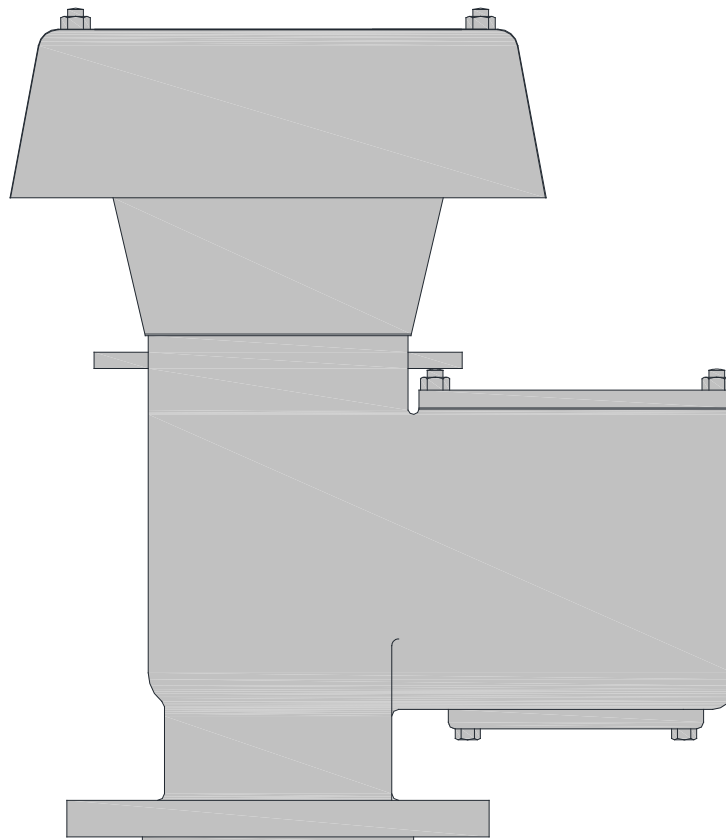


**B900 SERIES**  
**PRESSURE VACUUM RELIEF VALVE WITH**  
**INBUILT FLAME ARRESTOR**



# B900 SERIES

## PRESSURE VACUUM RELIEF VALVE WITH IN-BUILT FLAME ARRESTOR

### Tank Protection Device

Typically called as Combo Unit is a tank protection device, which safeguards tank/ vessel from over pressurization or fire. This is a combination of Pressure Vacuum Relief Valve with in-built Flame Arrestor.

Pressure Vacuum Relief Valve PVRV is a protection device designed to protect the tank from possible over pressurization. The pressurization can be positive or negative.

Flame Arrestors are generally deflagration type in crimped metal ribbon construction.

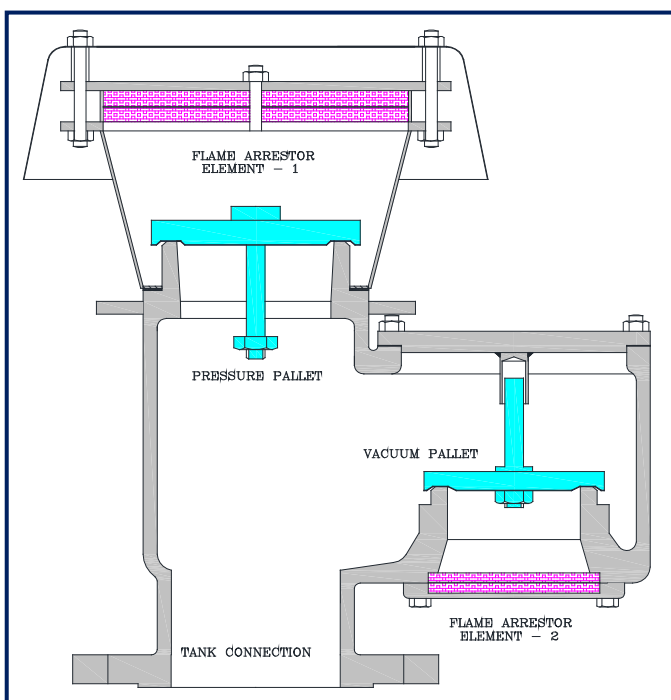
#### Typical Applications

- Safety Device of Tank Blanketing System
- Storage Tanks with Nitrogen Blanketing
- Storage Tanks without Nitrogen Blanketing
- Process Vessels and Reactors

