



## Installation Instructions for New Construction

- **Step 1:** Receipt and Inspection of Material
- **Step 2:** Banding Preparation
- **Step 3:** Parallel Band Installation
- **Step 4:** Perpendicular Band Installation
- **Step 5:** Fabric Installation
- **Step 6:** Fasten Remaining Screws
- **Step 7:** Safety Clip System Installation
- **Step 8:** Insulation Installation

## Skyliner System Products

### Skyliner System Products on Skid

- Packing List (2)
- Fabric on Core
- Banding
- Safety Clips
- Adhesive/Brushes/Bucket
- Tek 2 and Tek 4 Washered Self-Drilling Fasteners
- Install Drawings (2 sets)
- Installation Manual
- Skyliner Warranty
- Skyliner Patch Tape
- Banding Cut List (can be found in the Installation Drawings)



Product on Skid

### Skyliner System Products not on Skid

- NAIMA Unfaced Fiberglass
- Thermal Blocks (optional)

### Installation Equipment Needed

- Personnel Lifts
- OSHA Personal Fall Protection Standards (Leading Edge)
- Drill/Impact Screwgun
- 5/16" Magnetic Screw Setter
- Hammer
- Tape Measure
- Safety Glasses
- Hard Hat
- Vice Grips
- Tape
- Support Bar/Conduit/Iron Pipe
- Scissors / Razor Knife
- Tin Snips

## OSHA Compliance

### 1926.502(c)(4)

Safety nets and their installations shall be capable of absorbing an impact force equal to that produced by the drop test specified in paragraph (c)(4)(i) of this section.

### 1926.502(c)(4)(i)

Except as provided in paragraph (c)(4)(ii) of this section, safety nets and safety net installations shall be drop-tested at the jobsite after initial installation and before being used as a fall protection system, whenever relocated, after major repair, and at 6-month intervals if left in one place. The drop-test shall consist of a 400 pound (180 kg) bag of sand 30 + or - 2 inches (76 + or - 5 cm) in diameter dropped into the net from the highest walking/working surface at which employees are exposed to fall hazards, but not from less than 42 inches (1.1 m) above that level.

## Step 1: Receipt and Inspection of Material

Two material packing lists are included with each order. One is attached on the outside of the skid and one on the inside with the actual material. This packing list should be reviewed upon arrival to ensure accurate deliveries.

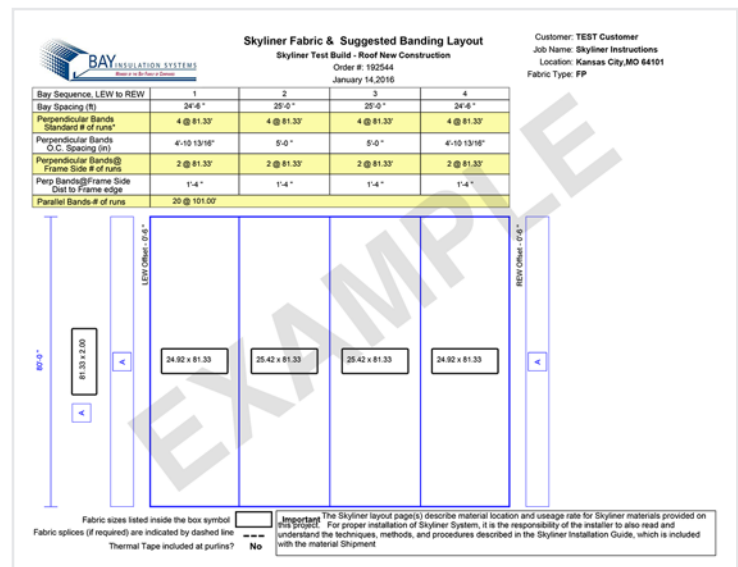
**REPORT DAMAGES AND/OR SHORTAGES TO BAY INSULATION SYSTEMS REGIONAL BIS OFFICE WITHIN 24 HOURS OF DELIVERY!**

Along with your material packing list, there is a system layout of your project. Installation Drawings indicate the building location and sizes of all parts and pieces of your system. Review Installation Drawings.

## Step 2: Banding Preparation

Banding cut list is provided - Review Banding Cut List.

