



Retrofitting Metal Buildings With New or Additional Insulation

Thermal energy loss is one of the largest drains and expenses in a building owner's budget. Insulation prices have remained quite consistent over the past few years while energy costs have soared. This makes re-insulating a viable, quite attractive investment for the building owner. It is all about the cost of ownership, comfort of employees, and payback of the initial insulating investment through the savings of energy costs. Adding additional insulation to any climate controlled environment will pay for itself in a matter of time.

At Metal Building Insulation, a division of Building Outlet Corp., over 50% of the Vinyl faced fiber glass insulation volume on a national level goes into a metal building Retrofit application. In the past Metal Building Insulation only supplied fiber glass insulation for new construction and now some of their largest projects are re-insulating

existing facilities. With access to over 400 installers and



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50 different laminating and shipping points nationally for laminated fiber glass products they are in a position to meet the expected industry wide boom over the next 2 years for re-insulating existing metal buildings. Building owners can take measures for increasing the efficiency of the building with HVAC and insulation upgrades; or choose to continue paying the utility company high energy bills.

Choosing your Blanket Thickness

Thickness/R- Value is a measurement of the effectiveness of an insulated product to retard the loss of heat flow. The thicker the insulation blanket, the higher the R- Value. 2” is minimal and primarily used as a vapor barrier. 3” equals R-10; 4” equals R-13; 6” equals R-19; 8” equals R-25; and 9” equals R-30.

Choosing a Facing

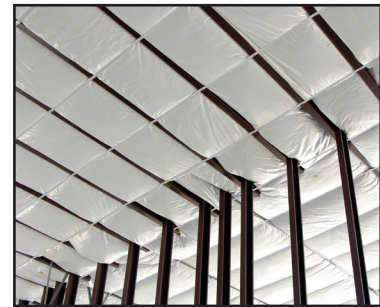
Facing is the material used as the finished vapor barrier cover which is laminated to and over the fiber glass

blankets. It can be white or black vinyl/polypropylene.

The most common facing is WMP-VR-R which is a vinyl reinforced product. Upgrades are available for increased durability and strength. For instance a WMP-50 facing is twice as strong as WMP-VR. Facings offered are: WMP-VR, WMP-VR-R, WMP-10, WMP-50, and GymGuard.

Tabs

The tab is the extension of the vinyl facing past the fiber glass blanket. In retrofit this is usually 3” on each side (larger on factory cut rolls). It is either tucked up along the side of the fiberglass acting as a trim or used to cover the bottom of the purlin. An option is to get a factory pre-applied adhesive on the tab, which the installer peels and

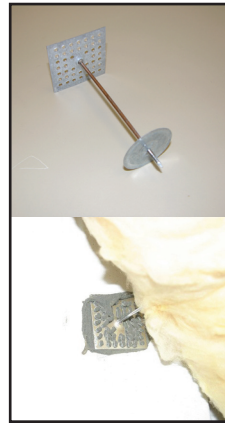


sticks to the next blanket. This makes it easy to seal the seams.

Wall Installation

Adding additional insulation to an existing metal building does not require technical or skilled labor. In other words it is not a hard to understand the process. Proper equipment and safety gear is required from OSHA. Girt spacing varies for the different eave heights and wind loads in a metal building. Typically the first girt is 7'4" above the floor with the additional girt spacing being 6' or less. When the spacing is less than 6' rolls are factory pre-cut to the proper size then laminated to the fiber glass and labeled accordingly. Blankets are installed vertically. A base angle must be installed at the floor of the perimeter of the insulated area. This will provide an attachment point for the vinyl facing as well as help seal the bottom and provide a moisture barrier. Stick pins can be applied to a clean steel surface to hang the blankets. Once the insulation

is installed over a stick pin, a friction washer is placed over the pin to keep the insulation in place. The pointed pin tips are then cut off with a wire cutter. This application gives you a quilted look.



