Installation Manual
Anatomy Of A Fireplace
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Shipping and Receiving

Receiving Shipment
The utmost care is taken at our factory to protect the integrity of our shipping crates and the fireplace components within. In the event that the shipping container is damaged in transit you should be prepared to capture photo documentation of the damaged container PRIOR TO SIGNING FOR RECEIPT OF THE SHIPMENT. Please document shipping damages such as forklift cuts and gouges as well as signs of the crate being dropped on the driver’s delivery receipt and HAVE THE DRIVER INITIAL.

Uncrating Product
Within twenty-four (24) hours of signing for receipt of the fireplace, it must be uncrated and all contents inspected for damage. During the uncrating process, care must be taken to protect the integrity of the contents. Never stack the stone material upon each other without placing foam packing material or plastic shims between them carefully. Should any damage be identified, DeVinci Cast Stone must be notified via phone (405-680-9000) and or email (mail@devincicaststone.com) within that 24-hour period. Such email notification must include photographic evidence of damage(s) along with photographs of the crating and packing components. Should damages be identified, DeVinci Cast Stone will work with the client in the most expeditious manner to bring resolution to the identified issue(s). While DeVinci will work with the client to resolve any issues, DeVinci is not and will not accept liability except as set forth in the terms of sale. DeVinci is not liable for any damage such results from delivery, unloading or unpacking. DeVinci shall only be liable for damages which resulted from packing or crating. Read further for step-by-step instructions on how to uncrate your order.

CAUTION Never stack the stone material upon each other without placing foam packing material or plastic shims between them carefully.

Here are pictures of how a typical fireplace is packaged. Under the foam are the various pieces of stone individually separated by foam material. They are also covered with plastic wrap to separate the foam from the stone as well as ensure the foam surrounds all sides of the stone inside the crate.
The crate is then shot with expanding foam to secure all parts as one in a monolithic package.

The crates themselves are heavy; however, after uncrating the contents, two people can move each piece.

**Instructions to Uncrate & Inspect Contents**

- **Step 1:** Take off the top lid. Locate and remove packing list for use with inventorying crate contents.
- **Step 2:** Remove screws at the top, on the two sides where there are dotted lines to cut, or on the longer sides of the crate.
- **Step 3:** Cut along dotted lines on each side of box, or inside of the vertical wood post, and lower sides down.

Step 4: Lift monolithic foam straight up and over, there may be a top and sides or just one large piece.

- **Step 5:** Remove plastic covering the pieces, and photograph the layout of the pieces for documentation.
- **Step 6:** Remove all fireplace components positioning them separately on a clean and level surface (HEAVY)
- **Step 7:** Inventory all crate contents using the packing list.
- **Step 8:** Carefully inspect all contents.

Notify DeVinci Cast Stone within twenty-four (24) hours of signing for receipt of shipment at 405-680-5600 or email mail@devincicaststone.com, should any deficiencies or damage(s) be identified. DeVinci is not liable for any damages that occur because of delivery, unloading or unpackaging.
In preparation for the installation, assure that appropriate equipment and personnel are available to assist during the installation process as some fireplace components are heavy and unwieldy; always wear appropriate personal protective equipment.

Throughout the installation process, assure that components do not strike one another causing chipping or abrasion by using the shims and packing foam provided or other similar material.

A very important aspect of your installation will be maintaining level. Any deviation from level throughout the build will be magnified and can affect the aesthetics of the final product.

**NOTE**  
DeVinci Cast Stone components may have some minor irregularities in thickness. Along with the standard spacers provided to create proper grout spacing, additional plastic shim stock is provided in two thicknesses that can be cut to size and added to spacers to maintain level. Assure that the mounting surface is clean, level and capable of supporting the final product weight.
Using a level to transfer the centerline up the wall to the intersecting point with the final height on the wall. Mark the line with a ‘C’.

Measure and mark the centerline of your firebox for reference. Measure to mark the final height of your top stone.

Find and lightly mark all studs in the wall with your level, as they will identify attaching points during the install.
Hearth

Find and mark centerline of hearth.

Using a tape measure, determine the position of the hearth on the floor and mark its rough outline in pencil. This will assist in applying the mastic more accurately later. Shim mounting surface as necessary to gain appropriate base height and level side to side and front to back.

Thin set or construction adhesive can be used as mastic during installation. If thin set is used it should be mixed to the consistency of thick pancake batter and can be applied using a trowel or grout bag. Mastic should be applied generously but must remain back from faces of fireplace surround at least ¾” to provide space for grout.
Wall brackets must always be located such that they will be completely covered by panels.

