DOUGLAS ITALIA

BALANCED PRESSURE STEAM TRAPS

- TZ
- TX A105
- TJ
- TJL
- TC 2
- TC 4
- TC 6
- TC 20

GO BACK

DOUGLAS ITALIA S.P.A.

BALANCED PRESSURE THERMOSTATIC STEAM TRAPS

TZ

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 then 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. .

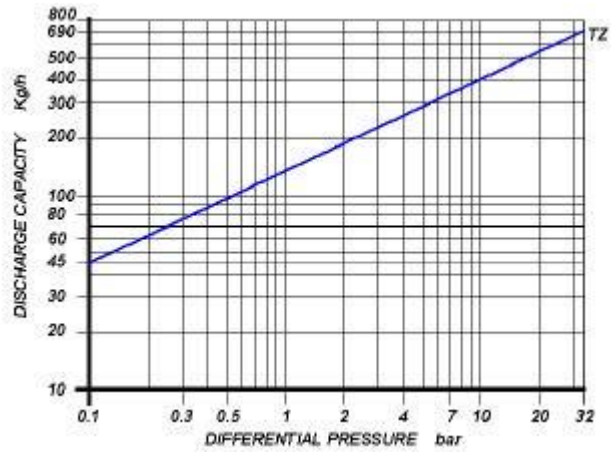
MAIN FEATURES

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

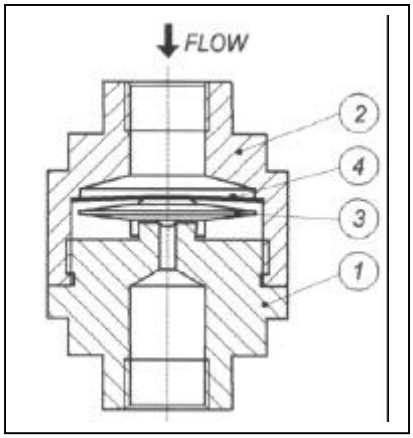
SIZES
3/8" - ½" – ¾" – 1"

CONNECTIONS	
Screwed	*ANSI B1.20.1 (NPT) / BS21 (BSP)*

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	*ANSI 300*
PMA: Max allowable pressure	*55 bar*
TMA: max allowable temperature	*400°C*
PMO: max working pressure	*32 bar*
TMO: max working temperature	*240°C*
Max. differential pressure	*32 bar*

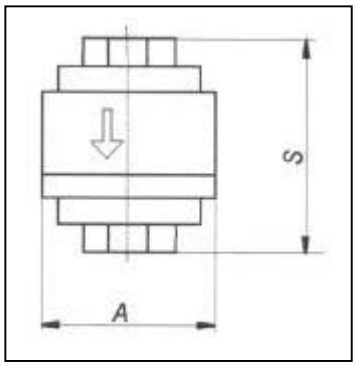
BALANCED PRESSURE THERMOSTATIC STEAM TRAPS

TZ



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	AISI 304	
2	Cover	AISI 304	X
3	Capsule	AISI 304	X
4	Screen	AISI 304	

Size (inches)	S	A	Weight (Kg)
3/8"	65	45	0.3
½"	65	45	0.3
¾"	65	45	0.3



INSTALLATION

The steam trap can be installed on horizontal or vertical lines.

HOW TO SERVICE

By installing a new capsule you can bring the TZ steam trap to the " as new from factory " condition. This operation is carried out in a few minutes without removing the trap in the pipeline. Unscrew the cover (2), unscrew element (3). Clean the inside of the trap and the screen (4). Screw in the capsule (3) replace the screen (4), screwing the cover (2) back in place.

How to order: i.e. *TZ ½" NPT*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BALANCED PRESSURE THERMOSTATIC STEAM TRAPS

TX A 105

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 then 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. .

