NORSE
BUILDING PRODUCTS INC.

MOUNTAIN STACK ™
Mortarless Stone Veneer

Installation Instructions

Beautiful panelized "tight stack" design with an easy to install, screw-in fastening system. Can be used for interior or exterior installations. Please read entire installation instructions carefully before beginning.

Tools and Materials Needed
• Level
• Tape Measure
• Drill or screw gun
• #8 Stainless Steel or zinc plated screws 1 ¼" sufficient to penetrate OSB or plywood substrate
• Tapcon masonry screws if installing over masonry or exposed concrete foundation wall
• Hammer Tacker (to apply Weather Resistance Barrier (WRB) and rainscreen on wall)
• Circular saw, table saw or wet saw with masonry blade
• Caulk Gun
• Adhesive: recommended PL Premium Construction Adhesive
• 6" Non-painted metal flashing

Panel Sizes and Packaging

Flats:
Flats are packaged in 9 SF small boxes (12 pieces) and 90 SF large boxes (120 pieces).
• Each flat panel is 18" long x 6" high. Approximately 1-2" thick, covering 0.75 SF.

Corners:
Corners are packaged in 6 LF small boxes (12 left/right pairs for total of 24 pieces).
• Corners are left/right pairs with finished rough ends for rugged corner look
• Two lengths compose each corner pair: 6"x 6" and 10" x 6"
• Each lineal foot (four pieces) covers 1.34 SF, or 8.04 SF per box

Starter Strips:
Use starter strips at base of project as well as above doors and windows. Sold in 4 foot lengths.
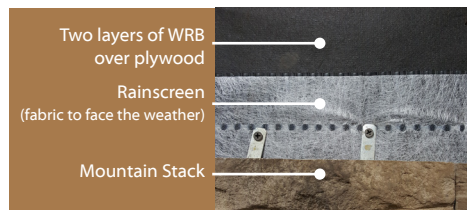
Sill Accessories:
Sills are 22" long x 2.5" deep x 3.25" height. Packaged 6 to a box

Other Accessories:
Light and Utility boxes are available

Substrates and Weather Proofing

Mountain Stack is designed to be installed over any sound structure meeting building codes, though typically a wood structure. Norse requires a minimum of 1/2" plywood or OSB sheathing beneath Mountain Stack. Two layers of code approved weather resistive barriers (WRB) must be applied for exterior installation. Typical WRBs are Grade D building paper or #15 felt. House wrap may be used as inner layer. Apply WRB in shingle fashion, starting at the bottom and lapping each layer as you work upwards. Be careful to attach the WRB smoothly. Do not staple bottom of WRB until you have installed flashing or weep screeds. All wall penetrations, doors, and windows, should be sealed using self-adhesive flashing properly wrapped and lapped per the flashing manufacturer's instructions. Install rainscreen drainage plane over WRB per manufacturer's instructions.

Two layers of WRB over plywood

Rainscreen (fabric to face the weather)

Mountain Stack

Estimating Your Materials

Lineal footage (LF) of corners: To find the lineal feet of corners, measure the height of each corner – this is your lineal feet. If you have more than one corner, add the total of each to find the total lineal feet.

Square Footage (SF) of Flats: Calculate the wall space by multiplying the width by the height, then subtract out the window and door opening areas – this is your total square footage.   We suggest adding 10% for scrap and cutting. If you have corners, you will also subtract another 1.3 SF for each lineal foot of corners – for example: if you have two walls of 30 SF each, separated by a 6 LF corner, your total square footage for flats will be 30 plus 30 minus 7.8 (6lf x 1.3) = 52.2. Add 10% for scrap and cutting, your total is 57.4.

For this sample project, you will need:
Flats: 57.4 SF (7 boxes)
Corners: 6 LF   (1 box)

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Cutting Mountain Stack

You will likely need to cut Mountain Stack at some point in your project. A circular saw or hand grinder with a masonry blade should be utilized. We recommend doing all cutting outdoors. Be sure to follow safe work practices by wearing protective eyewear, face masks and gloves. After cutting, we recommend cleaning cutting dust with blower or soft bristle brush. Helpful tip: Place cut ends in the least visible locations, such as against trim boards or backing to an inside corner.

