



TI-P080-04-US  
Issue 1

## Balanced Pressure Thermostatic Air Vent VS204, VS206

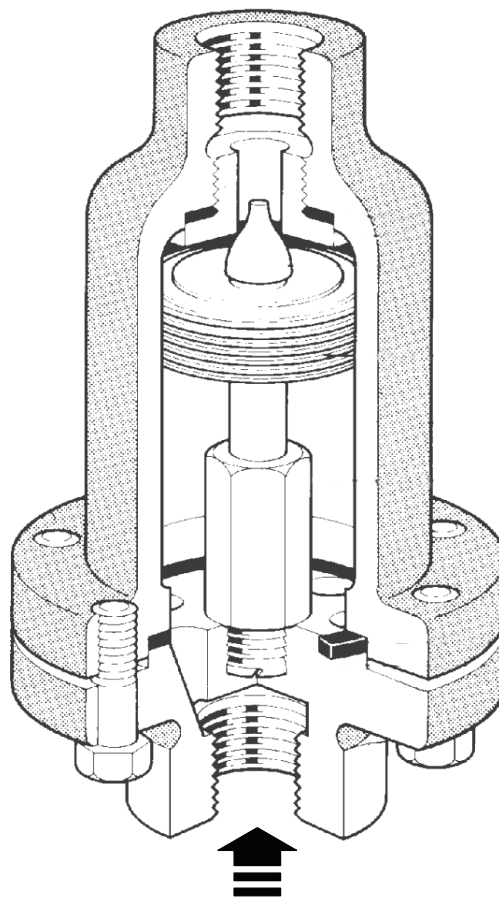
### Description

The VS204 and VS206 air vents are designed for use on steam systems to remove air and other non-condensable gases, which may impair heat transfer during start-up and normal operation.

Model	VS204	VS206
PMO	250 psi g (17 bar g)	
Sizes	½"	¾"
Connections	NPT	
Construction	Cast Iron Body with Stainless Steel Internals	

### Typical applications

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



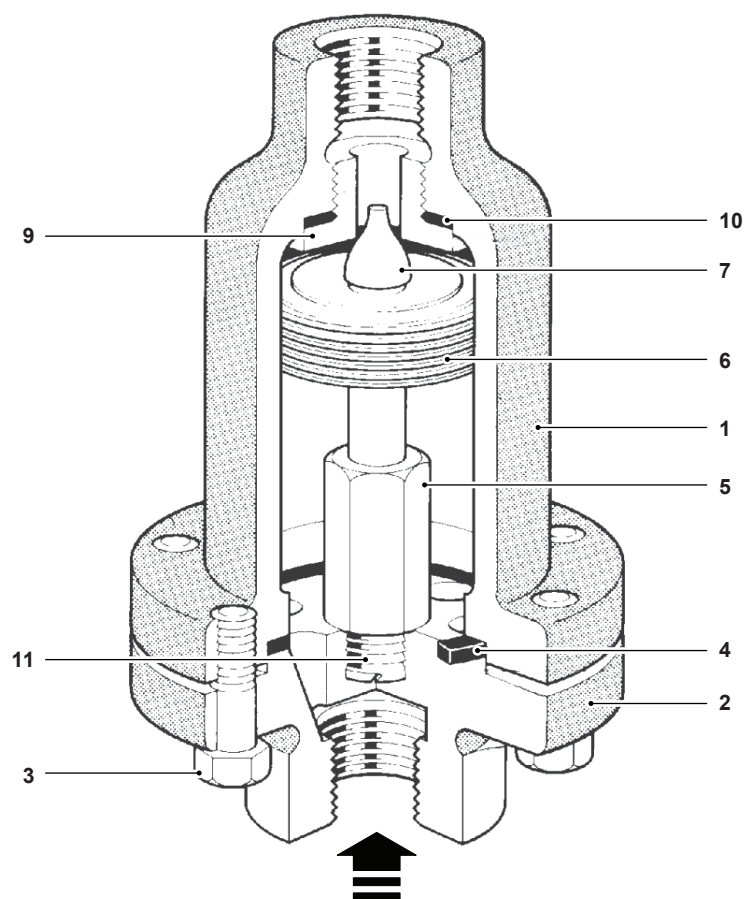
### Limiting operating conditions

PMO	Maximum Operating Pressure	250 psi g	17 bar g
	Maximum Operating Temperature	Saturated Steam	

### Pressure shell design conditions

PMA	Maximum allowable pressure	250 psi g and up to 450 °F	17 bar g and up to 232 °C
TMA	Maximum allowable temperature	450 °F and up to 250 psi g	232 °C and up to 17 bar g

## 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	
5	Element Holder	Stainless Steel	
6	Bellows	Stainless Steel	
7	Valve Head	Stainless Steel	
9	Valve Seat	Stainless Steel	
10	Valve Seat Gasket	Stainless Steel clad, non-asbestos fill	
11	Lockwasher	Stainless Steel	

## Air capacity (discharge to atmosphere)

SCFM cubic feet per minute at standard conditions of 14.7 psi a (1.0 bar a) at 60°F (16 °C). For dm³/s multiply by .4719.

		Inlet Pressure							
Type	psi	10	25	50	100	125	150	200	250
	bar	.69	1.7	3.4	6.9	8.6	10.3	13.8	17.2
<b>VS204</b>		34	54	88	160	196	232	304	380
<b>VS206</b>		44	68	112	208	250	298	392	485

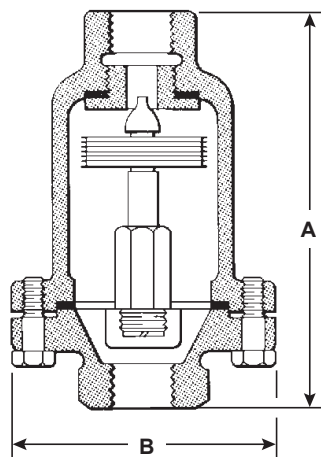
### Orifice size:

VS204 = .44"

VS206 = .50"

## Dimensions/weights

(approximate) in inches (mm) and lbs (kg)



Size	A	B	Weight
1/2"	4.9 (124)	3.1 (79)	3.25 (1.5)
3/4"	5.5 (140)	3.9 (99)	5.0 (2.3)

## Sample specification

Air Vents shall be installed at the end of all steam mains and headers, and on large equipment steam spaces to facilitate start-up and heat transfer. They shall be self-adjusting balanced pressure thermostatic type with precision welded multiple plate stainless steel bellows. Head shall be hardened and both head and seat shall be stainless steel. Body and bolted cap shall be cast iron and internals shall be renewable.

## Installation

The air vent should be positioned at a high point of the piping system or equipment, or where the air collects. The discharge can be hot and wet; the outlet should therefore be piped to a safe place. An isolation valve should be fitted upstream of the air vent.

## Maintenance

This product can be maintained without disturbing the inlet piping connections. Complete isolation is required before any servicing is performed.

The air vent should be disassembled periodically for inspection and cleaning of the valve head and seat.

Worn or damaged parts should be replaced using a complete element set.

Complete installation and maintenance instructions are given in IM-4-105-US, which accompanies the product.

## Spare parts

Cap gasket	A
Element Set	C, D, E, F