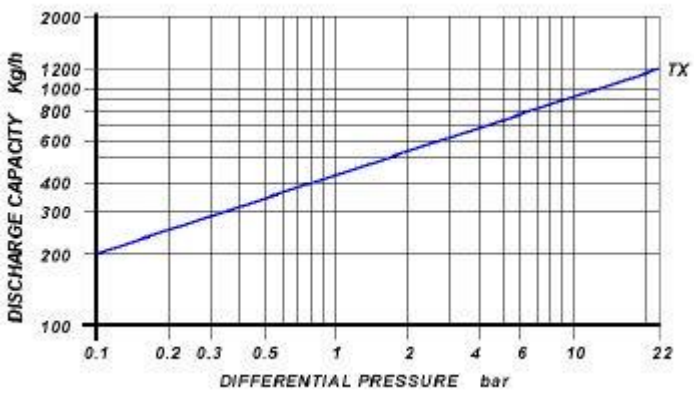
MAIN FEATURES

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

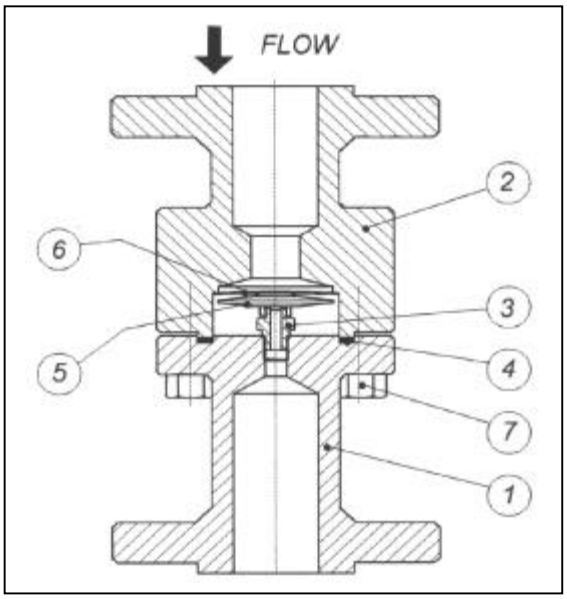
SIZES
½" – ¾"

CONNECTIONS	
Flanged	ANSI 600 (ANSI B 16.5)

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
Nominal pressure	40 bar
Max. operating condition	32 bar - 250°C
	22 bar - 385°C
	14.5 bar - 390°C
Max. differential pressure	22 bar

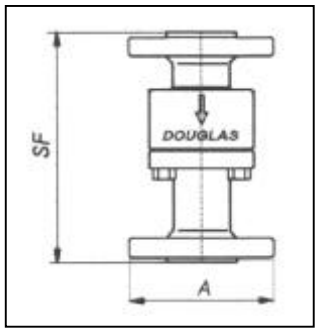
BALANCED PRESSURE THERMOSTATIC STEAM TRAPS

TX A 105



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	ASTM A 105	
3	Seat	AISI 304	X
4	Gasket	316 / GRAPHITE	X
5	Capsule	AISI 304	X
6	Screen	AISI 304	X
7	Bolt	8.8 (UNI 3740 – 74)	

Flanged			
Size (inches)	A	600#	
		SF	Kg
½"	96	165	4
¾"	96	165	5



INSTALLATION

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

HOW TO SERVICE

By installing a new element assemly you can bring the TX A 105 steam trap to the "as new from factory" condition. Unscrew the bolts (7) and remove cover (2) and gasket (4). Unscrew and remove the element (5). Clean the inside of the trap, clean screen (6) and screw in the element-gasket assembly. Fit a new gasket (4), and fit screen (6), and reinstall cover (2) tightening the bolts (7).

How to order: i.e. *TX ½" 600 RF A 105*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BALANCED PRESSURE THERMOSTATIC STEAM TRAPS

TJ

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 then 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. .

