



TI-P080-03-US
Issue 1

Thermo-matic Air Vent TM600, TM600L

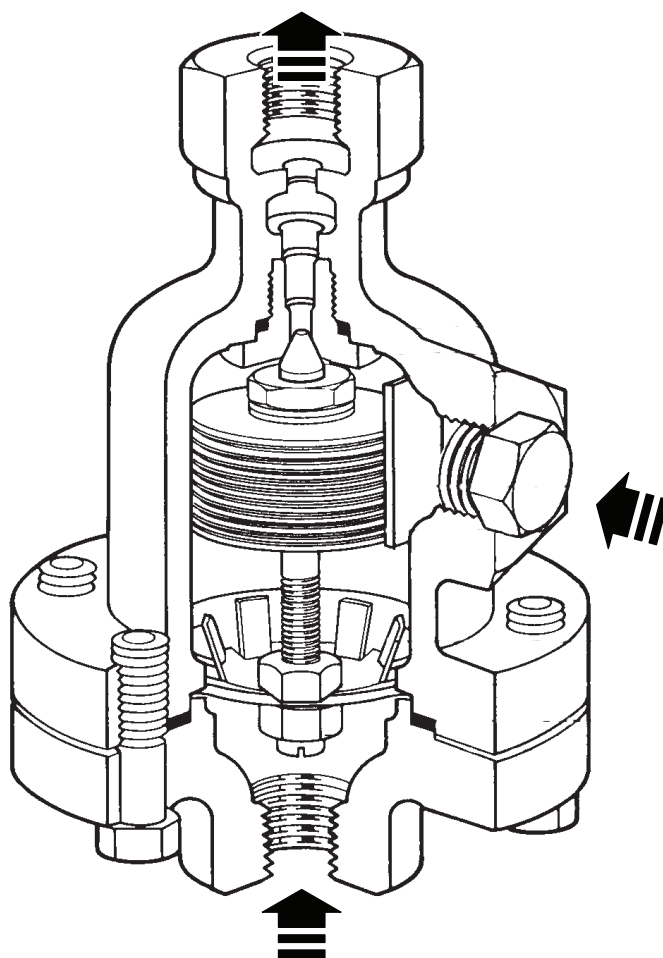
Description

The TM600 and TM600L 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. The TM600 and TM600L are identical except for the valve head and seat.

Model	TM600
PMO	600 psi g (41 bar g)
Sizes	1/2", 3/4"
Connections	NPT
Construction	Ductile Iron Body with Stainless Steel Internals
Options	BSP Connections

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.



