



STANDARD 27: TUBULAR SKYLIGHT INSTALLATIONS

SEPTEMBER 1995

REVISED MAY 2003, RESOLUTION 03-03-44

REVISED MAY 2007, RESOLUTION 03-07-46

GENERAL REQUIREMENTS REVISED APRIL 2011, RESOLUTION 03-11-49

GENERAL REQUIREMENTS REVISED JANUARY 2018, RESOLUTION 03-18-12

REVISED JUNE 2018, RESOLUTION 03-18-93

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

3.2 **Notification:** Member must notify the Alterations Division office of any broken/damaged roofing materials, before any installation begins. Additional roofing materials may be required for typical installations, due to breakage/damage. Member is 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 Permits and Inspections office.

- 3.3 Final Inspection:** During the final inspection, should the Alterations Division office notice damaged/broken roofing materials that appear to be caused by the installer/installation and absent prior notice of damage, the Member will be responsible for the proper repair(s).
- 3.4 ASBESTOS:** Installations in existing acoustical sprayed ceilings may encounter asbestos. The Member(s) must assure that the requirements of federal, state and local government regarding asbestos removal procedures are met or exceeded.
- 3.5** No units shall be installed with the edge of the tubular skylight flashing within 12" of any vent, ridge or vertical structure.
- 3.6** Hypolon skirts will not be permitted as acceptable flashings.
- 3.7** All tubular skylight flashings are required to be minimum 8" in height.
- 3.8** All tubular skylight installations require a 2" Turret Extension to conform to Mutual Standards height requirements.
- 3.9** 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.
- 3.10** Products: Henry Asphalt Primer (#103 or #105), Henry Cold-Ap Cement (#403), Henry Underlayment (#604), Henry Interply Adhesive (#902). Henry products may be substituted by an equal or better product. All substituted products require approval from the Permits and Inspections office.
- 3.11** **No trusses shall be cut in the installation of the skylights.**

4.0 INSTALLATION SPECIFICATIONS

4.1 FLAT ROOFS (Built Up Roofing)

- a.** 10", 14" and 16" tubular skylights are the only size units approved for installation on BUR roofs.
- b.** 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.

- c. Apply Henry Asphalt Primer to flashing and scraped/spudded roof surface and let dry.
- d. Apply Henry Cold-Ap Cement # 403 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)

- e. Apply Henry Cold-Ap Cement # 403 at the rate of 2 gallons per 100 sq. ft. and cover with Henry Fiberglass ply sheet 25lb #604 starting at vertical surface across the flashing and over roof surface to a point three (3) inches beyond the edge of the flashing.

(Second and Third Ply)

- f. Apply Henry Interply Adhesive #902 and a second ply of Henry Fiberglass Ply Sheet #604 two (2) inches beyond the perimeter of the base ply and continue across roof, terminating at vertical surface, allowing the Henry Interply Adhesive #902 to ooze out slightly onto the vertical surface and above the ply. Apply a third ply of Henry Fiberglass Ply Sheet #604 two (2) inches beyond the perimeter of second ply and continue across roof, terminating at vertical surface and again allow the Henry Fiberglass Ply Sheet #604 to ooze out slightly onto the vertical surface and above the ply. Both plies to be embedded in Henry Cold-Ap Cement # 403 at the rate of 2 gallons per 100 sq. ft.
- g. Apply one layer of *MB Cap embedded in Henry Cold-Ap Cement # 403 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 embed #11 Granule Aggregate or cap sheet (if flat or built up roof (BUR) is cap sheet).
- h. If cap sheet is used, nail perimeter of cap sheet 4 inches on center. Apply a 3 coarse application over cap sheet edge using Henry Cold-Ap Cement # 403 and webbing.
- i. Reapply gravel evenly to entire area, stopping at the tubular skylight vertical surface.

4.2 3 STORY BUILDINGS

Installation of tubular skylights on all three-story buildings are to follow Mutual Standards for Built-Up Roofing with the following changes:

- a. Install a (1) one-layer 5/8" type X drywall chase around the reflective tube. Drywall chase to be inclusive of attic area and to start from drywall ceiling and terminate at plywood roof sheathing. Each end and all incisions into the drywall chase to be filled with drywall compound.

4.3 PITCHED ROOFS: All pitched roof (over 3:12) installations shall be as follows:

4.3.1 Asphalt Composition Shingles

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

4.3.2 Concrete & Clay Tile

10" and 14" tubular skylights are the only size units approved for installation on all tile roofs in Third 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.
- c. 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".

4.3.3 Metal Shingles

10" and 14" tubular skylights are the only size units approved for installation on all tile roofs in Third 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" philip 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.