

Top Polish Kit, Granite & Quartzite INSTRUCTIONS

SL3-TPKIT-1



Introduction

Thank you for purchasing the NSI Solutions Top Polish Kit, Granite & Quartzite. This top polish kit has been designed, tested and assembled by stone fabricators with extensive experience in repairing and polishing natural “true” granite and natural quartzite counters and is equally applicable to repairs made in the home or in the fabrication shop. Keep these instructions in a place where operators can access them easily. This kit is not intended for engineered stone or marble.

***** NOTE - This kit is intended for and has been tested on many types of “true” granite and natural quartzite and can work well on many different types of stone. But, it is not guaranteed to work on every type of stone that may be commercially referred to as “granite”. Always test and practice on similar scrap stone before beginning a repair on the final piece.***

Warnings



Read and understand all instructions

Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury



Use Proper Safety Gear

Always wear eye protection and proper personal safety equipment when using this product

Warnings Continued



Caution

Maximum 3000 RPM for Natural Blend Tan Fiber Pad. Maximum 4000 RPM for all other Hook & Loop attached components.



Caution

Firmly attach all components (snail lock and hook & loop) before use



Caution

Floating Turbo and Redeemer Resin abrasives are designed for wet use only



Caution

Read and follow all cautions and warnings on the MB-20 Granite Polish container



Caution

Read and follow all cautions and warnings provided with any electric polisher or air polisher used

Video Demonstration/Training

Top polish demonstration/instructional videos featuring this kit are available on our website www.nsisolutions.com and on our YouTube channel [NSITools](#). We strongly recommend that you watch these videos before using this kit.

Replacement Items

When replacing items in this kit, insist on the genuine NSI Solutions products shown below. These items are part of the NSI Solutions family of products that have been tested and developed by our experienced stone fabricators. When used as directed, they will produce excellent results in natural granite and quartzite. All NSI Solutions products can be seen on our website at www.nsisolutions.com and purchased through our distributors.

Note: MB-20 Granite Polishing Cream is not an NSI Solutions product but we use and highly recommend it. It can be purchased through many distributors or directly from MB Stone Care & Supply, LLC (www.mbstonepro.com).

NSI Solutions Top Polish Kit, Granite & Quartzite - Contents			
Ref	Description	Manufacturer	Item Number
1	Snail Lock Adapter (5/8-11 or M14 thread)	NSI Solutions LLC	SL3-ADAPT (SL3-ADM14)
2	3" - 150 grit Floating Turbo (RED) + 3" Center Hub H&L Backer	NSI Solutions LLC	SL3-F150 + SL3-FR3
3	3" - 300 grit Floating Turbo (YELLOW) + 3" Center Hub H&L Backer	NSI Solutions LLC	SL3-F300 + SL3-FR3
4	3" - 500 grit Floating Turbo (BLUE) + 3" Center Hub H&L Backer	NSI Solutions LLC	SL3-F500 + SL3-FR3
5	3" - 1000 grit Floating Turbo (DK GREEN) + 3" Center Hub H&L Backer	NSI Solutions LLC	SL3-F1000 + SL3-FR3
6	4" - 1000 grit Redeemer Resin (DK GREEN) + True 4" Rigid H&L Backer	NSI Solutions LLC	RD1000-4 + SL3-R4TP
7	4" - 2000 grit Redeemer Resin (ORANGE) + True 4" Rigid H&L Backer	NSI Solutions LLC	RD2000-4 + SL3-R4TP
8	4" - 3000 grit Redeemer Resin (PURPLE) + True 4" Rigid H&L Backer	NSI Solutions LLC	RD3000-4 + SL3-R4TP
9	Quantity 3, 7 3/4" Natural Blend Tan Fiber Pad + 7" Rigid H&L Backer	NSI Solutions LLC	NB7 + SL3-R7
10	Center Cut Portion of 7 3/4" Natural Blend Tan Fiber Pad + 3" Rigid H&L Backer	NSI Solutions LLC	NB7 (center only) + SL3-R3
11	MB-20 Granite Polishing Cream	MB Stone Care & Supply LLC	MB-20

