

# spirax sarco

## Balanced Pressure Thermo-Matic® Steam Trap TM600, TM600L, TM600N

Steam Traps  
Balanced Pressure

The trap contains a calibrated element module which is self-adjusting so that condensate is discharged within 10°F of saturated steam temperature over the full operating pressure range. The solid fill bellows can withstand pressure surges and waterhammer, and a patented heat sink protects the bellows from over-expansion should the steam pressure suddenly be reduced. The integral downstream flash chamber reduces discharge velocity to provide smooth discharge of high condensate loads.

Model	TM600	TM600L	TM600N
PMO	600 psig		
Sizes	1/2" & 3/4"		
Connections	NPT		
Construction	Ductile iron body	Carbon Steel body	
	stainless steel internals		
Options	BSP Connections		
	SW or flanged to MIL-T-960, Type II		

### Typical Applications

High-pressure steam main drips, high-pressure process equipment, outdoor installations subject to freezing.

### Limiting Operating Conditions

**Max. Operating Pressure (PMO)** 600 psig (41 barg)

**Max. Operating Temperature** Saturated Steam Temperature

### Pressure Shell Design Conditions

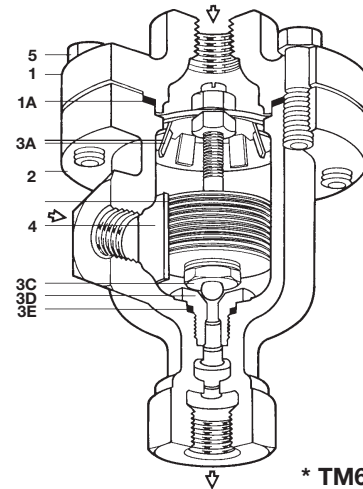
**PMA** 600 psig/up to 650°F 41 barg/up to 343°C  
Max. allowable pressure

**TMA** 650°F/0-600 psig 343°C/0-41 barg  
Max. allowable temperature

### Construction Materials

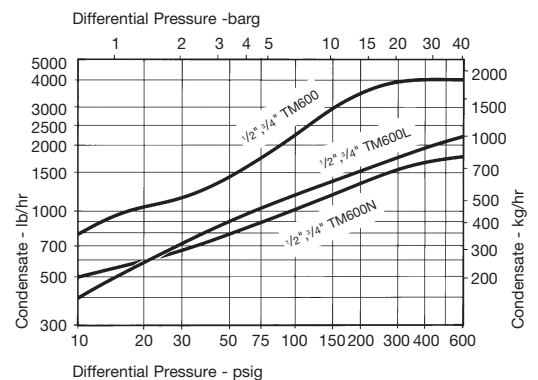
No.	Part	Material	
1	Cover TM600	Ductile Iron	ASTM A395
		TM600N	ASTM A216 G2 WCB
1A	Cover Gasket	Spiral Wound Stainless Steel, Graphite Filled	AISI 304 strip
2	Body TM600	Ductile Iron	ASTM A395
		TM600N	ASTM A216 G2 WCB
3A	Support Plate	Stainless Steel	AISI 304
3C	Valve Head	Hardened Stainless Steel	
		TM 600 (Cone Head)	AISI 420F
		TM 600L (Ball Head)	AISI 440
3D	Valve Seat	Hardened Stainless Steel	AISI 420F
3E	Valve Seat Gasket	Spiral Wound Stainless Steel, Graphite Filled	AISI 304 strip
4	Baffle	Stainless Steel	AISI 302
5	Cover Screws	Steel	ASTM A 449, Type 1

