



# Thermostatic Steam Traps & Air Eliminators TH 13 A

## Description

The TH 13 A thermostatic steam traps and air eliminators are specifically designed for use on process equipment such as kettle cookers, sterilizers, food, chemical and laundry equipment. The small size make it ideal for use with a wide variety of this equipment and specifically as air eliminator. Connections are female screwed.

## Main Features

Modulating discharge.  
 Discharges condensate close to steam temperature.  
 Thermostats for different subcooling (5 °K to 30 °K).  
 Excellent air discharge.  
 Simple and compact design.

**Use:** Saturated steam.

## Available

**Models :** TH 13 A  
**Sizes :** 1/2"  
**Connections :** Female screwed ISO 7/1 Rp (BS21)  
**Installation :** Vertical installation angle connection.  
 See IMI, installation and maintenance instructions.

PMA : Max. allowable pressure 16 bar  
 TMA : Max. allowable temperature 260 °C  
 PMO : Max. operating pressure 13 bar  
 TMO : Max. operating temperature 200 °C

## Dimensions (mm)

Size DN	A	B	C	D	E	Weight Kg
1/2"	63	22.5	38	54	50	0.5

## Materials :

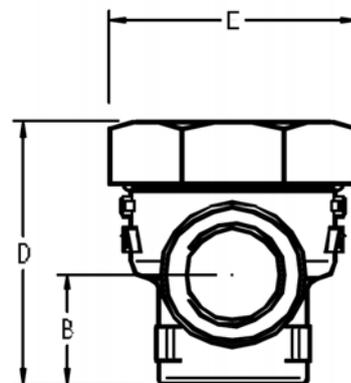
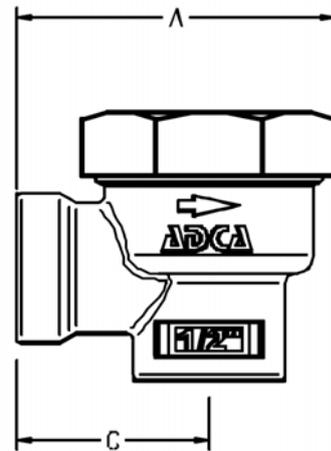
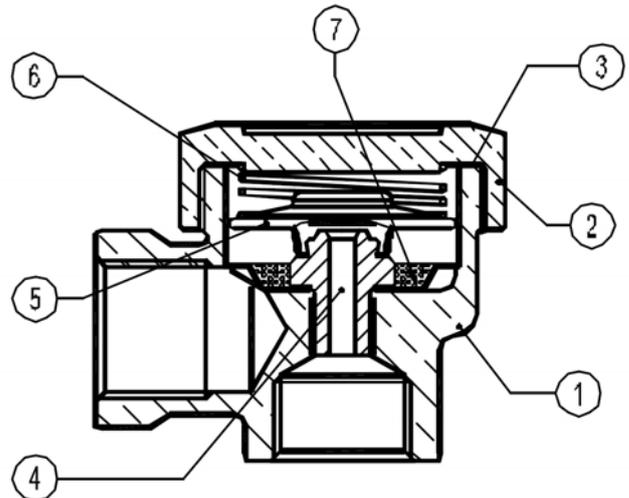
Pos.NR.	Designation	Material
1	Body	Brass
2	Cover	Brass
3*	Gasket	Graphite
4*	Seat	Stainless steel
5*	Thermostatic Element	Stainless steel
6*	Spring	Stainless steel
7*	Strainer	Stainless steel

\* Available spare parts

## Flow rate capacity in kg/h

Model	Size	Differential Pressure (bar)											
		0.2	0.3	0.5	1	1.5	2	3	4	6	8	10	13
TH 13 A	1/2"	45	55	70	95	125	135	180	200	270	315	330	360

Capacities shown refer to condensate at 10 °C below saturated steam temperature (standard type-S thermostat). Thermostats for 5 °C type-H and 30° type-L, also available.  
 Capacities for cold condensate discharge at 20 °C are two to three times greater.  
 Recommended Safety factor = 1.2 - 1.5., How to order : i.e. TH 13 A DN 1/2" BSP





## INSTALLATION AND MAINTENANCE INSTRUCTIONS

### TH - THERMOSTATIC STEAM TRAPS

#### TSS-TH13A-TH21-TH35Y-TH35-4

#### GENERAL

1. These instructions must be carefully read before any work involving products supplied by VALSTEAM ADCA ENGINEERING S.A. is undertaken.
2. The installation procedure is a critical stage in a life of a steam trap and care should be taken to avoid damage to the steam trap or equipment.