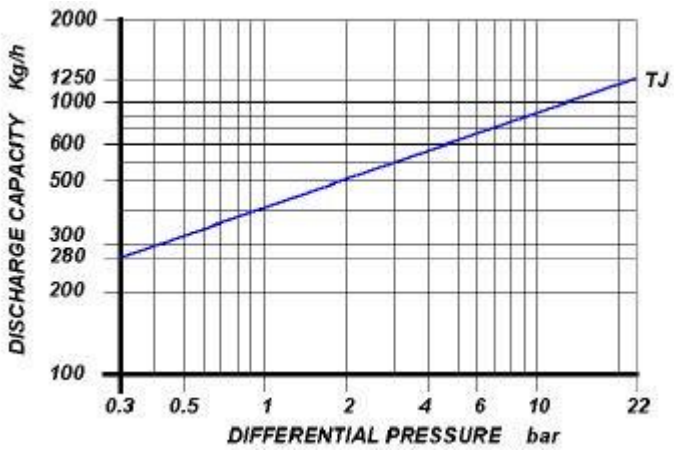
MAIN FEATURES

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

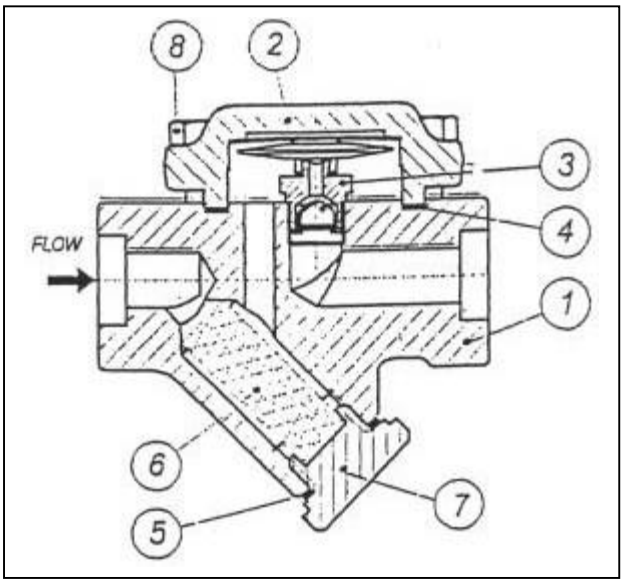
SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Socket Welding	ANSI B16.11
Flanged	ANSI B 16.5 / UNI/DIN

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
	14.5 bar - 390°C
Max. differential pressure	22 bar

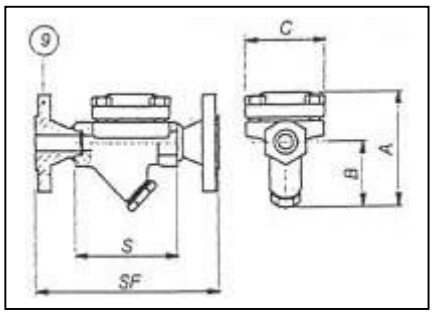
BALANCED PRESSURE THERMOSTATIC STEAM TRAPS

TJ



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	ASTM A 105	
3	Seat / Capsule **	STAINLESS STEEL	X
3	Membrane	HASTELLOY	X
3	Check valve *	STAINLESS STEEL	X
4	Cover gasket	316 / GRAPHITE	X
5	Gasket	316 / GRAPHITE	X
6	Screen	AISI 304	X
7	Plug	ASTM A 105	
8	Bolt	ASTM 193 B 7	
* Optional			
** STANDAR CAPSULE : (10°C) subcooling CAPSULE OPTIONS : (5°C – 30°C – 40°C) subcooling			

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	93	105	60	70	1.8	159	4.8	153	4.8	173	4.8	183	4.8
¾"	93	105	60	70	1.8	163	5	163	5	183	5	193	5
1"	105	115	70	70	3	175	6.5	185	6.5	195	6.5	215	6.5



INSTALLATION

The steam trap can be installed on horizontal or vertical lines. However avoid installation with the body leaning on one side as it is likely that the cover will contain condensate a two different temperatures causing malfunction and possible distortion of the element. Do not fit the trap upside down since this position will not allow the cleaning of the strainer screen.

HOW TO SERVICE

By installing a new capsule you can bring the TJ steam trap to the " as new from factory " condition. This operation is carried out in a few minutes without removing the trap in the pipeline. Unscrew the 4 screw (8) and remove cover (2) and gasket (4). Unscrew element (3). Clean the inside of the trap and screw in the capsule. Fit a new gasket (4) and reinstall cover (2) tightening the screw (8). To service the strainer , unscrew plug (7), withdraw screen (6) and clean or replace it. Screwing the cover back in place, always fit a new gasket (5).

How to order: i.e. *TJ ½" NPT*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BALANCED PRESSURE THERMOSTATIC STEAM TRAPS

TJL LOW CAPACITY

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 then 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. .

