Safety Venting

**Model ERP-FS 08/23/2024**

Suggested Specifications | Section 08 95 16

PART 1 GENERAL

* 1. 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

1. Piping and hook up of fire suppression agent to pressure relief panel trip value.
2. Steel Framing
3. Sealant’s Section

1.03 References

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

1.04 System Description

1. 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.
2. The panels shall be designed to withstand a maximum a maximum wind load of
30 lb./ft2.
3. The panel pressure relief system shall allow for manual retrieval and reset.

1.05 Submittals

1. Manufacturer for approval prior to fabrication shall submit complete shop drawings.
2. Installation instruction shall be submitted with the shop drawings.

1.06 Quality Testing

1. 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

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

1.08 Limited Warranty

1. 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

1. 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.
2. Installation shall be performed in accordance with approved drawings and installation instructions.
3. Manufacturer to have complete in-house finishing capabilities.

2.04 Materials

1. 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)
2. Minimum panel size to be 18"x18". Larger sizes made to suit openings available.
3. Panel framing components shall be .063" (1.6mm) 6063-T52 alloy extruded aluminum. All fasteners shall be aluminum or stainless steel.
4. 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

1. Fabricate the ERP-FS pressure relief panels to the sizes shown on the approved
shop drawings.
2. Panels shall be top hinged as detailed.
3. All panels, frames, and release mechanisms shall be factory assembled in units and shipped to the job site.
4. 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.
5. All panels shall have exterior pile gaskets and interior compression (or magnet) gaskets to minimize air leakage and water entertainment when closed.
6. The release mechanism shall be mounted to the panel frame.
7. 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

1. To be 100% Fluropolymer Resin Powder Coat – Finished to meet or exceed all AAMA 2605-5 criteria.
2. Color to be selected from manufacturers standard color selection.

PART 3 EXECUTION

3.01 Installation

1. The vents must be installed in accordance with shop drawings, the installation instructions, and any special instructions on the shop drawing.
2. Schedule 40 pipe with 300 lb. malleable iron fittings. Ports on the trip valve are ¼” NPT female. Piping by others.