

USING YOUR WET/DRY POLISHERS

Your wet polisher is designed to feed water to the center of the pad when you polish thus the water will be distributed to the pad even if it spins in one spot. For wet polishing, install the water feeder onto the polisher, try to adjust and center the copper tubing so that it does not rub up gains the tool's spindle. Use a gallon size container or larger bucket as the water source. This water source will need to be set slightly higher than your working surface. I prefer using a gallon size milk container with one hole drilled through the cap to hold the water line, and another hole for air. Aspirate the other end and plug it into the water feeder and open the valve. This is a ball valve so it's only good for shutting off and turning on the water. To control the flow rate, it's best to adjust the height of the water source. A gallon will last 15 minutes to 60 minutes depending on the flow rate.

Your polisher is double insulated and has a GFCI plug which will trip if there is current leakage into the water. The speed can be adjusted by a thumb dial wheel on top. The trigger can be locked into the on position if necessary. The polisher motor is air-cooled by sucking air in near the trigger area and speed controller. It is important not to let water get sucked into the motor. **Cover the ventilation vanes just in front of the trigger loosely with a dry piece of paper towel to shield this area from water.** For wet polishing, we recommend greasing the spindle before mounting a Velcro holder on. Larger size pads like 6" and 7" generate significantly more friction so you need to add a small amount of soap into the feed water to increase the polishing efficiency, and remember not to overwork the polisher.

Use grit #50 and #100 to level out any rough area. Then hose the area clean before continuing. Grit #200 will remove all big scratches, while grit #400 will remove all small scratches. After grit #400, it is important to clean and dry the surface for inspection before continuing. Since the surface always looks shiny when wet, mark all remaining scratches with crayon pencils and polish until after the markings are gone. It is important to clean the polished area at least once every two grits, because coarser diamond remnants can continue to scratch the surface if they are left behind.

For concrete floor polishing, we recommend that you grind down to the aggregate using a grinding cup. Turbo cup is used for removing rough spots. Double-row cup is used to file down the concrete until it shows the desirable amount of aggregates. Then fill up all imperfections and start polishing with grit #50, then #100, 200. For concrete to shine and become dust-free, at least one treatment with densifier is necessary. This is usually done after grit #200-#800 depending on how porous the concrete surface is and the type of densifier used. Densifier fills in pores and micro crevices making the top surface dense enough so it can shine like glass when polishing with higher grits. We supply a densifier for use right after grit #800.

After polishing, remove the Velcro holder, remove the water feeder, clean and dry the tool to keep them from corrosion. Besides polishing, your 850W polisher is strong enough to be used with grinding cups, grinding stones, cutting blades, router bits, and core bits. Remember to **unplug** the polisher when not using so the GFI plug does not burn out.

DENSIFIER USER GUIDE (1 Quart)

- Content:**
1. One big bag of crystal powder that looks like sugar: this is your densifier.
 2. One or more smaller bags of chalky powder: these are for filling pores and top curing.

Prepare Densifier Dissolve densifier in the purest water you can find such as deionized water, or purified drinking water. Add about $\frac{3}{4}$ quart initially, dissolve all the crystals then top it off to the final volume of one quart. This solution is quite caustic so the best container to store in is a glass container. Keep in a warm place and handle with care (gloves and safety glasses recommended). If this solution gets on your skin, rinse off immediately and neutralize the affected area with lemon juice or vinegar.

Prepare Curing solution: Put 1 teaspoon in a gallon size container and fill up with tap water. Shake well and then let the excess powder settle. Collect the clear solution into a spray bottle for use. Add more water to the first container to make more if enough powder remains.

Pre-treatment: with porous granite and concrete

- For concrete and raw granite surface, it may be necessary to pretreat after polish with grit #200. To pretreat, dry out the surface completely, dilute a small amount of densifier 3 times in water and brush it on the surface.
- Let it soak in and dry out, then repeat the process until the stone does not absorb any more solution or does not dry out any more. Continue polishing with higher grit.

Filling visible pores:

If you want to fill visible pores, you can mix a small amount of the chalky powder with densifier (1 teaspoon:1oz ratio) and paste onto the surface to fill pores. Use an old credit card to scrape this mixture back and forth to fill all the pores. These will dry white, but when completely densified they will be semi-transparent.

Densifier treatment:

- One treatment is recommended after polishing with grit #800. Dry the surface completely and spread a layer of densifier onto the surface and let it soak. When this layer has almost dried out, squeegee any wet spots around to fill pores, then spread another layer of densifier on and cover with a plastic sheet to let the densifier soaks in without drying out. This treatment can go from overnight to days if necessary. Add more densifier as needed to keep a wet coat on top of the surface and give it time to soak in and react with the stone.
- Removing excess densifier: spray some water on, wait 15 minutes and then squeegee off the excess densifier. Use an old credit card to scrap off the excess densifier. Dry the surface and spray curing solution on. Repeat a few times when this solution dries out. Then continue polishing with higher grits.

Tips and tricks:

- Your densifier solution only reacts when it is wet, thus you want to keep the surface hydrated for as long as possible during treatments. This stuff forms concrete bonds with rocks, granite, concrete..., and the chalky curing compound, so it takes almost as long as cement to cure. It will also react with carbon dioxide in the air so covering with a plastic sheet (drop cloth) is the best way to let it soaks and cures. If the granite slab can soak water, it can be densified further. Densifier can also be used for sealing grout and other cement surfaces as well.
- You can coat the surface with a thin layer of densifier and then cure it into rock and polish them down. If you do this, you'll need to cure it completely in a few days. Higher grits polishing pads have problem removing uncured densifier coatings because they are soft.
- Most cheaper pre-fab granite slabs today are treated by wax thus they repel water and keep the densifier out so treat only where needed.
- Densifier solution can be used as a cleaner/sealer so wipe a small amount on a dry surface occasionally and then wipe it off after 5 minutes with a wet rag. A totally densified, sealed, and polished surface has a wet look.