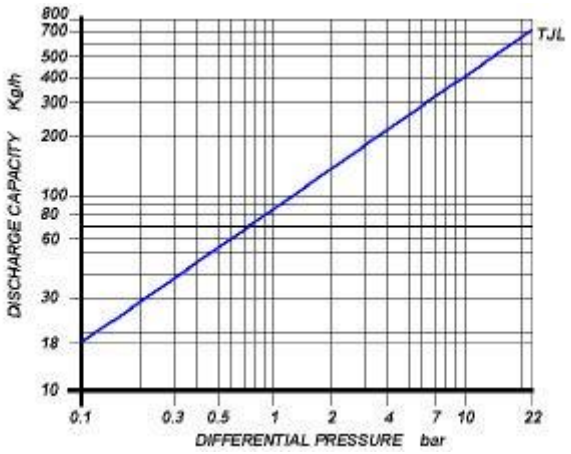
MAIN FEATURES

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



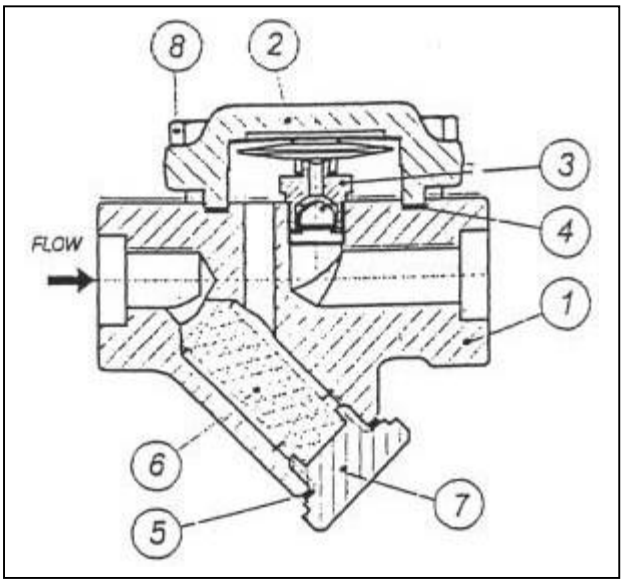
Cold water capacities are 2 to 4 times greater than the above .
Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Socket Welding	ANSI B16.11
Flanged	ANSI B 16.5 / UNI/DIN

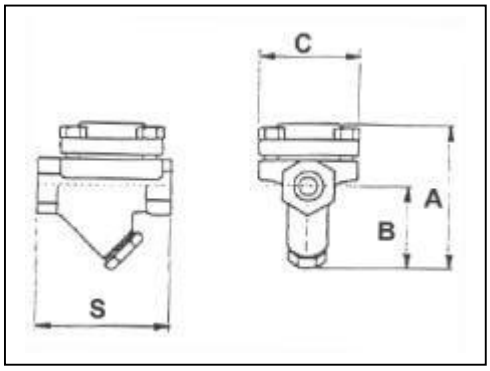
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	400°C
Max. operating condition	32 bar - 250°C
	14.5 bar - 390°C
Max. differential pressure	22 bar

BALANCED PRESSURE THERMOSTATIC STEAM TRAPS
TJL LOW CAPACITY



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	ASTM A 105	
3	Seat / Capsule **	STAINLESS STEEL	X
3	Membrane	HASTELLOY	X
3	Check valve *	STAINLESS STEEL	X
4	Cover gasket	316 / GRAPHITE	X
5	Gasket	316 / GRAPHITE	X
6	Screen	AISI 304	X
7	Plug	ASTM A 105	
8	Bolt	ASTM 193 B 7	
* Optional			
** STANDAR CAPSULE : (10°C) subcooling CAPSULE OPTIONS : (5°C – 30°C – 40°C) subcooling			

Flanged														
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	95	120	60	70	1.8	159	4.8	153	4.8	173	4.8	183	4.8
¾"	95	120	60	70	1.8	163	5	163	5	183	5	193	5
1"	95	120	60	70	1.8	175	6.5	185	6.5	195	6.5	215	6.5



INSTALLATION

The steam trap can be installed on horizontal or vertical lines. However avoid installation with the body leaning on one side as it is likely that the cover will contain condensate a two different temperatures causing malfunction and possible distortion of the element. Do not fit the trap upside down since this position will not allow the cleaning of the strainer screen.

HOW TO SERVICE

By installing a new capsule you can bring the TJL steam trap to the " as new from factory " condition. This operation is carried out in a few minutes without removing the trap in the pipeline. Unscrew the 4 screw (8) and remove cover (2) and gasket (4). Unscrew element (3). Clean the inside of the trap and screw in the capsule. Fit a new gasket (4) and reinstall cover (2) tightening the screw (8). To service the strainer , unscrew plug (7), withdraw screen (6) and clean or replace it. Screwing the cover back in place, always fit a new gasket (5).

How to order: i.e. *TJL ½" NPT*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BALANCED PRESSURE THERMOSTATIC STEAM TRAPS

TC 2

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 then 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. .