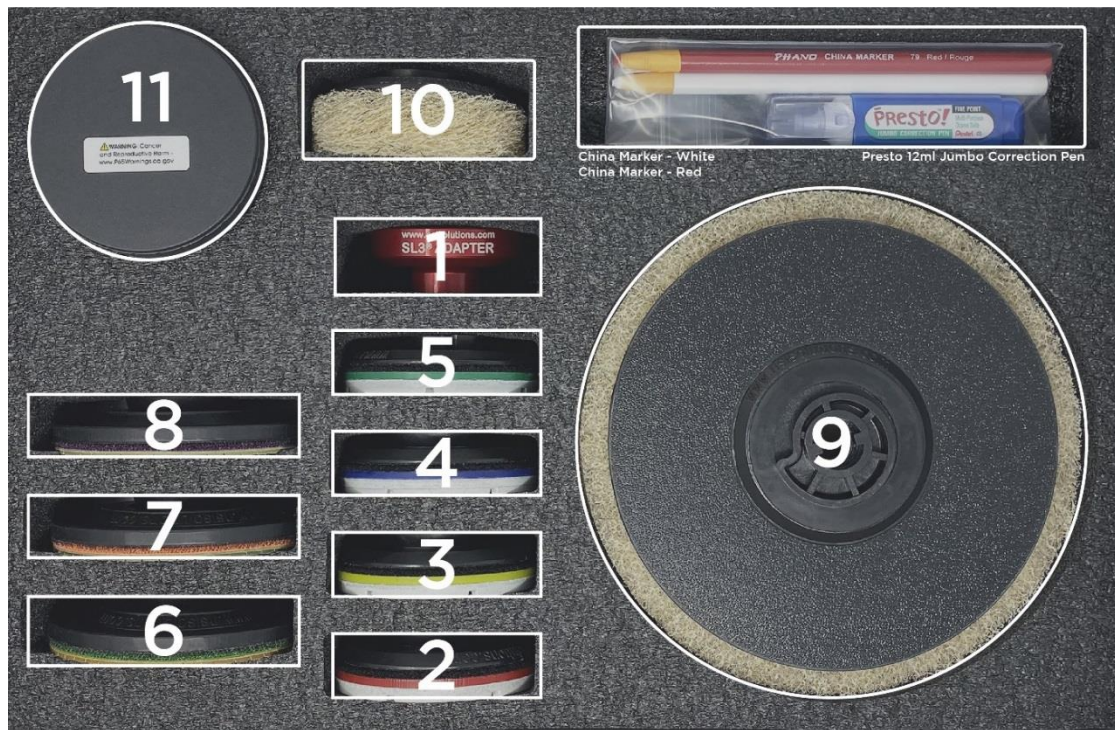


FIGURE 1 - Top Polish Kit Contents (SL3-TPKIT-1)

Required Polishers

When working in a home, a variable speed, right angle electric polisher (typically 7" to 9") will be used for the entire process. The slow speed selections on this type of polisher allows for ultimate control with minimum mess. Many polishers will work but a good quality, well balanced polisher results in less fatigue and a more relaxed, enjoyable experience. Below we have listed the minimum electric polisher requirements as well as some additional features that are useful. Check out our videos to see which polishers we use and prefer.

1. Electric polisher – required features:
 - a. 5/8-11 arbor threads (USA) or 14mm arbor threads (Europe)
 - b. Variable speed down to approximately 600 RPM
2. Electric polisher - additional desirable features:
 - a. Variable speed trigger control down to 0 RPM
 - b. Trigger lock on feature
 - c. "Soft" startup feature

When working in a wet fabrication shop, the same electric polisher can be used for the entire process if desired but it is generally easier and quicker to switch to a center water feed, pneumatic polisher when using the Redeemer Resin pads. The center water feed pneumatic polisher provides more water and a higher speed and will achieve a polish quicker when overspray and splatter is not a concern.

3. Pneumatic polisher – required features:
 - a. 5/8-11 arbor threads (USA) or 14mm arbor threads (Europe)
 - b. Approximate speed 4000 RPM
 - c. Center water feed

Dressing Instructions

1. **Floating Turbos** - in order to get the best and quickest results from your new SL3® Floating Turbos (Ref #2, 3, 4 & 5) they should be properly dressed before first use as noted below:
 - a. After mounting the red SL3® Snail Lock Adapter (Ref #1) on an appropriate polisher, firmly lock a SL3® Floating Turbo/Center Hub Backer combination (Ref #2, 3, 4 & 5) into the red adapter.
 - b. Run the Floating Turbo at approximately 1000 - 4000 RPM, with plenty of water, against coarse concrete or the backside of a granite scrap until the resin surface shine has been removed. This will expose the diamonds.
 - c. While the grinder is running, roll the abrasive up to round over the sharp outer edge of the pad. This step will need to be repeated as the pad wears down. Failure to round the edge will create half-moon scratches in the finished work piece.
 - d. Repeat this process for each grit of turbo (Ref #2, 3, 4 & 5) and your new SL3® Floating Turbos are ready for use.
2. **Redeemer Resin Pads** – these resin pads (Ref #6, 7 & 8) normally don't need to be dressed before first use. If they start to feel “grabby” at low speeds or appear “glazed” they can be dressed on the backside of a granite scrap, similar to the Floating Turbo pads above, to expose fresh diamonds and improve their performance.