Roof Installation

Typically, metal building purlins are spaced 5' apart. 5' fiberglass blankets are standard. Anything other than 5' wide can be factory pre-cut to fit the existing purlin spacing prior to lamination. The factory pre-cut roll length is then determined by the spacing of the bays or the distance between the rigid frames. The purlin depth varies with 8" being the most common. All rolls are cut, then labeled to help insure that the blankets are placed in the proper space. The most common method of adding insulation to a metal building

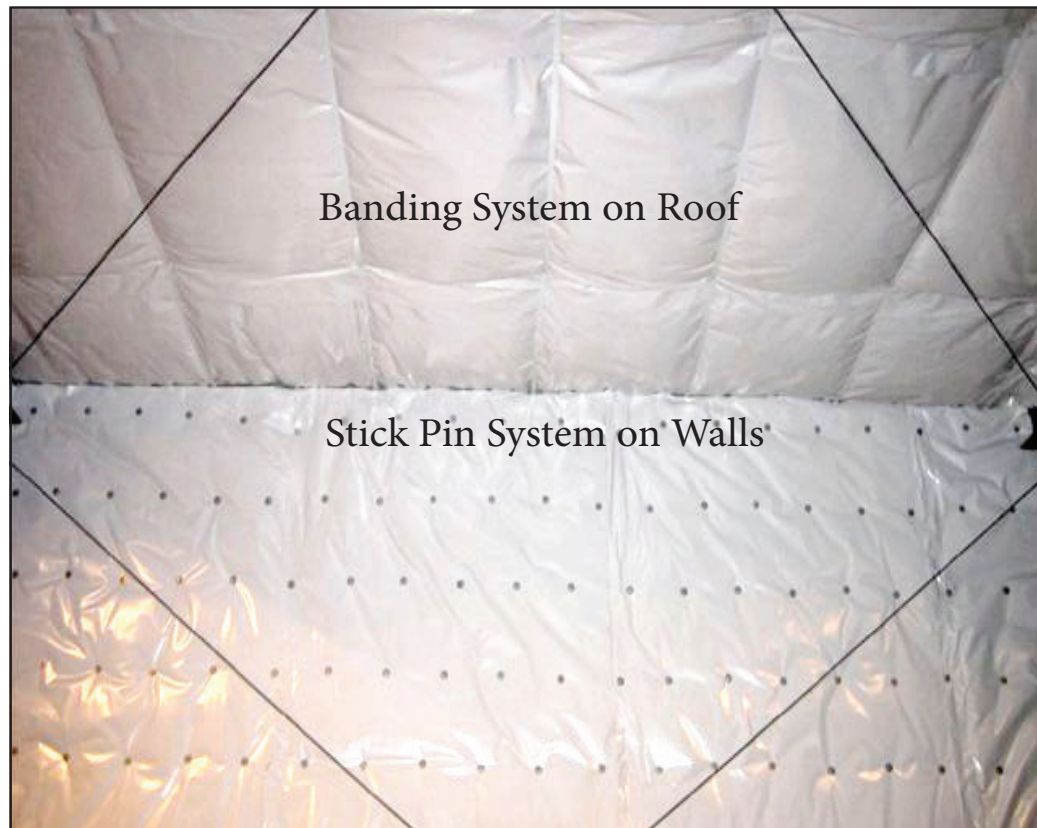
roof is with a banding system. Steel bands, typically 1" wide (depending on the manufacturer) are screwed to the under side of the metal purlin 30" apart creating a grid system in the roof. The factory pre-cut rolls are then fed through, above the steel bands and secured. The steel bands are now acting as a support to the fiberglass blankets.

Cost

Insulation materials with vinyl facing can be purchased depending on the blanket thickness and facing type, at less than .60 cents per sq foot. Steel banding, stick pins with glue, and other accessories are additional. Installation through an insulation installer typically runs an additional \$1 to \$1.75 per sq foot for clean unobstructed interiors. Buildings with obstacles such as unclean foundries or other manufacturing obstacles are difficult to estimate.

**INSTANT QUOTES.
SIMPLIFY YOUR SEARCH.**

Metal Building Insulation.com offers an instant quoting system where building dimensions or actual square footages are entered for an instant quote.



Banding System on Roof

Stick Pin System on Walls

Step-1: Insulation Type My Account Next

Price schedule as of October 8, 2007

Thickness(in)	R-value	Unfaced Price (/sq ft)	WMP-VR Price (/sq ft)
2.0		0.22	28.75
3.0	R-10	0.24	29.35
4.0	R-13	0.30	33.71
6.0	R-19	0.41	47.30

Building 1:
 Quote #:
 Project Info:

Facings **Tabs**

WMP-VR*
 Light Duty
 Lowest cost
 general purpose product.
 Polyethylene Facing
 Score Reinforcing / Kraft Back

3" Tab
 One on each side

6" Tab

Click help button for detailed information

Roof **Wall**

Thickness/ R Value: Select Thickness/R Value

Facings: WMP-VR

Tabs Size: 1-6 in Tab

Splice at Ridge Short Cut SW Rolls

Patch Tape For Roof Patch Tape For Wall

* WMP is a registered trademark of Lamtec Corporation.

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