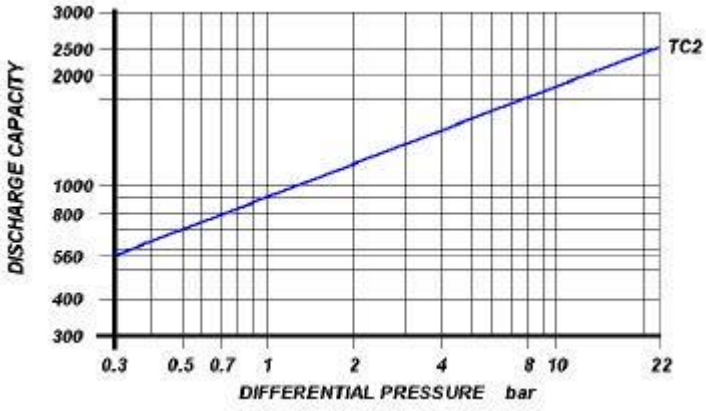
MAIN FEATURES

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

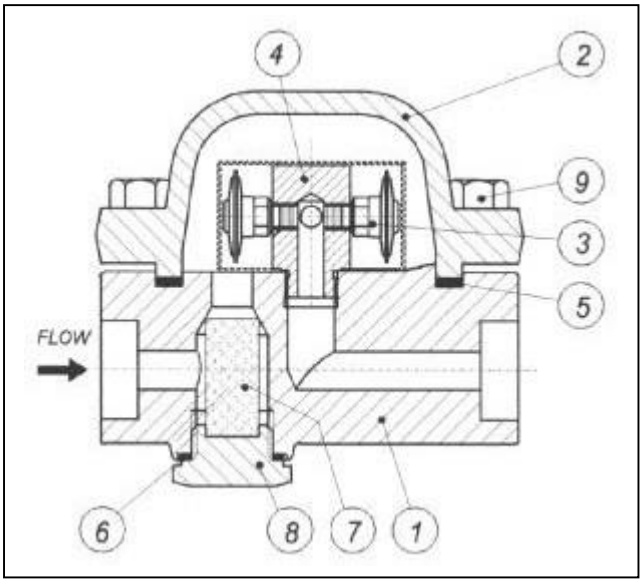
SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Socket Welding	ANSI B16.11
Flanged	ANSI B 16.5

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
	14.5 bar - 390°C
Max. differential pressure	22 bar

BALANCED PRESSURE THERMOSTATIC STEAM TRAPS

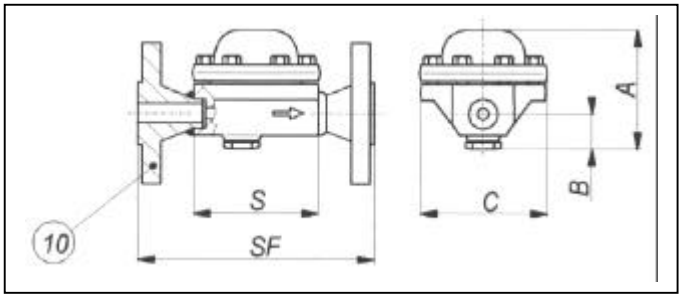
TC 2



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	ASTM A 105	
3	Valve assembly N.2 *	S.S / HASTELLOY	X
4	Support	AISI 304	X
5	Cover gasket	316 / GRAPHITE	X
6	Gasket	316 / GRAPHITE	X
7	Screen	AISI 304	X
8	Plug	ASTM A 105	X
9	Bolt	ASTM 193 B 7	
10	Flange	ASTM A 105	

***STANDAR CAPSULE** : (10°C) subcooling*
***CAPSULE OPTIONS** : (5°C – 30°C – 40°C) subcooling*

						Flanged					
Size (inches)	S	A	B	C	Weight (Kg)	150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg
½"	150	130	42	160	15	210	18	230	18	240	18
¾"	150	130	42	160	15	220	20	240	20	250	20
1"	150	130	42	160	15	230	25	240	25	260	25



INSTALLATION

The steam trap can be installed on horizontal or vertical lines. Do not fit the trap upside down since this position will not allow the cleaning of the strainer. For the same reason the directory of flow on vertical lines must be downwards. For installation with superheated steam, please conctact our Technical Departement

HOW TO SERVICE

By installing a new element assemly you can bring the TC 2 steam trap to the "as new from factory" condition. Unscrew the bolts (9) and remove cover (2) and gasket (5). Unscrew and remove the element (3). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (5) and reinstall cover (2) tightening the bolts (9). To service the strainer, unscrew cap (8), withdraw screen (7) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

***How to order: i.e.** TC 2 ½" NPT*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BALANCED PRESSURE THERMOSTATIC STEAM TRAPS

TC 4

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 then 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. .

