



## **STANDARD 25: TUBULAR SKYLIGHT INSTALLATIONS**

SEPTEMBER 1995

REVISED SEPTEMBER 2003, RESOLUTION 01-03-131

GENERAL REQUIREMENTS REVISED JUNE 2011, RESOLUTION 01-11-104

GENERAL REQUIREMENTS REVISED JANUARY 2016, RESOLUTION 01-16-08

REVISED FEBRUARY 2019, RESOLUTION 01-19-21

### **1.0 GENERAL REQUIREMENTS**

SEE STANDARD SECTION 1: GENERAL REQUIREMENTS

### **2.0 DEFINITION**

**2.1** “Tubular skylight” refers to skylights with a cylindrical roof-mounted light collector typically consisting of an acrylic lens set in a metal frame. A reflective sun scoop in the rooftop assembly directs sunlight into a metal or plastic tube with a highly reflective interior coating. The reflective tube guides sunlight to a diffuser lens mounted on the interior ceiling surface that spreads light throughout the room.

**2.2** Tubular skylights are sold under several different brand names. For the purpose of definition, some of the more common brand names include: Solatube, Daylight, Solar Bright, Sun-Dome, Sun-Tek, True Light, etc.

### **3.0 APPLICATIONS**

**3.1** Tubular skylight installer shall guarantee in writing, the watertight integrity of the skylight, tube and related roof area for 5 years from date of installation, and shall repair, without charge to owner, any such defects.

**3.2** All roofing work shall be in strict conformance with current building codes and any applicable Mutual Standard Drawings.

**3.3** No units shall be installed with the edge of the tubular skylight flashing within 12" of any vent, ridge or vertical structure.



- 3.4** Hypalon skirts will not be permitted as acceptable flashings.
- 3.5** All installations in flat roofs shall be as follows: PVC Cool roof, the skylight contractor must hire the Mutual roofing contractor to complete the tie-in to the roof deck.
- a.** Spud back the perimeter around the flashing edge a minimum of 10" and maximum 14", leaving roof surface smooth and gravel-free for primer and base felt application.
  - b.** Apply \*Conprime asphalt primer to flashing and scraped/spudded roof surface and let dry.
  - c.** Apply Roofing Mastic to base of flashing per manufacturer's specifications and press in place. Nail aluminum base through raised surface of outer ring, 10 inches on center.
- (First Ply/Base Ply)*
- d.** Apply \*Conhesive at the rate of 2 gallons per 100 sq. ft. and cover with \*MB25 base sheet, starting at vertical surface across the flashing and over roof surface to a point three (2) inches beyond the edge of the flashing.
- (Second and Third Ply)*
- e.** Apply a second ply of \*MB25 2" beyond the perimeter of the base ply and continue across roof, terminating at vertical surface, allowing the \*MB25 to ooze out slightly onto the vertical surface and above the ply. Apply a third ply of \*MB25 2" beyond the perimeter of second ply and continue across roof, terminating at vertical surface and again allow the \*MB25 to ooze out slightly onto the vertical surface and above the ply. Both plies to be embedded in \*Conhesive at the rate of 2 gallons per 100 sq. ft.
  - f.** Apply one layer of \*MB Cap embedded in \*Conhesive at the rate of 2 gallons per 100 sq. ft. starting at the bottom of the vertical surface across the newly installed plies, to a point seven (7) inches away from the flashing edge and allow the \*MB25 to ooze out slightly onto the vertical surface and above the ply.