#### **Warning !**

- At start up, the presence of small particles in the water (dirt, scale, weld splatters, etc) may cause an unperfected closure of the seat. If this occurs, proceed to an accurate cleaning.
- Do not touch the equipment without appropriate protection during working operation because it may conduct heat if the used fluid is at high temperature.
- Before starting maintenance be sure that the equipment is not pressurized or hot.
- The equipments must be used within the working temperature and pressure limits laid down for them, otherwise they may fail (refer to nameplate and/or IS - Information Sheet).
- Do not remove the nameplate attached to the equipment. Serial number and other useful information is stamped on it.

#### INSTALLATION

1. Before to install remove plastic covers placed on flanges or connection ends. The equipment has an arrow or Inlet/Outlet designations. Be sure that it will be installed on the appropriate direction.
2. Install the steam trap in the point of the system, where the condensate tends to collect. It can be installed in any position.  
An ADCA strainer can be installed upstream of the trap as additional protection.

LIMITING CONDITIONS	TSS22	TH13A	TH21	TH35
PMA: Max. allowable pressure	32 bar	16 bar	21 bar	32 bar
TMA: Max. allowable temperature	385 °C	260 °C	300 °C	300 °C
PMO: Max. operating pressure	22 bar	13 bar	21 bar	22 bar
TMO: Max. operating temperature	250 °C	200 °C	250 °C	250 °C

Max. Differential pressure	
TH13A	13 bar
TH21	21 bar
TH35, TSS22	22 bar

#### CE Marking:

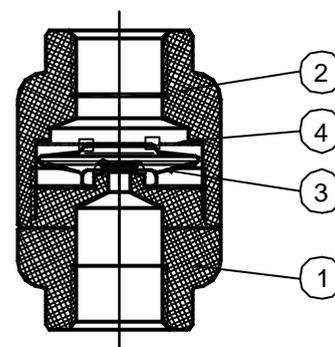
This product have been designed for use on steam and water which are in Group 2 of the PED- European Pressure Equipment Directive 97/23/EC and it comply with those requirements. The product fall within category SEP and must not be CE marked.

## MAINTENANCE

1. We recommend that the thermostatic steam traps are serviced as necessary. Steam traps should be checked periodically (at least yearly), to verify that they are operating correctly and to clean the internal parts and strainer screen.
2. When reassembling make sure that all gasket faces are clean and always use a new gasket. Tighten cover bolts uniformly in a diagonal sequence.
3. For further information refer to the relevant IS (Information Sheet) or consult our Sales Office.

## PARTS LIST FOR TSS22:

CODE	DESIGNATION	TRAP SIZE DN	POS.NR.	QTY.
A.94.6100.005	Capsule 5° & strainer	3/8" - 1"	3, 4	1 set
A.94.6100.010	Capsule 10° & strainer	3/8" - 1"	3, 4	1 set

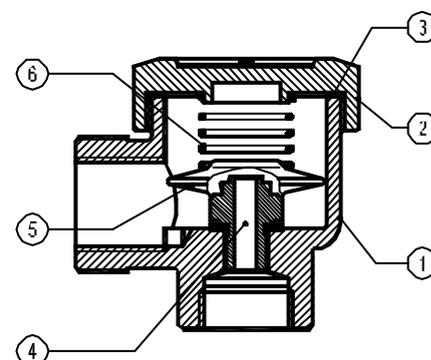


## Recommended tightening torques:

POS.NR.	TRAP SIZE DN	Nm
1-2	3/8" - 1"	45-55

## PARTS LIST FOR TH13A:

CODE	DESIGNATION	TRAP SIZE DN	POS.NR.	QTY.
A.94.2100.005	Capsule 5° & gasket	1/2"	3, 5	1 set
A.94.2100.010	Capsule 10° & gasket	1/2"	3, 5	1 set
A.94.2100.115	Seat & gasket	1/2"	3, 4	1 set



