expectancy:

- Product life will vary depending on a number of factors, such as frequency of use, size and type of samples, and the number of samples being ground. When the diamond is completely worn from each segment, white wear indicators will appear; this is the best way to determine if a disc should be replaced.

Cleaning:

- Clean Dia-Grid RIGID discs by applying water and soap to the surface; a stiff non-metallic brush may help to scrub the surface for more aggressive cleaning. A spin-dry is recommended to help remove most of the water after cleaning, before storing. Use the JOG function found on Allied grinding/polishing machines for convenience.

Dressing:

- It is normal for the encapsulating resin or sample debris to build up and clog the diamond abrasive (Figure 1), reducing its effectiveness and diminishing its capability to remove material at the same rate after numerous cycles. For this purpose, a white, aluminum oxide dressing stick is supplied with each disc (Figure 2). Contact Allied to purchase a replacement dressing stick.

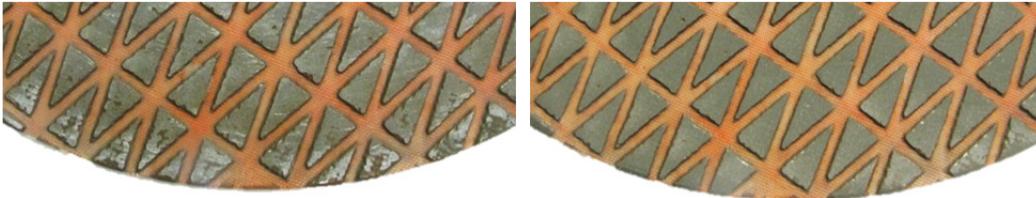


Figure 1: Left: Debris buildup on diamond segments. Right: Same location after dressing operation.

Item: 60-20108 – Dressing Stick

4" (100 mm) x 1" (25 mm) x 0.5" (13 mm)



Figure 2: Each Dia-Grid RIGID disc is supplied with a dressing stick.

- Prior to use, soak the dressing stick by submerging it in water for 3 minutes.
- When applying the dressing stick, **keep hands clear** of the edge of the rotating disc. Apply the dressing stick on the side of the disc that rotates away from the user. With the disc fastened to the magnetic platen, activate rotation (100 – 200 RPM), and under flowing water, use both hands and apply firm pressure to the stick while simultaneously moving it from the center to the edge of the disc (Figure 3). Longer dressing times may be needed depending on the elapsed time between dressing operations.
- When finished, stop the platen completely, and then remove and wash the abrasive disc thoroughly to remove the aluminum oxide particles and dislodged debris. A non-metallic brush may help to scrub the surface for more aggressive cleaning.

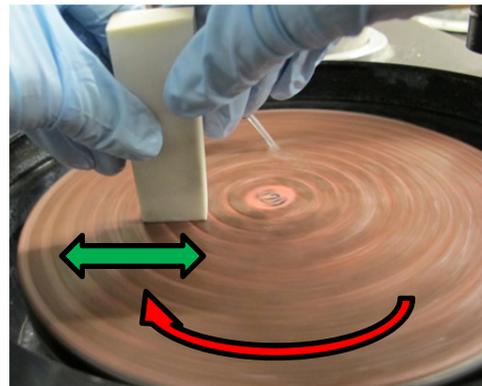


Figure 3: Apply the supplied dressing stick to the rotating surface to dress the discs. **Red:** Disc rotation direction. **Green:** Apply the dressing stick from center to edge on the side that rotates away from the user.