DIAMOND GRINDING HEADS

User Instructions

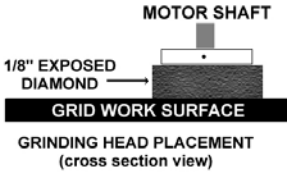
All Inland diamond heads are plated in our ISO9001:2008 facility in Michigan. Because we plate our own diamond products we can offer the absolute best. The diamond coating on your Inland grinding or drilling head will never peel from the core or we'll replace it for free for the life of the diamonds. Inland grinding heads fit all machines with a standard .312" (7.92 mm) motor shaft.

Safety

- It is extremely important to wear proper eye protection. We highly recommend that you wear safety goggles rather than safety glasses. You can also use the Inland FaceShield™ or MagnaShield™ in conjunction with proper eye wear for added protection. **NOTE**: A shield alone is not adequate eye protection.
- Gloves are recommended for hole drilling when using the smaller diameter drilling heads.

Installing and Changing Grinding Heads

1. It is always a good idea to apply a lubricant such as Inland Motor Shaft Lubricant to the motor shaft whenever installing or changing heads. This helps prevent the head from seizing on the shaft and keeps ground glass and other debris from getting down into the motor.
2. Loosen the set screw using the allen wrench provided by turning it counterclockwise.
3. Slide the head onto the shaft so that the set screw sits over the flat side of the motor shaft. Do not force! It should slide on easily. Contact customer service at 1-800-521-8428, ext. 306 if you have problems.
4. Lower it down until just over 1/8" of the diamond is exposed above the work surface. This is the standard thickness of most glasses. If you are working with a thicker material, lower it down until the amount of diamond exposed above the work surface is slightly greater than the height of the material you are shaping. Secure the head to the shaft by turning the set screw clockwise with the allen wrench provided.
   IMPORTANT: Always secure the head to the flat side of the motor shaft. Tightening the head to the rounded side can scar the shaft and prevent head removal!



GRINDING HEAD PLACEMENT (cross section view)

5. When the exposed diamond no longer grinds efficiently, loosen the set screw and move the head on the motor shaft to expose a fresh section of diamond and re-secure.
6. Refer to your machines owners' manual for how to use diamond grinding heads properly on your machine.

Installing and Using Drilling Heads

You use smaller diameter grinding or drilling heads by installing them on top of the larger diameter heads. It is advisable to practice on a piece of scrap material to get a feel for the process before you begin drilling on your final project.

1. Install the head onto the motor shaft following the instructions above. You may need to first lower the larger head to expose enough of the motor shaft to properly secure the smaller grinding / drilling head.
2. You will need to apply coolant to this smaller head using another sponge soaked in coolant.
3. Start the machine
4. Begin drilling the hole by bringing the front surface of the material against the upper edge of the head at about a 45° angle with the coolant soaked sponge held against both the head and material as shown at right. You may find it easier to use two hands.
5. Continue to move the material down onto the head to a horizontal position to start the hole.
6. Then apply pressure down as you work the material around the head in a circular motion. You may need to may need to reload the sponge several to ensure the material being drilled and the diamond is properly lubricated at all times.
7. Decrease the pressure as you start seeing the head come through the back of the material to reduce chipping.
8. You can enlarge the hole by continuing to work the material in a circular motion around head.

Helpful Tips

- If a white powder forms around the head as you grind, check both your sponge placement and the coolant level in the reservoir. If you are using a drilling head check to make sure your sponge is loaded with coolant and you are holding against both the diamond surface and your material.
- You will notice that grinding with smaller heads is slower than standard heads. This is due to the smaller diameter and is normal.
- Always tighten heads to the flat side of the motor shaft. Tightening to the round side can scar the shaft and prevent the head from being removed.
- Remove the grinding heads from your machine if you are not using it for long periods.
- You can use Inland DiamondCoolant™ to help increase grinding efficiency and prolong life of your diamond grinding and drilling heads.

Grits and Uses

- SuperFine™ Grit - For very soft glasses, mirror or when the edge will be left exposed. Leaves a chip free edge.
- Fine Grit - For softer, more delicate glasses and mirror. Leaves a minimal chip line.
- Standard Grits - For normal grinding and drilling
- SpeedGrit™ - For fast removal of material and grinding out large areas.
- SuperSpeed™ Grit - For extremely fast and aggressive removal where the edge won't be seen or will be retouched with a finer grit head.
- SuperBond™ - Special brazed metal bonding holds the diamonds more secure to the core and provide the aggressive grinding of a single layer diamond tool for fast work.
- DoubleDiamond™ - Two layers of diamond that last more than twice as long as conventional heads

Service

If you have any questions or comments regarding the use of this or any Inland product please call Inland Customer Service at 1-800-521-8428 9 AM to 5 PM EST, email us at helpdesk@inlandcraft.com, or write us at:

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