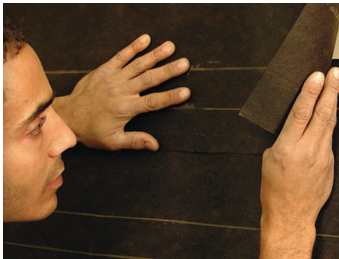




# INSTALLATION GUIDE

## STEP-BY-STEP EASY INSTALLATION INSTRUCTIONS



**Install water resistive barriers.  
(exterior applications)**



**Install corrosion resistant  
metal lath.**



**Mix mortar.**



**Apply mortar for scratch coat.**



**Rake mortar to create scratch coat.  
Allow to dry.**



**Apply mortar to the entire  
back of the stone.**



**Install corner stones first.**



**Install flat stones.**



**Trim stones to fit.**



**Grout joints.**



**Strike joints.**



**Brush off excess mortar  
with a dry brush.**

For specific installation guidelines as an industry standard please visit the MVMA Installation Guide and Detailing for ASTM C 1780 compliance.  
Find this at: <https://ncma.org/building-solutions/manufactured-stone-veneer/>

# STONE FOR THE AGES

[www.mtstone.com](http://www.mtstone.com)



# INSTALLATION GUIDE

## STEP-BY-STEP EASY INSTALLATION INSTRUCTIONS

### Tools Required

**Hammer** to apply felt paper and metal lath.

**Wheel Barrow & Hoe or Bucket & Drill Paddle** for mixing mortar.

**Notched Float** to apply scratch coat to metal lath.

**Circular Saw with Masonry Blade** for cutting stone.

**Mason's Trowel** to apply mortar to stone.

**Grout Bag** for grouting joints.

**Jointing Tool** to finish mortar joints.

**Whisk Broom** for cleaning joints and stone.

### How Much Stone Do You Need?

Just follow these easy steps to determine how much stone you will need.

1. Measure the width and the height of the area to be covered and convert to square footage; width x height = total square footage.
2. Figure the square feet of any windows, doors and openings and subtract this amount from the first figure. (total square footage – windows, doors and openings).
3. Determine how many linear feet of corners you'll need. Measure the linear footage of the outside corner pieces. One linear foot of corners will cover about 1/2 square foot of flat area – ie, 20 linear feet of corners = 10 square feet of flat area. Subtract this flat area amount from the total square footage to determine how much total stone you will need. You should allow an extra 5 -10% more stone for cutting and trimming on both corners and flats.

### Materials You Will Need

**Mortar Components** Use pre-mixed masonry mortar, or mix 1 part masonry cement (Type N or Type S) with 2 1/4 to 3 parts masonry sand.

**Water Resistive Barrier** For exterior applications, use two layers of Water Resistive Barrier. Use 15# felt (ASTM D 226), Grade D building paper (ICC-ES AC38), or house wrap and paper backed lath.

**Metal Lath** Use a minimum 2.5 pound corrosion resistant, expanded metal lath, or you may use 18 gauge galvanized woven wire mesh. For metal buildings, use a galvanized, rib expanded metal lath (minimum 3.4 pounds 3/8"). Check your local building codes for other accepted lath or mesh.

**Fasteners** Use corrosion resistant fasteners (staples, nails, or screws) that penetrate minimum 1" into wood framing or 3/8" into metal framing.

**Masonry Sealer** When required, use a breathable type (non-film forming) sealer.

**Note:** For every 100 sq. ft. of stone installed, you will need 2 to 3, 70 lb. bags masonry mortar (sand must be added at a ratio of 1 part masonry mortar to 3 parts sand) OR, 560-840 lbs. of pre-mixed masonry mortar (sand included in bag).

### How To Prepare The Surface

Follow these guidelines in preparing different surfaces.

**Rigid Backwall, Wallboard, Plywood, Paneling, Wall Sheathing Concrete or Fiber board.**

For exterior applications, install water resistive barriers, overlapping the joints 2" horizontally shingle style and 6" vertically. Ensure that all penetrations (doors, windows) are properly flashed & sealed. Double wrap WRB at inside & outside corners a minimum of 16" – each side. Install lath, horizontally with cups up. Overlap lath 1" on horizontal & vertical seams. Lath must wrap corners to the next framing member and at framing member. Lath should be fastened every 6" vertically on each stud.

**Concrete, Masonry, Stucco, Block That Is Clean and Untreated.** Ensure surface is sound and clean, free from release agents, paint, form oil, and sealers. Etch or score the surface to enhance mechanical bond. Surface applied bonding agents may be used.

**Concrete, Masonry, Stucco, Brick That Is Dirty, Sealed or Painted.** Return surface to original condition by sandblasting or waterblasting (wash area to remove sandblast dust). If unable to achieve a suitable bonding surface, attach lath with concrete nails or masonry anchors. Use a bonding agent.

### Applying Stone

**Surface Area** Use a notched float to apply mortar 1/2" to 3/4" thick.

**Joint Width** If mortared application is specified, joints should be 1/2" to get the most natural look.

**Setting Stones In Mortar** Cover the entire back of the stone with mortar and press the stone firmly into

the mortar bed to ensure a good bond. Press hard enough to squeeze out a little mortar around all the edges of the stone. Make sure you have complete coverage between the mortar bed and the surface of the stone.

**Corner Pieces** Corner pieces should be installed first. Alternate the long and short legs on the corner pieces in opposite directions.

**Flat Pieces** After the corner pieces are installed apply flat pieces starting at the outside working in toward the wall center.

**Cutting and Trimming** Use the rear of the brick hammer, edge of trowel, nippers or a circular saw

with an abrasive blade to cut and shape stones. If necessary, broken stones can be trimmed and shaped to fill in any gaps. For the most attractive finished appearance, coat with mortar any cut or broken edges. Also, try to place cut edges up when they are above eye level and down when they are below eye level.

**Level and Plumb Joint Lines** Joint lines should be level and plumb. For a more natural look, place long, rectangular pieces of stone horizontally.

**Mortarless Joint Applications** In mortarless joint applications where no mortar joints are used, use a bonding agent and seal with a breathable (non-film-forming) sealer.

### Grouting & Finishing Joints

**Grouting Joints** If more mortar is needed, fill in the joints with a mortar bag, taking care to avoid getting mortar on the stones' surface. Any accidental smears can be removed with a whisk broom after the mortar is crumbly. Never use a wet brush or wire brush.

**Finishing Joints** Proper jointing gives your project an appealing and professional finish. Before finishing, allow mortar joints to become firm (approximately 30-60 minutes), then point them up with a metal jointing tool. Weather conditions and the type of surface both influence drying time. Remove excess mortar then firmly compress and seal the edges around the stones. Brush stones and joints with a whisk broom to finish and clean the project.