



TI-P123-22
CMGT Issue 14

AVM7 and AVM7 Food+ Balanced Pressure Thermostatic Air Vent

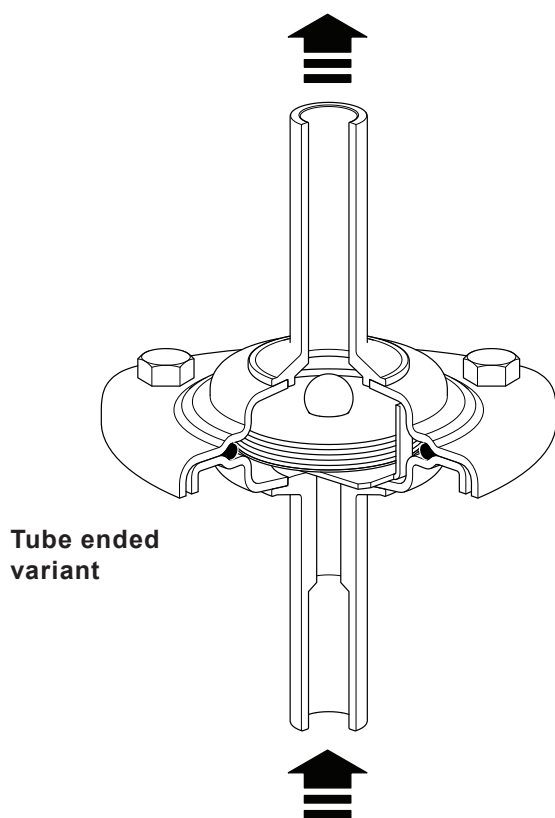
Description

AVM7

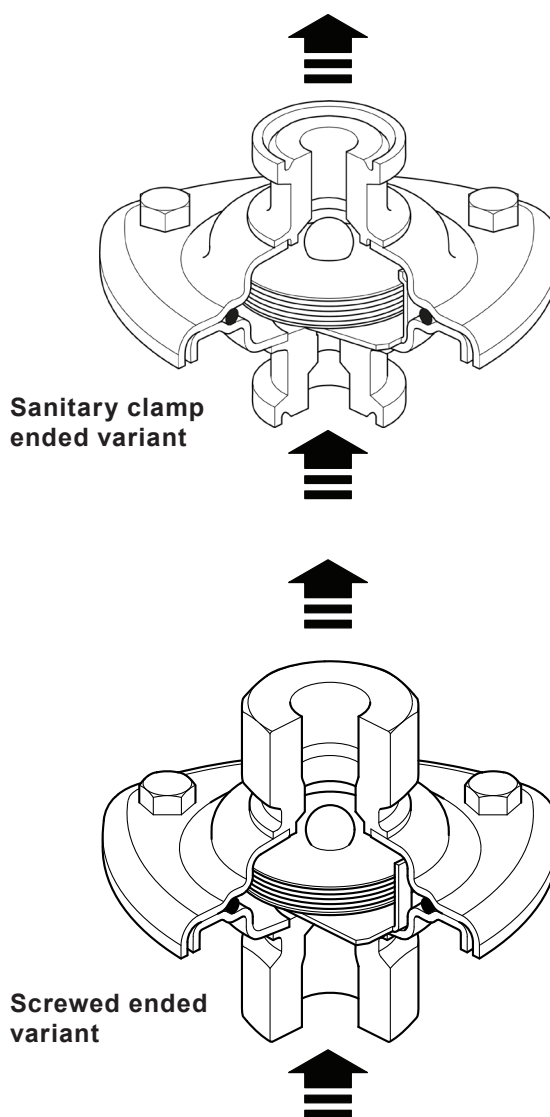
The AVM7 is a clean (chemical-free) maintainable thermostatic air vent designed to remove air and other non-condensable gases from clean steam systems. Manufactured in 316L stainless steel with minimal crevices, and a typical internal surface finish of 1.6 - 3.2 μm (63 - 126 μin) Ra the AVM7 operates close to steam temperature. Each trap is individually packaged within an 'ISO CLASS 7' clean environment with protective end caps and sealed in a protective plastic bag.