Apply a generous amount of mastic to the mounting surface within the outline previously drawn. Position the hearth and compress the mastic side-to-side, front to back until you have achieved the appropriate height and the centerline of the wall is aligned with the centerline mark of the hearth.

Important: Check the level of the hearth, as it will affect the level of the remaining pieces.

Drill pilot holes and attach the hearth to the wall studs using angled wall brackets (two places).

NOTE
Filler Panels

Filler panels can be located at the bottom, sides and/or top of the fireplace opening. The installation depicted, uses all of these panels. Some on-site preparation is necessary prior to installation. The following steps identify the preparation and installation procedures for filler panels.

Locate and mark center of bottom filler panel.

Pins are used to stabilize connection of bottom to side filler panels.

Mark and drill pin placement holes in the top of the bottom filler panel and bottom of the side filler panels.
Black spacers are normally used to provide the appropriate grout spacing but minor irregularities in level are offset using the thin red spacer stock and the medium blue spacer stock. All panels should be dry set and checked for level prior to permanent installation.

A grout bag can be used to apply mastic during installation of the filler panels. To prepare the grout bag, cut the small end of the bag so that the opening is approximately 3/8” in diameter. Rinse the interior of the bag with clean water to prevent sticking of the mastic. Fill the bag half to two-thirds full and twist top to seal the bag. Squeeze to expel the mastic as needed.

Place two grout spacers on the hearth top adjacent to the back wall, aligning centerlines of hearth and dry fit the bottom filler panel and apply additional shims as necessary to assure the panel is level.

Apply mastic and install bottom filler panel.

Recheck centerline and level, side to side and front to back, and install wall brackets (two places).
Insert mastic and stabilizer pin in predrilled holes and

Dry fit right and left side filler panels confirming individual level of panels, side-to-side and front to back, as well as level across panels.

Apply mastic to both sides of bottom filler panel, into the predrilled hole on the bottom of the side filler panels, and install both side filler panels while rechecking all levels. Secure side filler panels with wall brackets. To help stabilize the piece, apply mastic to the back of the filler panel where it will come in contact with the wall.

Always position shims within the perimeter of the piece, making certain they will never be exposed to direct heat/ flame and that there is adequate space for grout.

NOTE
Position grout spacers and recheck for level across side filler panels. (Add shims as necessary to assure level)

Check that the top filler panel matches side filler panels on both sides and check it for level, side-to-side and front to back. Install wall brackets (two places).

Apply mastic to top of both side filler panels and position top filler panel.

Clean any extraneous mastic off of installed panels. Wedges can be used to level components front to back during assembly.
Mantel

Drill holes (one each) in the bottom of each leg and matching holes in top of hearth for insertion of stabilizer pins. Insert stabilizer pins, position grout spacers and dry fit both fireplace legs checking for level front to back, side to side and between legs. Using a straight edge or string, assure that top surface of legs is even with the surface of filler panels (if filler panels are used). Use shims on grout spacers to level legs.

Pins are used to stabilize connection of bottom to the hearth.

Insert mastic in hole in bottom of legs and install legs.
Place grout spacers and dry fit header checking for level side to side and front to back assuring that the header is even with the top of legs. Insert shims as necessary.

Apply mastic and install header-rechecking level side-to-side and front to back. Assure that top of header is even with top of legs. Install wall brackets (2 places).

Recheck all levels and spacing and install wall brackets on each leg.
This fireplace surround incorporates an accent shelf. In some styles, the accents, if any, are cast into the mantel component(s).

All vertical joints and spaces between pieces of the surround (e.g. spaces between legs and header) that will later become covered, or otherwise obstructed should be filled with mastic throughout the install. This will reduce any chances for lateral movement.

Mark center at top front of header and top and bottom front of the center accent shelf. Place grout spacers on top of legs and header and dry fit accent shelf components. Use shims as necessary to level accent shelf components.

Apply mastic and install accent shelf components. Use two wall brackets on center component, one wall bracket on each side component, one flat strap between center and left component and one flat strap between center and right component.
Apply mastic and install center mantel component securing with wall brackets on both sides.

Mark center on the front bottom edge of the center mantel component and dry fit for level.

Predrill holes for stabilizer pins in top of the right and left accent shelf components and matching holes in bottom of the right and left mantle components.
Insert mastic and stabilizer pins in predrilled holes in right and left accent shelves and in predrilled holes of bottom of right and left mantle components. Apply mastic to top of accent shelves and install right and left mantle components. Recheck all levels and edges.

