Fi-FOIL COMPANY

FI-FOIL 30+ YEARS EST. 1983

INSTALLATION SHEET

The RetroShield® System

providing comfort, energy efficiency, and appeal for metal buildings

- Saves Energy
- Easy and Quick Installation
- Works with All Types of Metal Framing
- Attractive Finshed Appearance (White or Reflective)
- Strong Mechanical Connection without Glue or Support Cables
- Does Not Absorb Moisture like Standard Mass Insulation

The RetroShield® System is the perfect solution for insulating both new and existing metal buildings. This cost effective patented system combines Fi-Foil's strong and durable Reflective Bubble Insulation and our innovative Clip & Pin components. For a comfortable, energy efficient building, insist on...

RetroShield®

P.O. Box 800 • Auburndale, FL 33823 • 800.448.3401 • 863.965.1846
Visit our website: www.fifoil.com

RetroShield®

TOOLS YOU WILL NEED

- Scissors or Razor Knife
- Tape Measure
- Hammer
- Squeegee
- Scaffolding/Power Lift
- Power Drill
- T-Square
- Side Cutters

SUPPLIES YOU WILL NEED

- Foil or White Tape
- Self Taping Screws
- Drywall Screws
- Tap Cons

INSTALLATION TIPS

1. Note purlins on-center widths. Smaller sections are typically at sides and the ridge.
2. Note the type of purlins and type of clips needed.
3. Plan for obstructions.

NOTE:

Use caution when working with pins - the ends are very sharp.
Safety glasses and other applicable safety measures should be used when installing the system.
Refer to standard and local safety requirements.

Cleaning:

1. Windex or other similar ammonia based cleaner
2. Mild soap and water solution

Avoid cleaning with:

1. Mineral oils and any type of hydrocarbon
2. Bleach
3. Power sprayers

* Refer to ASTM C-727, Standard Practice for Installation and Use of Reflective Insulation in Building Constructions, for other installation considerations.

Proper Storage:
Store insulation material in a dry covered facility away from temperature extremes and weather elements.

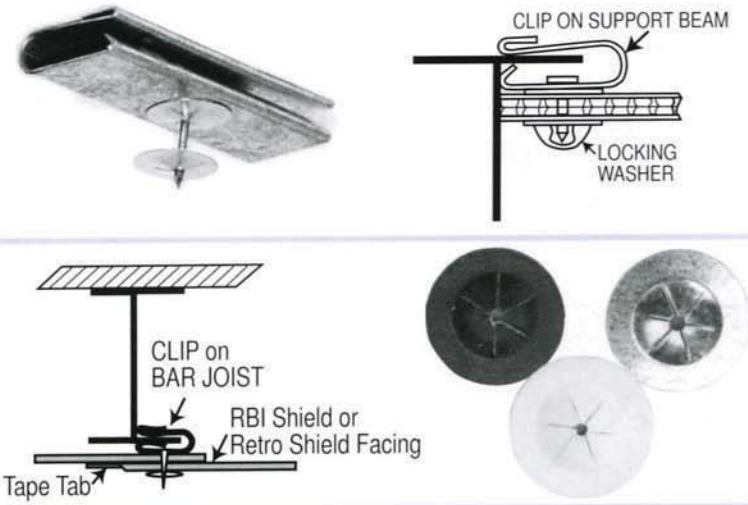
Handling:
Protect material during handling and installation to prevent damage.

Re-Installation:
Product is not covered by the product warranty.

