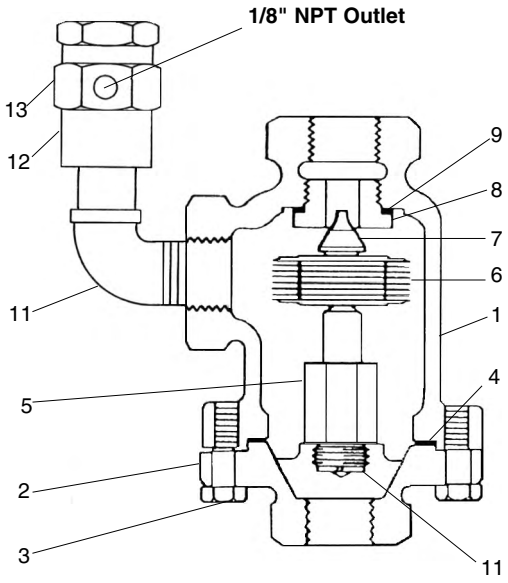
Combination Vacuum Breaker/Balanced Pressure Thermostatic Air Vent VB-VS

Description

The VB-VS Vacuum Breaker/Air Vent is designed for use on steam systems to remove air and other non-condensible gases, which may impair heat transfer during start-up and normal operation, and admit air when system drops in vacuum.

Model	VB-VS
PMO	200 psig
Sizes	1/2"
Connections	NPT
Construction	Cast Iron Body with Stainless Steel Internals Brass VB-14



Limiting Operation Conditions

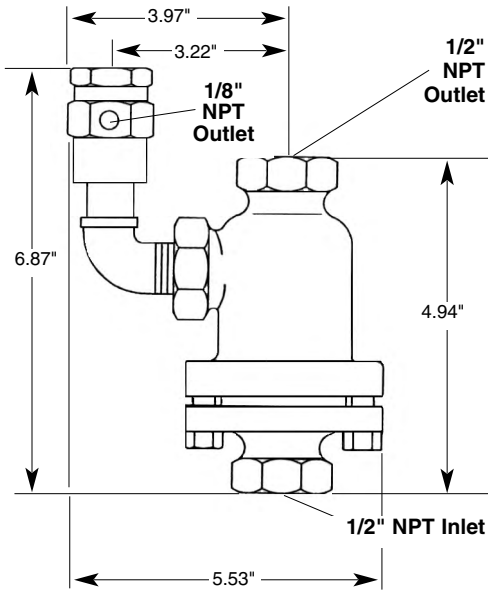
Max. Operating Presure (PMO) 200 psig (14 barg)
Max. Operating Temperature Saturated Steam

Pressure Shell Design Conditions

PMA 200 psig/up to 450°F 14 barg/up to 232°C
Max. allowable pressure
TMA 450°F/0-200 psig 232°C/0-14 barg
Max. allowable temperature

Construction Materials

No.	Part	Material	
1	Body	Cast Iron	ASTM A126 CL B
2	Cap	Cast Iron	ASTM A126 CL B
3	Cap Screws	Steel	ASTM A 449
4	Cap Gasket	Stainless Steel clad. non-asbestos fill	AISI 304
5	Element Holder	Stainless Steel	AISI 300
6	Bellows	Stainless Steel	AISI 300 & 400 series
7	Valve Head	Stainless Steel	AISI 303
8	Valve Seat	Stainless Steel	AISI 303
9	Valve Seat Gasket	Stainless Steel clad, non-asbestos fill	AISI 304
10	Lockwasher	Stainless Steel	AISI 304
11	Elbow	Cast Iron	
12	Nipple	Steel	
13	VB-14	See TIS 4.103 for material data	



Typical Applications

For installation at end of all steam mains and headers, on all steam equipment such as air coils, heat exhangers, autoclaves, sterilizers, platen presses, rotating cylingers, jacketed kettles, laundry equipment and reboilers.

Local regulations may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.
In the interests of development and improvement of the product, we reserve the right to change the specification.