AVM7 Food+

Designed, manufactured and approved for Steam and Condensate applications. This product complies with EC1935:2004 Food Contact Materials. It also complies with regulation EC2023:2006 on good manufacturing practice for materials and articles intended to come into contact with food. A list of the materials that could come directly or indirectly into contact with foodstuffs can be found in the Declaration of Compliance available for this product.



Tube ended
variant



Sanitary clamp
ended variant

Screwed ended
variant

Options and available types

Special connections to suit most piping systems.

Standards

- The AVM7 has been designed and manufactured general accordance with ASME BPE standards.
- The unit also complies with the requirements of the EU Pressure Equipment Directive / UK Pressure Equipment (Safety) Regulations.
- FDA CFR Title 21. Paragraph 177. 2600.
- USP Class VI Biological Reactivity Cytotoxicity Testing In-Vivo <88> extracted at 121 °C (250 °F) for 1 hour.
- ADI Free (Animal Derived Ingredients) for materials used, manufacturing processes involved in producing the part.
- TSE/BSE Free as Certified.
- Full material lot number product traceability.

Certification

This product is available with the following certification:

- EN 10204 3.1 Material Certification Pressure Retaining Parts - Chargeable.
- EN 10204 3.1 Material Certification for Wetted Parts including the WFI element fill (also available for element spares) - Chargeable.
- Typical Internal Surface Finish - F.O.C.
- Certificate of Compliance for FDA, USP Class VI Testing Statement, and ADI Free Statement - F.O.C.
- TSE-BSE Statement - F.O.C.
- EC1935:2004 Declaration of Compliance - F.O.C. (Food+ range only)
- (EC)2023:2006 Good Manufacturing Practice for Materials and Articles Intended to come into Contact with Food.
- Declaration of Conformity BS EN ISO 14644-1:2015 Class 7 Clean Room - F.O.C.
- Typical Test Report - F.O.C.

Note: All certification/inspection requirements must be stated at the time of order placement, and may be subject to additional cost as detailed above.

Sizes and pipe connections

Sanitary Clamp Ended Variants

Standard	Issue	Type	Sizes				
ASME BPE		Type A			½"	¾"	
ASME BPE		Type B					1"

Tube Ended Variants

Standard	Issue	Type	Sizes				
Imperial		Wall 16 swg			½"	¾"	1"
DIN11850	1999-01	Series-2		DN10	DN15		DN25
ISO1127	1997	Series 1	DN8	DN10	DN15		

Screwed Ended Variants

Standard	Issue	Type	Sizes				
Socket BSP Socket NPT				¼"	½"	¾"	1"

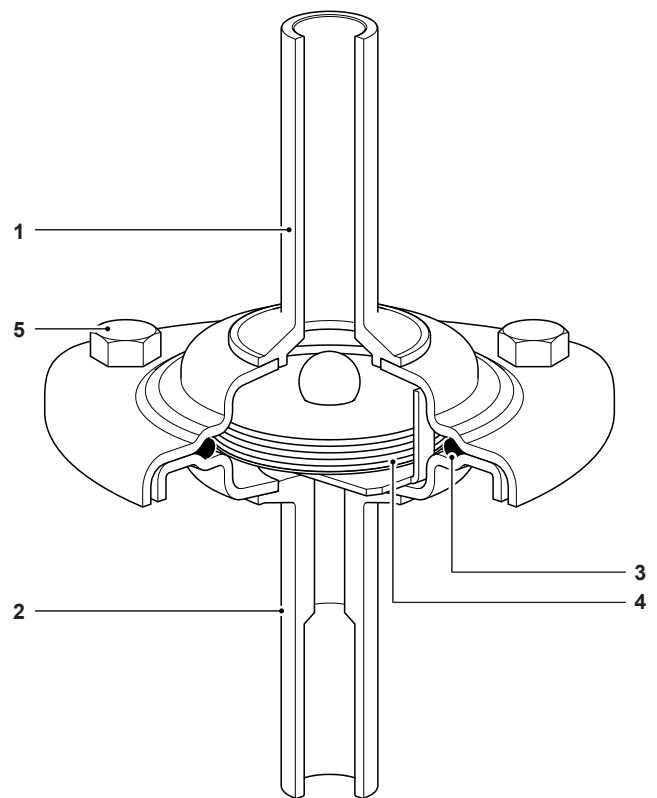
Notes

1. On request other connection options are available at extra cost.
2. Please note that seat end spares for specially requested connections will require a minimum order quantity - Please consult Spirax Sarco for further information.
3. AVM7 Food+ is available with ½" BSP and ¾" BSP connections.

