

Explovent® ERP-TB

Thermally Broken Insulated Core Explovent®

Application:

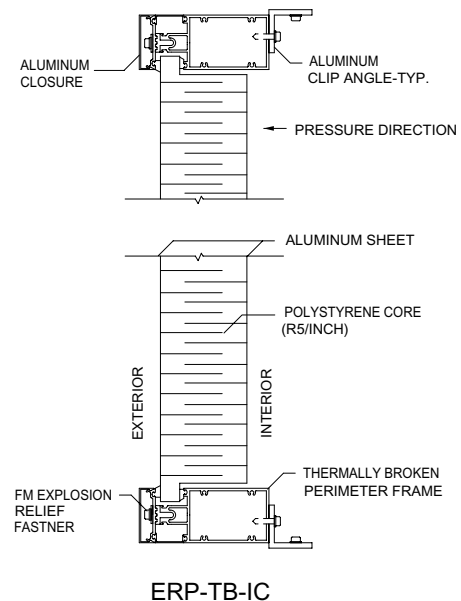
Any facility where potentially explosive atmospheres exist and require explosion venting with the need for increased thermal capabilities. Facilities handling hazardous materials are required by numerous building codes to provide adequate safeguards against explosions.

Function:

An explosion vent is designed to be the weakest part of the external structure. As the explosion vent detects the pressure rise, it opens quickly allowing the rapidly expanding heated gases to be released to the outside.

Technical Features and Options:

- Explosion release system featuring superior thermal and air leakage performance. Greatly reduces your heating and cooling cost over conventional systems.
- System adopts state of the art curtain wall technology to maintain the continuity of vapor barrier seals and reduces the development of condensation.
- Thermal Break Vents meet '98 NFPA 68 Guide for Venting of Deflagrations and major building and fire code requirements.
- Lightweight low inertia assemblies designed to meet '98 NFPA 68 requirements.
- System utilizes FM approved explosion relief fasteners.
- System is shipped fully assembled and shop calibrated to specified performance.
- Available in Kynar 500®, Duracron, or anodized architectural finishes.
- Restraint tether prevents unit from becoming a dangerous projectile.



SPEC SECTION 13074

PART 1 GENERAL

1.01 Section Includes

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 ___ lb/ft² (___ pascals) \pm 10%.
- B. The panels and structure supports shall be designed to withstand a maximum wind load of 30 lb/ft² (1436 pascals). Note: Contact Conspec Systems, Inc, (or C/S Construction Specialties Company) 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 in 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. All Explovent® products are sold with standard limited warranty, copy of which is available at our main office.

PART 2 PRODUCTS

2.01 Manufacturers

A. Explovent® ERP-TB thermally broken explosion & pressure relief panel systems shall be manufactured by Conspec Systems, Inc., Cranford, NJ; or C/S Construction Specialties Company, Mississauga, Ontario.

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 instruction.

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. Duracron Super 600®: Panels and frames shall be finished with a thermosetting acrylic costing. Total coating to be minimum 0.8 mil (0.02mm) thick.

B. Kynar 500®: Panels and frames shall be finished in full strength, 70% resin Kynar 500® Fluoropolymer Coating consisting of prime coat and color coat minimum 1 mil (0.025mm) thick.

C. 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.

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.

©Copyright 2001 Conspec Systems, Inc. Reserves the Right to Make Design Changes or to Withdraw Any Design Without Notice.

Printed in U.S.A.