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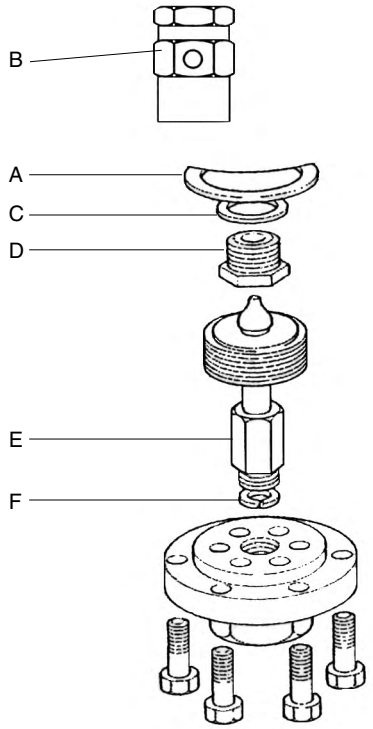
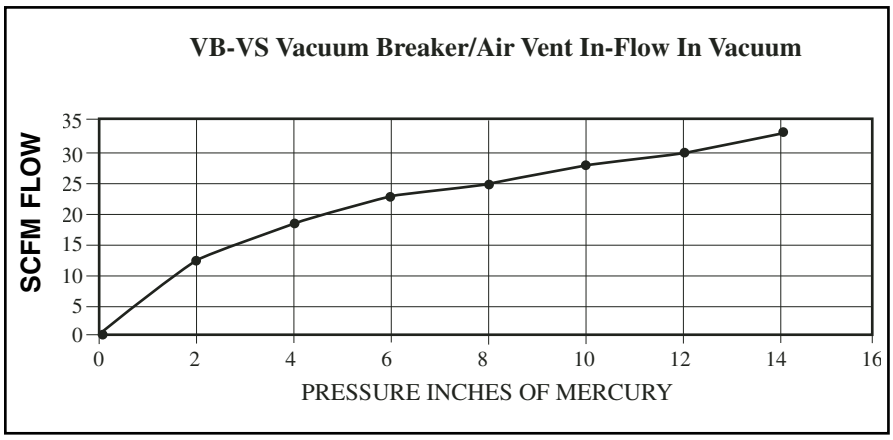
Spare Parts

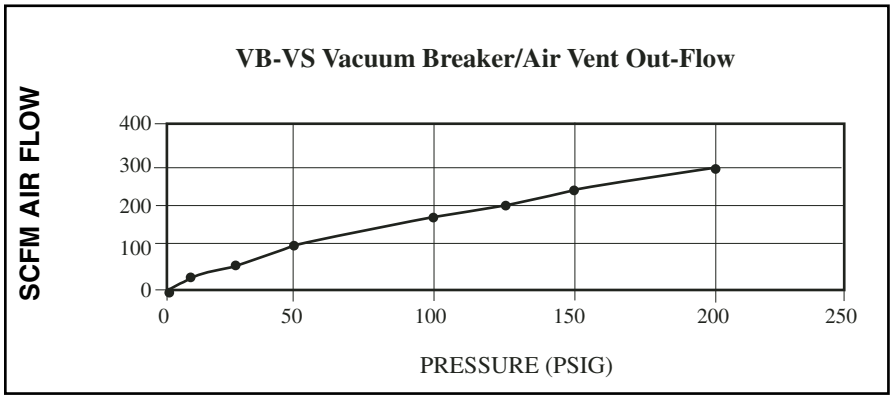


Cap gasket	A
VB-14	B
Element Set	C, D, E, F

Air Capacity (discharge to atmosphere)

SCFM cubic feet per minute at standard conditions of 14.7 psia at 60°F.
For dm^3/s multiply by .4719





Installation

The VB-VS should be positioned at the high point of the piping system or equipment or where air collects and vacuum needs to be broken. The VB-VS must be piped in a vertical position so only air and steam surrround the thermostatic bellows and vacuum breaker. The discharge can be hot and wet. The outlet should be piped to a safe place. An isolation valve should be placed on the inlet side of the VB-VS

Maintenance

This product can be maintained without disturbing the inlet piping connections. Complete isolation is required before any servicing is performed. The vent must be cooled down to prevent over-expansion of the thermostat and oil prevent steam from escaping from the unit which could burn the operator.

The VB-BS should be disassembled periodically for inspection and cleaning of the valve head and seat. Worn or damaged parts should be replaced.

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