

## RODDING OF GRANITE



kitchen and bath gallery

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How we do it:



We cut a slot for a steel rod or flat bar to sit in..  
in this case - it's 3CM stone that will receive a 1/8" x 1/2" flat bar  
stood up on it's side for more strength.

for 2CM - 1/4" round rod is used... I like stainless in case  
the rod ever comes in contact with moisture - it WON'T rust...  
better peace of mind for me and my customers..... ;-)

The rod is set down into the slot, then flowing epoxy is  
poured into the void to "lock" the rod in place...excess  
epoxy is ground off when it's dry, and the top is aprox  
600% stonger (I saw a test that threw that figure out - It  
may be more or less - but rodding works!!!)

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## Rodding Granite



Why is rodding granite so important for your countertops?

Here's why . . . rodding involves inserting steel rods secured with epoxy or polyester resin in the bottom face of granite along both sides where cutouts (sink holes) are required.

In 2000, the [Marble Institute of America \(MIA\)](#) conducted laboratory tests to determine the conditions under which rodding stone countertops may be beneficial.

The laboratory tests measured the flexural strength of reinforced and unreinforced samples of granite. Test results indicated that threaded round steel rods significantly strengthen the stone by 50% in load and 600% in deflection.

So how do you tell the difference between a so-so countertop granite job and a high quality one? Here's how to spot quality countertops . . .

The MIA now recommends rodding granite countertops . . .

What does this mean for the fabricator/installer? Rodding countertops at the weakest point, i.e., at cutouts, can significantly reduce waste and breakage when moving and installing the countertop. What does this mean for you, the customer?

Even after the countertop is installed, rodding will help protect weak areas from breakage caused by cabinets settling, or by misuse of your countertops (standing on them). Caution: It is not appropriate to use a rodding technique for granite repair. To fix granite that has broken by inserting rods is simply a bad idea.

Here's the Procedure for Rodding

1. After cutting the stone to size, lay out the piece for additional cutouts such as sinks, cooktops, faucets, outlets, notches and other cutouts.
2. Once you have completed the layout of any cutouts, then lay out the location(s) for the rod(s). Be sure that the rod(s) will extend beyond the

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cutout area by at least a couple inches on each side.

3. Place the top face down on a smooth, soft, flat and clean surface on a work or saw table.

4. Select a blade that is 1/8 inch thicker than the 3/8 inch width of the rod or make two passes on your cut.

5. Mark the blade about 1/8 inch deeper than the depth of the rod.

6. Cut the rod slot in the marked section on the bottom of the stone. Be sure to extend your cut far enough for the full length of rod to fit in (allowing for the curve of the blade) Cutting granite countertops takes patience.

7. Check the rod in the slot to verify the fit.

8. Remove the rod with a putty knife or a regular screwdriver.

9. Clean the stone and allow it to thoroughly dry.

10. Abrade the rod with a course grit abrasive, clean it, and allow it to thoroughly dry.

11. Mix a flowing consistency adhesive, and pour it into the slot of the stone (polyester or epoxy).

12. Quickly insert the rod fully into the slot. Then wipe the excess adhesive over the slot to completely cover the rod.

13. Allow the adhesive to cure completely before moving the stone.



Rodding takes time, but the value of this form of repair is priceless.

For accessories and other useful kitchen stuff [Amazon for Granite](#)

See [UMI Stone](#) an innovative and convenient website to view stone

See [Granite Tables](#) for a full selection of stone tops and other furniture

See [Helpful Resources](#) for all your kitchen and bath needs

See [Granite Support Brackets](#) for supports for overhanging tops

Check out the [Germ Fighting Wand](#) for disinfecting stone surfaces.

Don't miss [ZX LED Undercounter Lights](#) for illuminating your tops and saving energy.