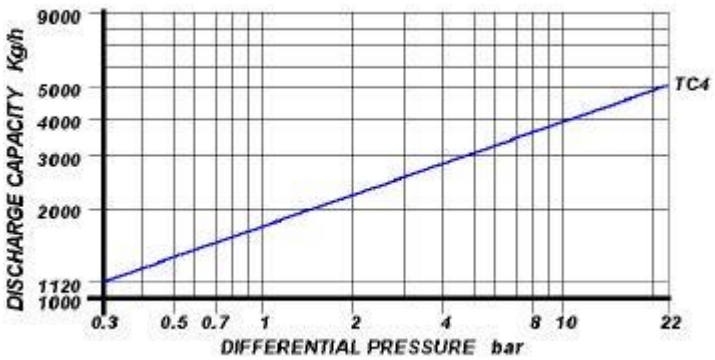
MAIN FEATURES

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

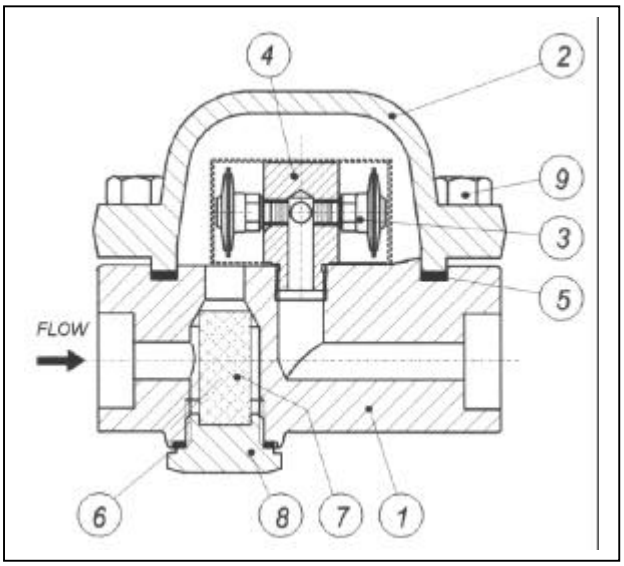
SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Socket Welding	ANSI B16.11
Flanged	ANSI B 16.5

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
	14.5 bar - 390°C
Max. differential pressure	22 bar

BALANCED PRESSURE THERMOSTATIC STEAM TRAPS

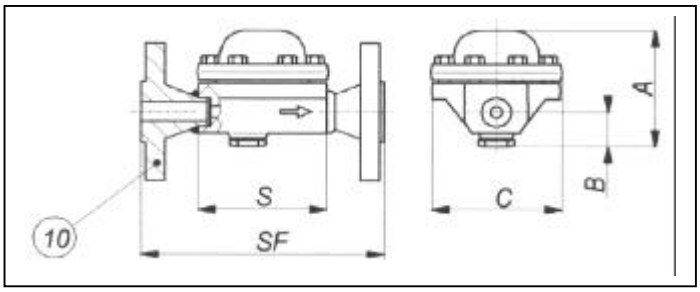
TC 4



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	ASTM A 105	
3	Valve assembly N.4 *	S.S / HASTELLOY	X
4	Support	AISI 304	X
5	Cover gasket	316 / GRAPHITE	X
6	Gasket	316 / GRAPHITE	X
7	Screen	AISI 304	X
8	Plug	ASTM A 105	X
9	Bolt	ASTM 193 B 7	
10	Flange	ASTM A 105	

***STANDAR CAPSULE** : (10°C) subcooling*
***CAPSULE OPTIONS** : (5°C – 30°C – 40°C) subcooling*

						Flanged					
Size (inches)	S	A	B	C	Weight (Kg)	150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg
½"	150	130	42	160	15	210	18	230	18	240	18
¾"	150	130	42	160	15	220	20	240	20	250	20
1"	150	130	42	160	15	230	25	240	25	260	25



