

Tank venting

SCANVENT P/V VALVE

Introduction

The SCANVENT high velocity p/v valve is the result of extensive research aimed at achieving the optimal balance between minimizing tank vapor loss and providing non-oscillating behavior.

Application

Packaged in a straightforward design that caters to low maintenance needs, this valve incorporates a distinctive combination of magnet power and air brakes, which is both unique and patented. It stands out as a genuinely non-oscillating solution, aligning with the two-second, no-metal-to-metal contact definition outlined in ISO 15364:2021.

When maintenance is necessary, the entire inside trim can be lifted out in one lot, re-placed, and the crew can easily remove seats and discs for repair or replacement. There is no need to involve the factory or to use expensive service engineers.

Working principle

During loading, the SCANVENT valve is a full-lifting valve with immediate high capacity upon reaching the opening setting, thanks to its magnet/weight/booster combination. The opening settings are adjustable for both pressure and vacuum units. During voyage, a small VOC dedicated valve handles the small thermal venting volumes necessary for the integrity of the tanks. This valve re-seats at its opening setting. Put differently, ullage space pressure, be it VOC or inert gas, is never lost below the VOC valve's opening pressure. This will be the Target Pressure according to IMO MSC/Circ. 680. The VOC handling simply cannot be further improved.

The result of this simple but efficient design is optimum VOC handling and minimum use of the inert gas plant.

Benefits

- Simple rigid design
- Seat/disc easy to clean
- Plug & Play module system
- Large inside clearance
- Lowest possible leakage rate



Approvals

The SCANVENT high velocity p/v valve complies with all current regulations as well as those scheduled to come into force, including:

- IMO Circ. 677, Rev. 1
- ISO 15364:2021
- ISO 16852:2016

The valves are certified by all major classification societies and hold MED approval for use on vessels registered under EU flags.

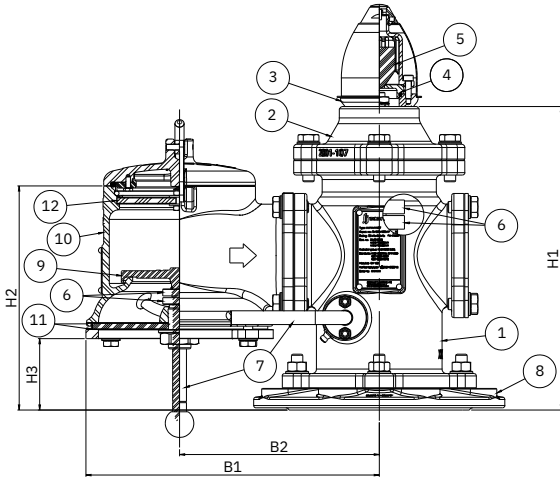
Accessories

The valve comes with a wide range of accessories:

- Electric heat tracing
- Steam/thermal oil heat tracing
- Resilient seal for zero leakage and repairs
- PV Valve Heating Control Cabinet for valves with electrical heating



Drawing

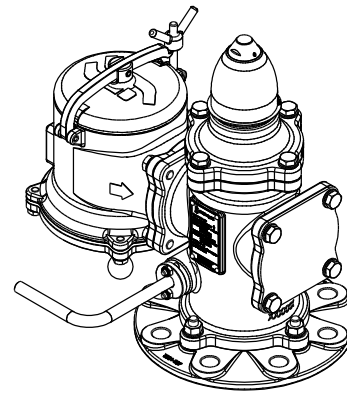


Item and Description

Item	Description
1	Pressure Housing
2	Pressure Seat
3	Pressure Disc
4	VOC Nozzle seat
5	VOC Nozzle Disc
6	Incapsulated Magnet
7	Check Lift
8	Connection Flange
9	Vacuum Disc
10	Vacuum Housing with Seat
11	Flame Screens
12	Gas-Freeing Covers

Material

Valve Size	Material
Valve sizes 1-4.5:	Housing in stainless steel AISI 316 w/ >2,8% Mo, sealing parts in Duplex (2205) stainless steel. Other parts in stainless steel AISI 316. Magnet in SmCo.
Valve sizes 5-7:	Housing in cast iron (GGG50), sealing parts in Duplex (2205) stainless steel. Other parts in stainless steel AISI 316. Magnet in SmCo.



Measurements and Weights

Measurements and Weights¹

Valve Type	H1 (mm)	H2 (mm)	H3 (mm)	B1 (mm)	B2 (mm)	Weight (kg)
HVV-1/VV-1.5M	296	226	92	257	175	19.8
HVV-1.5/VV-1.5M	266	196	62	257	175	20.2
HVV-2/VV-1.5M	358	260	126	257	175	25.8
HVV-2.5/VV-1.5M	319	221	87	257	175	26
HVV-3/VV-3.5M	458	343	81	398	276	52.2
HVV-3.5/VV-3.5M	458	343	81	398	276	51.7
HVV-4/VV-3.5M	446	371	149	448	304	68.9
HVV-4.5/VV-4.5M	382	295	59	512	352	82.1
HVV-5/VV-4.5M	593	323	87	568	416	124
HVV-7/VV-4.5M	593	323	87	568	416	124

¹ Variations can occur depending on the final configuration.

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