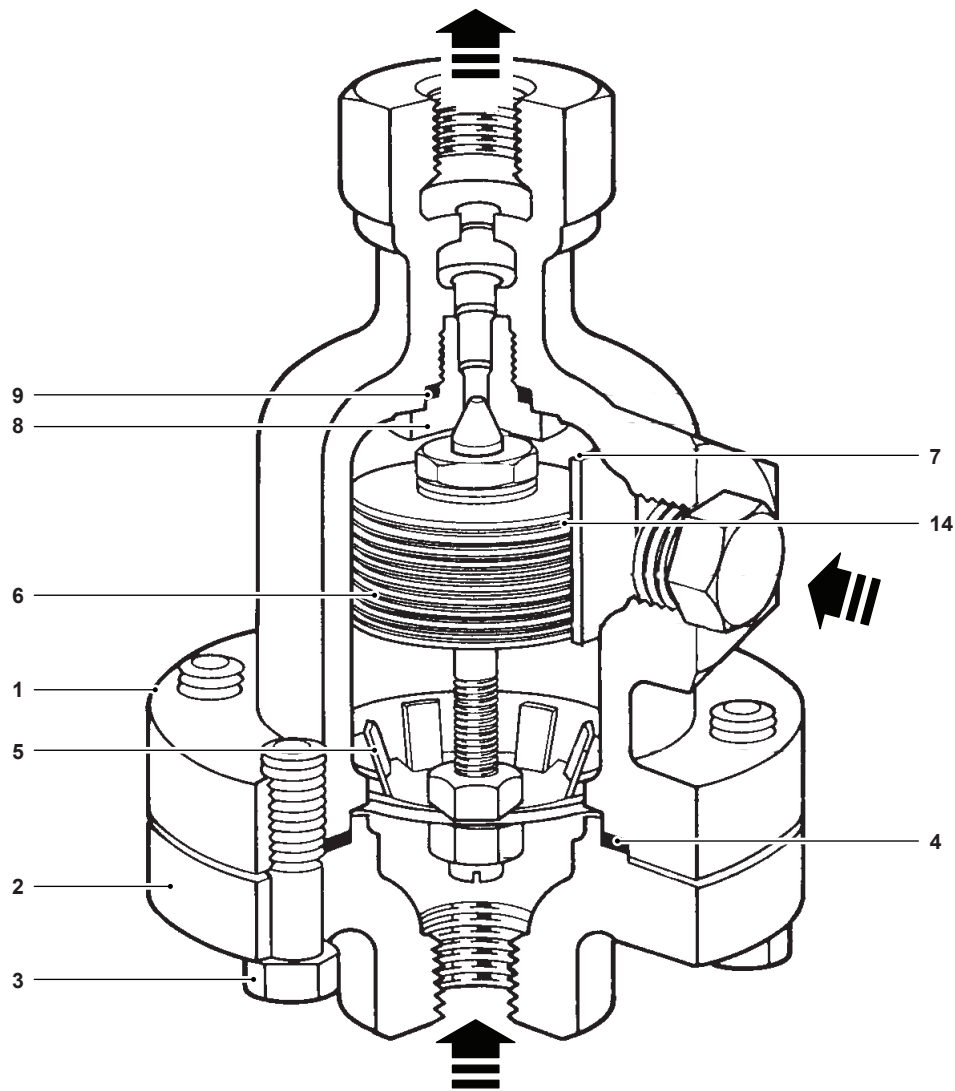
Limiting operating conditions

PMO	Maximum operating pressure	600 psi g	41 bar g
	Maximum operating temperature	489 °F	254 °C

Pressure shell design conditions

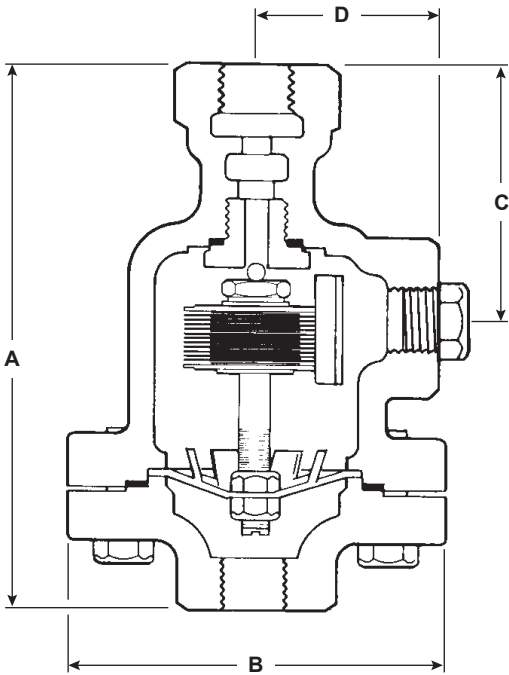
PMA	Maximum allowable pressure	600 psi g and up to 650 °F	41 bar g and up to 343 °C
TMA	Maximum allowable temperature	650 °F and 0-600 psig	343 °C and 0-41 bar g

Materials



No.	Part	Material	
1	Body	Ductile Iron	ASTM A395
2	Cover	Ductile Iron	ASTM A395
3	Cover Screws	Steel 3/8" - 16 x 1 1/4"	ASTM A 449 Type 1
4	Cover Gasket	Spiral wound stainless steel graphite filled	
5	Support Plate	Stainless Steel	
6	Element Assembly	Stainless Steel	
7	Valve Head	Stainless Steel Hardened	
8	Valve Seat	Stainless Steel	
9	Valve Seat Gasket	Spiral wound stainless steel graphite filled	
14	Baffle	Stainless Steel	

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



Size	A	B	C	D	Weight
1/2", 3/4"	6.25 (159)	4.2 (107)	2.8 (71)	2.0 (51)	6.75 lb (3.1 kg)

