

Thermal steam traps for steam with Monobloc Thermo-Control



TM

Steam traps

DIN PN 40 — DN 10 to 25 mm
ANSI 300 — 3/8" to 1"

TM 23
TM 23Y

Application

For drainage and deaeration of steam lines and any heat exchangers. For low and medium pressures.

Main characteristics

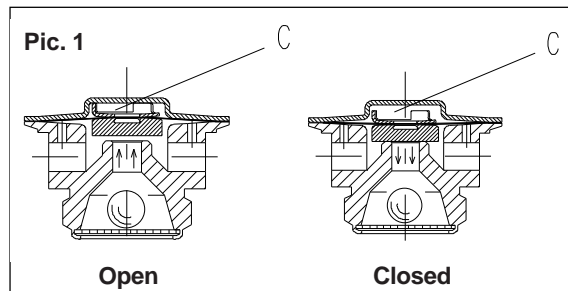
- It works in any position;
- Long useful life;
- High capacity of deaeration;
- Low noise level;
- Insensitive to waterhammer;
- Monobloc Thermo-Control (MTC) that avoids the alive steam loss.

Presentation

Straight passage steam trap composed of three main parts: body, cover and the Monobloc Thermo-Control (MTC). The Monobloc Thermo-Control is threaded in the body. The TM 23 series has protection screen of the regulator incorporated. The TM 23 Y series has strainer Y integrated.

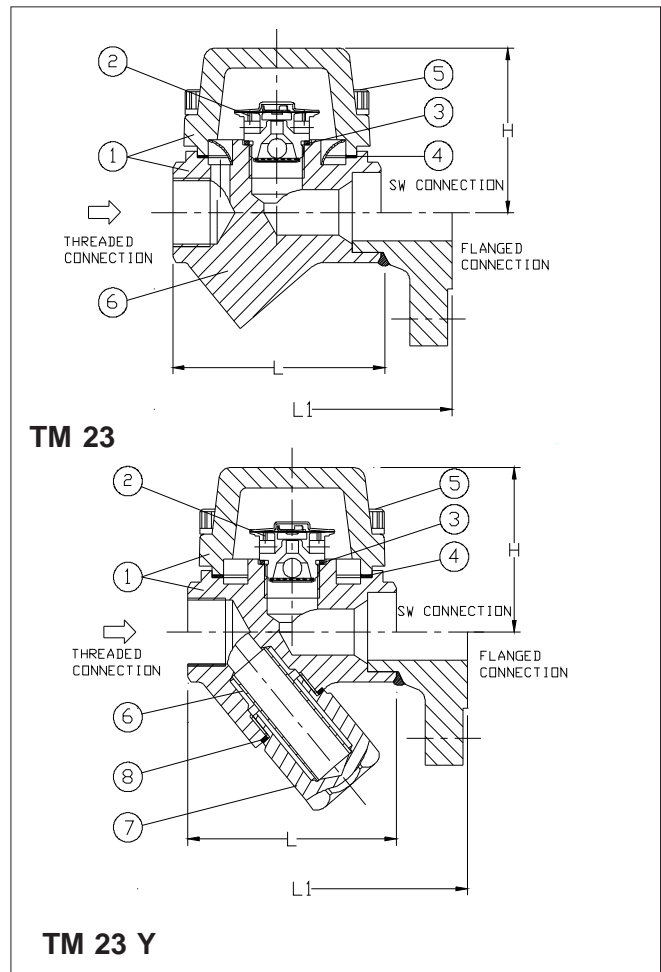
Operation

The operation of the TM 23 is determined by the MTC opening and closing due to condensation and evaporation of the pilot fluid contained in the chamber C (pic. 1). the boiling temperature range, is located slightly below the water boiling temperature, whatever is the pressure.



