



## Rembe Explosion Vents

R-1.1

### INTRODUCTION

Rembe Explosion Vents are the first line defense against the effects of an explosion. The non fragmenting devices provide the venting of the effects of the flame and pressure resulting from a deflagration. The vents are available in many versions to fit process conditions.

### CONCEPT

All forms of material have a pressure resistance. By design the resistance can be adjusted by cutting the material to provide weak structural points. Explosion vents use material, usually stainless steel, laser cut in a pattern to allow failure of the material along the pattern at a predefined pressure setting. The pattern allows vent opening without permitting the material to fragment. The standard pattern opens in a U pattern like a door with one side acting as the hinge. By using material with a low mass per square foot of surface area, the vents can



be repeatedly manufactured to exacting predictable standards with respect to pressure release and response time.

### BENEFITS

- √ Low Cost
- √ Low Maintenance Costs
- √ Optional High Cyclic Resistance
- √ Low relief pressure

### DESCRIPTION

Rembe explosion vents come in a wide variety of shapes, sizes, pressure settings, material and gasketing. All vents are designed to comply with VDI and/or NFPA design standards. Custom vent designs are available on request. Rembes three segment vents provide two stainless steel outer layers with a Teflon inner layer. The bursting discs are clamped directly between flanges, angular frames or rings. Rembe circular three segment domed vents are the standard units provided. Diameters from 20 to 120 inches and pressure ratings from .75psi





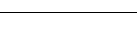
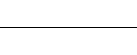
to 3 psi can handle all standard applications. A single piece economy vent is available but has a minimal operating vs. burst pressure rating. For sterile and aseptic applications Rembe offers a hygienic design. The special construction places the breaking points inside the clamp frame or flange area which guarantees a smooth, non-porous and completely closed surface to the product. The vent is ideal for food and bio-chemical processing areas.

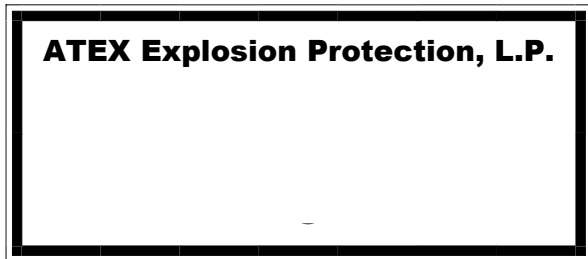
Rembe manufactures a rectangular three segment explosion vent. Vents are available from 500 cm<sup>2</sup> to 2 m<sup>2</sup> with pressure ratings of .05 to .5 bar (the standard rating is .1 bar). Rembes domed construction ensures a long service life

even with continuous fluctuating working pressures and especially pressure pulsing.

Optional flanges, seal gaskets and tools are available to meet the most demanding installation conditions. Remote optional signaling switches are available as required.



Low Burst Pressure & Explosion Venting	Design Type	Design Composition	Size Availability	Pressure Range	Vacuum Tolerance
BT-OBV-F BT-OBV-FL Three Segment Disc	Domed Design		From 2" Up to 24" Dia.	From .75 psi Standard 1.5, 3 & 7.5 psi	Op. P. 70% Good for Vacuum
BT-ODU-F BT-ODU-FL Three Segment Disc	Domed Design		From 2" Up to 24" Dia.	From .75 psi Standard 1.5 & 3 psi	Op. P. 80% No Vacuum
BT-ODV-F BT-ODV-FL Three Segment Disc	Domed Design		From 2" Up to 24" Dia.	From .75 psi Standard 1.5 & 3 psi	Op. P. 80% Vacuum Rate Const. Depend.
ODV/ODU Rectangular Three Segment Disc	Domed Design		From 78 in <sup>2</sup> Up to 2.4 yd <sup>2</sup> (21.5 ft <sup>2</sup> )	From .3 psi Standard .75 & 1.5 psi	Op. P. 70% Vacuum Rate Const. Depend.
BT-ERO-FL Sterile Bursting Disc Circular	Homogeneous S.S. to Process Side		From 8" Up to 55" Dia	From 1.5 psi Up to 30 psi	Op. P. 50% Vacuum Rate Const. Depend.
ERO Sterile Bursting Disc Rectangular	Homogeneous S.S. to Process Side		From 78 in <sup>2</sup> Up to 2.4 yd <sup>2</sup> (21.5 ft <sup>2</sup> )	From .75 psi Up to .1.5 psi Standard 1.5 psi	Op. P. 50% Vacuum Rate 75 in WC



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