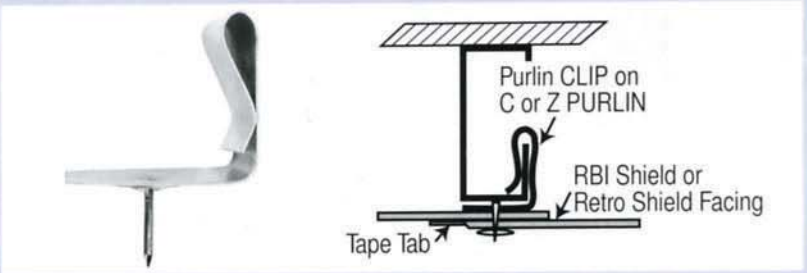
CLIP & PIN TYPES

PATENT #6,324,808 B1 & #6,385,935 B2

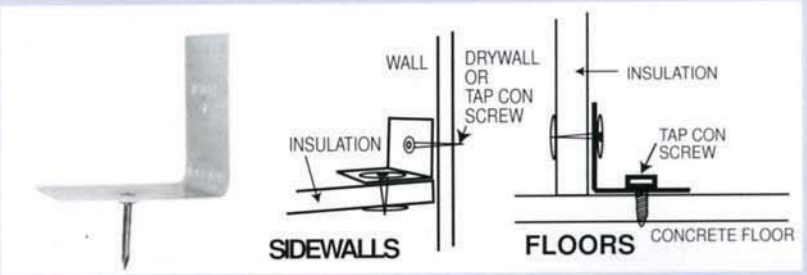
Beam / Bar Joist Clip



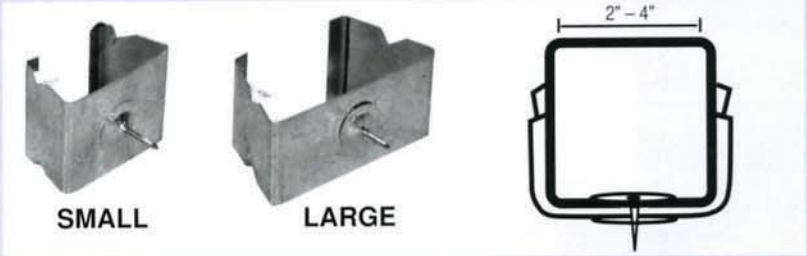
Purlin Clip



Angle Clip



Tube Clips



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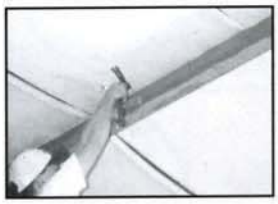
Ceiling Application

1. Start with Section #1. (**See Typical Metal Building Roof Layout**) Snap or tap the purlin clip & pins on to the purlin with the pin facing down every 18". In almost all cases the purlin clip will be secure without a holding screw. Sometimes the purlin clips on the outer purlin must be secured with a self-tapping screw so that when the insulation is stretched to the next purlin it will not pull the purlin clips off the first purlin. Self tapping screws should not be necessary after the first run on the outside purlin, the insulation will be pulling the purlin clips onto the purlin.



2. Measure the section and cut the desired length of insulation. Start each section on one end. Attach the insulation on two to four pins on one side using friction washers. Pull the insulation taut to the other side and attach it to the same number of pins on the other side. Also attach the insulation to the end support beam using three beam clips on each end.

3. Continue the entire section until complete. <u>DO NOT CUT THE PINS OFF THE CLIPS ON THE PURLIN ADJACENT TO THE NEXT SECTION</u>. The insulation for that section will share this clip with another friction washer.

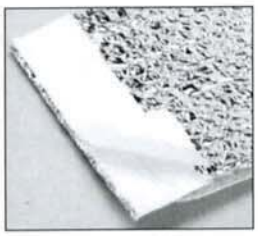
4. Cut off the pins on the first purlin and on the ends of the supporting beam.

5. Install the purlin clips on the next purlin and on the ends of Section #2.

6. Start the next run by using the same purlin clip (the remainder of the exposed pin) on the last purlin. Place a guide mark 2" in on the insulation next to at least 4 pins. Align the edge of the insulation for Section #2 on the marks and attach it to the pins on Section #1. Use the second washer to secure the second layer of insulation. Pull the insulation taut to the next purlin and attach with friction washers. Secure the end next to the supporting beam.

