

Protective solutions

Applications

The PVE-1/150 combination blast valve is used as air intake valve of NBC-filtration systems in Civil Defence and military shelters. The PVE-1/150 is a combined blast valve, gastight closing valve and a pre-filter specially designed for protecting the air intake of NBC-filters and filtration systems.

Specification

Manufacturer of PVE-1/150 combination blast valve is Temet, Helsinki Finland.

The PVE-1/150 combination blast valve comprises a spring balanced pressure disk moving on a spindle and closing the air passage against seats in response to both positive and negative phase of the blast. The valve mechanism is mounted in a deep drawn valve casing made of steel. The valve has a manually operated gastight closing valve and an integrated pre-filter. An optional pre-heater for drying the intake air can be installed in the valve casing. The valve is completely corrosion resistant. The pressure disk is made of aluminum alloy. The valve casing and wall sleeve are made of structural steel, and either hot dip galvanized or coated with epoxy powder paint.

Design Criteria

The PVE-1/150 combination blast valve is made in accordance with specific provisions issued by the Finnish Ministry of Interior. The PVE-1/150 is type tested and approved for use by the Technical Research Centre of Finland / VTT Building Technology, an Independent Testing Authority mandated to perform type inspection for shelter equipment and systems by the Ministry of Interior. Type test reports as well as additional test data are available upon request.

Test and performance data

The valve is designed and tested to withstand multiple long duration blast loads having peak reflected overpressure of 3 bar.

The valve is shock tested in horizontal and vertical directions with a mechanical shock of installation base having a rapid change in velocity of 1.0 m/s and acceleration of 20 g.

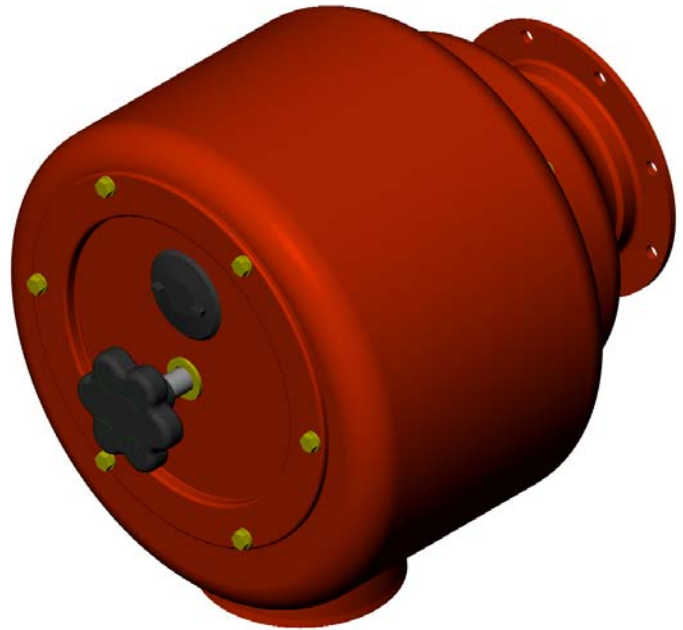
The valve is designed to function within operating temperature range of -20 ... +80 °C.

Type test report

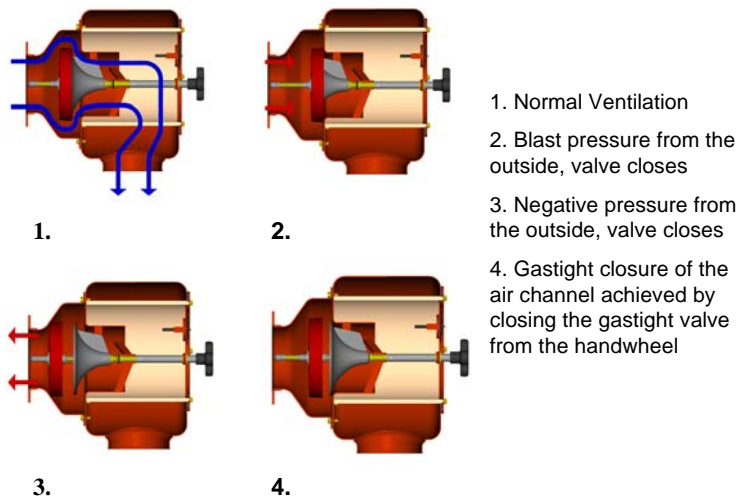
VTT type test report and additional test data is available upon request.