- g. Nail perimeter of cap sheet 4 inches on center. Apply a 3 coarse application over cap sheet edge using roofing mastic and webbing. Float entire cap sheet surface with \*Conhesive at the rate of 2 gallons per 100 sq. ft.
  - h. Reapply gravel evenly to entire area, stopping at the tubular skylight vertical surface.
- 3.6 Pitched Roofs:** All pitched roof (over 3:12) installations shall be as follows:
- a. Asphalt Shingles: Laced into field as existing roof jacks are installed. No caulking will be used as primary water leak protection.
  - b. Tile/Concrete: Laced into field as existing roof jacks are installed. No caulking will be used as primary water leak protection. All tiles shall be saw cut and not "broken to fit".
  - c. Metal Shingles/Tiles: Laced into field as existing roof jacks are installed. No caulking will be used as primary water leak protection. All tiles shall be saw cut or sheared and not "broken or bent to fit".
- 3.7 Notification:** Member/contractor must notify the Manor Alterations Department of any broken/damaged roofing materials, before any installation begins. Additional roofing materials may be required for typical installations, due to breakage/damage. Member and contractor are responsible for restoring the roof to its original pre-installation condition, regardless of the amount of replacement required. All materials will match the existing manufacturer and color or approved equal by the Manor Alterations Department.
- 3.8 Final Inspection:** During the final inspection, should the Manor Alterations Department notice damaged/broken roofing materials that appear to be caused by the installer/installation and absent prior notice of damage, the Member/contractor will be responsible for the proper repair(s).
- 3.9 ASBESTOS:** Installations in existing acoustical sprayed ceilings may encounter asbestos. The Member(s) and contractor(s) must meet or



exceed requirements of federal, state and local government regarding asbestos removal procedures.

## **TUBULAR SKYLIGHT INSTALLATION SPECIFICATIONS**

(Prepared 7/26/00)

(Revised 9/9/03)

### **APPLICATIONS**

Contractor shall guarantee in writing, watertight integrity of the tubular skylight and related roof area for (5) five years from date of installation, and shall repair, without charge to owner, any such defects.

All alterations to Mutual structures require the issuance of a VMS Mutual Consent for Manor Alteration and VMS Staff inspection.

All roofing work shall be in strict conformance with current building codes and any applicable standard drawings.

No units shall be installed with the edge of the tubular skylight flashing within 12" of any vent, cricket, gravel stop, ridge, valley or vertical structure.  
All tubular skylight flashings are required to be min. 8" in height.

All tubular skylight installations require a 2" Turret Extension to conform to Mutual Standards height requirements.

All tubular skylight flashings and related parts to be painted either Flat Black (BUR Roofs); Flat Black or Orange (Tile and Metal Shingle Roofs); Flat Black or Tan (Comp/Shingle Roofs) or to match color scheme of roof.

### **FLAT ROOFS**

#### **Built-Up Roofing**

10", 14" and 16" tubular skylights are the only size units approved for installation on BUR roofs in United Mutual.



All BUR tubular skylight flashings are required to have a 2" metal extension turret installed, set in polyurethane sealant, to meet Mutual Standards for height requirements.

- a. Spud back the perimeter around the Spun Aluminum Flashing edge a minimum of 10" and maximum of 14", leaving roof surface smooth and gravel-free for primer and base felt application.
- b. Apply \*Celotex Asphalt Primer to Spun Aluminum Flashing and scraped/spudded roof surface and let dry.
- c. Apply Roofing Mastic to base of Spun Aluminum Flashing per manufacturer's specifications and press in place. Nail aluminum base through raised surface of outer ring 10" on center with 1-1/4" e.g. galvanized roofing nails.
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*(First Ply/Base Ply)*
- d. Apply \*S.I.S. Roof Adhesive (Cold Application) at the rate of 2 gallons per 100 sq. ft. and cover with \* VaporBar GB #25 Base Sheet, starting at tubular skylight vertical surface across the flashing and over roof surface to a point 2" beyond the edge of the flashing.
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*(Second and Third Ply)*
- e. Apply a second ply of \*Celo-Glass IV 2" beyond the perimeter of the base ply and continue across roof, terminating at tubular skylight vertical surface, allowing the \*S.I.S. Roof Adhesive to ooze out slightly onto the vertical surface and above the ply. Apply a third ply of \*Celo-Glass IV 2" beyond the perimeter of second ply and continue across roof, terminating at vertical surface and again allow the \*S.I.S Roof Adhesive to ooze out slightly onto the vertical surface and above the ply. Both plies to be embedded in \*S.I.S. Roof Adhesive at the rate of 2 gallons per 100 sq. ft.
- f. Apply one layer of \*Celo-glass Cap Sheet embedded in \*S.I.S. Roof Adhesive at the rate of 2 gallons per 100 sq. ft. starting at the bottom of the tubular skylight vertical surface across the newly installed plies, to a point 8" away from the flashing edge and allow



the \*S.I.S. Roof Adhesive to ooze out slightly onto the vertical surface and above the ply.

