

Safety Venting

Model ERL

10/08/2024

Suggested Specifications | Section 08 95 16

PART 1 GENERAL

1.01 Summary

- A. Furnish all operable explosion relief vents necessary to complete the work as indicated on the drawings, and as described in the specification.

1.02 Related Sections

- A. Drawings and general provisions for the contract, including General and Supplementary Conditions and Division 1 Specifications.
- B. Steel Framing Section
- C. Flashing and Sheet metal Section
- D. Sealant Section

1.03 References

- A. AMCA 500 (Air movement Control Association) Test Method for Louvers, Dampers, and Shutters.
- B. Aluminum Association, Section 1, Specifications for Aluminum Structures.
- C. AAMA-603 Voluntary Performance Requirements and Test Procedures for Pigmented Organic Coating on Aluminum Extrusions.
- D. ASTM-D35 Standard Test Method for Rate of Burning and/or Extent and Time of Building of Self-supporting Plastics in Horizontal Position.
- E. ASTM-E-84 Standard Test Method for Surface Building Characteristics of Building Materials.
- F. NFPA 68 Guide for Venting of Deflagrations, 1999 Edition.

1.04 System Description

- A. Pressure relief panel system shall be designed, and shop calibrated to release at static pressure differential between interior and exterior of _____ lb./ft² (_ pascal) $\pm 10\%$.
- B. The operable explosion relief vent shall be designed to withstand a maximum wind load of 30 lb./ft² (1436 Pascal). Note: Contact Construction Specialties, Inc. if a higher loading requirement is needed.
- C. System design shall allow for non-destructive testing in the field to verify that the panels' release at the specified static design pressure.
- D. The operable explosion relief vent shall be opened by a building pressure rise or manually using a pole actuator.
- E. Once operated by an explosion the vents are to remain open until explosion has subsided.

1.05 Submittals

- A. The manufacturer for approval prior to fabrication shall submit complete shop drawings. Drawings shall show product location, fabrication details, specified static release loads and static release forces.

B. Installation instructions shall be submitted with the shop drawings.

1.06 Quality Testing

- A. Perform work in accordance with AMCA.
- B. The operable explosion relief vent shall be produced by a manufacturer regularly engaged in manufacturer of similar products and with a verifiable history of successful product applications. Manufacturer must have 5 years' proven experience.
- C. Products equal to this specification in design, performance, and testing shall be considered, provided they are submitted for approval at least 10 days prior to bid date. Submittal for approval shall include product literature, and details, product samples, and verification of non-destructive field-testing capabilities. Failure to comply with these requirements shall be caused for rejection.

1.07 Delivery, Storage, and Handling

- A. 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® ERL 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. Each panel shall be shop calibrated and tested for proper operation and for release at the design loads specified on the approved drawing.
- C. All panels shall be permanently marked with the design release pressure and the maximum static release force.
- D. Manufacturer shall have complete in-house finishing capabilities.

2.02 Materials

- A. Heads, sill, jambs, and mullions to be one-piece structural members of 6063-T52 alloy with integral caulking slot and retaining beads. Mullions to be sliding interlock type.
- B. Blades to be one-piece extrusions. Extrusion thickness to be .081". Louver blades equipped with vinyl blade gaskets.
- C. All fasteners to be Climaseal coated steel.

2.03 Fabrication

- A. Fabrication the pressure relief panels to the sizes shown on the approved shop drawings.
- B. All vents, frames, and releases mechanism shall be mounted to the panel frame and shall be shop calibrated and tested for the design loads specified on the approved drawings.
- C. The release mechanism shall be mounted to the panel frame and shall be shop calibrated and tested for the design loads specified on the approved drawings.

- D. Head, sill, jamb, and mullion frame members to be one piece extruded aluminum structural members as detailed. Intermediate mullions; when required, mullions to be two-piece interlocking type.
- E. Sill extensions required as indicated.
- F. Screens (Optional): To be furnished with $\frac{1}{2}$ " (12.7mm) expanded mesh bird screen secured with a .081" (2.06mm) extruded aluminum frame. Screens to be fastened to exterior or interior of vent. Screen and frame to be standard mill finish.

2.04 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 manufacturer's standard color selections.

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 drawings.