Insert stabilizer pins, place grout spacers and dry fit right and left mantle components. Use shims as necessary to level across all mantle components.

Clean up tools and mastic containers and prepare to grout.
Carefully tape both sides of areas to be grouted.

Grouting

When taping, set tape back 1/32” to 1/16” from opening to provide a slight overlap. This aids in ease of finishing the grout lines. Added care given to the taping process will greatly enhance the finished product.

Grout can stain floors, walls and ceilings. Take necessary precautions to cover areas surrounding the work space.

Once taping is complete, apply drop cloths and shielding to all surfaces that might be stained by grout.
Prepare Grout

The contents of this bucket are intended for pointing (grouting) DeVinci Cast Stone creations as one of the final steps in the installation process. Substituting them for a setting/bedding mortar would deplete them prematurely. DeVinci Cast Stone recommends using polymer modified thin-sets in the installation of their products as outlined in the installation procedures.

Please review the following Mixing Instructions completely prior to starting:

1. In a clean bucket, combine the polymer emulsion (white 16 fluid ounce bottle) with 1 gallon of cool, clean water. Stir well.

2. To another clean bucket add approximately half of the above fluid mixture and about one third (approx. 19 cups) of grouting mortar.

NOTE: Grout should be added to the fluid mixture a bit at a time to prevent premature stiffening.

3. Mix 3-5 minutes with a paddle mixer until the contents reach the consistency of a thick pancake batter. Add more grouting mortar and/or fluid to achieve the correct consistency.

4. Let the mixed mortar stand for 5 minutes. This ensures proper slaking (absorption of the fluid mixture into the mortar).

5. Mix again for about 1 minute. The mortar will appear stiffer (due to slaking), so add as much fluid mixture as is needed to return it to workable consistency.

6. Put mortar in a grout bag and begin pointing.

We provide a bottle of Polymer Emulsion to be added to the water at 8:1 ratio (8 parts water to 1 part polymer). The additive will help reduce shrinkage and improve bonding properties. Mix water into grout to attain the desired consistency, usually the consistency of thick pancake batter.

A grout bag should be used during the grouting process. To prepare the grout bag, cut the small end of the bag so that the opening is approximately 3/8” in diameter. Rinse the interior of the bag with clean water to prevent sticking of the grout. Fill the bag half to two-thirds full and twist top to seal the bag. The bag can be squeezed to expel the grout.
NOTE

It's always good to have a container of clean water and sponge available for cleaning up spatters throughout the grouting process.

Begin grouting fireplace surround from bottom, working up.

Fill grout joint liberally and work first course back into joint approximately ¼” to ½” with grout knife or similar tool.

Apply second course of grout leaving it standing out from the joint.

Continue the two course grouting method throughout.
Allow grout to set up until it provides resistance to slight finger pressure and grout does not transfer to finger when touched.

Before shaving off the grout flush with the stone surface, press it into the joint with a pointing tool. The blade of the tool should be flat and wider than the joint width and free of rust. A mastic trowel will do perfectly. This helps reduce chances of the mortar cracking later on. The pressure applied pushes the mortar farther into the joint and eliminates any unseen voids.

Use flat bladed tool to work grout flush with tape. Once flush, the joints can be tooled smooth with a trowel or rubbed with a piece of carpet. A mildly damp sponge may be used alternatively.

Remove tape, touching up minor inconsistencies as you go with a flat bladed tool.
Avoid cleaning the joints in a way one might do with freshly grouted tile. Too much water in a wet sponge will expose the aggregate in the grout as well as smear the surface of the fireplace. Mistakes will happen, but if a joint looks bad and messy it is sometimes better to clean it out, wash the surface, and repoint it, rather than try to salvage the look with water.

**CAUTION**

A mildly damp sponge can be used to remove minor blemishes. Rinse sponge frequently in clean water container and wring out excess water.

High grit sandpaper (120-200 grit) will help rub off minor stains and blemishes that might have been missed during the install. A gentle sanding can easily replace risky acid washes. It is certainly a lot tidier. If an acid wash is needed, we suggest a light acid wash with a masonry cleaner, such as Prosoco’s Lime Solvent 101, diluted 4 to 1. Protect all surfaces around the mantel and make sure to do the acid wash all over the fireplace, then finish with a good rinse. Note that, there will always be a slight variance in color between stone and mortar, since the material is treated differently.

Joints between the surround and the wall can be grouted but hairline cracks should be expected to appear later where the grout meets the wall. Caulking may be used to avoid the hairline cracks.

Clean tools, equipment and work area.