Air capacity (discharge to atmosphere)

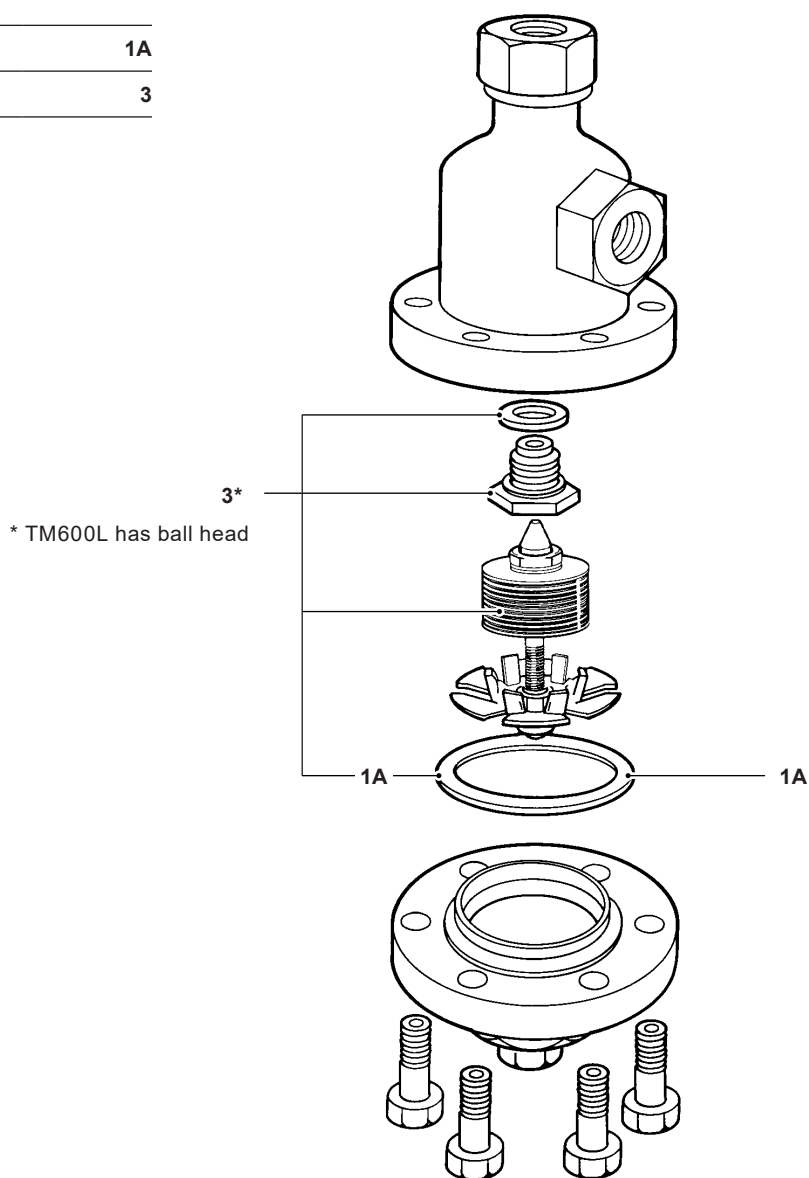
SCFM cubic feet per minute at standard conditions of 14.7 psi a (1.01 bar a) at 60 °F (16 °C). For dm³/s multiply by .4719.

		Inlet Pressure											
Type	psi	10	25	50	100	125	150	200	250	300	400	500	600
	bar	.69	1.7	3.4	6.9	8.6	10.3	13.8	17.2	20.7	27.6	34.5	41.4
TM600L		5.9	9.7	16	28	34	40	52	63	75	100	125	149
TM600		19	31	50	89	108	127	165	200	240	320	400	475

Orifice Size: TM600L = .149" TM600 = .258"

Spare parts

Cover Gasket	1A
Element Set (Specify TM600 or TM600L)	3



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 the IMI sheet, which accompanies the product.

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 solidly filled element made of stainless steel. Head shall be hardened and both head and seat shall be stainless steel. Body and bolted cap shall be ductile iron and internals shall be renewable.