## Recommended tightening torques:

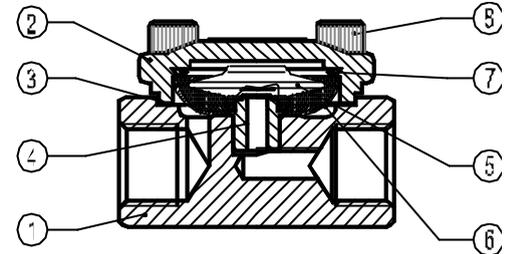
POS.NR.	TRAP SIZE DN	Nm
2	1/2"	45
4	1/2"	35

**PARTS LIST FOR TH21:**

CODE	DESIGNATION	TRAP SIZE DN	POS.NR.	QTY.
A.94.4000.005	Capsule 5° & gasket	1/2"	3, 5	1 set
A.94.4000.010	Capsule 10° & gasket	1/2"	3, 5	1 set
A.94.4000.015	Strainer & gasket	1/2"	6, 3	1 set

**Recommended tightening torques:**

POS.NR.	TRAP SIZE DN	Nm
8	1/2"	20

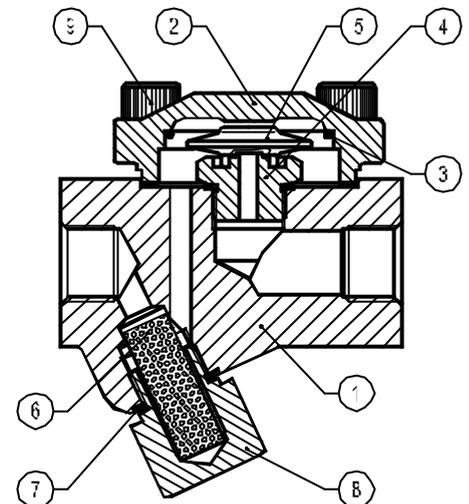


**PARTS LIST FOR TH35Y:**

CODE	DESIGNATION	TRAP SIZE DN	POS.NR.	QTY.
A.94.4810.005	Capsule 5° & gasket	1/2" - 1"	3, 5	1 set
A.94.4810.010	Capsule 10° & gasket	1/2" - 1"	3, 5	1 set
A.94.4810.015	Seat & gasket	1/2" - 1"	4, 3	1 set
A.94.4810.115	Strainer & gasket	1/2" - 1"	6, 7	1 set

**Recommended tightening torques:**

POS.NR.	TRAP SIZE DN	Nm
4	1/2" - 1"	120
8	1/2" - 1"	90
9	1/2" - 1"	30



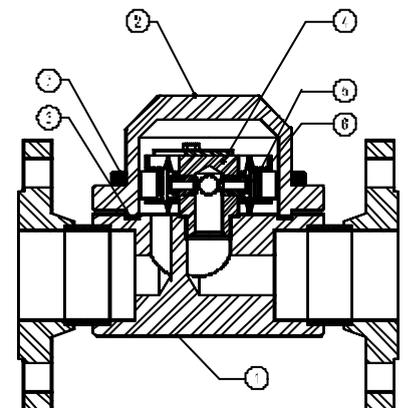
**PARTS LIST FOR TH35-4:**

CODE	DESIGNATION	TRAP SIZE DN	POS.NR.	QTY.
A.94.5154.005	Capsule 5° & gasket	40 - 50	5, 3	1 set
A.94.5154.010	Capsule 10° & gasket	40 - 50	5, 3	1 set
A.94.5154.040	Valve-seat housing	40 - 50	3, 4, 5, 6	1 set

(complete package with 4 capsules)

**Recommended tightening torques:**

POS.NR.	TRAP SIZE DN	Nm
4	40 - 50	120
7	40 - 50	30



**LOSS OF GUARANTEE:** Total or partial disregard of above instructions involves loss of any right to guarantee.