

Explosion Relief Vent Panels

Explosion Protection System Components

Advantages:

- 3 to 5 day lead time for shipment minimizes downtime and the need to manage inventory.
- Standard sizes allow for ease of selection.
- Choice of flat, domed, and curved vent panels provide the right venting protection for each application. Custom vent panel sizes, configurations, and ratings also available.
- Proven design provides fast and reliable operation with 100% venting efficiency.
- Easy to install and maintain, vent panels reduce plant operating costs.
- Designed in accordance with NFPA 68 and requirements and ATEX certified.
- Can withstand normal clean-in-place (CIP) procedures.
- Optional vent panel frames are available to withstand severe industrial environments.



Application

IEP Technologies Explosion Vent Panels are designed to minimize damage to process vessels, ducts, and other industrial structures in the event of a deflagration involving combustible materials. They are relief devices designed to rupture at a predetermined pressure which allows the fireball and pressure from a deflagration to vent into a safe area. These highly efficient vent panels fit into the walls of a process volume and are available in a variety of sizes, configurations, ratings, and materials to suit specific applications.

Descriptions

Rectangular Domed – The rectangular domed explosion vent is designed for high vacuum and high-cycling applications such as in dust collectors and bag houses. The rectangular domed vent is made from stainless steel and its domed design provides long term durability and negative pressure resistance without the need for additional vacuum supports. Its pressure spike dampener allows operation up to 70% of its rated pressure, and standard features include integrated flange gaskets.



Rectangular Flat - The rectangular flat vent is made from stainless steel and provides long term durability and aerodynamic advantages when compared to other domed vent alternatives, especially when used in cyclones and similar equipment. Its pressure spike dampener and cross ribs allow operation up to 50% of its rated pressure, and standard features include folded edges and integrated flange gaskets. The rectangular flat vent is an excellent alternative to domed vent panels when the negative pressure does not exceed 50% of the rated rupture pressure. Rectangular flat vents are available with and without the pressure spike dampener and are also available in versions that do not require an outlet hold-down frame.



Round Domed – The round domed vent is a crowned, round explosion vent designed for use with round ductwork and cylindrical vessels. The round domed vent is made from stainless steel and its domed design provides long term durability and negative pressure resistance without the need for additional vacuum supports. Its pressure spike dampener allows operation up to 70% of its rated pressure, and standard features include integrated flange gaskets.



Curved - The curved vent is made from stainless steel and is designed for installation on the curved walls of cyclones and other similar process vessels. The curved vent provides aerodynamic advantages when compared to other flat and domed vent alternatives when the negative pressure does not exceed 50% of the rated rupture pressure.

Specifications

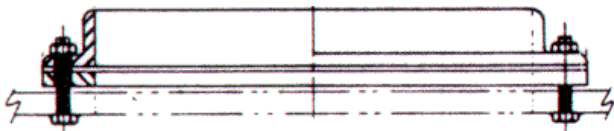
Stock Vent Panel Specifications							
Type	Size (in)	Relief Area (in ²)	Burst Pressure (psig @ 68°F)	Burst Tolerance (psig)	Operating Pressure Range (psig)	Temperature Range (°F)	Gasket
Rectangular Domed	12 x 24	265	1.45	± 10%	-2.8 to 1.0	-58 to 392	Silicone
	24 x 24	550			-2.8 to 1.0		
	18 x 35	597			-2.1 to 1.0		
	24 x 36	830			-2.8 to 1.0		
	36 x 36	1255			-1.4 to 1.0		
	36 x 44	1535			-1.4 to 1.0		
	44 x 44	1910			-1.4 to 1.0		
Rectangular Flat	12 x 24	265	1.45	± 10%	-0.7 to 0.7	-58 to 392	Silicone
	18 x 35	597					
	24 x 36	830					
	36 x 44	1535					

Additional sizes from 12" x 12" through 44" x 69" are available.

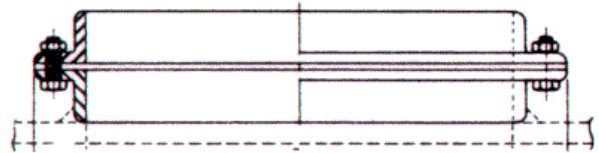
Available options include:

- Hygienic Design
- Enclosed exterior insulation (40mm to 100mm thicknesses available)

Mounting Options



Mounting Frames for Bolted Installations



Mounting Frames for Welded Installations

Burst Sensor

All vent panels are available with an optional burst sensor which provides an immediate indication that the vent panel has ruptured. Burst sensors can be provided with vent panels at the time of order or added after installation to most vent panels.

Ordering Information

IEP Technologies explosion vents and venting systems are designed in accordance with NFPA 68 Guide for Venting of Deflagrations. Information required for product selection includes volume of enclosure to be protected, process temperature and pressure ranges, details of material(s) processed, and the required reduced explosion pressure. Consult IEP Technologies for technical design assistance in selecting the proper vent panel(s) for your specific application.