PVRV is combination of Pressure Relief Valve and Vacuum Relief Valve. In the event of increase in pressure inside the tank due to various reasons the device allows the excess pressure to relieve and maintain the tank under its desired pressure. Similarly, if the container goes under vacuum due to any reason, the device allows the ingress of atmospheric air inside the container affecting rise in pressure to the level of atmospheric pressure and safeguarding container against possible collapse due to evacuation.

These are generally, dead weight type for standard set pressures. If required, these can be given as spring loaded for higher set pressures.

Flame Arrestor is designed to control transmission of flame in container with the help of arrestor element. The element quenches flame by absorbing and dissipating its heat to below the flash point. The arrestor dispenses and cools an approaching flame to a temperature below the vapor's ignition point thus protecting the unprotected side of the device.



This Pressure Vacuum Relief Valve with built-in Flame Arrestor is a compact unit and less in weight. Being less in weight and friendly for cleaning of flame arrestor element and maintenance of pallets, these are preferred over the conventional separate in-line Flame Arrestor and Breather Valve combination.

These are designed specifically to provide separate flame arrestor elements for both pressure relief as well as vacuum relief port.

The Flame Arrestor Elements are Crimped Metal Ribbon design which ensures lesser pressure drop and has better life with ease of cleaning. Also, these are replaceable and can be changed at site.

# B900 SERIES

## PRESSURE VACUUM RELIEF VALVE WITH IN-BUILT FLAME ARRESTOR

### FEATURES

- **Built In Flame Arrestor:** Construction of the unit is such that the Flame Arrestors are provided on the Pressure Vacuum Relief Valve body itself.
- **Separate Flame Arrestors for each port :** Pressure Relief Port as well as the Vacuum Relief Port is equipped with separate Flame Arrestor each.
- **Cleaning of Flame Arrestor Element:** Cleaning of Flame Arrestor Elements is easy and less time consuming and can be done without removing the unit from the tank nozzle.
- **Easy Maintenance:** The maintenance and inspection of the pressure and vacuum pallets is easy and less time consuming.
- **Soft Seated Design:** Combination of metallic and soft seating enhances performance at low set values and reduces the leak rate.
- **Material selection:** As a standard we provide trim material as AISI 316. Wide range of material is available to suit various services for different process fluids including corrosive fluids. NACE compliance can be provided for sour services.
- **Minimum Maintenance Cost:** The general replacement parts are polymer parts like Diaphragm Seals and Gaskets only and thus the maintenance cost is very low.

### SPECIFICATIONS

#### Design Specifications

Reference Standard – API 2000

Available Set Values –

Relief Set Value : 5 mBar to 1,000 mBar and higher on request

Vacuum Break Value : (-)2 mBar to (-)500 mBar and higher on request

Design Temperature –

(-)20 to 180<sup>o</sup>C with Teflon polymer

#### Material Specifications

Body – Carbon steel, Stainless Steel 304, Stainless Steel 316, PTFE Lined CS, PTFE Lined SS and other on request

Diaphragm Seals – PTFE

Internals – AISI316 (Standard), AISI304, 304L, 316L, PTFE, Monel, Hastalloy B/C and other on request

Flame Bank – AISI316 (Standard), AISI304, 304L, 316L, Hastalloy B/C and other on request

- Other special material available on request. Please consult with our Sales team.

