BATT-BRACKET
EXTERIOR INSTALLATION

InSoFast®

The Batt-Bracket uses batt insulation as continuous insulation for exterior wall or roof assemblies. Designed to handle high wind loads and extreme environmental conditions, Batt-Brackets provide a strong, non-compressible attachment point for furring strips while eliminating thermal bridging.

This Guide

- Tools & Supplies
- Wall Preparations
- Batt-Bracket Installation
- Finishing Details

RESOURCES

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Batt-Bracket Installation Guide

Why Choose Batt-Brackets?

Batt-Brackets allow you to use high-density batt insulation as exterior continuous insulation without thermal bridging. Batt insulation is 3-4 times less expensive than ridged mineral wool board and is much easier to work with. Batt-Brackets are compatible with any high-density batts available in full width steel stud batts. The system protects the batts behind a vapor permeable Weather-Resistive Barrier (WRB).

Project Estimation

The quantity of X-Brackets required is determined by wall square footage. Multiply the height of the wall by the length of the wall. Add a foot to the length of each wall to determine square footage. The per box coverage will vary depending on the spacing of the brackets and the framing. Below are approximate coverage areas.

- 16” O.C. framing & 48” O.C. spacing: 4 SF per bracket
- 24” O.C. framing & 48” O.C. spacing: 6 SF per bracket

Do not subtract openings less than 24 SF. Add 2 Batt-Brackets for each opening under 10 SF. For openings larger than 24 SF, subtract 2 feet from the perimeter of the opening before removing the area from the estimate.

Batt-Bracket Selection

Batt-Brackets are available in 3 ½” and 5 ½”, and 7 ½” depths to match the thickness of commercially available batts.

Batt Insulation Selection

Batt-Brackets are compatible only with steel stud batts. Steel stud batts are slightly over 16” or 24” wide, allowing complete coverage of the wall. High density batts such as mineral wool are recommended because they are more ridged and better able to support themselves.

Bracket Spacing and Furring Strip Selection

Batt-Brackets can be used with 2x4 furring strips or with metal hat channel. The maximum spacing with 2x4's is 48" O.C. Furring strips can overhang one foot beyond the Batt-Brackets at the top and the bottom of the wall. Size metal hat channel appropriately for the desired span and load of the finish material.

Fastener & Adhesive Selection

Wood framed walls: Install Batt-Brackets with four 0.120" minimum diameter ring shank framing nails or two 2 ½" #10 or larger construction screws, one in each nailing flange. Structural screws are not required.

Concrete walls: Batt-Brackets can also be installed with powder actuated fasteners with minimum head size of 0.236" and minimum shank diameter of 0.115" or with tapcon screws.

For steel framed walls or shipping containers: Install X-Brackets with two #10 or larger drill tip screws, one in each nailing flange.

Attaching furring strips: use 2 ½" #8 or larger construction screws. 2 screws are required per Batt-Bracket.

Exterior Wall Installation

Wall Preparation

Install sheathing and air barrier prior to installing Batt-Brackets. A WRB may be used but is not required.

Install Batt-Brackets

Install the Brackets with the required number of fasteners and spacing indicated in the bracket spacing tables of the code compliance report. Brackets can be installed using screws or pneumatically driven nails.

Install Insulation Batts

Install Insulation batts by inserting the batts into the lower row of brackets then tuck the top corners of the batts into the upper row. It may be necessary to secure the batts in place using a wrap of twine or mason's string line diagonally across the batts utilizing the hooks on the top face of the brackets.

Install WRB

Install a Weather Resistant Barrier (WRB) over top of the Batt-Brackets. Ensure it is stretched tight without folds or wrinkles. Use a staple hammer to secure the WRB to the face of the brackets.

Install Furring Strips

Install furring strips over top of the WRB using 2 ½” #8 or larger construction screws. A collated screw gun is recommended but not required.

Bottom of Wall Detail

Install a treated 2x the same depth as the brackets at the bottom of the wall. Install the bottom row of batt brackets one foot from the bottom of the wall. Install the insulation, then the WRB, ensuring there is extra WRB at the bottom of the wall. Install furring strips and fasten to the bottom 2x. Install corrugated vent between the ends of the furring strips.

Inset Window Detail

Install window in the rough opening. Create a window buck out of ¾” plywood. Apply flashing tape or fluid applied membrane to the window buck and flash it to the WRB. For best results, flangeless windows are recommended.

Outset Window Detail

Create a window buck with 2x framing lumber. Apply flashing tape or fluid applied membrane to the window buck to air seal. Install window and flash window to WRB.

Wall Penetrations

Wall penetrations should be installed prior to installing WRB when possible. Seal penetrations to both the air barrier and the WRB. When it is not possible to install penetrations prior to WRB installation, install a PVC sleeve, sealed to the air barrier and the WRB for future penetrations to be pulled through.

Roof Installation Procedure

Roof Preparation

Install sheathing and air barrier prior to installing Batt-Brackets. Zip Sheathing or a peel and stick membrane can be used for this purpose. Alternatively, an interior air barrier may be used.

Install Batt-Brackets

Install the Batt-Brackets with the required number of fasteners and spacing indicated in the bracket spacing table in the code compliance report. Batt-Brackets can be installed using construction screws or pneumatically driven nails.

Install Insulation Batts

Install Insulation batts by inserting the batts into the lower row of brackets then tuck the top corners of the batts into the upper row. It may be necessary to secure the batts in place using a wrap of twine or mason's string line diagonally across the batts utilizing the hooks on the top face of the brackets.

Install WRB (Optional)

Install a Weather Resistant Barrier (WRB) over top of the Batt-Brackets. Ensure it is stretched tight without folds or wrinkles. Use a staple hammer to secure the WRB to the face of the brackets. Installing a WRB can help to prevent roof leaks from penetrating into the insulation by shedding any water which comes through the roofing material.

Rafter Tail Detail

Roof overhangs can be made by turning the roof furring strips on edge as a rafter tail on a typical truss.

Install Furring Strips

Install furring strips over top of the WRB using 2 ½" #8 or larger construction screws. A collated screw gun is recommended but not required.

Install Second Layer of Roof Sheeting

Install a second layer of roof sheathing attached to the furring strips.

Install Ridge Vent & Roofing

Install ridge vent per manufacturer instructions.

Installing Siding and Exterior Finishes

Vertical Siding

For vertical siding, bidirectional furring strips are recommended to provide a rainscreen. Alternatively, strips of corrugated vent can be installed behind the furring strips Attach your siding to the horizonal furring strips per manufacturer instructions.

Horizontal Siding

Install furring strips vertically. Install siding per manufacturer instructions.

Stucco/Adhered Stone

Install cement backer board over furring strips. Install stucco or adhered stone to the backer board per manufacturer instructions.

Blocking/Backing

Backing and blocking can be installed anywhere in the wall. Install 2x blocking by toe nailing into the edge of the furring strips.