### TM600L\*



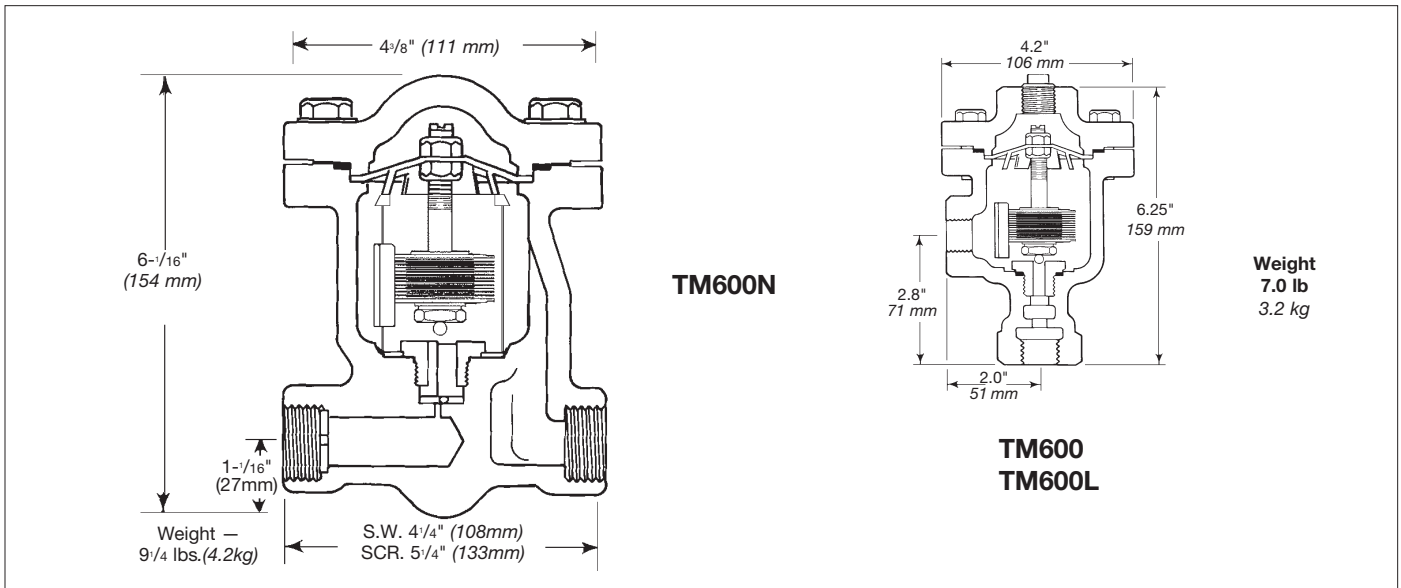
\* TM600 has a cone valve head.

### Capacities



Local regulation 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.

# Balanced Pressure Thermo-Matic® Steam Trap TM600, TM600L, TM600N



## Sample Specification

Steam trap shall be Spirax Sarco type TM600 Thermo-Matic®, self-adjusting for operating pressures to 600 psig. The traps shall incorporate a flash chamber to reduce discharge velocity. Thermostatic elements shall be factory calibrated and shall have a heat sink to prevent over-expansion. Traps shall be non-freezing, and shall have a choice of top or side inlet (TM600 & TM600L) or traps shall have horizontal in-line connections (TM600N). Body and cap shall be ductile iron (TM600 & TM600L) or carbon steel (TM600N).

## Installation

A pipeline strainer should be installed ahead of any steam trap to protect the head and seat from dirt and scale. Full-flow isolating valves should be placed to permit servicing. The trap should be installed below the equipment with a collecting leg before the trap. For best operation, the bellows should be in a horizontal position as shown. For a freeze-resistant installation, the inlet piping must be pitched toward the trap for gravity flow, and the trap must discharge to atmosphere or drain.

## Maintenance

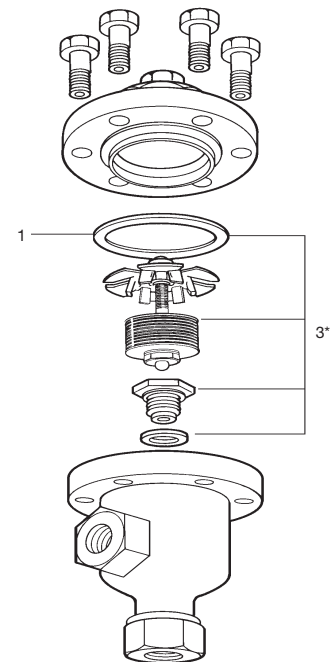
This product can be maintained, unless installed vertically using the alternate inlet, without disturbing the inlet piping connections. Complete isolation of the trap from both supply and return line is required before any servicing is performed.

The trap should be disassembled periodically for inspection and cleaning of the valve head and seat, and cleaning of the strainer screen (TM600N only).

Worn or damaged parts should be replaced using a complete Element Set.

**Complete installation and maintenance instructions are given in IMI 2.004, which accompanies the product.**

## SPARE PARTS\*



Cover Gasket	1
Element Set	3

\*\* TM600 has a cone head  
Available spare parts are shown in heavy outline.  
Parts drawn in broken line are not supplied as spares.  
\* TM600, TM600L and TM600N parts are not interchangeable. Consult factory for TM600N spare parts.

TI-2-003-US 2.14