- g. Apply a 3 course application (mastic/webbing/mastic) over cap sheet edge using roofing mastic and webbing.

## **PITCHED ROOFS**

### **Asphalt Composition Shingles**

10" and 14" tubular skylights are the only size units approved for installation on pitched Composition Shingle roofs in United Mutual.

- a. **Pitched Metal Flashing:** The powder coated black epoxy based finish applied over a 0.032 in. thick aluminized steel stamped seamless flashing with 32 total added rigid ribs and 8 pre-punched fastener holes shall be laced into existing Asphalt Composition Shingles as existing roof jacks are installed.
- b. **Metal Turret Extension:** Shall be installed onto Pitched Metal Flashings with a polyurethane sealant and screwed into flashing with (4) #8x1/2 philips-head, self-tapping stainless steel screws.
- c. **Turret Shroud:** Shall be installed onto Pitched Metal Flashing and Turret Extension.
- d. No caulking will be used as primary water leak protection.

### **Concrete & Clay Tile**

10" tubular skylights are the only size units approved for installation on all tile roofs in United Mutual.

- a. **Counterbase Flashing:** injected molded polypropylene CC2 classified, 30% mica filled .125 inch thick mold tech pattern MT11365 finish base flashing shall be installed between rafters and be laced into existing underlayment as existing roof jacks are installed.



1. Monier concrete tiles over space sheathing and/or plywood with no underlayment do not require the installation of a Counterbase Flashing.
- b. **Secondary Flashing:** Polypropylene (Tile Retro Kit for 10" Solatubes) or .060 inch thick A93003 aluminum secondary pre-formed flashing shall be installed over Counterbase Flashing.

Polypropylene Turret Extension: shall be installed onto Secondary Flashing with a polyurethane sealant and screwed into flashing with (4) #8x1/2" philip head, self-tapping stainless steel screws.

- d. **Turret Shroud:** shall be installed onto Secondary Flashing and Turret Extension.
- e. No caulking will be used as primary water leak protection.
- f. All tiles shall be saw cut and not "broken to fit".

### **Metal Shingles**

10" tubular skylights are the only size units approved for installation on all tile roofs in United Mutual. Single flashing permitted only on metal shingle roofs.

- a. **Counterbase Flashing:** injected molded polypropylene CC2 classified, 30% mica filled .125 inch thick mold tech pattern MT11365 finish base flashing shall be installed between rafters and be laced into existing underlayment as existing roof jacks are installed.
- b. **Polypropylene Turret Extension:** shall be installed onto Counterbase Flashing with a polyurethane sealant and screwed into flashing with (4) #8x1/2" philips head, self-tapping stainless steel screws.
- c. **Turret Shroud:** shall be installed onto Flashing and Turret Extension.



- d. All tiles shall be saw-cut or sheared and not "broken or bent" to fit.

**Notification:** Member/contractor must notify the Alterations Division of any broken/damaged roofing materials, before any installation begins. Additional roofing materials may be required for typical installations, due to breakage/damage. Member and contractor are responsible for restoring the roof to its original pre-installation condition, regardless of the amount of replacement required. All materials will match the existing manufacturer and color or approved equal as determined by the Alterations Division.

**Final Inspection:** During the final inspection, should the Alterations Division Inspector notice damaged/broken roofing materials that appear to be caused by the installer/installation and absent prior notice of damage, the Member/contractor will be responsible for the proper repair(s).

**ASBESTOS:** Installations in existing acoustical sprayed ceilings may encounter asbestos. The Member(s) and contractor(s) must meet or exceed requirements of federal, state and local government regarding asbestos removal procedures.

**\* Product references, such as Conglas products, may be substituted for by equal or better product. All substituted products require approval from the Alterations Division.**