[Return from Rodding Granite to Granite Repair](#)



# Rodding Granite Countertops - The Pros and Cons

## The Stone Shop

**Posted:** January 12th, 2011 10:30 AM CDT

Before I discuss the pros and cons of rodding, let me define the term. Rodding is the insertion of a metal rod into stone to provide apparent strength and to avoid breaking during transportation. The rod is inserted into a groove that is cut out in the bottom of the stone.

The controversy with rodding is whether it really provides strength or if it actually weakens the stone. I spoke to a number of fabricators and found that some rod every one of their granite countertops while others never rod. I also conducted a phone survey and asked numerous fabricators for their opinions on the matter. The following is a brief list of what I learned.

### Pros And Cons Of Rodding

#### *Pros*

Provides strength to granite countertops.  
Easier transportation.  
Difficult to break.

#### *Cons*

Weakens the stone.  
Provides a weak point leading to cracks.

To find out if rodding provided additional strength I conducted a crude experiment of my own. Two strips of 2 cm granite were cut into a length of 44 inches by 2 inches. A slot was cut in one of these strips and a long 1/8 X 1/4 inch rod was inserted and epoxied. The rod was inserted on edge so that the 1/4 inch side was vertical. The unrodded strip was placed across two 4" x 4"s. A flat, thin metal plate was placed on the center of the granite to serve as a point load. Weight was placed on top of the metal plate until the granite broke. This procedure was repeated with the rodded strip. The results were interesting. The unrodded granite broke at 80 lbs., while the rodded piece never broke, but developed a crack at 120lbs. I repeated this experiment three different times with similar results.

I also spoke with the technical director of the Marble Institute of America and he told me that the MIA is currently conducting tests on rodding and a paper will be published once the study is complete.

It is important if you do rod that you use the proper procedure and the right type of rod. The following procedure was submitted by Keith Graves of HE Saterwhite in Richmond, VA.

## Rodding Stone

Considerations. The stone must thick enough to accommodate the rod without requiring a cut more than one half of its thickness. The stone must also be non-translucent, in that a rod and adhesive will not show through the exposed face.

Preparation. Sometimes it may be necessary to lay out and rod a slab before cutting it into the desired pieces. If this is done you must lay out the slab using extreme caution – allowing for blade thickness, cracks or other imperfections you plan to avoid.

Rod. The most widely accepted rod is a 1/8 in. x 1/4 in. stainless steel flat bar. The rod should be inserted on edge (with the 1/4 in. inserted as the depth or the thickness).

## Technique

- After cutting the stone to size, layout the piece for additional cutouts such as sinks, cooktops, faucets, outlets, notches, and other cutouts.
- Once you have completed the layout of any cutouts, then layout the location(s) for the rod(s). Be sure the rod(s) will extend beyond the cutout area by at least a couple inches on each side.
- Place the top face down on a smooth, soft, flat, and clean surface on a work or saw table.
- Select a blade that is 1/32 in. to 1/16 in. thicker than the 1/8 in. width of the rod.
- Mark the blade about 1/16 in. to 1/8 in. deeper than the 1/4 in. depth of the rod.
- Cut the rod slot in the marked section on the bottom of the stone. Be sure to extend your cut far enough for the full length of rod to fit in (allowing for the curve of the blade).
- Check the rod in the slot to verify the fit.
- Remove the rod with a putty knife or a regular screwdriver.
- Clean the stone and allow it to thoroughly dry.
- Abrade the rod with a course grit abrasive, clean it, and allow it to thoroughly dry.
- Mix a flowing consistency adhesive and pour it into the slot of the stone.
- Quickly insert the rod fully into the slot. Then wipe the excess adhesive over the slot to completely cover the rod.
- Allow the adhesive to cure completely before moving the stone.

*About the Author: Frederick M Hueston, columnist and author, is director of the National Training Center for the Stone & Masonry Trades (NTC) located in Asheville, N.C. NTC offers hands-on training to industry professionals on topics ranging from basic fabrication techniques to on-site repairs. NTC's website can be found at [www.ntc-stone.com](http://www.ntc-stone.com).*

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