

# APC Dayliter® XRV-TP

## *Fiberglass Translucent Roof Mounted Explosion Relief Vent*

### **Application:**

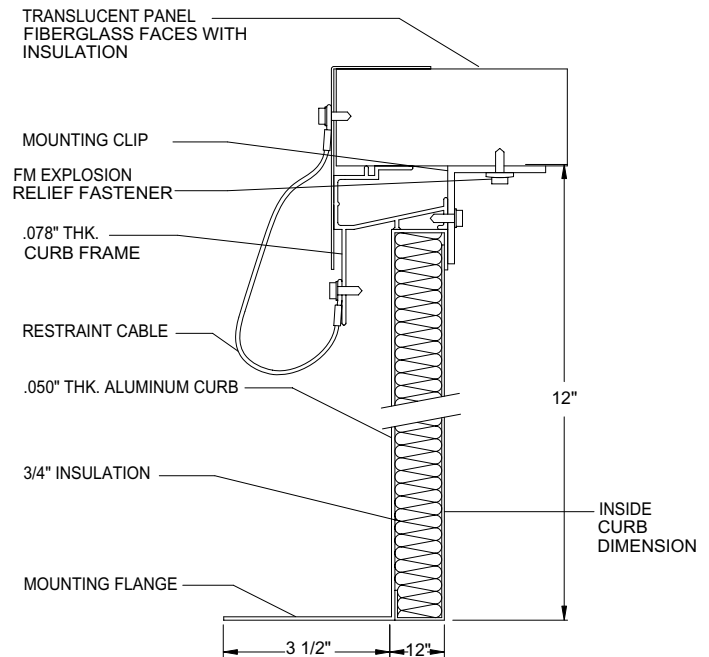
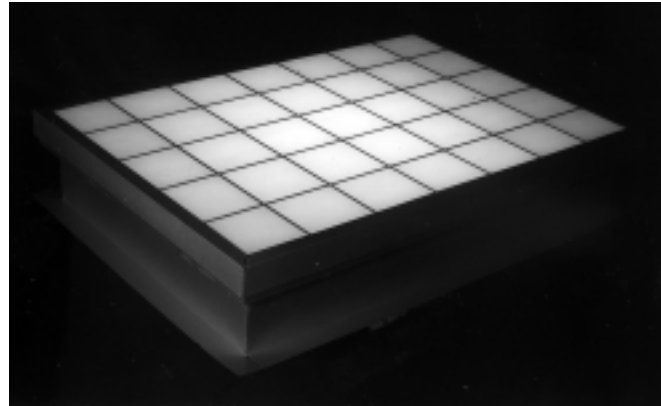
Any facility where potentially explosive atmospheres exist and require explosion venting. Specify XRV-TP roof vents when natural lighting and enhanced thermal performance is desired and/or when exterior walls are not present (i.e. internal rooms), when vent wall area is insufficient, when exterior walls are obstructed, facing public area, or where proximity to property line or other structures could prevent the use of wall vents.

### **Function:**

The translucent panel is held in place by Factory Mutual approved explosion relief fasteners. The fasteners are designed to collapse under the force of an explosion, releasing the dome and safety structure and allowing the pressure to vent.

### **Features and Benefit Include:**

- XRV-TP roof explosion vent is compliant with major building and fire codes.
- FM approved release fasteners.
- XRV-TP vents also serve as an energy saving sky light. Related energy savings may pay for the XRV-TP in as short a time as three years.
- Reinforced fiberglass panel can offer protection against damaging UV rays.
- Restraint tether is designed to prevent unit from becoming a dangerous projectile.
- Responsiveness to Pressure Shocks:  
The XRV-TP releases within 12-18 milliseconds.
- Standard release setting is 20-30 lb/ft<sub>2</sub>.
- Structurally Tough: The XRV-TP panel has impact strength of 69 ft.lb.



XRV-TP-2

## SPEC SECTION 13074

### PART 1 GENERAL

#### 1.01 Section Includes

A. Furnish all explosion & pressure relief vent skylights, frames, curbs, and attachments necessary to complete the work as indicated on the drawings and specified herein.

