

Safety Venting

Model ERP-TB

08/23/2024

Suggested Specifications | Section 08 95 16

- A. Furnish all explosion & pressure relief panels, frames, and attachment hardware necessary to complete the work as indicated on the drawings, and as described in the specifications.

1.02 Related Sections

- A. Steel Framing Section
- B. Flashing and Sheet metal Section
- C. Sealants 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. ASTM-E-283 Standard Test Method for rate of air leakage through exterior windows, curtains walls and doors.
- F. NFPA 68 Guide for Venting of Deflagrations, 1999 Edition.
- G. Factory Mutual Engineering Corporation, 1-44, Damage-Limiting Construction, July 1991.

1.04 System Description

- A. Pressure relief panel system shall be designed to release at a static pressure differential between interior and exterior of 20-30 lb./ft² ± 10%.
- B. The panels and structure supports shall be designed to withstand a maximum wind load of 30 lb./ft² (1436 pascals). Note: Contact Construction Specialties if a higher loading requirement is needed.
- C. Each panel shall be equipped with a restraint mechanism designed to cushion the panel's deceleration as the full open position is reached.
- D. Panels shall have Factory Mutual approved release fasteners.
- E. The weight of the fabricated panel shall not exceed 2.5 lb./ft² (12.2 kg/m²).

1.05 Submittals

- A. The manufacturer shall submit complete shop drawings for approval prior to fabrication. Drawings shall show product location, fabrication details, specified static release loads and static release forces.
- B. Installation instruction instructions 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 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® ERP-TB thermally broken explosion & pressure relief panel systems 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. All panels shall be permanently marked with the design release pressure and the maximum static release force.
- C. Installation shall be performed in accordance with approved drawings and installation instructions.
- D. Manufacturer shall have complete in-house finishing capabilities.

2.02 Materials

- A. Panels shall be rigid insulated core with .032" (.81mm) thick 3003 or 5005 stucco (or optional smooth finish) aluminum allot sheet laminated to both sides. Total depth of panel shall be 2" (50.8mm).
- B. Panel framing components shall be .063" (1.6mm) 6063-T52 alloy extruded aluminum. All fasteners shall be aluminum or stainless steel.
- C. Exterior panel gaskets shall be extruded PVC.

2.03 Fabrication

- A. Fabricate the pressure relief panels model ERP-TB to the sizes shown on the approved shop drawings.
- B. All panels, frames, and release mechanisms shall be factory assembled in units and shipped to the job site.
- C. Head, sill, jamb, and mullion frame members to be one piece extruded aluminum structural members as detailed.
- D. Curtain wall technology to be employed in the design of perimeter frame members.
- E. Explosion relief device to be FM approved.

Factory Finishing

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