INSTALLATION

The steam trap can be installed on horizontal or vertical lines. Do not fit the trap upside down since this position will not allow the cleaning of the strainer. For the same reason the directory of flow on vertical lines must be downwards. For installation with superheated steam, please conctact our Technical Departement

HOW TO SERVICE

By installing a new element assemly you can bring the TC 4 steam trap to the "as new from factory" condition. Unscrew the bolts (9) and remove cover (2) and gasket (5). Unscrew and remove the element (3). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (5) and reinstall cover (2) tightening the bolts (9). To service the strainer, unscrew cap (8), withdraw screen (7) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

***How to order: i.e.** TC 4 ½" NPT*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BALANCED PRESSURE THERMOSTATIC STEAM TRAPS

TC 6

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 then 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. .

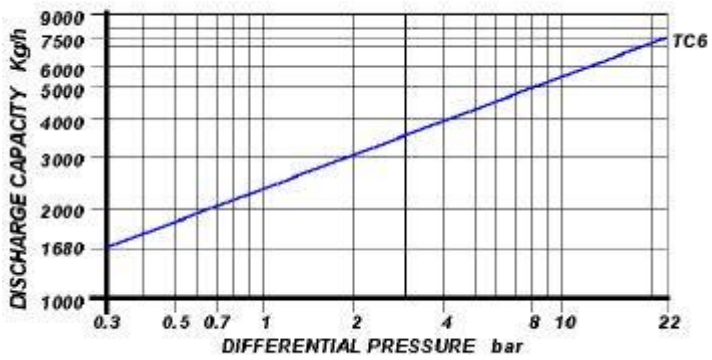
MAIN FEATURES

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

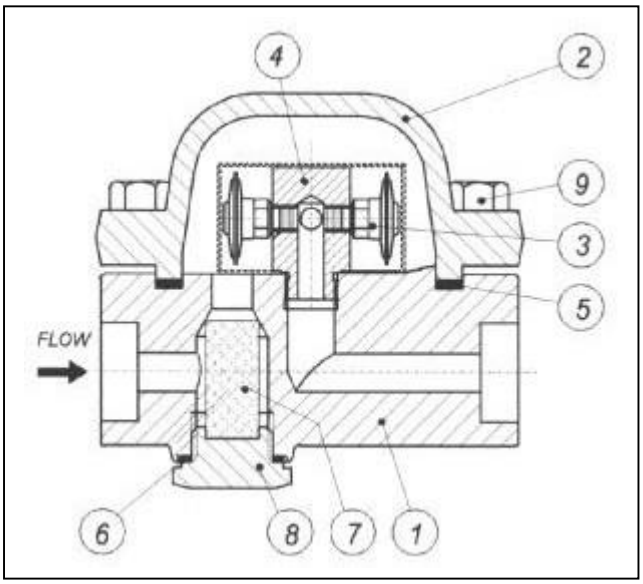
SIZES
2”

CONNECTIONS	
Screwed	*ANSI B1.20.1 (NPT) / BS21 (BSP)*
Socket Welding	*ANSI B16.11*
Flanged	*ANSI B 16.5*

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*
	14.5 bar - 390°C
Max. differential pressure	*22 bar*

BALANCED PRESSURE THERMOSTATIC STEAM TRAPS

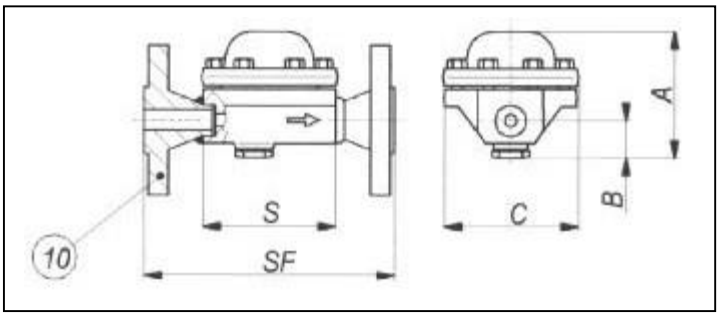
TC 6



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	ASTM A 105	
3	Valve assembly N.6 *	S.S / HASTELLOY	X
4	Support	AISI 304	X
5	Cover gasket	316 / GRAPHITE	X
6	Gasket	316 / GRAPHITE	X
7	Screen	AISI 304	X
8	Plug	ASTM A 105	X
9	Bolt	ASTM 193 B 7	
10	Flange	ASTM A 105	