#### 1.02 Related Sections

- A. Division 6 Section "Rough Carpentry" for wood curbs and nailers.
- B. Division 7 Section "Roof Accessories" for curbs, roof hatches, and smoke vents.
- C. Division 7 Section "Flashing and Sheet Metal" for metal flashing for fire vents/explosion & pressure relief vents/skylights.
- D. Refer to roofing system sections for roofing accessories to be built into this roof system to accommodate work of this section.

#### 1.03 References

- A. American Society for Testing and Materials (ASTM)
- B. The Aluminum Association (AA)
- C. American Architectural Manufacturers Association (AAMA)
- D. NFPA 68 Guide for Venting of Deflagrations, 1999 Edition.
- E. Factory Mutual Engineering Corporation, 1-44, Damage-Limiting Construction, July 1991.

#### 1.04 Submittals

- A. General: Submit the following according to the Condition of Contract and Division 1 Specification Sections.
- B. Product data for each type of explosion & pressure relief vent specified, including details of construction relative to materials, dimensions of individual components, profiles, finishes, and light transmission values.
- C. Shop drawings showing fabrication and installation of explosion & pressure relief vents, including plans, elevation, sections, and details of components.

#### 1.05 Quality Testing

- A. Materials and work shall conform to the latest edition of reference specification specified herein and to all applicable codes and requirements of local authorities having jurisdiction.
- B. Explosion release device shall be FM listed and approved.
- C. Units shall meet NFPA 68 Design Guidelines for Deflagration Vents.
- D. Single Source Responsibility: Obtain explosion & pressure relief vents from one source of a single manufacturer.

#### 1.06 Delivery, Storage, & Handling

- A. All explosion & pressure relief vents, frames and curbs shall be factory assembled in units and shipped to the job site.
- B. Deliver to site in original, unopened containers and/or pallets bearing manufacturer's name and label.

#### 1.07 Limited Warranty

- A. Manufacturers shall provide limited warranty that the units provided will be free of defects in materials and workmanship for a period of five (5) years from date of substantial completion.

### PART 2 PRODUCTS

#### 2.01 Manufacturers

- A. APC Daylitter® products specified herein and indicated on drawings shall be manufactured by Conspec Systems, Inc., 49 Meeker Ave., Cranford, NJ, or other manufacturers with prior written approval.

#### 2.02 Materials

- A. Frames shall be constructed of ASTM B 221 alloy 6063-T5 aluminum, mitered and welded with sufficient seepage ports. Mill finished.
- B. Fasteners to be corrosion resistant.
- C. Curbs shall be constructed with a prefabricated aluminum curb, 3003-H14 alloy sheets. Curbs to be 12" high with mounting flange and

shall include manufacturer's standard insulation and wood nailer or double wall aluminum with insulation. Mill finished.

#### 2.03 Fabrication

- A. Model XRV-TP: Fiberglass Translucent Panel Explosion Relief Vents shall release automatically at an outward pressure of — lb/ft<sup>2</sup> using FM approved release devices.
- B. Panels shall be 2-3/4" thick and consist of architectural grade glass fiber reinforced polymer faces bonded to an interlocked aluminum I-beam grid core.
- C. Tether restraint included eliminating unit from being thrown from immediate area.

### PART 3 EXECUTION

#### 3.01 Installation

- A. Preparatory work: Standard trade practices are recommended for preparation of structural arrangements for installation of APC vents or skylights.
- B. Method: Individual APC units are furnished completely assembled, ready for installation on the roof deck, and for flashing into the roof system. Tandem arrays are delivered in accordance with drawings and instructions provided.
- A. Installation, cant, flashing, and roofing materials are not included.

## C/S GROUP OF COMPANIES

### MANUFACTURING/SALES/DISTRIBUTION LOCATIONS

**U.S.A.** Conspec Systems, Inc., Cranford, NJ Tel:(800)222-0201 Fax:(800)293-4509

**Canada** C/S Construction Specialties Company, Mississauga, Ont. Tel:(905)274-3611 Fax:(905)274-6241

For Phone Number of Nearest Representative, Call Toll Free (800)222-0201 (U.S.A.) and (888)895-8955 (Canada only).

For Assistance with Overseas Requirements, Fax C/S International (908)236-2903.

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