



Installation Guidelines for the Viking Clip Rain Screen

The Viking Clip Rain Screen provides the outer wall in a double-walled system. This system creates a ventilated airspace between the sheathed inner wall and the finish rain screen wall. Proper overall design and construction techniques for this system are the builder's responsibility. In particular, the rain screen requires the following:

Distance between studs does not exceed 24" – Recommended spacing is 16".

Installation of structural sheathing (plywood, OSB, etc.) to the framed wall system.

Application of asphalt-impregnated building paper or house wrap over the wall sheathing to create a moisture barrier and drainage plane.

Suitable furring strips such as pressure treated 1×3 or marine grade plywood ripped into 2 ½" strips.

An excellent article by the Norwegian Building Research Institute provides a detailed discussion of these design and construction techniques. An English translation of this article is available at the following URL: <http://cdn2.hubspot.net/hub/112655/docs/exterior-ventilated-cladding.pdf?t=1441369896881>

Storage and Handling

Prior to installation, the moisture content of the rain screen siding boards should acclimate to the relative humidity levels of the local environment. Once this has occurred, The Viking Clip rain screen system allows for normal expansion and contraction of the siding system. Failure to provide adequate time for this acclimation process may result in seasonal variations in the siding boards that exceed the design tolerances of the rain screen system.

For best results, un-band and stack individual members with about around ¾" spacing to allow air flow about all four sides of each board. This takes a little time, and it's worth the effort. In a matter of days, your siding will be ready to yield optimal results.

The siding bundles should be loosely covered with a water-resistant tarp to prevent exposure to rain and direct sunlight without restricting free air flow to the top and sides of the bundle.

Siding Board Pre-Placement Preparation

Before assembly of the rain screen, inspect the siding for evidence of silver grey discoloration and consider applying a wood brightener such as Defy or Citralic Wood Brightener to restore the original color. Alternatively, careful power washing or sanding is often effective in removal of the graying. Brush

and clean the board surfaces, then apply a semi-transparent sealer with UV inhibitors to all four sides of each board. To avoid tacking and sagging of the sealer, apply in successive thin coats.

Some boards require cuts to finish off a siding course, or to complete the final placement at abutments, such as window and door margins. Others may require cutting to remove bowed segments. The topmost level, where the siding meets the lower margin of the roof, must allow at least a ¾" ventilation gap between the top of the final siding course and soffit; this also applies to siding boards running beneath window openings. For end cuts, apply a wax-based sealer to reduce the likelihood of cracking and checking. Top course boards will require pre-drilling and face screws at the top of the board. (There will be an un-milled edge on this top piece any time a full piece does not complete the wall run. No groove, no clip. A savvy carpenter with a plate joiner can theoretically fasten entire walls without exposed fasteners in play.)

Rain screen assembly

Before installation of the Viking Clip rain screen, ensure that all windows and doors, including trim, flashings and counter flashings have been installed in accordance with the manufacturer's instructions and in compliance with local building codes. To allow for potential expansion of the siding boards, a 1/8" gap should be present between board ends and adjacent window and door borders, as well as any other abutment sites.

Install Vertical furring strips with exterior wood screws to the interior stud through the vapor barrier and sheathing.

Establish a starter course. Be certain that the starter course boards are never in contact with the ground, concrete slabs, or deck materials at any point. (Again, a ¾" gap is recommended for spacing at the envelope base)

The Viking clip Rain Screen system includes 2 ¼ " long, #7 trim head, 315 grade stainless steel screws. After establishing the starter course height, screw Viking clips through the furring strips and exterior sheathing at the studs, no further than 24" on center from the preceding clip. Use clips at butt joints, one at each board end, at the top and bottom of the siding. Tighten all screws for a flush mount.

Insert the first siding board into the previously attached Viking Clips and place additional boards lengthwise along that level line until reaching the end of that course. Cut to complete the starter row, so that a 1/8" gap is present between the siding and window and door abutments.

The Viking Clip side boards are milled to fit snugly into the Viking clip. It is not necessary to jam, pound or otherwise force siding boards into the clip. If this occurs, it is an indication that the board is bowed or bent. Cut the board to remove the deformation or use another board in its place.

Repeat this process, checking alignment and level on each row until the finish course. Again, allow at least a ¾" ventilation gap. (Gaps are also needed beneath all window openings). Flashing and counter flashing should be installed at the junction of the side wall and roof in accordance with the roofing manufacturer's instructions. We recommend the installation of insect screens at this and all other ventilation gaps.

With this technique, the only exposed fasteners exist on the top course, if clips may be implemented for a full piece at the bottom. It's a good idea to check layout due to variance in material width and wall height. Exposed fasteners may also be countersunk and plugged if desired.