

Solid Surface to Stone Making the transition

Specialtytools.com has focused on tools to fabricate Solid Surface materials for over two decades. Thoughts of offering stone and e-stone(quartz) production tools continually got pushed to the bottom of the list mainly due to our lack of knowledge of what tools were needed. We have offered handling equipment and the [Intertool](#) line for years but it was never our focus.

Recently Ken Pfister, our General Manager, and I took a trip to Elberton, Ga, the Granite Capital of the World. After spending a day with the importers of Galeski stone tools we both realized that Stone fabrication is no more difficult than Solid Surface fabrication, it's just slower and the tools are a little different. We both feel that our existing database of fabricators are more than capable of making the transition if they are shown a clear way to do so. What we decided to do is to offer our thoughts on how to make the transition.

Let's start with the basics. We quickly saw that a forklift is a must to handle the slabs that range in weight from 500-800 lbs, far more than a typical sheet of Solid Surface material weighing in at 135lbs. You'll need a [Boom](#) for your forklift to get the slabs off the truck, for this we would recommend one manufactured by Abaco. Next you'll need what called a [Lifter](#), also available from Abaco. A lifter hangs from the boom and is placed over the sheet kind of like you would place your hand over the sheet. The Lifter clamps tight to the slab allowing it to be lifted (thus the name) and carried to a dolly or work table. If you're using the "Total Fab Shop" ([watch the video](#)) by Intertool the slab would then be placed on their [A-Frame Cart](#) handler to be transported to what's called a [Rocker Table](#). The Rocker Table is a fabrication table that can be rotated into a vertical position and locked in place. The A-Frame is rolled up next to the Rocker Table and metal "Dogs" are pulled out of the table. The "dogs" actually grab the slab and it's tilted against the Rocker Table. The Table is then unlocked and rolled down to a horizontal position. A video of this procedure can be seen on our site that better shows the actual movements.

The next thing you will have to do is to cut the slab into manageable pieces. Cutting straight lines can easily be achieved with what's called a [TracStar 2000](#), also by Intertool. The TracStar is self propelled on a rail that is set in place on the slab where the cut is to be made. The TracStar travels at up to 2' per minute depending on the material being cut while water cools the blade. Did I say water, I did, and you use lots of it. Many shops have been built to handle the waste water through drains in the floor and some even have sediment tanks that separate the water from the grit by gravity. Many shops just pump the waste water outside their shop. You'll have to see what your local ordinances allow you to do before you start cutting. Back to the TracStar. The saw weights 75lbs so it's best to lift it into place with a Jib Boom. The Jib Boom is on wheels and is easily moved into place. An electric winch raises and lowers the saw easily. Once slabs have been reduced in size they are moved to steel [Fabrication Tables](#) that lock together to form different configurations. Five inch diameter wheels allow the tables to be rolled from station to station with little effort.

Now that you've got your material on the tables it's time to fabricate. Here's where things differ from Solid Surface materials. First of all everything uses water and lots of it. If you're fabricating Quartz you'll use even more. The router you're used to is replaced with either an angle grinder or an edge polisher. Your carbide bits and blades are now all diamond and your sander no longer exists. The material has changed and the tools have changed but the fabrication is basically the same.

Grinders are used for profiling and differ as much as routers do. You can purchase an inexpensive one from the big box stores or you can invest in more expensive tooling that is designed to last. The lines we will be offering are Flex North America, Galeski and Alpha. For this article I will be talking about the Galeski line since it's what I currently know most about. Galeski is manufactured in Germany and is probably the most expensive line of Stone Tooling. Galeski is to a Stone Fabricator what Festool is to a Solid Surface fabricator. Once you've laid your hands on one it's hard to use anything else. The Galeski tools are designed to be multi purpose. By that I mean that in many instances you can use the same tool for different jobs by changing the tooling being used. All the Galeski tools come equipped with a GFI (ground fault interrupter) in the cord.

Profiling the front edge is done with the [Contour Cat](#). This tool is a high quality grinder mounted to a base that rides the surface of the material. The grinder overhangs the edge and cuts the profile. Profiling is done in several stages using diamond profiling wheels and polishing pads. The stages are simply the individual steps it takes to get the finish desired. Unlike router bits the profiling wheels are limited to just a few common shapes and a few more exotic ones. Most profiling wheels have bearings to index against the work much like a router bit. The polishing wheels are used free hand once the shape has been made.

Sink cutouts can be a problem if you are trying to free hand them using a grinder and a concaved diamond blade. The hole produced free hand could take hours to finish. A company called [Duvain](#) offers a Makita grinder fitted to a fixture that rides either an oval or a round template. The template is held in place with vacuum and cuts most all common bowl sizes and tables if you have a need. The tool is adjusted on the template to cut various bowl dimensions. Using this fixture a fabricator can cut and finish a bowl cutout in as little as 30 minutes, a huge time savings over the free hand method. Mounting a sink bowl can easily be accomplished using the new [Peel N Stick](#) sink setter brackets we offer.

While you are fabricating these stone products it's important that you don't scratch the surface. Unlike Solid Surface materials the stone products come pre polished. Dani Homrich of Dani Designs has just come out with a method of refinishing a stone surface if you do damage the surface during fabrication.

Once your top is done it will need to be transported to the jobsite. The use of heavy duty carts aid in this task. Groves offers several [A Frame](#) type carts that can be fork lifted or

rolled onto your delivery truck. Careful strapping is a must due to the weight of the tops being transported.

Installation is similar to Solid Surface. A double check of the template and measurements before the top is taken off the truck is recommended as with any top. Field seams are glued using a color matched adhesive but the seam will be visible so let your customer know. Shimming the top can easily be accomplished using a composite shim we offer. These shims are not affected by the weight of the top or any moisture they may come in contact with.

That's about it. As you can see these materials can be fabricated by shops currently producing Solid Surface tops if they are willing to make the changes necessary to make the transition. The investment to get started fabricating these materials, excluding a fork lift, can be as little as \$20-25k. Fabricating Stone isn't for everyone but for those that want to keep up with the growing trends of these surfaces it's a must.