Cut and lay out all banding (parallel, perpendicular and safety banding) according to the Banding Cut List which reflects length and width + 1 foot. (figure2)



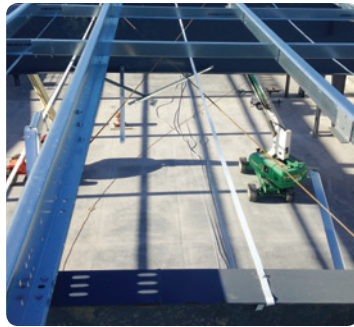
## Step 3: Parallel (to Purlins) Banding Installation

Parallel banding should first be precut in field (Step 2) to building length plus 1 foot. (Cut list provided)

**ONLY one 1-inch parallel band is needed for each purlin space, running from end wall to end wall.**

### 3A) Install one (1) Parallel Band between each Purlin except ridge purlins, where 2 will be necessary. (picture 3A)

Attach one end of precut parallel band, (color face down), over the end wall roof frames (rafter), using a Tek 4 washered self-drilling fastener (supplied). The banding should be centered in the purlin space and pulled three inches past the fastener placement. The fastener should be placed no closer than 2 inches from the inner edge of the roof frame (rafter). (Attach at end frame only)



3A

Pull the opposite end of each band over each bay frame (rafter) to the opposing end wall. **DO NOT FASTEN PARALLEL BANDS TO INTERIOR FRAMES!** Tension the band and fasten to opposite end frame. Attach opposite end of precut parallel band, color face down, to the end wall roof frame, using a Tek 4 washered self-drilling fastener. The band should be centered in the purlin space and pulled three inches past the fastener placement. The fastener should be placed no closer than 2 inches from the inner edge of the roof frame (rafter). **PARALLEL BANDS MAY BE HELD IN ALIGNMENT WITH TAPE ON INTERIOR FRAMES.** (Supplied by others)

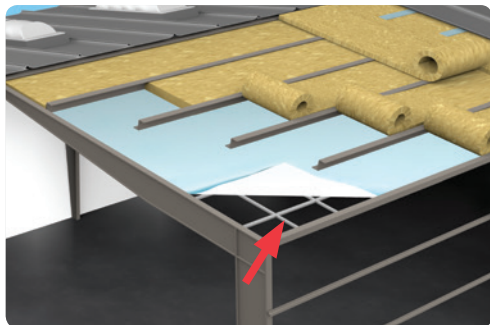


3B

### 3B) Install two (2) Parallel Bands between ridge purlins. (One on each side of the ridge)

Repeat Step 3A above for 2 bands in ridge space. (picture 3B)

## ■ Step 4: Perpendicular (to purlins) Band Installation



4

Precut perpendicular band runs from sidewall to ridge to opposing sidewall. (Step 2) Take into consideration the pitch of the roof and allow for added length of banding. (See Cut list provided - Step 2)

Pull 1" inch perpendicular bands over both ridge parallel bands, color face down. (picture 4)

Pull the banding and hang temporarily to the eave strut, (using vice grip or bending banding). Attach the perpendicular bands to the eave strut, using a Tek 2 washered screw.

Attach one end of precut perpendicular band, (color face down), to the bottom of the sidewall eave strut flange, using a Tek 2 washered self-drilling fastener (supplied). The fastener should be placed in the center of the flange. The band should be three inches (3") past the fastener placement. Attach to each eave strut at this time.

Pull the opposite end of the same band to the ridge, going over every 5th parallel band to prevent sagging in longer slopes. Continue to pull band over ridge parallel bands, repeat to opposing sidewall eave strut. Tension the band and fasten to eave strut flange in the same manner. The fastener should be placed no closer than two inches (2") from the inner edge of the eave strut. Repeat until all bands are installed.

## ■ Step 5: Fabric Installation



5A

Review the (supplied) fabric layout. Locate the labeled roll of fabric for the beginning bay.

Insert a metal support bar (not provided) (picture 5A) through the fabric core and rest the bar (and fabric) on the top of the purlin at the eave strut in the first bay. Properly secure support bar to prevent dropping of fabric roll. Take caution to insure the fabric roll is white or color-side down (blue side up) when fabric is pulled into the purlin cavity.