Color Code

All abrasives in this kit have the grit number stamped on the back side (loop side). You can also tell the grit designation by the color of the plastic laminate (floating turbos) or hook & loop (Redeemer Resins). The color code is as follows:

Grit Color Code	
Grit	Color
150	RED
300	YELLOW
500	BLUE
1000	DARK GREEN
2000	ORANGE
3000	PURPLE

Pro Tips

To shorten the learning curve with this kit, please read and understand the following tips and suggestions from our professional stone fabricators:

1. ***This kit is designed for a completely wet polishing process.*** Not the wet-to-dry process that has been taught in the past.
2. Redeemer Resin pads polish best with more water and less pressure than other polishing pads used for top polishing. Letting them run dry or get hot will result in a dull surface finish.
3. Redeemer Resin pads will achieve a polish at high speed (4000 RPM) with sufficient water (i.e. using a center water feed polisher in the shop) or at low speed (600 RPM) with a small puddle of water (i.e. using an electric polisher in a home). ***When polishing with the Redeemer Resin pads at low speed, adding one or two drops of soap per 16 oz. bottle of water will allow the pads to run smoother and help maintain a wet surface.***
4. If a Redeemer Resin pad gets “grabby” or appears to be “glazed”, dress it on the back of a scrap piece of granite to expose fresh diamonds as noted in the dressing instructions above. Using less down pressure, a lower RPM and adding a couple drops of soap in the water, as noted in item 3 directly above, can also help.
5. If you are having trouble avoiding white specks left by the MB-20 in the pores of certain stone, the MB-20 can be tinted to match the stone with standard epoxy tints before applying it.
6. In order to avoid distortion in the reflection of a repaired counter, deeper scratches will require a larger area to be worked. Plan accordingly from the start.
7. Top polishing granite and quartzite counters is a learned skill – ***PRACTICE, PRACTICE, PRACTICE*** on similar scrap before trying it on a customer’s counter. With time and experience you will develop a system/process for each type of stone and situation encountered and will develop confidence in your polishing skill.
8. There are hundreds of different types of stone used for counters. This kit was developed for “true” granite and natural quartzite. This kit is not guaranteed to polish every type of stone commercially referred to as “Granite”. Always test and practice on a similar scrap stone before beginning a repair on the final piece.

Basic Instructions

**** NOTE – READ AND UNDERSTAND ALL INSTRUCTIONS BEFORE BEGINNING**

1. Top polishing granite and quartzite (natural stone) counters is a highly variable process depending on stone type, finish required and if the work is being accomplished in a home or in a wet fabrication shop. The following instructions are extremely generic and are intended as a general guideline only. Modify these instructions as required to achieve the desired results. With time and experience you will develop a process for each type of stone and understand what grits of Floating Turbo and Redeemer resin to use in each situation.
2. The quickest way to gain an understanding of the top polishing process is to watch our top polish demonstration/instructional videos featuring this kit. The videos can be seen on our website www.nsisolutions.com and on our YouTube channel [NSITools](#).
3. If you are repairing counters in a home, make sure to properly protect the surrounding area to avoid damage to the walls and adjacent surfaces.
4. The Presto white out marker or the china markers are used to delineate the damaged areas of the stone and the areas to be repaired/re-polished. Defining the areas before you start grinding will help keep you from over-grinding and refinishing a larger area than needed. Be sure to test the white out or china markers on the stone to be repaired as they can be difficult to remove from some stone.
5. Start the process by outlining a perimeter approximately one inch larger than the area to be worked with the first grit. Add additional outlines approximately $\frac{3}{4}$ inch larger than the previous outline for each additional grit to be used.

**** NOTE –USE YOUR ELECTRIC POLISHER WITH THE FLOATING TURBOS IN STEPS 6 THRU 8 BELOW.**

6. The Floating Turbos and electric polisher are used to grind away stone in a controlled manner. If you have a scratch, gouge or other damage to remove, you will need to start with these. Start with a 150 grit Floating Turbo (red) for the worst damage or the 300 grit Floating Turbo (yellow) for lesser damage and so on. Floating Turbos can remove a lot of stone so proceed slowly until you have a good feel for how fast they work and how to keep them flat. It is always better to start with a higher grit and proceed slowly until you have a good feel for the process. Some light scratches that can barely be felt with your fingernail can even be removed by starting with the 1000 grit Floating Turbo (dark green).

