



## Honing Powder Restoration

In this training video we're going to cover restoring natural stone surfaces using Modern Stone Technologies Honing Powders. Modern Stone offers honing powders in four different grit levels. The 150 grit, the 400 grit, 800 grit and 1200 grit. The 150 grit is used to remove heavy wear patterns and light scratches. The 400 grit is used to provide a nice even, matte finish and also removes minor traffic wear patterns. The 800 grit will provide a nice satin finish and also will remove some light wear patterns. And the 1200 grit is used to provide a light shine and give an overall enhanced brightness to the floor. While honing powders do not provide quite the same result, and are not nearly as aggressive as resin diamonds or the evolution pad, they do serve their purpose in the natural stone restoration industry. For instance, a floor with heavy lippage will picture frame when using resin diamonds and can potentially damage the diamonds and the tiles themselves. In extreme cases even using the evolution pad will leave picture framing if the lippage is too extreme. The best method to blend out this picture framing will be to use the honing powders. The reason why the honing powders are so effective at removing picture framing is because of the softer pad that it is used. The softer pad allows the compound to get down into the crevices caused by the lippage effectively removing any picture framing in the floor. Honing powders can also be used as a one step finishing process to even out old or even newly installed natural stone surfaces. It is often the final step of any restoration process regardless of what the desired finish is. Honing powders are composed of an aluminum oxide which is a material slightly harder than most calcium carbonate stones. Therefore, honing powders are most effective being used on travertine, limestone and softer marbles. However, honing powders are less effective on very hard surfaces such as granite, quartzite and a variety of other marbles out there. This is not to say that honing powders will not work on these surfaces, but they'll be less effective when removing traffic patterns and scratches.

Here's a list of the equipment needed for the honing powder process: A floor machine with a water tank, capable of running at least 135 pounds, a portable extractor or truck mount or similar extractor such as a shop-vac or any dry/wet vacuum, a stand-up grout brush or similar agitation brush to remove the slurry from grout lines when needed, a hog's hair buffing pad and finally Modern Stone Technologies Honing powders.

While using honing powders will be the messiest way to re-finish a natural stone surface it is also the most user friendly in that it is almost impossible to make any mistakes. You will not create any scratch patterns using a honing powder and they can easily leave the floors looking completely uniform. To create the slurry apply approximately one cup of the honing powder to the floor. Now release small amounts of water with the floor machine around the pile of honing powder until a slurry at the consistency of a melted milkshake has been created. Once the slurry has been created spread the pile over the area that is to be restored. Work in small, manageable areas, no larger than 100 square feet at a time. Keeping the areas manageable is going to make clean-up a lot easier. If the honing powder slurry dries on the floor don't worry. These are not acid based products and will not etch the surface in the same way that a polishing powder will. However, the longer they're allowed to dry, the more effort it will take to remove them from the stone's surface. There are a few different methods that can be used to spread the slurry across the work area. One method would be to stop the floor machine and use a squeegee to pull the slurry over to the area that is to be restored. However, the most efficient way is to use the floor machine to effectively pull the slurry over to the work area. To do this, take the floor machine and make small, counter clockwise circles over the area that is being worked on. Notice that as the movement of the machine is counter clockwise, the pile of slurry in the middle can be moved wherever the floor machine is taken. To move the pile to the left, cut through the right side of the pile. To move the pile to the right, cut through the left side. And to move it up and down, cut through the top or the bottom of the pile. Learning how to maneuver the pile of slurry effectively with the floor machine is going to make this process most efficient and save the most time. Now check out this clip from our polishing powder video. Notice how when the floor machine is moved clockwise it's pushing my slurry to the outside. This is going to make the pile of slurry almost impossible to control. As mentioned earlier, it is not a big deal if the honing powders dry on the surface of the floor. However, to keep this job moving and to be as efficient as possible it is important let small amounts of water out of the floor machine to keep the slurry as consistent as possible. Do approximately 3-6 passes over each area. A "pass" consists of covering the area one time. To determine how many passes will be required, use a squeegee after the third pass to see if the desired result has been achieved. If so, move on to the next area. If the finish is still inconsistent or the damage has not been removed, do 1 or 2 passes before checking again. The movement of the machine should be very consistent, slow passes over the area that is being restored. The best way to determine the proper speed is to focus on the slurry lines that have been created. The slurry lines should be no more than an inch and a half to two inches apart. If there is a larger gap between the slurry the lines the floor machine is moving too fast which could result in an inconsistent finish. If the slurry lines are closer than an inch to two inches apart it is too slow wasting valuable time. To give an idea of the amount of space that should be covered or the pace that you should be taken, approximately 150 square feet will be restored in one hour. Once the desired result has been achieved, it is now time to extract the slurry. Extract the slurry using a trunk mounted system or a portable extractor or even a Shop-Vac or a wet/dry vac with a five gallon bucket of water and a grout brush for rinsing. Having the pressure from a truck mounted system with a hard surface wand is going to make this process more efficient. Using the "Shop-Vac method" is just as effective, but not quiet as efficient. With this method extract all the slurry created with the honing powder then you pour water over the area using a five gallon bucket. Agitate with a deck or similar agitation brush and then extract the rinse water. This process may need to be done more than once because it is very important that all of the residue from the honing powder is extracted.

Another important step will be to label the hog's hair buffing pads with the grit that is being used. This is an important step so that the wrong pad is not used during the restoration process. Using the wrong pad that is loaded with a different grit will not provide the desired result. For example, if you've gone through all the steps bringing the floor up to 1200 grit and then you accidentally grab the grit of the 150 pad you will actually have a result somewhere in between. This is not going to provide the results that the customer was looking for and will potentially add days to the project. Mark the pads using a sharpie marker before each step and keep them stored in the vehicle according to each grit level. Keep the loaded pads separate from the other pads. Storing them together could result in the grits mixing affecting the end result.

Once the slurry has been extracted and rinse, it is time to move on to the next step or time to seal the floors. Sealing natural stone will be covered in the Sealing Video included in this series. Always make sure to run your hand across the floor to ensure that no residue has been left behind from the previous grit. Once the floors have completely dried they should have a uniform finish throughout.

This concludes the honing powder process video. Thanks for watching and we'll see you in the next video.