Instructions from Start to Finish

1. Installing Starter Strip & Termination Strip: Using your level, install your starter strip using roofing nails or screws every 8"-10". Install first starter strip at corner, working away from the corner. We recommend marking a level line with a chalk line or pencil before applying the starter strip to assure you are running level. The outer layer of the weather resistive barrier and rainscreen should lap over the flange of the starter strip. Double check level. Note: for exterior applications, Mountain Stack must maintain a clearance of 4" above grade or 2" above adjacent hard surface, such as pavers, sidewalk, etc. Be sure to install your starter strip to account for this. [Norse TIP: Each row of Mountain Stack is 6 inches tall. Measure your total height of wall, and divide by 6 inches. If you are left with a small fraction, adjust your starter strip location slightly to help avoid needing to cut a small piece to finish the top row.] Apply 6" non-painted metal flashing around any planned penetrations (e.g. outlets, light fixtures, etc…) as well as at the termination points of the Mountain Stack (top, side ends, inside corners). NOTE: If you have any planned penetrations (e.g., outlets, light fixtures, etc.), be sure to read Step 5 before installing stone. You will need to install 6" non-painted, metal flashing at each penetration area.

2. Installing Corners: If you have corners, begin installing corners first, starting at the bottom and working up. Take a corner pair of left and right pieces, fit together with finished ends interlacing each other. One side will be long, the other shorter – you will alternate this on subsequent rows.   Holding both corners together, check level, then fasten both top two fasteners with 1 1/2 " stainless steel or zinc coated screws (bottom fasteners may be shifted to one side to fit in the J-channel of the starter strip). Subsequent rows will be fitted with the bottom fastener slipping behind the lower rows. Screwing the bottom fastener is not necessary. Once you have your first corner set in place, you can work horizontally across the row installing your flats. Build on each subsequent rows by, once again ,starting with corner pieces. Check level at each row before fastening.   Be sure to alternate short leg and long leg on each row. At top row, you may need to cut top part of corner, leaving no fastener. For these pieces, insert bottom fasteners behind lower row, then secure corner pieces to the non-painted flashing using PL Premium Construction adhesive.

3. Installing Flats: Install Mountain Stack flats by inserting bottom fastener into the J-channel of the starter strip (shift to one side or other to fit). If you have already installed corner pieces, start first Mountain Stack flat panel immediately next to corner, working away from corner (if you have two corners, work from each corner meeting midway for final fitting cuts). If no corner pieces, cut off notch of flat panel so it will fit flush to outer trim. After checking level, screw the top two fasteners into place. Working your way horizontally across your project, install each flat until you come to end. For every panel, the bottom fasteners will be inserted, but not fastened, behind the lower row. Use the two fasteners at the top to secure with stainless steel or zinc coated screws. Check level of each stone panel before fastening. At the end of each row, cut as needed to fit. If cutting eliminates fasteners, use PL premium construction adhesive to secure. As with the corners, at the top row, you may need to cut the panel to fit leaving no fasteners at the top of the panel. Insert the bottom fasteners as you would any other row, then secure the panel to the non-painted flashing using PL Premium Construction adhesive.

4. Installing Sills: Install sills under windows or as desired under other wall transitions, such as siding. Using a level, set sill at desired location and fasten screws through fasteners. If you need to cut a section that will leave you without a fastener, use PL Premium Construction adhesive to secure piece.

5. Installing Light boxes, Utility boxes, Address Blocks, Key & Trim stones accessories:
Wall prep work should be done on all wall accessories areas before stone panels are applied. Install non-painted, metal flashing covering an area at least 4" larger than accessory piece. Use 1 ½" galvanized roofing nail or screws to secure flashing around wall penetration. Attach the accessory to the non-painted flashing using PL adhesive; ensure the accessory is level and plum. It may be necessary to prop the accessory piece up until the adhesive has cured enough to support the weight.