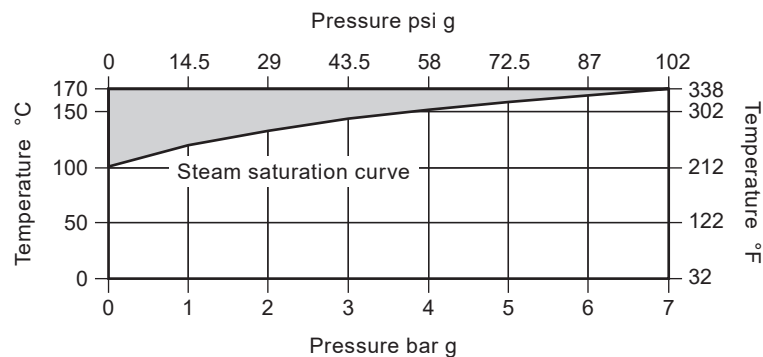
Materials

No.Part	Material		
1	Body (outlet)	Stainless steel	316L (1.4404)
2	Body with seal (inlet)	Stainless steel	316L (1.4404)
3	'O' ring	FKM	
4	Capsule element	Stainless steel	316L (1.4404)
5	Nuts and bolts	Stainless steel	BS 6105 Gr. A4 80
	Washers	Austenitic stainless steel	

Tube Ended Variant



Pressure/temperature limits (ISO 6552)

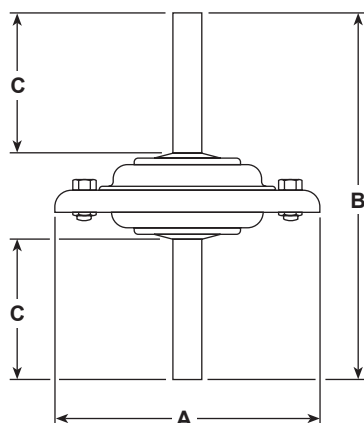


The product should not be used in this region as damage to the internals may occur.

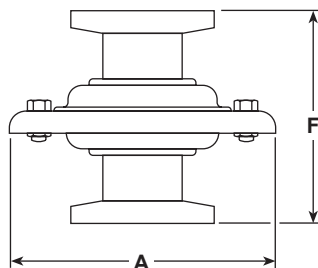
Body design conditions			PN7
PMA	Maximum allowable pressure	7 bar g @ 170 °C	102 psi g @ 338 °F
TMA	Maximum allowable temperature	170 °C @ 7 bar g	338 °F @ 102 psi g
Minimum allowable temperature		-10 °C	14 °F
PMO	Maximum operating pressure for saturated steam service	7 bar g	102 psi g
TMO	Maximum operating temperature	170 °C	338 °F
Minimum operating temperature		0 °C	32 °F
Designed for a maximum cold hydraulic test pressure of		10.7 bar g	155 psi g

Dimensions/weights (approximate) in mm (inches) and kg (lbs)

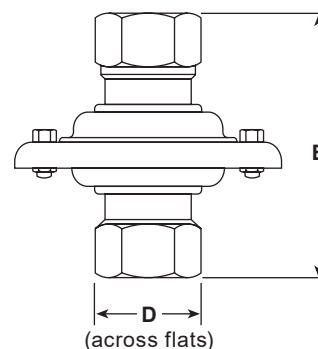
Products each weigh 1kg (2.20 lb) maximum



