GENERAL INSTALLATION

Stone veneer can be applied to any structurally sound surface. No foundation or structural changes are necessary, as stone veneer becomes an integral part of the surface to which it is attached, and is not considered a structural member.

In most cases, installation over an existing sound concrete, stone, concrete block, brick or stucco surface does not require additional surface preparation (You may want to consider wiring over these surfaces with expanded mesh). It can be applied directly over that surface using mortar, or a mixture of mortar and thin set. It is advised to use thinset mortar as an additive to your mortar mixture as it aids in the initial adhesion on vertical surfaces.

*NOTE: Grade "D" waterproof paper should be used over any *exterior* wood surface *before* installing lath per code. We recommend using Typar brand vapour barrier or 60 min tar paper.*

Surface Sealing: Before any prepping is done for the stonework make sure the areas that stone is going to be applied on are correctly sealed with an adequate building paper and air/vapour barrier membrane (around windows, doors, garage doors), flashing is above any horizontal opening (windows, doors, garage doors), and that the vapour barrier is correctly on. Consult appropriate installation manuals for proper application of the membrane around openings. Make sure there is at least a 1 inch overhang on all flashed surfaces. Make sure the vapour barrier is completely covering any exposed wood and is correctly overlapping itself by at least 6 inches (always start from the bottom and work your way up to allow the water to run over the paper and not behind it). Make sure all window and door transitions have the paper taped to it using sheathing tape.

Surface Preparation:
Cover the entire surface with 2.5 gauge expanded metal lath, overlapping the joints using 1-1/2"- 2" roofing nails or staples. Over an existing wood surface, nails should be six inches (6") apart in every direction, with extra attention to being sure that nailing is through all existing studs. Overlap all joints and at all corners, and take care not to leave a lath seam at a corner. Overlap at least 2" on vertical seams, and 2" on horizontal seams. Use tin snips or angle grinder (with eye and hearing protection) to cut lath. Make sure that the lath is kept tight at all times. You do not want spots in the lath that "bubble" and "pop" in and out when you press on it.

In some cases, you will want to nail into place a starter strip (usually half inch stucco or plaster stop). This strip will allow the stone a level surface to start from and acts as a nice transition from one surface to the start of the stone.

Mixing Mortar:

1. Scratch Coat Mortar: Using a 5gallon bucket, fill it roughly one quarter of the way full with water then add just pre-mixed Specmix mortar till the bucket is about three quarters of the way full. Mix it with a paddle mixer and drill till to get the consistency of porridge. You may need to add more mortar mix or water to achieve this consistency. Try not to fill the bucket up to the top as it will be heavy and awkward to mix. Let sit and mix again after a few minutes.

2. Stone Laying Mortar: This mortar is mixed much like the scratch coat mortar however we suggest using a 70% Specmix to 30% Thinset mortar mix. Also depending on the color of stone you are doing you may want to add some black or brown iron oxide pigment to the mix to `tint` your mud to match the stone. You may only want to mix approximately half a bucket of laying mud as it will take more time to go through a bucket of laying mud than scratch coat mud and it can dry out quickly. In the event the mixture is too dry, just add a little bit of water and remix. (Note: If you are laying a 'floated' stone, you will want to mix approximately 80% Specmix to 20% Thinset because a mix with too much Thinset will cause the stone to want to sag and not float on the wall properly)

3. Grouting Mortar: Use the exact same instructions as you would for the scratch coat only this time you may want to add iron oxide pigment to achieve your desired grout color. DO NOT USE THINSET IN THIS M IX.
CAUTION: MAKE SURE YOUR GROUT MIX IS MIXED IN THE EXACT SAME PROPORTIONS (WATER, COLOR, MORTAR) EVERY TIME TO ENSURE YOUR GROUT COLORS WILL MATCH ALL THE TIME

Scratch Coat:
A pre-mixed sand and cement mortar mix will then be applied over the metal lath, as thin as possible, but making sure that the lath is *completely covered* and that the surface is level. Make groove lines with your trowel or scratch up the plastered surface while it is still wet using a leaf rake, hand rake, or mason's scratcher, so that the surface is not too slick or smooth. The stone can then be applied to the scratch coat once it has set up a little bit..

Trimming the stone:
Most stone veneer (Manufactured and Natural) is easily shaped or cut as desired. This will enable you to "fit" stones easily into place to insure a natural looking wall with *tight mortar joints.* Cutting or shaping can be done by using a circular saw with a masonry blade or a wet saw. Be sure once you have cut the stone to `paint` the cut area with your colored mortar mix. Although our stone is colored all the way through, the aggregates used in the production of the stone will still show. (This does not apply to natural stone veneer).

Apply Mortar to Stone:
Using a trowel butter the back of the stone with approximately 1/8" of mortar to just lightly cover the back of the stone (Like you would butter toast, making sure to cover the entire back of the stone). Then apply approximately 1/2" of mortar to the back of each stone piece again, covering the entire back.

Applying Stone to Wall:
Different stones may require different starting areas on the wall. For most stones however you would start at the bottom of the wall and work your way to the top. Start by pushing the stone firmly into place on the wall and "wiggle" the stone slightly to set the bond. YOU SHOULD PUSH FIRMLY ENOUGH SO THAT THE MORTAR IS SQUEEZED OUT AROUND THE EDGES OF THE STONE. If sliding or slipping occurs, the mortar may be too thin, or you may be using too little, or too much mortar. You'll get the "feel" of it quickly.

Finishing:
1.Make sure all stone surfaces are clear and cleaned of any mortar.
2.Make sure there are no unfinished looking mortar joins between the stones.
3.Make sure all cut pieces have been painted
4. Make sure all grout lines are uniform and of the appropriate width
5. Make sure all stone is straight and level on the wall

Grouting:
If you are doing a grouted stone, use a grout bag. Fill the bag half full. Roll the bag tightly (forcing your knuckles into the side of the bag), then squeeze the bag with your other hand, forcing the mortar out of the bag and deeply into the joints. The hole in the bag should be approximately 5/8" wide (Depending on your joint size).
After approximately 30 - 60 minutes go back over the grout with a grout tooler to push the grout into the joints and smoothen it out. After this step go back over the joints with a bristle brush to give it a finished look. You want to avoid uneven peaks and dips in the grout as well as cracks and pits that form. The grout should look smooth and even and not full of 'crumbs' and broken.

NOTE: If grouting is to be delayed to another day, make sure that ALL JOINTS are left clean of excess mortar, and that the surface of the stone is free from any splashed mortar. Always remove any excess mortar with a stiff bristle brush on the same day the stone is installed.