CAST STONE FIREPLACE MANTEL

INSTALLATION GUIDE

By Stone Fireplaces

Important Note: This installation guide is intended for an experienced and competent person. Installers assume all risk when completing installation on their own. Never attempt an installation alone. Please have your installer call with any questions. Check all local codes.

1. Clean surface area of the fireplace.

2. Check the level of the floor and dry fit the hearth. This is especially important if the hearth consists of panels. Using shims or tile spacers, level the hearth panels. Note that the hearth panels may have slight variation and play between each other. Allow for up to 1/8" joints between panels to mitigate differences between the pieces.
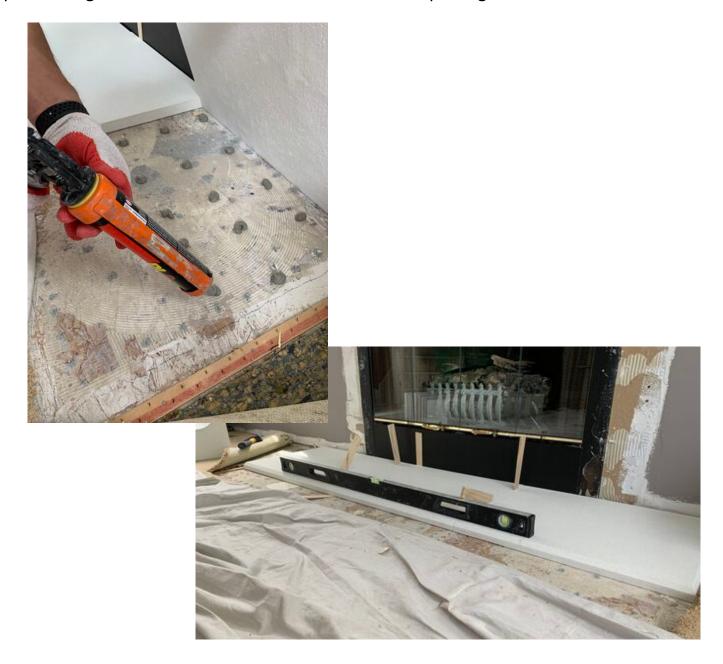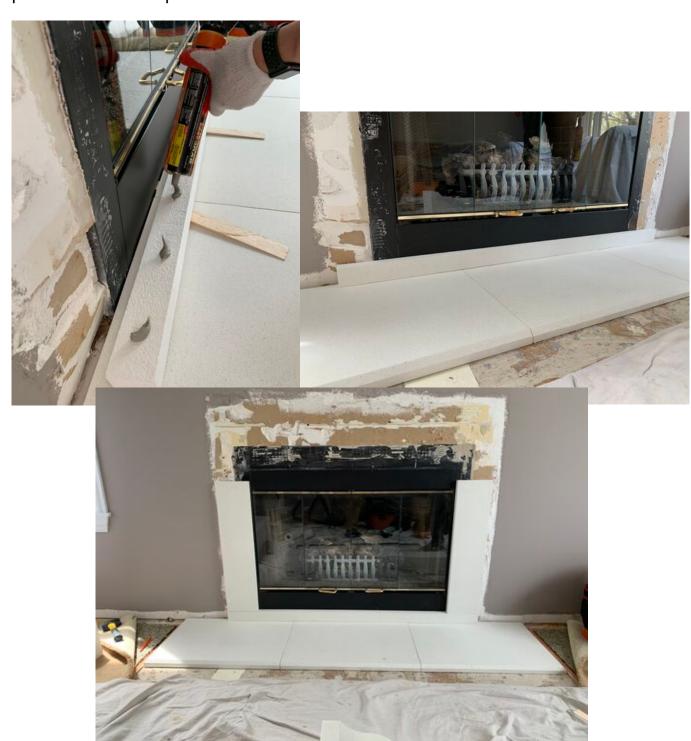
3. Set the hearth on a cement (aka mud or thin-set) base, similar to setting tile. In the case of white material, use a white cement to ensure the dark colored cement doesn't bleed into the stone.

   Optionally, a heavy-duty construction adhesive can be used. Construction adhesive may be optimal in the case of a plywood subfloor, or when bonding dissimilar building materials. Make sure that the hearth is level and allow 24 hours to set before proceeding. Continue to level the mantel at each step using shims.

4. If your panels have been precut or made to size, proceed with the installation of the filler panels around the firebox. Starting with the bottom panels, dry-fit the panels, centering on the firebox. Apply heavy-duty construction adhesive to the back of the panels and set the pieces.