#### Constructional Specifications

Body size – 1” to 12” all standard sizes and higher sizes on request can be designed and supplied

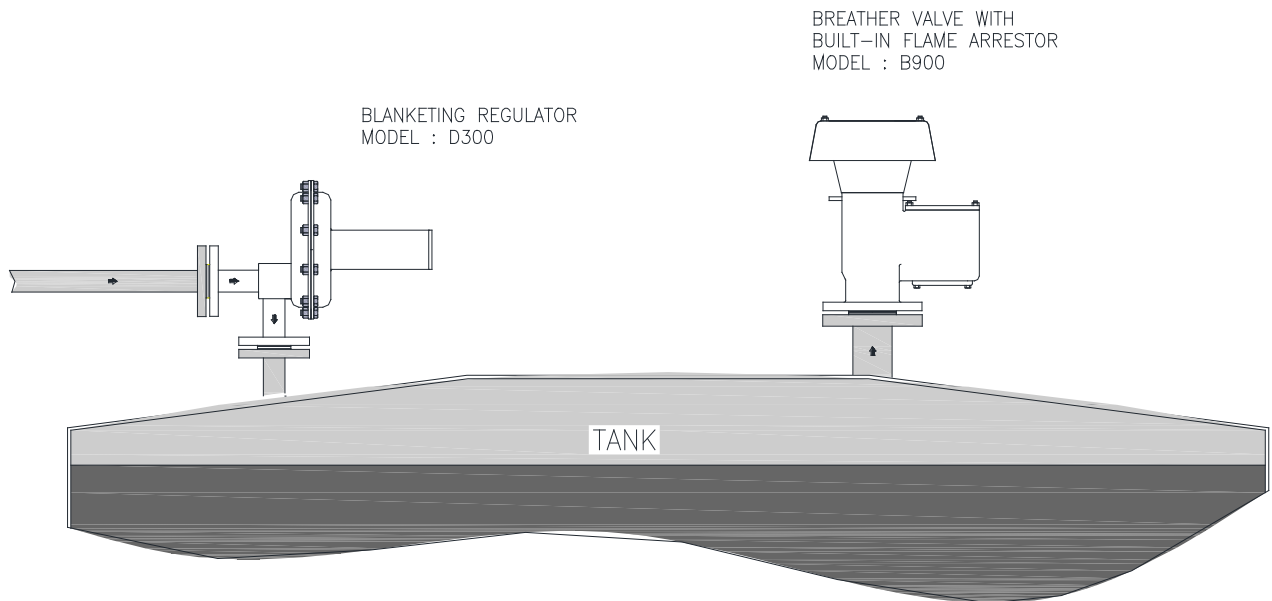
End Connection –

Flanges drilled to ANSI 150# (Standard), SMS Union, Tri-clover Ends and others on request can be provided

# B900 SERIES

## PRESSURE VACUUM RELIEF VALVE WITH IN-BUILT FLAME ARRESTOR

### TYPICAL INSTALLATION



### TYPICAL BLANKETING SYSTEM AND COMPONENTS

**Typical Installation :** Typical Installation indicating the mounting of the Low Pressure – Blanketing Pressure Regulating Valve and Pressure Vacuum Relief Valve with in-built Flame Arrestor installed on a small storage tank / process vessel.

**D300 – Low Pressure Angle Type Self Actuated Blanketing Pressure Regulator**

**B900 – Pressure Vacuum Relief Valve with Built-in Flame Arrestor**

### ORDERING SPECIFICATIONS

FLUID MEDIA STORED / PROCESSED

TANK SIZE

TANK DESIGN PRE – POSITIVE

PUMP IN RATE

BODY MOC

TANK VOLUME

TANK DESIGN PRE – NEGATIVE

PUMP OUT RATE

INTERNALS MOC



Golden Park - Phase II

MEGH - A/815

Kalyan West - 421 301

Maharashtra, India.

Email : [sales@planetvalves.com](mailto:sales@planetvalves.com)

Website : [www.planetvalves.com](http://www.planetvalves.com)

RT.B900.1212