



# Q & A

**Questions about precision abrasive grinding with the answers on how best to solve them.**



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**Q:** Is there a preferred way of truing resin bonded diamond wheels?

**A:** In this day and age one of the simplest and most effective procedures to true a resin bonded diamond wheel is with a DIT moly stick. Truing a resin bonded diamond wheel with a silicon carbide grinding wheel can be dirty and slow. The purpose of using the silicon carbide grinding wheel was to scrub and relieve the bond. This then knocked out the diamond mesh (grits) in order to make the wheel concentric. Then a dressing procedure followed to open the diamond wheel by relieving the bond for chip clearance.

Years ago, tool makers told of grinding a piece of mild steel to pull the high diamonds out of the bond. Today a DIT moly stick does this more effectively and quicker without loading the wheel.

**Q:** Can I use single point diamond dressing tools for straight dressing?

**A:** For just straight dressing the PH1 does the job better. It's more consistent and easier to use. It's designed to dress up to 8" x 1/2" wheels. The PH1 has four carats of consumable premium select diamonds compared to a 1/4 or 1/2 carat single point. More than TEN TIMES THE VALUE.

**Q:** We've been using ceramic and conventional abrasive wheels for our production grinding. Is there a better alternative?

**A:** You can expect more from your production grinding when you use our Vitrified Bonded CBN Superabrasive grinding wheels because of the Vitrified Bond retention. Our Vitrified Bonds are stable and strong at over 2,000 plus degrees Fahrenheit. They are custom engineered in diameters from .032" to 36" and many sizes and shapes in stock.

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**Q:** How can we increase our productivity in jig grinding?

**A:** A major change is now possible in “Bone Dry” jig grinding, carbide, hard alloy steels, ceramics, strange materials, and aerospace materials by reducing friction and heat. Now, with a DIT CO2 Zip Jet Nozzle a reduction of grinding time and lower surface finish is attainable “Bone Dry”.

Heat caused by friction in previous precision abrasive grinding causes to reduce infeeds and slows down S.F.P.M. (Surface Feet Per Minute) to prevent heat checks and burn. CO2 Carbon Dioxide crystal gas is a “Bone Dry” cooling controlling process which modifies friction and heat which makes this all possible.

This is a cost effective process which costs between \$30.00 and \$40.00 in CO2 gas for refilling a 20 lb CO2 gas siphon bottle at Airgas. This is what it takes for interrupted jig grinding in eight hours.

**Q:** What are the benefits of the DIT single point diamond resetting service?

**A:** Resetting natural diamond octahedron single point dressing tools is necessary to continue optimizing their use and value.

Your same natural diamond single point dressing tools will be once again reset into the same size new shank as previously made and precision centered. Single point diamond dressing tools are removed from their shanks, cleaned, inspected, marked, sized, and weighed.

Our resetting process is done with a propriety powdered steel setting using an induction furnace setting process. This fast setting process subjects your diamond to a minimum amount of heat. Then your diamond tools are machined and precision centered in new shanks.





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**Q:** How can we maintain our lubricity levels with a DIT Refractometer?

**A:** Grinding hard alloy steels with CBN wheels requires lubricity in order to curl the chip freely and consistently. A well formed chip looks like fine steel wool. Correct lubricity reduces friction which decreases cycle times, which increases lubricity.

Straight oils have the maximum lubricity but sometimes lack in coolant value. Soluble oils and synthetic coolants with the correct percent per volume are the most common fluids used. A coolant refrigeration system will help stabilize size variation.

It is simple to correctly maintain your lubricity levels with the pictured DIT Refractometer. It is specifically made for this application. For optimum results a level of 8 to 10 parts of water to 1 part of lubricant is normally recommended.

**Q:** What benefits will we realize when using a DIT PH1 Diamond Coated Dressing Tool?

**A:** DIT PH1 Diamond Coated Dressing Tools have four carats of premium natural diamond. Made for straight dressing. Great useable value!

PH1 Diamond Dressers are for dressing Ceramic and conventional abrasive wheels 8" diameter x 3/4" thick and under. This PH1 diamond tool has proven itself to be valuable for normal straight dressing and is more consistent than a single point dresser. It is also more economical for normal straight dressing. Made with large select premium diamond mesh. Available with 3/8" or 7/16" shanks. Made in the U.S.A.

