

### BALANCED PRESSURE

The operating principle is based on the expansion and contraction of a temperature sensitive capsule. The elements are filled with a liquid whose saturation temperature is lower than that of water, at the same pressure. With subcooled condensate the elements contract. When steam is formed the pressure inside the element causes expansion to close the valve.

### MAIN FEATURES

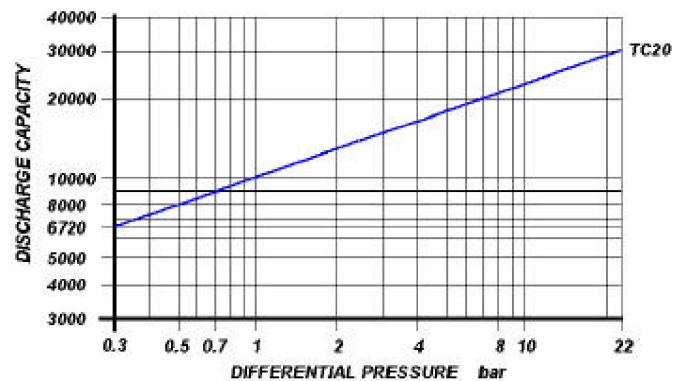
Free air discharge. It withstands frost. Discharge of condensate slightly below steam temperature. It does not withstand waterhammer



### APPLICATIONS

- Steam mains
- Presses
- Tanks
- Suction heaters
- Ovens

### DISCHARGE CAPACITY



Cold water capacities are 2 to 4 times greater than the above.  
Safety factor = 1.2 – 1.5

### SIZES

1½"

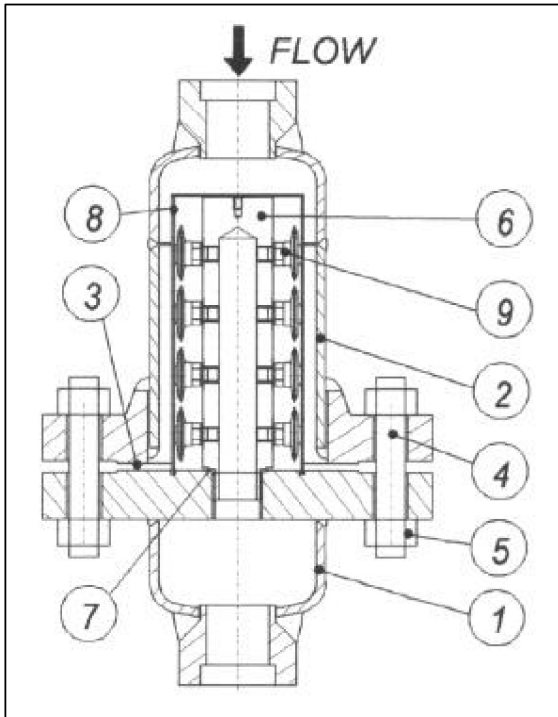
### CONNECTIONS

Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Socket Welding	ANSI B16.11

### LIMITING CONDITIONS ( according to ISO 6552 )

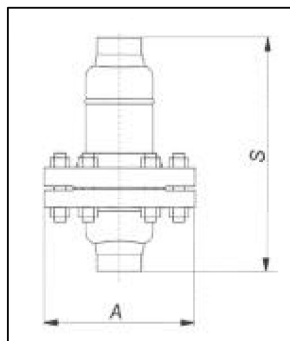
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	400°C
Max. operating condition	32 bar - 250°C
Max. differential pressure	14.5 bar - 390°C
	22 bar

## BALANCED PRESSURE THERMOSTATIC STEAM TRAPS TC 20



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	ASTM A 105	
3	Gasket	316 / GRAPHITE	X
4	Bolts	ASTM A 193 B7	
5	Nuts	ASTM A 194 2H	
6	Support	ASTM A 182 F 304	X
7	Gasket	AISI 304	X
8	Screen	AISI 304	
9	Valve assembly N.24 *	304 / HASTELLOY	X
* STANDAR CAPSULE : ( 10°C ) subcooling			
CAPSULE OPTIONS : ( 5°C – 30°C – 40°C ) subcooling			

Size (inches)	A	S	Weight (Kg)
1½"	254	390	70



### INSTALLATION

The steam trap can be installed on horizontal or vertical lines. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the TC 20 steam trap to the "as new from factory" condition. Unscrew the bolts (4) and remove cover (2) and gasket (3). Unscrew and remove the element (9). Clean the inside of the trap, clean screen (10) and screw in the element-gasket assembly. Fit a new gasket (3), and fit screen (10), and reinstall cover (2) tightening the bolts (4).

**How to order: i.e.** TC 20 1½" NPT

**DOUGLAS ITALIA S.p.A** Località Pradaglie – 29013 CARPANETO PIACENTINO ( PC )

OFFICIAL WEB SITE: [www.douglas-italia.com](http://www.douglas-italia.com)