Pull the fabric off the core from frame (rafter) to frame (rafter), allowing the folded material to expand and rest on the banding in one purlin space.

Secure the unrolled fabric with clamps at each frame (bay) to prevent fabric from falling. Attach only the bottom layer. Unfasten ridge perpendicular bands. Advance fabric by pulling unclamped fabric corners along the frame's edges to the opposite eave strut (or high side edge). Clamps may be used to temporarily hold the fabric in place. Work both fabric edges at the frames and remove wrinkles by moving side-to-side, folding excess material over and pulling tight to frame's edge (picture 5B). Additional clamps may be used to temporarily hold the fabric in place. Check to ensure equal tabs are present on each frame's edge. This will assure fabric is square with the building frame.



5B

Temporarily remove the Tek 2 washered screw installed in Step 3. Pull the fabric underneath the eave strut and re-install the screw in the banding, securing the fabric.

Relief cuts must be made to fabric at each purlin. This allows the folded tab to be adhered to the frame. Be sure not to overcut the fabric tab. (picture 5C)

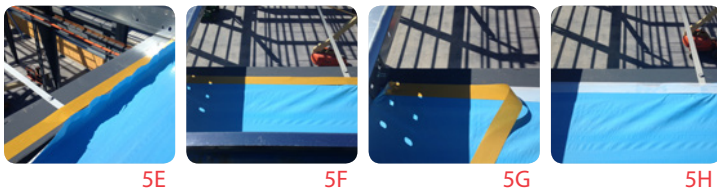
Apply adhesive to top of frame and to fabric tab. (Adhesive must be applied as contact adhesive to both surfaces)

Allow adhesive to tack. Then fold tab created by relief cuts over the frame, adhering the fabric onto the frame between each purlin. (picture 5D)

If using approved special 2" wide double-side tape, apply a single piece of double-sided tape center of the top of the frame. Peel off release paper. Fold tab created by relief cuts over the frame, adhering the fabric. (pictures 5E-5H)

Repeat this method from eave strut to eave strut along each frame.

**FABRIC MAY NOT BE WRINKLE-FREE IN ALL PHASES OF FABRIC INSTALLATION. HOWEVER, ALL EFFORTS SHOULD BE MADE TO SMOOTH OUT AS MANY WRINKLES AS POSSIBLE.**



This will complete the installation of the fabric in one bay, allowing for Step 6 (Applying Field Fasteners). Repeat fabric install steps for all other bays. (Inner bay steps will consist of Fabric to Frame and adjacent bay Fabric to Fabric adhesion).

If a bay contains the need to splice fabric panels to complete the liner system in that bay, the fabric panel splices should be made at a purlin. Adhere the first layer of fabric to the splice purlin with adhesive (glue or tape) supplied. Adhere the second layer of fabric to the splice purlin on top of the first fabric layer with adhesive (glue or tape) supplied. Attach perpendicular bands as instructed in Step 6.

**PROPER FIELD INSTALLATION WITH MULTIPLE FABRIC PIECES ENSURES OSHA FALL PROTECTION COMPLIANCE.**

## Step 6: Fasten Remaining Screws

After the complete installation of the fabric in a bay per above, fasten each perpendicular band to a parallel purlin with a Tek 2 washered screw (except Safety Clip System).

## Step 7: Safety Clip System Installations

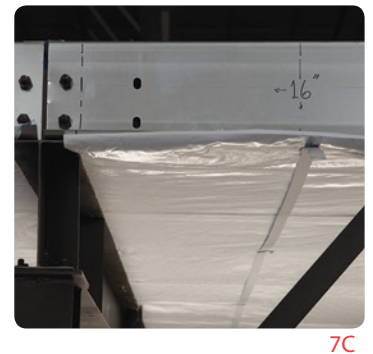
**(REQUIRED ON INTERNAL FRAMES ONLY)**



After fabric is installed (and adhered to frame), Safety Clip System (banding and clip) is installed. (pictures 7A and 7B)

Attach a 1" band, 16" from the side of the flange of each interior frame. Attach banding only at the eaves. (picture 7C)

Use precut band and run from sidewall to ridge to opposing sidewall. Take into consideration the pitch of the roof to allow for added length of banding. (Refer to banding cut list.) The band will be installed at eave strut with Tek 2 washered self-drilling screws. Pull band over the two (2) center ridge bands for support.