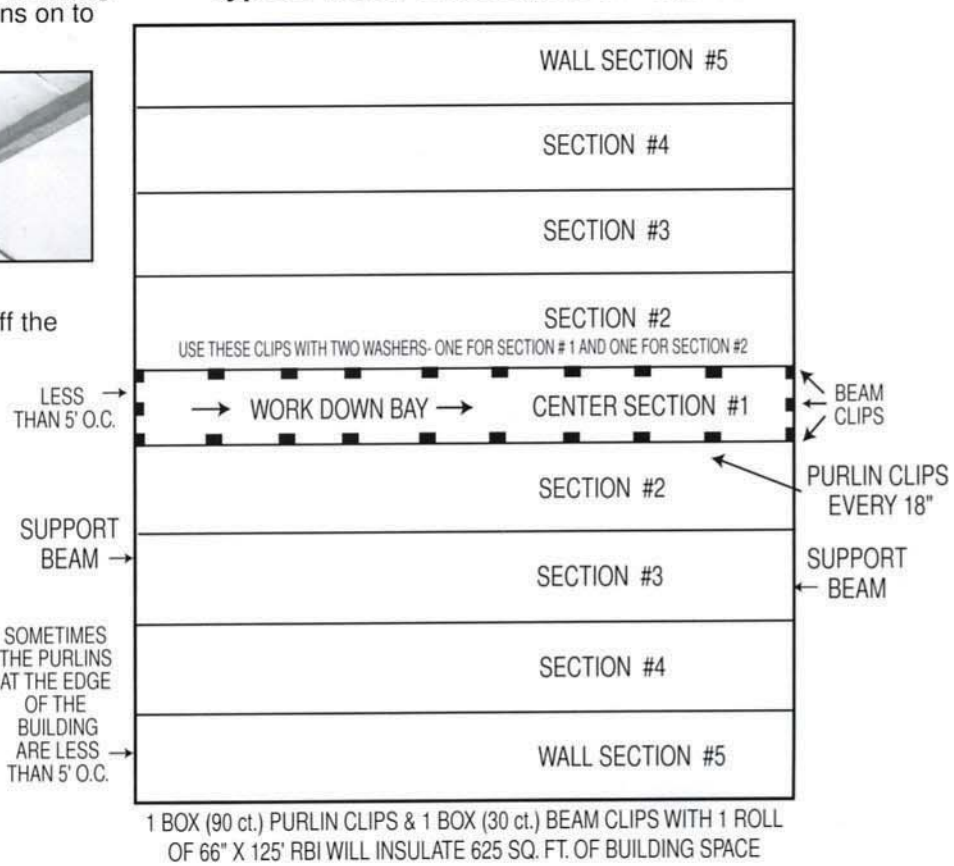
7. Note: It is not necessary to cut off any overlap of the first layer of insulation. It will be hidden underneath.

8. After secured, pull off the facing of the tape tab (or apply tape) and adhere the insulation layers with a wall paper roller or squeegee.

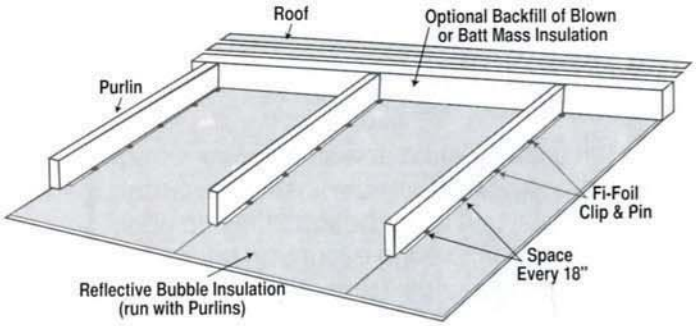


TAPE TAB

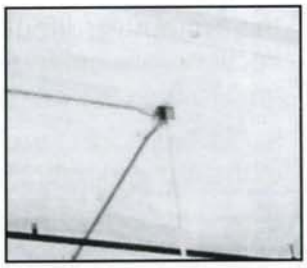
Typical Metal Building Roof Layout



1 BOX (90 ct.) PURLIN CLIPS & 1 BOX (30 ct.) BEAM CLIPS WITH 1 ROLL OF 66" X 125' RBI WILL INSULATE 625 SQ. FT. OF BUILDING SPACE



9. Cut the insulation to butt against the supports beams at the end of each purlin run. Seal the insulation to the beam using double sided tape. Secure the ends using the beam clip every 12" to 18".