Other documents related to PVE-1/150 combination blast valve:

- Installation Instructions
- Operation & Maintenance Instructions

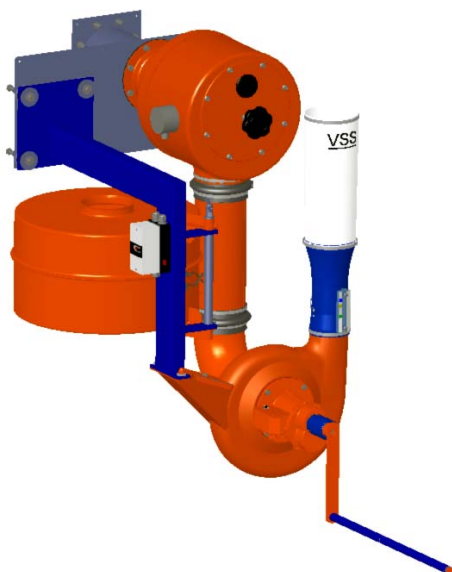


PVE-1/150 Combination Blast Valve

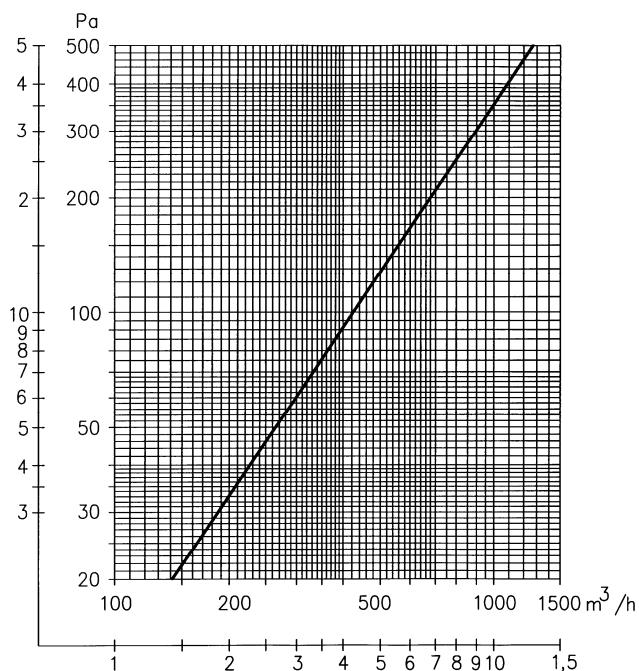


PVE-1/150 Blast Valve Operation Principle

Typical installation

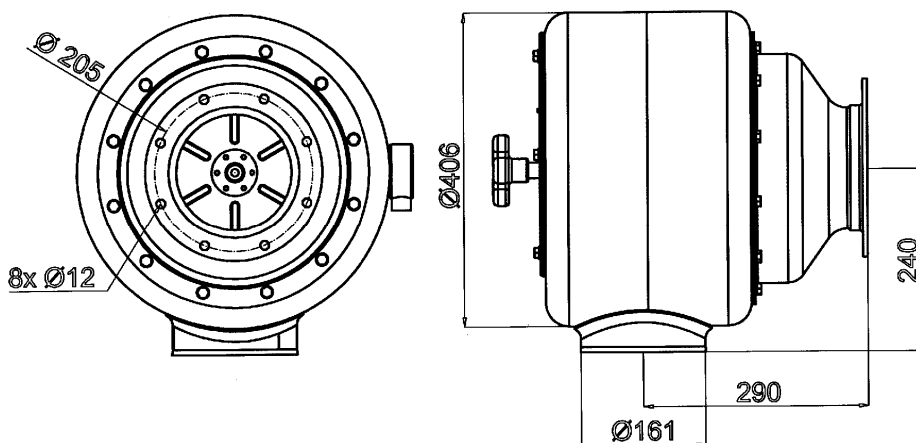


PVE-1/150 combination blast valve installed in a VIL-150 Emergency Ventilation Unit



Air flow characteristics measured at 20 °C corresponding to air density of 1.2 kg/m³

PVE-1/150 Combination Blast Valve dimensions



Design - Production – Installation – Maintenance - Consultation