***STANDAR CAPSULE** : (10°C) subcooling*
***CAPSULE OPTIONS** : (5°C – 30°C – 40°C) subcooling*

Flanged											
Size (inches)	S	A	B	C	Weight (Kg)	150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg
2”	150	150	52	170	18	261	30	273	33	292	35



INSTALLATION

The steam trap can be installed on horizontal or vertical lines. Do not fit the trap upside down since this position will not allow the cleaning of the strainer. For the same reason the directory of flow on vertical lines must be downwards. For installation with superheated steam, please conctact our Technical Departement

HOW TO SERVICE

By installing a new element assemly you can bring the TC 4 steam trap to the “as new from factory” condition. Unscrew the bolts (9) and remove cover (2) and gasket (5). Unscrew and remove the element (3). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (5) and reinstall cover (2) tightening the bolts (9). To service the strainer, unscrew cap (8), withdraw screen (7) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

***How to order: i.e.** TC 6 ½” NPT*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BALANCED PRESSURE THERMOSTATIC STEAM TRAPS
TC 20

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 then 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. .

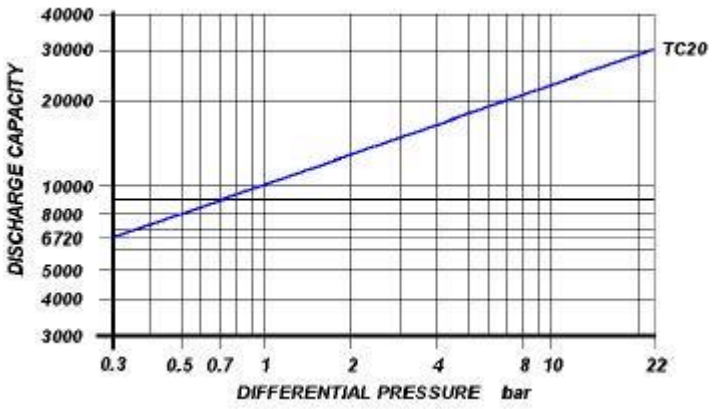
MAIN FEATURES

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

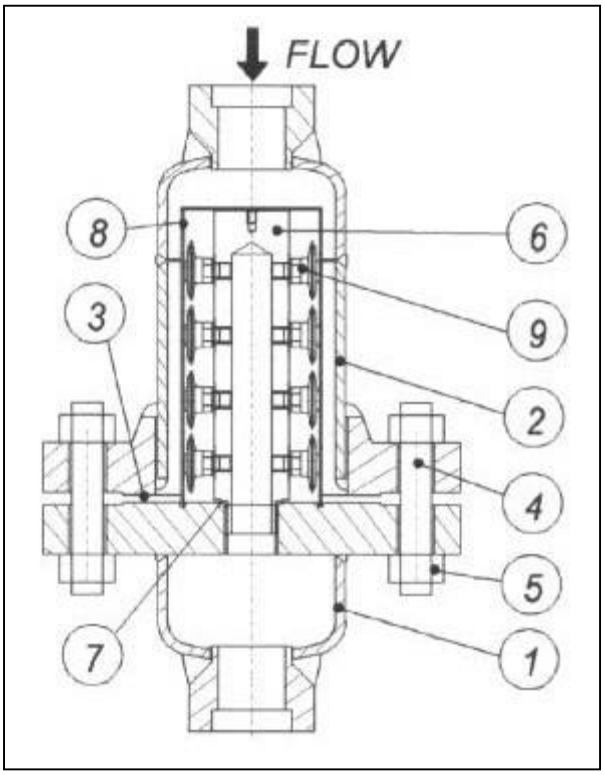
SIZES
1½"

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
	14.5 bar - 390°C
Max. differential pressure	22 bar

BALANCED PRESSURE THERMOSTATIC STEAM TRAPS

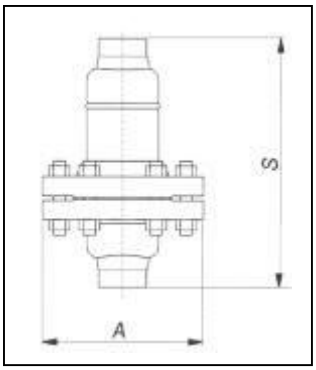
TC 20



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 conctact our Technical Departement

HOW TO SERVICE

By installing a new element assemly 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