Measures and weights

Model	TM 23, 23Y			
Nominal Diameter (mm)	10	15	20	25
(pol)	3/8"	1/2"	3/4"	1"
Measures (mm)				
H	56	56	70	70
L	75	75	95	95
L ₁	-	150	190	190
Approx.weight (Kg)				
Welded/Threaded	1,3	1,2	3,0	2,9
Flanged (300 lbs)	-	2,7	5,7	6,4



Technical competence, materials and connections

Model		TM 23, 23Y		
Nominal Diameter	(mm)	10 15 20 25		
	(pol)	3/8" 1/2" 3/4" 1"		
Maximum service pressure	(bar man.)	21		
Maximum correspondent temperature	(°C)	250		
Maximum differential pressure	(bar)	21		
Materials	N°	Description	Quant.	Specification
	1	Body and cover	1+1	A 216 WCB + A 105
	2*	Control (MTC)	1	Stainless steel
	3*	Body-regulator gasket	1	AISI 304
	4*	Body-cover gasket	1	Hidraulic cardboard
	5	Screws	4	DIN 933 Qual. 8.8
	6*	Screen	1	AISI 304
	7	Strainer plug (TM 23 Y)	1	SAE 1020
8*	Plug gasket (TM 23 Y)	1	AISI 304	
Connections	Threaded		BSP / NPT	
	Flanged ANSI		— 150 or 300	
	Welded		SW	

*Recommended spare parts

Optionals

TM 23Y stem traps series can be supplied with drain valve for cleanness of the strainer (Blow-off valve).

Flow chart

The chart indicates maximum flows in cold water and hot condensate.

These capacities can be influenced by several service conditions, depending on the pressure upstream, which nor always corresponds to the nominal pressure of the boiler, and of the occasional backpressures established by condensate discharge, resulting in a variable differential pressure. If there is elevation of the condensate, don't disdain the backpressure about 1 bar for each 7 m high of the elevation.

Curve 1

The steam trap can drain this amount of condensate without banking up. The condensate temperature is at the most 10 °C lower than boiling temperature.

Curve 2

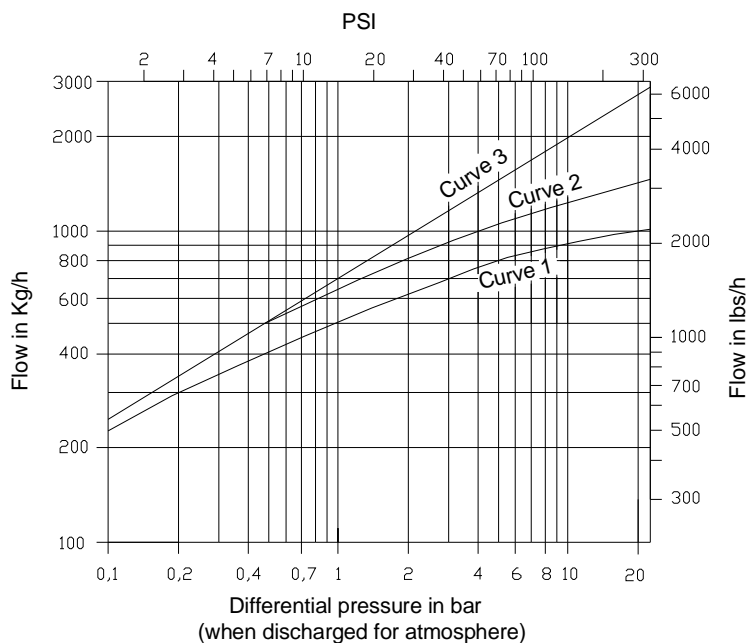
The steam trap can drain this amount of condensate when this one comes with a cooling of 30 °C roughly lower than the boiling temperature.

This cooling can occur at the beginning of the process (departure) or by banking up.

Curve 3

It indicates the steam trap discharge capacity with cold condensate of 20 °C as occur, for example, at the beginning of operation.

Capacity chart



Data for sizing

ASCA will make pleasure the sizing

For this purpose must be supplied:

- Service pressure;
- Backpressure;
- Condensate flow to be blowdown;
- Type of forecasted connection
- Nominal diameter of the steam trap;
- Type of heat exchanger and location of the steam trap in relation to the same.

Standard specification

Thermal steam traps fore steam
 Model TM 23from
 ASCA
 According to prospect PR-01.20.20-I
 Connections.....
 As per norm
 Pressure class
 Nominal diameter
 Optionals.....

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