7. Starting with your first grit of Floating Turbo, a small puddle of water on the surface, approximately 600 RPM and light pressure, start grinding away the damaged area. Keep the floating turbo flat on the stone and keep it moving in a circular pattern to avoid creating a dip or “bowl”. Do not “dig in” the edges, and keep it wet at all times. Work to the initial outline that you drew in step 5 above. Keep in mind that the Floating Turbos have a large hole in the center. It is the perimeter of the turbo that does the grinding.
8. Follow with progressively higher grits of Floating Turbo until you complete the 1000 grit (dark green). With each new grit, work to the next larger outline drawn in step 5 above. This will ensure the repaired area is blended well into the original surface. Remove the sludge with a paper towel between each grit and make sure you have removed all the scratches from the previous grit before moving to the next grit. Start each grit with a fresh puddle of water.

**** NOTE – STEP 9 THRU 12 ASSUME YOU ARE WORKING IN A HOME AND NEED TO CONTROL OVERSPRAY TO AVOID DAMAGE TO THE WALLS AND SURROUNDING AREA. IN THIS CASE, YOU SHOULD CONTINUE WITH THE SAME LOW SPEED, ELECTRIC POLISHER USED ABOVE FOR THE ENTIRE PROCESS AND FOLLOW THE INSTRUCTIONS CLOSELY.**

IF YOU ARE WORKING IN A WET FABRICATION SHOP, YOU CAN SWITCH TO YOUR CENTER WATER FEED AIR POLISHER AND ACHIEVE THE SAME RESULTS MORE QUICKLY, WITH FULL WATER AND FULL SPEED.

IN EITHER CASE, YOU SHOULD USE THE ELECTRIC POLISHER FOR STEP 13 THRU 17 TO APPLY THE MB-20.

9. The Redeemer Resins are used to further smooth the stone, blend the perimeter and to create the polish. If you only need to remove light scratching, rub marks or scuffs that *cannot* be felt with your fingernail, you can use these for the entire process.
10. After the 1000 grit Floating Turbo, continue with the 1000 grit Redeemer Resin (dark green), using a small puddle of water, approximately 600 RPM and no down pressure (weight of the polisher only) polish out to the next outline drawn in step 5 above. Make sure you do not let the Redeemer Resin run dry at any time. Adding a couple drops of soap to the water will help. The soap helps to break the surface tension, lubricating the pad so it won’t grab and will help keep it wet in the center where it tends to dry out first. Before proceeding to the next grit, clean the stone with a paper towel and dry it with air if possible. Inspect the surface to make sure the entire area worked looks consistent. Also, make sure the area worked blends nicely into the surrounding factory finish. If there is a defined transition between the 1000 grit area and the factory finish, then rework the transition to blend it into the factory finish. A well-blended transition will *not* show a sharp line of contrast between the two areas.

11. Proceed to the 2000 grit Redeemer Resin (orange), and repeat step 10. Again, clean and check the surface and verify that the transition is well blended.
12. At this point you may be able to jump directly to the MB-20 (step 13) or run step 10 again with the 3000 grit Redeemer Resin (purple). Experience with each type of stone will help you decide the quickest process to achieve the final results.

**** NOTE –USE YOUR ELECTRIC POLISHER TO APPLY THE MB-20 IN STEP 13 THRU 17 BELOW**

13. The Natural Blend Tan Fiber Pad is used to apply the MB-20 polishing cream. Two sizes are provided (7 ¼" and 3 ¼" diameter) depending on the size and shape of the area to be polished.
14. The MB-20 is used to "pop" the final color and polish and to blend the repaired area into the original stone. When applying MB-20 to a porous granite it can leave small specks of white product in the pores. Normally this can be avoided by using the MB-20 sparingly and by cleaning it well after application with alcohol or water, but the MB-20 can also be tinted to match the stone with standard epoxy tints.
15. Apply about ½ teaspoon of MB-20 per square foot to the counter (the amounts will vary) and a small amount of water (1/2 tablespoon). Place the polisher, set at about 600 RPM, with the Natural Blend Tan Fiber Pad directly on top of the MB-20 and water. Starting slowly, spread the product out controlling the trigger while applying light pressure attempting to dry out the product. As the product dries, increase the speed, while moving the polisher relatively swiftly over the area to be polished. The use of pressure will vary depending on the stone but generally some pressure can be applied.
16. Check the results and repeat the MB-20 if needed.
17. When the polish matches the factory polish, lightly wet the area and quickly run the Natural Blend Tan Fiber Pad over the area to loosen any remaining MB-20 residue. While it is still wet, clean up the water with a paper towel or squeegee. Repeat if necessary.
18. The ultimate goal of this entire process is to repair the damaged counter and return it to a good matching polish without creating any noticeable deformation which will distort the reflection in the repaired area. To avoid distortion, deeper scratches will require a larger area to be worked. Plan accordingly from the start.

Contact NSI Solutions

If you need help locating replacement items or just have questions, feel free to contact us.

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Usage Tips: For usage help and/or tips visit www.nsisolutions.com or watch the videos on our YouTube channel [NSITools](#).