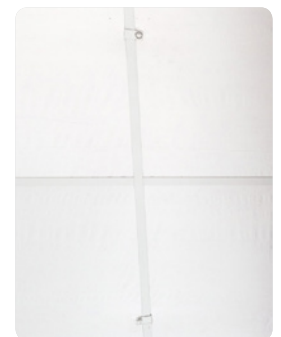
Pull the banding and hang temporarily to the eave strut, (using vice grip or bending the banding).

Attach one end of precut perpendicular band (color face down), to the bottom of the sidewall eave strut flange, using a Tek 2 washered self-drilling fastener (supplied). The fastener should be placed in the center of the flange. The band should be three inches (3") past the fastener placement. Attach to each eave strut at this time.

Install Safety (Slide) Clip (picture 7D) at this time. Slide Safety Slide Clip over the Safety Banding and attach to each purlin using a Tek 2 self-drilling washered screw. It will encompass the Safety Banding and is designed to allow the Safety Banding to slide should pressure be applied. Clip should alternate on each purlin. (picture 7D)

**NOTE:** Ensure Safety Banding can freely slide in Safety (Slide) Clip.

**IMPORTANT: SAFETY BANDING SHOULD BE INSTALLED 16 INCHES OFF OF EACH SIDE OF THE INTERIOR FRAMES.**



7D

## ■ Step 8: Insulation Installation

### Insulation Between (filling) Purlins and Over Purlins

#### Insulation between the Purlin Cavities

Unroll and place unfaced metal building insulation between all purlins. Unfaced metal building insulation is supported between all the purlins, from endwall to endwall, using Skyliner Fabric and Banding System as the support system. Insulation should completely fill the purlin cavity.

#### Thermal Break Tape

Available for use in single-layer applications in lieu of insulation over the purlins.

#### Insulation over the Purlins

Temporarily secure one end of the unfaced metal building insulation to the eave strut. Unroll the insulation across the purlins. Keep tension on the insulation while the metal panels are being attached over the insulation. Do not overstretch the insulation. Fasten the insulation at the other eave in the same manner as the first eave. Install remaining rolls of insulation in the same manner. Align properly and closely butt insulation. The width of the first run of insulation should be one foot wider than the width of the roofing panel. Succeeding runs should be either the same width or twice the width of the roof panels.

#### Thermal Blocks – For Standing Seam Roofs (supplied by others)

Thermal blocks may be used (rigid polystyrene foam) in Standing Seam Roofs. Blocks are placed on top of the insulation at the structural members and may be temporarily held in place with double-faced tape or spray adhesive until the roofing panels are put on. Roof panels are mechanically fastened to the top of the purlins through the thermal blocks.



## NAIMA

NAIMA 202-96® (Rev. 2000) Certified Metal Building Insulation is fiber glass insulation manufactured and marketed specifically for the metal building market. This type of insulation is certified to the NAIMA 202-96® (Rev. 2000) Standard for Flexible Fiber Glass Insulation for Use in Metal Buildings.

All fiber glass insulations are not made the same, and some are not designed for use in metal buildings. The requirements for metal building insulation is unique.

NAIMA 202-96® insulation must have additional tensile strength and greater thickness recovery after compression.

### What Does Metal Building Insulation Do?

#### Controls Heat Flow

Metal building insulation acts as a barrier to slow down the movement of heat, keeping it inside the building in winter and outside the building in summer. By controlling the rate of heat transfer through the building, insulation reduces energy consumption, resulting in lower fuel bills and a cleaner environment.

#### Prevents Condensation

Metal building insulation with a vapor retarder (Skyliner Fabric) limits the passage of water vapor and prevents it from condensing within the insulation or on the interior surfaces of the building.

#### Controls Noise

Metal building insulation greatly reduces the level of both exterior and interior noise by reducing transmission of exterior sounds to the interior of the building and absorbing reverberating sounds within the building.

#### Increases Lighting Efficiency

Skyliner bright white fabric provides a bright, attractive wall and ceiling treatment that acts as a reflector to increase lighting efficiency.

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Questions? Contact your Bay District Manager,  
call **844.999.7153** or visit **[www.SkylinerSystems.com](http://www.SkylinerSystems.com)**