5. Position the legs, centering on the firebox. Measure the position of the legs relative to the top header piece. The standard overhang of the header is 1/2" on each side.

6.   Note, some of these steps are interchangeable. In the installation outlined in this guide, the top filler is set after dry-fitting but before adhering the legs. Consider which sequence of steps is optimal in your installation. In this case, it was important to set the top filler prior to setting the header because the joints are very tight.
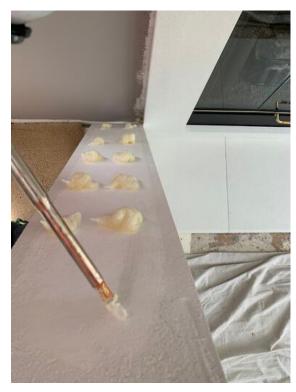
Also, dry-setting the legs in position served as a guide to ensure that all of the filler panels are square and perfectly centered on the box.

      Dry-fit and adhere the top panel. In this application, a combination of heavy-duty construction adhesive and foam-based adhesive was used. The construction adhesive ensures adequate long-term anchoring – this is especially important for heavy pieces. The foam-based adhesive bonds within 30 minutes, which limits the need to shore-up the piece while the adhesives cures. See step 8B for tips on using foam-based adhesive. It may still be necessary to shore-up pieces as the adhesive cures.
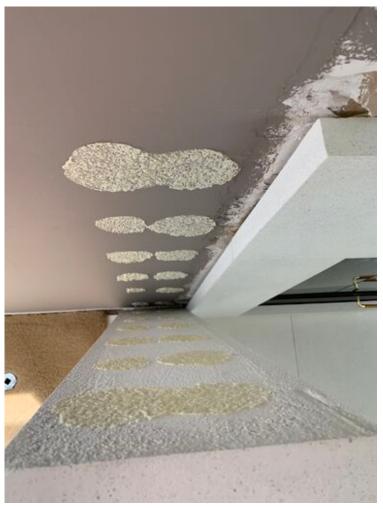
7. Adhere the legs to the wall. See option A for solid backing and option B for foam backing.

A.   Adhere with a cement mortar or heavy-duty construction adhesive rated for stone. If using a cement mixture, ensure that the cement has adequate adhesive qualities. Even with perfect measurements, the legs may still need to be maneuvered to align and square. (*Note, the corners of the legs are extremely fragile and brittle. Never set the leg piece down on a corner. Pro-tip – using a putty or adhesive under the leg allows for smoother maneuvering. Eventually, this bottom layer flattens and dries, limiting maneuverability.)

B.   If the legs have a foam core/backing, do not use polyurethane based adhesive such as liquid nails. The polyurethane adhesive may corrode the foam. In the case of foam backing on pieces, use a cement or foam based adhesive. If using foam adhesive, keep in mind that it will bond within a few minutes and can expand. To maintain control of the position of the pieces, follow these suggestions:

1.   Do not an apply an excessive amount of foam

2.   After applying adhesive, set the piece and press it against the wall for 10 seconds, flattening the adhesive. Then remove the piece for about 30 seconds, allowing the adhesive to catch some air and dry. Reset the piece. This process will cause the adhesive to bond within a few minutes and limit the expansion of the foam.

3.   If excess foam comes out from the joints, do not clean immediately. Let the foam dry and then cut it off. This prevents the foam from smearing.

8. In this installation, the header and shelf consist of one piece. Measure the outside of the legs, relative to the width of the header. The header should be approximately 1" wider to allow for a 1/2" overhang on each side. Apply adhesive to the wall and set the header and shelf piece(s), following the tips outlined in step 8.

9. Fill the joints with a tile grout closely matching the color of the stone. Optionally, a sanded caulk, chinking material or compound of choice can be used. A rule of thumb is to use a non-sanded compound for joints less than 1/8" and a sanded compound for joints larger than 1/8". Apply the grout, remove excess and clean with a damp sponge.

10. Wait at least 24 hours before using the fireplace. To clean, simply use a cloth and warm water. For heavier soiling, a mild detergent can be added to the water such as soap. In cases of staining, clean with acetone. For deep staining, a poultice can be applied to absorb the stain. Finally, for excessive staining, the entire mantel or area of the mantel can be resurfaced with sand paper, finishing with 100-200 grit sand paper. This is a last resort that should rarely be used. Similar to resurfacing hardwood, there are a limited number of passes that can be done with sandpaper.