

Safety Venting

Model ERP-FS

08/23/2024

Suggested Specifications | Section 08 95 16

PART 1 GENERAL

1.01 Summary

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. Piping and hook up of fire suppression agent to pressure relief panel trip value.
- B. Steel Framing
- C. Sealant's Section

1.03 References

- A. Aluminum Association, Section 1, Specifications for Aluminum Structures.
- B. AAMA-603 Voluntary Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions.
- C. ASTM-D35 Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Self-supporting Plastics in Horizontal Position.
- D. ASTM-E-84 Standard Test Method for Surface Burning Characteristics of Building Materials.
- E. NFPA 68 Guide for Venting of Deflagrations, 1999 Edition.
- F. Factory Mutual Engineering Corporation, 1-44, Damage-Limiting Construction, July 1991.

1.04 System Description

- A. Fire suppression pressure relief panel designed to release upon activation of trip value and increase in static pressure differential between interior and exterior of 3 lb./ft².
- B. The panels shall be designed to withstand a maximum a maximum wind load of 30 lb./ft².
- C. The panel pressure relief system shall allow for manual retrieval and reset.

1.05 Submittals

- A. Manufacturer for approval prior to fabrication shall submit complete shop drawings.
- B. Installation instruction shall be submitted with the shop drawings.

1.06 Quality Testing

- A. The panel system shall be produced by a manufacturer regularly engaged in manufacture of similar products and with a verifiable history of successful product applications.

1.07 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.

1.08 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 one (1) year from date of substantial completion.

PART 2 PRODUCTS

2.01 Manufacturers

- A. Explovent® Basis of Design - manufactured by Construction Specialties subject to compliance with requirements listed. The grilles and related materials herein specified and indicated on the drawings shall be manufactured by: Construction Specialties, 3 Werner Way, Lebanon, NJ 08833. Tel: 800.233.8493. Email: cet@c-sgroup.com. No substitutions.
- B. Installation shall be performed in accordance with approved drawings and installation instructions.
- C. Manufacturer to have complete in-house finishing capabilities.

2.04 Materials

- A. Panels shall be semi-rigid insulated core with .032" (.81mm) thick 3003 or 5005 smooth aluminum alloy sheet laminated to both sides. Total depth of panel shall be 2" (50.8mm)
- B. Minimum panel size to be 18"x18". Larger sizes made to suit openings available.
- C. Panel framing components shall be .063" (1.6mm) 6063-T52 alloy extruded aluminum. All fasteners shall be aluminum or stainless steel.
- D. Exterior panel gaskets shall be a pile fiber type with a continuous polypropylene center fin. Interior gaskets shall consist of open cell compression foam and clad with a polyethylene liner.

2.03 Fabrication

- A. Fabricate the ERP-FS pressure relief panels to the sizes shown on the approved shop drawings.
- B. Panels shall be top hinged as detailed.
- C. All panels, frames, and release mechanisms shall be factory assembled in units and shipped to the job site.
- D. Head, sill, jamb, and mullion frame members to be one piece extruded aluminum structural members as detailed, and to have integral caulking slots. Mullions to be two-piece interlocking assemblies, which allow for expansion and contraction, and for individual panel remove-ability.
- E. All panels shall have exterior pile gaskets and interior compression (or magnet) gaskets to minimize air leakage and water entertainment when closed.
- F. The release mechanism shall be mounted to the panel frame.
- G. System options: Trip valve release mechanism may be replaced with a non-residual 24-vdc electromagnet catching device. System controls and wiring by others.

2.04 Factory Finishing

- A. To be 100% Fluoropolymer Resin Powder Coat - Finished to meet or exceed all AAMA 2605-5 criteria.

A. Color to be selected from manufacturers standard color selection.

PART 3 EXECUTION

3.01 Installation

- A. The vents must be installed in accordance with shop drawings, the installation instructions, and any special instructions on the shop drawing.
- B. Schedule 40 pipe with 300 lb. malleable iron fittings. Ports on the trip valve are $\frac{1}{4}$ " NPT female. Piping by others.