

Care of your Twistor2™ Diamond Wheel

The Twistor2™ diamond wheel is a hard resin composite matrix on a high carbon steel base plate. Each wheel is ground flat and parallel, then dynamically balanced to ensure smooth operation. This wheel was designed for pre-polishing facets on gemstones that may have crack imperfections that can fill with diamond compound from a charged lap. The Twistor2™ can also be used to final shape a curved girdle outline.

The resin composite matrix on the Twistor2™ is more brittle than the metal bonded matrix of other Adamas diamond wheels. The user should take special care when handling this wheel. The most dangerous place to clean it is over a hard floor or a sink. The safest place to clean the top and side of this wheel is mounted on the platen of your faceting machine. Running the lap speed at about 1000 rpms with the drip tank valve open just enough to get a stream allows you to use a bar of Lava® Soap on the resin bonded matrix surface to remove adherent swarf or oil by running the corner edge from the inside of the wheel to the outside enough times to fully remove the swarf or oil. You can clean the side using a paper towel wet with a few drops of an oil while running at a lap speed of around 60 rpms. You can clean the bottom of the wheel by laying it top surface down on a clean piece of cardboard and applying a paper towel wet with some oil in circular motions.

When you first use your Twistor2™, with a generous water drip rate and moderate lap speed, run a large, flat facet of a hard, synthetic material over the cutting surface to remove projections left over from surface grinding that could produce scratches. You will see some yellow swarf in your splash pan which indicates that you have flatted the cutting surface.

Adamas recommends a maximum lap speed of 1000 rpms for the Twistor2™ with a water drip. If you are using FFC™, the speed range should be 200-600 rpms.

After months or years of use, you will observe the rate of material removal decline with your Twistor2™. You should dress the cutting surface only with the Adamas supplied aluminum oxide dressing stick. A stick with a course grit or silicon carbide will mar the surface and render it temporarily unusable. Soak one end of the dressing stick in water for 15 minutes. Run the lap speed at about 1000 rpms and adjust the drip tank rate to a light stream directed on the inside of the lap. Now run the wet end of the dressing stick starting at the inside of the diamond matrix layer to the outside and back to the inside. Then, with a bar of Lava® Soap, run the corner edge of it from the inside to the outside and let the water stream rinse the cutting surface to remove any stray grits.

Always employ light pressure when you pre-polish with the Twistor2™. You will achieve both a fine surface finish and preserve the flatness of the cutting surface if you do so.

To prevent corrosion of the high carbon steel base plate, coat it with an oil after every use.