

# High Performance Unvented Attic: Install for Performance

Proper installation of JM Formaldehyde-free™ fiberglass batt insulation satisfies the California Title 24 Performance Path for Unvented Attics.<sup>1</sup>

## Code Compliance

The International Residential Code (IRC) allows air-permeable insulation to be used in Climate Zones 1, 2 and 3, following basic requirements.<sup>1</sup> Further, the California Building Code (CBC) allows this practice in all California climate zones except for CA climate zones 14 & 16.

## Proper Installation

Proper installation occurs directly under a sloped roof deck over an unvented attic space where no soffit, eave, gable, or ridge vents are installed in the roof.<sup>1</sup> Also, in an unvented attic, the eaves and roof deck are air-sealed, rather than the attic floor. Insulation is then installed up to the bottom of the roof deck. When securing the batts to the roof deck it is critical that the batts be held firmly up against the roof, with minimal compression of each batt and minimal gaps between batts.

For this application, the roof framing is typically truss construction, with 2x4 or 2x6 truss top chords. Unfaced fiberglass batts are required with 24" full width product to cover the framing member. Typical thicknesses and R-values for this application are:

- R-30 – 10¼"
- R-38 – 13"
- R-49 – 13 1/2"

## Benefits of JM Fiberglass Batt Installation for Unvented Attics

- No special training required
- Familiar materials and installation practices
- Fewer installation steps than other air permeable insulation options
- QII installation easily achieved

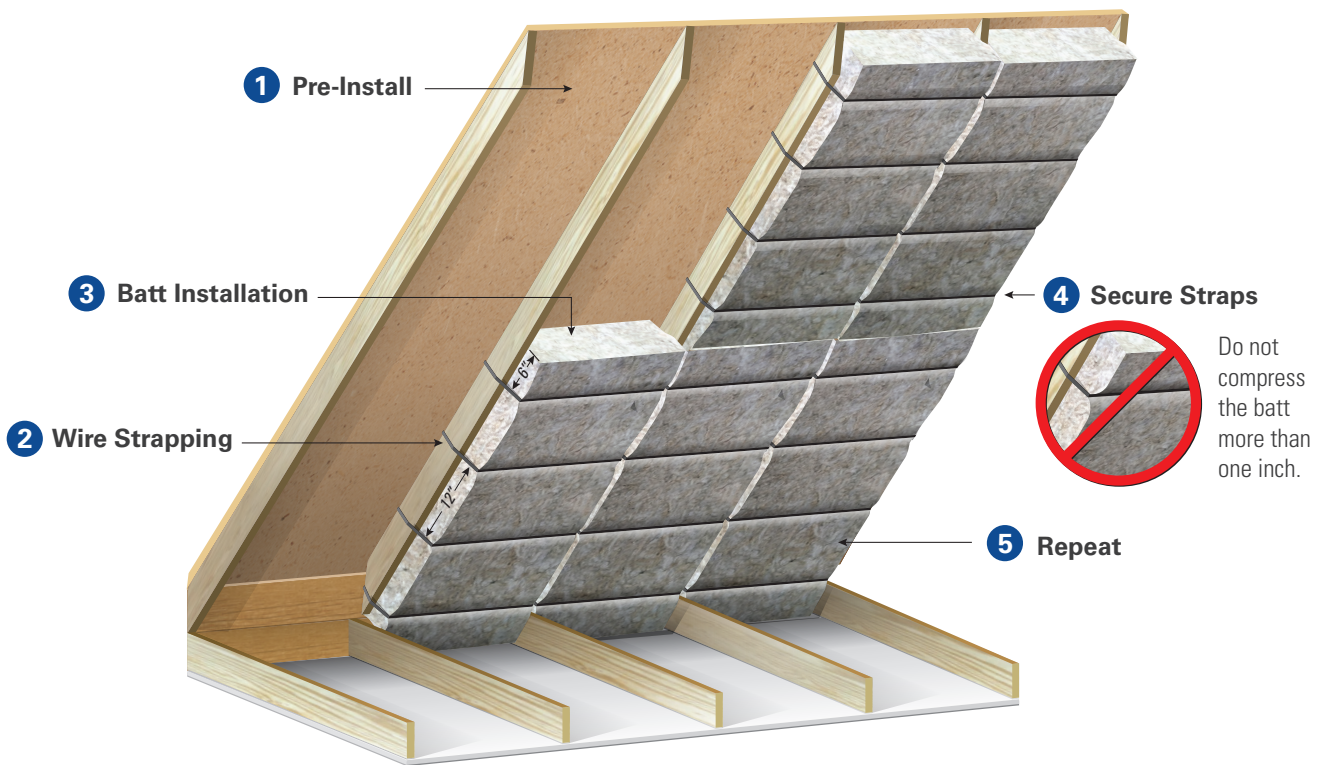
This time-tested method is currently used for underfloor and commercial roof insulation installations with the addition of a different spacing pattern for straps.



<sup>1</sup> Refer to section R806.5 Unvented attic assemblies and unvented enclosed rafter assemblies in the 2018 International Residential Code for specific roof assembly requirements.

## INSTALLATION PROCESS

- 1 Pre-Install'**
  - The roof deck should be installed.
  - No HVAC equipment or ductwork or ceiling gypsum board should be installed prior to installation of the unfaced batts.
  - Presence and sequencing of plumbing, electrical, roof penetrations should be considered to reduce the need for future insulation repairs.
  - Air seal the entire roof, with a focus on all roof deck seams, prior to insulation installation.
- 2 Wire Strapping**
  - 16 gauge baling wire or plastic shipping strapping are effective and inexpensive options.
  - Multiple sections of wire or strapping must be used for each batt, spaced no more than 12" apart O.C., 6" from ends (minimum 4 supports per 48" batt).
- 3 Batt Installation:** Utilize full 24" wide batts when securing the batts to the roof deck. It is critical that the batts be held firmly up against the roof, with minimal compression of each batt and minimal gaps between batts.
- 4 Secure Straps:** Put enough tension to hold the batt firmly in place but not compress more than 1"
- 5 Repeat:** Install the remaining rows, working either down from the ridge or up from the eaves. Careful installation results in no significant gaps, either around the corners of the batts or between batts at the roof framing.



In unvented attics, gable end walls are typically insulated to the same level as an exterior wall. Gables end walls may be insulated at the same time as the roof deck, or with the exterior walls.

*Always follow local building codes.*

For additional solutions or more information, call the Product Information Center at 800-654-3103 or visit [www.JM.com](http://www.JM.com) to learn more.

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