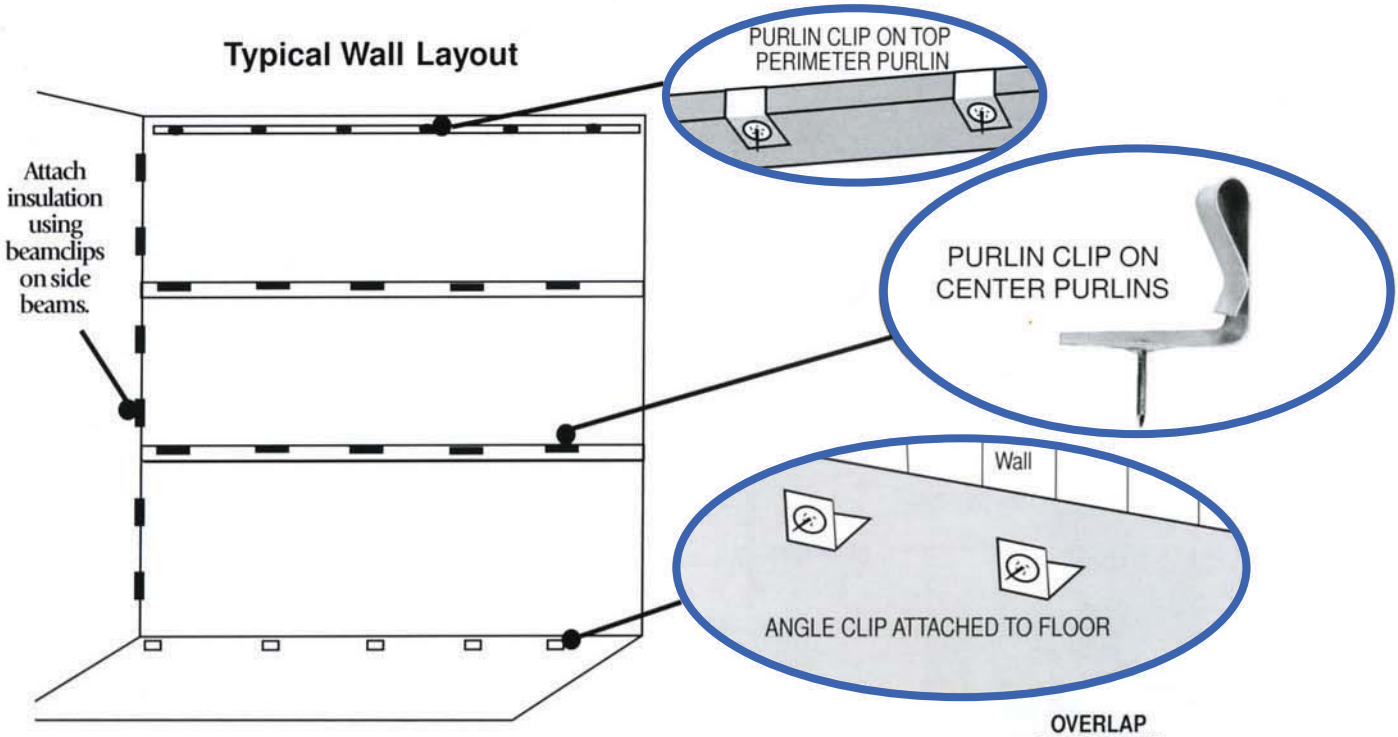


10. Cut to a neat fit around obstructions. Tape if needed. Complete each bay until building is complete.

INSTALLATION SHEET

RetroShield®

Wall Application



1. Install Beam & Purlin Clips every 18" on purlins and side beams. Note the type of clips needed.

2. Pop a chalk line on floor of side wall bay. Install Angle Clips 12" apart with tap cons or install 2" x 4" Pressure Treated Wood to the floor for attaching the bottom of the insulation.

3. Run the insulation across the purlins from top to bottom. Attach the insulation at the top and pull taut to the bottom. Line up edge of insulation with edge of support beam and secure using clips from the first run of insulation.

4. Overlap the second run 2". Use a second washer on the outside clip & pin to attach the adjoining insulation. After all the sections are complete, secure the sides next to the supporting beam.

5. Cut to a neat fit around obstructions and at the top and bottom.

6. Tape the top seam using Fi-Foil white, black or foil tape. Use tape tab at each seam. Use button-cap nails and washers at seams BETWEEN side purlins if beams are too far apart for tape to hold sections of insulation together. Use doublesided tape at beams.