Tube ended variant



Sanitary clamp ended variant



Screwed ended variant

Standard	Sizes	A	B Tube	C Tube	D Screwed	E Screwed	F Sanitary Clamp
Sanitary Clamp ended variants							
ASME BPE Types A & B	½", ¾" and 1"	70 (2.76)					49 (1.93) for ½" and ¾", 53 (2.09) for 1"
Tube ended variants							
Imperial 16 swg, DIN11850 Series 2, ISO1127 Series 1	Imperial = ½", ¾" and 1" DIN/ISO = DN8 ISO (1127 only), DN10, DN15	70 (2.76)	106 (4.17)	40 (1.57)			
Screw ended variants							
Socket BSP + NPT	¼", ½", ¾" and 1"	70 (2.76)			27, 27, 32, 41 (1.06, 1.06, 1.26, 1.61)	58, 74, 81, 95 (2.28, 2.91, 3.19, 3.74)	

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P123-23) supplied with the product.

Installation note:

The unit is designed for installation in vertical lines with the flow upwards to ensure self-draining operation. Do not expose element to superheat conditions since over-expansion may result.

Suitable isolation valves must be installed to allow for safe maintenance/replacement.

How to order

Example: 1 off Spirax Sarco DN15 AVM7 maintainable thermostatic clean steam air vent with tube ends to ISO 1127, Series 1. (21.3 mm O/D x 1.6 mm wall thickness). Tangent length of tube ends to be 40 mm for ease of orbital welding. Body to be self-draining. Suitable for pressures up to 7 bar g (101 psi g). Material certification to EN 10204 3.1.

Spare parts

Available parts are shown in solid outline. Parts drawn in a grey line are not available as spares.

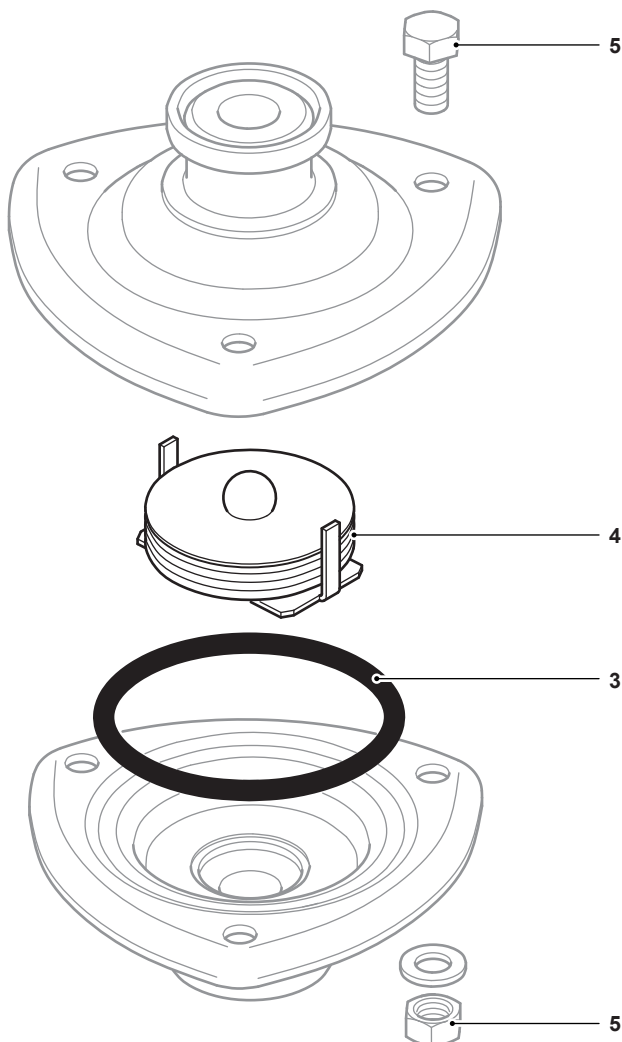
Available spares

Element assembly	4
'O' ring (packet of 3)	3



How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the size, type and end connection of the trap.

Example: 1 off Element assembly for a Spirax Sarco ½" AVM7 thermostatic clean steam air vent having screwed NPT connections.



Recommended tightening torques

Item	Part	 or mm	 mm	N m	ft lbf
5	Nuts and bolts	8 A/F	M5	3 - 4	2 - 3